Gender Equality at Work

The Role of Firms in the Gender Wage Gap in Germany

OECD

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Foreword

With *Dare to Share: Germany's Experience Promoting Equal Partnership in Familie*s (2017), *Good Practice for Good Jobs in Early Childhood Education and Care* (2019), and *Bringing Household Services Out of the Shadows: Formalising Non-Care Work in and Around the House* (2021), the OECD previously explored a range of policy options to promote gender equality through the improvement of parental care options and the quality of childcare- and household services. Building on *The Role of Firms in Wage Inequality: Policy Lessons from a Large Scale Cross-Country Study* (2021) this report takes a detailed look at the gender wage gap in Germany while tying these findings to an overall package of policy measures needed to address the gender wage gap.

With growing numbers of women in employment, the persistent gender difference in pay has come to the fore. This review explores the gap in pay between men and women with equivalent skills within the same firms and across firms. It does so at each age to cast light on the evolution of the gender wage gap across the working life. Throughout, the results for Germany are systematically benchmarked to those of four nearby countries: Denmark, France, the Netherlands and Sweden.

This report was prepared by a team of analysts in the OECD Directorate of Employment, Labour and Social Affairs (ELS), including senior economists Willem Adema and Alexander Hijzen and analysts Maja Gustafsson and Antton Haramboure. Under the leadership of Stefano Scarpetta (Director, ELS) and Mark Pearson (Deputy-Director, ELS), Monika Queisser (Senior Counsellor and Head of the Social Policy Division) and Stéphane Carcillo (Head of the Jobs and Income Division) supervised the project. We are grateful for comments on previous drafts as provided by Jonas Fluchtmann, Valentina Patrini, and Marie-Anne Valfort as well as Thomas Fischer and Anja Heinze (German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth). Lucy Hulett, Eva Rauser and Natalie Corry prepared the report for publication, with Alastair Wood providing communications support.

Contributions from country experts with access to linked employer-employee data by Antoine Bertheau (Denmark), Katarzyna Grabska (Netherlands) and Andrei Gorshkov, Oskar Nordstrom Skans (Sweden) are also acknowledged. For Germany, this review makes use of the Sample of Integrated Employer-Employee Data (SIEED) (2002-18) from the IAB. Data access was provided via on-site use at the CASD safe data centre in Palaiseau and subsequently remote data access under project "Glass doors and glass ceilings: The role of employers for the gender pay gap" (project number: 2110).

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Executive summary

This review provides a detailed analysis of the gender wage gap in Germany, with a specific focus on the role of firms, and puts forward a comprehensive policy package to tackle the gender wage gap. The review uses administrative data that link employees and their employers which allow analysing the gap in pay between men and women with equivalent skills within and between firms at each age. The within-firm component captures differences in pay between men and women within firms related to differences in tasks and responsibilities, or differences in pay for work of equal value (related to e.g. bargaining, discrimination). The between-firm component captures the role of differences in firm-specific wage premia, i.e. differences in average pay between firms unrelated to workforce composition and due to the sorting of women into low-wage firms. To tackle persistent gender wage gaps a comprehensive policy package is required that combines education and family policies with policies directed at firms to promote better working conditions for all workers, including pay transparency requirements.

About three-quarters of the gender wage gap between similarly skilled men and women (almost 20% on average during the period 2002-18) reflects differences in pay within firms rather than between firms. Wage gaps within firms are mainly due to men and women having different tasks and responsibilities, rather than differences in pay for work of equal value. Given this, the key priority for policy must be to promote access for women to better jobs within firms. The remaining one-quarter of the gender wage gap is due to the fact that women are disproportionately employed in low-wage firms and low-wage industries. Pay differences between firms for similarly skilled workers are particularly large in Germany compared with nearby countries such as Denmark, France, the Netherlands and Sweden, and have become more pronounced since the 1990s. This has been attributed to the erosion of collective bargaining and a greater emphasis on decentralised wage-setting.

Between and within firms, the gender wage gap increases sharply around the age of childbirth in Germany (ages 30-40), much more so than in the neighbouring countries (except for the Netherlands with its high incidence of part-time employment). Men increasingly sort into high-wage jobs as they advance in their careers, while women, particularly those with young children, tend to stay behind as they are more likely to take leave or experience career interruptions and are more likely to return to part-time work, which offers fewer opportunities for career progression and is associated with lower wages. Indeed, the growth in the gender wage gap also coincides with a similarly sharp increase in the gender gap in working time as many women move to part-time work after returning from maternity leave. This is particularly common among women with low to medium levels of skills.

Since the mid-2000s, German policy has moved towards supporting a more gender – balanced reconciliation of work and family life, and the German policy package to address gender wage gaps will need to build on existing public supports. Public paid parental leave policies should continue to promote equal use by fathers and mothers, including through stronger financial incentives for use of leave by both parents. Public investment in the capacity (also in hours) and quality of Early Childhood Education and Care (ECEC) and out-of-school hours (OSH) services needs to be sustained and expanded in areas where such support is most needed. Furthermore, it is important that the tax/benefit system ensures that both partners in a couple family have equally strong financial incentives to work: changes to the joint taxation

system that reduce marginal tax rates for secondary earners – mainly women, and incentivise them to supply extra hours to the market, would be welcome.

At the same time, labour market policies that promote women's access to better quality jobs need to be strengthened to address the large gender wage gap between similarly skilled men and women within firms. Better data and pay transparency measures can be used to increase awareness of existing hiring and career development outcomes within firms and start the debate and, where needed, re-assessment of company practices. Germany should adopt a more comprehensive set of pay transparency tools to keep firms, employees and policy makers informed about developments of the gender wage gaps in workplaces. In fact, the introduction of detailed equal pay audits, on a pilot basis, could be considered as the detailed information they generate potentially offers avenues for follow-up action that better fit the company than simpler pay reporting measures.

The introduction of a combined package of job-classification systems and pay transparency measures would provide employees with benchmarks to which they can compare their own pay packages. This would contribute to reducing within-firm gender wage gaps, but also increase awareness of job-opportunities elsewhere and enhance mobility across firms.

There are many other aspects that affect gender pay gaps. Inter alia, education and educational choices by boys and girls and men and women matter, social norms and their dynamics matter, workplace cultures and practices matter. Changing educational choices, societal norms and workplace behaviour also takes time. However, that should not deter policy makers from trying to shape a policy environment that fosters equal pay for work of equal value for workers across the life course.

1 The gender wage gap in Germany and the role of firms: New evidence and policy lessons

This chapter provides on overview of the main findings and policy lessons of the report. The empirical evidence is discussed in more detail in Chapters 2 to 5, while a detailed policy discussion is provided in Chapter 6.

1.1. New evidence on the gender wage gap

The gender wage gap between similarly skilled men and women stands at about 19% in Germany (on average over the period 2002-18 among full-time workers). While this is lower than in most OECD countries, it is higher than in several nearby countries. This review provides a detailed analysis of the gender wage gap in Germany with a specific focus on the role of firms using administrative data that link employees and their employers. The analysis is placed in context by presenting comparable results for four selected nearby countries: Denmark, France, the Netherlands and Sweden. These benchmark countries share a number of important features with Germany. In these countries, the gender wage gap – after controlling for differences in skills – is similar or lower, notably in Sweden, ranging from about 14 to 19%; labour force participation among women is high and almost as high as for men; and part-time work tends to be common in Germany and the Netherlands.

1.1.1. About three-quarters of the gender wage gap between similarly skilled men and women in Germany reflects differences within firms, while the remaining one-quarter reflects differences in pay between firms

About three-quarters of the gender wage gap between similarly skilled men and women reflects differences within firms (Figure 1.1, dark and light blue areas). These are mainly due to men and women having different tasks and responsibilities in the firm, while differences in pay for work of equal value tend to be small. Consequently, the key priority for policy is how to promote access for women to better jobs within firms. Pay transparency measures have an important role to play in this regard. Such measures are to a large extent motivated by the objective of tackling wage discrimination; yet, they usually do not focus on pay for equal work as only limited attention is given to differences in qualifications, tasks and responsibilities for the gender wage gap within firms. Indeed, their objective is to raise awareness about systematic pay differences within firms, irrespective of the exact source, and create discussion about their roots. The hope is that by questioning the adequacy of a firms' existing remuneration, recruitment and promotion policies, this would promote the adoption of more gender-responsive human-resource frameworks.

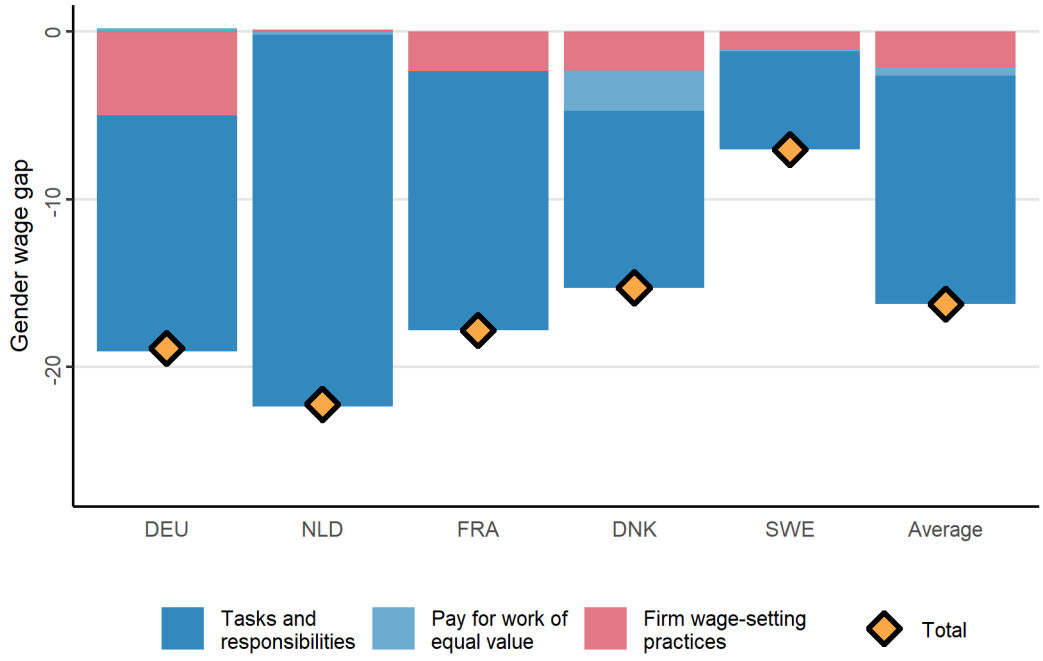
The remaining one-quarter of the gender wage gap is due to the fact that women are disproportionately employed in low-wage firms and low-wage industries (red areas). The between-firm gender wage gap

reflects both the degree of gender segregation across firms and industries paying different wages and the importance of wage differences between firms and industries for workers with similar skills. The concentration of women in low-wage firms may amongst others be the result of discriminatory hiring practices by employers or the preferences of women for firms with flexible working-time arrangements. Firms that are more likely to offer part-time work arrangements also tend to offer lower wages. Pay differences between firms for similarly skilled workers are particularly large in Germany and have become more pronounced since the 1990s. This has been attributed to the erosion of collective bargaining and a greater emphasis on decentralised wage-setting. The between-firm component of the gender wage gap is larger in Germany than in the benchmark countries where more centralised collective bargaining practices at sector-level have remained widespread.

The gender wage gap tends to be particularly high among high-wage workers. In Germany, the wage gap between similarly skilled men and women is about 50% higher for workers with high skills than workers with low or medium skills. This largely reflects greater differences in pay for work of equal value due to differences in worker bargaining power or employer discrimination. Compared to low-skilled workers, a larger fraction of pay is determined through individual bargaining and male workers appear better placed to take advantage of this. By contrast, the role of sorting across firms appears to be less important for workers with high skills. High skilled women are about as likely as their male counterparts to work in high-wage firms, whereas low-wage women are much less likely to work in high-wage firms. Differences in tasks and responsibilities are particularly important for workers with either low or high skills, but less so for workers with medium skills.

Figure 1.1. The role of differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices in the gender wage gap

Difference in average hourly wages between similarly-skilled women and men as a share of average hourly wages of men, early-2000s to mid-2010s



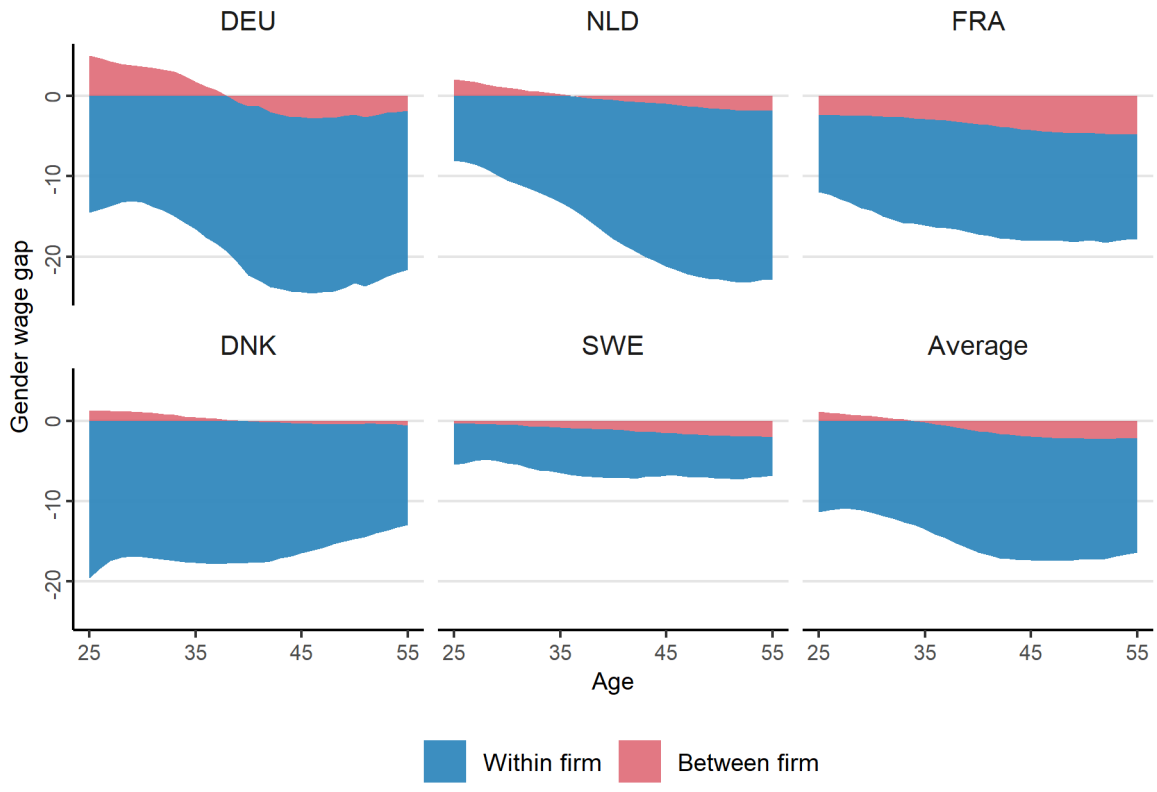
Note: Decomposition of gender wage gap between similarly-skilled women and men in components related to differences in tasks and responsibilities, pay for work of equal value (bargaining and discrimination) and differences in wage-setting practices between firms (sorting). Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

1.1.2. The gender wage gap within and between firms increases sharply around the age of childbirth, in large part due to gender differences in job mobility

The gender wage gap increases sharply around the age of childbirth in Germany (ages 30-40), and much more so than in the benchmark countries (with the exception of the Netherlands which exhibits a similar pattern) (Figure 1.2). The gender wage gaps grows both between and within firms. A possible explanation is that men increasingly sort into high-wage jobs as they advance in their careers, while women stay behind or may even be constrained to move into lower-wage jobs, which offer more flexible working time arrangements and make it easier to combine work and family responsibilities. The growth in the gender wage gap also coincides with a similarly sharp increase in the gender gap in working time as many women switch to part-time work after returning from maternity leave.

Figure 1.2. The gender gap within and between firms rises more strongly in Germany than in other selected countries

Difference in average wages between similarly-skilled women and men as a share of the wages of men by age, percentage, early-2000s to mid-2010s

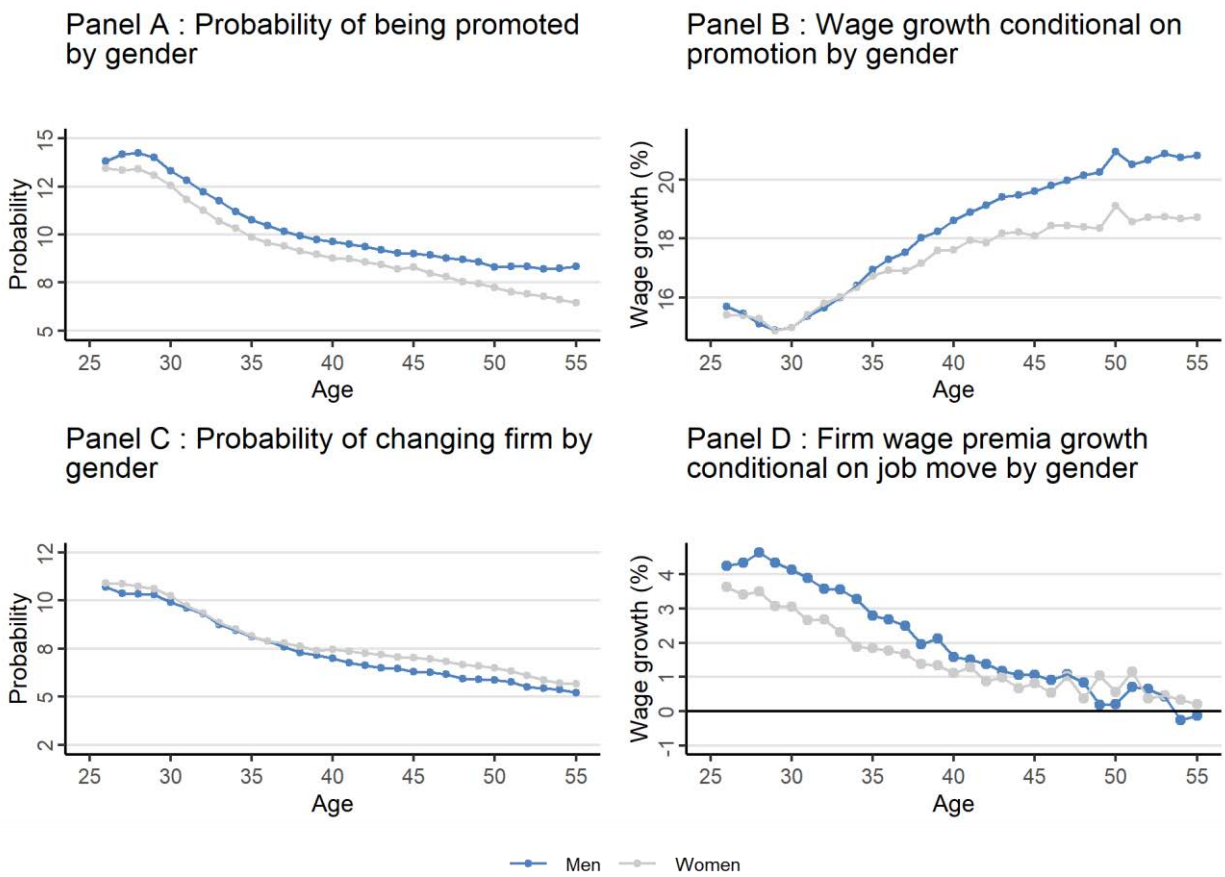


Note: Decomposition of gender wage gap between similarly-skilled women and men within firms and between firms by age. Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

The increase in the gender wage gap with age reflects significant gender differences in upward job mobility within firms (i.e. promotions) and between firms (OECD, 2021[1]). Women are less likely to move up the job ladder than men, as a result of promotions within firms (as measured by significant wage increases from one year to the next) or by moving to higher-wage firms. Indeed, the bulk of the increase in the gender

wage gap within firms between ages 25 and 45 can be attributed to the gap in the probability of being promoted (Panel A, while smaller wage increases conditional on being promoted also play a role (Panel B). In Germany, gender differences in the incidence and nature of promotions explain up to 80% of the increase in the gender wage gap within firms between 25 and 45 (compared with 75% in the benchmark countries). Job mobility between firms explains less of the gender wage gap's evolution, particularly in Germany. Women are not less likely to change jobs (Panel C), but when they do, they get significantly smaller increases in firm wage premia than men (Panel D). This suggests that women often change jobs not for pay but for personal reasons, e.g. having more flexible working-time arrangements, working closely from home, or following a partner (OECD, 2018[2]). Differences in the nature of job mobility between firms account for 16% of the increase in the between-firm gender wage gap between age 25 and 45 in Germany (compared with 65% in the benchmark countries).

Figure 1.3. Gender differences in job mobility within and between firms in Germany



Note: Sample restricted to full-time workers. Job-to-job mobility rate is defined as the number of workers changing firm between year t and t-1 as a share of employment in year t-1. The probability of being promoted is defined as the share of persons in employment at t-1 experiencing a significant increase in pay between t and t-1 (more than 10%).

Systematic gender differences in the extent and nature of job mobility between and within firms show that men and women do not have the same opportunities for career advancement. Policies that make it easier for women to stay in work (and not have to drop out of the labour force for family commitments) and gain experience just as men, so they have equal chances for career progression within and across firms are therefore key. This includes family policies that contribute to a more equal sharing of household responsibilities (e.g. incentivising fathers to take more parental leave) as well as support a more equal

sharing of paid part-time and full-time work (e.g. universal childcare, reducing effective marginal tax rates on second earners) (OECD, 2017[3]; OECD, 2019[4]), but also policies directed at firms that encourage a more equal representation of women in high-paid occupations (e.g. pay transparency measures, voluntary target-setting and quota's towards gender balance in leadership positions).

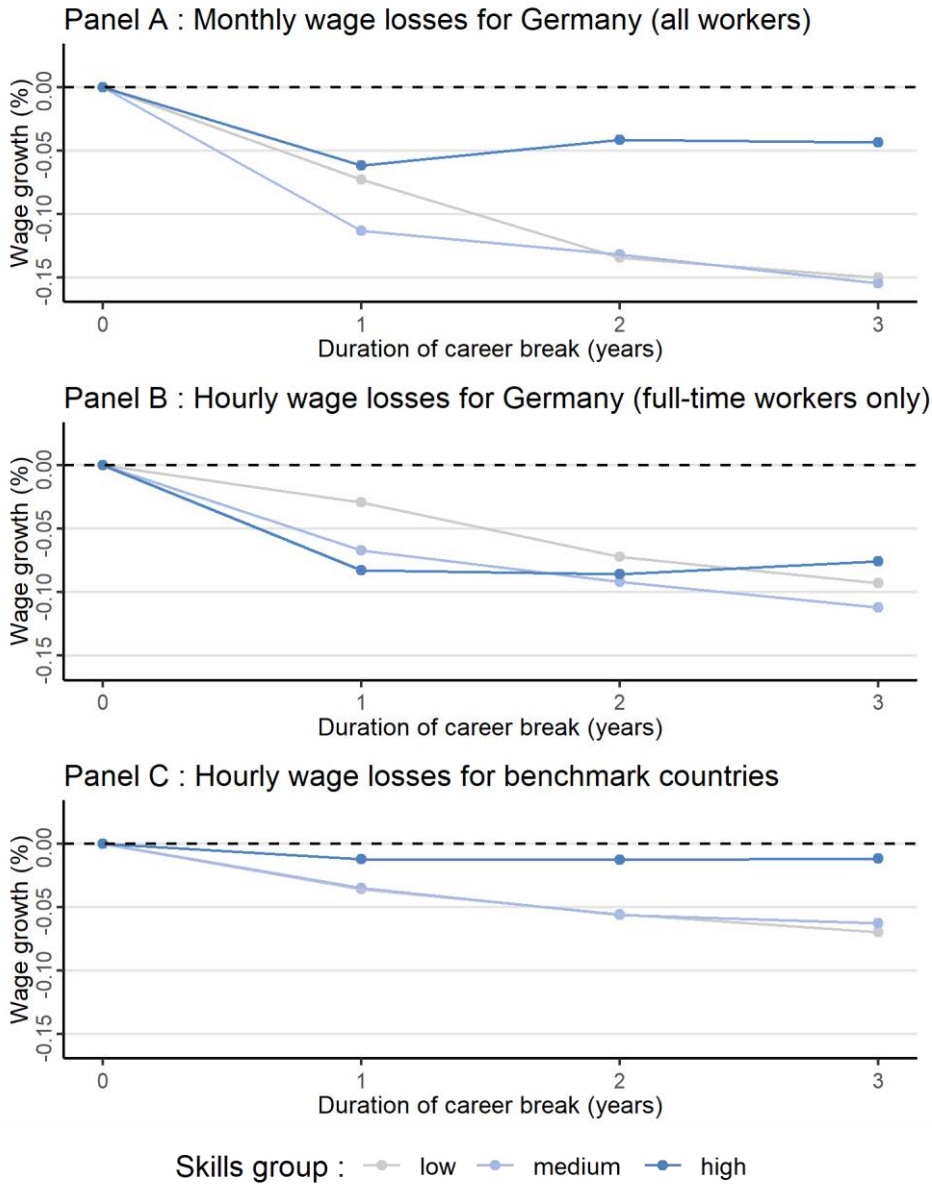
1.1.3. Career breaks around childbirth contribute to the motherhood penalty in earnings and the rise in the gender wage gap within firms

Career breaks around the age of childbirth account for a large fraction of the "motherhood penalty", i.e. the shortfall in wage or earnings growth following childbirth. These in turn play an important role in determining the evolution of the gender wage and earnings gaps over the working life. Career breaks around the age of childbirth, measured as non-employment spells, are more common among low-skilled women and carry considerable earnings losses (Figure 1.4). Women's missed experience or human capital depreciation during career breaks result in lower wage growth within firms (Panel B). While most women return to the same firm after a career break, many women switch to part-time work, further reducing their earnings (Panel A). This is particularly common among women with low to medium levels of skills.

Significant differences across OECD countries in the incidence and duration of career breaks may signal the role played by family policies (e.g. child-care, parental leave, working-time regulations), as well as the broader institutional set-up (e.g. employment protection, collective bargaining). However, they also reflect deeply engrained cultural differences in social norms. For instance, traditional gender norms, which favour a predominantly female provision of care work, are substantially more common in Germany than in Sweden. Traditional gender norms may also explain the greater prevalence of career breaks in Western Germany compared with Eastern Germany. This suggests that family policies need to be complemented with other policies that can help foster gender-friendly social norms (e.g. school interventions, pay transparency measures).

Figure 1.4. Wage losses following career breaks around motherhood

Percentage change in wages by career break length and skills



Note: Sample: Women aged 25 to 34. Reference period: 2002-18 for Germany; 2010-19 for the Netherlands; 2002-18 for France; 2001-17 Denmark; 2002-17 for Sweden. Skill groups are defined based on terciles of the wage distribution by gender and year of birth.

1.2. A policy package to curtail gender pay gaps

A key analytical insight is that the wage gap between men and women with similar skills in Germany, as well as other nearby countries, mainly reflects the tendency of women to work in jobs with less demanding tasks and responsibilities than men, and to a lesser extent also in jobs located in lower wage firms. Moreover, these gender differences tend to grow after having children, and much faster in Germany than in other nearby countries. Much of this can be attributed to the unequal sharing of household responsibilities between parents, highlighting the importance of gender-sensitive family policies, but also

of broader measures that can shift social norms. This includes quotas, and target setting towards greater gender balance in leadership positions, gender reporting requirements and pay transparency measures, which several countries have recently introduced and appear to be promising. However, these latter initiatives are relatively "young" and more work is needed to better understand how the design of gender reporting requirements affects their effectiveness and to what extent complementary policies are needed. Moreover, there is also a need to reduce gender wage gaps due to differences in wage-setting practices or gender segregation across firms.

There are many other aspects that affect gender pay gaps. First education and educational choices matter. In this regard, women have made great strides. Nowadays young women in OECD countries are on average more likely to obtain higher educational attainment than young men (OECD, 2021[5]). Nevertheless, young men are still more likely than young women to graduate in Science, Technology, Engineering and Mathematics (STEM) studies, which generally lead to career patterns in higher paid occupations and jobs. In general these educational choices are related to attitudes rather than aptitude (OECD, 2015[6]), and changing social norms that affect educational choices takes time.

Changing workplace behaviour also takes time. A big gender gap can be seen in the way how working men and women take leave of absence to care for young children, or make use of flexible workplace practices such as part-time work to find a better work/life balance. In addition, how parents can participate in work also depends on the availability and accessibility of affordable formal childcare. Another factor is the tax benefit system and the financial incentives it generates to work and work full-time. A detailed analysis of all the different factors and policies that affect the gender wage gap within and across firms is beyond the purview of this study, but below directions for (further) policy reform are outlined that could help, in time, to further reduce gender pay gaps across the life-course.

1.2.1. Family policies to counter increasing wage gaps over the life course

The arrival of children has a big impact on family life and tends to increase pressures on work-life balance – see also OECD (2021[7]). In Germany, as well as in the Netherlands and France (to a smaller extent), the gender pay gap increases rapidly between the ages of 30 and 40. At this stage in the life course, women are more likely to take paid leave and or work part-time, which has negative repercussions for career and earnings progression. Policies that help men and women better share paid and unpaid work can therefore contribute considerably to narrowing gender pay gaps within and across firms. When periods of parental leave and part-time work are time-limited and shared by men and women, the risk of women being side-lined in promotions and pay increases can be mitigated.

Continue to promote more equal uptake of parental leave by fathers and mothers

Since 2007, subsequent reforms have progressively changed the German parental leave system into one that encourages mothers to take parental leave for one year (rather than two or three, as previously), incentivises fathers to take at least two months of leave, and facilitates leave-taking by both parents on a part-time basis (OECD, 2017[3]). In terms of the effective duration of paid leave for fathers and mothers, the German system is comparable to that of Sweden (where 90 days are earmarked for each parent (Försäkringskassan, 2022[8])) and Denmark (where 11 weeks are earmarked to each parent for parents to children born from 2 August 2022 (Beskæftigelsesministeriet, 2022[9])). These reforms to the German parental leave system were a good step forward in ensuring that mothers return to work (Bechara, Kluve and Tamm, 2015[10]), and that fathers take more leave to care for children. Following the introduction of the non-transferability element of two bonus months of paid parental leave in 2007, German fathers almost doubled their uptake of parental leave entitlements. By 2018, 40 fathers for every 100 births were taking some leave (Destatis, 2021[11]). Under the new coalition government, the number of bonus months is scheduled to be increased to three months (Die Bundesregierung, 2021[12]), which would be the same as the 90 days of non-transferable leave awarded in Sweden.

Paid parental leave is available for twice as long, at half the payment rate, when the recipient works part-time (Federal Ministry for Family Affairs, 2019[13]). Parents can take up to 24 months (not including bonus months) of Parental Allowance Plus per child when combining the parental leave allowance with some earnings from work, which with the planned additional bonus month could be 30 months of part-time leave across both parents. In addition, "the bridging part-time leave and work legislation" offers the guarantee to return to full-time work after a given period of time (Federal Ministry for Family Affairs, 2020[14]). One option would be to facilitate parents splitting leave at a higher wage replacement, but for a shorter period of time. The higher wage replacement would further incentivise primary earners to use and share the part-time leave options with partners. The new coalition government aims to simplify relevant administrative processes for take up, but it is unclear what the effect of such efforts might be.

Provide extended-hours education and care for all young children

To facilitate an earlier return to work and particularly to full-time work, a comprehensive early Childhood Education and Care (ECEC) system is also key. Broadly in parallel with parental leave reform, German policy has moved in this direction since the mid-2000s. Out-of-pocket centre-based net childcare costs for parents are the lowest across the OECD (OECD, 2022[15]), and thanks to a marked increase in recent years – ECEC participation rates are now just above the OECD average. Nevertheless, capacity continues to be an issue. In 2018, 38% of 0-2 year-olds were enrolled in early childhood education and care services in Germany. This is similar to the OECD average (36%) but significantly lower than, for example, France (60%) (OECD, 2022[16]). It appears that the growing supply of childcare places for under-3-year-olds has not kept up with increased demand over the past five years (Geis-Thöne, 2020[17]; OECD, 2017[3]).

Families working full-time need care support when children attend school to cover the hours not covered by the curriculum. Only 21% of 6-11 year-olds in Germany attended centre-based out-of-school-hours services in 2019, compared to 66% in Denmark and 62% in Sweden (OECD, 2022[16]).

It is important that supply increases in line with demand so that parents are able to return to full-time work as soon as they wish. A growing gap between demand and supply in early childhood education and care and out-of-school-hours spaces would hamper the ability of both parents to return to full-time employment as children get older, and this is likely to disproportionately affect mothers. There is an opportunity for Germany to do more to increase the supply of childcare places and out-of-school provision in areas where they are most needed. As a secondary benefit, expanding provision to more children would also present an opportunity to recruit more men into the childcare and education sector (OECD, 2019[18]).

Reduce financial incentives for (female) spouses to take up part-time work

In Germany, the gap in hours worked between men and women increases around childbearing age and remains large into later life, contributing to the persistence of the pay gap at older ages. The lack of out-of-school-hours services may contribute to parents opting to remain in part-time work, but there are also elements in the tax/benefit system that weaken the financial incentives for spouses with the lowest earnings in households (often women) to work full-time. Indeed, married couples and civil partners can file their income taxes together, with joint liability for the aggregated income of the couple ("Ehegattensplitting"). The result is that the couple can jointly be taxed at a lower marginal rate than they would have been if the members of the couple had filed taxes on their own (due to progressive tax schedules). If there are large differences in earnings, joint liability reduces the overall tax payment but increases the marginal tax rate for the lower-earning partner (Bachmann, Jäger and Jessen, 2021[19]).

The new government has announced plans to reform the joint taxation system. The coalition agreement spells out the intention to reform the combination of tax classes (Die Bundesregierung, 2021[12]). Rather than apply one tax rate on joint earnings, each individual partner would have to pay taxes on their individual earnings. Due to progressive tax schedules, this will increase the marginal tax rate for main earners and reduce it for second earners, i.e. increase incentives for second earners – mainly women – to work more hours for pay.

1.2.2. Policies targeted at firms to tackle gender wage gaps within and between firms

The gender wage gap is largely concentrated within firms. A wide range of public policies can address gender wage gaps within firms. For example, equal pay laws and anti-discrimination laws are in place across the OECD. These are crucial for establishing workers' rights, but in practice they put the onus on individual workers to ensure that equal rights are adhered to. These laws can therefore do little to close gender pay gaps more broadly. However, there are other policy measures that directly target firms to help curtailing gender pay gaps within firms, including pay transparency tools, quotas and voluntary targets. Wage-setting institutions can further help to reduce gender wage gaps between firms, which are more pronounced in Germany than in nearby countries.

Continue to evaluate the effectiveness of new pay transparency measures

To reduce persistent gender wage gaps and more specifically raise awareness and spur discussions about systematic pay differences within firms, pay transparency measures have gained momentum in policy packages over the past decade. In European OECD countries their development was often inspired by the 2014 European Commission Recommendation on strengthening the principle of equal pay between men and women through transparency (European Commission, 2014[20]).

The primary value of pay transparency measures is to provide aggregate statistics as benchmarks against which employees can compare their own pay packages and to stimulate debates about equal pay within firms, in the media and in society at large. Job classification systems to provide benchmarks and correct for potential gender bias in job valuations (commonly used, although not mandated, in the Netherlands); non-pay reporting of gender-disaggregated information (used in Germany); regular gender pay reporting, without audit (found in Denmark); and regular pay gap reporting but with Audit (used by France and Sweden). Some countries, including Denmark, France, and Sweden, discourage non-compliance through the ability to issue fines (Ceballos, Masselot and Watt, 2021[21]).

Since these instruments have been introduced relatively recently, there are still questions about how best to design pay transparency policies. As this type of policy packages gain momentum it will be useful if countries collected data and undertook impact evaluations to understand more about their effectiveness, including the amount of detail that should be reported, to whom the information should be shared, how to best leverage the information in tribunals and courts, and how to streamline processes for firms.

Strengthen job classification systems to better inform evaluation of competence and pay

Job classification systems can help objectively match roles and responsibilities with individuals in possession of the required skills. Skills mismatch is particularly important in Germany where more young women than men are overqualified relative to the skills requirements of their position (Berlingieri, 2012[22]). In a similar vein, job classification systems provide more transparency in terms of what is required for a promotion, which can contribute to more objective recruitment and promotion practices. Both these factors can contribute to more women receiving promotions to better-paid roles and responsibilities within firms, which in turn would contribute to reducing the considerable wage gaps within firms. Finally, gendered norms and expectations play a role in sustaining gender wage gaps as they influence job search and wage negotiations to the benefit of men relative to women. The combination of pay transparency measures and job classification systems makes salaries more transparent for men and women across specific job categories.

Improve workers' access to information on wages through pay reporting measures

In 2017, Germany mandated that companies must report on the measures they have taken to promote gender equality and equal pay, and the results are subsequently published in the Federal Gazette. However, the German reporting policy deviates from reporting policies in some other OECD countries where companies are required to report average and/or median pay gaps to stakeholders like employees, workers' representatives,

social partners, a government body, and/or the public (OECD, 2021[23]). In Germany, companies (given that they employ more than 200 staff) only have to provide, upon request, the average wage of a group of colleagues of the opposite sex doing work of equal value to the member of staff in question (Aumayr-Pintar, 2019[24]). In addition to providing staff with some benchmark, the publication of pay reporting results can put firms with large wage gaps in a bad light, making it difficult for them to attract talent and/or clients and/or satisfy shareholders. This could spur management to take action against gender pay gaps. Sharing information about the average wages of men and women within firms, especially when disaggregated by job classification, can support underpaid workers to negotiate up their wage (Baggio and Marandola, 2022[25]).

Explore comprehensive equal pay auditing to mainstream gender sensitive thinking

Equal pay audits usually require analysis of the proportion of men and women in each category of employee or position, an analysis of the job evaluation and job classification system used, and detailed information on pay and gender pay differentials. They often offer more straightforward avenues for follow-up action than simpler pay reporting measures, and reduce pressure on individuals to address their own disadvantage (OECD, 2021[23]). Audits can directly affect gender pay gaps in ways similar to simpler pay transparency measures. However, their key contribution is to mainstream gender sensitive thinking within firms and provide evidence for more targeted action by policy makers and firms. Audits can highlight underlying drivers, including wage gap increases during years of childrearing and pay gaps due to corporate hierarchies. Auditing requirements could be introduced for large as well as small firms provided there are ways (e.g. provision of financial support towards the cost, on-line calculators) to offset the administrative burden that (primarily smaller) firms face.

Continue to use quotas and soft measures to help breaking the glass ceiling

The different family, fiscal and wider social policy measures above encourage both men and women to return to high-quality jobs following career breaks and compete for promotion on an equal footing. In addition, various countries have introduced mandatory quotas, voluntary target setting and/or a range of other measures such as disclosure requirements, capacity-building actions, certificates and awards (OECD, 2017[26]). In 2015, Germany adopted a law that required some supervisory boards of publicly traded companies to have at least 30% women and 30% men, and other companies to set voluntary targets (Zeldin, 2015[27]). Germany ranks among the top 10 of OECD countries with the highest share of women on boards of publicly listed companies. Targets and quotas can help address gender gaps in the short and medium term, but they are not a sustainable solution in themselves. The key to sustainable success is the development of a gender-balanced cohort of competent employees for promotions into senior positions within companies and across sectors. For instance, while Sweden does not have mandatory quotas, the Government's gender equality target stipulates that at least 40% of boards should be made up of women. Progress has been made over the past few years and by 2020, 38% of board seats were held by women. A more gender balanced workforce throughout organisational hierarchies is key to narrowing gender pay gaps within-firms and between sectors.

Wage-setting institutions can help reduce the gender wage gap between firms

Strengthening wage-setting institutions in the form of minimum wages and collective bargaining can help reduce the between-firm gender wage gap by compressing wage differences between firms. Differences in pay between firms (unrelated to worker composition) in countries with more centralised collective bargaining arrangements are about half that in countries with decentralised ones. It appears that in Germany, decreasing collective bargaining coverage has contributed to growing differences in wage premia between firms, which in turn has slowed down progress in narrowing the gender wage gap. The introduction of a statutory minimum wage in 2015 has likely slowed the growth in wage premia dispersion and reduced the gender wage gap between firms among low-wage workers. Recent increases in the minimum wage are expected to lead to a further narrowing of this gap.

Box 1.1. Policy recommendations

Progress in reducing gender pay gaps has been slow. However, that should not deter government policy and firms to focus on improving workplace conditions and career opportunities for men and women to continue narrowing gender wage gaps in future. In Germany, more so than in several other nearby countries, the gender wage gap widens during childrearing years. Since the mid-2000s, German policy has moved towards supporting a more gender – balanced reconciliation of work and family life, and German policy should carry on along this path. In particular:

- Continue to use paid parental leave policies to promote equal use by fathers and mothers. One option could be to facilitate parents splitting leave at a higher wage replacement, but for a shorter period of time.
- Continue to invest in the capacity (also in hours) and quality of Early Childhood Education and Care (ECEC) and out-of-school hours (OSH) services, particularly in areas where such support is most needed.
- Make changes to the tax/benefit system to ensure that both partners in a couple family have equally strong financial incentives to work. Changes to the joint taxation system that will reduce marginal tax rates for secondary earners – mainly women, and incentivise them to supply extra hours to the market, would be welcome.
- Firms and their management should make their workplace practices conducive to combining work and family life, by encouraging fathers to take parental leave or working part-time for a specified period, and increase full-time work opportunities to returning mothers so that firms can make use of a wider pool of productive workers.

Three-quarters of the gender wage gap between similarly skilled men and women is due to within-firm differences in wages, and the following labour market policies can also help reduce gender wage gaps:

- Use pay transparency measures to directly address gender wage gaps by providing objective and measurable data. Germany should adopt a more comprehensive set of pay transparency tools to allow firms, employees and policy makers to maintain informed discussions about developments of the gender wage gaps in workplaces.
- Strengthen job classification systems (currently optional in Germany) which help objectively match roles and responsibilities with individuals in possession of the required skills. Skills mismatch is particularly important in Germany where more young women than men are overqualified relative to their position.
- Consider introducing a combined package of job-classification systems and pay transparency measures to provide employees with benchmarks to which they can compare their own pay packages. This would contribute to reducing within-firm gender wage gaps, but also increase awareness of job-opportunities elsewhere and enhance mobility across firms.
- Evaluate comprehensive equal pay auditing systems to mainstream gender sensitive thinking. Consider introducing detailed equal pay audits, on a pilot basis, as the detailed information they generate potentially offer more straightforward avenues for follow-up action than simpler pay reporting measures. They also help mainstream gender sensitive thinking within firms.

2 Framework, methodology and data

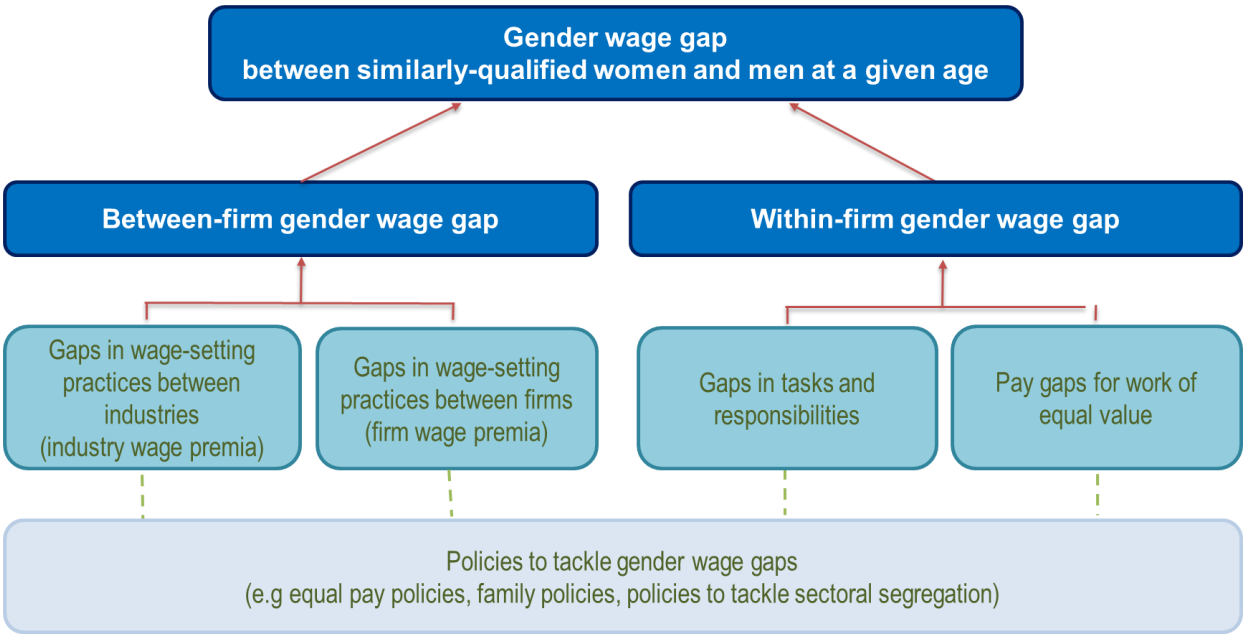
Building on OECD (2021[1]), this chapter describes the conceptual framework for analysing the wage gap between men and women with equivalent skills within and between firms, the empirical approach and the data that is used in this review.

2.1. Conceptual framework

The conceptual framework is based on two important premises. First, a significant gender wage gap persists even among similarly-skilled men and women. Indeed, in most countries, the gender wage gap tends be larger and more persistent when focusing on similarly-skilled men and women than when focusing on the raw gender wage gap (OECD (2021[1]) showed that Germany is the only country among 23 European countries where the gender wage gap becomes smaller, albeit only slightly, when controlling for differences in skills).This reflects the fact that the gender gap in education has largely closed and that in many countries young women now have higher levels of education than men on average (Goldin, 2014[28]). Second, the gender wage gap tends to increase over the life-course in most countries, including in Germany (Tyrowicz, van der Velde and van Staveren, 2018[29]). This likely reflects to a large extent the role of childbirth in shaping the career progression of women across occupations and firms (Kleven et al., 2019[30]; OECD, 2018[2]). Consequently a life-cycle perspective is needed that allows following men and women across firms and jobs within firms as they progress in their careers.

Based on these considerations, this review focuses on the gender wage gap between similarly skilled men and women at each age with an emphasis on the specific role played by firms. The role of firms is analysed by decomposing the gender wage gap into a between-firm and a within-firm component. The between-firm component captures the role of differences in firm wage premia (or “wage-setting practices”) between firms in the gender wage gap between similarly-skilled men and women due to the sorting of women into low-wage firms and industries. Firm wage premia refer to the component of wages determined by the firm’s characteristics and not those of workers. They may reflect the performance of the firm, its wage-setting power and human-resource policies. The within-firm component captures differences in pay between similarly-skilled men and women within firms due to differences in tasks, responsibilities or pay for work of equal value (e.g. bargaining, discrimination). The relative size of these different gender-wage-gap components offers important information for the design of public policies that seek to tackle the gender wage gap. A schematic representation of the decomposition is presented in Figure 2.1.

Figure 2.1.Framework



Source: OECD (2021[1]), *The Role of Firms in Wage Inequality: Policy Lessons from a Large Scale Cross-Country Study*, https://doi.org/10.1787/7d9b2208-en.

2.2. Empirical approach

To empirically implement the within and between-firm decomposition of the gender wage gap for similarly-skilled men and women, this review builds on Goldin et al. (2017[31]) and Card, Cardoso and Kline (2016[32]). This involves in a first step estimating wage equations with flexible earnings-experience profiles by gender both without and with firm-fixed effects and, in a second step, separately estimating for men and women a wage equation with firm-fixed effects (see Box 2.1). Experience is measured in potential terms using age and therefore does not take account of for example career breaks. The firm-fixed effects capture difference in wage-setting practices as reflected by firm wage premia, i.e. the part of average firm wages that is unrelated to the characteristics of the workforce. The specification without firm-fixed effects allows documenting the overall gender wage gap at any age conditional on worker characteristics (education). The specification with firm-fixed effects allows documenting the gender wage gap within firms at any age conditional on worker characteristics. The difference in the gender wage gap between the two specifications captures the between-firm component of the gender wage gap due to the sorting of men and women across firms paying different wage premia. The gender-specific wage equations with gender-specific firm-fixed effects allow providing an indication of the role of wage bargaining and discrimination by comparing the firm-fixed effects for men and women within the same firm.

Box 2.1. Decomposing the gender wage gap between and within firms at each age

Basic decomposition of the gender wage gap within and between firms

The decomposition of the gender wage gap at each age within and between firms for workers with similar skills is implemented following Goldin et al. (2017[31]) by estimating the following pair of wage equations without and with firm-fixed effects:

$$\ln(w_{ijt}) = A_i F_i \gamma_a + A_i \theta_a + x_{it}\beta_t + \varepsilon_{ijt}$$

Equation 2.1

$$\ln(w_{ijt}) = A_i F_i \gamma_a + A_i \theta_a + x_{it}\beta_t + \varphi_{j(i,t)} + \varepsilon_{ijt}$$

Equation 2.2

where w_{ij} denotes the wage of worker *i* in firm *j* at time t, x_i denotes a vector of observable worker characteristics (education or occupation dummies, decade-of-birth dummies); β denotes the estimated returns to these characteristics (restricted to be the same for men and women); A_i denotes a full set of age dummies, θ_a denotes the returns to age for men, F_i denotes a gender dummy that equals one for women and zero otherwise, γ_a denotes the gender wage gap at each age and $\varphi_{j(i,t)}$ in Equation 2.2 denotes a full set of firm-fixed effects. The firm-fixed effects capture difference in wage-setting practices as reflected by firm wage premia, i.e. the part of average firm wages that is unrelated to the observable characteristics of the workforce. Equation 2.1 is used to estimate the overall gender wage gap between similarly skilled women and men at each age, while Equation 2.2 is used to get the gender wage gap between similarly skilled women and men at each age within firms. The difference captures the gender wage gap between similarly skilled women and men at each age that is due to sorting.

Extended decomposition of the gender wage gap

The decomposition of the gender wage gap at each age within and between firms can be extended for workers with similar skills, tasks and responsibilities following Card, Cardoso and Klein (2016[32]) by estimating the following wage equation with worker and firm-fixed effects separately for men and women:

$$w_{it} = \alpha_i + \varphi^{M,F}_{J(i,t)} + \gamma_t + X'_{it}\beta^{M,F} + \varepsilon_{it}$$

Equation 2.3

where α_i denote worker fixed effects, $\varphi^{M,F}_{J(i,t)}$ denote (gender-specific) firm-fixed effects, which capture differences in firm wage premia between firms as well as between women and men within firms, γ_t denote year fixed effects, X'_{it} denotes time-varying worker characteristics, and more specifically a third-order polynomial in potential experience and $\beta^{M,F}$ denotes gender-specific returns to potential experience.

The decomposition is used to identify the role of firm wage premia in the gender wage gap and the extent to which differences in firms wage premia are due to within-firm differences (bargaining and discrimination) or between-firm differences (sorting). The bargaining effect is obtained by comparing the firm-fixed effects of men and women within each firm weighted by the distribution of women across firms, while the sorting component is obtained by comparing the average firm-fixed effect firms for women weighted by the distribution of women across firms with that weighted by the distribution of men across firms.

2.3. Data

The decomposition of the gender wage gap within and between firms is implemented using harmonised linked employer-employee data for Germany as well as four nearby countries (Denmark, France, the Netherlands, and Sweden). The linked employer-employee data used in this study mainly stem from administrative records designed for tax or social security purposes. Consequently, these data tend to be very comprehensive (in some cases, covering the entire population of workers and firms) and of very high quality, notably with respect to information on wages, given the potentially important financial or legal implications of reporting errors and extensive administrative procedures for quality control. Importantly, these data allow measuring gender wage gaps with great precision, decomposing them within and between firms and analysing the determinants of wage and employments gaps within individual firms.

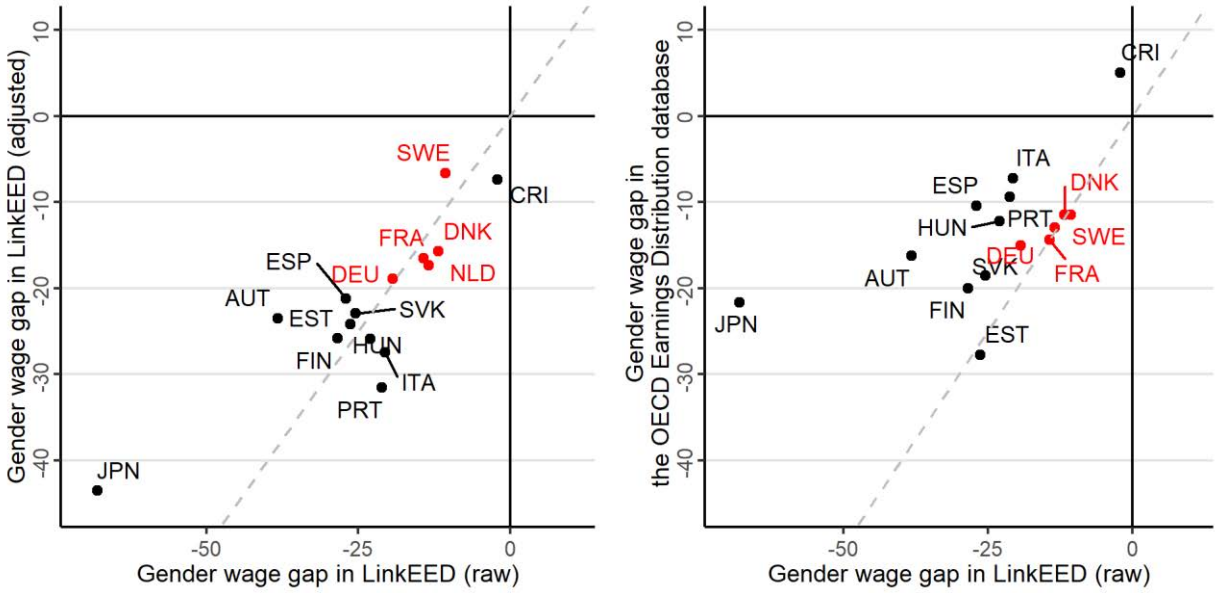
The analysis for Germany is based on the Sample of Integrated Employer-Employee Data (SIEED) produced at the Research Data Centre (FDZ) of the Federal Employment Agency (BA) at the IAB (Schmidtlein, Seth and Vom Berge, 2020[33]). This is a 1.5% random sample of all establishments with the full employment histories of any worker in those firms that was affiliated with social security and included in the Integrated Employment Biographies at any point between 1975 and 2018. The data for Denmark, the Netherlands and Sweden refer to the universe of workers and firms, whereas the data for France refer to an 8.5% random sample of workers. For further details on the data for Germany and those for the other countries, please see Table A.1 of the Annex.

The review focuses mainly on the gender gap in hourly wages, while the gaps in monthly earnings and working time are also used to provide indication of the broader context. Wages and earnings are consistently measured in gross terms (before the deduction of taxes and adjustments), while taking account of bonuses and overtime payments where possible. Among the countries considered, Germany is the only country for which no detailed information on working time is available. Following Bruns (2019[34]), hourly wages are approximated by focusing on monthly earnings for full-time workers. The difference in the gender gap in monthly earnings (for all workers irrespective of their working time status) and that in hourly wage yields the gap in working time and hence provides an indication of the distribution of part-time work between men and women. For all countries, the analysis is restricted to individuals aged 25-60 in the private sector in firms employing at least one woman and one man. It excludes the self-employed, apprentices and workers in mini-jobs. Mini-jobs are defined for the present purposes as earning less than 10% of the full-time median in the German data, and less than 20% of the full-time minimum wage or, if no minimum wage exists, 10% of the full-time median in the other countries.

The gender wage gap in Germany is the highest among the five countries considered in this review, but about average when considering a broader group of countries for which data are available in the OECD Linked Employer-Employee Database (LinkEED) (Figure 2.2). For the five countries considered in this review, the raw gender wage gap tends to be lower than that for other countries included in OECD LinkEED, both when focusing on the raw gender wage gap and when focusing on the adjusted wage gap between similarly skilled men and women (Panel A). Moreover, for the five countries considered in this review, the gender gap is very close to what is documented in the OECD Earnings Distribution database, which is the source for the official OECD estimates of the gender wage gap (Panel B). For other countries included in OECD LinkEED, the gender wage gap tends to be larger than in the OECD Earnings Distribution database, resulting in a somewhat different cross-country ranking (see the note to Figure 2.2).

Figure 2.2. Comparing different measures of the gender wage gap

Difference in average hourly wages between women and men (women minus men) as a share of the average hourly wage of men, early-2000s to mid-2010s



Note: Differences in gender wage gap results reflect in part the focus of the OECD Earnings Distribution database on full-time workers, whereas the gender wage gap in OECD LinkEED also comprises part-time workers (with the exception of Germany), which typically receive lower wages and are more likely to be female. Another difference is that the OECD Earnings Distribution Database does not always take account of bonuses and overtime payments, which tend to be more important for men, understating the true gender wage gap. This explains the sizeable difference in the estimated gender wage gap for Japan.

Reference period: 2001-13 for Japan; 2002-17 for Portugal; 1996-2015 for Italy; 2002-19 for the United Kingdom; 2003-17 for Hungary; 2004-16 for Finland; 2003-18 for Estonia; 2000-18 for Austria; 2014-19 for the Slovak Republic; 2006-18 for Spain; 2002-18 for Germany; 2010-19 for the Netherlands; 2002-18 for France; 2001-17 Denmark; 2006-17 for Costa Rica; and 2002-17 for Sweden.

Source: OECD Earnings Distribution Database and OECD LinkEED.

3 The gender gap in average pay and the role of firms

This chapter focuses on the average difference in pay between similarly skilled men and women in Germany in comparison with selected nearby countries. It starts by decomposing the gender gap in labour earnings into the components associated with the gaps in working time and hourly wages. It then analyses to what extent the gender gap in hourly wages is concentrated within or between firms (standard decomposition). It concludes by analysing to what extent the gender gap in average hourly wages and along the wage distribution reflects differences in tasks and responsibilities or differences in pay for work of equal value (detailed decomposition).

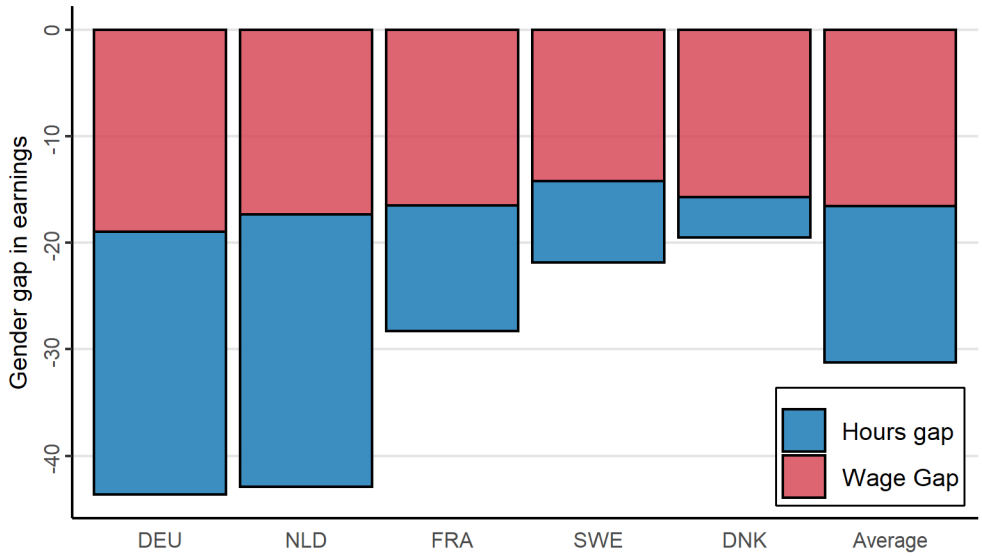
3.1. The gender gap in monthly earnings, wages and working time

3.1.1. The gender gap in earnings in Germany is high due to a large gap in hours worked in combination with a significant gap in hourly wages

The gender gap in monthly earnings was above 40% in Germany on average during the period from the 2002 to 2018. This is similar to the gap in the Netherlands but more than twice as high as in countries such as Denmark and Sweden where it was around 20% (Figure 3.1). The relatively high gender gap in earnings in Germany reflects a very high gap in hours worked (25%) and an above-average gap in hourly wages (19%) – see Figure 3.1. A similar picture is observed for the Netherlands which also exhibits a very high gap in hours worked and above-average gaps in hourly wages. Denmark stands out as the country with the smallest gap in working time, while Sweden stands out as the country with the smallest gap in hourly wages.

Figure 3.1. The role of wages and hours in the gender gap in earnings

Difference in monthly earnings (hourly wages, working hours) between similarly-skilled women and men as a share of average monthly earnings (hourly wages, working hours) of men, early-2000s to mid-2010s, selected countries[1, 2]



1. Decomposition of the gender earnings gap between similarly-skilled women and men into the gap in hourly wages and the gap in working time. The earnings and wage gaps between similarly-skilled women and men are estimated by regressing respectively log earnings and log wages on a gender dummy, education/occupation dummies, flexible earnings-age profiles by gender and decade-of-birth dummies to control for cohort effects. The hours gap between similarly skilled women and men is obtained by taking the difference between the residual gap in earnings and the residual gap in wages.
2. The gender wage gap for Germany does not reflect the part-time wage penalty since the gender wage gap is measured for full-time workers only. Given evidence in the literature of a substantial part-time wage penalty in Germany, the gender wage gap for *all* workers is likely to be larger in Germany than shown in the figure (Gallego Granados, Olthaus and Wrohlich, 2019[35]).
Reference period: 2002-18 for Germany; 2010-19 for the Netherlands; 2002-18 for France; 2001-17 Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

3.2. The gender wage gap within and between firms

3.2.1. About one-quarter of the gender wage gap in Germany reflects the tendency of women to work in low-wage firms

About three-quarters of the gender gap in average hourly wages between similarly skilled men and women in Germany reflects differences *within firms* due to differences in tasks, responsibilities and pay for work of equal value. The remaining one-quarter of the gender wage gap reflects differences in pay *between firms* is due the sorting of women in low-wage firms (Figure 3.2, AKM specification). This is broadly similar to what is found in previous work for Germany by Bruns (2019[34]), but higher than what is found for nearby countries.

While these results tend to be robust to the use of different specifications in most countries, this is not the case in Germany. The results for Germany highlighted above are based on a specification which controls for unobserved worker characteristics through the inclusion of worker fixed effects, similar to Bruns (2019[34]).[1] However, when using the baseline specification that only controls for the observable characteristics of workers (education, age), there is no evidence that sorting contributes to gender wage gap in Germany. This suggests that pay differences between firms in the baseline specification reflect to

an important extent unobserved differences in worker composition. Since the interest is here in the role of firms in the gender wage gap while abstracting from compositional differences, the specification that controls for workforce composition through the inclusion of worker fixed effects is preferred.

3.2.2. The between-firm gender wage gap reflects the role of gender segregation in a context of pronounced differences in wage-setting practices across firms

The relative importance of sorting in the gender wage gap in Germany reflects in part gender segregation across firms, i.e. the concentration of women in firms offering low wages for a given distribution of wage premia dispersion across firms. Segregation across firms is likely to reflect a combination of factors, due to discriminatory hiring practices by employers (demand side) and the preferences of women to work in certain economic activities, the skills these activities require or the way they are organised (supply side). For example, women may be constrained to opt for firms with flexible working-time arrangements due to childcare responsibilities and unpaid homework, but such firms also tend to offer lower wages (Box 3.1).

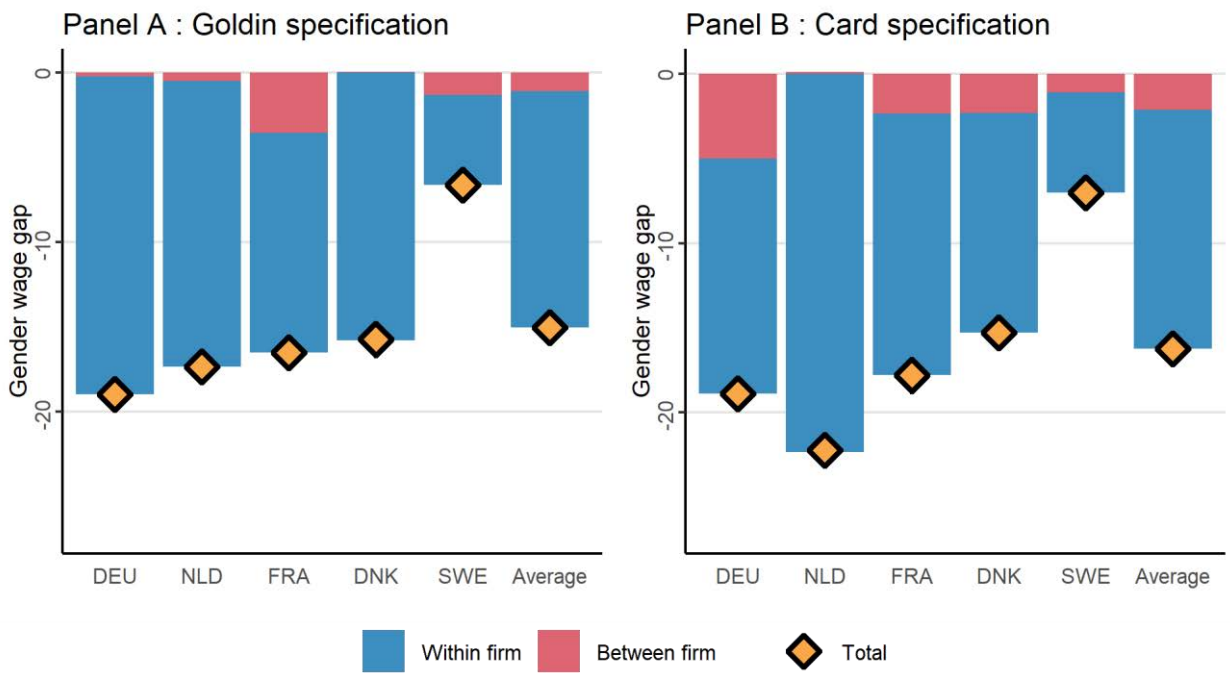
The relative importance of sorting in the gender wage gap is also likely to reflect the presence of pronounced differences in wage-setting practices across firms. Indeed, Criscuolo et al. (2020[36]) show that the share of firm wage premia dispersion in overall wage dispersion is highest in Germany among a sample of 20 OECD countries and has increased significantly over time, accounting for much of the increase in overall wage inequality (Criscuolo et al., 2020[36]; Card, Heining and Kline, 2013[37]). The rise in wage-premia dispersion has also been a key factor behind the slowdown in wage convergence between men and women since the 1990s (Bruns, 2019[34]). Changes in the system of collective bargaining have been identified as one of the drivers of rising wage-premia dispersion (Card, Heining and Kline, 2013[37]; Bruns, 2019[34]).

3.2.3. Gender segregation across firms in part reflects differences in working-time arrangements, including the availability of part-time work

From a policy perspective, the importance of sorting for the gender wage gap in Germany raises two key challenges. The first is how to make jobs in high-wage firms more accessible to women. Supporting the use of flexible work arrangements across occupations and firms, including part-time work and telework, could help. This would reduce the segregation of women and men across firms and jobs with flexible working-time practices and the contribution of compensating wage differentials to the gender wage gap. The second is how to reduce wage-premia dispersion across firms. This could involve policies that reduce productivity differences between firms by enabling low-productivity firms to catch-up or exit the market, policies that promote job mobility and strengthening wage-setting institutions, for example by promoting the use of coverage extensions of sectoral collective agreements or the introduction/revaluation of the statutory minimum wage (OECD, 2021[1]).

Figure 3.2. The gender wage gap between and within firms

Difference in average hourly wages between similarly-skilled women and men as a share of average hourly wages of men, early-2000s to mid-2010s, selected countries



Note: Decomposition of gender wage gap between similarly-skilled women and men within firms and between firms using respectively the basic decomposition (Goldin et al., 2017[31]) and the extended decomposition (Card, Cardoso and Kline, 2016[32]) (see Box 2.1 for detail).
The overall wage gap between similarly-skilled men and women is obtained from a regression of log wages on a gender dummy, education/occupation dummies, flexible earnings-experience profiles by gender and decade-of-birth dummies to control for cohort effects. The wage gap between similarly-skilled women and men differs may differ slightly between the two specifications due to differences in the sample. Reference period: 2002-18 for Germany; 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

Box 3.1. Firms offering flexible working time arrangements not only employ more women but also tend to pay lower wages

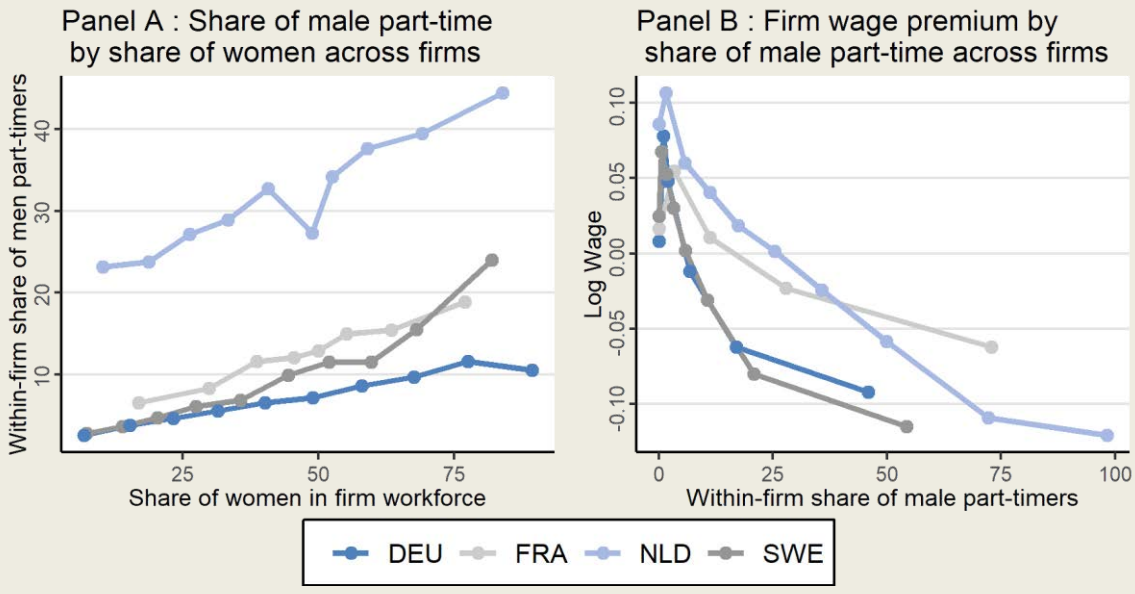
To shed light on the role of flexible working time arrangements for the sorting of women into low-wage firms, Figure 3.3 relates the incidence of part-time work within firms to the corresponding share of women in the workforce (Panel A) and the firm wage premium (Panel B).

Women are more likely to work in firms where part-time work among men is more common (Panel A). In firms with a high share of women (75%) more than 10% of male employees work part-time in Germany, while in firms with a low share of women (25%) less than 5% of males work part-time. A similar pattern is observed for France, the Netherlands and Sweden (the main difference is that part-time work is much more common in all firms in the Netherlands). This suggests that differences in the availability of part-time work across firms along with gendered "preferences" for flexible working-time arrangements contribute to gender segregation across firms.

The prevalence of part-time work is associated with lower firm wage premia (Panel B*)*. In Germany, firm wage premia are about 10% lower in firms with a high share of part-time among male workers (50%) than in firms without any part-time among men. A similar pattern is observed for the other countries. As a result, sorting of women across firms that differ in the scope of working part-time contributes to the between-firm component of the gender wage gap. These findings may indicate that women are willing to accept a lower hourly wage in exchange for the possibility of working part-time (consistent with the theory on compensating differentials).

Figure 3.3. Women are more likely to work in firms where part-time is more common and wages tend to be lower

Mid-2000s to mid-2010s, selected countries

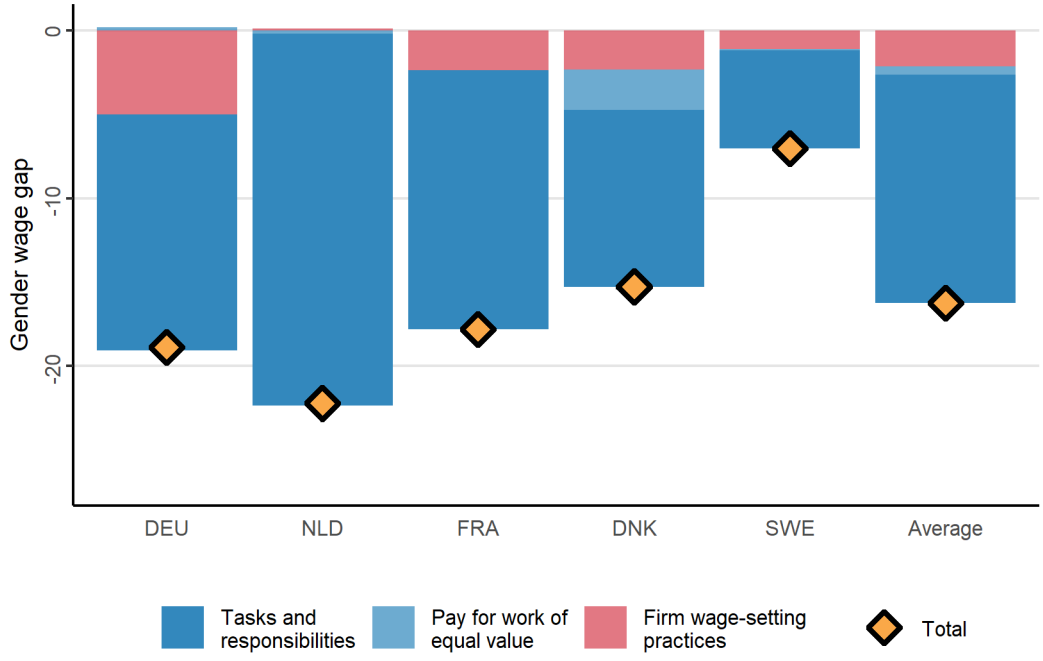


3.2.4. The within-firm gender pay gap overwhelmingly reflects differences in tasks and responsibilities, while differences in pay for work of equal value within firms are small

The within-firm gender wage gap in Germany largely reflects differences in tasks and responsibilities, while differences in pay for equal work due to differences in wage bargaining and discrimination appear negligible. A similar pattern is observed for France, the Netherlands and Sweden, whereas differences in pay for work of equal value may be somewhat more important in Denmark (Figure 3.4).[2] These findings are based on the "detailed decomposition" as proposed by Card, Cardoso and Kline (2016[32]) and discussed in Box 2.1. This not only considers differences in wage-setting practices across firms as in the "basic decomposition" (sorting), but also differences in firm wage-setting practices between women and men within firms due to differences in bargaining strength between women and men or wage discrimination by employers. Previous studies for Germany by Bruns (2019[34]) and France by Coudin et al (2018[38]) using a similar methodology provide similar findings.[3] While differences in pay for work of equal value may be small in Germany, the present estimates are best considered as lower bounds (see Box 3.2).

Figure 3.4. The role of differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices in the gender wage gap

Difference in average hourly wages between similarly-skilled women and men as a share of average hourly wages of men, early-2000s to mid-2010s, selected countries



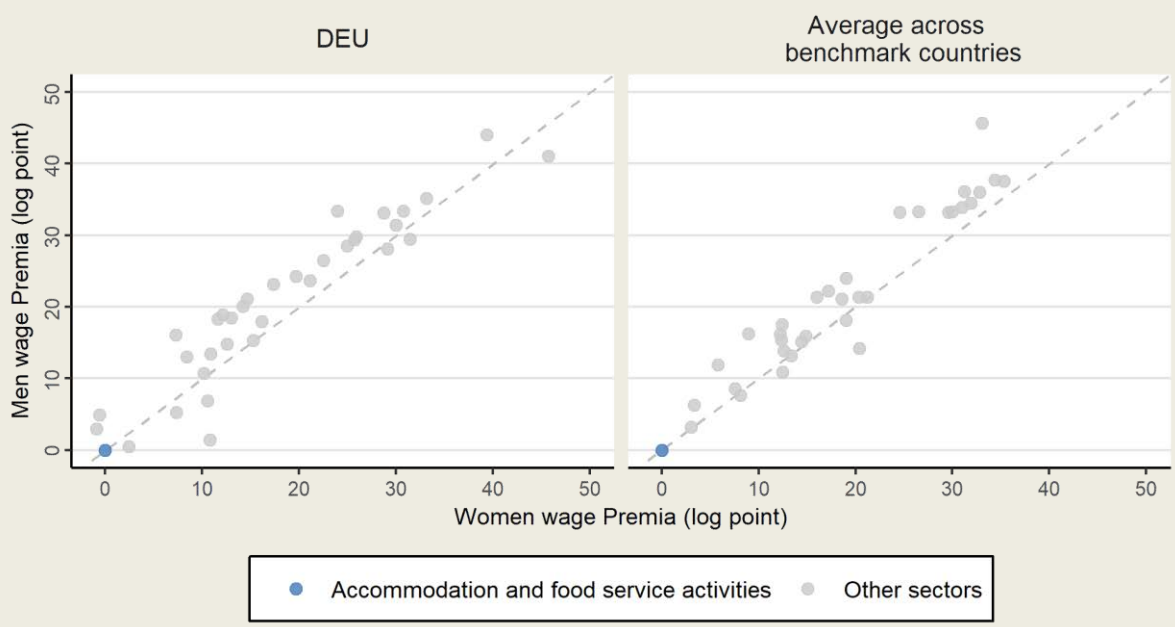
Note: Detailed decomposition of gender wage gap between similarly-skilled women and men in components related to differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices (see Box 2.1 for details). The overall wage gap between similarly-skilled women and men is obtained from a regression of log wages on a gender dummy, education/occupation dummies, flexible earnings-experience profiles and decade-of-birth dummies to control for cohort effects. Reference period: 2002-18 for Germany; 2010-19 for the Netherlands; 2002-18 for France; 2001-17 Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

Box 3.2. Technical discussion: How are differences in pay for work of equal value measured?

Differences in pay for work of equal value are analysed by comparing the firm-fixed effects for men and women in the same firm. Since the firm-fixed effects are only identified up to a constant this requires making a normalisation assumption that allows focusing on relative differences in firm wage premia between men and women across firms. Following Card et al. (2016[32]), this is achieved by assuming that there is a reference sector in which there are no rents to be shared with workers (firm wage premia are zero) and hence there are no differences in pay for work of equal value (no differences in wage premia between men and women within firms). The reference sector is accommodation and food services as firm wage premia in this sector tend to be lower than in other sectors in Germany as well as in the benchmark countries (Figure 3.5). However, this does not necessarily mean that there are no rents at all in the accommodation and food-services sector and consequently that there are no differences in firm wage premia or pay for work of equal value between men and women within firms. As a result, the component associated with differences in pay for work of equal value is likely to be underestimated.

Figure 3.5. Firm wage premia tend to be low in the accommodation and food services sector

mid-2000s to mid-2010s



Note: The plot represents the average firm-fixed effects by industry for men and women. The gender-specific firm-fixed effect are recovered from a wage regression with individual fixed effects and a flexible gender specific earnings-experience as additional controls. The firm-fixed effects are normalised with respect to the average in the accommodation and food services sector for which the firm-fixed effects are set to zero.

3.2.5. Promoting equal opportunities for career progression is key

The main implication for policy is that to reduce the gender wage gap it is crucial to promote equal opportunities for career progression. Unequal opportunities for career progression within firms may result from a broad range of factors, including discrimination in hires and promotions by employers and the individual circumstances of men and women, related to the unequal sharing of family responsibilities, that may constrain career choices and shape preferences for non-wage working conditions (e.g. flexible hours, short commuting times). To better understand how to foster more equal opportunities for career advancement, Chapter 5 analyses job mobility patterns within and between firms using a dynamic perspective.

3.2.6. Pay transparency measures can help raise awareness about systematic differences in pay within firms

Even if differences in pay for work of equal value are small, this does not imply that pay transparency measures, such as those recently introduced in Germany, do not have an important role to play (OECD, 2021[23]). While such measures are to an important extent motivated by the objective of tackling wage discrimination, pay transparency measures do not usually focus on pay for equal work, but rather systematic pay differences within firms, with only very limited attention given to differences in qualifications, tasks and responsibilities. Indeed, their objective is to raise awareness about systematic pay differences within firms and create discussion about their underlying sources (Chapter 6). The hope is that by questioning the adequacy of a firms' existing remuneration, recruitment and promotion policies this would promote the adoption of more gender-friendly human-resource frameworks. It is crucial that the evaluation of pay transparency measures also takes account of these broader policy objectives related to recruitment and promotion.

3.3. The gender wage gap along the wage distribution

The between-firm and within-firm components of the gender wage gap may vary for workers for different wages or skills. To shed light on this issue, the decomposition of the gender wage gap between and within firms is implemented according to the (time-invariant) level of transferable skills of men and women measured using workers fixed effects in wages.

3.3.1. The within-firm gender wage gap is larger for workers with higher levels of transferable skills

In Germany, the wage gap between similarly skilled men and women is about 50% higher for workers with high levels of transferable skills than workers with low to medium levels (Figure 3.6). A qualitatively similar picture tends to be observed in other OECD countries (OECD, 2017[39]). The larger gap in pay for workers with high skills largely reflects the greater importance of differences in pay for work of equal value due to differences in worker bargaining power or employer discrimination. By contrast, the role of sorting across firms appears to be less important for workers with high transferable skills and more important for workers with low transferable skills. Differences in tasks and responsibilities are particularly important for workers with either low or high skills, but less so for workers with medium levels of skills. Part of the high gender wage gap for high-skilled women reflects limited access to top jobs.

Figure 3.6. The role of differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices along the wage distribution

Difference in full-time wages between similarly-skilled women and men as a share of full-time wages of men by decile of the worker fixed-effects distribution, early-2000s to mid-2010s, Germany

Note: Decomposition of gender gap along the distribution of worker fixed effects in components related to differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices (see Box 2.1 for detail). The overall wage gap between similarly-skilled women and men is obtained from a regression of log wages on a gender dummy, education dummies, flexible earnings-experience profiles and decade-of-birth dummies to control for cohort effects. Reference period: 2002-18 for Germany.

3.3.2. Enhancing women representation on company boards

Gender quotas and voluntary target setting can help to promote the representation of women on company boards. While legally binding quotas may be more effective in increasing women's representation in the short term, they need to be used judiciously to avoid the risk that they undermine firm performance, particularly if targets are set too high given the number of suitably-qualified women in the sector/occupation (Hwang, Shivdasani and Simintzi, 2018[40]). Finely targeted quotas such as those related to company boards seem to hold some promise in this regard. Recent evaluations suggest that such quotas enhance the representation of women in company boards, but also that they have limited spill over effects on the career progression of other women in those firms (Bertrand et al., 2019[41]; Maida and Weber, 2020[42]).

4 The age-profile of the gender wage gap and the role of job mobility

This chapter focuses on the age-profile of the pay gap between similarly skilled men and women. It starts again by decomposing the gender gap in labour earnings at each age into the components associated with the gaps in working time and hourly wages. It then decomposes the hourly wage gap within and between firms and the within-firm gender wage gap into components associated with differences in tasks and responsibilities and differences in pay for work of equal value. It concludes by analysing how gender differences in job mobility contribute to the evolution of the gender wage gap between and within firms over the life course.

4.1. The age-profile of the gender wage gap

4.1.1. The gender gap in earnings increases sharply around the age of childbirth in Germany partly due the tendency of women to move into part-time work when becoming mothers

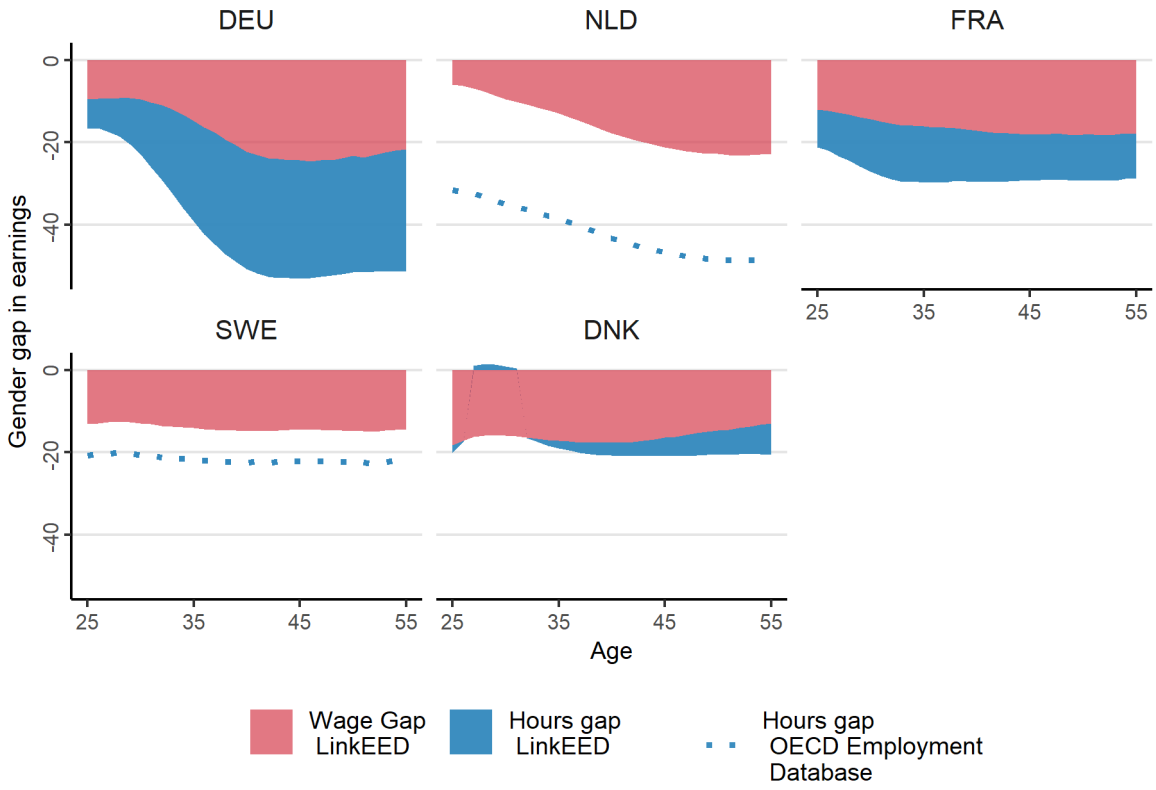
The gender gap in earnings exhibits a particularly strong age profile in Germany. The gender gap in earnings increases from less than 20% at age 25 to more than 50% at age 55, with most of the increase taking place between ages 30 and 40. The bulk of the increase is driven by the growth in the hours gap, which triples between ages 25 and 55. The increase in the hourly wage is also significant, as it more than doubles over the same period. While the benchmark countries considered also tend to show rising age profiles, the increase is much stronger in Germany.

The evolution of the gender wage gap over the working life is unlikely to be driven by changes in the characteristics of men and women in the workforce due to cohort or selection effects (see Box 4.1). While both selection and cohort effects have a tendency to amplify the increase in the gender wage gap with age, the present analysis already takes account of these effects to an important extent. Moreover, the qualitative pattern is unchanged when controlling for selection effects in a more comprehensive way through the inclusion of worker fixed effects or when focusing of the age-profile of the gender wage gap of individual birth cohorts.

The significant increase in the gender wage gap in Germany is concentrated in a period in which men tend to experience considerable wage growth, partly driven by high job mobility, while women tend to make less progress, in part because of career breaks and the move into part-time work after maternity leave. This suggests that motherhood, including the shift towards part-time work, prevents women from taking advantage of opportunities for career advancement, by limiting job mobility within and between firms (Barth, Kerr and Olivetti, 2017[43]; Kleven et al., 2019[44]; OECD, 2017[39]). The large shift towards part-time work after childbirth in Germany is likely key for understanding the sharp increase in the gender wage gap between ages 30 and 40.

Figure 4.1. The age-profile of the gender gap in earnings, wages and hours

Difference in monthly earnings (hourly wages, working hours) between similarly-skilled women and men (women minus men) as a share of average monthly earnings (hourly wages, working hours) of men, early-2000s to mid-2010s, selected countries



Note: Decomposition of gender earnings gap between similarly-skilled women and men at each age into the gap in hourly wages and the gap in working time. The earnings and wage gaps between similarly-skilled women and men are estimated by regressing respectively log earnings or log wages on a gender dummy, education/occupation dummies (education/occupation is not available for Austria), flexible earnings-age profiles by gender and decade-of-birth dummies to control for cohort effects. The hours gap between similarly skilled women and men is obtained by taking the difference between the (residual) gap in earnings and the (residual) gap in wages. For the Netherlands and Sweden, there is information on hourly wages but not working time. Information on the average gap in working time – not by age – is obtained from the OECD Employment Database.

Box 4.1. The role of cohort and selection effects in the age-profile of the gender wage gap

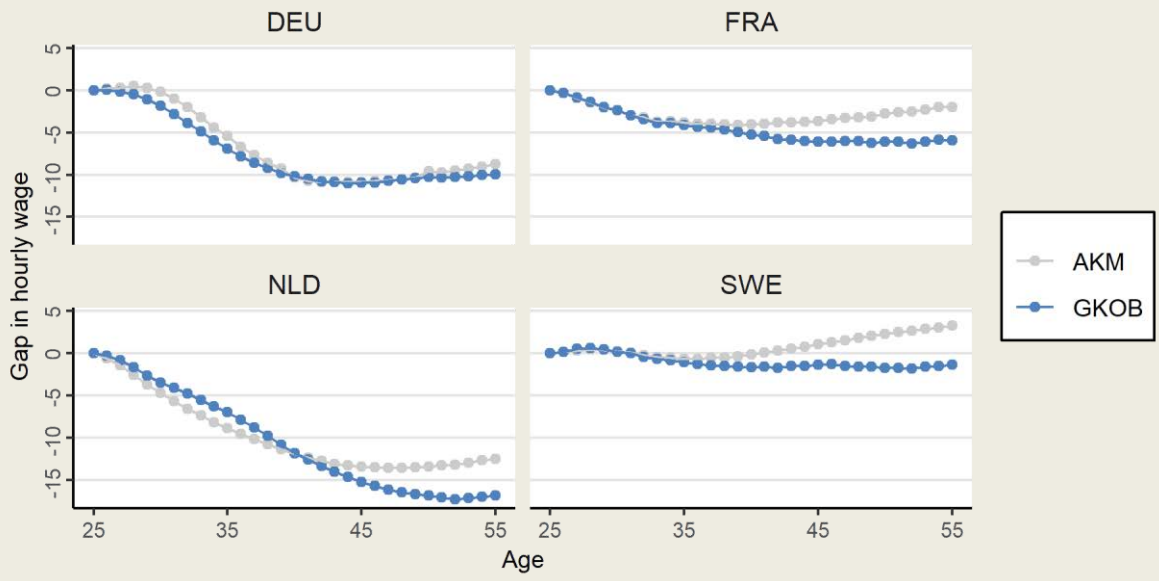
Analysing the age profile of the gender wage gap is challenging as it requires taking account of changes in the composition of the workforce as a result of selection and cohort effects.

Selection effects

Selection effects arise when the composition of men and women in employment changes with age; they can have important implications for the age-profile of the gender wage gap.[1] The baseline analysis controls for selection into employment based on the observable characteristics of workers (e.g. education). There may however also be selection into employment based on the unobservable characteristics of workers. To get a sense of its empirical relevance, Figure 4.2 compares the age profile of the gender wage gap that is obtained using the baseline specification (Goldin et al., 2017[31]) with the one that is obtained controlling for the unobservable characteristics of workers through the inclusion of worker fixed effects (Abowd, Kramarz and Margolis, 1999[45]; Dostie et al., 2020[46]). While the qualitative picture is similar using the two specifications, controlling for worker fixed effects tends to reduce the increase of the gender wage gap with age (particularly in the benchmark countries). In other words, the growing gender wage gap with age in the baseline specification to some extent reflects the role of rising differences in unobservable skills (as women are more negatively selected in employment at higher ages relative to men).

Figure 4.2. The role of worker composition in the age-profile of the gender wage gap

The age profile of the gender wage gap after controlling for the observable characteristics (GKOB) and the unobservable characteristics of workers (AKM), early-2000s to mid-2010s, selected countries



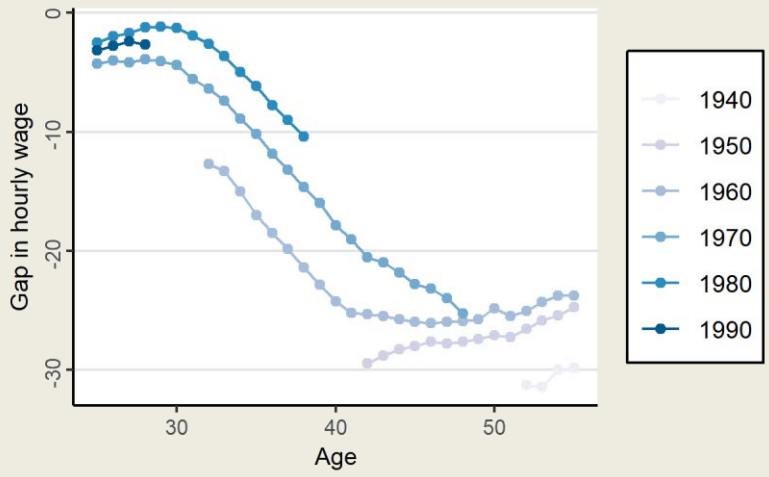
Note: GKOB (Goldin et al., 2017[31]): the wage gap between-similarly-skilled men and women is obtained from a regression of log wages on a gender dummy, education/occupation dummies (education/occupation is not available for Austria, and Estonia), flexible earnings-experience profiles and decade-of-birth dummies to control for cohort effects. AKM (Abowd, Kramarz and Margolis, 1999[45]): time-invariant characteristics are replaced by an individual fixed effect. Reference period: 2002-18 for Germany; 2010-19 for the Netherlands; 2002-18 for France; and 2002-17 for Sweden.

Cohort effects

Cohort effects can affect the age profile of the gender wage gap when the composition of women and men in employment varies across birth cohorts due to, for example, gradual improvements in educational attainment of women relative to men or rising female labour force participation. Disentangling cohort effects from age and time effects is not possible due to their linear dependence. The present analysis controls for cohort effects to some extent by controlling for education and the inclusion of decade-of-birth fixed-effects by gender (Barth, Kerr and Olivetti, 2021[47]). Cohort effects are identified by restricting time fixed effects to be common across sexes. Since this is unlikely to be imperfect, it is instructive to compare the age profile of the gender wage gap that is documented in the main text with that of individual birth cohorts. This suggests that from a qualitatively perspective the age profile in the main text is similar to the average profiles across birth cohorts.

Figure 4.3. The age-profile of the gender wage gap by birth cohort

The age profile of the raw gender wage gap by decade of birth in Germany, 2002-18



Note: While selection effects in principle can also affect cross-country comparisons of the gender wage gap, this is unlikely to be a major issue in the present contest since the countries considered here are all characterised by rather small gender employment gaps.

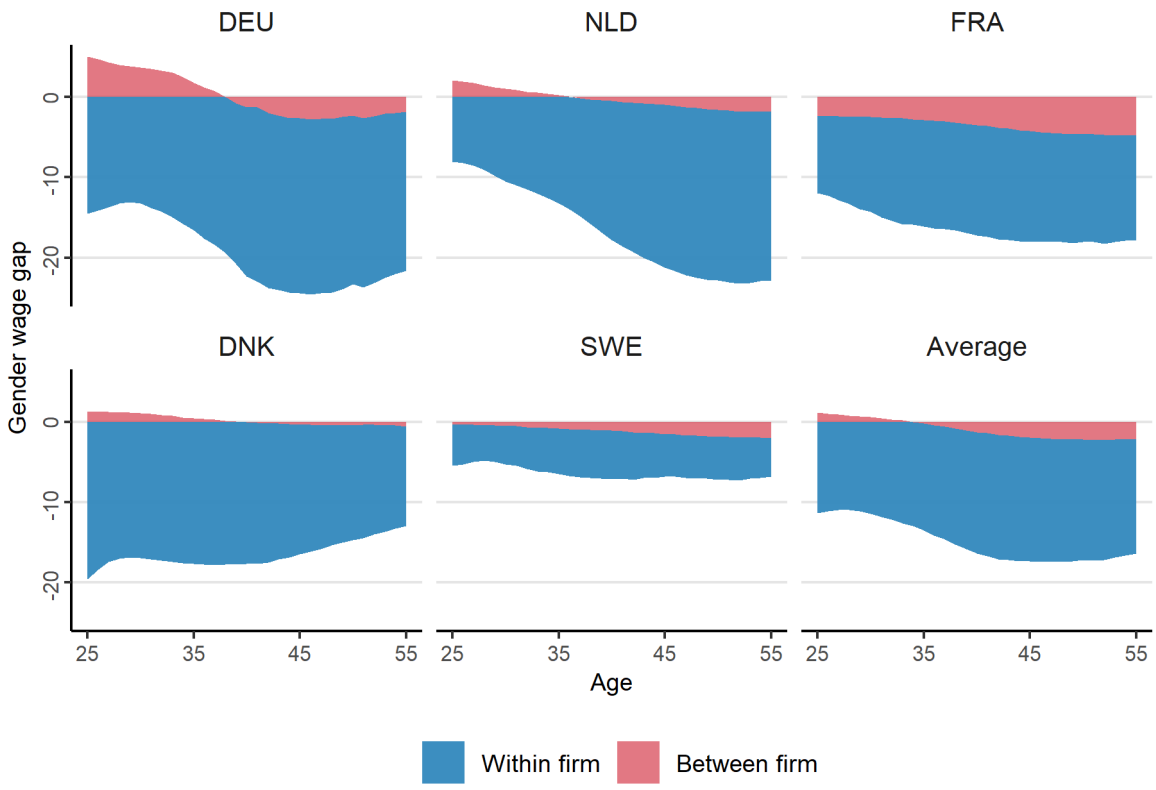
4.2. The age profile of the gender wage gap within and between firms

4.2.1. The increase in the gender wage gap with age in Germany reflects growing wage gaps within and between firms

The rising gender wage gap with age in Germany reflects both growing wage gaps within and between firms (Figure 4.4). Growing wage gaps *between* firms may indicate that women following childbirth increasingly sort into low-wage firms. As discussed in the previous sub-section, this may in part be related to the possibility that low-wage firms are more likely to offer part-time work arrangements. The gender wage gap between firms also increases in the benchmark countries but the increase tends to be smaller and is less concentrated around the age of childbirth than in Germany. Growing wage gaps *within* firms indicate that women advance less quickly to better jobs within firms or experience smaller wage increases when staying in the same job than their male counterparts. The age-profile of the gender wage gap within firms varies across the benchmark countries: it increases in the Netherlands and France, remains broadly stable in Sweden and declines in Denmark.

Figure 4.4. The gender gap within and between firms rises more strongly in Germany than other selected countries

Difference in average hourly wages between similarly-skilled women and men (women minus men) as a share of the average hourly wages of men by age, percentage, early-2000s to mid-2010s, selected countries



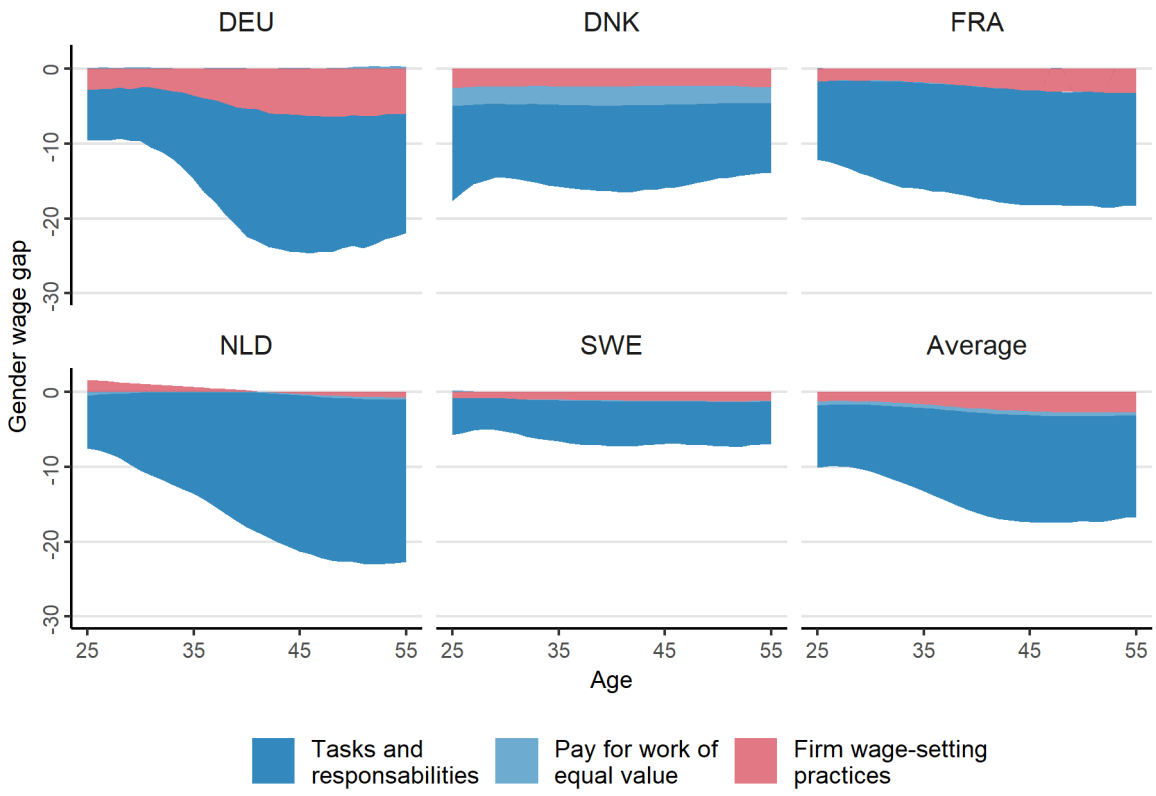
Note: Decomposition of gender wage gap between similarly-skilled women and men within firms and between firms by age. The wage gap between-similarly-skilled women and men is obtained from a regression of log wages on a gender dummy, education/occupation dummies, flexible earnings-experience profiles and decade-of-birth dummies to control for cohort effects. Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

4.2.2. The increase in the gender wage gap within firms in Germany as well as in other countries reflects growing differences in tasks and responsibilities

The increase in the gender wage gap within firms with age in Germany most likely reflects growing differences in tasks and responsibilities rather than growing differences in pay for work of equal value (Figure 4.3). The evidence does not suggest that the component associated with bargaining or discrimination varies substantially over the working life. A limitation of the present analysis is that it only captures changes in bargaining and discrimination that result from the sorting of women across firms that differ in their wage-setting practices between women and men. The wage-setting practices of firms themselves are assumed to be invariant to the individual circumstances of men and women. To the extent that firms pay lower wages to mothers because their labour supply decisions are less sensitive to wages, this will be reflected in the average component associated with bargaining and discrimination and not in its age profile.

Figure 4.5 The role of differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices in the evolution of the gender wage gap over the life-course

Difference in average hourly wages between similarly-skilled women and men (women minus men) as a share of average hourly wages of men by age, early-2000s to mid-2010s, selected countries



Note: Decomposition of gender wage gap between similarly-skilled women and men in components related to differences in tasks and responsibilities, pay for work of equal value and firm wage-setting practices (see Box 2.1 for detail). The wage gap between similarly-skilled women and men is obtained from a regression of log wages on a gender dummy, education/occupation dummies, flexible earnings-experience profiles and decade-of-birth dummies to control for cohort effects. Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden. Average: Simple average across countries shown.

4.3. The role of job mobility within and between firms

The rise in the gender wage in Germany around ages 30 to 40 reflects the fact that women fall increasingly behind relative to men both in terms of the firms for which they work and the work they do in those firms. The shift towards part-time work around the age of motherhood may be an important factor in explaining why women move to another firms and the prospects for moving to better jobs within firms. To shed more light on these issues, this sub-section focuses on the gender gap in job mobility between and within firms.

4.3.1. The gender gap in promotions accounts for much of the increase in the gender wage gap with age

A significant part of the gender wage gap and its increase with age reflects growing gender segregation across occupations within firms. One explanation for this may be that men are more likely to be promoted. Promotions in principle can be measured by focusing on worker transitions to higher paid occupations or alternatively by large wage increases from one year to the next as in Bronson and Thoursie (2020[48]). The

analysis here focuses on significant wage increases since this measure can be computed in the same way irrespective of the type of information that is available on occupations (wage increases are trimmed of extreme values). Since there is no information for Germany, the analysis focuses again on full-time workers (unless specified otherwise). This is an important limitation since OECD (2021[1]) documents that the gender gap in promotions is to an important extent related to the lower incidence of promotions among part-time workers.

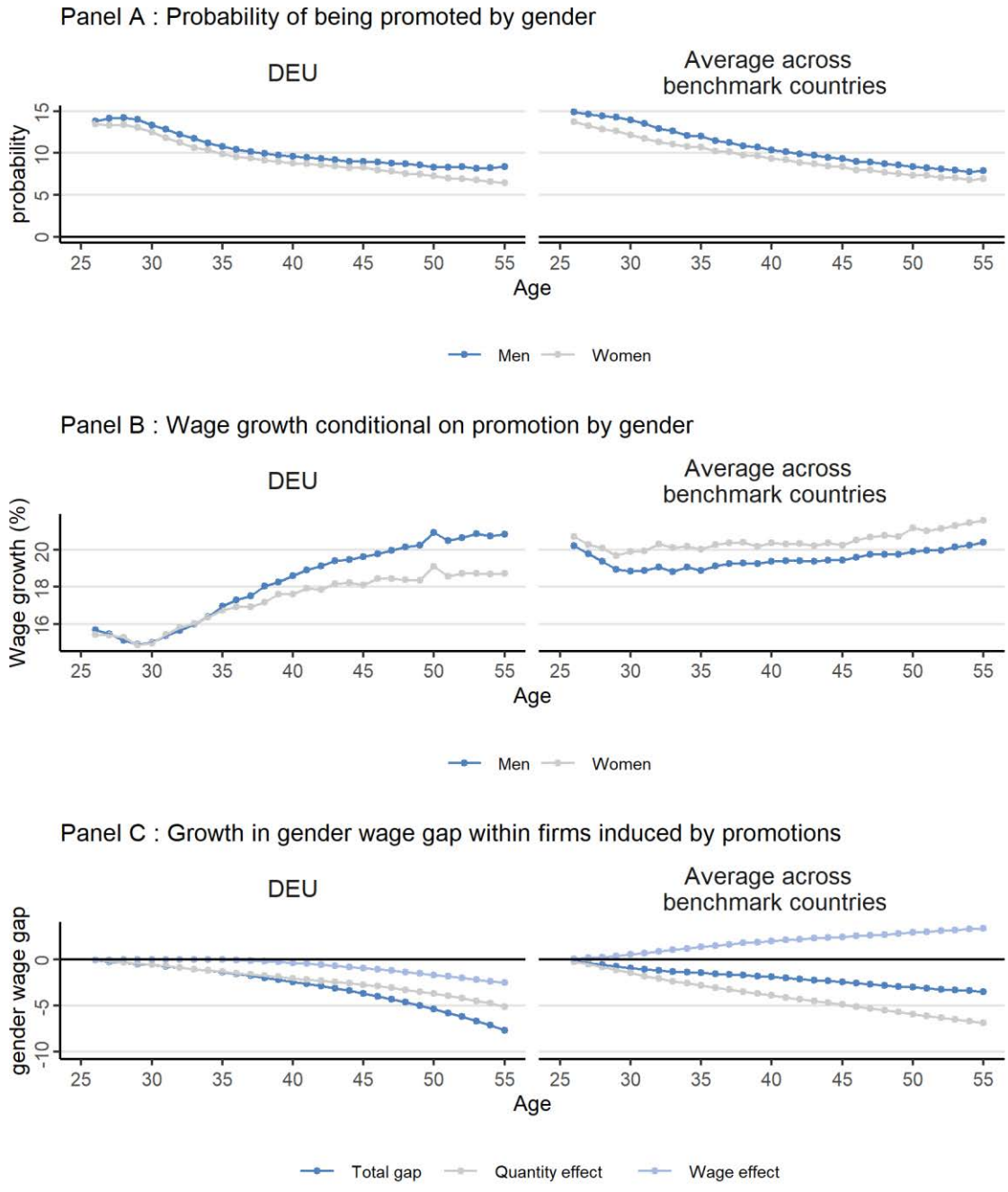
Women are less likely to be promoted at any age as men and this contributes to much of the increase in the within-firm gender wage gap with age (Figure 4.6). The gender gap in promotions gradually increases with age in Germany, while in the benchmark countries it is highest when women are in their thirties. Conditional on being promoted, young women tend to experience similar wage increases as men, while men experience larger wage increases from the age of 35 in Germany. In the benchmark countries, women experience slightly higher wage increases than men conditional on being promoted (Panel B). Gender differences in the incidence of promotions account for an increase in the gender wage gap within firms of 4 percentage points from age 25 to age 45 in Germany (80% of the increase within-firm gender gap) and 2.5 percentage points in the benchmark countries (75% of the increase within-firm gender gap) (Panel C).[4] These findings are qualitatively similar to those by Bronson and Thoursie (2020[48]), who find that promotions account for 70% of the increase in the gender wage gap by age 45 in Sweden.

4.3.2. The increase in the gender wage gap between firms with age is driven by gender differences in the nature of job mobility rather than its extent

In Germany, there are no significant gender differences in the extent of job mobility between firms, whereas on average across benchmark countries, women are less likely to change firms than men, particularly around the typical age of childbirth (Figure 4.7, Panel A). When women change firm, this is associated with smaller average increases in firm wage premia than for men in Germany as well as in the benchmark countries (Panel B). According to OECD (2021[1]), this reflects the lower incidence of promotions, i.e. significant wage increases, when changing firms. In other words, women appear to change jobs to a lesser extent for wage and career considerations and more often for personal reasons, such as having more flexible working time arrangements, working closely from home or following a partner. Indeed, it is the *nature* of job moves that explains most of the increase in the gender gap between firms over the life-course, while the number of job moves plays a secondary role (Panel C). In Germany, gender differences in job mobility account for about 16% of the increase of the between-firm gender wage gap up to age 45. In the benchmark countries, gender differences in job mobility account for 65% of the increase in the gender wage gap between firms up to age 45.[5]

Figure 4.6. The role of promotions in the gender gap within firms over the life-course

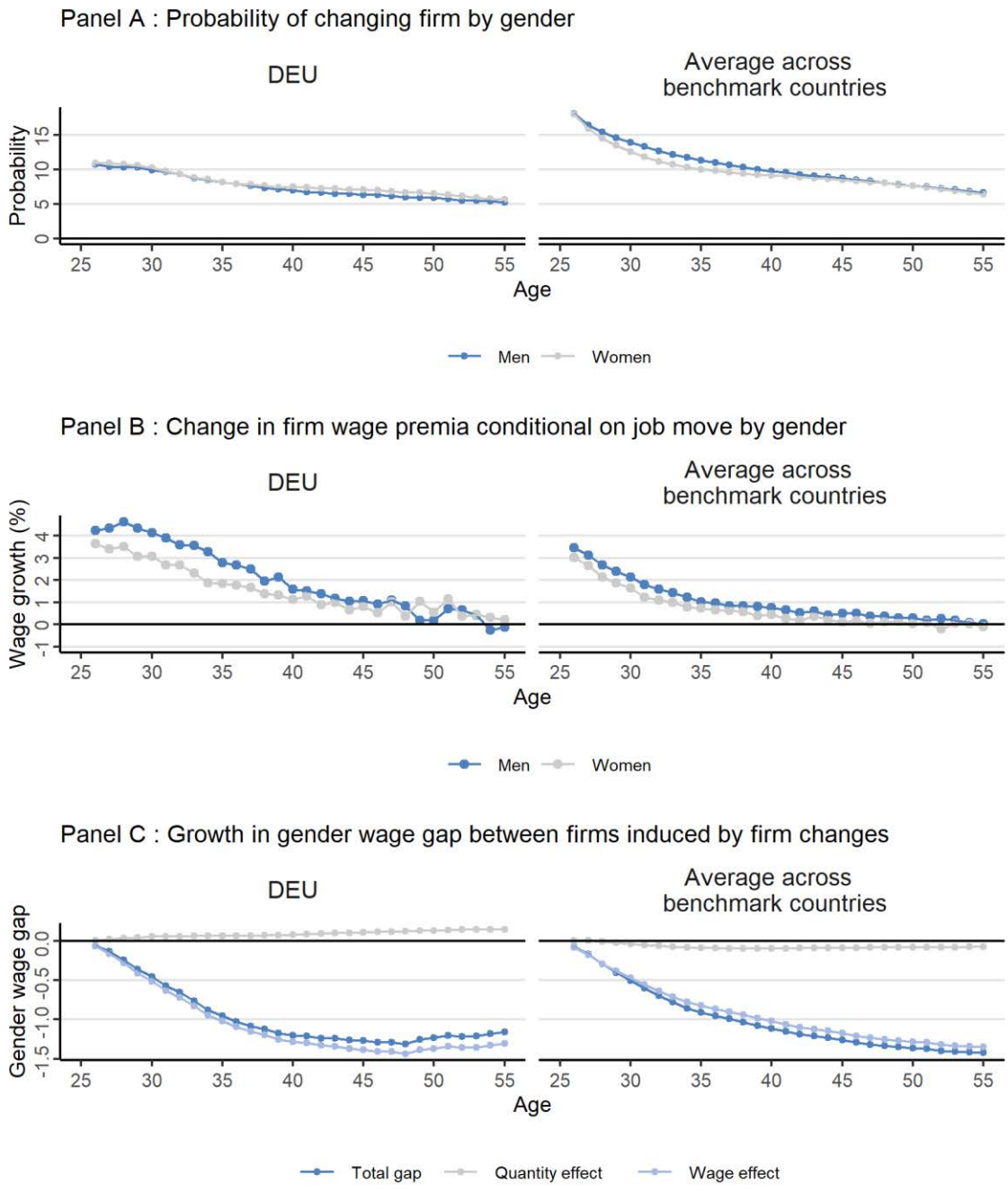
Germany and average across benchmark countries, mid-2000s to mid-2010s



Note: The probability of being promoted is defined as the share of persons in employment at t-1 experiencing a significant increase in pay between t and t-1 of more than 10% relative one's co-workers in the same firm. Average across the following countries: Denmark, France, the Netherlands, and Sweden. Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden.

Figure 4.7. The role of job-to-job mobility in the gender wage gap between firms over the life-course

Germany and average across benchmark countries, mid-2000s to mid-2010s

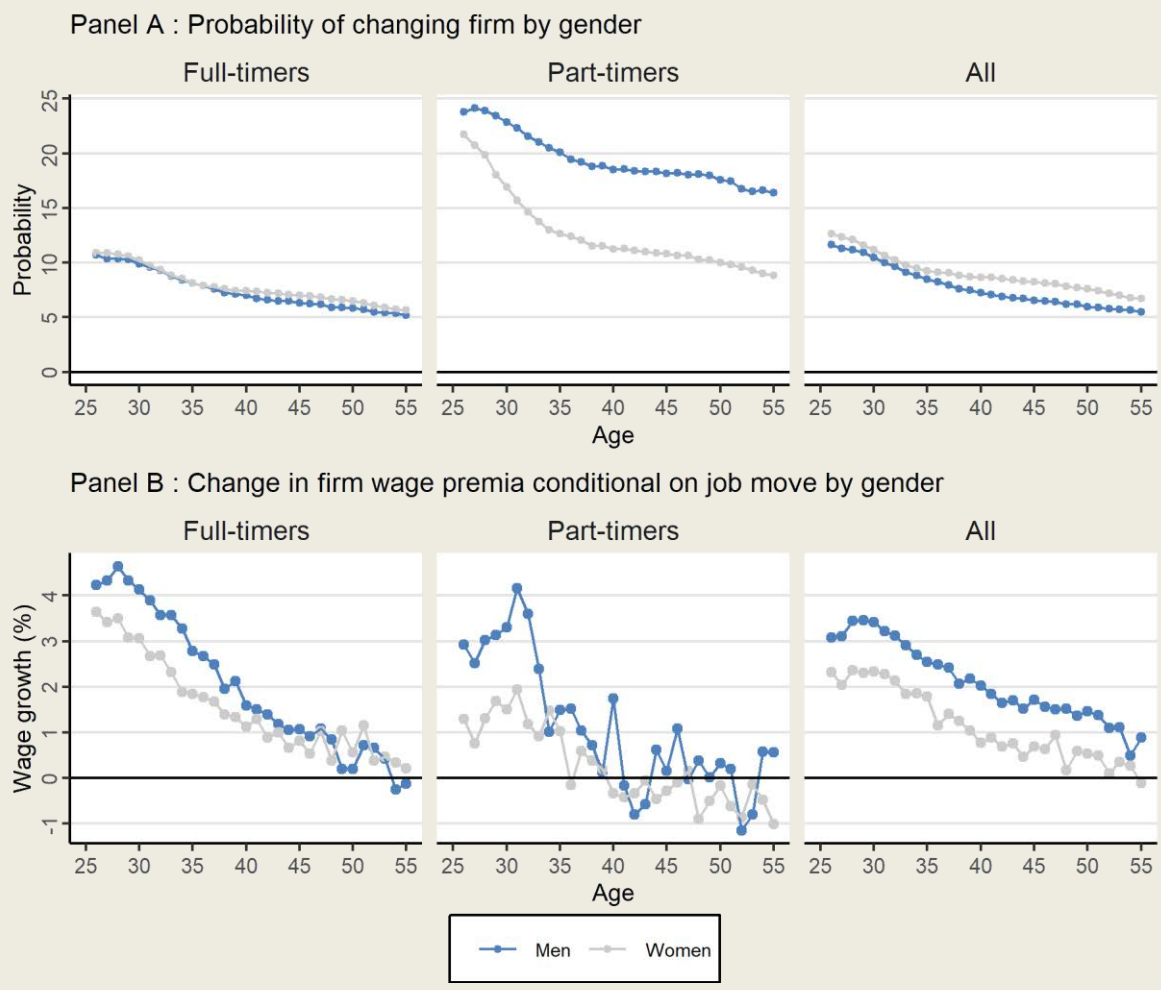


Notes: Job-to-job mobility rate is defined as the number of workers changing firm between year t and t-1 as a share of employment in year t-1. Average across the following countries: Denmark, France, Hungary, the Netherlands, Portugal. Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 for Denmark; and 2002-17 for Sweden.

Box 4.2. The role of part-time status for job mobility between firms in Germany

When considering all workers, irrespective of working-time status, women are more likely to move between firms than men (Figure 4.8, Panel A). The reason for this is that women are more likely to work part-time and that part-time workers are more likely to change jobs. Conditional on working-time status, the probability of changing jobs is either similar or larger for men. When considering all workers, including part-timers, women experience smaller increases in firm wage premia when changing firms (Panel B). Part-time workers who change jobs experience smaller wage increases than full-time workers. The difference is particularly pronounced for older workers. Indeed, older workers aged over 40 often experience a reduction in the firm wage premium when moving between firms. In sum, the high prevalence of part-time status among women does not only affect their monthly earnings but also hurts their career prospects by preventing them from climbing the wage ladder at the same pace as men.

Figure 4.8. The role of part-time status for job mobility between firms in Germany



Notes: Job-to-job mobility rate is defined as the number of workers changing firm between year t and t-1 as a share of employment in year t-1. Reference period: 2002-18.

4.3.3. Policies should be made more supportive of job mobility within and between firms

Systematic gender differences in the extent and nature of job mobility between and within firms reflect important differences in opportunities for career advancement between men and women. Policies and institutions that can support the upward mobility of women within and between firms are therefore key. This includes family policies that contribute to a more equal sharing of household responsibilities – e.g. incentivising fathers to take more parental leave, as well as a more equal sharing of part-time work – e.g. universal childcare, reducing effective marginal tax rates on second earners (Chapter 6 and (OECD, 2017[3]; OECD, 2019[4]).

5 The role of career breaks in the gender gap within and between firms

This chapter seeks to shed more light on the role of motherhood in the age profile of the gender wage gap. Since the present cross-country data do not allow looking at the role of motherhood directly due to the absence of information on childbirth, the chapter takes an indirect approach based on the analysis of career breaks, defined as non-employment spells around the age of parenthood (25-34). Career breaks account for a potentially important fraction of the motherhood penalty, i.e. the shortfall in wage growth following childbirth of mothers relative to fathers, and as a result, the evolution of the gender wage gap within and between firms over the working life.

5.1. The incidence and duration of career breaks

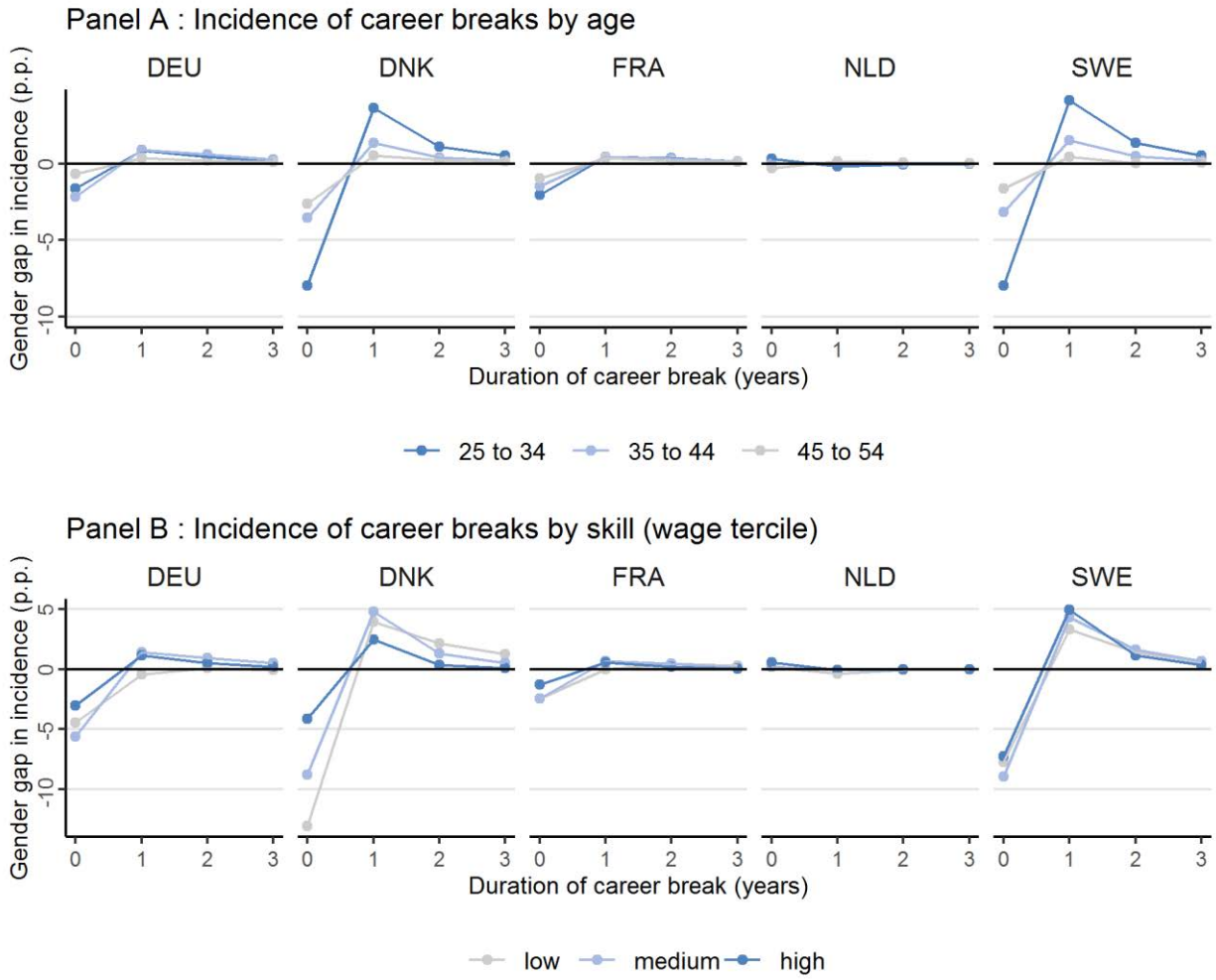
For each of the countries considered, women aged 25-34 tend to be more likely than men to experience a non-employment spell of one or more years, while gender differences between older workers tend to be negligible (Figure 5.1, Panel A). While non-employment spells may reflect many factors, the difference between women and men for workers aged 25-34 is likely to be driven by mothers who take a career break following childbirth.

5.1.1. Career breaks are most common along low-skilled women in Germany

In Germany, the gender gap in career breaks is modest, similar to the level observed in France (Figure 5.1). Career breaks are considerably more common in Denmark and Sweden and tend to last longer, while career breaks in the Netherlands are rare (or are more equally shared between men and women). Among women aged 25-34, low and middle skilled women are more likely to take a career break in Germany and Denmark than more skilled women. This may reflect different factors including the opportunity costs of not working which are more important for high-skilled women.

Figure 5.1. Career breaks in Germany are most common among young women with low skills

Gender gap in the incidence of non-employment spells by duration, age and skill, mid-2000s to mid-2010s



Note: Reference period: 2002-18 for Germany (full-time and part-time workers); 2010-19 for the Netherlands; 2002-18 for France; 2001-17 Denmark; 2002-17 for Sweden. Skill groups are defined in terms of terciles of the wage distribution by gender and year of birth.

5.2. The short-term wage effects of career breaks

Career breaks could have important implications for the earnings of women as well as their longer-term professional careers. Earnings losses may result from either a reduction in working time as women move into part-time work following a career break or a reduction in the hourly wage due to their slower upward mobility within firms or their sorting into lower wage firms.

5.2.1. Career breaks carry considerable earnings losses in Germany due to lower hourly wage growth as well as the shift to part-time work

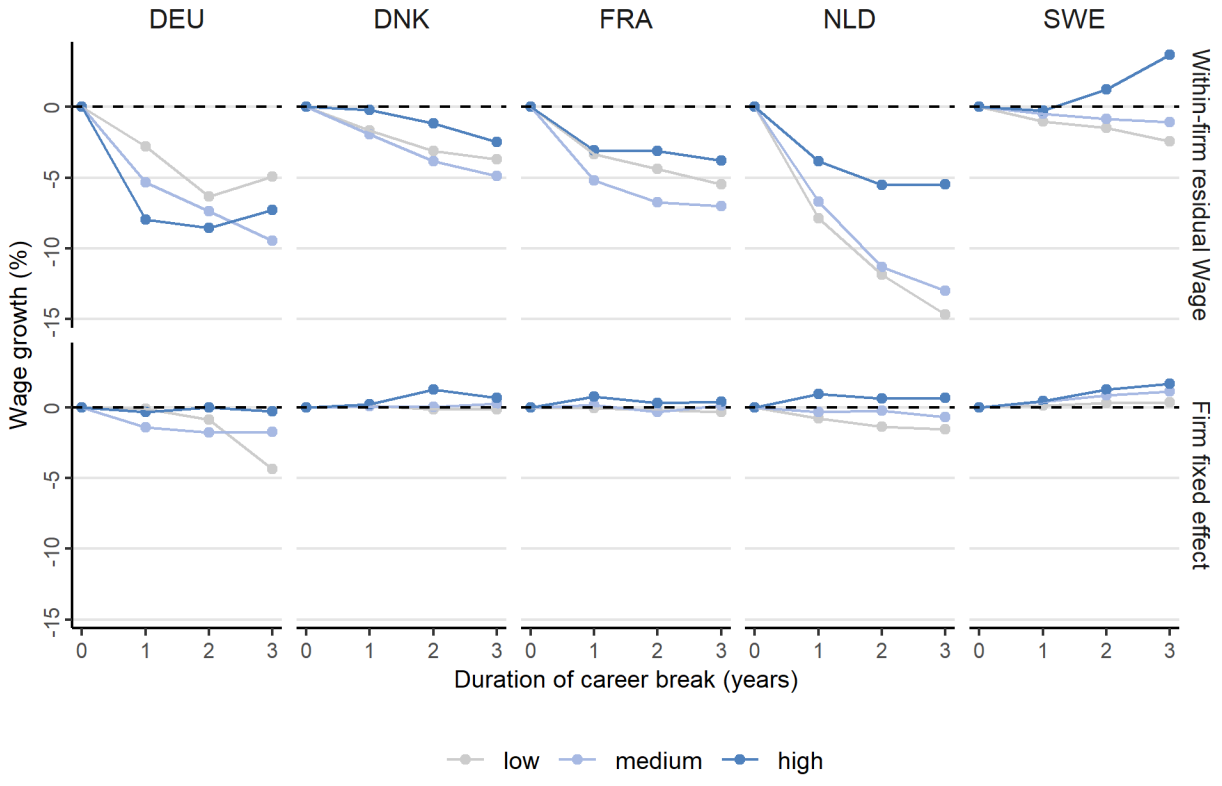
Career breaks slow earnings growth within firms (Figure 5.2, top panel). The evidence suggests that hourly wage losses due to missed experience or human capital depreciation in Germany are sizeable and amount to about 5% for career breaks of one year, roughly in line with previous findings in Boll and Leppin (2015[49]). There is a quite bit of variation in the size of wage losses across the benchmark countries – partly due to

the role of small sample sizes in some countries –, with larger wage losses observed in the Netherlands (where career breaks are rare) and smaller wage losses in Denmark, France and Sweden. In part, these differences are likely to reflect the likelihood with which women move to part-time work following career breaks. Part-time among mothers with children (0-14 years old) is much more common in the Netherlands (50%) than in Sweden (9%), Denmark (9%) and France (15%) (OECD, 2022[16]). When allowing for changes in working time in Germany, earnings losses are substantially larger, particularly for low and medium-skilled workers (Box 5.1). This suggests that many lower and medium-skilled workers do not return to full-time work after a career break.

There is some indication that low-skilled women move to lower-wage firms following a career break in Germany (bottom panel). Previous work for Germany by Bruns (2019[34]) suggests that the effects of sorting following *childbirth* may be even more significant, accounting for a quarter of the long-term w*age* penalty associated with motherhood. The present analysis may only capture the effects of sorting to a limited extent as many of the women sorting into lower-wage firms in Germany may do so without taking a career break, while many of the women taking a career break may actually return to their previous employer. In other countries, there is little evidence that career breaks lead to the sorting of women into lower wage firms.[6]

Figure 5.2. Career breaks tend to be associated with significant wage losses

Percentage change in wages conditional on potential experience and education by career break length and skills, mid-2000s to mid-2010s



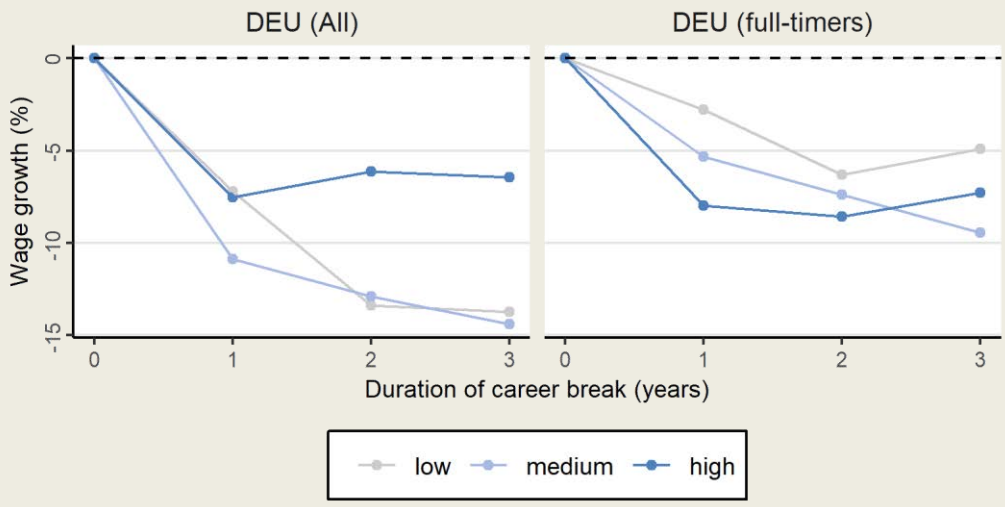
Note: Germany: full-time women aged 25 to 34. Reference period: 2002-18 for Germany 2010-19 for the Netherlands; 2002-18 for France; 2001-17 Denmark; 2002-17 for Sweden.

Box 5.1. The short-term earnings losses of career breaks in Germany

Career breaks may lead to earnings losses because of their implications for wage growth but also because women switch to part-time following a career break to facilitate combining work and child-care responsibilities. To shed some light on this issue, the analysis for Germany is repeated for all workers, including those working part-time, and compared with that for full-time workers as in the main text (Figure 5.3). This suggests that within-firm earnings losses are considerably larger when taking account of changes in working time, particularly among low and medium-skilled women. While the short-term earnings associated with career breaks for high-skilled women amount to about 5%, for low and medium skilled women, these are around 10%.

Figure 5.3. The short-term earnings losses of career breaks

Percentage change in wages conditional on career break by skills



Note: Women aged 25 to 34 – DEU (full-timers): full-time workers only DEU (All): full-time and part-time workers.

5.2.2. Both policies and institutions and social norms are likely to shape the incidence and nature of career breaks

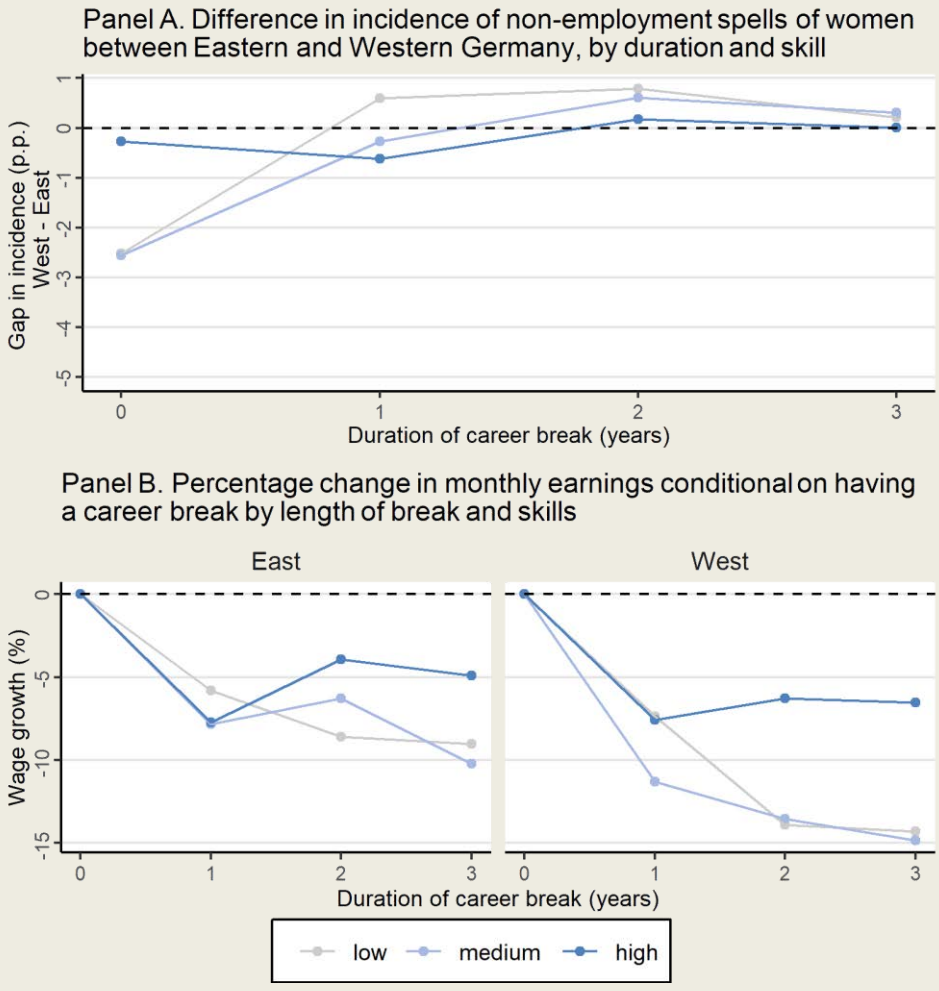
Further analysis based on a larger sample of countries documented in OECD (2021[1]) reveals large differences in the incidence and duration of career breaks across Eastern, Northern, Western European countries, which suggest that family policies such as child-care, parental leave, working-time regulations, but also the broader institutional set-up in relation to for example employment protection and collective bargaining have a significant impact. However, these cross-country patterns may also in part reflect deeply engrained cultural differences between countries in the form of social norms. For instance, traditional gender norms, which favour a predominantly female provision of care work, are substantially more common among men and women in Germany than in Sweden and the Netherlands (Grunow, Begall and Buchler, 2018[50]) and particularly so in Western Germany (Bauernschuster and Rainer, 2011[51]).[7] Career breaks around motherhood are more widespread in Western Germany and associated with larger earnings losses (Box 5.2). The importance of social norms suggests that family policies need to be complemented with other policies that can help foster gender-friendly social norms (e.g. school interventions).

Box 5.2. Gender norms and career breaks: A comparison of Eastern and Western Germany

Enduring differences in social and cultural norms between the eastern and western parts of Germany are a well-documented aspect of German society. For example, Bauernschuster and Rainer (2011[51]) show that, in 2008, almost 20 years after reunification, individuals in eastern Germany hold significantly more egalitarian gender attitudes than their western counterparts. These differences have been found to contribute to the motherhood penalty, which is particularly acute in western Germany (Collischon, Eberl and Reichelt, 2020[52]).

Career breaks are more common in western Germany and have potentially more significant consequences for earnings (Figure 5.4). The difference in career breaks is particularly pronounced among low- and medium-skilled women, while the gap is negligible for high-skilled women. Earnings losses also tend to be more pronounced in Western Germany due to the tendency of women to switch to part-time work after returning from a career break, particularly among low and medium skilled women.

Figure 5.4. Career breaks around motherhood are more widespread in western Germany and associated with larger earnings losses



Note: All women aged 25 to 34 including part-time. Eastern and Western Germany are defined using the place of work. Reference period: 2002-18 for Germany.

6 Policy implications: Combatting the gender wage gap

Germany has a lot to gain from achieving a better balance in wages between men and women, particularly if this involves increased wages for women. Higher wages for women can contribute to more balanced labour market participation, improve families' finances, generate higher national income and foster new innovative ideas (OECD, 2021[53]). A smaller pay gap, especially if it means more equal wage contributions within families, could also lead to further social benefits, including lower health inequalities and rates of partner violence (OECD, 2021[54]).

Going forward, Germany should keep up progress to achieve equal pay for work of equal value by men and women. The wage gap in Germany has decreased roughly at the same pace as that across OECD countries (OECD, 2021[55]) and without faster improvements, the country is unlikely to catch up with leading countries in the field, such as Sweden. Germany should consider strengthening the policy package that is needed to ensure that this gap continues to narrow, focusing especially on gender mainstreaming in education and training, public policy to cushion the arrival of children and gender-sensitive labour market policies.

6.1. Continue to support gender mainstreaming in education

Gender imbalances in educational pathways form and reinforce differences in specialisation that later in life mean than men and women tend to work in different sectors that are associated with different wage premia. Although young women in OECD countries on average are more likely than young men to obtain higher educational attainment, women are still overrepresented in lower-paid sectors like health, education and welfare whereas men are more likely to work in higher-paid sectors such as science, engineering and ICT (OECD, 2021[5]). Taking a long-term perspective on gender wage gaps, education policy today can help men and women spread more evenly across the labour market in future. Two potentially useful measures to take are to continue the long-term work to balance education paths and provide short courses for returnees from career breaks (Doerr, 2022[56]; Icardi, 2021[57]).

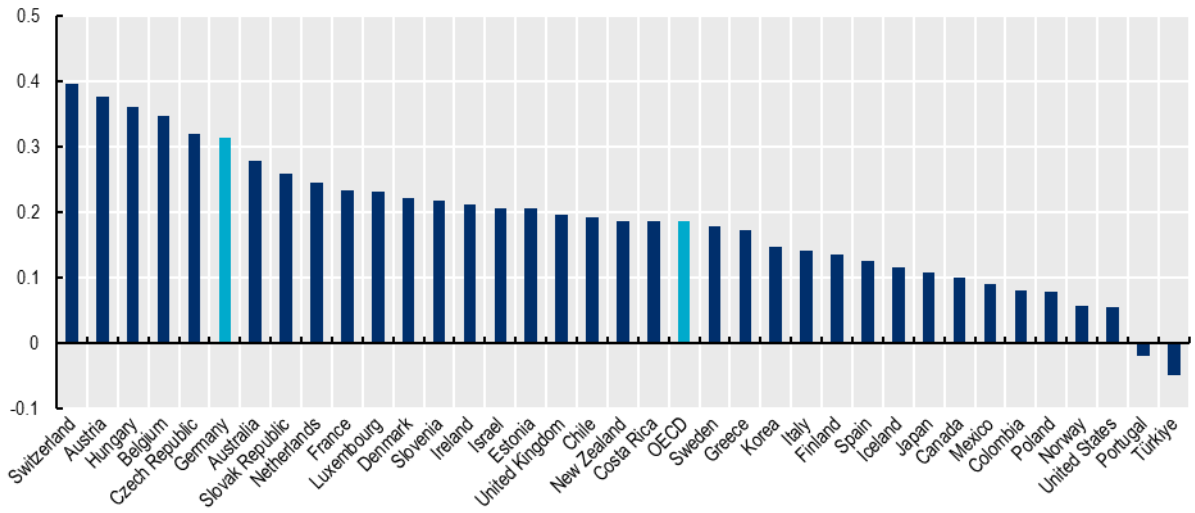
6.1.1. A greater gender balance in education paths

Interventions to achieve a greater gender balance in education paths should start in early childhood, before clear gender norms have formed. Educational choices for the most part are related to attitudes rather than aptitude (OECD, 2015[6]). Indeed, according to the OECD's PISA results, girls outperform boys in reading (by 26 points) and science (by 1 point) in Germany, but boys outperform girls in maths (by 7 points) (OECD, 2019[58]). These differences sharpen in later life as students specialise. The majority of German students who graduated in a STEM subject in 2019 was male (82%) whereas men made up only a minority among graduates in education (19%), health and welfare (22%). These differences in Germany are roughly in line with OECD-wide averages.

Parental expectations may in part explain these differences in specialisations. Breda et al. (2020[59]) consider whether mathematics is viewed by parents as a more appropriate educational and career choice for their sons than for their daughters. The authors consider the difference in the share of boys and girls who report in the OECD PISA survey that "[their] parents believe that math is important for [their] career", correcting for their math performance. In Germany, the gap between boys and girls is 0.31, compared to the smaller gap of 0.19 OECD-wide (Figure 6.1).

Figure 6.1. Thinking that boys need maths more than girls is comparatively common in Germany

Gender gap (boys – girls) in response to "My parents believe that math is important for my career", conditional on math performance

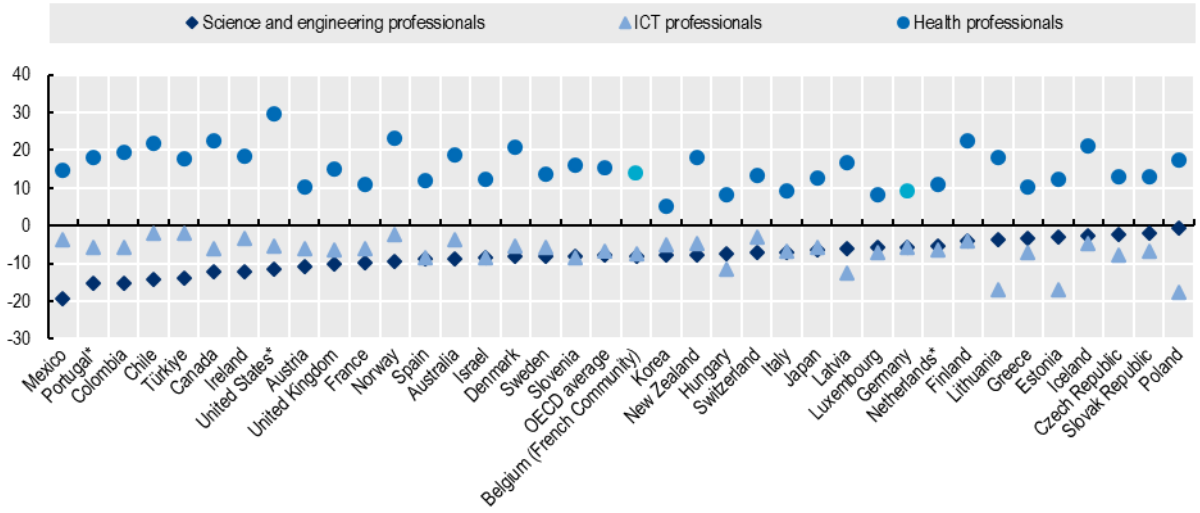


Note: Data for Portugal and the Republic of Türkiye are not statistically significant. OECD is the simple cross-country average. Regressions are done country by country, and systematically include a variable accounting for math performance whose estimated effect is given in Table S1. All variables are standardised to have a weighted mean equal to 0 and a weighted standard deviation equal to 1 in each country. Estimates and standard errors involving measures of ability are based on plausible values and account for measurement error in these abilities on top of standard sampling error. See section "Country-Level Variables Computed from PISA Items" of this SI for more details.
Source: Table S2 in: Breda et al. (2020). Gender Stereotypes Can Explain the Gender-Equality Paradox, IZA Discussion Papers. URL: https://docs.iza.org/dp13904.pdf.

Aged 15, girls and boys in Germany have rather similar expectations of the sectors they will work in when they are older, compared with other OECD countries (Figure 6.2). Career expectations in teenage years are an important predictor of future adult jobs and earnings potentials (Mann et al., 2020[60]; Phair, 2021[61]), and a valuable indicator on the norms and plans of the latest cohort of young people. In Germany, just 6 percentage points more boys than girls expect to work in the typically male-dominated fields of science and engineering professionals and ICT professionals whereas the gap is 8 percentage points and 7 percentage points, respectively, across the OECD. Germany has performed even better when it comes to expectations to work in the health sector, with only 9 percentage points fewer boys than girls expecting to work in this sector, compared to 15 percentage points across the OECD.

Figure 6.2. Expected career sectors are relatively similar between girls and boys in Germany

Percentage point gender gap (girls – boys) in proportion of 15-year-olds expecting to work in selected occupations



Note: * The Netherlands, Portugal and the United States: Data did not meet the PISA technical standards but were accepted as largely comparable.
Source: PISA Results 2018, table II.B1.8.19.

Changing social norms that affect educational choices takes time and Germany should continue to build on its long-term efforts to balance gender imbalances in education, including the National Pact for Women in STEM. Between 2008 and 2021, the Federal Ministry of Education and Research funded changing projects in the funding line "Success with STEM – New Opportunities for Women" (Komm mach MINT, 2021[62]). While the funding stream of the programme has ended, the dedicated website "Come, do STEM" ("Komm mach MINT") remains active. It will continue to help bring together information about STEM careers and opportunities to encourage more young women to take scientific and technical paths in education. (Komm mach MINT, 2021[62]). It is encouraging that the newly founded MINT Networking Office Germany (MINTvernetzt), set up by a network of actors (including the Körber Foundation, the Stifterverband, matrix GmbH, the University of Regensburg and the National MINT Forum) will continue to promote similar work. The aim of the new Networking Office remains to contribute to successful STEM education in Germany and place a special emphasis on the promotion of girls and women in STEM professions (Mintverbund, 2022[63]).

6.2. Use public policy to cushion the uneven impacts of the arrival of children

Gender-sensitive public policies can be used to cushion the impact on the gender wage gap of the arrival of children that is illustrated by the analysis in this report. A key analytical insight is that the wage gap between similarly skilled men and women in Germany and beyond to a large extent arises because women are more likely to be responsible for lower-paid tasks within firms than men. These wage gaps also rise around the time children arrive in families, which is typically associated with a specialisation in tasks in families in Germany. The motherhood wage penalty reflects the unequal sharing of household responsibilities between parents, whereby women take on more unpaid work than men and correspondingly draw down hours spent in paid work. This unequal sharing of paid and unpaid work highlights the importance of gender-sensitive family policies that support families until children are independent during the working day, including parental leave, Early Childhood Education and Care (ECEC) and Out-of-School-Hours (OSH) services.

6.2.1. Continue policy reform to encourage more equal uptake of parental leave

Overall, more women than men make use parental leave allowances across the OECD, and Germany is no exception. Splitting parental leave more equally between partners can have the effect of setting a precedent for more equal sharing unpaid work in the household for an extended period of time when children are young. This allows more parents, and especially mothers, to return to work and to full-time work quicker after child-related career breaks. If more women and men share responsibilities for paid and unpaid work more equally while children are young, similarly skilled mothers and fathers are more likely to see similar wage developments in their 30s and 40s, which in turn will contribute to narrowing gaps in wages.

Keep monitoring outcomes from upcoming efforts to balance parental leave use

Germany's generous and flexible parental allowances support long absences from the labour market and long periods of part-time work as children grow older, but households do not yet achieve a gender balance in uptake of allowances. Maternity leave lasts for 14 weeks and is paid at a 100% earnings-replacement rate. The coalition agreement complemented this by announcing the plan to introduce 2 weeks of paternity leave paid at 100% and immediately following the birth of a child (in line with EU legislation, see European Parliament (2019[64]). Maternity and paternity leave are combined with employment-protected leave and financially supported by two kinds of Parental Allowance (*Basiselterngeld* and *ElterngeldPlus)*. The basic Parental Allowance is paid at 65% of the difference in earnings before and after the arrival of a child (capped at EUR 1 800 per month) and provided for 12 months whereas the alternative Parental Allowance Plus can be paid for twice as long, while capped at half the rate (Federal Ministry for Family Affairs, 2019[13]). Although increasing shares of fathers take some leave, there are still wide gender gaps in the uptake of leave allowances.

The Parental Allowance has an element of non-transferability that is helpful to encourage more fathers to take up parental leave. Since 2007, the Parental Allowance can be extended by two bonus months if both parents take leave, which effectively establishes two months of non-transferable paid leave. Following this change, German fathers almost doubled their uptake of parental leave entitlements; by 2018, 40 fathers for every 100 live births were taking some leave (Destatis, 2021[11]).

There are already further policy developments on the horizon in this area in that the partner extension to Parental Allowance will be increased from two months to three months under the new coalition government (Die Bundesregierung, 2021[12]). Germany is not alone in incorporating non-transferability elements of around three months. For instance, in Sweden each parent receives 195 days of parental allowance per child (followed by 45 days at a lower replacement rate). Each parent can transfer some of their days to the other, but must retain 90 days for themselves (European Commission, 2021[65]). An increasing, albeit still small, share of couples balance their parental leave equally: one-fifth (19.3%) of parents to children born in 2018 split their allowance days equally (40/60 split), doubling from one-tenth (9.5%) of parents to children born in 2005 (SCB, 2021[66]). In Germany, the planned increase in non-transferable months is encouraging but it remains to be seen whether the move will affect the sharing of parental leave between men and women, in particular in terms of the length of leave taken by each parent.

Achieve a more balanced use of extended parental leave combined with part-time work

Germany's flexible Parental Allowance Plus scheme allows for extended periods of parental leave when combined with some earnings from paid work after the child is born, but since mothers make up the large majority of Parental Allowance beneficiaries this flexibility may actually contribute to sustaining the motherhood wage penalty. Germany has incorporated flexibilities within its Parental Allowance Plus scheme that allow parents to take twice as long a parental leave when combining parental leave allowance with earnings from some part-time work (as long as the earnings after the child is born are lower than

earnings received prior to having the child) (Federal Ministry for Family Affairs, 2019[13]). This means that rather than 12 months of full-time leave per child, parents can take up to 24 months of parental leave on a part-time basis when they are receiving some part-time earnings (excluding bonus months). More could be done to encourage mothers and fathers to evenly share the increased burden of unpaid work associated with raising children (OECD, 2017[3]). A priority should be to make Parental Allowance Plus more gender sensitive by encouraging a more even gender split in uptake. To this end, Parental Allowance Plus could be reformed to allow for a higher wage replacement, but for a shorter period of time. The higher wage replacement would financially enable primary earners to take up the support without forgoing as much income. The shorter period, and any additional take-up by fathers, would also help to enable mothers to increase their working hours sooner after the arrival of children and ensure that neither mothers nor fathers end up on the back foot in their workplaces.

Germany has already taken some policy measures to smooth the transition from part-time work to full-time work. The "bridging part-time legislation" offers the guarantee to return to full-time work after a given period of time and therefore makes it a more predictable form of employment (see Federal Ministry for Family Affairs (2020[14])). The new coalition government aims to simplify the administration process for take-up, but the implementation of this and any potential effects remain to be seen (Die Bundesregierung, 2021[12]).

Transitioning from parental leave to the labour market could also be facilitated by improving the offer of training schemes and career advice. Having spent one or more years out of the labour market, it can be daunting to return if the mode of work and the topics of interest have changed. Short-term courses can help bring parents up to speed to assist them in endeavours to change careers (Box 6.1).

Box 6.1. Provide upskilling and reskilling courses for those returning from parental leave

Lifelong learning provisions can help encourage adults to keep up learning as and when it could benefit them, especially by ensuring that parents returning from parental leave have the reskilling and upskilling opportunities to work in high-paying and growing sectors. Short training courses can build on existing knowledge to help returnees into STEM and other high-paying sectors and sectors with skills needs. They could also help encourage career progression among returnees by equipping them with any qualifications necessary to take on managerial positions (OECD, 2019[67]; OECD, 2020[68]).

Germany has previously run programmes that support training needs and career advice. Between 2009 and 2021, the federal programme "Perspective Re-entry", funded through the European Social Fund 2007-20 programming period, supported primarily women to return to work after child-related career breaks. It was run jointly by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth in co-operation with the Federal Employment Agency (Federal Ministry for Family Affairs, 2021[69]). Around 17 000 participants have benefited from the programme and almost 65% of those returned to or were activated for the labour market (Federal Ministry for Family Affairs, 2021[69]). The ESF Plus programming period 2021-27, currently taking funding proposals, is a funding opportunity to renew efforts to continue a similar programme, building on successes from previous years (Katharina Diener, 2015[70]).

Any such programme should be part of a broader and more systematic approach to career guidance, skills validation and partial qualifications that simplifies the process of taking part in lifelong learning (OECD, 2021[71]). It is therefore encouraging that the new coalition government pledges to focus on the recognition of informal training and competences and to close any funding gaps that exist in the system (Die Bundesregierung, 2021[12]).

Going further, there could be more of a coherent strategy for training guidance. Although many federal states already have specific guidance offers for women, it is not yet done on a nation-wide scale (OECD, 2021[71]). The German lifelong learning landscape is currently complex and fragmented, which makes it challenging for "mother and father returners" who are considering upskilling or reskilling for higher paid roles to know which occupations to train for, understand what training is available to develop the relevant qualifications for those roles, and access any available funding to be able to undertake the training. Coming out of training, it can also often be difficult to have existing skills recognised towards their new desired occupation (OECD, 2021[71]).

A complementary approach is to use lifelong learning provisions to encourage adults to keep up learning as and when it could benefit them, especially by ensuring that parents returning from parental leave have the reskilling and upskilling opportunities to work in high-paying and growing sectors. Short training courses can build on existing knowledge to help returnees into STEM and other high-paying sectors and sectors with skills needs. They could also help encourage career progression among returnees by equipping them with any qualifications necessary to take on managerial positions (OECD, 2019[67]; OECD, 2020[68]).

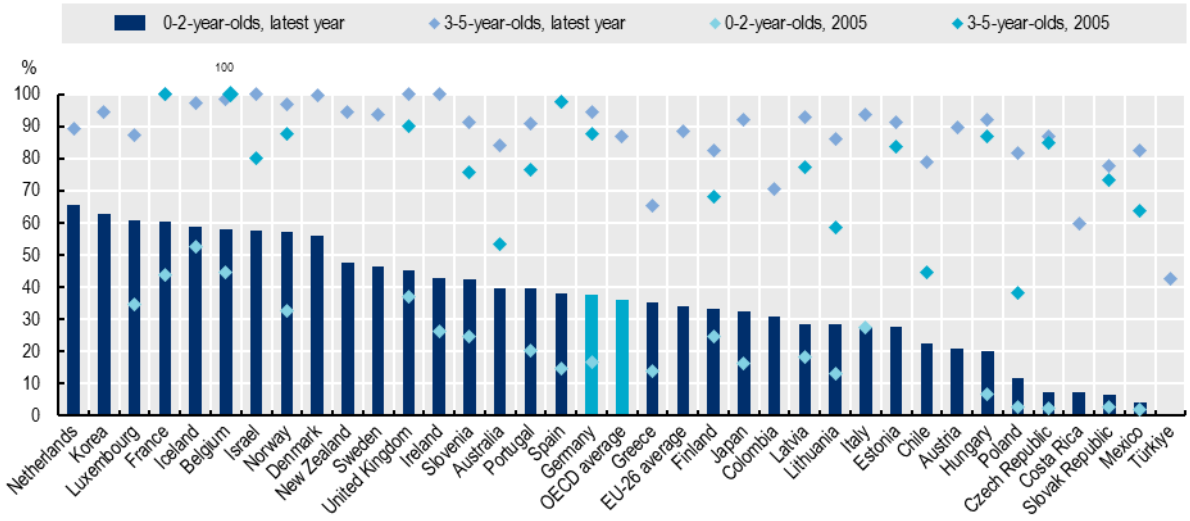
6.2.2. Maintain progress on provision of ECEC services for the youngest children

While families enrol most of their older pre-school age children in ECEC services, children under the age of three are least likely to use these services. If parents are to commit to paid work after parental leave, they need to be supported by high-quality, extended-hours ECEC. It is therefore encouraging that almost all 3-5 year-olds (94%) were enrolled in some type of service in 2018. This can be compared to the lower figure of 87% OECD-wide (Figure 6.3). However, the proportion attending ECEC is lower for younger children. Only 38% of 0-2 year-olds in Germany were enrolled in ECEC in 2018. This is similar to the OECD average (36%) but significantly lower than leading countries like the Netherlands (66%), Korea (63%) and Luxembourg (60%) (Figure 6.3). Although the proportion of young children enrolled in childcare was still lagging behind OECD averages in 2018, the country has made significant strides since 2005 when only 17% of 0-2 year-olds were attending ECEC services (Figure 6.3).

Although the proportion of 0- to 2-year-old children attending childcare services is broadly in line with the average across the OECD, far from all children spend their full day in ECEC. In Germany, children spend on average 32.2 hours per week in ECEC, which is shorter than in countries such as Latvia, Portugal and Iceland where children spend more than 38 hours per week on average (Figure 6.4). There are also considerable regional differences whereby more children in the eastern part of Germany are enrolled in full-day ECEC (Destatis, 2022[72]).

Figure 6.3. Enrolment has increased for the youngest in Germany, but is still lagging somewhat

Percent of children enrolled in ECEC services or primary education, 0- to 2-year-olds and 3- to 5-year-olds, 2005 and 2019 or latest available year

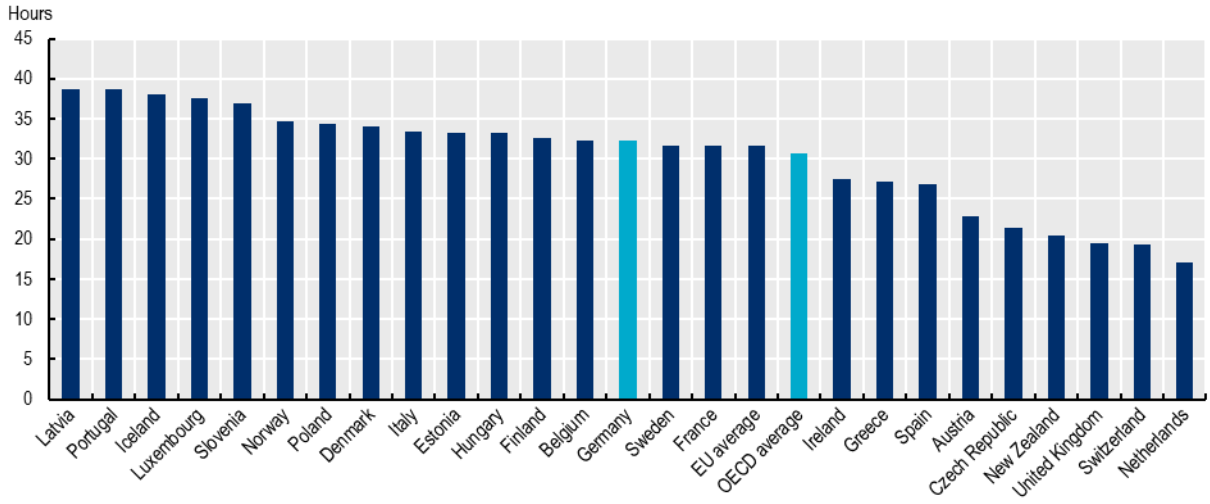


Note: Data points for 2005 have been excluded for countries with missing data. For 0-2 year-olds, data generally include children enrolled in early childhood education services (ISCED 2011 level 0) and other registered ECEC services (ECEC services outside the scope of ISCED 0, because they are not in adherence with all ISCED-2011 criteria). Data for Denmark, Finland and Spain, refer to 2018 and includes only early childhood education and care (ISCED 0). For 3-5 year-olds data refers to 2018, except for Greece, New Zealand, and Poland where they refer to 2017. Data include children enrolled in early childhood education and care (ISCED 2011 level 0) and primary education (ISCED 2011 Level 1). For Greece, data include only part of the children enrolled in early childhood development programmes (ISCED 01). Potential mismatches between the enrolment data and the coverage of the population data (in terms of geographic coverage and/or the reference dates used) may affect enrolment rates. For details on the ISCED 2011 level 0 criteria and how services are mapped and classified, see OECD Education at a Glance 2020 Indicator B2 (http://www.oecd.org/education/education-at-a-glance-19991487.htm).

Source: For Belgium, the Czech Republic, France, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, the Netherlands, Poland, the Slovak Republic and the United Kingdom (2018) OECD estimates based on EU-SILC. For all other countries, OECD Education at a Glance 2020: OECD Indicators.

Figure 6.4. Not all children enrolled in ECEC spend their full days there

Average usual weekly hours for children using early childhood education and care services, 0- to 2-year-olds, 2019 or latest available

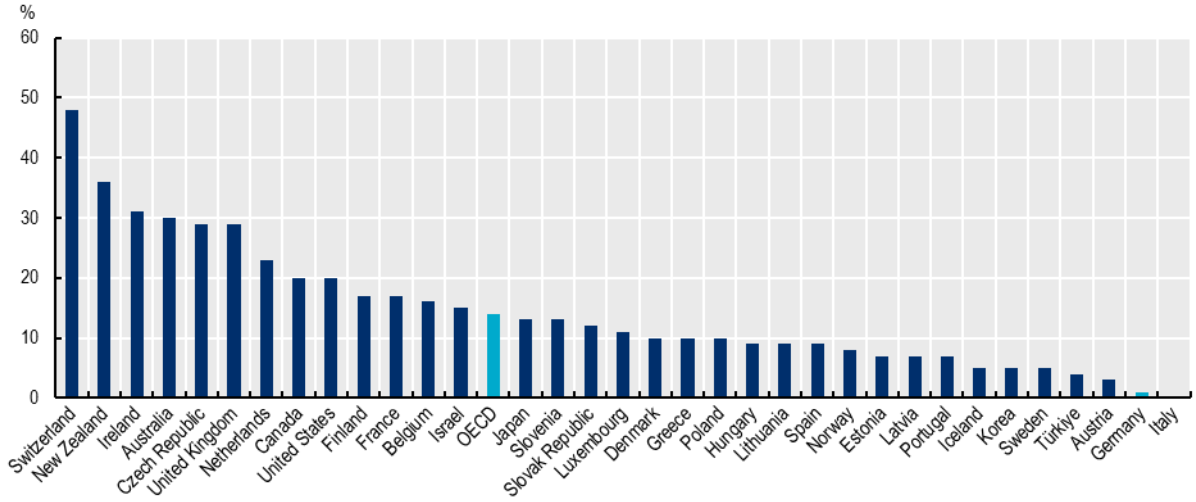


Note: Data for New Zealand refer to 2014, for Hungary to 2017, and for the Czech Republic, Iceland and the United Kingdom to 2018. Data are OECD estimates based on information from EU-SILC. Data refer to children using centre-based services (e.g. nurseries or day care centres and pre-schools, both public and private), organised family day care, and care services provided by (paid) professional childminders, regardless of whether or not the service is registered or ISCED-recognised. For some countries and in some years, sample sizes can be small. Estimates based on fewer than 50 cases have been removed. For New Zealand, data cover children using licensed centre-based (e.g. 'Education and Care' services, Playcentres, Kōhanga Reo, Kindergartens) and home-based services, only. All non-licensed care is excluded regardless of whether it is paid or unpaid. Data on average hours of attendance refer to a mix of the actual hours attended by enrolled children scheduled to attend during a specific reference week and the actual hours of attendance by children who actually attended during a specific reference week.
Source: For New Zealand, OECD questionnaire. For all other countries, OECD estimates based on EU-SILC.

Capacity rather than affordability continues to be an issue. Broadly in parallel with parental leave reform, German family policy has moved in the direction to provide an effective system of continuous support to families in terms of a comprehensive ECEC system since the mid-2000s. It is helpful that centre-based net childcare costs for German parents are the lowest across the OECD only after Italy Figure 6.5. However, a growing gap between demand and supply in early childhood education and care spaces will hamper the ability of both parents to return to full-time employment after the period of parental leave. It appears that the growing supply of childcare places for under-3-year-olds has not kept up with increased demand over the past 5 years (Geis-Thöne, 2020[17]; OECD, 2017[3]).

Figure 6.5. Net childcare costs in Germany are among the lowest in the OECD

Net cost of childcare for a two-earner couple on average wage with two children



Note: Data refers to 2021 for Australia, Canada, Israel, Korea, Switzerland, Türkiye, and to 2018 for New Zealand. Net childcare costs refer to costs after childcare benefits, tax credits and other benefits.
Source: OECD Net childcare costs for parents using childcare facilities, https://stats.oecd.org/Index.aspx?DataSetCode=NCC.

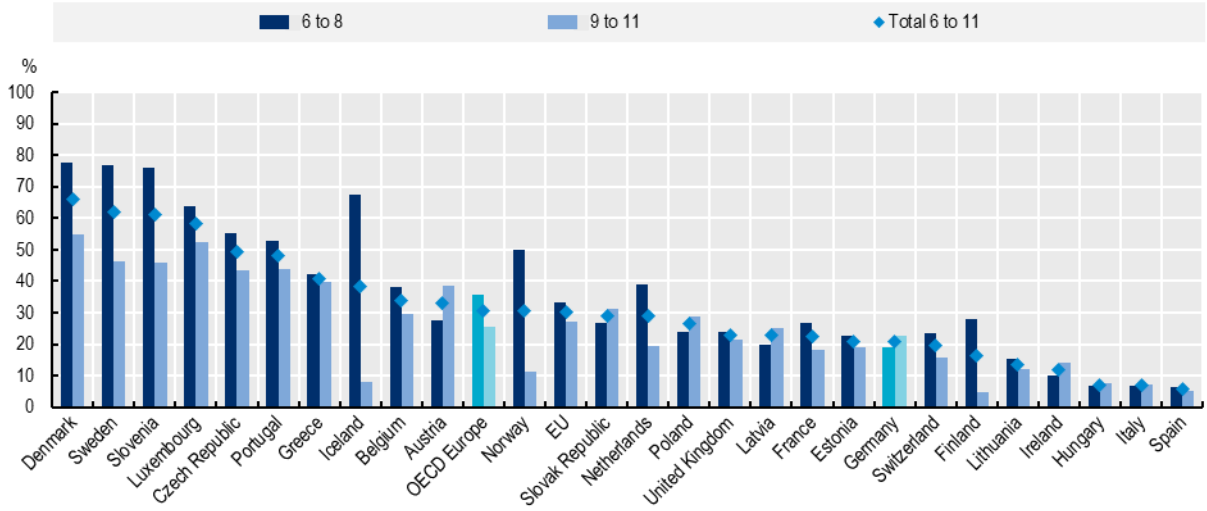
It is important that Germany continues its work to increase provision in line with demand so that parents are able to return to full-time work as soon as they wish to. There is an opportunity for Germany to do more to increase the supply of childcare places in areas where they are most needed (see for instance OECD (2017[3])). As a secondary benefit, expanding provision to more children would also present an opportunity to recruit more men into the childcare and education sector (OECD, 2019[18]).

6.2.3. Extend the option of out-of-school-hours services to all school-age children

The ability of parents to sustain family life with two full-time working adults depends on reliable out-of-school-hours (OSH) services that provide care for children on hours not covered by the school curriculum, but relatively few children use these services in Germany (Figure 6.6). Smooth and affordable OSH service provision becomes even more important in countries where the school day is short. In Germany, the school day for young children typically only covers the morning and children are often expected to eat lunch at home. In the absence of OSH services, these short days require more unpaid work from parents compared to countries with longer school days where children eat in school. It is therefore especially concerning that OSH provision is lagging behind OECD averages in Germany: only 21% of 6- to 11-year-olds in Germany attended centre-based OSH services in 2019, compared to 31% in OECD. This figure is considerably below the attendance in leading countries like Denmark (66%), Sweden (62%) and Slovenia (61%) (Figure 6.6). The short school days are reflected in the finding that children who do use OSH services tend to stay for more hours per week in Germany compared to the rest of the OECD (Figure 6.7).

Figure 6.6. Enrolment in German OSH-services is below the OECD average

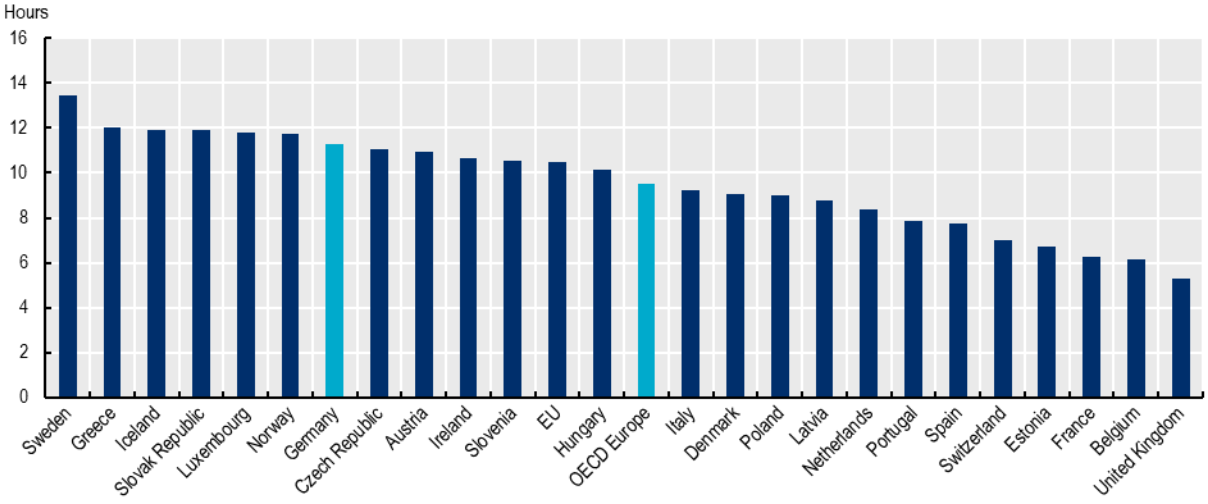
Proportion of 6- to 11-year-olds using centre-based out-of-school-hours (before and/or after school) services during a usual week, by age group, 2019 or latest



Notes: Data for Iceland and the United Kingdom refer to 2018. Data generally reflect the proportion of children who use centre-based out-of-school-hours services for at least one hour during a usual week, cover the use of services offered before and/or after school hours only, and do not cover 'school-going' children who use centre-based services only during school holidays or only on days when schools are closed. Exact definitions differ across countries.
Source: For all countries, EU SILC.

Figure 6.7. Children who do use OSH-services stay for longer than average in the OECD

Average hours in centre-based out-of-school-hours care services during a usual week among those using at least one hour during a usual week, 6- to 11-year-olds, 2019



Note: Data for Hungary, Iceland and the United Kingdom refer to 2018. Data cover children who use centre-based out-of-school-hours care services for at least one hour during a usual week. Data cover the use of services offered before and/or after school hours only, and do not cover "school-going" children who use centre-based care services only during school holidays or only on days when schools are closed.
Source: For all countries, EU SILC.

6.2.4. Strengthen financial incentives for second earners in couple family to increase working hours

Although the wage gap between similarly skilled men and women increases rapidly around the age when children arrive, considerable wage gaps remain into later working lives. These are linked with significant gaps in hours worked between similarly skilled men and women that grow around the age families have children and remain large through to older ages (as opposed to slight recoveries observed in countries like Denmark).

There are elements in the Tax-Benefit system in Germany that support a “one-and-a-half-earner model” of family income. The system means that the financial incentives to work more hours are greater for the higher-earning partner than the lower-earning partner. Married couples and civil partners can file their taxes together, with joint liability for the aggregated income of the couple (“Ehegattensplitting”). The result is that the couple can jointly be taxed at a lower marginal rate than they would have been if the higher-earner partner had filed taxes on their own (due to progressive tax schedules). If there are large differences in earnings, joint liability reduces the overall tax payment but increases the marginal tax rate for the lower-earning partner (Bachmann, Jäger and Jessen, 2021[19]).

The joint taxation of income with spousal splitting leads to a significantly higher burden for second earners compared to individual taxation. When labour income of couples is sufficiently different between the spouses, the tax filing system that optimises household income allocates the basic tax-free allowance for which no income tax has to be paid to the higher earner. While this yields an overall tax burden that is lowest for the household, the spouse with lower earnings faces a disproportionate share of the tax burden. This is the case because the spouse with lower earnings pays income tax on even low earnings and reaches higher tax bracket thresholds earlier, leading to higher marginal and effective tax rates for the second earner. To illustrate this point, for a taxable income of EUR 45 000 per year, which after standard deductions corresponds to the average income of (male) full-time employees in 2020 (Statistisches Bundesamt, 2021[73]), the first earner pays a marginal tax rate of just over 27% and an average tax rate of just under 13% on their taxable income. For the second earner in this couple, starting at a taxable income of EUR 8 000, the marginal and average tax burden rises steeply. With an annual gross wage of EUR 20 000 to 35 000, which corresponds to the range of most second-earners, the marginal tax rate is consistently 42%, while the average tax rate is between 20% and 30% (Bach, Haan and Wrohlich, 2022[74]). This has been identified as an important reason for the relatively low volume of work of married women in Germany (Blömer, Brandt and Peichl, 2021[75]).

While the Tax-Benefit system does not explicitly target women as second earners, female working spouses are disproportionately considered as such. Since female spouses’ earnings tend to be lower than their male counterparts’, many families face lower incentives to plan for wives working full-time work (OECD, 2017[3]). There are several reasons for this. First, age gaps in relationships often mean that female spouses have been working for a shorter period of time than their partners and therefore tend to be the lower-earning spouse (Schmidt and Stettes, 2021[76]; OECD, 2017[3]). Second, women are still allocated the heaviest burden of unpaid work in the household (OECD, 2021[77]). Third, cultural beliefs that men and women should engage in separate spheres according to a traditional breadwinner-homemaker model are still prevalent (albeit waning) in Germany, and especially in western Germany (Grunow, Begall and Buchler, 2018[50]).

The new government has announced plans to reform the joint taxation system, but effects are yet to materialise. The coalition agreement spells out the intention to remove the current option of being able to transfer the basic tax-free allowance between spouses to avoid these negative consequences for second earners (SPD, BÜNDNIS 90/DIE GRÜNEN and FDP, 2021[78]). The new proposal would still offer benefits for married couples, but distributes them equally with a factor that is calculated based on the share of the income provided by each partner. This will increase the marginal tax rate for main earners and reduce it for second earners. This reform would increase incentives for second earners – mainly women – to enter

the labour market or increase their hours. Modelling of these reforms has pointed out that this is a step in the right direction, but that for incentives to be strengthened further, the splitting model has to be reformed (Bach, Haan and Wrohlich, 2022[74]). It remains to be seen whether these reforms will be sufficient to increase female hours in paid work. To further limit the impact of joint family taxation, Germany could introduce a tax-free allowance unique to second earners and consider reforms to the co-insurance system for spouses of workers (see OECD (2017[3]).

6.3. Ensure gender-sensitive labour market policies with firms at the centre

Gender-sensitive labour market policies centred on the role of firms can play a crucial role for continued work toward narrowing the gender wage gap. Labour market policies with direct influence over the gender wage gap include pay transparency and reporting measures, quotas and soft measures on staffing, gender-sensitive collective bargaining agreements and adequate minimum wages.

6.3.1. Use pay transparency and reporting to share firm-based information

Pay transparency measures have recently gained momentum in policy packages across OECD countries with the aim of reducing persistent gender wage gaps and more specifically raise awareness about systematic pay differences within firms. Most of these policies were introduced in the past decade, and most of this movement took place in Europe, reflecting the 2014 European Commission Recommendation on strengthening the principle of equal pay between men and women through transparency. There are different types of pay transparency measures that could potentially contribute to narrowing gender pay gaps. Of the countries considered in this report, job classification systems are commonly used, although not mandated, in the Netherlands; non-pay reporting of gender-disaggregated information is used in Germany; regular gender pay reporting, without audit is used in Denmark; and regular pay gap reporting with Audits included are used in France and Sweden. Since these instruments have been introduced relatively recently only little is known about their effectiveness and best practice.

Job classification systems is a tool to rank each job within an organisation against objective criteria that relate to observable characteristics of a role, including required skills, effort, responsibilities, working conditions, education and difficulty. It is a systematic and consistent way to determine pay structures and thereby understand individual pay outcomes, and is therefore a foundation for more detailed pay transparency policies. Just under half of OECD countries use job classification systems in the public and/or private sector, and ten countries mandate that job classification systems, when they are used, be gender-neutral (OECD, 2021[23]). This is an attempt to correct for gender biases in job valuations that can exacerbate pay disparities. Gender-neutral job classification systems are often embedded in more detailed equal pay auditing processes, suggesting they may become more widespread if auditing becomes more common.

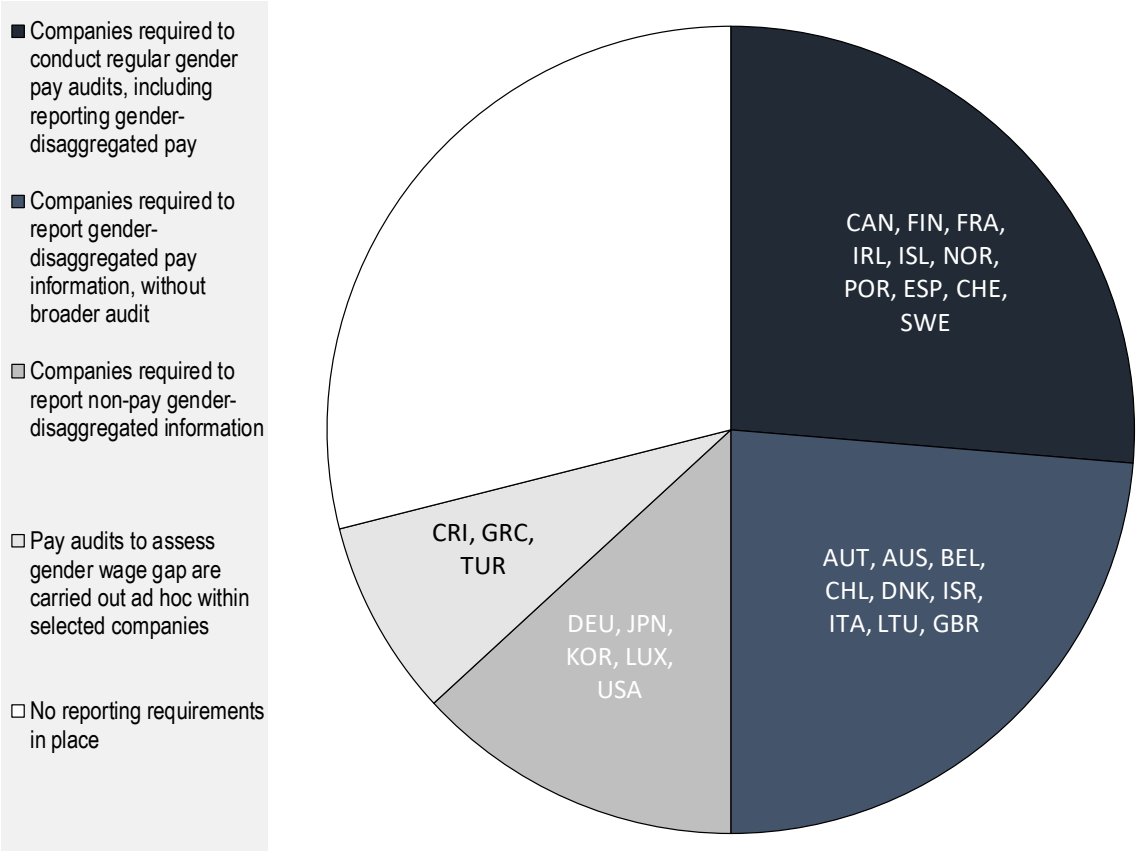
Half of the OECD countries mandate systematic, regular gender pay gap reporting by private sector firms (OECD, 2021[23]). This can entail calculating and reporting a range of different wage gap statistics, including the simple average or median wage gap. These results would subsequently be shared with stakeholders such as workers, their representatives, a government agency, and the public, typically every one or two years. Reporting requirements are typically determined by company size. Mandatory reporting is most common for medium to large companies with 30-50 employees or more. Penalties for non-reporting include restrictions on government tenders, publicly publishing individual firms' publishing history, and the possibility of fines – as is done in for instance France, Denmark and Sweden – but many countries do not closely monitor compliance (OECD, 2021[23]; Ceballos, Masselot and Watt, 2021[21]).

Nine OECD countries have implemented comprehensive equal pay auditing processes (Figure 6.8). Equal pay audits require additional gender data analysis and typically propose follow-up strategies to address

inequalities. Audits typically require an analysis of the proportion of women and men in different positions, an analysis of the job evaluation and classification system used, and detailed information on pay and pay differentials based on gender.

Figure 6.8. Half of the OECD countries mandate systematic, regular gender page gap reporting by private sector firms

Distribution of countries by the presence of regulations requiring private sector pay reporting, pay auditing, or related measures, OECD countries, 2021



Note: The figure shows the distribution of pay reporting measures across OECD countries. Ten countries in which companies meeting defined criteria (e.g. firm size) are required to carry out regular gender pay audits and report disaggregated pay gaps include: Canada, Finland, France, Iceland, Ireland, Norway, Portugal, Spain, Switzerland, and Sweden. Nine countries in which companies meeting defined criteria are required regularly to report gender-disaggregated pay information without a broader audit are Austria, Australia, Belgium, Chile (the financial sector), Denmark, Israel, Italy, Lithuania and the United Kingdom. Countries in which all companies meeting defined criteria are required to report gender-disaggregated data on workforce characteristics but not gender pay gap data are Germany, Japan, Korea, Luxembourg and the United States. Countries in which an ad hoc selection of companies are required to undergo gender pay audits, including as a targeted labour inspection (Costa Rica, Greece, Republic of Türkiye). The remaining OECD countries have no equal pay reporting or auditing system in place.
Source: OECD Gender Pay Transparency Questionnaire (OECD GPTQ 2021).

Build further knowledge of how to maximise the effectiveness of pay transparency policies

Since these instruments have been introduced relatively recently, there are still questions about how best to design pay transparency measures. With this type of policy packages gaining momentum across governments, it will be useful if countries collected data and undertook impact evaluations to understand more about the effectiveness of different instruments and what best practice looks like. Questions that can

be answered include – but are not limited to – the amount of detail that should be reported, to whom the information should be shared, how to best leverage the information in tribunals and courts, and how to streamline processes for firms. Forthcoming OECD work will focus on understanding more about countries' individual reporting requirements and enforcement procedures to continue to evaluate the efficacy of pay reporting measures in order to draw cross-country lessons.

Better inform evaluations of competence and pay using job classification systems

Job classification systems offer a straightforward way to present workers' pay across job functions and can therefore play an important role in informing evaluations of competence and pay by setting measurable standards of work at given wage bands. When combined with detailed pay transparency measures, this tool can make salaries more transparent for men and women across specific job categories. For classification systems to reach their full potential, they should be sufficiently detailed to account for differences in tasks and responsibilities within broad occupational classifications, and consistently introduced across firms of different sizes and across different sectors. Currently, job classification systems are used, but optional, in Germany. When used, they are required to be gender neutral (OECD, 2021[23]).

Such classification systems could contribute to limiting the role that gendered norms and expectations play in sustaining gender wage gaps. It is well known that norms and expectations influence job search and wage negotiations to the benefit of men relative to women; (Briel et al., 2020[79]; Kiessling et al., 2019[80]). Social norms vary substantially by region, such that traditional norms are less common in East Germany and urban centres with agglomerated labour markets. Correspondingly, the gender wage gap is lower in these regions. Classification systems could help objectively match roles and responsibilities with individuals in possession of the required skills. Skills mismatch is particularly important in Germany where it has been shown that more young women than men are overqualified relative to their position (Berlingieri, 2012[22]), and more men than women receiving promotions to better-paid roles and responsibilities within firms, which in turn constitutes a considerable contribution to the overall wage gap (as show in this report's analysis).

For the same reason, Germany could benefit especially from supporting recruitment processes to encourage placing women in senior positions. Job classification systems can provide more transparency in terms of what is required for a promotion, which can contribute to more objective recruitment and promotion rounds. For instance, classification systems could more clearly identify employees who are overqualified relative to their current job specifications, and who could therefore be considered for a promotion. One way of further promoting pay transparency around job opportunities would be to encourage employers to post salary details in vacancy notices. For instance, a new pilot scheme in the United Kingdom will ask participating employers to list salary details on job adverts and stop asking about salary history of applicants, with the objective to support women's wage negotiations (Government Equalities Office, 2022[81]).

Improve workers' access to information on wages through pay reporting measures

Germany could do more to expand its use of pay reporting measures by mandating the sharing of information about average wages of men and women within firms. The primary value of pay reporting measures is to provide aggregate statistics as benchmarks against which employees can compare their own pay packages. Workers can then use this comparison to negotiate up their wage if it seems that might be underpaid (see some experimental evidence supporting this in Baggio and Marandola (2022[25])). Although Germany already has some pay transparency tools in place: since 2017 when the Transparency in Wage Structures Act came into law, workers can request to be provided with the average wage of a group of colleagues of the opposite sex doing work of equal value if they work for companies with over 200 staff (Aumayr-Pintar, 2019[24]). For instance, a female journalist have already raised her case against her previous employer – a leading news network – in the Federal Constitutional Court after finding out that she

was underpaid relative to equivalent male colleagues (Spiegel, 2022[82]). However, the lack of general reporting means that Germany's measures are more limited than in leading OECD countries since they do not mandate that firms disclose average or median pay.

Mandated pay reporting measures can contribute to more women being hired into senior roles within firms. Gender wage gaps are higher in the highest-pay deciles than in lowest-pay deciles, so highly paid senior managers will likely be driving a part of the overall pay gap in several individual firms. Requirements to report and publish company pay gaps could therefore have the effect of incentivising more firms to promote and hire women into highly-paid senior roles and responsibilities and thereby address within-firm wage gaps. Reporting measures could also contribute narrowing between-firm gaps by encouraging women to move into firms where there are documented opportunities for women to reach the higher echelons of the firm.

Researchers have highlighted some limitations of the pay reporting approach to narrow gender wage gaps that illustrate the need to combine pay reporting measures with other holistic measures to address wage gaps. For example, some evaluations have shown that the reason behind converging wage gaps after introducing pay gap reporting is that men's wages have decreased or stopped growing relative to women's earnings (Baker et al., 2019[83]; Bennedsen et al., 2019[84]; Blundell, 2020[85]). Pay reporting measures can also be limited in that they simply mandate the sharing of information. This means that the burden of identifying, raising, and rectifying pay inequity lies with the individual worker (OECD, 2021[23]). This risks putting undue pressure on people who are already in weaker bargaining positions to rectify their own situations. Indeed, women who highlight their discrimination at work risk facing a "social penalty" for having raised the issue (OECD, 2021[23]).

Explore the potential of comprehensive equal pay auditing systems

Equal pay audits cast a wider gender lens and look at a broader range of outcomes than the simpler pay reporting obligations. They usually require analysis of the proportion of women and men in each category of employee or position, an analysis of the job evaluation and job classification system used, and detailed information on pay and gender pay differentials (OECD, 2021[23]). They often offer more straightforward avenues for follow-up action than simpler pay reporting measures, placing less pressure on individuals to address their own disadvantage (OECD, 2021[23]).

The key contribution of equal pay audits is to mainstream gender sensitive thinking within firms and provide evidence for more targeted action by policy makers and firms. Audits can highlight underlying drivers, including wage gap increases during years of childrearing and pay gaps due to corporate hierarchies. For instance, they could help better understand of the nexus of childrearing, part-time work and wage premia, which is key to understanding wage gaps in Germany, but which this report is unable to fully investigate due to lacking data.

Audits can be particularly helpful in countries like Germany where the main issues relate less to bargaining and discrimination and more to other sources of wage differentials. Audits can be especially useful for addressing between-firm wage gaps since they can identify patterns of imbalances across firms with higher and lower wage premia. This is of crucial importance in Germany where increasing between-firm wage premia have been the main driver in the slow-down in the narrowing of the gender pay gap in recent years. Germany could consider introducing detailed equal pay audits on a pilot basis and evaluate their effectiveness throughout the implementation.

Auditing requirements should be introduced for large as well as small firms and there are useful ways to offset the administrative burden that (primarily smaller) firms face. These include using online calculators, use of publicly provided administrative data or providing financial support to firms that are not able to finance the burden themselves. High employer, employee and public awareness can help foster social pressure to complete the audits (OECD, 2021[23]). In the United Kingdom, (some of) the results from pay auditing are published and available to researchers, which has fostered both awareness and a 'naming

and shaming' culture. This can contribute both to wider audit completion and to further social and employee pressure to offer fair wages and work opportunities. Some countries, including Denmark, France, and Sweden, also discourage non-compliance through the ability to issue fines (Ceballos, Masselot and Watt, 2021[21]).

6.3.2. Support wage-setting institutions to help reduce the gender wage gap between firms

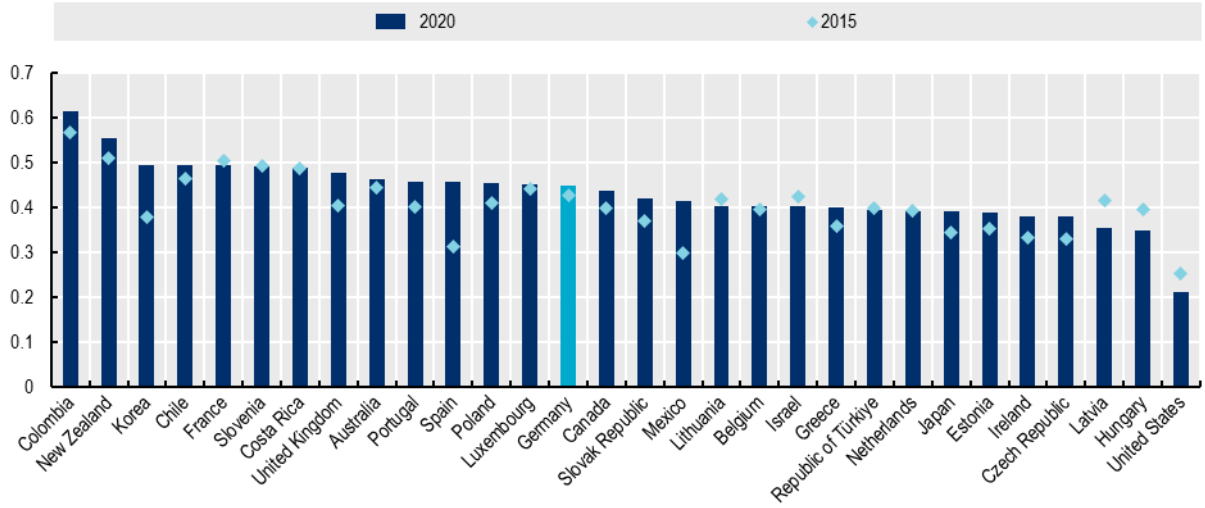
Monitor gender outcomes from the planned minimum wage hikes in 2022

Gender wage gaps driven by structural differences in wages between different firms can be affected by adjustments to the minimum wage. Across the OECD, as in Germany, women tend to be overrepresented in sectors and occupations that pay lower wages and wages at or close to the minimum wage (for instance caregiving and service sector jobs). Minimum wage increases will therefore benefit female workers disproportionately, which in turn can contribute to shrinking the gender wage gap. For example, successive increases in the minimum wage in Spain have progressively reduced the gender wage gap (OECD, 2022[86]).

Since its implementation in 2015, the national minimum wage in Germany has been paid at a stable rate relative to average wage and at a level that is middle of the pack among OECD. Since its implementation it has increased from EUR 8.50 per hour to an expected EUR 10.45 per hour scheduled to take effect from 1 July 2022 (Bruttel, 2019[87]). At the point of implementation in 2015, minimum wages were paid at 43% of average wages. The rate remained fairly stable and by 2020 minimum wages were paid at 45% of average wages (Figure 6.9).

Figure 6.9. German minimum relative to average wages were middle of the pack in 2020

Ratio of minimum relative to average wages of full-time workers



Source: OECD, *Minimum relative to average wages of full-time workers*, https://stats.oecd.org/Index.aspx?DataSetCode=MIN2AVE.

This year the new coalition government in Germany have planned a hike in the minimum wage beyond planned annual increases, which is expected to have positive effects on the gender wage gap. Under the coalition agreement, the general statutory minimum wage is set to be raised to EUR 12 per hour, taking effect on 1 October 2022. This increase will be in addition to the scheduled increase in July 2022, occur

outside the usual framework and without the involvement of the Minimum Wage Commission (Deutsche Bundesbank, 2022[88]). This minimum wage increase is expected to benefit women particularly and any effects that this raise has on the overall gender wage gap should be carefully monitored (OECD, 2022[86]).

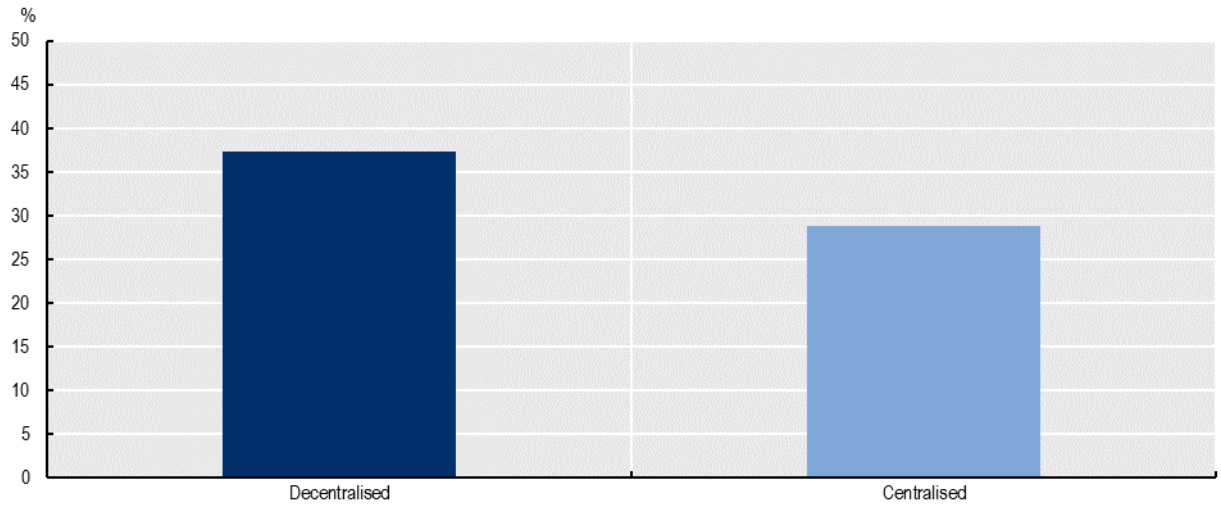
Strengthen employment conditions through collective bargaining

Strengthening the employment conditions through wage-setting institutions such as collective bargaining agreements could also help reduce the gender wage gap by compressing the differences in wage premia across firms. Indeed, the dispersion of firm wage premia in countries with centralised collective bargaining arrangements is about half that in countries with decentralised ones (Figure 6.10). Collective bargaining has the potential to contribute toward narrowing the gender wage gaps between firms by working to achieve targeted raises in lower-paid sectors where women are overrepresented (OECD, 2020[89]).

Expanding the collective bargaining coverage might also help improve employment conditions and thereby narrow the gender wage gaps, especially between firms in sectors where collective agreements are relatively generous. While all employees in Germany are entitled to the statutory minimum wage, they may also benefit from higher agreed wages and wage increases based on sectoral agreements in place through collective bargaining. Collective bargaining can therefore contribute toward closing gender wage gaps by expanding coverage to a wider set of workers, especially those on non-standard forms of employment (OECD, 2020[89]). Since women are overrepresented on non-standard employment contracts they would stand to benefit disproportionately, which in turn would help narrow gender wage gaps between different firms (OECD, 2020[89]).

Figure 6.10. Collective bargaining can reduce the role of wage differences between firms

Wage premia dispersion as a share of overall wage dispersion by collective bargaining regime



Notes: This figure plots the share of wage premia dispersion in overall wage dispersion averaged by groups of countries. Firm wage premia measure the ability of firms to set wages differently for similarly-qualified workers from those of their competitors. Collective bargaining regimes are defined at the country level following the OECD taxonomy of collective bargaining regimes (OECD, 2018[15]), Countries with decentralised bargaining regimes (9): Canada, Costa Rica, Estonia, Japan, Hungary, New Zealand, the Slovak Republic, United Kingdom, United States; countries with centralised bargaining regimes (11): Austria, Denmark, Germany, Finland, France, Italy, Portugal, the Netherlands, Norway, Spain and Sweden.

Source: OECD (2021[1]), *The Role of Firms in Wage Inequality: Policy Lessons from a Large Scale Cross-Country Study*, https://doi.org/10.1787/7d9b2208-en.

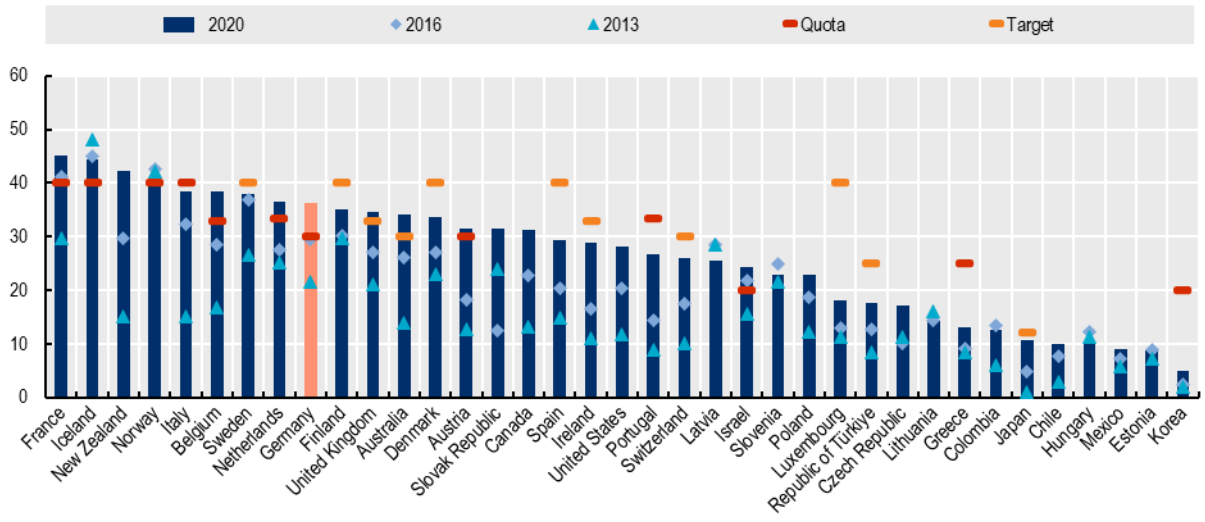
6.3.3. Measures to enhance women's representation in leadership positions

While increases to minimum wage legislation and collective bargaining agreements could benefit a large portion of female workers, quotas and soft measures are valuable complements to a wider strategy to combat the gender wage gap by ensuring that women fill senior positions at a similar rate as men. The analysis in this report found that gender wage gaps for similarly skilled men and women are wider at the higher end of the wage distribution. One way to mandate that women fill more senior positions across the highest-productivity firms is to enforce gender quotas for boards or senior management positions.

Several European countries, including Germany, have already implemented gender quotas following the 2010 launch of the European Commission's Strategy for Equality between Women and Men. In 2015 Germany adopted a law that required some supervisory boards of publicly traded companies to have at least 30% women and 30% men (Figure 6.11) (Zeldin, 2015[27]). Boards in Germany have successfully increased the proportion of women on their chairs since 2013 and in 2020 on average 36.3% of board seats were held by women (Figure 6.11). These targets are slightly lower than those in comparator countries. For instance, while Sweden does not have legally binding quotas, the Government's gender equality target stipulates that women should hold at least 40% of board seats (Boman and Paulsson, 2020[90]). Progress has been made since 2013 (although it seems to have slowed since 2016) and by 2020, 38% of board seats in Sweden were held by women (Figure 6.11). While boards have been shown to successfully raise the representation of women in board rooms, evaluations have also shown that they still face an inner glass ceiling whereby they tend to miss out on strategic and decision-making positions and higher compensation. Perhaps unsurprisingly, then, research shows that board room quotas on their own do not transform negative gender stereotypes (Rebérioux and Roudaut, 2019[91]).

Figure 6.11. Female representation on German boards exceeds stipulated gender quotas

Share of women on boards of largest listed companies (in 2013, 2016 and 2020) according to implemented quotas and targets (%)



Note: Data for 2013 unavailable for Latvia. Israel and Korea have introduced a quota mandating "at least one" woman on boards of listed companies, which is indicated at 20% in this Figure, but may differ across companies depending on the size of the board.
Source: OECD (2022[86]), *Report on the Implementation of the OECD Gender Recommendations*, https://www.oecd.org/mcm/Implementation-OECD-Gender-Recommendations.pdf.

Perhaps more importantly, however, other complementary soft measures such as disclosure requirements, capacity-building actions and other voluntary measures for public organisations and private firms can also be effective in increasing the proportion of women at all levels of business hierarchies. Soft measures could help to enhance the representation of women to boards and management positions, and help encourage in-house promotion of women to top jobs.

There are long-term gains too. The creation of gender-balanced talent pipelines of competent employees will help provide a reliable supply of men and women that are well-positioned to take on senior positions in years to come. This, in turn, can contribute to continuing to narrow within-firm pay gaps in future. Increased prevalence of women in senior positions might help motivate individual young women to focus on their careers by setting a precedent of women who are promoted to senior management through quotas or targets. This could be particularly important as families debate how to approach work hours after the arrival of children. If career paths and opportunities are obviously available to both mothers and fathers, families can be more incentivised to ensure that both parents can work full-time and benefit from higher-paying promotions in their later career.

There are various strategies that the government can take to increase the effective use of soft measures. For instance, it can encourage businesses to set up and reach ambitious targets by governments rewarding workforce gender diversity through certificates, awards, ceremonies and competitions. Such measures could be taken within sectors, regions or based on company size. Such measures can help spur competition among firms to attract talent and favourable public opinion, which further helps to publicise gender wage gaps and ensure that companies take ownership of the issue (OECD, 2020[92]).

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Annex A. Data annex

Table A.1. Data sources

	Name	Earnings data source	Sample structure	Longitudinal	Hourly wages	Worker skills	Time coverage
Denmark	IDA, IDAN, UDDA	Tax administration combined with register data	Universe	Yes	Yes	Occupation & Education	2001-17
France	Déclaration annuelle des données sociales unifiée (DADS)	Mandatory employer survey	1/12th random worker sample	Yes	Yes	Occupation	2002-17
Germany	SIEED (Sample of Integrated Employer-Employee Data)	Social security administration	1.5% random establishments sample	Yes	No	Education and Occupation	2002-18
Netherlands	SPOLIS, POLIS, GBA, ABR and Hoogsteopltab.	Social security administration	Universe	Yes	Yes	Education (for about half of the sample)	2010-19
Sweden	RAMS, LISA, Job Register. SES	Tax administration	RAMS: Universe. SES: 100% of the public sector; stratified sample covering 50% of all private sector firms	Yes	No, use of full-time equivalent	Education and Occupation	2001-15

Annex B. Disclaimer annex

Germany

The data access to the SIEED was provided via on-site use at Secure Data Access Centre (CASD) of the National Institute of Statistics and Economic Studies (INSEE) and subsequently remote data access via the Josua platform from the Research Data Centre (FDZ) of the German Federal Employment Agency (BA).

SIEED Citation: Berge, Philipp vom; Schmidtlein, Lisa; Seth, Stefan; Graf, Tobias; Grießemer, Stephan; Kaimer, Steffen; Köhler, Markus; Lehnert, Claudia; Oertel, Martina; Seysen, Christian (2020): "The Sample of Integrated Employer-Employee Data (SIEED): SIEED 7 518, Version 1". Research Data Centre of the Federal Employment Agency (BA) at the Institute for Employment Research (IAB). https://doi.org/10.5164/IAB.SIEED7518.de.en.v1.

Notes

[1] The importance of sorting is very similar when estimating wage regressions with worker and firm-fixed effects as in Abowd et al. (1999[45]) or when estimating them separately for men and women as in Card et al. (2016[32]) and as done in Figure 3.2 and Figure 3.4.

[2] The low pay gap due to differences in tasks and responsibilities in Sweden is consistent with the relatively high share in managerial positions. This was 42% in Sweden in 2020 compared with around 28% in Denmark and Germany (OECD, 2020[94]).

[3] A larger role for bargaining and discrimination has been documented for other countries such as Estonia and Portugal (Card, Cardoso and Kline, 2016[32]; Masso, Meriküll and Vahter, 2021[93]; OECD, 2021[1]).

[4] Differences in the probability of being promoted keeping constant differences in wage increases (quantity effect) and the differences in the nature of promotions keeping constant differences in probability (wage effect) both account for about half of the evolution of the gender wage gap between age 25 and 45.

[5] One explanation for this difference may be the contribution of job-to-job mobility to the evolution of the gender wage gap is likely to be larger when taking account of part-time workers (see Box 4.2). However, it should be noted that the contribution of job-to-job mobility to the evolution of the gender wage gap is actually similar to that observed in the benchmark countries. But, since the actual increase in the between-firm gender wage gap with age is more pronounced in Germany than in the benchmark countries, its contribution to the increase in the actual between-firm gender wage gap is smaller.

[6] Coudin et al. (2018[38]) found for France that the motherhood penalty in wages is closely related to the tendency of young mothers to move to firms close to home and firms with flexible working-time policies.

[7] Evidence for Denmark also shows that the motherhood penalty is highly persistent over time and tends to be transmitted across generations (Kleven et al., 2019[44]).

Gender Equality at Work

The Role of Firms in the Gender Wage Gap in Germany

This review contributes to a better understanding of the gender wage gap in Germany and puts forward key elements of a policy package to reduce gender pay gaps. It provides a detailed analysis of the role of firms in the gender wage gap by focusing on the pay gap between similarly skilled men and women between and within firms. The within-firm component captures differences in pay between men and women within firms related to differences in tasks and responsibilities, or differences in pay for work of equal value (e.g. bargaining, discrimination). The between-firm component captures the role of differences in pay between firms (unrelated to workforce composition) due to the tendency of women to work in low-wage firms. The review analyses gender differences in job mobility and the earnings consequences of career breaks following childbirth to shed light on the evolution of the gender wage gap across the working life. To put results for Germany in context, they are systematically benchmarked to those of four nearby countries (i.e. Denmark, France, the Netherlands and Sweden). The policy discussion extends the empirical analysis by putting forward a comprehensive policy package with an emphasis on policies targeted at firms.

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