



Gender Equality at Work

The Economic Case for More Gender Equality in Estonia



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Foreword

Gender equality is not just about fairness and equity in all its political, social and cultural dimensions, it is also about economic empowerment, efficient use of human capital, and economic growth. Making the most of the talent pool ensures that men and women have an equal chance to contribute both at home and in the workplace, thereby enhancing their well-being and that of society.

With *Closing the Gender Gap: Act Now* (2012) and *Is the Last Mile the Longest? Economic Gains from Gender Equality in Nordic Countries* (2018), the OECD previously explored the economic effects of greater gender equality on past economic growth and projected possible future economic gains. Building on these past analyses, this report illustrates the economic case for gender equality in the Estonian context.

Estonia, like other OECD countries, has made great strides in gender equality. Girls today outperform boys in some areas of education but are still less likely than boys to study mathematics or information and communication technology. The number of women in employment is growing, and only a limited number of them work part-time. But Estonian women are still less likely to make it to the top, and career breaks around childbirth contribute to the declining but still considerable gender wage gap.

This review considers the gender gaps in labour market outcomes and explores the gap in pay between men and women with equivalent skills within the same firms and across firms. It considers family support policies for households with young children, women's bargaining position in firms, initiatives to combat gender-based discrimination as well as changing gender norms in education. It then explores the potential economic gains of greater gender equality under different scenarios. Indeed, a greater sharing of paid and unpaid work between men and women will lead to economic gains, but it requires changing norms, mindsets, and attitudes. Such changes take time, but policy has a role to play in raising public awareness of gender biases in society and promoting change.

This report was prepared by a team of analysts in the OECD Directorate of Employment, Labour and Social Affairs (ELS) led by Willem Adema, including Maja Gustafsson (Chapter 2), Alexander Hijzen, Gabrielle Ciminelli, Caroline Coly and Antton Haramboure (Chapter 3), Jonas Fluchtmann (Chapters 1, 4 and 7) and Marie-Anne Valfort (Chapters 1, 2, 4, 5 and 6). 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) supervised the project. We are very grateful to all Estonian officials, experts and stakeholders who made time available to discuss their area of expertise with us during the "virtual fact-finding mission" in 2021. We also thank those who commented on previous drafts, including Valentina Patrini, Mark Pearson and Monika Queisser as well as Lee Maripuu, Merlin Murumets, Kätlin Sander and Age Viira (Estonian Ministry of Social Affairs) and colleagues in the Office of Gender Equality and Equal Treatment Commissioner, Britt Järvet (on education issues), as well as Kristiina Luht and Airi Mitendorf (regarding gender-based violence). Lucy Hulett, Eva Rauser and Natalie Corry prepared the report for publication, with Alastair Wood providing communications support.

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Executive summary

Employment growth among women in Estonia has been strong in recent years. The female employment rate (72%) in Estonia is well above the OECD average (61%), and the employment gender gap in favour of men was small at 3 percentage points in 2021. In fact, female employment rates are higher than among men, among older workers (age 55-64), as related to a mix of economic and health factors. Also, Estonian women generally work full-time: at 13% the part-time employment rate in Estonia is about half the OECD average. However, economic and labour market gender differences persist. The gender wage gap, which has declined since the mid-2000s, as measured at the median for full-time workers, still stood at 19% compared to an OECD average of 12%. Women continue to shoulder the bulk of unpaid work in and around the house in Estonia.

One contributing factor to the persistent gender labour market gaps is that mothers with very young children often do not engage in paid work in Estonia. The parental leave system facilitates family leave until children turn three years old, and mothers, rather than fathers, often leave the workplace for at least a year, which contributes to gender pay gaps over the life course. Prevailing gender norms in Estonia contribute to the unequal sharing of unpaid housework: about 70% of Estonians believe that the most important role of women is related to care and housework, about 20 percentage points above the OECD average. To enhance gender equality in labour market outcomes, it is critical to foster a more equal use of leave entitlements among fathers and mothers, Estonian policy has already moved by extending paternity leave to 30 days in 2020. Future policy reform could go further by extending the duration of paternity leave or introducing a “father quota” – a non-transferable period of parental leave that is reserved for fathers who take time off to care for children.

Estonia has a comprehensive Early Childhood Education and Care (ECEC) system, especially for older children of pre-school age. However, access is an issue for children below three years of age. Despite the demographic trends that will reduce the demand for childcare places, more public investment in formal childcare is required to ensure that both parents can return to full-time work when the period of parental leave runs out, or when parents want to return to work before that time. At present, spending on family benefits focuses on cash support rather than investing in services: there is a case for introducing a greater focus in family support on family services, including formal ECEC services.

A detailed analysis of gender pay gaps based on Estonian administrative data shows that differences in firm pay practices account for about half of the gender pay gap in Estonia. Of this, three-fifths can be attributed to the fact that women tend to work in firms that pay lower wages. The other two-fifths of the explained part of the gender wage gap reflect gender differences in pay within firms and can be attributed to a weaker bargaining position of female employees vis-à-vis employers, but may also partially reflect pay discrimination against women. The remaining half of the gender wage gap reflects differences in tasks, responsibilities and skills.

Pay transparency measures could help inform and strengthen the bargaining position of women. A renewal of the pay transparency measures originally planned under the Gender Equality Act and Other Acts Amendment Act of 2016 could mandate a firm-level reporting of the gender composition of the workforce and pay differences in different job categories. To ensure compliance with pay transparency, reporting measures could oblige employers to make their gender gap statistics publicly available. Government bodies, such as Statistics Estonia, could be tasked with the responsibility of utilising administrative data to compute firm-level gender gaps.

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 and could also be used to enshrine the concept of “equal pay for work of equal value”. This would contribute to reducing within-firm gender wage gaps, but also increase awareness of job-opportunities elsewhere and enhance mobility across firms.

For future generations it is important that gender stereotyping is not perpetuated in classrooms. Training and awareness raising of education staff can help, as well as the publication by the Ministry of Education and Research of guidelines to tackle gender bias in instructional materials. Reducing gender-segregated sorting in education will also help respond to future labour demands. Teaching digital skills has long been considered a national priority in Estonia, and an impressive set of policies have been implemented. However, gender imbalances in this area remain considerable and students’ exposure to female role models in the field could help more girls choose ICT careers.

Further increases in female employment participation, bringing these closer towards male levels, hold the potential of spurring further economic growth in the future. For example, if Estonia fully closed its gender gap in labour force participation by 2050, it could expect 0.7 percentage points of additional growth per year or a boost of 2.3% of additional GDP per capita in 2050. At the same time, closing the gender gap in working hours could increase annual growth by 0.06 percentage points and lead to 1.9% of additional GDP per capita in 2050. A joint closing of labour force participation and working hours gap is estimated to produce an additional 0.14 percentage points of growth each year – or raise GDP in 2050 by 4.3%. Small but persistent gender gaps mean that Estonia is missing out on a substantial boost to economic growth that could be unleashed if men and women had the same engagement and chances in the labour market.

1 Estonia: Well-positioned for further progress with gender equality

Gender inequalities persist in Estonia. The gender pay gap is narrowing, but remains above the OECD average, but the gender employment gap is stable as women continue to shoulder the bulk of unpaid work in and around the house in Estonia. Drawing on the detail in the subsequent chapters, this first chapter presents in a nutshell the most pertinent gender gaps, the associated challenges and relevant policy options to generate greater gender equality in the Estonian labour market and spur on economic growth.

Estonia has experienced huge economic change over the past 20 years: GDP per capita has doubled since 2000 even though it remains below the OECD average, and the labour market has changed due to the transformation into a market economy with a large service sector. Women have gained from this transition and are now experiencing increased returns to education. The female employment rate (72%) in Estonia is above the OECD average (61%), and the employment gender gap in favour of men is small at 3 percentage points – the OECD average is 15 percentage points. Also, Estonian women generally work full-time: at 13% the incidence of part-time employment among women in Estonia is just below half the OECD average.

Nevertheless, economic and labour market gender differentials persist. In other OECD countries the gender employment gap has narrowed, but not in Estonia. The gender wage gap at the median for full-time workers (at 19% in 2019) has narrowed but remains above the OECD average (12%). Women continue to shoulder the bulk of unpaid work in and around the house in Estonia, and the COVID-19 pandemic illustrated just how much an overburdened health care system and Estonian society more generally draw on women's contributions to unpaid work. This raises immediate questions about women's ability to engage in the labour market on parity with men, particularly during early and mid-career periods when wage increases are common and many career-defining promotions are made. Looking ahead, increased longevity, poor health among older men, and limited health care funding look set to increase the demands on women to do unpaid work, unless there is a change in attitudes and policy.

Looking forward, there is a lot to gain from more economic equality between men and women. Further opening up opportunities to women will also play an important part in supporting overall increases in economic growth and productivity. For example, if Estonia were to fully close its gender gap in labour force participation (LFP) rates by 2050, it could expect around 0.07 percentage points (p.p.) of additional growth in potential GDP per capita each year. This would be equal to potential output in 2050 being 2.3% higher than under a baseline growth trajectory. Noticeable effects on economic growth include: a more equal sorting of boys and girls into educational fields may lead to around +0.30 p.p. of additional annual growth), while a reduction of the gendered division of unpaid work may increase (+0.33 percentage points annual growth).

A more gender-equal society will also have different social benefits, including, better male health and fewer women exposed to partner violence. Estonia is in a good position to introduce policies with central government debt being the lowest among OECD countries. Furthermore, with the (planned) allocation from the EU recovery fund, there appears to be more fiscal space to invest in policies for gender equality.

This analysis underlying this review was mostly done prior to the war of aggression by the Russian Federation against Ukraine, which led to an inflow of a great number of refugees in Estonia from February/March 2022 onwards. By 5 September 2022, Estonia had already received over 54,197 Ukrainian war refugees, mostly women and children, which is equivalent to around 4.2% of Estonia's total population. It is as yet unclear how many Ukrainian refugees will end up in Estonia, for how long, and what the socio-economic ramifications might be.

1.1. Labour market inequalities persist

1.1.1. Young women have higher educational attainment, but study choices remain traditional

The Estonian education system has a reputation to uphold as a high performer in OECD comparison. In 2018, it ranked first among the OECD countries in OECD PISA scores for reading literacy and science, as well as third in mathematics. The system in place ensures that students from different socio-economic backgrounds achieve similarly high results, while the gender gap in the OECD PISA scores has decreased over time. In Estonia, this translates to high proportions of young women with tertiary education: the difference in the proportions of young women and young men who have attained tertiary education is 22 percentage points, to the disadvantage of young men; this is considerably higher than the OECD average difference of 13 percentage points (Chapter 2).

Nevertheless, how well a university-level education pays off in the labour market also depends on the subjects that were studied. In school, girls outperform boys in reading and science, but boys outperform girls in mathematics, and this contributes to the different educational choices young men and women make. However, stereotypes also play a huge and important role and the notion that “math is not for girls” remains widespread, while in more gender equal countries the gender gap in OECD PISA scores tends to be smaller. There is a large gender gap in the proportion of boys and girls who conditional on their mathematics performance, report in the OECD PISA survey that “[their] parents believe that math is important for [their] career”. The mathematics-related stereotypes are considerable in Estonia and slightly larger than across OECD countries (Chapter 2).

1.1.2. Gender gaps in employment sector and pay are large

The high level of educational attainment among young Estonian women contributes to their high participation rate in the Estonian labour market. Furthermore, women and men in Estonia tend to work longer hours per week than women and men across the OECD on average (women: 34.0 hours; men: 40.0 hours): the gender gap in full-time employment and working hours is comparatively low – in 2019 women worked for 36.7 hours per week, while men did so for 39.4 hours (OECD, n.d.^[1]).

Prima facie, the employment rates and working hours of men and women in Estonia bode well for gender equality in labour market outcomes. However, employment is highly gender-segregated and mirrors the differences in girls’ and boys’ educational choices. Men are overrepresented in industry sectors such as information, communication and manufacturing, where 30% of all male employees work, but only 18% of all female workers. On the other hand, 28% of all women in employment work in education, human health and social work activities, which only account for 2% of all men in employment.

The outbreak of the COVID-19 pandemic initially hit women’s employment more than men’s, but it subsequently recovered quickly, and effects were cushioned by Estonia’s social protection system and pandemic response measures.

Even though the gender gaps in employment rates and working hours are relatively small in Estonia, women receive significantly lower pay than men. The gender wage gap at median earnings for full-time workers amounted to 17% in 2018, compared with 13% on average across the OECD. Nevertheless, strong gains were made over the past decade: the gender wage gap in Estonia has been shrinking much faster (-6 percentage points) than on average across the OECD (-1 percentage point) (Chapter 2).

There are significant differences in the labour market outcomes of ethnic Estonians and non-Estonians – in this context, the terms “Estonian” and “non-Estonian” refer to ethnic origin and not citizenship. Non-Estonians make up about 30% of the population and are predominately ethnic Russians, but also Ukrainians, Belarusians and Finns. For example, the gender employment gap is consistently larger among the non-Estonian than the Estonian population. Also, non-Estonian women are 5 percentage points less likely to be in work than Estonian women, and non-Estonian women that are in employment are paid about 20% less than Estonian women (about 1 EUR per hour worked) (Chapter 2).

The COVID-19 pandemic and employment in Estonia

The COVID-19 pandemic and ensuing economic crisis hit Estonia hard: the employment rate dropped from 76.1% in Q4 2019 to a low of 72.2% in Q2 2020, but it rebounded to 74.4% in Q3 2021. The economic crisis initially hit women harder than men. In large part, this is because they tend to be overrepresented in sectors that were hardest hit by restrictions on social interaction, including leisure, hospitality and non-food retail. In addition, the additional care needs that have arisen partly due to school closures have fallen heavily on mothers. Many women reduced their working hours or left the workforce (Chapter 2). The initial negative impact on the gender employment gap in Estonia, which increased by 1.7 percentage points in Q2 2020 relative to Q4 2019, was among the worst across the OECD. But, the employment gap declined as the

economy started its recovery in the second half of 2020, and by Q3 of 2021 the gender employment gap was smaller than before the COVID-19 pandemic (3.3 percentage points in Q3 2021 compared with 3.6 percentage points in Q4 2019). However, it is not yet clear whether the pandemic will have significant long-term implications for gender equality on the Estonian labour market.

In its reaction to the pandemic, the Estonian Government significantly extended support for workers and firms. The total economic stimulus package amounted to 4.1% of 2019 GDP, only slightly lower than the average of 4.5% across G20 countries. The main measure for workers and firms was a temporary wage subsidy scheme during the state of emergency (both in 2020 and 2021), which supported about 20% of all employment. Other measures included: covering social security contributions, a temporary reduction in fuel excise taxes, and the provision of liquidity to firms.

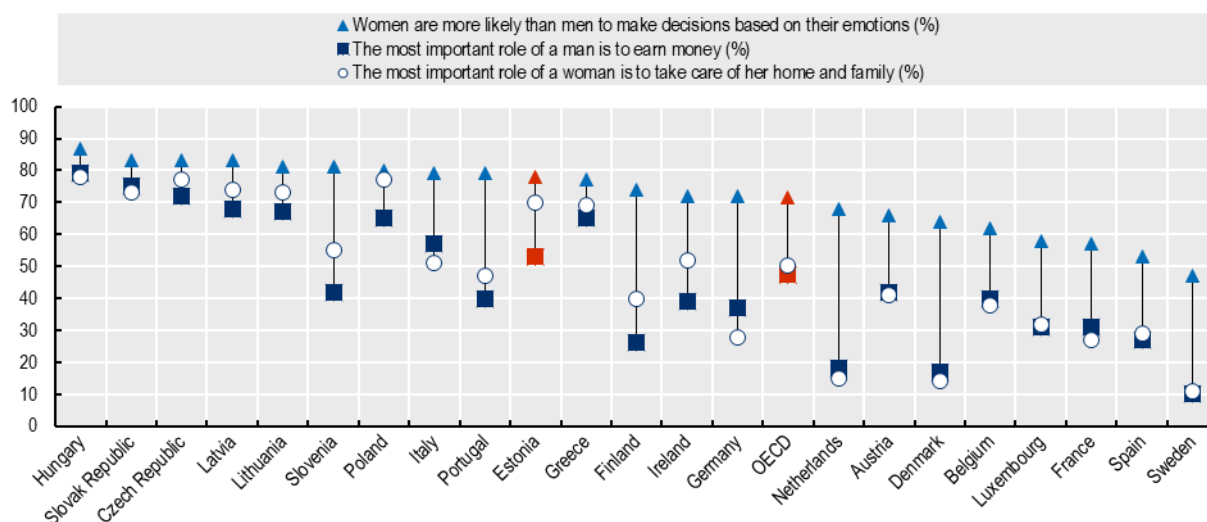
1.1.3. Traditional attitudes are common and fuel an unequal division of unpaid work

Attitudes towards gender equality and the innate abilities of men and women are relatively traditional compared to the OECD as a whole, which can be detrimental to the labour market position of women in Estonia. More so than people in OECD countries Estonians believe that women are more likely than men to make decisions based on their emotions (Figure 1.1). Such beliefs about the capacity for rational decision-making can impose substantial barriers to their access to lucrative and/or leadership positions.

The prevailing gender norms in Estonia also lead to a gendered division of unpaid work in and around the house. For instance, 70% of Estonians believe that the most important role of a woman is related to care and housework, which is about 20% higher than on average across the OECD (Figure 1.1). These beliefs contribute to an uneven division of paid and unpaid work within Estonian households, where women spend about 1.5 hours more per day on unpaid work than men, and more than half of Estonian women report that they felt overburdened by housework, compared to about one-fifth of men (Chapter 2). Because of competing expectations and responsibilities, women cannot prioritise their careers in the same way as men can, particularly during their early to mid-career when they are squeezed by care responsibilities, often raising young children and caring for elderly relatives at the same time.

Figure 1.1. Estonians hold more traditional gender stereotypes

Proportion of respondents who “agree” or “fully agree” with different gender stereotypes, 2017



Note: OECD average refers to the simple country average of OECD countries that are also in the EU.

Source: European Commission (2018^[2]), Gender Equality 2017, <https://data.europa.eu/doi/10.2838/431877>.

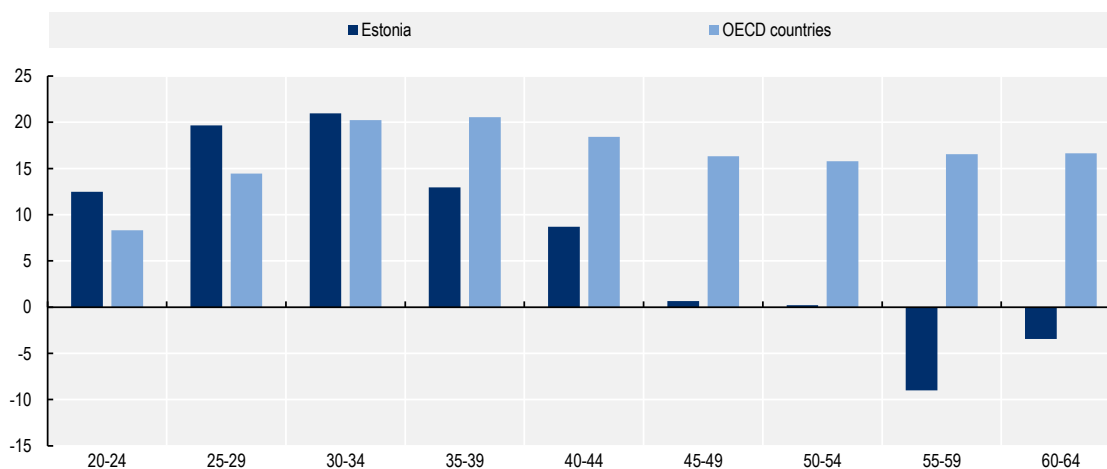
1.1.4. Gender gaps change over the life course and differ notably from the rest of the OECD

In Estonia, like in many other OECD countries, gender gaps in employment outcomes change over the life course. Estonian women have substantially lower employment rates in their early- to mid- labour market career, particularly following childbirth. However, contrary to the average across the OECD and except for the youngest labour market cohorts (aged 20-29), the gender gaps in employment rates subsequently steadily narrow over the life course in Estonia, so that among older workers, women are more likely to work than men. In particular, OECD-wide the probability of employment of 55+ women is more than 15 percentage points lower than that of their male counterparts, but in Estonia, older women are nearly 5 percentage points more likely than older men to be employed (Figure 1.2).

This pattern is consistent with the significantly lower number of healthy life years of Estonian men. They are, for example, overrepresented in occupations with higher rates of workplace fatalities and injuries, but are also subject to traditional masculinity norms that encourage more risky and unhealthy behaviours, in particular the excessive consumption of alcohol, tobacco, or drugs. Life expectancy at birth is about 8.4 years shorter for Estonian men than for Estonian women in 2020 – one of the largest gender gaps in life expectancy in the OECD. These patterns are mirrored in the large gender gaps in deaths from cancer: 176 more men than women per 100 000 persons died from cancer in 2019 (Chapter 4).

Figure 1.2. In Estonia, older women are more likely to be employed than older men

Gender gap in employment-to-population ratios, percentage point gap (male-female), five-year age groups, 2018



Note: A positive bar means that male employment-to-population ratios are larger than female employment-to-population ratios for the specific age group. A negative bar means that female employment-to-population ratios are larger.

Source: OECD (n.d.^[1]), OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

Part of the reason for this gender gap in employment can be due to poor physical health among older male workers and inadequate personal finances among older female workers, requiring them to top up pension payments with labour market earnings, but wider labour market conditions have also suppressed male activity rates in older ages. The flexibilisation and industrial transition away from industry and toward services in the 1990s have increased the risk of unemployment, particularly among older-age, lower-educated blue-collar workers.

1.1.5. Glass ceilings are hindering women from entering management and boardrooms

Women often experience a slower career progression than men in comparable jobs and industries, which affects women's representation across different levels of management. For instance, with 9% and just after Korea, Estonia has the second smallest share of women on corporate boards among OECD countries (27% on average). Furthermore, representation on the top of the corporate pyramid has been remarkably stable in Estonia, while several other countries have seen substantial increases in female board representation over the past decade – including in Estonia's neighbour Latvia, where the share of women on corporate boards almost doubled between 2009 and 2019. However, when going down the corporate ladder, gender gaps become noticeably smaller, indicating that there is a pipeline of female talent. For example, 37% of managers in Estonia are female, which is above the OECD-wide average of 33% and in the upper third of all OECD countries (Chapter 2).

Nevertheless, the prevailing attitudes towards women in positions of power may contribute to the low representation in the upper ranks of corporate leadership. While a majority (57%) of Estonian women agree with the statement that businesses would benefit from more female representation in senior positions, only 45% of Estonian men agree with this sentiment (Chapter 2). These findings suggest there is scope for improvement in supporting conditions that would facilitate more women to break through the glass ceiling.

1.1.6. Compared to other countries Estonia has a low share of women entrepreneurs, but a relative high number of women who start a business

Estonian women, much like elsewhere in the OECD, are less likely than men to create a business, work in a new start-up, or be self-employed. Only in Türkiye is the share of women among employers lower than in Estonia. Only 19% of all self-employed workers who employ others are women, while across the OECD women make up more than a quarter (27%) of this group (Chapter 2).

Engagement in early-stage entrepreneurship among women is relatively widespread in Estonia. Indeed, Estonia has among the highest share of the female working-age population that is actively engaged in early-stage businesses, at 12%. This can be compared to the lower OECD-wide average figure of 8%. This could mean that policies to help self-employed women develop and scale up their businesses have the potential to support the incomes of a relatively large share of women (Chapter 2).

1.2. Firms play a major role in explaining the gender wage gap in Estonia

Like in most OECD countries, gender wage gaps in Estonia are larger when accounting for differences in educational choices and skills. Indeed, when comparing similarly skilled men and women – as measured by educational attainment (in terms of the highest level of completed education) and potential work experience (as measured by age) – the gender wage gap *increases* by about 5 percentage points relative to the original gap (Chapter 3). This reflects the fact that on average in Estonia, working women tend to be better educated than working men. One implication of this is that a better understanding of the gender wage gap requires focusing on differences in the characteristics of the firms and jobs in which women and men are employed, rather than differences in their skills.

1.2.1. Vertical and horizontal segregation are large drivers of wage inequality

One-quarter of the wage gap between similarly skilled men and women reflects the gendered segregation *between* firms (“horizontal segregation”). This is because Estonian women typically work in firms and industries that pay lower wages than the firms Estonian men work in. Another quarter reflects the fact that Estonian women also work in low-wage occupations *within* firms (“vertical segregation”). The remaining

half is unexplained and may reflect differences in tasks and responsibilities within occupations or differences in pay for work of equal value (Chapter 3).

The sorting of women into low-wage firms reflects to some extent differences in non-wage working conditions, as women may be constrained to opt for firms with flexible working time arrangements due to childcare responsibilities and unpaid homework. However, it may also reveal the role of discriminatory hiring practices by employers in high-wage firms. Then again, the sorting of women into low-wage industries also reflects the tendency of women to sort into economic activities that are compatible with their past educational choices.

1.2.2. Pay practices within and between firms play an important role

A more detailed analysis of gender pay gaps based on Estonian administrative tax records uncovers the role different pay practices within and between firms play for men and women who are similarly skilled *and* have similar tasks and responsibilities in their jobs. These differences in firm pay practices account for about half of the gender pay gap in Estonia. Of this, three-fifths can be attributed to the fact that women tend to work in firms that pay lower wages. The other two-fifths of the explained part of the gender wage gap reflect gender differences in pay within firms, and can be attributed to a weaker bargaining position of female employees vis-a-vis employers, but may also partially reflect pay discrimination against women. The remaining half of the gender wage gap between similarly skilled men and women cannot be explained by differences in firm pay practices between or within firms (Chapter 3).

Differences in firm pay practices between men and women also explain why the gender wage gap is larger at the upper end of the wage distribution (Chapter 3). This may be because of the difficulty women face in accessing management and leadership positions in firms that tend to pay the highest wages. These barriers may additionally weaken women's bargaining position, potentially exacerbating differences in pay practices for work of equal value within firms.

Pay gaps for similarly skilled men and women with similar tasks and responsibilities also differ across industries. Differences in the pay practices *within* firms are especially common in industries where labour market competition is weak. The differences in pay practices *between* firms tend to be smaller in industries where firms face more competition.

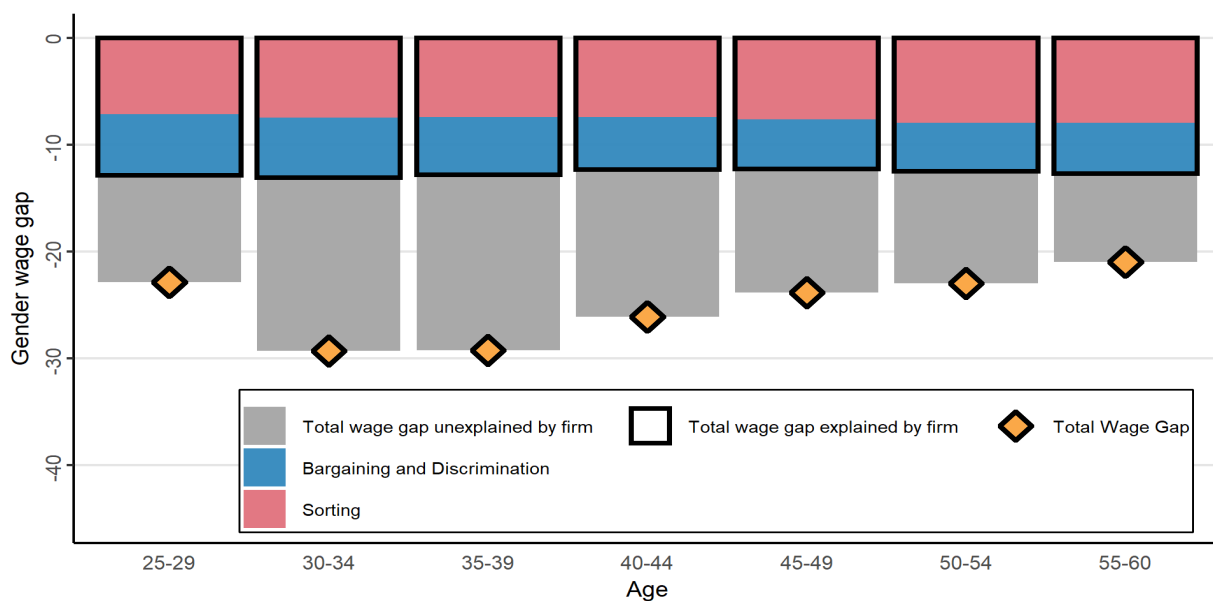
1.2.3. Motherhood and career breaks widen wage gaps

Similar to gaps in employment rates, pay differences between men and women increase with age until the mid- to late thirties, after which they start to decrease gradually (Figure 1.3). The increase in wage gaps over prime childbearing age coincides with the period where women reduce their engagement in full-time work following childbirth. The observed wage patterns across age groups seem to reflect what is often referred to as the *motherhood wage penalty*.

The motherhood wage penalty may reflect various factors. For example, mothers may choose to work in firms that offer family-friendly working conditions, which can come at the expense of wage levels, or they temporarily switch to part-time work to balance their care responsibilities with paid work. The lack of work experience and skill-deterioration during career breaks, including foregone wage increases, and/or lack of access to training and career opportunities, also contribute to the motherhood wage penalty. The effect of career breaks in Estonia can be pronounced as career breaks can be of long duration: workers are guaranteed to move back in the same position after parental leave career breaks of up to 3 years.

Figure 1.3. The role of firm pay practices in the gender wage gap by age group in Estonia

Difference in monthly earnings between women and men with similar skills, tasks and responsibilities as a share of monthly earnings of men and contributions of firm components (bargaining and sorting), 2002-18



Note: The total wage gap refers to the difference in monthly earnings among men and women with similar characteristics (skills, tasks and responsibilities), sorting captures the role of differences in pay practices between firms and bargaining refers to differences in pay practices between men women within firms (also includes potential discrimination). For more detail on data and methods, see Chapter 3.

Source: OECD calculations based on the Estonian Tax and Customs Board Register.

Decomposing the gender wage gap among men and women with similar attributes in between and within firm effect by age, suggests that the increases in wage gaps over prime childbearing age are not directly related to firm pay practices. This is because the total wage gap explained by pay differences within (“bargaining”) or across (“sorting”) firms remains roughly the same regardless of age, while the total wage gap increases markedly for the 30 to 39 year age group (Figure 1.3). Wage gaps for workers in their thirties must increase for other reasons including career breaks following childbirth.

1.3. Estonia’s efforts to improve work-life balance opportunities

Estonia has a comprehensive system of work-life balance supports for parents, in particular for children of at least pre-primary school age (children above the age of three). However, many parents with very young children see the balance of work and care commitments fully tilted towards care responsibilities. The lengthy parental leave career breaks are almost exclusively taken by mothers – to the detriment of their earnings and career development.

1.3.1. Supports for families with children age 3 and older are comprehensive

The majority of children between age 3 and school age are enrolled in pre-primary education (93%), most of which are attending local government childcare. These institutions provide their services for up to half of the day (7 a.m. to 7 p.m.), generally allowing parents to engage in paid work during the day. The parental fee for these services, which are paid as a percentage of family net income, are among the lowest OECD-wide (Chapter 4).

In Estonia, all children attaining age 7 before the first of October of the current year must attend school. The state or municipally owned schools provide out-of-school-hours (OSH) services for children of school age, conditional to the needs of working parents. Where parents' working time exceeds weekly school hours, students can attend "long day groups" organised by the basic schools, which offer homework assistance and recreational activities. However, just below 20% of Estonian children aged 6-11 participate in such out-of-school-hours services (Chapter 4).

Men and women in Estonia generally enjoy widespread access to flexible working time arrangements that can help them balance care commitments with their working life. For instance, more than two-thirds of Estonian respondents to a Eurobarometer survey in 2018 reported that "flexitime" is widespread in their current job. This is substantially higher than the EU average of roughly 60% (Chapter 4).

1.3.2. Mothers of young children often leave the workplace for at least a year

The Estonian system provides statutory paid family leave entitlements of 605 days (maternity-, paternity- and paid parental leave), that can be taken until the child turns 3 years old and which is followed by access to publicly provided formal childcare. Maternity leave is granted for 14 weeks (100 calendar days), paid through the maternity benefit at 100% of earnings without a maximum payment ceiling, which can be used up to 10 weeks (70 calendar days) before and 4 weeks (30 calendar days) after the expected date of birth. If a mother decides to take out less than 10 weeks of mother's parental benefit before birth, up to 6 weeks (40 calendar days) can be transferred to the shared parental benefit that can be used by the father as well. Fathers are entitled to paternity leave and paternity benefit that is payable for 30 calendar days at 100% of earnings up to a high threshold (about 3 times average earnings). Paid parental leave is a family entitlement, and it is thus up to the parents to decide who takes leave. Throughout the *paid* parental leave period, which can last for 68 weeks (475 days), the parent on leave is paid through the shared parental benefit at a payment rate of 100% of earnings (up to the same threshold as for paternity leave).

The shared parental benefit and paternity benefit can be taken up on a daily basis, allowing parents to spread the payments of the parental benefit over a longer period, while the maternity benefit has to be taken in one block. From the time the child is 31 days old, parents can freely decide who will receive the shared parental benefit. At the same time, both parents can take 60 calendar days of the shared parental benefit simultaneously, which is then deducted from the overall family entitlement. Both the paternity benefit and the shared parental benefit can be taken on a part-time basis (e.g. two days per week), while parents are allowed to earn income when receiving the shared parental benefit. Upon expiry of paid leave, parents can take unpaid leave as the period of job-protection upon childbirth lasts until the child turns three.

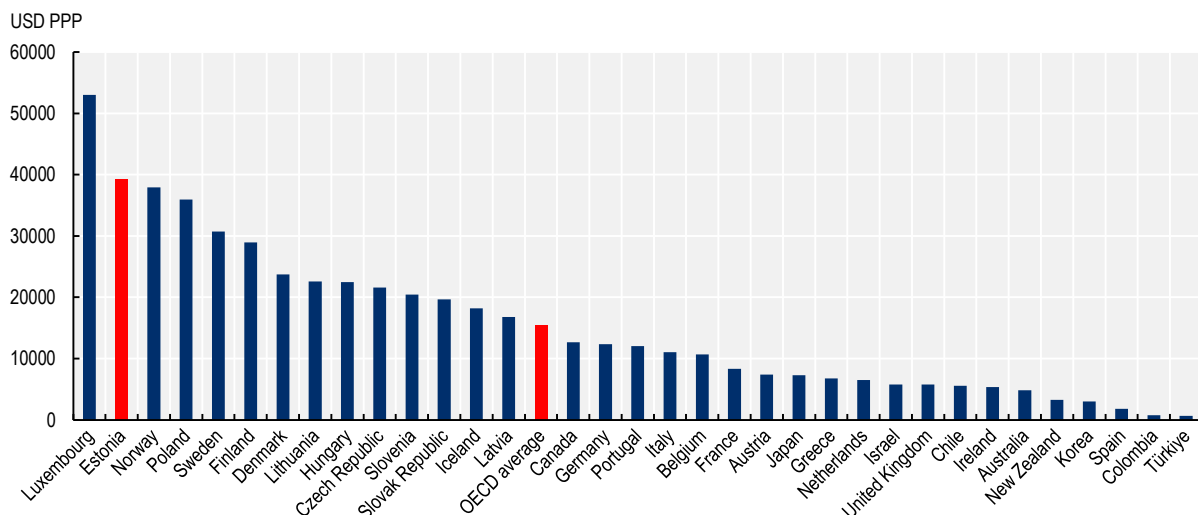
The length and payment rates of the Estonian parental leave scheme are comparatively generous: Estonia provides the longest full-rate equivalent paid leave period among OECD countries (Chapter 4). This makes Estonia the OECD country with the second highest public expenditure on maternity and parental leaves per live birth (Figure 1.4). According to the Estonian Social Insurance Board, most parents in Estonia use parental leave, and many do so for more than the 62 weeks during which the parental allowance is granted. The share (62%) of adults of childbearing age (25-44) who have interrupted their time in paid work to take care of their children for more than 2 years is nearly twice as high as the average among other European OECD countries.

In contrast to most other OECD countries, the Estonian system allows receiving payment of the parental allowance while not being on leave to facilitate more parents to remain in touch with the workplace when children are very young. The parental leave benefit is reduced by 50 cents for each Euro earned in excess of 1.5 times average salary (EUR 2 021.54 per month in 2022). As fathers' earnings are often higher than mothers' earnings, it makes sense from a household perspective if they were to claim the parental allowance. Yet, women still make up over 85% of paid parental leave takers and all adults of childbearing age who interrupt their presence in the workplace for more than 2 years to take care of their children are mothers. The combination in Estonia of a three-year-long job-protected parental leave (that is fully

compensated until 605 days) and its disproportionate uptake by mothers explains why Estonian mothers with children under the age of 3 have one of the lowest employment rates (about 30% in 2019) in the OECD, only half the average among all member countries – about 59% (Chapter 4).

Figure 1.4. Public spending on family leave entitlements is high in Estonia

Public expenditure on maternity and parental leaves per live birth, in USD 2015 PPPs, 2017



Source: OECD Family Database, <https://www.oecd.org/els/family/database.htm>, indicator PF2.1 Key characteristics of parental leave systems.

1.3.3. Towards a better sharing of career breaks after childbirth

To foster greater gender equality in labour market outcomes, it is necessary to encourage a more equal use of the leave entitlements among parents. In particular, it is important to limit mothers' career breaks by increasing fathers' use of leave entitlements around childbirth and the first years of their children's life.

Previous attempts at increasing the attractiveness of paid parental leave for fathers in Estonia have improved use by fathers of parental leave benefit. For instance, following the 2018 increase of the labour earnings threshold above which parents lose parental leave benefit, the share of fathers among recipients of parental leave benefit doubled (from 8% in 2018 to 16% in 2021). The 2018 reform also triggered an increase in the share of fathers receiving the parental leave benefit who stay connected to work (from 53% to 71% between 2018 and 2021, while this share had been stable at around 50% before). However, there is a risk that in households where fathers receive both parental leave benefit and income from work continue working, this complicates the mother's return to work, in view of the care needs of the very young child (Chapter 4).

One policy option involves following other OECD countries by extending parental leave periods for the exclusive use by fathers. This can be achieved either by a "father quota", which grants fathers a non-transferable period of parental leave; a system of bonus-months that grants parents extra leave time if fathers take a specific period of leave of absence from paid work; or by increasing the length of paternity leave entitlements.

Some of these steps have recently been made in Estonia. For example, in 2020 paternity leave was extended from 10 working days to 30 calendar days, which has led to increases in paternity leave uptake among fathers, much of which is taken for the full available entitlement. In terms of further amendments to the family leave schemes in Estonia, maternity leave has been reduced from 20 to 14 weeks in 2022,

compensated by an equivalent increase in shared parental leave entitlements. While parents were previously only able to decide on the 71st day following the child's birth which parent would receive the parental benefit, fathers with a one-month-old child will now have the option for a shared parental benefit. Since then, parents have been allowed to take parental leave simultaneously for up to 60 days and take the parental leave in turn, rather than having to decide which parent takes the parental leave in full (Chapter 4).

1.3.4. A continuum of work-life balance supports

After parental leave entitlements are exhausted, it is vital to ensure that good quality and affordable formal childcare services are available to provide families with a *de facto* continuum of supports towards that the reconciliation of work and family commitments. If taken in one continuous block, paid parental leave runs out after 18 months but almost every tenth child aged between 18 and 36 months does not get a childcare place. Moreover, even if they do, it is often with significant delay – complicating parents' labour market engagement until then (Chapter 4). This situation is alleviated by the amendment that the parental benefit can be used on a daily basis until the child reaches the age of three. This will allow parents to spread the payments of the parental benefit over a longer period. The current possibility of earning income while receiving parental benefit will continue, so that the parent can work at a volume of their choice while raising the child.

Estonia spends about 3% of GDP on family benefits, almost the same as in Iceland (3.2% of GDP). But where 70% of such spending in Iceland – and over 60% in Denmark and Sweden as well as 40% across the OECD on average – goes toward formal childcare and other family services, this proportion is only 27% in Estonia (i.e. 0.8% of the total 3% of GDP that go to any public spending on families). There is a case for a greater focus on formal childcare supports and other family services in public spending on family benefits.

While recent demographic trends may exert downward pressure on the demand for formal childcare over the current decade, if more parents choose to take leave for a shorter duration – in view of the potential career and earnings ramifications, this would necessitate an increase in childcare capacity so that more one-year-olds can get a place. A reduction in compulsory school-starting age could open up kindergarten places, but this may not fit in with prevailing education policy objectives. In any case, more public investment in good quality formal childcare seems needed to ensure that parents with very young children can return to work when they want, rather than when a childcare place becomes available.

1.3.5. Alleviating the long-term care burden for families

In Estonia, informal care is the backbone of current long-term care (LTC) provisions, meaning that long-term care responsibilities curtail family members' (especially women's) ability to participate actively in the labour market. According to the Estonian Social Survey, women made up almost 60% of informal long-term carers in 2019, and women assisting elderly relatives and family members with disability were nearly twice as likely as their male counterparts to devote 20 hours or more per week providing such care. Long-term care needs are likely to increase in future years as the Estonian population is ageing rapidly, while it is also ageing less healthily than in most other EU countries. One in four Estonians aged 65 years or older report long-standing severe limitations in usual activities due to health problems in 2019, as opposed to one in six on average in other European OECD countries (Chapter 4). Estonia aims to improve the efficiency of integrated long-term care service delivery. However, it will also require significant additional funding to reduce the care burden of families.

1.4. Pay transparency measures to reduce gender-based wage discrimination

Traditional gender norms are common in Estonia. They contribute to an unequal division of unpaid work to the detriment of women and fuel the notion that women are less productive employees than their male colleagues. Both these factors contribute to gender differences in bargaining power over wage rates and/or hiring decisions.

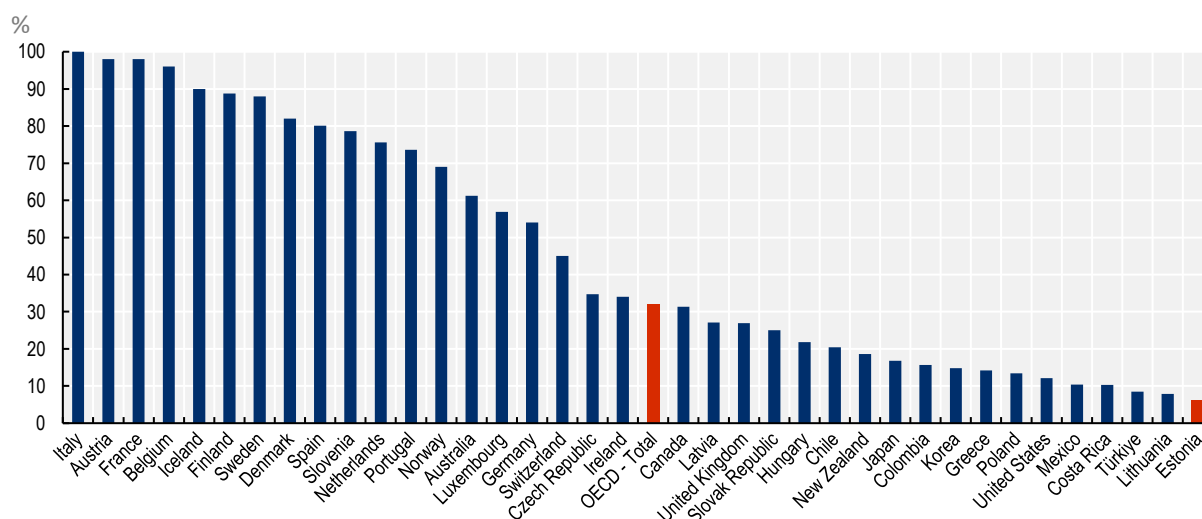
1.4.1. Most wages are individually negotiated, and pay transparency could reduce inequality

The negative effects of traditional gender norms on the gender pay gap within firms could potentially be mitigated if wages for specific jobs are negotiated through collective bargaining on the industry- or firm- rather than at an individual level. However, only 6% of Estonian workers are members of a union, and Estonia has the lowest trade union density OECD-wide. Coverage of employees by collective bargaining agreements is also the lowest among OECD countries (Figure 1.5). Overall, wages were set by collective bargaining in only 6% of Estonian firms, which is less than a tenth of the average in other European OECD countries (Chapter 5).

As the vast majority of wages in Estonia are individually negotiated, an implementation of pay transparency policies could pave the way to more female bargaining power and less gender-based discrimination in the Estonian labour market. However – and although these policies rely on aggregate, not individual data – many employers and employees view them as conflicting with the obligation stipulated in the Employment Contracts Act to keep individual wages confidential. This may have contributed to lower average support for pay transparency policies (57%) than in other European OECD countries (63%) (Chapter 5).

Figure 1.5. Estonian workers are rarely covered by collective bargaining agreements

Proportion of employees covered by collective bargaining agreements, OECD countries, 2020 or latest available year



Note: Data refer to 2020 for Canada, New Zealand and the United States; 2019 for Italy, Austria, Belgium, Costa Rica, the Czech Republic, Hungary, Japan, Iceland, Lithuania, Mexico, the Netherlands, Poland, Türkiye and the United Kingdom; 2018 for Australia, Chile, Denmark, France, Germany, Korea, Latvia, Luxembourg, Portugal, Spain, Sweden, and Switzerland; 2017 for Finland, Greece, Ireland, Norway and Slovenia; 2016 for Colombia and the Slovak Republic.

Source: OECD (2021^[3]), OECD/AIAS database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS), <https://stats.oecd.org/index.aspx?DataSetCode=CBC>.

1.4.2. Enshrining pay transparency on the Estonian labour market

In 2016, the *Gender Equality Act and Other Acts Amendment Act* was introduced to enshrine pay transparency measures in law. It was envisioned to mandate firm-level reporting of the gender composition of the workforce and pay differences between men and women in different job categories. This would help employers to close unjustifiable gender pay gaps, but could also contribute to reducing horizontal and vertical segregation that drive gender pay gaps across job categories. The latter is particularly important for top jobs, as employers are typically not required to report gender pay gaps in job categories where the number of employees of either gender falls below a given threshold. The Act also foreshadowed the introduction of a Pay Competence Centre at the Labour Inspectorate in charge of monitoring equal pay reporting and the implementation of a gender-equal job valuation.

The Act would have operationalised the concept of “equal pay for work of equal value”, by mandating pay transparency reporting along a gender-neutral job classification system that is validated and verified based on objective work-related characteristic. It would have been similar to practice in some other OECD countries (e.g. in Belgium, Finland, France, Iceland, Portugal and Spain). However, as the *Gender Equality Act and Other Acts Amendment Act* was not adopted before the parliamentary elections of 2019, the wide-ranging measures to enshrine pay transparency in the Estonian labour market were not legislated at all. These gaps will be addressed in the near future as Estonia works on ensuring compliance with the EU pay transparency directive.

1.4.3. Ensuring compliance with pay transparency measures

A critical factor in the success of pay transparency policies is the compliance of employers with the reporting of gender pay gaps. Specific enforcement mechanisms need to be established to ensure employer compliance. However, imposing financial penalties on “non-compliers” has not led to high compliance rates in most of the OECD countries with systematic and regular reporting on gender gaps in private sector firms. A potential reason for this may be the low level of fines and/or incomplete monitoring of pay transparency policies by the established government agencies.

One option to ensure greater compliance with pay transparency reporting measures is to introduce the obligation for employers to publish their gender gap statistics so that both employees and the general public can access them. This is, for example, done in the United Kingdom, where it has increased awareness over pay transparency, and also allowed some employers to enhance their attractiveness among job candidates, employees, customers and suppliers concerned by working with a socially-responsible employer.

It is important to avoid a large administrative burden for the many small- and medium-sized firms in Estonia. A public agency could be tasked with the responsibility of using administrative data to compute firm-level gender gaps, such as implemented in Lithuania (as the only OECD country). This approach would also be easy to implement in Estonia, based on the “palgad.stat” already managed by Statistics Estonia to report occupation-based gender composition and pay gaps at both the national and local (county) level. In this context, Estonia is developing a Pay Mirror app that, by 2024, will allow employers to automatically generate information on the gender pay gaps that prevail within their organisation, based on administrative data. This application is expected to increase the buy-in of pay transparency policies among employers and ensure high quality, accurate and comparable figures across employers.

Apart from pay reporting, other measures can also support equal pay for work of equal value. For instance, it is possible to target measures at specific sectors where discriminatory pay differentials are particularly large. Also, the creation of online training courses directed at employers and devised along with good practice, in Estonia for example in the framework of the *Virtual Competence Centre* at the Ministry of Social Affairs, could raise awareness and promote gender equality among key stakeholders. The implementation of good practice can be incentivised with a government-led certification programme to reward employers who take a set of concrete actions to improve the labour market situation of women.

1.5. Promoting gender equality early on and throughout life

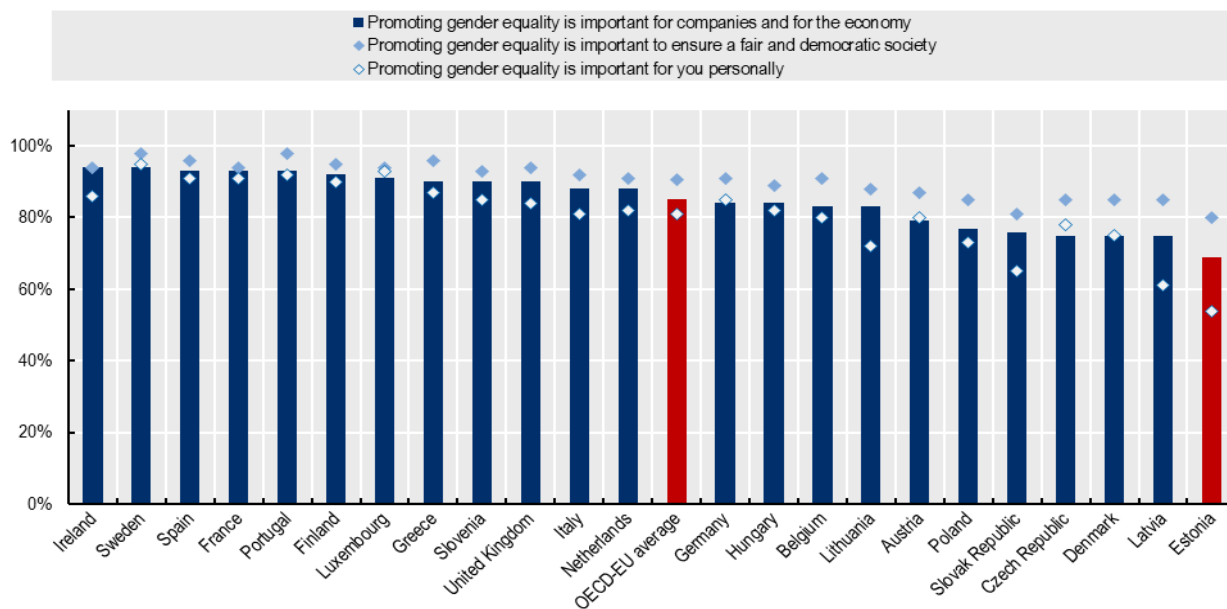
In many ways, work-life balance and pay transparency policies come too late – they seek to remedy gender gaps in the labour market after years of social interactions that largely endorse traditional gender roles. For a structural shift towards gender equality, this ex-post approach should be complemented by efforts to chase out social norms that view men and women as fundamentally different and unequal.

1.5.1. Promoting gender equality in the education system

Many Estonians do not consider the promotion of gender equality as personally important to them: only a small majority (54%) recognise gender disparities as an issue, which is about a third lower than among European OECD members overall (81%) (Figure 1.6). Norms regarding gender equality often emerge early in life and are perpetuated through stereotypical educational pathways boys and girls often choose. Gender mainstreaming in education could thus be a particularly powerful tool to change the perception of the younger generation in Estonia. For this, it would be important that school staff and educational materials do not perpetuate traditional gender norms. To help achieve this, systematic pre- and in-service training on gender equality for teachers at all levels of education as well as career counsellors and youth workers can help, as they can directly influence young people’s career choices. It is also important to embed gender equality throughout the curriculum, including in specific school subjects, such as civic education, to avoid conscious and unconscious bias, notably against girls and women.

Figure 1.6. In Estonia, gender equality is considered less important than elsewhere in the OECD

Share of respondents who agree with each of the following statements, in 2017



Source: European Commission (2018^[2]), Gender Equality 2017, <https://data.europa.eu/doi/10.2838/431877>.

Currently, the use of textbooks in Estonian schools is subject to an independent review and confirmation that the information contained in the textbook is age-appropriate, consistent with the national curriculum, and that it contributes to “the moral, physical and social development of the pupil”. However, while spreading gender stereotypical worldviews is a matter of consideration in the review process of textbook

proposals, and the curricula of both basic and upper secondary schools in Estonia define gender equality as core values, there is no efficient national mechanism to prevent a textbook full of gender stereotypes from reaching children. The review of textbooks could be improved by an increased focus on gender equality, potentially supported by public guidelines to tackle gender bias in instructional materials.

1.5.2. Improving the recognition of education, health and welfare (EHW) jobs and encouraging digital competencies

Specific actions can help to create more gender equality in participation in EHW (education, health and welfare) and ICT (information and communication technology) studies and training. Both of these fields are heavily segregated by gender and face noticeable labour shortages today and in future projections.

Limiting the sorting of female and male students and adults into different fields of study and different jobs involves improving the status of EHW jobs. Retaining more women and attracting more men in EHW jobs notably implies offering better opportunities for career progression through wage structures that reward professional development instead of tenure. This can, for instance, be achieved by incentivising successful completion of in-service training offering essential new qualifications with pay raises. Supplementary information campaigns (e.g. through adult learning, school career counselling, etc.) on such improved employment conditions can attract more men and women in these sectors.

In Estonia, teaching digital skills has been considered a national priority since the launch of the Tiger Leap programme in 1996. Since the mid-2010s, an impressive set of policies have been implemented to fully mainstream the theoretical and applied learning of basic and more advanced digital skills in the Estonian education system, from enhanced teacher training offer, to increased funding for ICT equipment in basic and upper-secondary education, to the decision in 2022 to make the teaching of digital competences mandatory in kindergarten. To ensure that the improved participation of male and female students in ICT activities translates into more girls choosing ICT careers, one could consider more systematically adopting a gender lens throughout the curriculum, for instance by increasing pupils' and students' exposure to female role models working in STEM fields. In France, a one-hour in-school intervention of female scientists strongly affected high school students' perceptions and choice of undergraduate major.”

1.5.3. Gender mainstreaming in other parts of public life

To foster more gender equality in Estonia it is not only important to embed gender mainstreaming in education and life-long learning, but it is also necessary to engage the Estonian public in taking an active role in promoting gender equality in other aspects of life.

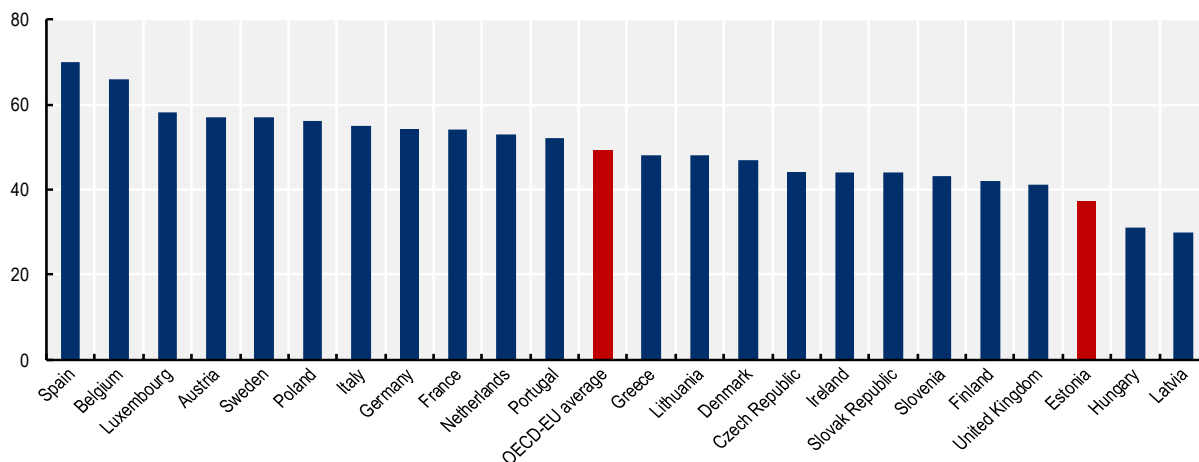
Establishing gender equality as a national priority and embedding it at the core of national policies can put it at the forefront of future policy making. This can include gender budgeting and a regular assessment of the impact of policies on men and women. It is important to embed such practice in the national budget in a long-term and sustainable perspective, rather than regarding external funds aimed at supporting short-term one-off projects.

1.5.4. Combatting gender-based violence

It is important to involve more Estonians in the fight against gender-based violence. Currently, awareness that intimate partner violence is an issue is relatively low. While nearly a majority of respondents (59%) in European OECD countries is willing to intervene when witnessing an incident of intimate partner violence, this held only for a minority of respondents in Estonia (37%) (Figure 1.7).

Figure 1.7. Estonians are not keen to intervene when witnessing intimate partner violence

Share of respondents who report being “very willing” or “willing” to intervene when witnessing an incident of intimate partner violence, 2019



Source: European Union Agency for Fundamental Rights (2020^[41]), Fundamental Rights Survey 2020, <https://fra.europa.eu/en/data-and-maps/2021/frs>.

One approach to raise awareness around intimate partner violence is regular communication of how and why national policies combat such violence, potentially in the form of yearly events on strategic dates, e.g. on the International Day for the Elimination of Violence against Women. Such yearly information campaigns need to be accompanied by greater promotions of the reporting mechanisms available to the public, to encourage victims, witnesses, as well as (potential) perpetrators to report the violence they undergo, witness, or (intend to) perpetrate – which could potentially become a game-changer in the fight against gender-based violence (Chapter 6).

1.6. The economic case for more gender equality in Estonia

1.6.1. Women’s employment has been important for past economic growth, but not more than men’s in Estonia

Over the past 20 years, the gender gap in employment among Estonian men and women has barely changed. However, both men and women saw their employment rates increase in unison, which raised the overall labour input in the economy and thus may have had positive effects on aggregate output in the country. Indeed, Estonia experienced strong economic growth over the last two decades (3.93% growth in GDP per capita per year) (Chapter 7).

With the use of a growth accounting exercise, the link between changes in employment rates and economic growth over the last 20 years can be uncovered. In Estonia, the changes in women’s employment rates are estimated to have contributed roughly 0.40 p.p. to the average annual GDP per capita growth, which is somewhat lower than the contribution the similar increase in male employment rate had (0.57. p.p.). This is predominately due to the increase of the male working-age population, which means that in absolute numbers, the male labour force increased somewhat more than the female labour force. Across the OECD, however, women had a much stronger effect on average annual growth than men (0.28 percentage points relative to 0.08 percentage points) (Chapter 7).

The overall decline in working hours had a dampening effect on economic growth across the OECD and Estonia. While working hours among men generally decreased more than women's hours in paid work, working hours among Estonian women declined about as much as those of Estonian men over the past 20 years. As a result, the changes in women's working hours reduced economic growth by 0.26 percentage points each year in Estonia, while it increased growth marginally across the OECD overall (+ 0.03 percentage points) (Chapter 7).

1.6.2. Closing gender employment gaps can boost economic growth

Further rises in female employment participation, bringing these closer towards male levels, hold the potential of spurring further economic growth in the future. As such, Estonia could potentially generate a noticeable boost in economic growth until 2050 (in potential GDP per capita) when tapping more into the economic potential of women and closing the gender gaps in labour force participation rates and working hours. Such projections are based on a simplified version of the OECD Long-Term Model and various labour market scenarios on projected labour force participation trends. The obtained estimates result from a purely mechanical simulation and assume that any changes in labour market outcomes do not interact with factors outside of the model or have any indirect effects beyond its scope.

For example, if Estonia fully closed its gender gap in labour force participation by 2050, it could expect 0.7 percentage points of additional growth per year (Figure 1.8). The potential accumulated boost under this scenario could amount to 2.3% of additional GDP per capita in 2050. At the same time, closing the gender gap in working hours could increase annual growth by 0.06 percentage points and lead to 1.9% of additional GDP per capita in 2050. A joint closing of labour force participation and working hours gap is estimated to produce an additional 0.14 percentage points of growth each year – or raise GDP in 2050 by 4.3%.

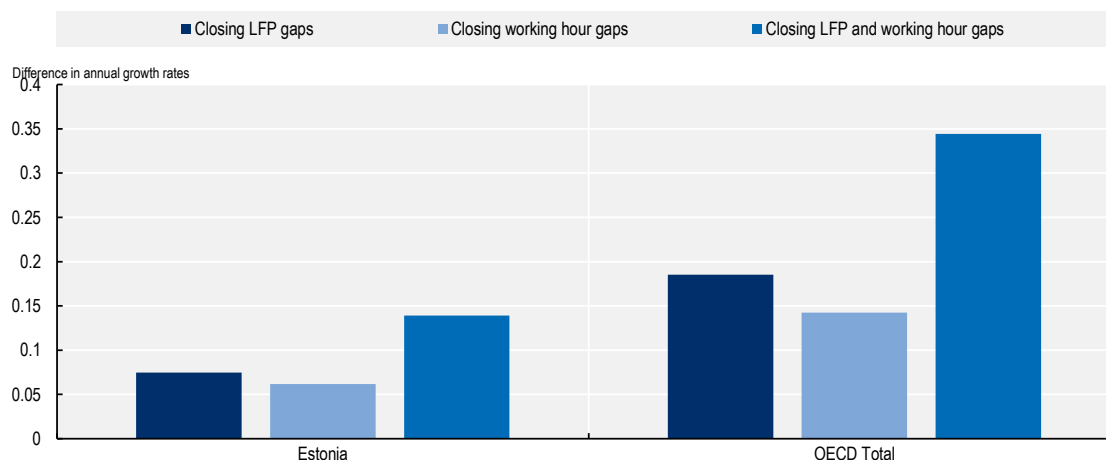
While the growth potentials from closing gender gaps in the labour market are quite considerable for Estonia, they are noticeably larger in some other countries. For example, across the OECD overall, about 0.19 percentage points of growth each year could be expected if the OECD-wide gender labour force participation gaps would be closed by 2050. This is because Estonia already has a relatively small gender gap in labour force participation and working hours, and would thus benefit to a lesser degree than other countries with larger gaps. However, as the gender gaps on the labour market have been particularly persistent over the last 20 years, Estonia is missing out on a substantial boost to economic growth that could be unleashed if men and women had the same engagement and chances on the labour market.

1.6.3. Addressing Estonia's particular gender equality and labour market challenges

The labour market scenarios discussed here do not say anything about the mechanism with which further gender equality and growth can be accomplished. For instance, as in many other countries, Estonia has relatively gender-segregated educational pathways. This segregation is particularly strong regarding STEM-studies (Science, Technology, Engineering and Mathematics) and may have a dampening effect on the overall productivity of women workers in the economy. With less gender stereotyping in education and a more equal sorting of boys and girls into educational fields, women could gain increased access to more productive jobs. This may subsequently boost annual potential economic growth per capita by 0.30 percentage points until 2050 (Chapter 7).

Figure 1.8. Closing gender labour market gaps spurs growth, but less than on average in the OECD

Estimated difference relative to the baseline in the projected average annual rate of growth in potential GDP per capita over the period 2020-50, different gender gap scenarios (closing gender gaps in labour force participation (LFP) and working hours simultaneously), percentage points, Estonia and OECD total



Note: See Annex 7.B for a description of the methods and data used. The OECD total is the weighted total across all OECD member countries (excluding Türkiye due to a lack of sufficient data).

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ; OECD (n.d.^[1]), OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>; and Employment Projections, and the OECD Long-Term Growth Model, <https://www.oecd-ilibrary.org/deliver/b4f4e03e-en.pdf?itemId=%2Fcontent%2Fpaper%2Fb4f4e03e-en&mimeType=pdf>.

Estonian women carry out most of the unpaid work in and around the house. Such persistent gender norms and a traditional division of paid and unpaid work can have substantial effects on women's opportunities in the labour market, e.g. through career breaks during career-defining periods (see discussion of the *motherhood wage penalty* above) and discriminatory behaviour towards women regarding hiring and career advancement. An equal sharing of unpaid work, as well as parental leave-taking, should increase women's access to more productive jobs. The potential boost to potential GDP per capita growth until 2050 may amount to 0.33 percentage points per year (Chapter 7).

Health problems that impair the ability to work and reduce the quality of life become more prevalent as individuals age. As such, the health status of the workers becomes an important determinant of life satisfaction and labour market attachment at older ages. Estonia has a relatively large gender gap in life expectancy and expectancy of disability-free life years. As a result, and in sharp contrast to other OECD countries, Estonian women above the age of 55 are more likely to be employed than Estonian men of the same age. An increase of male life expectancy, coupled with a closing of the gender labour force participation gap among older workers, may boost the aggregate national output in Estonia by 0.03 percentage points per year until 2050. Naturally, as male life expectancy increases, the total population of Estonian males grows as well and a larger fraction of men will reach retirement age relative to the baseline scenario. Thus, annual GDP per capita growth decreases by roughly -0.10 percentage points until 2050, as the total economic output is divided by a larger population base, at the same time as *aggregate* GDP increases due to the productive contribution of a larger old age labour force.

If the labour force participation of Estonia would increase independent of male engagement on the labour market, thus not being bound by convergence to male rates as in other scenarios, Estonia could potentially expect even more growth than under a simple closure of gender gaps in labour force participation. For example, if female labour force participation would converge to the rates found among women in Iceland,

which have the highest labour force engagement in the OECD, GDP and GDP per capita would be boosted by about 6% relative to the baseline scenario for 2050. This corresponds to an additional 0.19 percentage points of average annual growth between 2020 and 2050 and is driven by particularly strong increases of labour force participation for younger women (aged 15-39) and those aged 60 to 69.

Policy recommendations for Estonia

Promoting more gender quality in households and on the labour market could be beneficial for Estonian men and women alike. A more balanced sharing of work and family responsibilities amongst fathers and mothers could increase family well-being and enable men and women to reach their full potential in the labour market. Equal opportunities for women will also play an important part in supporting overall increases in productivity and spur elevated, more inclusive, economic growth. A more gender-equal society will also have different social benefits, including, better male health and fewer women exposed to partner violence. Estonia is well-positioned to tackle its challenges to more gender equality in society. To further support more gender equality in Estonia and to achieve higher social and economic well-being of women and men alike, this review recommends Estonian policy makers to:

- *Encourage a more equal division of the leave entitlements among parents.* Estonia has recently extended paternity leave from 10 working days to 30 calendar days. Parents can take parental leave in turn, while 60 days can be taken simultaneously by parents since 2022. The parental benefit can be used on a daily basis until the child reaches the age of three. While parents were previously only able to decide on the 71st day following the child's birth which parent would receive the parental benefit, fathers with a one-month-old child will now have the option to use the shared parental benefit. Reform increased flexibility in the use of parental leave and may make it easier for fathers to engage in childcare. To further stimulate fathers to engage in childcare, reforms could extend parental leave periods for the exclusive use by fathers – for example, through a “father quota” system. Reform could be introduced gradually, so that the leave period reserved for fathers is initially increased to 3 months, while the paid leave period mothers can take overall after childbirth is reduced to 15 months. To reduce gender gaps in labour market outcomes, it is key that the parental system generates a more equal share of parental leave entitlements among parents.
- *Provide a continuum of childcare supports to parents.* Estonia has a comprehensive system of work-life balance supports for parents, and net childcare fees for parents are among the lowest in OECD countries. However, access is an issue for many families with very young children: almost every tenth child aged between 18 and 36 months does not get a childcare place. Despite the demographic trends, which will exert downward pressure on the demand for childcare places, more public investment in formal childcare is required to ensure that both parents can return to full-time work when the period of parental leave runs out, or when parents want to return to work before that time. At present spending on family benefits focuses on cash support rather than investing in relevant services: there is a case for introducing a greater focus in family support on family services, including formal childcare.
- *Enshrine pay transparency policies on the Estonian labour market.* A renewal of the pay transparency measures originally planned under the *Gender Equality Act and Other Acts Amendment Act* of 2016 could mandate a firm-level reporting of the gender composition of the workforce and pay differences at different job categories. To ensure compliance with pay transparency, reporting measures could oblige employers to make their gender gap statistics publicly available. Government bodies, such as *Statistics Estonia*, could be tasked with the responsibility of utilising administrative data to compute firm-level gender gaps.
- *Complement pay transparency with other measures.* Pay transparency policies could be used to enshrine the concept of “equal pay for work of equal value”. Mandating pay transparency reporting

along a gender-neutral job classification system may achieve this. A government body, such as a *Pay Competence Centre at the Labour Inspectorate*, could validate and verify such a system. Online training courses directed at employers, for example in the framework of the *Virtual Competence Centre at the Ministry of Social Affairs*, could raise awareness and promote gender equality among key stakeholders.

- *Ensure that gender stereotypes are not perpetuated in the classroom.* Compulsory pre- and in-service training on gender equality for future and incumbent teachers, career counsellors and youth workers at all levels and in all types of schools and higher education institutions can reduce gender stereotyping in education. Moreover, while avoiding spreading gender stereotypical worldviews is a matter of consideration in the review process of textbook proposals, and the curricula of both basic and upper secondary schools in Estonia define gender equality as a core value, there is no efficient national mechanism to prevent a textbook full of gender stereotypes from reaching children. The review of textbooks could thus be improved by an increased focus on gender equality. To enhance enforcement, the Ministry of Education and Research could publish guidelines to tackle gender bias in instructional materials.
- *Reduce gender-segregated sorting in education and respond to future labour demands.* Teaching digital skills has been considered a national priority in Estonia since the launch of the Tiger Leap programme in 1996. Since the mid-2010s, an impressive set of policies have been implemented to fully mainstream the theoretical and applied learning of basic and more advanced digital skills in the Estonian education system, leading the share of primary and lower secondary schools with an elective subject focusing on ICT to reach 77% in 2020/2021, up from 50% in 2015/2016. To ensure that the improved participation of male and female students in ICT activities translates into more girls choosing ICT careers, one could consider more systematically adopting a gender lens throughout the curriculum, for instance by increasing pupils' and students' exposure to female role models working in STEM fields. To increase the attractiveness of EHW (education, health, and welfare) jobs, one could link pay rises with successful in-service training for new essential qualifications.
- *Involve all Estonians in the fight against gender-based violence.* Regular communication of how and why Estonian policies combat gender-based violence at high coverage events must be accompanied by strengthening the promotion of reporting mechanisms, to encourage victims, witnesses, as well as (potential) perpetrators to report the violence they undergo, witness, or (intend to) perpetrate.

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2 The labour market situation for men and women in Estonia

This “outcomes” chapter illustrates the existing gender inequalities in Estonia and discusses their possible causes and consequences. More precisely, it considers how key labour market outcomes have evolved over the longer term and how they have been affected by the ongoing COVID-19 pandemic in the shorter term. In some regards, men and women enjoy more equal conditions on the Estonian labour market than on average in their OECD counterparts. For instance, participation in the labour market is high, and women are working similar number of hours as men are. However, there are some key challenges where it is not clear that the labour market will correct at a similar pace as in other countries, which means that Estonia risks falling behind. These areas include gaps in wage and education, as well as occupational and sectoral segregation. These differences in gender outcomes are compounded by existing ethnic inequalities. To correct outcomes in these areas, Estonia needs decisive policy action clearly informed by a gender perspective. The analysis is based on data from cross-country databases and, where needed, complemented by in-depth inquiries into Estonian administrative and survey data.

2.1. Introduction and main findings

Estonia has made great strides in economic development since it regained independence in 1991. However economic and labour market gender differentials remain persistent. In recent decades, there has been a sectoral transformation away from family-based agriculture and manufacturing and toward a market style economy with a large service sector. Women have gained from this transition and are now experiencing increased returns to education (Meriküll and Tverdostup, 2021^[1]). However, this evolution has not equalised conditions on the labour market. Despite similar overall participation rates, Estonia has one of the larger gender wage gaps in the OECD. This will in large part be caused by segregation of men into mathematics-focused and high-paid sectors and women into social and lower-paid sectors, in combination with a hard glass ceiling and prevailing traditional gender norms.

Women still shoulder the majority of unpaid work in the home in Estonia, and pressures are mounting. An ageing population leads to an increasing number of people in need of care, and the current health care system is already overburdened and faces budgetary pressures. Given the still prevailing belief that a woman's most important role is to care for her family, the pressure is building on working-age women to shoulder responsibility of this increasing unpaid work. Care burdens increased with the outbreak of the COVID-19 pandemic, which caused some women to accept shorter hours or leave the labour market. There are pertinent questions about how to deal with care and other domestic work challenges so women can engage in paid work on parity with men.

There is a lot to gain from more economic equality between men and women and policies to address gender inequalities are part of the broader national effort to tackle income inequality and poverty. Since many women are low-paid, an increase in the minimum wage, support for elderly poor, and a decline in overall income inequality will disproportionately benefit women (Meriküll and Tverdostup, 2021^[1]). Opening up more opportunities to women will also play an important part in supporting overall increases in economic growth and productivity (OECD, 2021^[2]). Estonia is in a good position to design and support successful policies: central government debt is the lowest among OECD countries and with the (planned) allocation from the EU recovery fund, there appears to be more fiscal space to invest in policies for gender equality (OECD, 2021^[3]; Eamets, 2012^[4]; OECD, 2021^[5]).

Main findings

- The female employment rate (72%) was higher in Estonia than across the OECD (61%) in 2019, and the gender gap in favour to men is relatively small at 7 percentage points – half the OECD average. At 87%, Estonia stands out among OECD countries with its high proportion of employed women who work full-time. During the COVID-19 pandemic women's employment took the initial hit relative to men's, but the gender employment gap shrunk in the second half of 2020.
- Estonia's gender wage gap is large. Despite a recent decline, it remains at 17%, well above the OECD average of 12%. This gender wage gap between men and women is wider among minority nationalities.
- The role of women as unpaid workers in the home is one important reason why gender inequalities on the labour market are so persistent. The difference between men's and women's hours spent doing work in the home is smaller in Estonia (1.5) than across the OECD (2.1), but not as small as in the least unequal country, Sweden (0.8). 36% of women reported that they felt overburdened by housework before the pandemic (compared to 16% of men).
- The pressure of unpaid house work – falling most heavily on women – has increased during the pandemic, raising immediate questions about women's ability to engage in the labour market on parity with men, particularly during early and mid-career when wage increases and promotions are common. Looking ahead, increased longevity, poor (male) health, low health care funding look set to increase the demands on women to do unpaid work, unless there is a change in attitudes and policy.
- Another important reason for different outcomes is that women tend to work in places with lower financial rewards. Young women are underrepresented as graduates in the generally well-paid jobs that follow studies in science, technology, engineering and mathematics (STEM). Just 17% of information and communication technology graduates were women in 2019. In contrast, only 8% of graduates in education studies are men. Similarly, men make up just 14% of jobs in health and welfare sectors. There has been very little change in any of these proportions over time.
- Vertical segregation is another source of labour market inequality, and the so-called glass ceiling is thick in Estonia: with 9% it had the fifth smallest share of women on boards among OECD countries in 2019. One reason for this could be that it is not widely believed that business would benefit from more female leaders: while a majority of women (56%) agree, only 36% of men agree that businesses would benefit.
- Inequalities between Estonians and non-Estonians persist today and compound with gender to lead to greater disadvantage in labour market outcomes for non-Estonian women.
- On average, people in Estonia have traditional views regarding gender equality relative to OECD averages, but particularly compared to leading countries such as Sweden. Seventy eight percent of Estonians (compared with 71% across the OECD) believe that women are more likely than men to make decisions based on their emotions. Beliefs about how women make decisions are core to how women are perceived in their education and careers – and particularly with regard to how much weight one can assign to a woman's professional opinions.

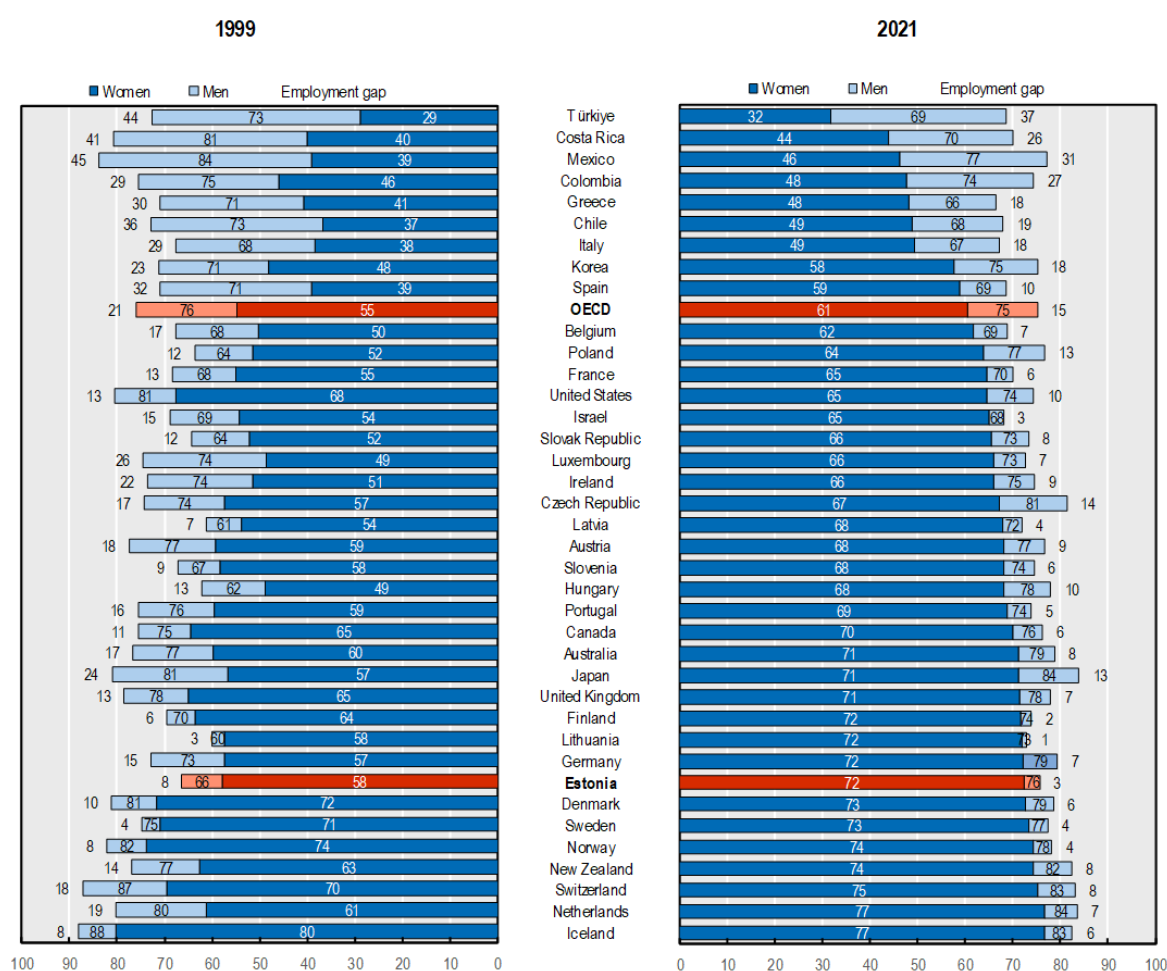
2.2. Gender gaps in labour supply and earnings

2.2.1. Women are only slightly less likely than men to be in paid work

This section exposes existing complexities and contradictions for women in the Estonian labour market. A good starting place is overall participation rates in paid work. Women in Estonia are relatively likely to be employed compared to women OECD-wide. During the COVID-19 crisis in 2021, data shows that 72% of women were working in the labour market in Estonia, compared to the considerably lower OECD average rate of 61%. The employment rate in Estonia was similar to that in the United Kingdom and Denmark, but lower than that in countries like Iceland and Switzerland (Figure 2.1).

Figure 2.1. Gender employment gaps in Estonia are small but persistent

Employment rate (%), by gender, 1999 and 2021



in employment rates is due to Estonia never fully developing a breadwinner-homemaker system (where men engage in paid work while women take unpaid responsibility for the home) as those observed in western Europe and the United States. In other words, women have traditionally participated in paid work to a similar degree as men, so it is unsurprising that gender employment gaps are small.

Since 1999,¹ the female participation rate in Estonia increased by 14 percentage points to 72% in 2021 and male participation grew by 9 percentage points to 76% over the same time period. Employment increased faster in Estonia than across the OECD on average where female employment increased by 6 percentage points and male employment rate fell by 1 percentage point (Figure 2.1). The rise of the service economy in Estonia benefited women's employment and wage opportunities in the years before the COVID-19 pandemic. Growing activity in this sector in recent decades accounts for an important share of the observed trends in the increasing number of hours that women work and their pay relative to men (Ngai and Petrongolo, 2017^[7]; Blau and Kahn, 2017^[8]).

In addition, net migration from Estonia between 2000 and 2014 can have played some part in tightening labour markets at home (Eurostat, 2022^[9]). Between 2000 and 2014, Estonia experienced negative net migration, which means that more people tended to leave the country than arrive to it. After 2014 the tide turned and from 2015 and onwards, Estonia has had positive net migration. The share of women migrating out of Estonia was slightly lower after 2014 than before, but has remained stable in recent years (Statistics Estonia, 2022^[10]). Overall, 2.8 per 1 000 people arrived to Estonia in 2020, which is similar to the figure in Norway (2.8) and Germany (2.9). The figure is lower than that in neighbouring Lithuania (7.2). However, Latvia has not yet managed to turn the trend of negative net migration with 1.7 per 1 000 people overall leaving the country in 2020 (see Annex Table 2.A.1).

The war of aggression by the Russian Federation against Ukraine has led to an inflow of a great number of refugees from February/March 2022 and onwards. By 5 September 2022, Estonia has received 54 197 Ukrainian war refugees. This is around 4% of Estonia's total population. It is as yet unclear how many Ukrainian refugees will end up staying in Estonia, for how long, and what the socio-economic effects of this inflow might be.

2.2.2. Women bore the initial shock of the COVID-19 pandemic, but female employment rates have already surpassed pre-crisis levels

The COVID-19 pandemic and ensuing economic crisis hit Estonia with its export-oriented economy hard in early 2020, but since then the economy has started to recover. There was an immediate hit to the labour market in the first half of 2020 but due to some recovery in the second half, the employment rate only fell by just under 2 percentage points between 2019 and 2020, to 74%. This fall was of similar magnitude to the OECD-wide average (nearly 3 percentage points) over the same time period. By the end of 2021, the employment rate had reached 75%, just 1 percentage point below pre-COVID levels.

The employment crisis in 2020 hit women, young people and those with lower levels of education harder than their male, prime-aged (25-54) and well-educated counterparts. In large part this is because they tend to be overrepresented in sectors that were hardest hit by restrictions on social interaction, including leisure, hospitality and non-food retail (OECD, 2020^[11]; Gustafsson and McCurdy, 2020^[12]). In addition, the additional care needs that have arisen partly due to school closures have fallen heavily on mothers (OECD, 2021^[3]). Many women therefore have been forced to take on fewer hours, assume part-time work or leave the workforce entirely even though they still had an active job (see Section 2.3.1 for more on unpaid work during the pandemic).

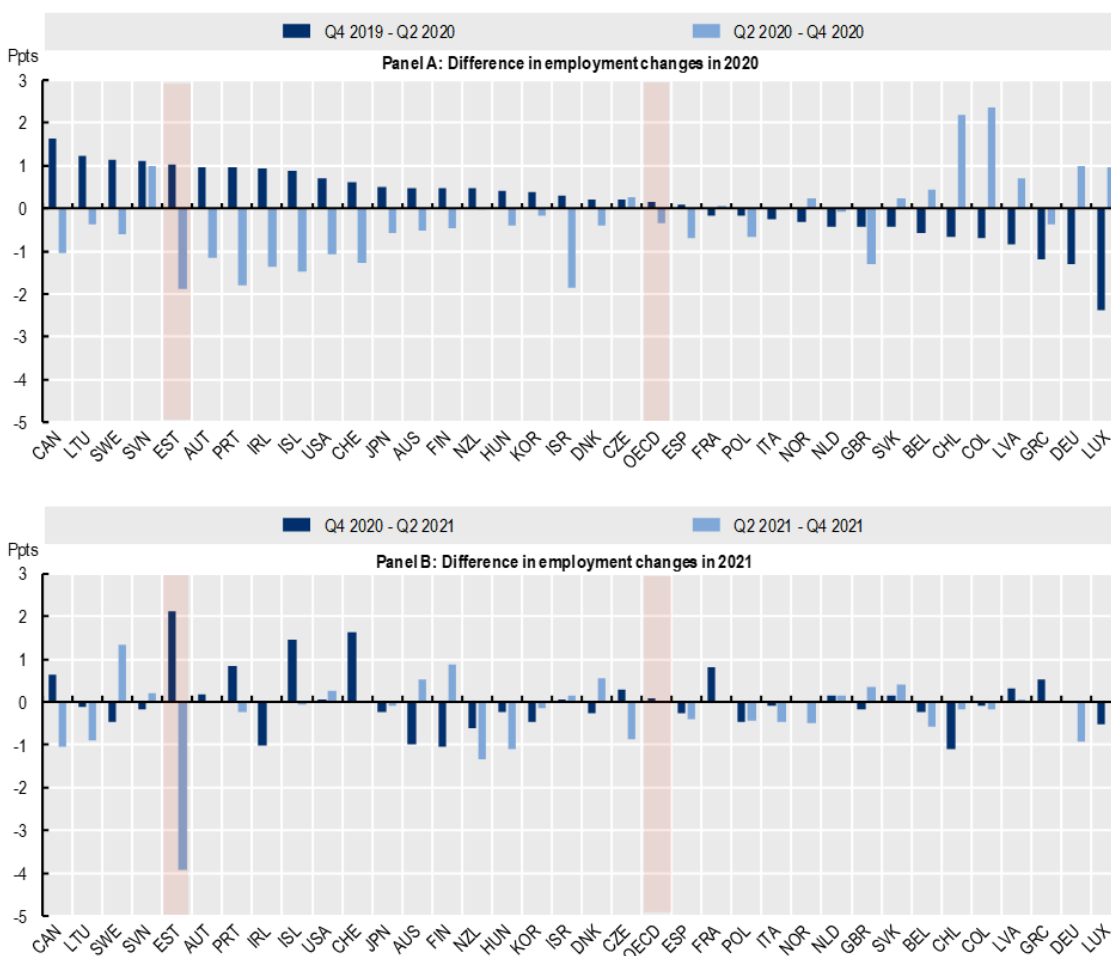
Figure 2.2 illustrates the initial shock on female employment participation. The immediate negative changes to female employment rate resulted in increases in the gender employment gap. The gender differences in these shocks were among the largest across the OECD in Estonia (Figure 2.2 Panel A, dark blue bars). As would be expected, women also lost more hours of work on average than men in the

beginning of the crisis: women worked 13% fewer hours in the second quarter compared to the year before, and men worked 11% fewer hours. These declines in Estonia are slightly smaller than the average falls in hours worked in the OECD: 16% for women and 15% for men (OECD, 2021^[13]).

Longer-term effects on employment differed from the immediate hit, however. The employment gap declined immediately as the economy started its recovery in the second half of 2020 and women came back to work (Figure 2.2 Panel A, light blue bars). At the same time, men experienced a slightly greater negative impact on their working hours (down 4% year-on-year) in the fourth quarter than women did (down 3% year-on-year) (OECD, 2021^[13]). As a new wave hit in spring 2021 and new emergency measures were put in place, employment rates decreased for both men and women – with women again taking the bigger hit – in the first half of 2021 (Figure 2.2 Panel B, dark blue bars). Female employment rates subsequently recovered and the employment gap shrank. By Q4 in 2021, female employment had surpassed pre-COVID levels (at 74.5%), and the gender employment gap was smaller than the pre-COVID gap (Figure 2.2 Panel B, light blue bars).

Figure 2.2. The gender employment gap widened in the two initial months of COVID-19

Gender gap in employment rate changes, quarterly data, seasonally adjusted



Note: The gap is calculated as the difference in employment rate changes between men and women aged 15-64 years old. There have been some changes introduced to the EU Labour Force Survey from 2021 onwards. These include a harmonisation of classifying the absences from work, especially for people on parental leave and seasonal workers. See more detail on this here: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_Labour_Force_Survey_-_new_methodology_from_2021_onwards#Main_changes_introduced_in_2021.

Source: OECD Short-Term Labour Market Statistics database.

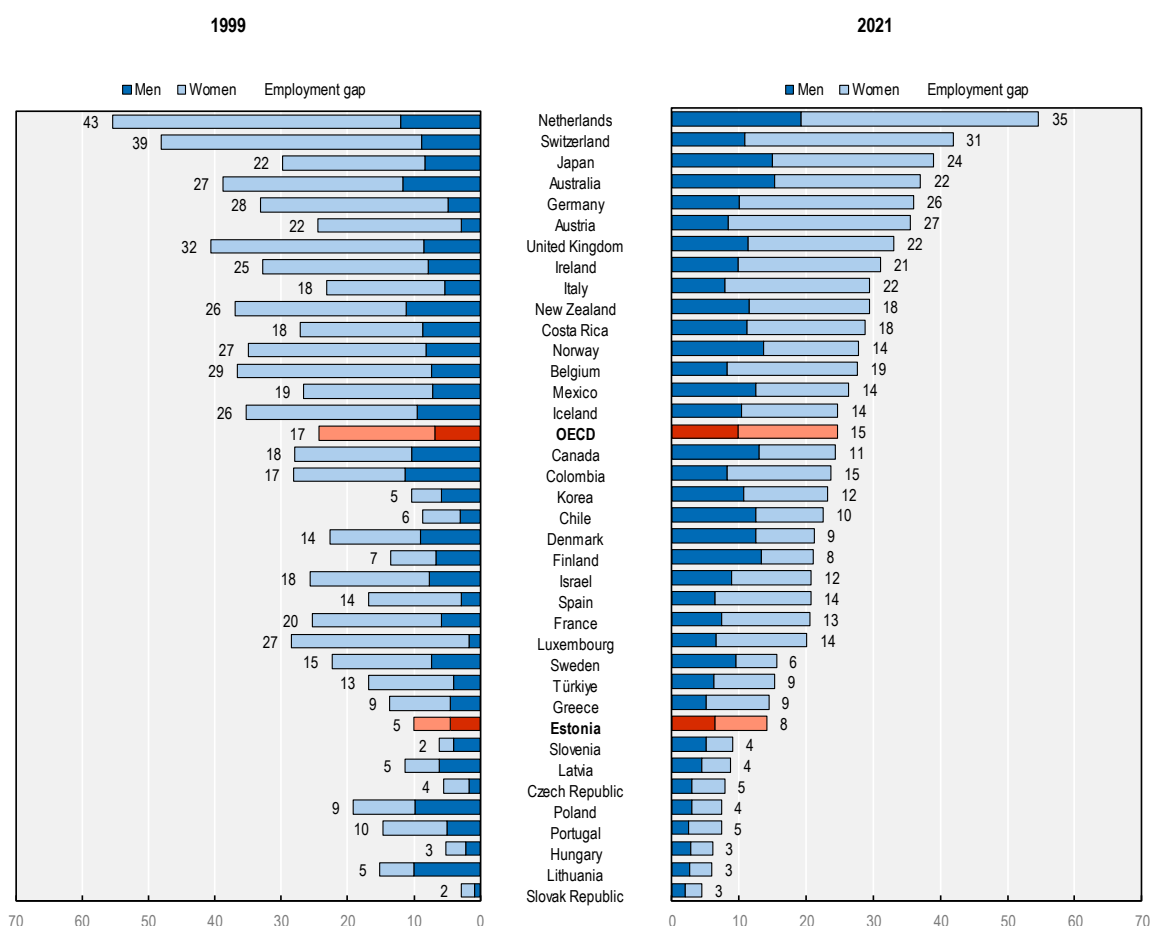
2.2.3. Women typically work full-time in Estonia, unlike in other high-employment countries

It is not just whether people are in employment or not that matters for the pay packet, but the number of hours worked can be just as important. In addition, working fewer hours per week or on a part-time contract is associated with lower wage growth, slower career progression and higher risk of job loss in a downturn. The conditions in Estonia are conducive for full-time work for both men and women.

Estonia distinguishes itself from other high-employment countries: the relatively high female employment rate in Estonia does not rely on a high share of women working on a part-time basis, as in Switzerland, the Netherlands or Germany. Instead, the incidence of employed women working part-time is considerably lower than the OECD average (14% compared to 25%), but slightly higher than among its Baltic neighbours Lithuania (6%) and Latvia (9%) (Figure 2.3). Part-time work had increased slightly for both female and male workers in Estonia between 2000 and 2021: by 3 percentage points for women and by 1 percentage point for men.

Figure 2.3. More women work full-time in Estonia than across the OECD

Proportion of women in part-time work (%), by gender and year



Note: Instead of 2021, data refer to 2019 for Australia. Instead of 1999, data refer to 2000 for Estonia, Latvia and Slovenia, 2001 for Australia and Colombia and 2010 for Costa Rica. Data refer to the incidence of part-time work in total employment. Part-time employment is based on a common 30-usual-hour cut-off in the main job.

Source: OECD Employment Database.

The high participation in full-time work among women in Estonia means that the gap between the proportion of male and female workers on part-time contracts is relatively low: 7 percentage points in Estonia compared to 15 percentage points across the OECD (Figure 2.3). Correspondingly, the average working week is similar for men and women in Estonia: the mean hours per week is 36.7 for women and 39.1 hours for men. Compared to the OECD averages, women in Estonia tend to work longer hours than across the OECD, while men work shorter hours in Estonia compared to the OECD average. Based on participation in the labour market and the number or hours worked per week, women in Estonia seem to be in a good position to enjoy relatively equal labour market outcomes to men. However, the following sections show that women face significant disadvantage on other measures of gender equality.

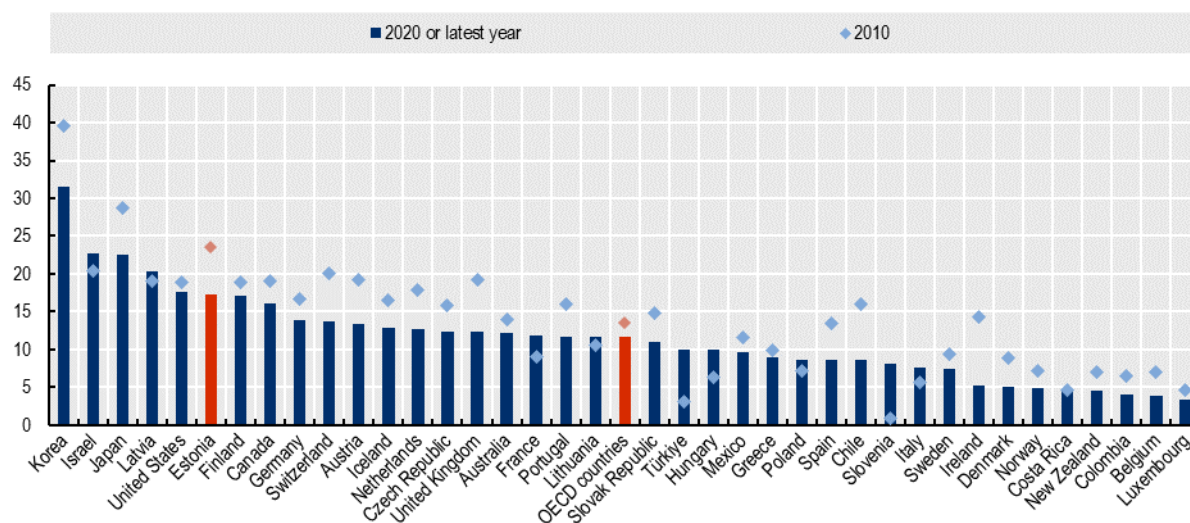
2.2.4. The gender wage gap is relatively large in Estonia

Even though women and men in Estonia are similarly likely to be in a job and tend to work a similar number of hours in that job, women receive significantly less money than men each month. Figure 2.4 shows the gender gap for median monthly wages among full-time employees. The most recent data shows that at median earnings, the gender wage gap was 17% in Estonia, compared with 12% on average across the OECD.

It is encouraging that the gender wage gap has shrunk faster in Estonia than in the OECD since 2010 (6 percentage points compared to 2 percentage points). There has been strong wage growth since the financial crisis: between 2008 and 2019, average real wages grew by 33%, placing Estonia among the countries with the highest wage increase in the OECD (OECD, 2021^[14]). However, it remains to be seen how Estonia's current high inflation will affect real wage growth in coming years (Eurostat, 2022^[15]). This could be important as Estonia still has some way to go before the wage gap has shrunk to the levels seen in leading countries like Belgium or Norway (Figure 2.4).

Figure 2.4. The gender wage gap is large but decreasing

Gender wage gap at median gross earnings, by year



Notes: Instead of 2010, data refers to 2011 for Chile and Costa Rica. Instead of 2020, data refers to 2019 for Belgium, Colombia, Denmark, Finland, Germany, Ireland and Italy; 2018 for Costa Rica, Estonia, France, Iceland, Israel, Latvia, Lithuania the Netherlands, Slovenia, Spain and Türkiye; 2014 for Luxembourg.

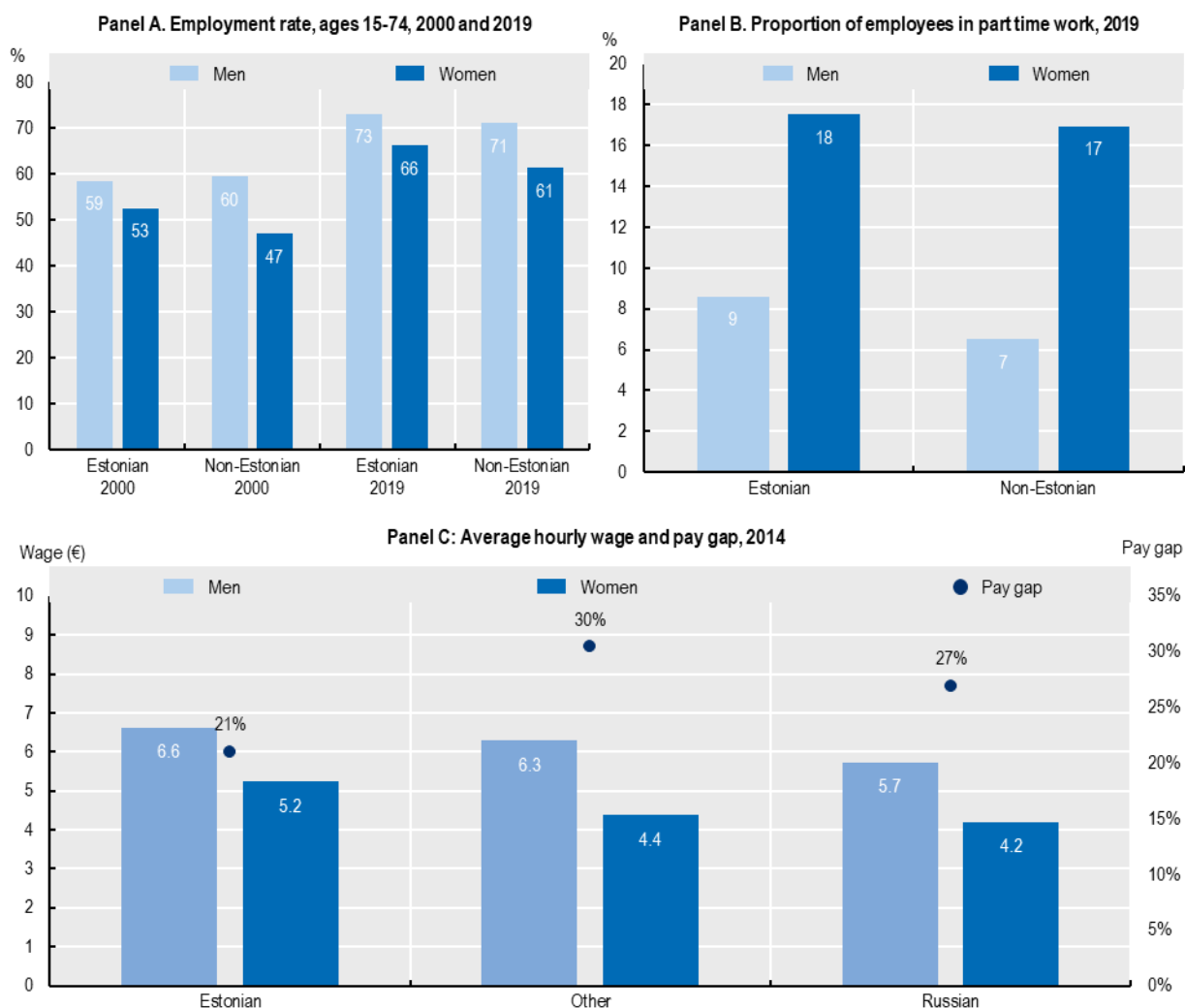
Source: OECD (2022), Gender wage gap indicator, available at www.oecd.org/gender/data/employment.

2.2.5. Gender gaps are larger among the non-Estonian population

Figure 2.5 shows that the gender employment gap was consistently larger among the non-Estonian than the Estonian population (Box 2.1). Additionally, non-Estonian women were 5 percentage points less likely to be in work than Estonian women. At the same time, Russian and other non-Estonian women are receiving less pay per hour relative to their male counterparts compared to Estonian women: the hourly pay gap was 30% among Russians and 27% among other non-Estonians, compared with the considerably lower 21% gap among Estonians. For every hour worked, Russian and other non-Estonian women receive lower pay (about EUR 1) compared to their Estonian counterparts. (These figures relate to the *hourly wage gap* and are therefore not directly comparable with the data in Figure 2.4 which relate to the *monthly wage gap*).

Figure 2.5. Gender gaps in labour market outcomes are larger for non-Estonians

Selected labour market indicators, by gender and nationality



Note: Hourly wages refer to gross hourly wage.

Source: Panel A and Panel B: Statistics Estonia. Panel C: Based on Structure of Earnings Survey, 2014, used in Täht, K. (Toim.) (2019). Soolise palgalõhe kirjeldamine ja seletamine – tehniline ülevaade. RASI toimetised nr 10. Tallinn: Tallinna. Ülikool.

It is encouraging that Figure 2.5 shows that the overall decrease in the gender employment gap has been driven by non-Estonians. While employment has increased rapidly for non-Estonian women, Figure 2.5 does not show any large differences in the proportions of employees in part-time work. Although it is clear that more can be done to address the intersectionality between ethnic and gender inequalities in Estonia, some improvements have materialised.

Box 2.1. Socio-economic inequalities by “ethnic nationality”

Differences between Estonians and non-Estonians – throughout, the terms “Estonian” and “non-Estonian” refer to ethnic origin and not citizenship. Such differences today largely originate from events in the aftermath of the Second World War as the former Soviet Union started to integrate Estonia into the Union. Between 1945 and 1989 the number of Russian speakers living in Estonia grew. For largely administrative reasons, Russian-speakers tended to settle in their own, separate communities. This contributed to sustained segregation of population groups in terms of employment participation, education systems and residential areas (Saar, Krusell and Helemae, 2017^[16]; Vetik, 1993^[17]).

In 2020, Russian people still constituted a large minority in Estonia, making up almost one-quarter of the population (Statistics Estonia, 2021^[18]). However, “Russians” are no longer a homogeneous group, and some, particularly young, urban and economically better off Russians are well integrated into Estonian society (Kooft, 2014^[19]). Other minority ethnic groups in Estonia include Ukrainians, Belarusians and Finns (Statistics Estonia, 2021^[18]).

2.2.6. Gender gaps in entrepreneurship activity are relatively large in Estonia

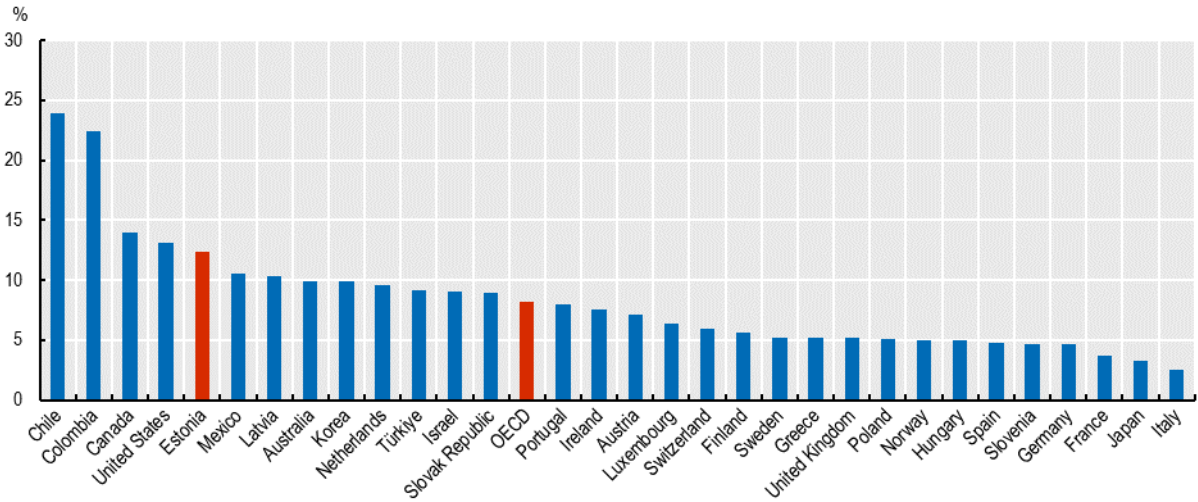
Small businesses and entrepreneurs make up a large portion of business activity in Estonia. Overall, micro- and Small and Medium Enterprises (SMEs) contribute to 78% of employment and 76% of value added (OECD average, 69% and 59%) (OECD, 2021^[20]). There are also more female entrepreneurs in Estonia than elsewhere in OECD (Figure 2.6). The country has among the highest proportion of working-age women who are actively involved in starting a business or are owner-operators of young businesses (12% across the OECD (8%). Another way to estimate innovativeness is to consider the number of patents filed. Looking at the number of European patent applications per million people, for instance, Estonia ranks 24th, ahead of its neighbours Lithuania and Latvia (31st and 32nd) (European Patent Office, 2020^[21]).

Despite high overall levels of entrepreneurship, Estonian is still lagging behind its comparators in terms of gender equality (Figure 2.7). In 2020, 28% of self-employed workers in Estonia were women, compared to 33% across the EU. Female-run firms are also more likely to be small-scale, solo self-employed, than male-run firms in Estonia. This reflects what women expect from their businesses too. Fewer self-employed women report expecting to see high employment growth in their firms, compared to their female counterparts in the EU (OECD, 2020^[22]). Indeed, out of all self-employed business owners that also employ others, the proportion of women in 2020 was lower in Estonia than across most of the OECD: at 19% in Estonia, it was only higher than in Türkiye at 12%, and lower than the EU-wide average at 27%. It may therefore be justifiable that initiatives to improve the opportunities for female entrepreneurs focus on helping women to scale up their businesses, hire employees and increase profitability.

A favourable business environment for start-ups will have contributed to high overall numbers of entrepreneurs. Estonia ranked among the most favourable in the EU for regulatory environment due to the low start-up costs and ease of complying with taxes (OECD, 2021^[23]). While Estonia ranks around the same as the EU-average in terms of the administrative burden experienced by businesses, the government is actively working to reduce it. The Zero-Bureaucracy project initiated in 2015 and the Reporting 3.0 programme implemented in 2018 to automate business reporting will both play a role in easing the administrative burden and facilitate entrepreneurship (OECD, 2020^[24]).

Figure 2.6. A relatively high proportion of women are engaged in early-stage entrepreneurship

The total female early-stage entrepreneurship rate, 2020

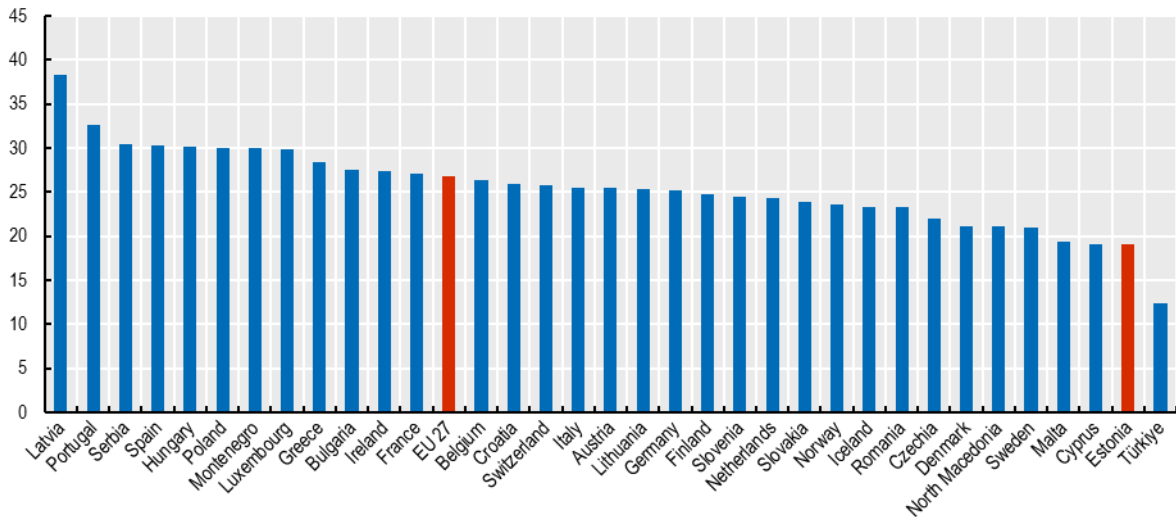


Notes: The total early-stage entrepreneurship rate presents the proportion of the adult population (18-64 years old) that is actively involved in starting a business or who is the owner-operator of a business that is less than 42 months old. All OECD countries participated in the GEM survey between 2016 and 2020 except for Belgium, Czech Republic, Denmark, Iceland, Lithuania and New Zealand. The following countries did not participate in the survey in every year (years of participation are indicated): Australia (2016-17, 2019), Austria (2016, 2018, 2020), Estonia (2016-17), Finland (2016), France (2016-18), Hungary (2016), Ireland (2016-19), Japan (2017-19), Latvia (2016-17, 2018-19), Mexico (2016-17, 2019), Norway (2019-20), Portugal (2016, 2019) and Türkiye (2016, 2018).

Source: GEM survey.

Figure 2.7. Estonia is lagging behind its European counterparts on female entrepreneurship

Female share of self-employed business owners that also employ others, 2020



Source: Eurostat.

Estonia has also focused on improving conditions to increase innovation within Small, Medium Enterprises (SMEs) and to support entrepreneurs to scale their businesses (OECD, 2020^[22]). Initiatives have focused on increasing innovation and support growth, with some initiatives having been specifically tailored to under-represented groups including women, youth and unemployed people (OECD, 2021^[23]). For instance, in 2012, the ETNA Microcredit scheme was launched to provide mentoring and training support to female rural entrepreneurs (OECD, 2014^[25]). The Estonian Women's Studies and Resource Centre (ENUT) also leads a network of NGOs that support women's entrepreneurship, for instance by organising an annual conference where around 200 female entrepreneurs participate. Another wide-reaching project was the 5by20 initiative launched in 2010 by the Estonian Association of Business and Professional Women with a number of partners, notably Coca-Cola. It set out to help female entrepreneurs to overcome some of their most common challenges, and by 2020 1 780 women had participated.

2.3. Drivers of gender gaps in labour supply and earnings

This section examines some possible causes of gender gaps in labour supply and earnings. First, it considers unequal work-life balance opportunities for men and women in Estonia relative to in the rest of the OECD countries. Second, it discusses horizontal segregation, that is, the fact that women are overrepresented in sectors and occupations characterised by lower earnings. It considers vertical segregation, in other words, that women progress more slowly than their male counterparts in the same industry and occupation as men, and ends with indications on the prevailing attitudes in Estonia regarding the role of men and women.

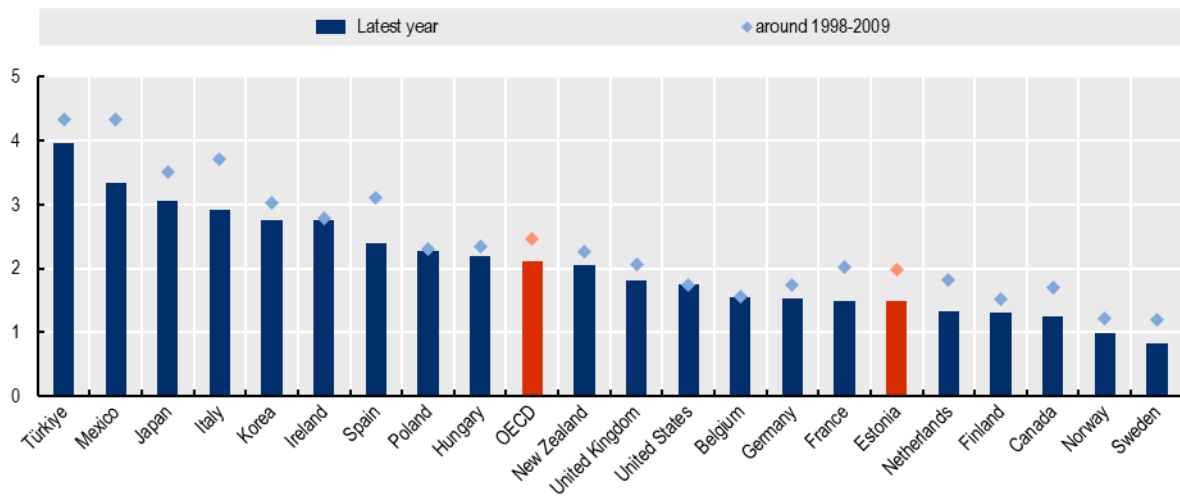
2.3.1. Women shoulder the majority of unpaid work

Across OECD countries, women do more of the unpaid work in the home, such as cleaning, cooking and caring for children and other relatives in need (Meriküll and Tverdostup, 2021^[1]). The norms dictating women to take on this labour often prevent women from focusing on their careers or paid activities to a similar extent to men. Women often end up doing more total (paid and unpaid) work than men, and Estonian women spend 70 minutes a day more in total work than men do, which is considerably higher than the OECD average of 27 minutes. Gender gaps are larger in Estonia than in the OECD since women and men tend to spend a similar number of hours in paid work, but on top of this, women also spend significantly more time than men doing unpaid work in the home while men take leisure time. Meanwhile, in other countries across the OECD, women's longer hours in unpaid work tend to be counterbalanced by shorter number of hours in paid work (such as Japan and Australia). Alternatively, in some countries (such as Denmark and Sweden), women and men spend a similar number of hours in paid work and also a similar number of hours in unpaid work (OECD Gender Data Portal, for a detailed analysis on the United Kingdom, see (Bangham and Gustafsson, 2020^[26]).

Before the pandemic, women spent on average 2.1 hours more than men doing unpaid work across the OECD. In Estonia, the difference is smaller, with women doing 1.5 hours more on unpaid house work compared to men (Figure 2.8). This places Estonia close to France and the Netherlands but still some distance from the leading countries Norway and Sweden where women did 1.0 hour and 0.8 hours more than men, respectively.

Figure 2.8. Women are shouldering the heaviest burden of unpaid housework

Difference between women and men in hours spent in unpaid work per day



Note: Time spent in unpaid work includes: routine housework; shopping; care for household members; childcare; adult care; care for non-household members; volunteering; travel related to household activities; other unpaid activities. For more information on the exact categories used for each country and a detailed breakdown by sub-activity refer to the OECD Time Use Database available via the following link: OECD Time Use Database., <https://stats.oecd.org/index.aspx?queryid=54757>.

Source: OECD Time Use Database for latest year and OECD (2011), “Cooking and Caring, Building and Repairing: Unpaid Work around the World” in *Society at a Glance 2011: OECD Social Indicators*, https://doi.org/10.1787/soc_glance-2011-3-en, for data around 1998-2009.

This unequal sharing of unpaid work is consistent with the variation of gender gaps in employment rate and labour earnings by age. During their prime career years, women to a larger extent than men work in less intensive or time-consuming jobs, move to part-time work, have flexibility in work hours, and accept shorter commutes. This translates into fewer options during job search, slower wage growth and sluggish progression, see Chapter 3 and OECD (2021^[13]).

As would be expected, considerably more women than men report that they feel overburdened by housework in 2021:² half of women in Estonia (50%) answer positively to the question “Have you ever felt that you have too big a share of household chores on you?”, while only a minority of men (20%) do. The survey results also suggest that people are ready for change: a large majority (74%) of men believe that men should be more involved in the care and parenting of children (Estonian Gender Equality Monitoring, 2021^[27]).

During the pandemic, the time that needed to be spend on homework increased, and it was women who picked up the majority of the extra work. For instance, while children had previously had meals in school, now parents had to prepare three meals a day instead of two, and provide extra support with learning and homework. In focus groups, women in Estonia also emphasised the extra “invisible” work that was required during the pandemic, including home planning and management (Haugas and Sepper, 2021^[28]). Both seen and unseen unpaid labour increase if there are several children in the household or if some children have special needs. Women reported different ways of coping with the extra time pressures: some reported reducing the hours they sleep, decreasing their hours of paid work or giving up their employment completely. This can be contrasted against how men talked about additional pressures on their time during the pandemic. Rather than reallocating time from sleep or paid work, fathers lamented having less time to themselves (Haugas and Sepper, 2021^[28]).

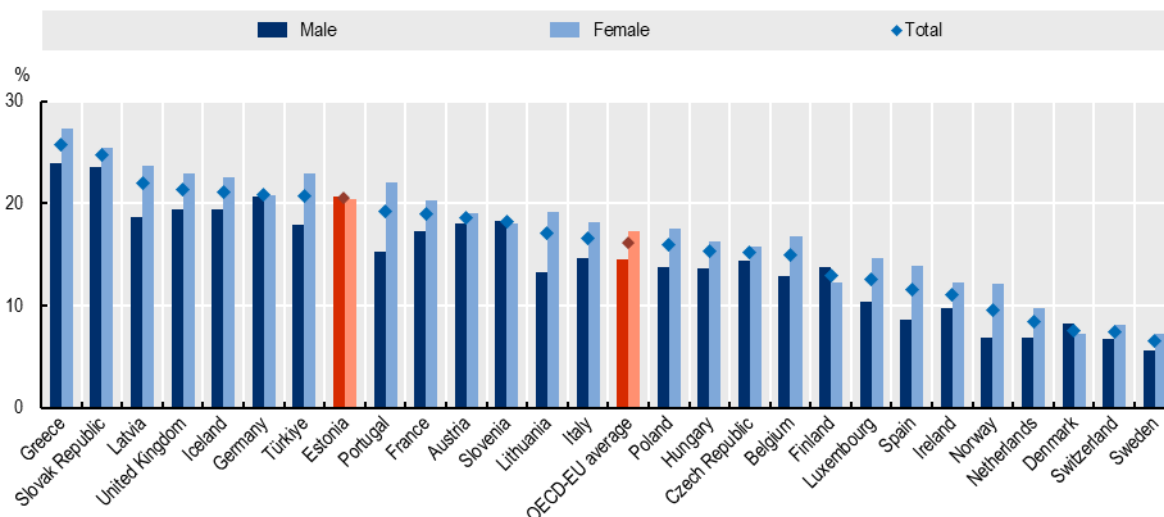
2.3.2. Gender health gaps mean headwinds for women's labour market engagement

Estonia has seen dramatic increases in life expectancy since the beginning of the transition period: life expectancy at birth has risen from 70 year in 1989 to 79 years in 2020 (OECD, 2021^[29]). While these gains should be celebrated, they also pose particular challenges for women. The official pension age for both men and women is 63 year since 2016 (up from 61 for women). However, because women typically live for almost 9 years longer than men, they will spend longer in retirement and are more exposed to poverty risks (OECD, 2021^[31]). Old-age pension payment rates are not high and old-age relative poverty – the share of people whose income falls below half of the overall median income – in Estonia, at 38% was among the highest across the OECD countries in 2018, third after Korea (43%) and Latvia (39%) (OECD, 2021^[30]).

Population ageing also leads to increased age-related care needs. The proportion of people age 65 had grown to 20% of the population in 2020 and its old-age dependency ratio was already 5 percentage points higher than that in the OECD (Annex Table 2.A.2). The expected number of years in old-age poor health (calculated as the overall life expectancy at birth minus the expected healthy life expectancy at birth) increased from 8 in 2000 to 10 in 2019 (WHO, 2020^[31]). In Estonia, around one in five (21%) individuals aged 65 years or over reported long-standing severe limitations in usual activities due to health problems in 2020, as opposed to one in six (16%) on average in other OECD countries which are also EU members (Figure 2.9). Figure 2.9 shows that when self-reported poor health is considered there are small gender differences in Estonia. However, it should be kept in mind that this refers to people's own opinions. When looking at specific outcomes, men's health tends to be significantly worse than women's in Estonia, which represents a significant barrier to men's employment in later life (Box 2.2).

Figure 2.9. The Estonian population is experiencing worse health in later life than in most other EU countries

Share of individuals aged 65 years or over who report long-standing severe limitations in usual activities due to health problems in 2020



Note: Data for Iceland and the United Kingdom refer to 2018.

Source: Eurostat, Self-perceived long-standing limitations in usual activities due to health problem by sex, age and income quintile, https://ec.europa.eu/eurostat/databrowser/view/HLTH_SILC_12_custom_1368548/default/table?lang=en.

An ageing population and worse health in old life can mean that the “sandwich generation” of women caring both for children and elderly parents become even more squeezed. In Estonia, informal care is the backbone of current long-term care provisions. Indeed, Estonia had among the highest proportion of people in the EU with care responsibilities for children and adult relatives, second only after Ireland (Eurostat, 2019^[32]). According to the Estonian Social Survey, women made up almost 60% of informal long-term carers in 2020, and women assisting elderly relatives and family members with disability were more than twice as likely as their male counterparts to devote 20 hours or more per week providing such care. These long care responsibilities can curtail family members’ – especially women’s – ability to participate actively in the labour market at an increasing rate. Further increases in longevity (especially when this means more years in ill health) in future may well put more unpaid work towards the already squeezed women in mid-career.

Caring for elderly family members is not a choice in Estonia, but a legal obligation. According to Article 27 of the *Constitution of the Republic of Estonia*, “the family is required to provide for its members who are in need”, i.e. typically elderly individuals and non-elderly individuals with disability. In addition, Chapter 8 of the *Family Law Act* establishes a duty to provide maintenance “arising from filiation”. It stipulates a two generations up and down legal obligation to assist family members unable to cope by themselves: “adult ascendants and descendants related in the first and second degree are required to provide maintenance” (Article 96(1)). Changes to the *Social Welfare Act and Family Law Act* – the second quarter of 2022 – remove second degree relatives from the list of persons required to provide care and assistance. Nevertheless, these legal provisions contributes to the view that care should primarily be undertaken in the household; public authorities should first make sure that the family of the person in need is not capable of giving assistance themselves before providing tax-financed public support.

The lower priority given to long-term care becomes clearer when considering public spending on the health care system. Estonia spent 7% of GDP on health care in 2018 compared to 10% in the EU on average (Eurostat, 2021^[33]). The health care system is instead funded by private funds to a larger extent than in other European countries. Out-of-pocket spending is 24% of costs in Estonia compared to 16% on average across the EU (European Commission, 2019^[34]). At the same time, people in Estonia report having one of the highest levels of self-reported unmet medical need in the EU with 12% of Estonians reporting that their health needs were not met in 2017 (compared with just under 2% across the EU (European Commission, 2019^[34])).

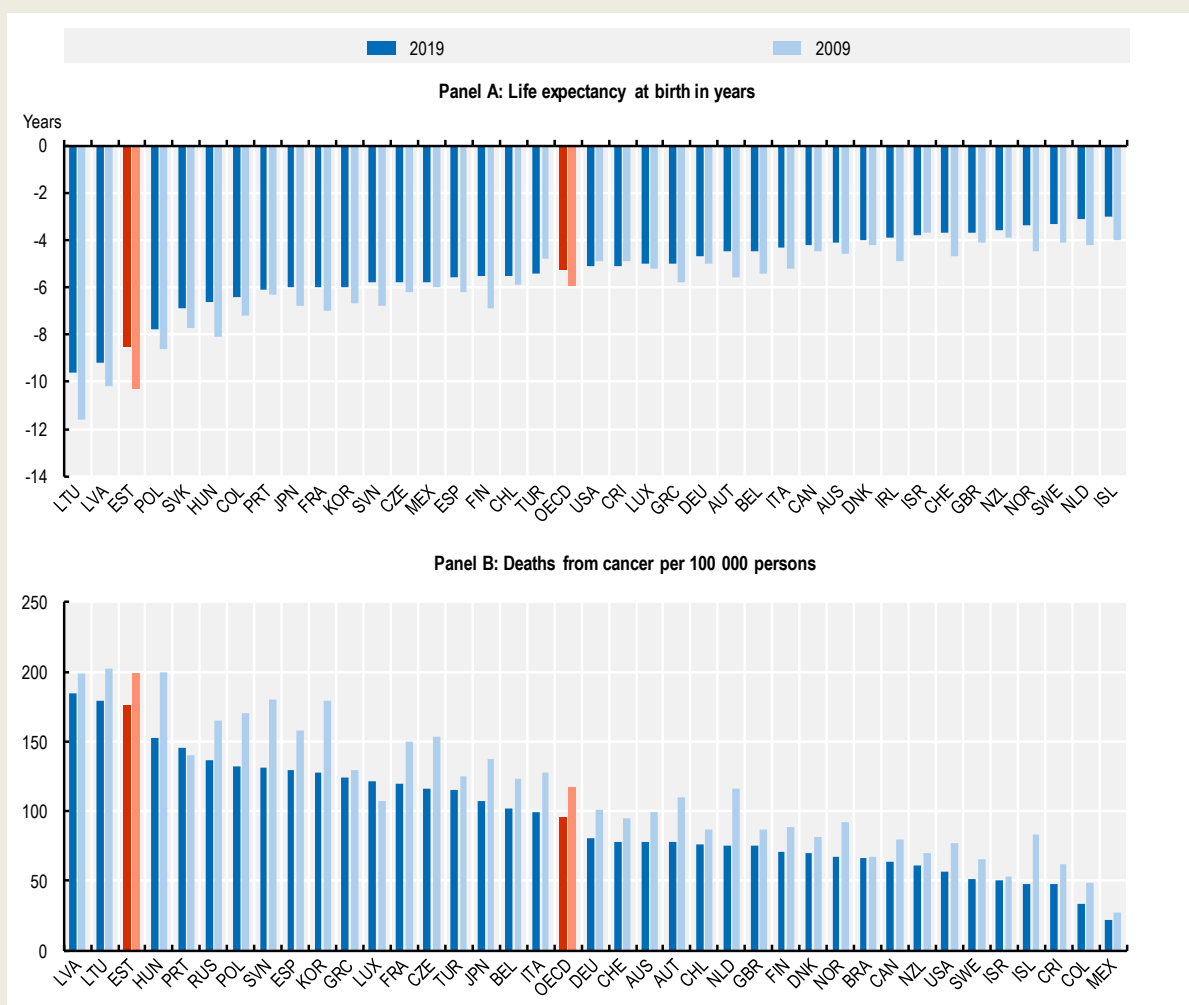
To support increased female labour supply it is important to complement efforts to counter the fragmentation of long-term care between health and social services by strategies to significantly increase public spending in order to improve coverage of formal health and long-term care services. From an efficiency and equity point of view, there is limited room for additional public funding for long-term care to flow from social security contributions and payroll taxes. The tax wedge, which measures the extent to which labour income is taxed, is higher in Estonia than on average in other OECD countries (OECD, 2021^[35]). Further increasing the tax burden would be detrimental to employment, especially for low-income workers, and thus to equity in a context where Estonia already lags behind in terms of income inequality and poverty (OECD, 2017^[36]). Another area for intervention could be to address some of the underlying causes for the gender health gap, such as macho behaviour, dangerous workplaces and high alcohol consumption.

Box 2.2. Men’s poor health is an obstacle to employment in later life

One area where men are underperforming relative to women is in personal health. Traditional gender norms negatively affect the health of both men and women, but men are hit the hardest. On one hand, the overt social and economic inequalities more commonly experienced by women, such as lower rates of employment, less pay for work of equal value, under representation in leadership positions, and the higher level of psychosocial stressors and problems, from caregiving burden to intimate partner violence, are all viewed as negatively affecting women’s mental and physical health. Meanwhile, the average man enjoys more economic opportunities, privileges and power than the average woman.

Figure 2.10. Men’s poor health is an obstacle to later-life male employment

Difference between men and women in health indicators (outcome for men minus outcomes for women)



Note: Data in Panel B refers to 2019 or closest year. Closest year is 2016 for Belgium, France, New Zealand, Norway and the United Kingdom; 2017 for Canada, Colombia, the Czech Republic, Italy, Mexico, Spain and the United States; 2018 for Austria, Chile, Denmark, Finland, Greece, Israel, Japan, Latvia, Luxembourg, the Netherlands, Poland, Portugal and Sweden.
Source: OECD.Stat.

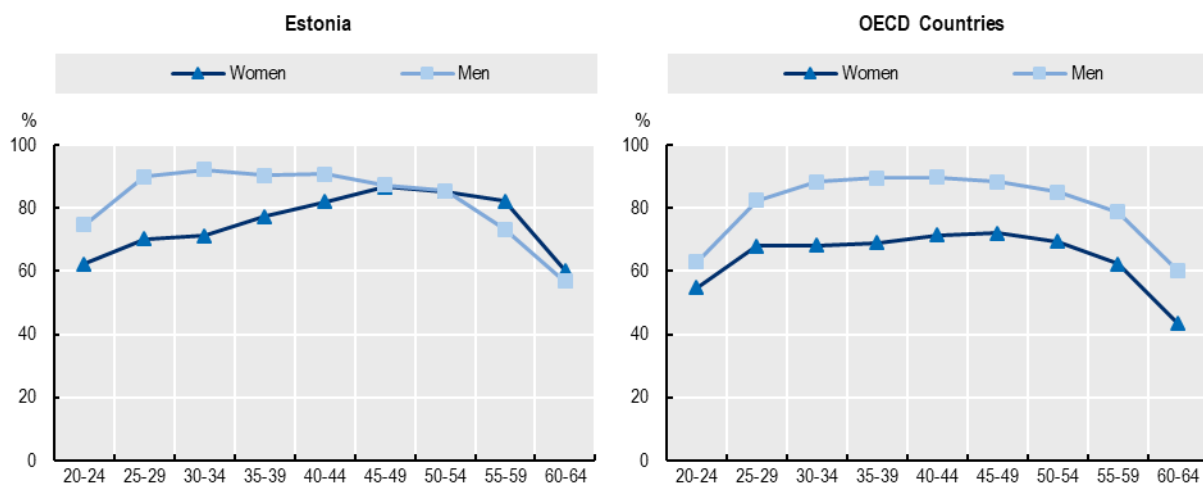
However, on the other hand, men are overrepresented in occupations with higher rates of workplace fatalities and injuries, such as construction, mining, and the military (Courtenay, 2000^[37]). Moreover, masculinity norms encourage risky and unhealthy behaviours, including violence, reckless driving or excessive consumption of unhealthy food, alcohol, tobacco, or drugs. Despite this, men are less likely to consult a doctor when in need (Murray-Law, 2011^[38]; Barker, 2005^[39]). Partly as a result of the greater risks to personal health among men, women live on average until 84 while men on average live 5 years shorter, to 78 years across the OECD. Estonia has among the largest gender gaps observed across the OECD: life expectancy at birth was 9 years shorter for men than women in 2019 (Figure 2.10, Panel A). Gender differences in the proportional number of deaths from cancer (Figure 2.10, Panel B) is close to the mirror image of life expectancy. Again, large gender health gaps can be observed in Estonia: there were 176 more men than women per 100 000 persons who died from cancer in 2019. More can be done to build on the small improvements that have happened in Estonia since 2009.

2.3.3. Women are more likely than men to work in later life

Although women are less likely to be employed than men in their early and mid-careers because of care responsibilities, this changes later on in working life: among older workers (age 55-64) women are more likely to work than men (Figure 2.11). This stands in sharp contrast with the average OECD pattern: the probability of employment of 55+ women is more than 15 percentage points *lower* than that of their male counterparts OECD-wide, but in Estonia older women are nearly 5 percentage points *more* likely than older men to be employed. The employment rate of older women also catches up with that of older men in Finland, Latvia and Lithuania (although Estonia is the only OECD country where the gender employment gap reverses permanently from age 55 onwards). This pattern is consistent with the significantly lower number of healthy life years of Estonian men.

Figure 2.11. Women’s employment rates continue to increase into older ages than men’s

Employment-to-population ratios (%) by country, gender, and five-year age group: 2018



Source: OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

While poor health among older men will be a significant contributor to the lower employment rate in this group (Box 2.2), there are some other key factors as well. Just after the start of the transition period in 1989, inactivity rates rose dramatically, especially among older workers. Part of the reason might be that firm sizes were shrunk and workers let go to address the overindustrialisation sustained during the Soviet era. At the same time, there was significant industrial transformation, encouraged by economic policy, away from industry and agriculture and toward service sectors. Owing to the worker composition in declining sectors, blue-collar, lower-educated and older workers were particularly affected (Saar and Täht, 2006^[40]; Klesment and Leppik, 2012^[41]). In addition, the labour market has become more flexible and insecure, with increasing lay-offs and job-to-job moves, which increased the risk of unemployment and the labour market has increasingly become oriented to skills profiles of young people, which means that older workers are struggling to remain in work and become rehired when laid off (Saar and Täht, 2006^[40]). However, it seems that pension reforms and strengthened labour markets through the 2000s have had positive effects on the employment of older workers (Unt, Kazjulja and Krönström, 2020^[42]).

Current employment is not just a determinant for present living standards but is also a source of pension contributions or a complement to low pension incomes, and women often need to keep working to reduce the stark poverty risks (see above). While the level of pension payments are low in Estonia, the gender pension gap is the lowest in the OECD (OECD, 2021^[43]). This is because pension income in Estonia hardly depends on lifetime earnings. The pension system is currently undergoing a change which is expected to make the system even less dependent on previous earnings (Box 2.3), although some critics have warned of the opposite (see Piirits (2022^[44])).

Box 2.3. The Estonian pension system

The current Estonian pension system is built on three pillars. The first is state-funded and calculated by summing up a base part which is the same for everyone; years of pensionable service; insurance part depending on the social tax paid for one's income. As such, it is based on the number of years worked, taking into account life events like childbirth. The second pillar is also state-funded but depends more on contributions made by the individual. This has been compulsory for those born after 1983. The third is privately-funded and completely voluntary.

This system will start to change from 2021 as the calculation for the first pillar is modified by replacing the insurance part is replaced by a joint part which is decided in part by an insurance component and in part by a solidarity component. The state has also temporarily suspended the second pension pillar contributions between 1 July 2020 and 31 August 2021. From 2021 onward, the contributions to this pillar are voluntary.

Overall, these changes mean that pension incomes will in future be more equal and determined to a smaller degree by the sum of lifetime earnings from paid work than in the previous system.

Source: Design your own pension, Estonia, <https://pension.sotsiaalkindlustusamet.ee/en/main>.

2.3.4. Horizontal segregation between men and women

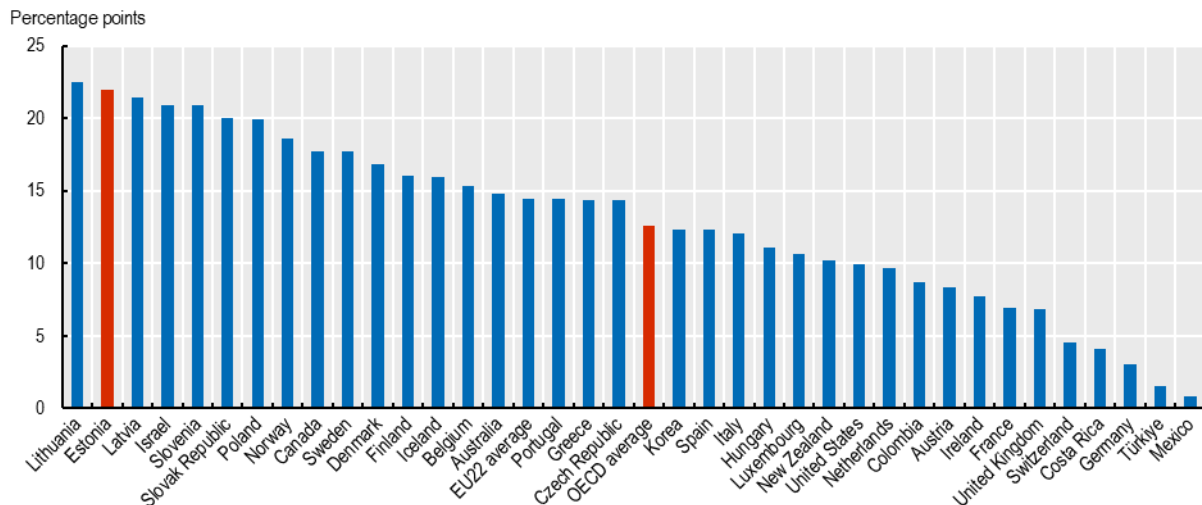
Women are overrepresented in industries and occupations characterised by low earnings and slow wage growth and this has a significant impact on gender gaps in the labour market. Indeed, the three areas of education, occupation and industry sector have been found to explain a large proportion of the gender wage gap in Estonia (Meriküll and Tverdostup, 2021^[11]). This section illustrates some of these issues.

The Estonian education system stands out as very high performing OECD-wide: in 2018 it ranked first among the OECD countries in OECD PISA scores on reading literacy and science and third in

mathematics. In more gender-equal societies, the gap in PISA results for boys and girls is smaller than in countries with low gender equality rates (Chivite Monleón, 2020^[45]). In Estonia, the system in place ensures that students from different socio-economic backgrounds achieve similarly high results and the gender gap in the OECD PISA scores has decreased over time (Tire, 2020^[46]). In Estonia this translates to high proportions of young women with tertiary education: the difference in the proportions of young women and young men who have attained tertiary education is 22 percentage points. This gender gap to the disadvantage of young men is similar to that in Lithuania and Latvia but is considerably higher than the OECD average difference of 13 percentage points (Figure 2.12).

Figure 2.12. Educational attainment is higher for young women than young men

Percentage point difference between the share of 25-34 year-old women and men with tertiary attainment: 2020



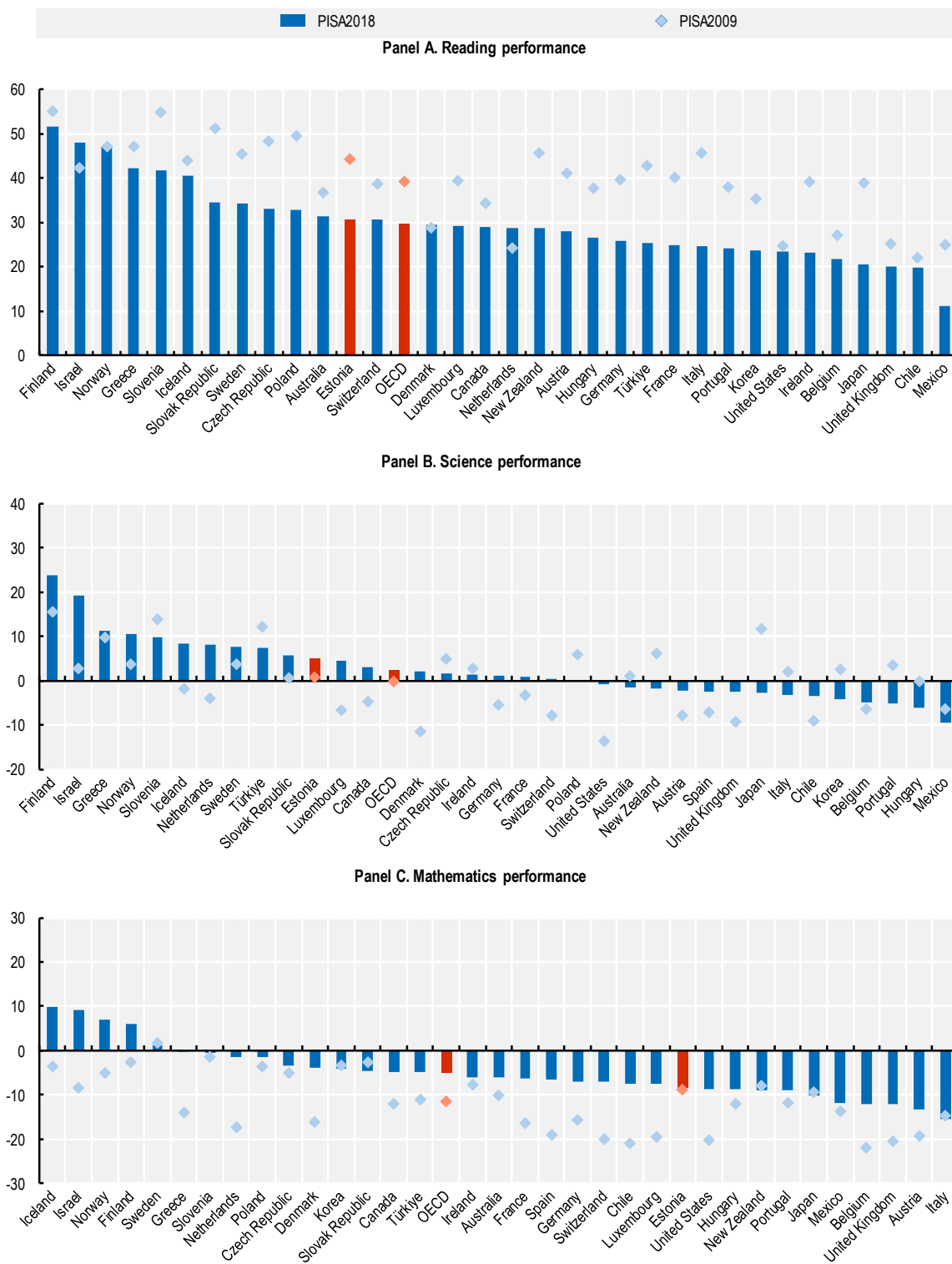
Note: A data point above 0 means there are more women than men attaining tertiary education. A data point below 0 means there are more men than women attaining tertiary education.

Source: OECD, *Education at a Glance 2021*, Table A1.2, https://www.oecd.org/education/education-at-a-glance/EAG2021_Annex3_ChapterA.pdf.

How well a university-level education pays off in the labour market depends partly on the subjects that are studied and the choice of subjects for specialisation start to take shape in childhood. In school, girls outperform boys in reading and science, but boys outperform girls in mathematics (Figure 2.13). Across all OECD countries, girls tend to score higher than boys in reading (Figure 2.13, Panel A). In Estonia the gender gap in reading is greater than the OECD average to the advantage of girls, albeit that the gap has decreased over time. In Estonia, girls are also more likely to outperform boys in science than across the OECD (Figure 2.13, Panel B) and girls' performance has improved relative to boys' over time, resulting in a growing gap to girls' advantage. In mathematics, boys are most likely out of the three subjects to perform better than girls across the OECD (Figure 2.13, Panel C). In Estonia the gender gap to the advantage of boys is even larger than the OECD average, and there has been no improvement since 2009.

Figure 2.13. Girls are better in school but boys still outperform in maths

Score point difference between girls and boys in mean score (girls' minus boys' scores)

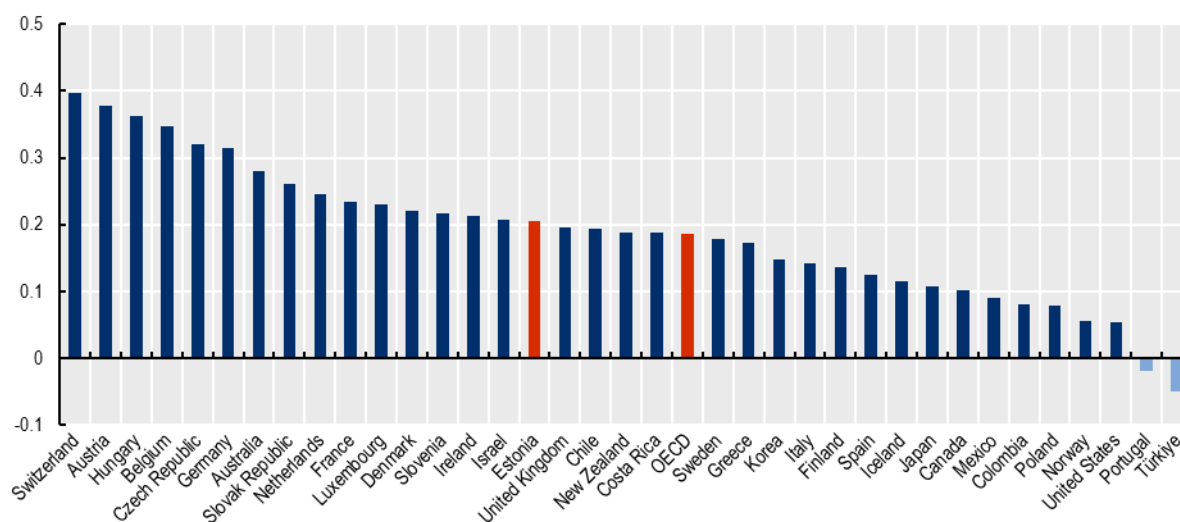


Source: OECD, PISA 2018 Results: What Students Know and Can Do: Student Performance in Reading, Mathematics and Science (Volume I), https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf.

The stereotype that “math is not for girls” remains widespread. To gauge the extent of this stereotype, consider whether mathematics is viewed by parents as a more appropriate educational and career choice for their sons than for their daughters. Figure 2.14, based on Breda et al. (2020^[47]), shows the difference in the share of boys and girls who, conditional on their math performance, report in the PISA survey that “[their] parents believe that math is important for [their] career”. The mathematics-related stereotypes are strong for children in Estonia: at 0.21 the gender gap is slightly greater than that across OECD countries, which is 0.19 (see Chapter 6 for a policy discussion on how to change these trends).

Figure 2.14. The belief that “maths is for boys” still prevails

Gender gap in response to “My parents believe that math is important for my career”, conditional on mathematics performance



Notes: Light blue bars indicate that results 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 in: (Breda et al., 2020^[47]). 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.

Source: Table S2 in Breda et al. (2020^[47]), “Gender stereotypes can explain the gender-equality paradox”, <https://doi.org/10.1073/pnas.2008704117>.

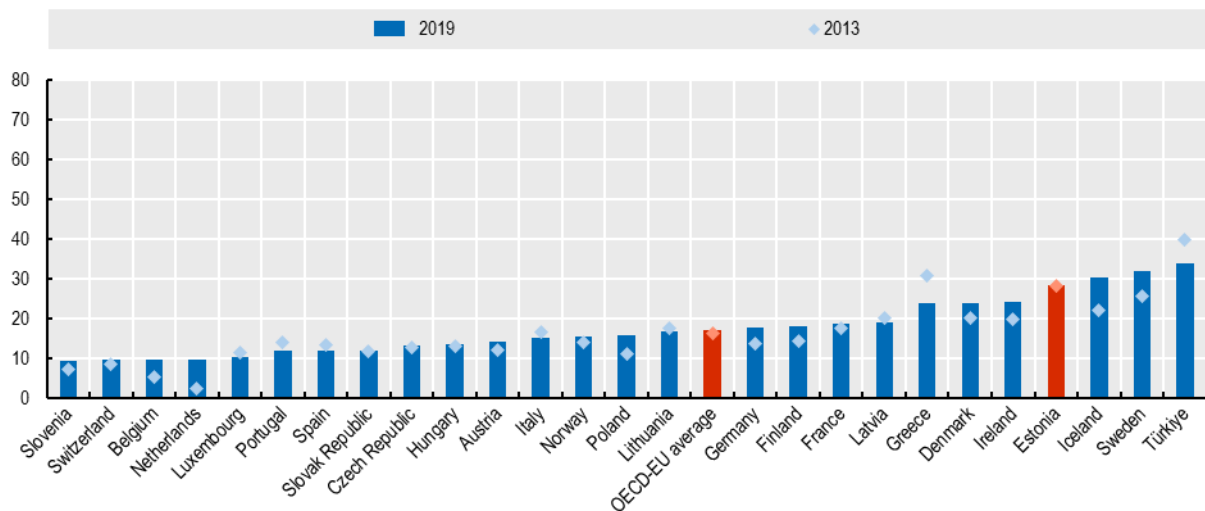
In part because of girls and boys attain different mathematics scores, young women and men grow up to make different educational choices. Across the OECD, young women are underrepresented among science, technology, engineering and mathematics (STEM) graduates in information and communication technologies (ICT): under one in five graduates (17%) were women in 2019, and there had been practically no change since 2013 (Figure 2.15). Relatively more women graduate in ICT in Estonia, but women still constituted a small minority (28%) of STEM graduates in ICT in 2019, without any improvement since 2013.

The gender gaps in the ICT education have various implications. First, women are missing out on highly paid jobs since employees in the ICT sector receive the highest average gross monthly income in Estonia: on average 69% more each month than the average worker. By comparison, employees in accommodation and food service activities, where women are overrepresented, receive just under half (48%) of the average wage (Statistics Estonia, 2021^[18]). Second, the jobs in the ICT sector are generally relatively safe to labour market disruption caused by robotisation and automation, so in future can mean that women are more likely to work in relatively insecure jobs compared to men (OECD, 2016^[48]). Third, the gender gap in this sector will in part be due to young women who were not encouraged to develop their interest and talent

and subsequently end up working in a different sector. This is a potentially high opportunity cost for the country as it needs to meet the growing demand of skills related to the development of information technology and artificial intelligence.

Figure 2.15. Young men are more likely than young women to study ICT

Proportion of women among graduates in Information and Communication Technologies



Note: Data refer to tertiary education (ISCED 5-8) and VET (ISCED 35 and 45).

Source: Eurostat (2021) Database on Graduates by education level, programme orientation, sex and field of education, https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_uae_grad02&lang=en.

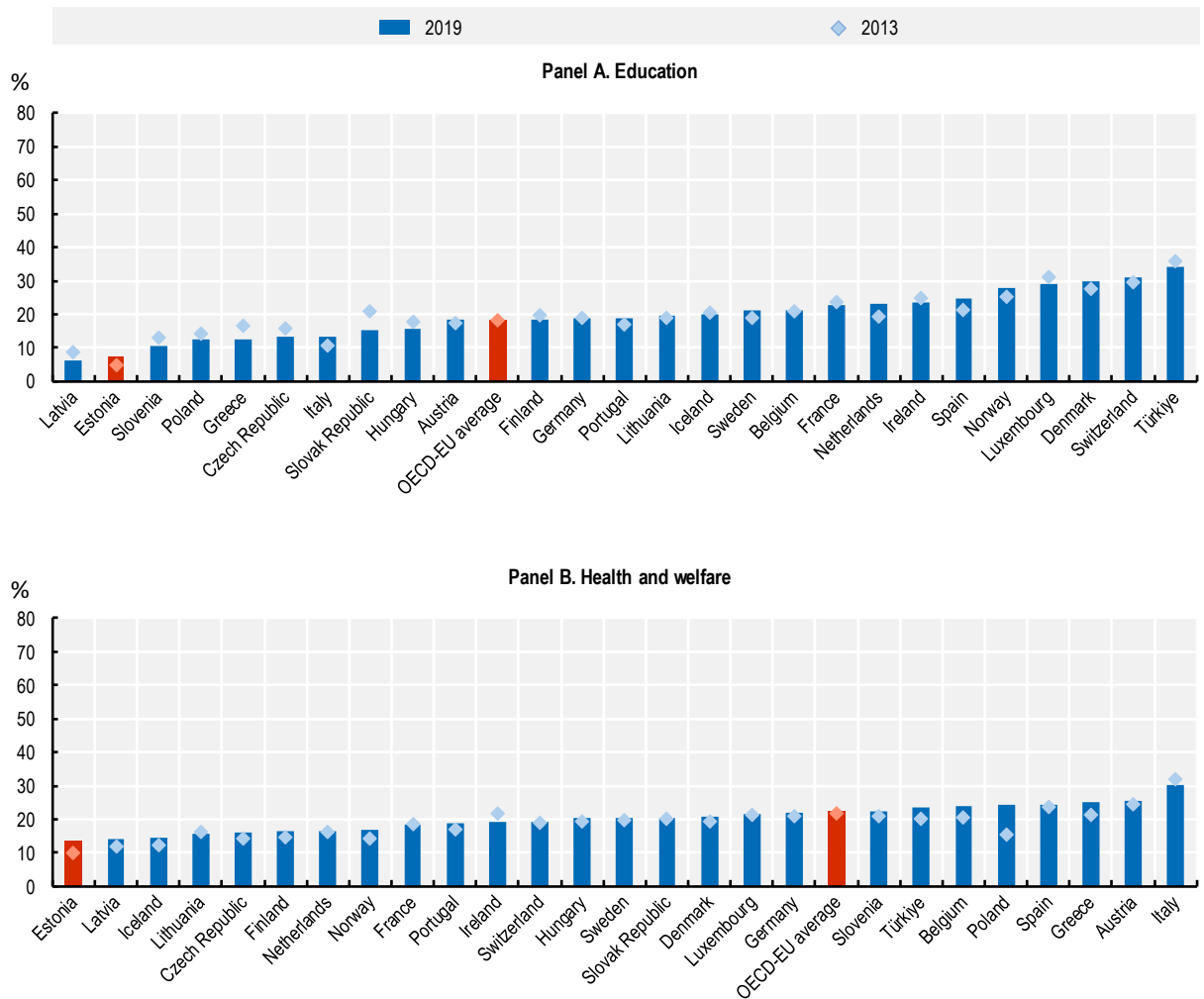
Whereas men are overrepresented among graduates studying ICT, women are overrepresented among graduates studying to work in the sectors of education and welfare. Only 8% of graduates in education are men, and similarly, men make up just 14% of graduates in health and welfare (Figure 2.16). Estonia has the lowest representation of men in these two sectors compared to OECD countries in the EU (Chapter 6 details policy to achieve better gender balances in this area). The concentration of women in these sectors mean that women are set to earn less than men from the start. While ICT is the highest-paying sector overall, monthly gross pay in education and human health and social work is close to the average (5% and 14% above the mean, respectively).

The large gender differences in education is mirrored in the labour market. Men are overrepresented in industry sectors such as information, technology and manufacturing whereas women are more likely than men to work in education, human health and social work activities (Statistics Estonia, 2021^[18]). This labour market segregation is slightly different for Estonian and non-Estonian employees (Figure 2.17). A slightly higher proportion of Estonian men than non-Estonian men work in education while equally few Estonian as non-Estonian men work in human health and social work. Conversely, a slightly higher proportion of Estonian women work in information and communication than non-Estonian women.

Since the selection of boys and girls into different subject specialisms starts early and there are strong parental gendered expectations regarding school-age children, Estonia will need some ambitious policies to start decreasing the gender gaps across study fields and work specialisms (see Chapter 6). Attitudinal evidence shows there is some appetite for this. A small majority of Estonians (57% of Estonian men and 58% of Estonian women) agree that “There should be more men working in social services and health care”. A smaller share of non-Estonians support this claim too (45% of non-Estonian men and 49% of non-Estonian women) (Estonian Gender Equality Monitoring, 2021^[27]).

Figure 2.16. Female students are overrepresented in education, health and welfare

Proportion of men among graduates, by field of education, 2019

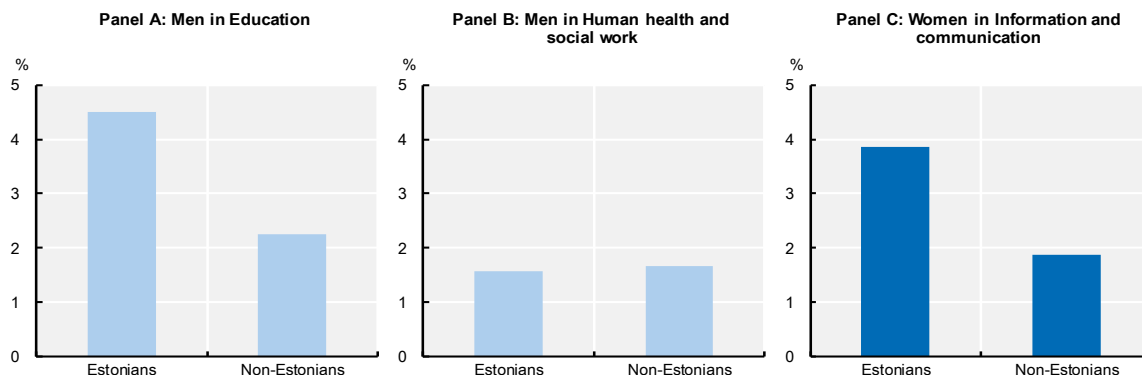


Note: Data refer to tertiary education (ISCED 5-8) and VET (ISCED 35 and 45). Instead of 2013, data refer to 2014 for EU and Türkiye and to 2015 for Poland.

Source: Eurostat (2021) Database on Graduates by education level, programme orientation, sex and field of education https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_uoe_grad02&lang=en.

Figure 2.17. Gender-based segregation intersects with ethnic differences on the labour market

Proportion of employees in each sector, by gender and nationality



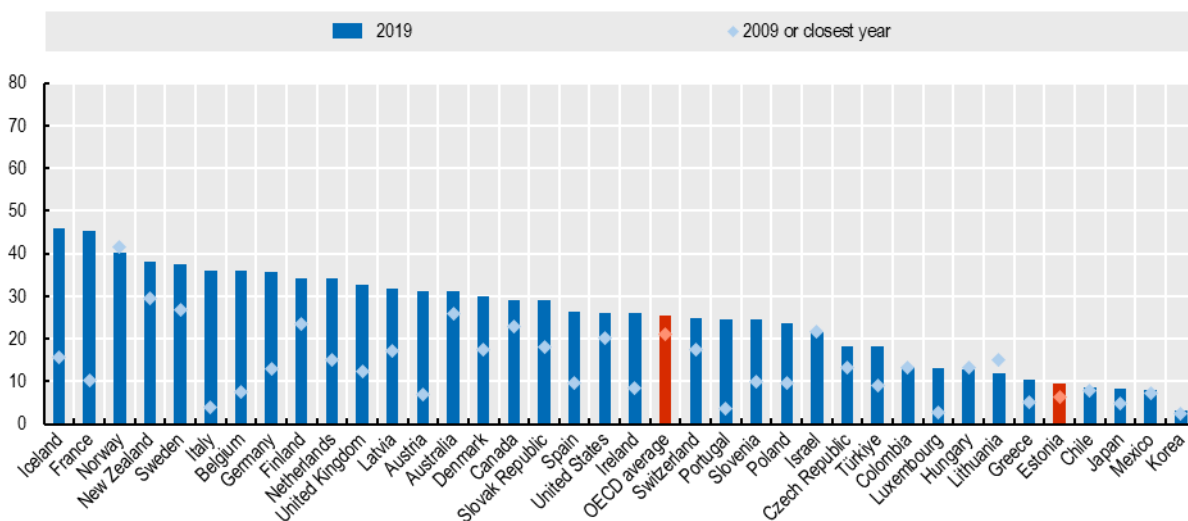
Note: This figure shows proportions of a group that works in each sector so is not directly comparable to the previous figure.
Source: Statistics Estonia.

2.3.5. Vertical segregation between men and women

Women in a given job tend to experience slower career progression than their male counterparts in the same sectors and occupations. Considering the top of the pyramid first – the boardroom – the gender gap in Estonia is remarkably large. While leading countries like Iceland and France have women on nearly half (46% and 45%) of their boardroom chairs, only 1 in 10 (9%) of boardroom seats are held by women in Estonia (Figure 2.18). Moreover, there has been a dramatic change over the past 10 years in leading countries (with the exception of Norway where it was relatively common for women to be on boards back in 2009) whereas not much has happened in Estonia or countries like Greece, Lithuania and Hungary.

Figure 2.18. Estonia has among the most male-dominated boardrooms in the OECD

Female share of seats on boards of the largest publicly listed companies



Note: Instead of 2009 data refers to 2016 for New Zealand, Australia, Canada, United States, Switzerland, Israel, Colombia, Chile, Japan, Mexico and Korea.

Source: OECD Gender Data Portal: <https://www.oecd.org/gender/data/employment>.

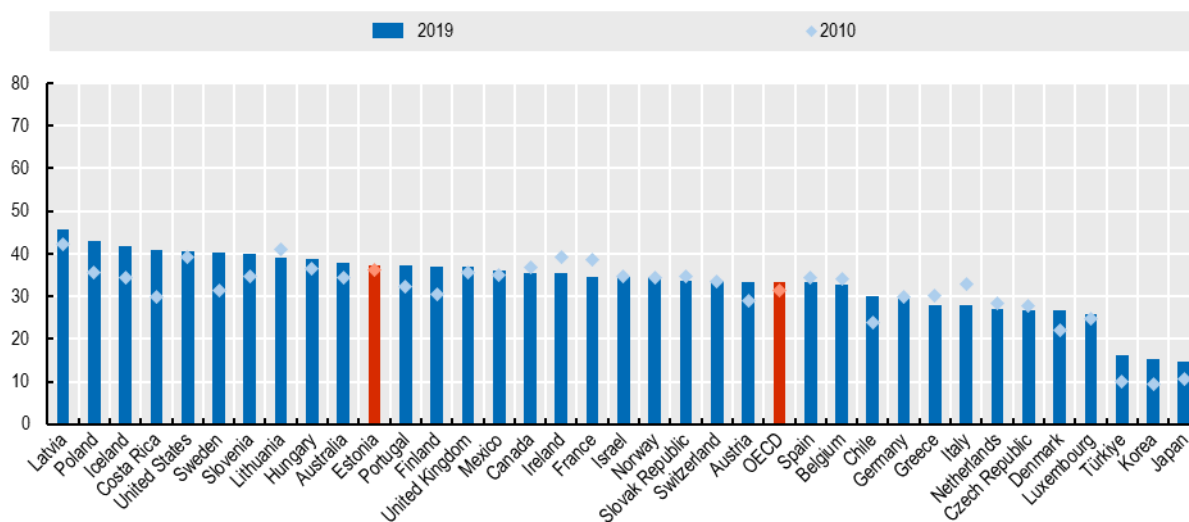
Going down one step on the hierarchy and consider the share of managers who are female, the gaps are smaller: 37% of managers in Estonia are female, which is slightly above the OECD-wide average of 33% (Figure 2.19). However, among the top performers, Estonia, Lithuania and the United States and Lithuania have not seen an increase in the share of female managers since 2010: while Estonia ranked 8th in 2010, it had fallen to rank 11th by 2019.

Disadvantage compounds if nationality is taken into account, since non-Estonians are less likely to work in managerial positions than Estonians (Figure 2.20). In fact, the gap between the share of Estonian and non-Estonian men who work in managerial positions is similar to that between Estonian men and Estonian women. It follows that non-Estonian women are facing double disadvantages: while nearly 3 in 20 (14%) Estonian men work in managerial positions, only 1 in 20 (5%) non-Estonian women do.

Considering attitudes reported in the (Estonian Gender Equality Monitoring, 2021_[27]) around the value of women for businesses it is not so surprising that the observed overall gender gaps are so large. While a majority (59%) of Estonian women agree with the statement that “Businesses would benefit from more women in executive positions compared to the current situation”, only 36% of Estonian men agree. Similar gender gaps in attitudes were observed among non-Estonian women (52% agree) and men (36% agree). While these findings lack rigorous statistical significance they suggest there may be some scope for improvement in supporting conditions that allow women to break through the glass ceiling.

Figure 2.19. There has been no increase in the proportion of female managers since 2010

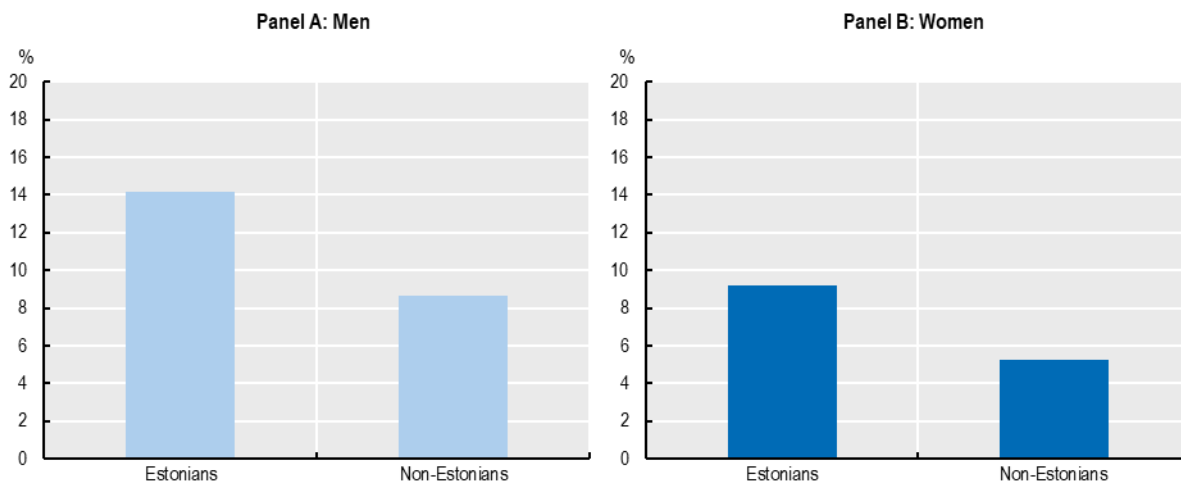
Female share of managerial positions



Note: Instead of 2010, data refer to 2013 for Mexico. Instead of 2019, data refer to 2018 for Australia, 2017 for Israel, and 2014 for Canada.
Source: OECD Gender Data Portal: <https://www.oecd.org/gender/data/employment>.

Figure 2.20. Gender inequalities intersect with ethnicity-based disadvantages

Proportion of employees in managerial positions, by gender and nationality, 2020



Note: This figure shows the proportion of women and ethnic nationality in managerial positions, not the proportion of managers by gender and ethnic nationality.

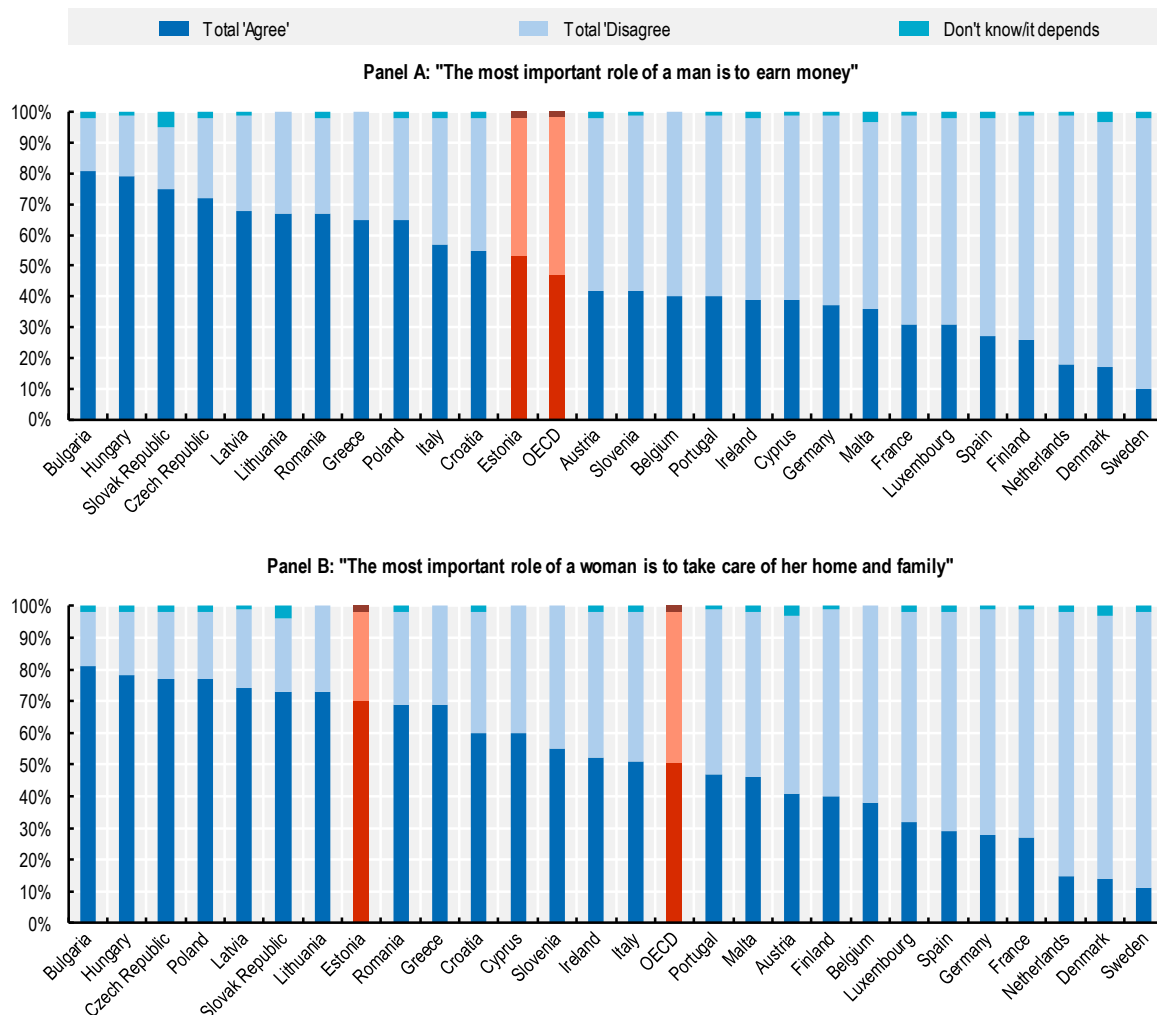
Source: Statistics Estonia.

2.3.6. Current gender stereotypes are rooted in history and culture

Part of the remaining differences in labour supply and earnings could be reinforced and maintained by norms and beliefs about how things should be. Survey evidence suggests that people in Estonia tend to have more traditional views than other OECD countries that are in the EU where men are traditionally seen as wage-earners and women are seen as carers and home-makers (Figure 2.21). For instance, men and women are a little more likely than men and women OECD-wide to agree with the traditional view that the most important role of a man is to earn money (53% in Estonia compared with 47% OECD-wide) (Figure 2.21 Panel A). People in Estonia have even stronger views of the role of women: 70% of respondents in Estonia agree with the statement that the most important role of a woman is to take care of her home and family, whereas half (50%) of respondents agree with this statement OECD-wide.

Figure 2.21. Gender views are more traditional in Estonia than in the rest of the EU

Proportion of respondents agreeing or disagreeing with traditional gender views, 2017



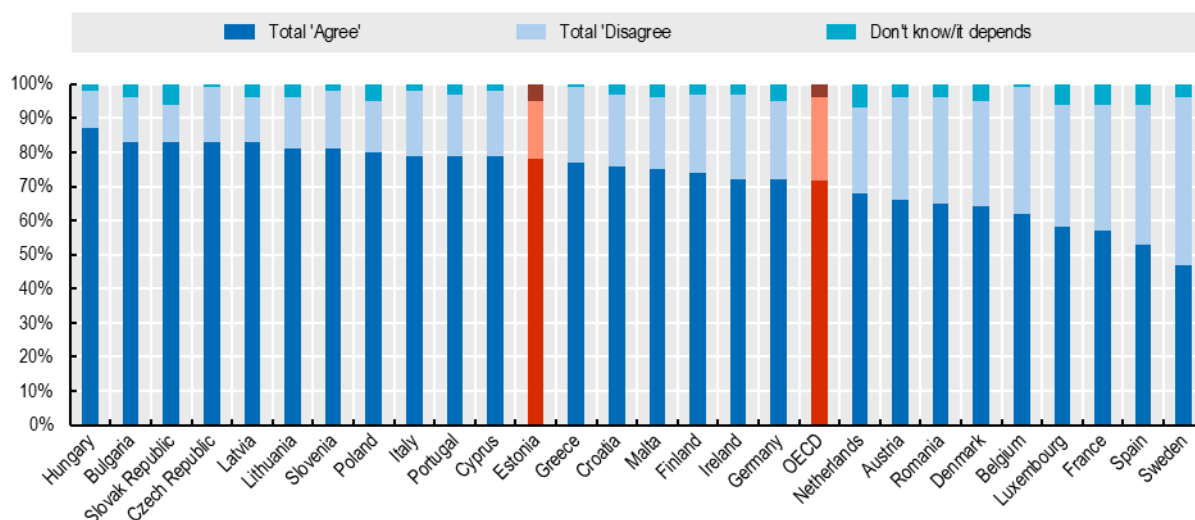
Note: OECD average refers to the simple country average of OECD countries that are also in the EU.

Source: 2017 Eurobarometer on Gender Equality, <https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=63613>.

Pervasive gendered norms and stereotypes disadvantage women relative to men in the labour market. They include beliefs that women and men inherently have different intellectual skills, for instance, the idea that men are more rational than women who instead are governed by emotions (Figure 2.22). These beliefs are still common in public opinion across the OECD. For example, in all surveyed OECD countries but one (Sweden), a majority of people agree with the statement that “women are more likely than men to make decisions based on emotions”. People in Estonia are relatively traditional, with 78% agreeing with this statement compared to 71% across OECD countries in the EU. The belief that women’s decisions are governed to a larger extent by emotions than men’s decisions is an important barrier to their access to leadership positions in firms and to careers that involve sophisticated rational thinking such as STEM occupations (Chapter 6 proposes ways to encourage a quicker development of more equal norms).

Figure 2.22. Relatively few people in Estonia trust that women make rational decisions

Proportion of respondents agreeing or disagreeing with the statement “Women are more likely than men to make decisions based on their emotions”



Note: OECD average refers to the simple country averages of OECD member states in the EU.

Source: 2017 Eurobarometer on Gender Equality, <https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=63613>.

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Annex 2.A. Additional tables

Net migration to Estonia was middling in the latest data. After 2014, the trend of overall out-migration from Estonia turned and then the country has had positive net migration, meaning that more people arrive to Estonia than leave. Up until 2014, there were slightly more women than men migrating out of Estonia while after 2014, there were slightly more men than women leaving. The proportion of female migrants has changed little in recent years (Statistics Estonia, 2022^[10]). Overall, 2.8 per 1 000 people arrived in Estonia in 2020, which is similar to the figure in Norway (2.8) and Germany (2.9). The figure is lower than that in neighbouring Lithuania (7.2). However, the trend in Estonia is notably different compared to that in Latvia. Latvia remains the only OECD country in the EU that has not yet managed to turn the trend of negative net migration, and 1.7 per 1 000 people overall left the country in 2020 (Eurostat, 2022^[9]).

Annex Table 2.A.1. Net migration per population is middling in Estonia

Annual net migration per 1 000 inhabitants, 2011-20

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Latvia	-9.7	-5.8	-7.0	-4.3	-5.4	-6.2	-4.0	-2.5	-1.8	-1.7
Denmark	2.0	1.9	3.0	4.3	6.0	3.8	2.1	0.7	-0.9	0.6
Greece	-2.9	-6.0	-5.4	-4.4	-4.1	1.0	0.8	1.5	3.2	0.6
Slovak Republic	0.6	0.6	0.4	0.3	0.6	0.7	0.7	0.7	0.7	0.8
Hungary	1.3	1.1	0.4	1.3	1.5	1.4	2.9	3.6	4.0	0.8
Poland	-2.9	-1.5	-1.5	-1.2	-1.1	-0.7	-0.2	0.6	1.2	1.3
Italy	5.1	4.1	3.0	2.3	2.2	2.4	3.1	2.9	2.6	1.5
France	0.4	1.1	1.5	0.5	0.6	1.0	2.3	1.3	1.3	2.1
Czech Republic	-2.7	-1.1	0.4	0.1	0.4	2.4	2.3	3.7	2.6	2.5
Norway	10.2	9.5	8.3	7.4	6.1	5.1	4.1	3.9	4.8	2.8
Estonia	-1.9	-2.8	-2.0	-0.6	1.8	0.8	4.0	5.4	4.1	2.8
Germany	3.0	4.4	5.4	6.9	15.2	6.0	4.3	4.3	3.7	2.9
Finland	3.1	3.2	3.3	2.9	2.3	3.1	2.7	2.2	2.8	3.2
Sweden	4.8	5.4	6.8	7.9	8.0	11.9	9.9	8.5	6.7	3.3
Switzerland	6.6	5.7	6.7	5.6	4.5	3.4	2.2	1.7	2.2	3.4
Belgium	5.7	3.2	1.6	2.6	5.1	2.8	3.3	4.3	4.1	3.7
Ireland	-5.6	-4.5	-2.4	0.5	2.9	4.9	3.0	9.1	4.8	3.7
Portugal	-2.3	-3.5	-3.5	-2.9	-1.0	-0.8	0.5	1.1	4.3	4.0
Netherlands	1.6	0.8	1.0	1.9	3.2	4.6	4.8	4.9	6.2	4.6
Austria	3.7	4.7	5.7	7.4	12.8	7.5	5.2	4.4	4.6	4.6
Spain	-0.8	-3.0	-5.4	-2.0	0.0	1.9	3.5	7.2	9.7	4.6
United Kingdom	3.4	2.8	3.3	4.9	5.1	3.8	4.3	3.9	4.7	
Iceland	-2.3	0.6	6.3	4.0	4.8	13.7	25.0	21.4	14.8	7.0
Lithuania	-12.5	-7.1	-5.7	-4.2	-7.7	-10.4	-9.7	-1.2	3.9	7.2
Slovenia	1.0	0.3	0.2	-0.2	0.2	0.5	0.6	7.2	7.8	8.8
Luxembourg	21.5	19.1	19.3	20.1	19.8	16.4	17.9	17.7	18.0	12.2

Notes: Net migration refers to the number of people who migrate into the country less the number of people who migrate out of the country.

Source: Eurostat, Population and social conditions.

The old-age dependency ratio is high and increasing rapidly in Estonia. In 2020, Estonia's old age dependency ratio (32%) was already 5 percentage points higher than that in the OECD (27%). The path

ahead also looks challenging for Estonia with its dependency ratio set to increase faster than those across much of the OECD. Between 2020 and 2060, the dependency ratio is expected to increase by 24 percentage points in Estonia compared with 18 points in the OECD. Despite fast increases, Estonia's dependency ratio in 2060 (56%) is set to remain below that in its Baltic neighbours Latvia (63%) and Lithuania (63%).

Annex Table 2.A.2. Estonia's dependency ratio is set to increase rapidly in coming decades

Old age dependency ratio, outturn and projected, 2010-60

	Outturn				Projection						
	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Korea	15	17	22	30	39	49	60	70	79	83	90
Japan	36	44	48	51	54	58	66	70	73	74	74
Latvia	27	30	33	37	42	45	49	53	57	62	63
Poland	19	22	28	33	36	37	41	46	53	59	63
Lithuania	26	28	31	36	41	47	51	54	57	60	63
Portugal	28	31	35	39	44	49	55	60	63	63	62
Greece	29	33	35	39	42	48	53	59	63	63	62
Italy	31	34	37	39	44	51	57	61	62	61	60
Slovak Republic	17	20	25	29	33	35	40	46	52	57	60
Slovenia	24	27	32	36	40	43	47	52	55	57	56
Estonia	26	29	32	35	37	39	42	46	50	54	56
Finland	26	32	36	40	43	45	46	47	49	52	55
Czech Republic	22	27	31	33	35	37	41	47	50	53	54
Chile	14	15	18	21	25	29	33	37	41	47	53
Spain	25	28	30	33	37	43	49	54	56	55	53
Hungary	24	27	31	33	34	36	40	45	48	50	52
France	26	30	33	37	40	44	47	48	49	50	50
Norway	23	25	27	30	34	38	41	43	45	47	50
Austria	26	27	29	32	37	42	44	45	47	48	50
Germany	31	32	34	37	43	47	48	48	48	49	50
Luxembourg	20	21	21	24	27	31	35	39	42	46	49
Switzerland	25	27	28	31	35	38	40	41	43	44	45
Ireland	17	20	22	25	27	30	34	38	42	44	45
OECD average	22	24	27	30	33	36	39	40	42	44	45
United Kingdom	25	28	29	31	35	37	39	40	42	44	45
Belgium	26	28	30	33	36	39	41	42	43	43	44
New Zealand	20	22	24	27	31	34	36	37	38	41	44
Iceland	18	21	22	24	28	31	33	34	37	39	43
Sweden	28	31	32	33	35	37	38	39	39	41	43
Costa Rica	9	11	13	16	19	22	25	28	33	38	43
Denmark	25	29	31	34	38	41	43	43	42	41	42
Netherlands	23	27	30	34	38	41	43	42	42	41	42
Canada	20	24	27	32	36	38	38	39	40	41	42
United States	19	22	25	30	33	35	35	35	36	37	39
Colombia	10	11	13	16	19	22	24	27	30	34	38
Türkiye	11	12	14	16	19	22	25	29	32	35	37
Australia	20	23	25	27	29	29	30	30	30	31	32
Mexico	10	10	11	13	15	18	21	23	26	29	32
Israel	16	18	20	22	23	23	25	26	26	27	27

Notes: Old age dependency ratio refers to the number of people age 65 and above divided by the number of people age 15-64.

Source: OECD Population Statistics.

Notes

¹ Looking back over the longer term, the Estonian labour market has changed considerably. Sectoral changes since the mid-1900s away from family-based farming and toward industries and a service economy have increased female employment rates. In the 1950s and 1960s this sectoral change combined with a shortage of male labour boosted women's paid employment (Puur, 2000^[6]; Meriküll and Tverdostup, 2021^[11]). During the 1970s and 1980s participation stabilised for women in their 30s and 40s at a similar level as that of men. Around the same time, participation started falling among younger age groups as they spent more time in education while the total fertility rate was above 2 children per women. Longer periods of maternity leave also meant that the women spent more time away from paid work for each child (Puur, 2000^[6]). The labour market was acutely affected directly after 1989 by the dissolution of the Soviet Union, but participation rates have broadly recovered since then (OECD, 2021^[49]).

² This chapter uses the Estonian Gender Equality Monitoring surveys to gain insight into popular opinion on important gender inequality indicators. This survey was conducted in 2003, 2005, 2009, 2013, 2016 and in the end of 2021. This chapter uses the 2021 wave initial results.

3 The role of firms in the gender pay gap in Estonia

This chapter analyses the drivers of the gender pay gap, with a particular focus on the role of firms. Section 3.1 shows how the gender pay gap and its main determinants in Estonia compare with those in other European countries. Using comprehensive administrative data, Section 3.2 analyses to what extent the gender pay gap among similarly skilled female and male employees who perform similar tasks and hold similar responsibilities reflects differences in pay practices *between* firms (the fact that women are employed in lower-productivity and hence lower-paying firms or industries) and differences in pay practices *within* firms (the fact that female employees are paid less than their male colleagues). On basis of the literature and new evidence, Section 3.3 discusses how the gender pay gap evolves over the life course and looks at the role of career breaks in explaining wage developments following childbirth for mothers rather than for fathers.

Main findings

Cross-country evidence suggests that a better understanding of the gender pay gap in Estonia requires focusing on differences in the characteristics of the firms and jobs in which men and women are employed rather than differences in their skills.

- The gender pay gap between similarly skilled men and women reflects for about one-quarter the sorting of women in low-wage firms (and industries), and one-quarter the sorting of women in low-wage occupations within firms. The remaining half is unexplained and may reflect differences in tasks and responsibilities within occupations or differences in pay for work of equal value (discrimination). Differences in skills tend to mitigate the gender wage gap.

More detailed analysis for Estonia based on administrative tax records of the role of differences in pay practices within and between firms for similarly skilled men and women with similar tasks and responsibilities provides the following insights:

- Differences in firm pay practices account for about half of the unadjusted gender pay gap in Estonia. Three-fifths of pay differentials are explained by the sorting of women into lower-paying firms, whereas the remaining two-fifths reflect pay differences between men and women with similar skills, tasks and responsibilities (discrimination and bargaining).
- The gender pay gap is higher among high-wage workers. This is mainly driven by larger differences in pay practices between firms and reflects the difficulty of women in accessing top jobs in high-wage firms. Fewer options for high-wage women may further weaken their bargaining position, potentially exacerbating differences in pay practices for work of equal value within firms. Access for women to top jobs in top firms can be promoted through voluntary target setting, good management practices that make managers accountable and gender quotas for company boards.
- Differences in gender pay gaps across industries tend to reflect discriminatory pay practices within firms, especially in industries where labour market competition is weak. Differences in firm pay practices within firms (discrimination and bargaining) tend to be larger in industries with high rents (measured by the average firm wage premium in the industry), whereas differences in pay practices between firms tend to be smaller in such industries. This highlights the potential value of sectoral initiatives to raise awareness about the extent of gender discrimination and its consequences for firms and workers.
- The sorting of women into low-wage industries contributes to the gender wage gap. Men tend to be overrepresented in industries paying above average wages, conditional on worker characteristics, whereas women tend to be overrepresented in industries paying below-average wages. The sorting of women into low-wage industries is likely to reflect to some extent the role of past educational choices and traditional gender norms.

In Estonia, the gender pay gap temporarily increases following childbirth: it increases with age until it peaks among workers aged 30-34, and gradually decreases afterwards resulting in the gender pay gap among workers aged 45-54 being similar as those aged 25-29. A number of different explanations are considered:

- There is no indication that the temporary increase in the gender pay gap can be explained by young mothers who sort into lower-wage firms that are more likely to offer family-friendly working conditions or employers who discriminate more strongly against young mothers.

- By contrast, career breaks are likely contribute to the temporary increase in the gender pay gap following childbirth due to the cost of lost experience and human capital depreciation. Women are much more likely than men to take a career break around the age of child birth and career breaks involve considerable costs in the form of foregone wage increases within firms. The incidence gap in career breaks and their wage effects tend to be more important among high-wage workers.
- The role of career breaks for the gender pay gap in Estonia may to some extent reflect strong employment protection. Workers are guaranteed to move back in the same or a similar position after career breaks of up to 3 years.

3.1. A cross-country perspective on the gender pay gap and its main components

This section provides a cross-country analysis of the gender pay gap and its main parts. More specifically, it decomposes the gender pay gap into four components which capture respectively: i) differences in skills, i.e. differences in education (low, middle, high) and potential work experience (as proxied by age); ii) differences in pay practices between firms and industries across similarly skilled workers; iii) differences in pay practices within firms across similarly skilled workers due to differences in occupations and working-time status; and iv) a residual that reflects – within the same firm, occupation and working-time status – differences in pay across similarly skilled workers due to differences in tasks and responsibilities, but also differences in pay for work of equal value. The analysis covers 23 European countries, including Estonia, using data from the Eurostat’s Structure of Earnings Survey for the period 2002-18.

3.1.1. Differences in skills mitigate rather than contribute to the gender pay gap

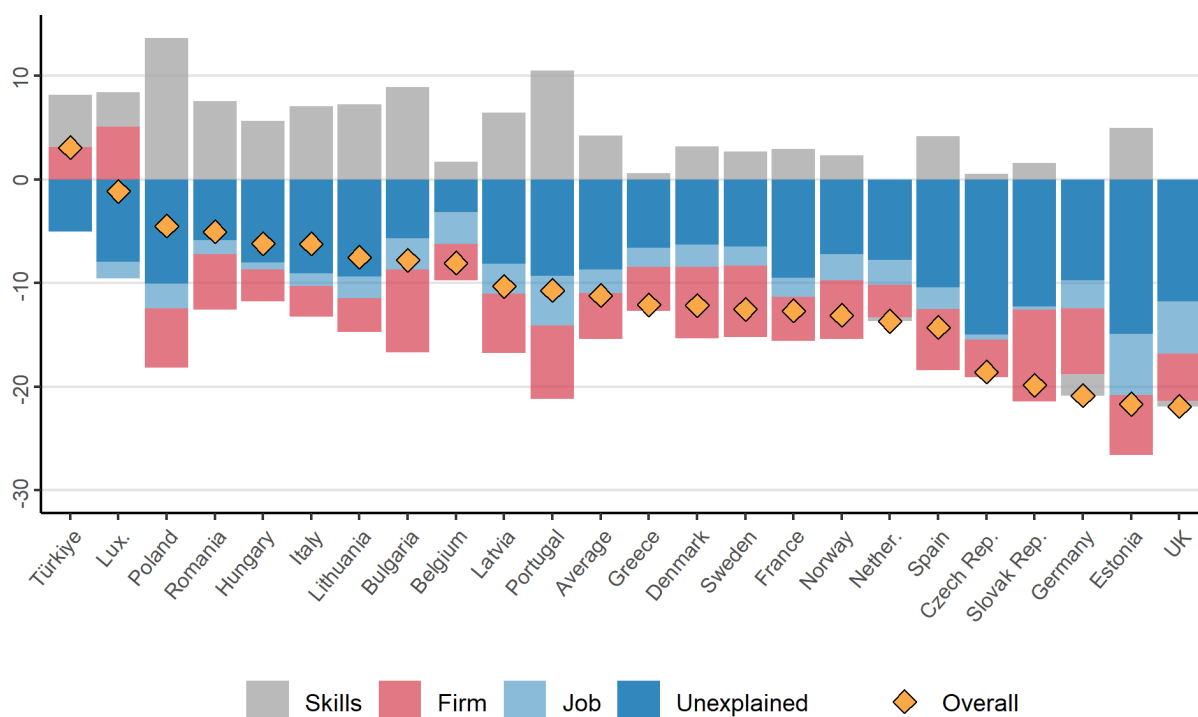
In Estonia, women earn about 22% less than men on average, compared with 11% across European countries (Figure 3.1). Controlling for skills in terms of education and potential experience (age) *increases* the gender pay gap from 22% to 27% in Estonia and from 11% to 16% on average across European countries. This reflects the fact that working women tend to be better educated than working men on average (Chapter 2). Importantly, it implies that a better understanding of the gender pay gap requires focusing on differences in the characteristics of the firms and jobs in which men and women are employed rather than differences in their skills.

About one-quarter of the wage gap between similarly skilled men and women results from the sorting of women into low-wage firms and industries

In Estonia as well as on average across European countries, approximately one-quarter of the gender pay gap between similarly skilled men and women can be attributed to the sorting of women into firms and industries that pay low wages (“horizontal segregation”). This mainly reflects differences in pay practices between firms within industries rather than differences in pay practices between industries (see Annex 3.A). The sorting of women into low-wage firms reflects to some extent differences in non-wage working conditions, as women may be constrained to opt for firms with flexible working time arrangements due to childcare responsibilities and unpaid homework, but may also reflect the role of discriminatory hiring practices by employers in high-wage firms (OECD, 2021^[1]). The sorting of women into low-wage industries may in addition reflect the tendency of women to sort into economic activities that are compatible with their past educational choices (e.g. privileging literacy over mathematical skills), driven by gendered socialisation processes earlier in life, stereotypes and social norms (OECD, 2017^[2]).

Figure 3.1. Decomposing the gender pay gap across countries

Contributions to the gender pay gap (average hourly wage of men minus average hourly wage of women divided by average hourly wage of men), percentage points, 2002-18



Note: The figure reports estimates of the contribution of worker, firm and job characteristics to the gender wage gap, obtained estimating different specifications of the following equation: $\log(w_i) = \beta female_i + X_i\gamma + year_i + \varepsilon_i$ where w_i is the hourly wage of individual i ; $female_i$ is a dummy variable for women; X_i is a vector of additional individual-level characteristics, $year_i$ is a dummy capturing the survey wave's year (2002, 2006, 2010, 2014 or 2018); and ε_i is the error term. The overall gender pay gap (black dots) is obtained estimating the β coefficient from a specification in which the cohort dummy is the only variable in vector X_i . The skills component (blue bars) is obtained as the difference between the β coefficients obtained from the first specification and an alternative one also including age bracket dummies (for age 14-19, 20-29, 30-39, 40-49 or 50-59) and age dummies interacted with education dummies (lower secondary, upper secondary and post-secondary). The firm component (dark green bars) is obtained similarly, including industry (1-digit NACE2) and firm dummies (obtained exploiting information on the firm identifier). The job component (orange bars) are obtained similarly, including a part-time dummy and occupation dummies (2-digit ISCO), respectively. Finally, the unexplained component (red bars) is calculated as the β coefficient obtained from the most comprehensive specification. See Annex 3.A for the more detailed decomposition.

Source: OECD calculations based on Eurostat Structure of Earnings Survey (SES).

Differences in occupations and working time arrangements within firms account for another quarter

Another quarter of the gender wage can be attributed to the sorting of women into low-wage occupations within firms (“vertical segregation”). In Estonia, this accounts for 6 percentage points of the gender pay gap or 27%, compared with 2 percentage points or 20% on average across European countries. The relative importance of vertical segregation in Estonia could reflect the role of educational choices for the sorting of women into certain occupations or differences in the probability of being promoted to higher wage occupations. The latter could be a reflection of the role of motherhood for the career progression of women (see Section 3.3). Working-time arrangements, as measured by part-time work status, do not play a significant role in the gender pay gap in Estonia, which may not be surprising given its limited incidence. Part-time work status plays a larger role in countries where part-time is more prevalent such as Germany, the Netherlands and the United Kingdom.

About half of the wage gap between similarly skilled men and women reflects unexplained factors, including differences in pay for work of equal value

The bulk of the gender pay gap between similarly skilled men and women cannot be explained by differences in the characteristics of the firms for which they work or differences in occupations and working time. This residual gender pay gap can reflect differences in pay due to differences in tasks and responsibilities, but also differences in pay for work of equal value. The latter are typically attributed to differences in bargaining or wage discrimination by employers.¹ Employers' greater tendency to exploit their wage-setting power when negotiating with a female job candidate or employee is compounded by women's internalisation of traditional gender norms according to which they are not expected to be as assertive as men when bargaining. Meriküll and Mõtsmees (2017^[3]) confirm that women ask for lower wages than men in online job portals in Estonia. Limited competition in product and labour markets tends to increase the scope for discrimination either because it allows costly discrimination to persist or because it may translate in stronger wage-setting power of firms and hence increase the scope for monopsonic discrimination (Box 3.1).

In sum, the gender pay gap reflects to an important extent differences in pay practices within firms

In sum, the cross-country analysis has shown that about half of the gender pay gap in Estonia reflects differences in pay between men and women with similar skills, occupations and working time status, who are employed in the *same* firm. An important question is to what extent the residual gender pay gap is due to any remaining differences in tasks and responsibilities and differences in pay for work of equal value (bargaining, discrimination). The analysis in this section accounts for differences in tasks and responsibilities between occupations, it cannot account for any such differences within occupations. Using linked employer-employee data for selected OECD countries, OECD (2021^[1]) suggests that differences in tasks and responsibilities account for most of the gap in pay between men and women with similar skills, but that differences in pay for equal are also important role in some countries. The analysis in Section 3.2 uses state-of-the-art methods to provide a more precise decomposition of the role of pay practices within and between firms in the gender pay gap in Estonia.

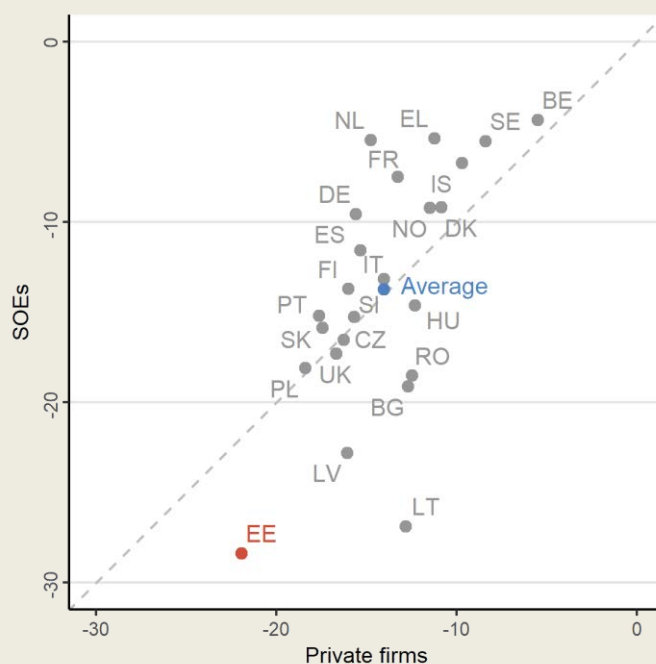
Box 3.1. Gender wage gaps in state-owned enterprises and private firms

The scope for gender discrimination is likely to be higher in product markets with limited competition. Employers who discriminate against women drive down the demand for female workers and their average wages relative to their male peers, while non-discriminating employers can increase profits by employing larger shares of lower-paid women (Becker, 1971^[4]). Previous empirical work finds strong support for the hypothesis that increased product market competition drives out costly discrimination in the long run (Black and Brainerd, 2004^[5]; Hirsch, Oberfichtner and Schnabel, 2014^[6]).

New OECD research by Ciminelli et al. (2021^[7]) suggests that the scope for discrimination may also be larger in state-owned than privately owned firms in the Central and Eastern European countries, and notably in Estonia, Latvia and Lithuania (Figure 3.2). In principle, this could reflect the larger scope for gender discrimination in state-owned enterprises due to weak budget constraints (the public sector is excluded from the analysis). However, in other countries, the gender pay gap tends to be similar in state-owned and privately owned firms. Weak budget constraints in state-owned firms may not translate into larger gender wage gaps in those countries because of the stricter enforcement of equal pay laws, the presence of pay transparency laws and the greater importance of collective bargaining and social dialogue.

Figure 3.2. Gender pay gaps in state-owned enterprises are large in Central and Eastern Europe

Difference in women's hourly wages relative to men, percentage, state-owned enterprises and private sector, 2018



Note: The figure compares gender pay gaps in state-owned enterprises relative to privately-owned firms. It shows log-percent differences in women hourly wages relative to men with the same level of educational attainment, age and tenure, in these two broad sectors. Gaps are obtained estimating, separately for each country, the following regression specification: $\log(w_i) = \beta_F \text{female}_i + X_i \beta_1 + I_i + \varepsilon_i$, where \log denotes the natural log operator, w_i is hourly earnings of individual i , female_i is a 0/1 gender dummy, X_i is a vector of control variables, including age-by-education dummies and two dummies for apprentices and casual workers, I_i are 2-digit level industry dummies and ε_i is the error term. The specification is estimated separately over the two restricted samples of state-owned enterprises and privately owned firms. State-owned enterprises are defined as firms under public control. The Health, Education and Public Administration sectors are excluded from the sample. The equation is estimated on the 2018 sample.

Source: Ciminelli, Schwellnus and Stadler (2021^[7]), "Sticky floors or glass ceilings? The role of human capital, working time flexibility and discrimination in the gender wage gap", <https://doi.org/10.1787/02ef3235-en>; based on the Eurostat Structure of Earnings Survey.

The findings in this box complement those by REGE (<https://rege.tlu.ee/>) who look at differences between foreign and domestic ownership and differences between firms in the public and private sector. REGE (2020^[8]) found that gender wage gaps tend to be larger in foreign-owned firms and smaller in public-sector firms than in other firms. The higher gender pay gap among foreign-owned firms may reflect the possibility that gender wage gaps tend to be higher in high performance firms (see the discussion in Section 3.2), despite being exposed to international competition.

3.2. An in-depth analysis of the gender pay gap and the role of firms in Estonia

The role of firms in the gender pay gap can be analysed in more detail by decomposing the gender pay gap between male and female employees with similar skills, tasks and responsibilities into a between-firm and a within-firm component. The between-firm component captures the role of differences in pay practices between firms due to the sorting of women into low-wage firms (labelled “sorting”). The within-firm component captures the role of differences in pay practices for work of equal value (labelled “discrimination and bargaining”). The decomposition is implemented empirically using comprehensive linked employer-employee data on the universe of workers and firms in Estonia from the Tax and Customs Board Register for the period 2002-18. For more detail on the methodology, see Box 3.2).

3.2.1. In Estonia, differences in pay practices within and between firms may explain up to half of the raw gender pay gap

Masso et al. (2022^[9]) showed that the firm component of the gender pay gap associated with differences in firm pay practices within and between firms is substantial in Estonia and larger than in other countries for which similar estimations have been conducted. The firm component of the gender pay gap explains 35% in Estonia as opposed to 11% in France (Coudin, Maillard and Tô, 2018^[10]), 16% in the UK (Jewell, Razzu and Singleton, 2019^[11]), 21% in Portugal (Card, Cardoso and Kline, 2016^[12]) for 26% in Germany (Bruns, 2019^[13]) and 30% in Italy (Casarico et al., 2019^[14]) Moreover, in Estonia, the firm component of the gender pay gap reflects in equal measure the within-firm (discrimination and bargaining) and the between-firm (sorting) dimensions, while it mainly reflects sorting in other countries (the contribution of discrimination and bargaining to the firm component of the gender pay gap varies from zero in France and Germany to roughly one-third in Italy, Portugal and the United Kingdom).

New OECD results confirm that firm pay practices play a large role in the gender pay gap in Estonia (Figure 3.3), consistent with earlier results by Masso et al. (2022^[9]) for a somewhat different time period.² According to OECD estimates, firm pay practices account for about half of the gender pay gap. Three-fifths of this is explained by the sorting of women into lower-paying firms (30% of the overall gender pay gap), whereas the remaining two-fifths (20% of the overall gender pay gap) reflect pay differences between men and women with similar skills, tasks and responsibilities (discrimination and bargaining). The sorting component is comparable in magnitude with that documented in the cross-country analysis in Section 3.1 (about 25%). While the component associated with discrimination and bargaining is sizeable it appears to be small compared with the unexplained component of the gender wage gap in Section 3.1. This suggests a significant part of the unexplained gender pay gap is due to differences in tasks and responsibilities within occupations.

Box 3.2. Analysing the role of pay practices within and between firms

The role of firms in the gender pay gap can be analysed by decomposing this gap into a between-firm and a within-firm component, when male and female employees with similar skills, tasks and responsibilities are compared. The between-firm component (sorting) captures the role of differences in pay practices between firms in the gender pay gap between similarly-qualified men and women due to the sorting of women into low-wage firms. The within-firm component (bargaining and discrimination) captures the role of differences in pay practices between similarly-qualified men and women within firms for work of equal value.

The decomposition is implemented empirically using the approach put forward by Card, Cardoso and Kline (2016^[12]). This first involves estimating wage equations with worker and firm fixed effects separately for men and women:

$$(1) w_{it} = \alpha_i + \varphi_{J(i,t)}^{M,F} + \gamma_t + X'_{it}\beta^{M,F} + r_{it}$$

where α_i denote worker fixed effects, which capture skill differences between male and female employees, $\varphi_{J(i,t)}^{M,F}$ denote gender-specific firm fixed effects, which capture differences in pay practices between firms as well as between men and women within firms, γ_t denote year fixed effects, X'_{it} denotes a third-order polynomial in potential work experience (age), and $\beta^{M,F}$ denotes gender-specific returns to potential experience.

To allow comparing the firm fixed effects between men and women, they are normalised with reference to the accommodation and catering sector. This is based on the assumption that there are no rents in this sector and hence firm wage premia are zero for both men and women. It has been verified that the firm fixed effects for both men and women are the lowest in the accommodation and catering sector. The normalisation also removes differences in tasks and responsibilities between men and women in the accommodation and catering sector. To the extent that differences in tasks and responsibilities are similar across sectors the analysis effectively abstracts from their role in the gender wage gap.

The role of firm pay practices – as measured by the gender-specific firm fixed effects – in the gender pay gap is quantified using the following decomposition:

$$(2) E[\varphi_{J(i,t)}^F|F] - E[\varphi_{J(i,t)}^M|M] = \underbrace{E[\varphi_{J(i,t)}^F - \varphi_{J(i,t)}^M|F]}_{\text{discrimination and bargaining}} + \underbrace{E[\varphi_{J(i,t)}^F|F] - E[\varphi_{J(i,t)}^F|M]}_{\text{sorting}}$$

The first part on the right-hand side captures the role of differences in pay practices between men women within firms (discrimination or bargaining effect) or put differently how much the gender pay gap would change if women earned the same firm wage premium as men in the same firm. The second part on the right-hand side captures the role of differences in pay practices between firms (sorting effect), or put differently how much the gender pay gap would change if women worked in the same firms as men, weighted by male firm effects.

The analysis makes use of comprehensive linked employer-employee data on the universe of workers and firms in Estonia from the Tax and Customs Board Register. It covers the period 2002-18 and all sectors of the economy. The sample is restricted to workers between 25 and 60 years old, earning at least the full-time minimum wage.

Figure 3.3. The role of firm pay practices in the gender pay gap in Estonia

Difference in monthly earnings between men and women as a share of monthly earnings of men, 2002-18



Note: The figure presents the results from the decomposition of equation (2) in Box 3.2 for the average effect.

Source: OECD calculations based on Estonian Tax and Customs Board Register.

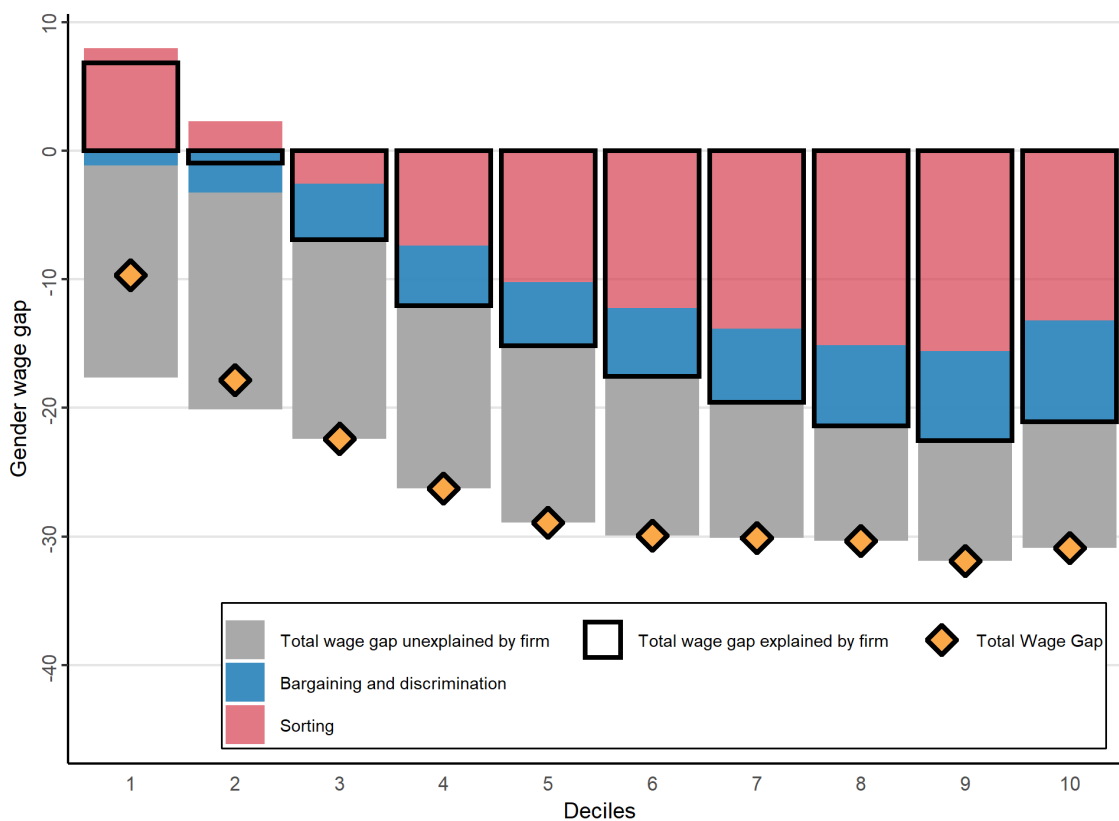
The relative importance of bargaining/discrimination in Estonia resonates well with previous research. For example, previous research attributes women's lower ability to negotiate salaries as assertively as men to traditional gender norms (Meriküll and Mõtsmees, 2017^[31]). Traditional gender norms are also closely intertwined with the prejudiced and stereotypical view that women cannot perform as well as men at managerial- and executive-level positions. As such, they constitute an important driver of gender-based discrimination in the workplace. These harmful effects are compounded by a weak bargaining position of employees vis-a-vis employers in a context of flexible wage-setting institutions (Masso, Meriküll and Vahter, 2022^[9]). Estonia is characterised by a low minimum wage, a low unionisation rate and a weak coverage of collective agreements.

Larger gender wage gaps among high-wage workers reflect larger differences in pay practices between firms

The role of firms in the gender pay gap increases along the wage distribution, and particularly so over the bottom half (Figure 3.4). Among men and men and women in the top decile, firms account for as much as 70% of the gender pay gap. Differences in pay between firms explain about two-thirds of the firm component, whereas the remaining one-third is explained by differences in pay within firms. Among men and women in the bottom decile, the firm component of the gender pay gaps among low-wage workers is *positive*, as low-wage women tend to work in higher-wage firms than low-wage men, reducing the gender pay gap (this may also reflect the relative concentration of men in certain low-wage industries such as construction and agriculture, see Figure 3.6). There are no systematic differences in pay between low-wage men and women within firms.

Figure 3.4. The role of firms in the gender pay gap increases along the wage distribution

Difference in monthly earnings between men and women as a share of monthly earnings of men at each decile of the individual wage distribution, 2002-18



Note: The figure presents the results from the decomposition of equation (2) for the average effect and by decile of individual wages.
Source: OECD calculations based on the Estonian Tax and Customs Board Register.

Rising gender pay differentials along the wage distribution are not limited to Estonia, but tend to be present in the large majority of OECD countries (OECD, 2017^[2]). However, so far the reasons for this pattern are not well understood. The present analysis suggests that gender wage gaps are higher for high-wage women because of their difficulty to access top jobs in high-wage firms. Indeed, top jobs in top firms are to a greater extent occupied by men than other jobs in top firms or top jobs in other firms (Chapter 2). This may also affect the bargaining position of high-wage women, and thus exacerbate differences in pay practices for work of equal value within firms.

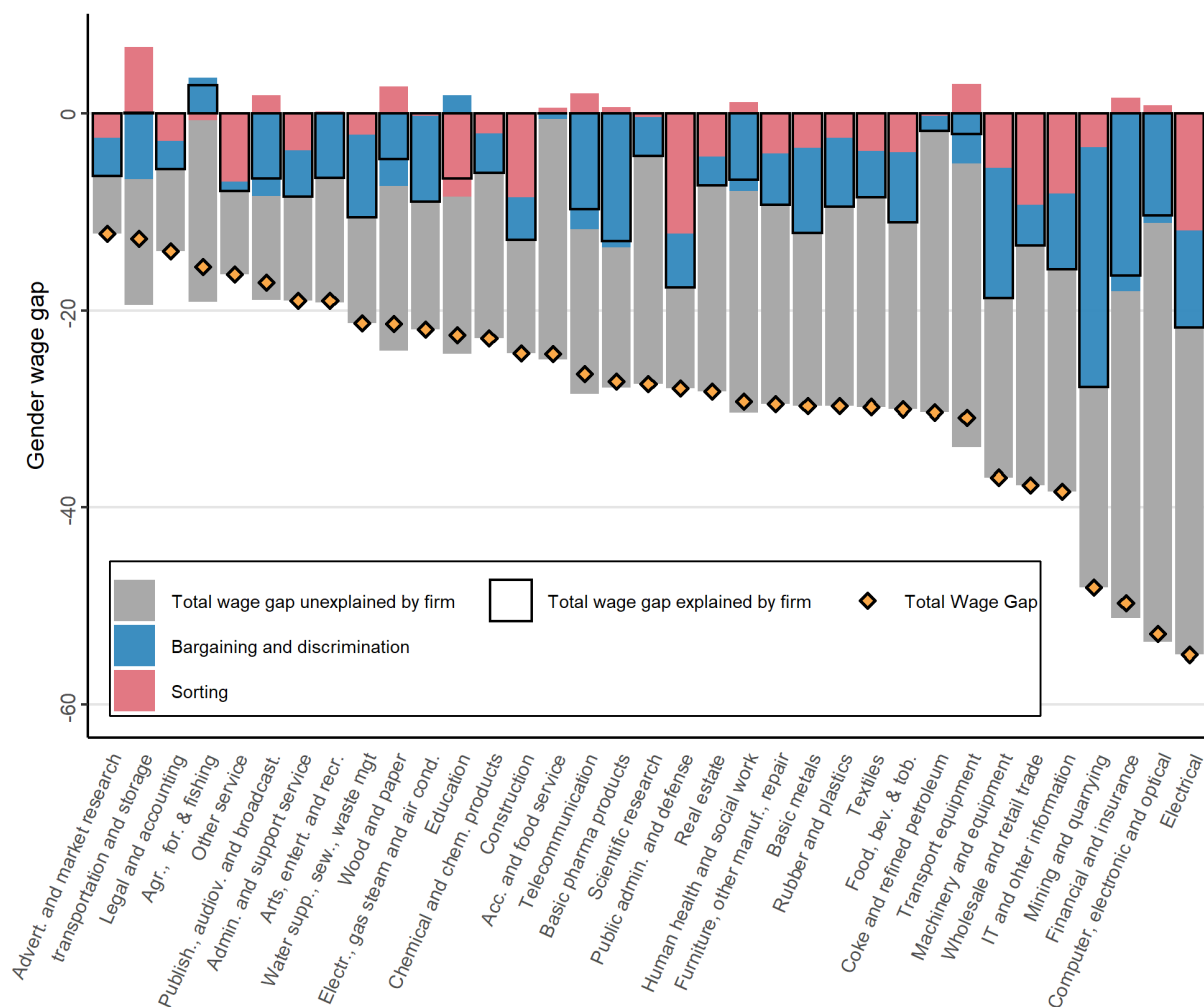
Voluntary target setting, good management practices that make managers accountable and gender quotas for company boards are among the measures that could help to promote access for women to top jobs in top firms, while at the same time foster social norms that support gender equality. By contrast, the absence of a significant firm component among low-wage women or its tendency to reduce the gender pay gap suggests that strengthening collective bargaining or increasing the minimum wage is unlikely to be very effective in reducing the gender pay gap and potentially even counter-productive. Pay transparency measures hold more promise since these reduce the scope for discrimination against high-wage women and strengthen their relative bargaining position (OECD, 2021^[15]).

Differences in the gender pay gap across industries tend to reflect discriminatory pay practices within firms, which tend to be more important in the presence of product and labour market frictions

The role of firm pay practices in the gender pay gap varies significantly across industries (Figure 3.5). The largest differences in firm pay practices are found in electrical, machinery and equipment and mining and quarrying, while the smallest differences are found in accommodation and catering, agriculture, and transportation. Differences in firm pay practices play an important role in explaining differences in the gender pay gap across industries. The correlation coefficient between the gap in firm pay practices and the overall gender pay gap across industries is 0.7. Differences in pay practices across industries mainly reflect differences in pay practices between men and women within firms (discrimination and bargaining) rather than differences in pay practices between firms (sorting). The corresponding correlation coefficients are 0.6 and 0.3 respectively.

Figure 3.5. The role of firms in explaining gender pay gaps by industry

Difference in monthly earnings between men and women as a share of monthly earnings of men by industry, 2002-18



Source: OECD calculations based on the Estonian Tax and Customs Board Register.

Differences in firm pay practices tend to be larger in industries with high “rents”, i.e. industries with high labour market frictions and low job mobility. Industry “rents” are measured as the average firm wage premium for men in an industry, i.e. the part of the average firm wage that cannot be explained by the composition of its workforce (Box 3.2).³ A low responsiveness of job mobility to wages confers wage-setting power to firms and increases the scope for monopsonic gender discrimination (Hirsch, 2016_[16]). The scope for gender discrimination may be amplified by weak competition in product markets (see Box 3.1). Frictions in product and labour markets thus have the potential to increase differences in pay practices between men and women within firms (discrimination and bargaining). This pattern is supported by the data. The correlation coefficient between industry rents (as measured by average firm wage premia) and within-firm differences in pay practices is 0.8 (discrimination and bargaining).

The large heterogeneity in the importance of differences in firm pay practices across industries suggests that sectoral initiatives may be a useful complement to nation-wide initiatives to tackle the gender wage gap. Targeted initiatives directed at specific sectors where discriminatory pay practices are more pronounced can be used to raise awareness about the extent of gender discrimination and provide information about its consequences for firms and workers. To the extent that discriminatory practices derive from weak budget constraints (product market competition) and are costly for firms, this can be used as an argument to make the business case for gender-friendly pay practices. By contrast, if discrimination derives from monopsony, this can be profit-maximising and there may be a greater role for public policies that enhance competition in the labour market.

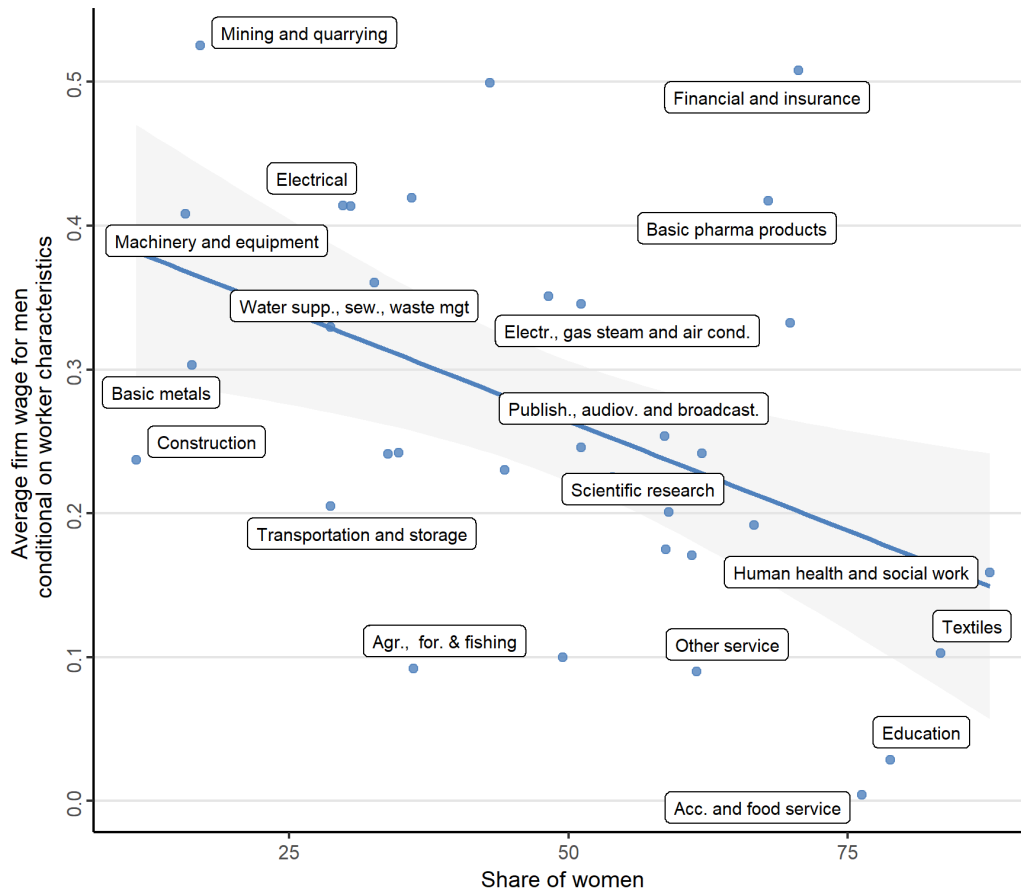
The sorting of women into low-wage industries also contributes to the gender pay gap

The Estonian labour market is quite segregated across industries (Figure 3.6). Men are over-represented in industries such as construction, basic metals and mining, while women are over-represented in accommodation and food services, textiles, and education and health. Moreover, men tend to be overrepresented in industries paying above average wages, conditional on worker characteristics, whereas women tend to be overrepresented in industries paying below-average wages (see Section 3.1). In other words, there is a strong negative relationship between the share of women in an industry and the “average wage premium” (the correlation coefficient is equal to -0.5).

The sorting of women into low-wage industries is likely to reflect to some extent the role of past educational choices. While women outperform men in terms of the level of education (women are more likely to hold a tertiary degree), there are important differences with respect to the field of study. More specifically, fewer women than men complete Science, Technology, Engineering and Mathematics (STEM) degrees (OECD, 2019_[17]). To some extent educational choices may reflect the possibility that teenage boys on average still perform marginally better in mathematics than girls, but gender stereotypes also play an important role. This points to the importance of steering more girls in STEM and thus addressing stereotypes that drive the educational choices of girls.

Figure 3.6. Gender segregation across industries and its contribution to the gender pay gap

Female employment share and firm-wage premia by industry, 2002-18



Note: Firm wage premia refer to the part of average firm wages that is unrelated to the characteristics of the firm's workforce. Firm wage premia are estimated through the inclusion of firm fixed effects in a wage regression described by equation (1). As explained in Box 3.2, firm fixed effects are normalised with respect to the accommodation and catering sector. The blue line gives the fitted line, while the shaded area provides the 95% confidence interval.

Source: OECD calculations based on Estonian Tax and Customs Board Register.

3.3. The gender pay gap over the life-course and the motherhood penalty

3.3.1. Motherhood is associated with significantly higher gender inequalities, including higher gender pay gaps

Gender pay gaps evolve over the life-course, both between and within firms, and career breaks play an important role in explaining why childbirth entails slower wage growth for mothers than for fathers. Childbirth entails significant long-term motherhood penalties in labour income in all countries, but with significant differences in their magnitude (Kleven et al., 2019^[18]; OECD, 2017^[2]). The long-run motherhood penalty, defined as the shortfall in labour income growth of mothers since childbirth relative to fathers, ranges from 21-26% in Denmark and Sweden to 31-44% in the United Kingdom and the United States and 51-61% in Austria and Germany (Kleven et al., 2019^[18]). There are also important differences across countries in the evolution of the motherhood penalty over time with regard to the components of labour income, i.e. employment, working time and hourly wages.

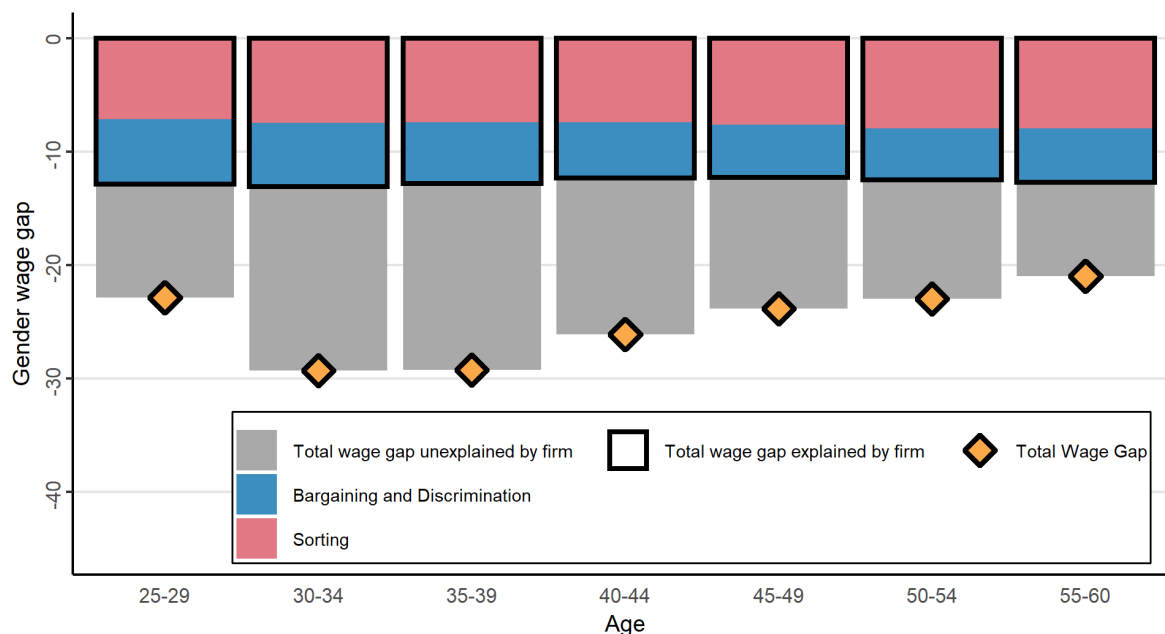
In a number of countries, including France, Italy, Japan, and Portugal, motherhood penalties in hourly wages, as opposed to labour income more generally, tend to increase with the time elapsed since childbirth, as fathers continue to progress to higher-wage firms and occupations, while women increasingly move to lower-wage ones (OECD, 2021^[1]). Evidence for Germany suggests that about a quarter of the long-term motherhood penalty results from differences in the sorting of men and women across firms (Bruns, 2019^[13]). Findings for France also point to an important role of sorting in the motherhood penalty and suggest that this is closely related to the tendency of young mothers to move to firms close to home and firms with flexible working-time policies (Le Barbanchon, Rathelot and Roulet, 2020^[19]). However, in other countries, including Austria and the Slovak Republic, the rise in the gender wage gap around the age of motherhood is temporary (OECD, 2021^[1]).

In Estonia, motherhood is associated with a temporarily higher gender wage gap

In Estonia, gender pay differences increase with age until the late thirties, but decrease afterwards (Figure 3.7). The gender pay gap peaks among workers aged 30-34, but is similar for workers aged 45-54 as those aged 25-29. Complementary evidence by Masso et al. (2022^[9]) further shows that women with young children (between 0 and 6 years-old) earn less than fathers, but that the gap falls as children grow older. The gender gap in earnings among women with adult children (aged 18-24) is half that of women with a young children (aged 0-2). They also show that the gender pay gap increases with the number of children.

Figure 3.7. The role of firm pay practices in the gender pay gap by age group in Estonia

Difference in monthly earnings between women and men as a share of monthly earnings of men and contributions of firm components (bargaining and sorting), 2002-18



Source: OECD calculations based on the Estonian Tax and Customs Board Register.

The temporary increase in the gender pay gap around the age of motherhood does not appear to reflect the role of firms (Figure 3.7). Indeed, the components of the gender wage gap due to sorting across firms or bargaining and discrimination are surprisingly stable over the life-course. The temporary increase in the gender wage gap around the age of motherhood is more likely to reflect the possibility that some young

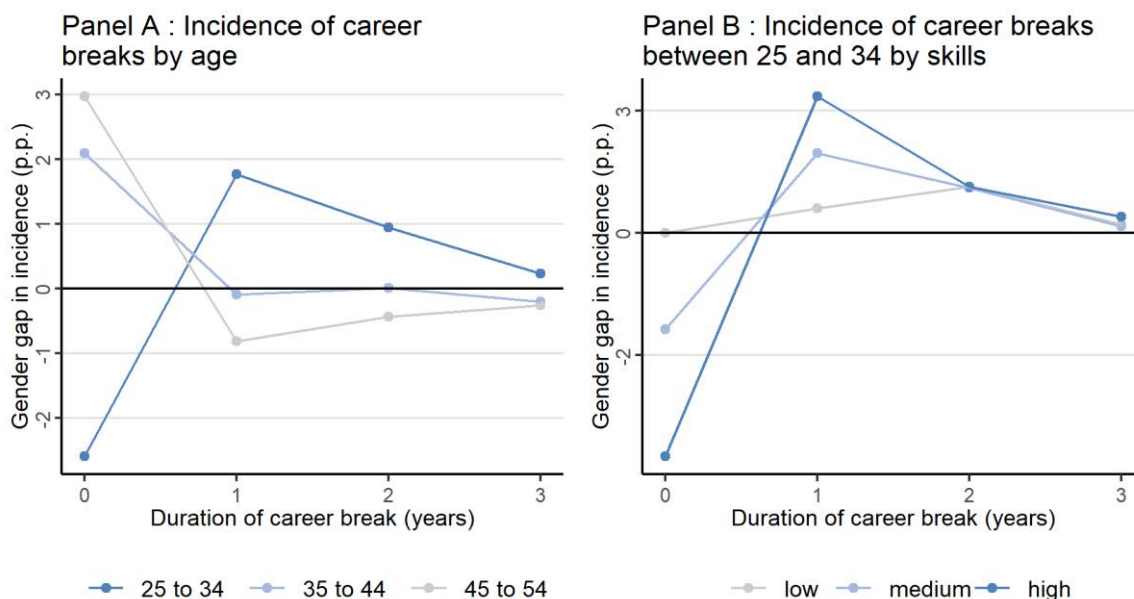
mothers temporarily shift to part-time. This explanation cannot be considered here because of the absence of information on working time in the data. A complementary explanation could be that the temporary increase in the gender wage gap reflects the role of career breaks regarding the wage progression of women.

Career breaks contribute to the motherhood penalty by slowing within-firm wage growth

The role of career breaks for the motherhood penalty is analysed by focusing on the incidence of non-employment spells for men and women around the age of parenthood (25-34) and their consequences for wages. The analysis starts by documenting the gap in the incidence of non-employment spells between men and women as proxied by the number of years spend out of work (Figure 3.8). It shows that women aged 25-34 are much more likely than men to experience a non-employment spell of one or more years (by 2 percentage points), while the opposite is observed for older women aged 35-54 (the average age at which women in Estonia have their first child is 28) (Panel A). This suggests that non-employment spells provide meaningful information about the incidence of career breaks around the age of motherhood rather than differences in the risk of unemployment. Moreover, among workers around the age of parenthood (age 25-34), the gap in career breaks is larger between men and men and women with a high earnings potential (Panel B).

Figure 3.8. The gender gap in career breaks by age and skills

The gender gap in the incidence of non-employment spells by duration, age and skill level (earnings tercile)



Source: OECD calculations based on the Estonian Tax and Customs Board Register.

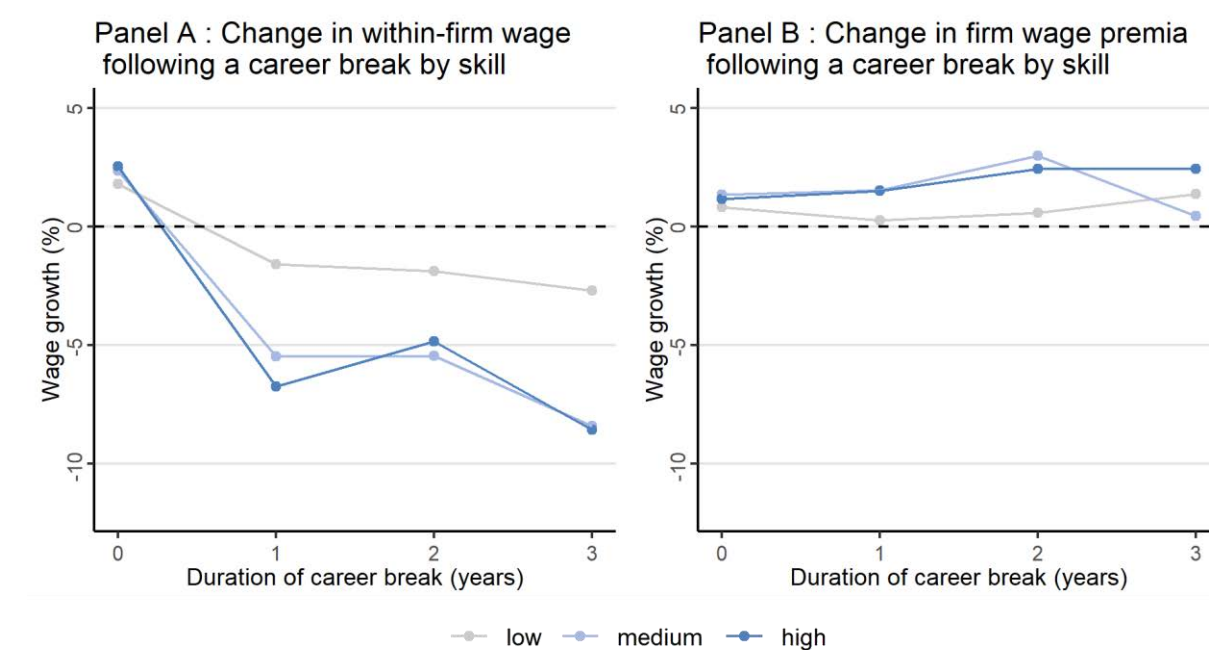
Career breaks tend to be associated with significant wage losses (Figure 3.9). Wage losses may reflect the slower upward mobility within firms due to a lack of experience and the possible depreciation of relevant skills or the sorting of women into lower wage firms following a career break. To examine this, the analysis separately considers changes in within-firm wages and changes in firm-wage premia. The evidence suggests that wage losses due to a lack of experience or human capital depreciation can be sizeable, particularly for women, and especially those with a higher earnings potential (Panel A). Sorting to lower wage firms does not appear to contribute to the motherhood penalty in Estonia (Panel B). This presumably

reflects the possibility that most women return to the same firm following a career break. Career breaks after childbirth therefore tend to contribute the motherhood wage penalty by slowing their wage progression within firms.

In Estonia, women taking a career break following childbirth benefit from strong employment protection, with their position being guaranteed for up to 3 years. While this looks like a generous policy for women, the present analysis suggests that taking long career breaks involves considerable costs in terms of lower wages upon re-employment, with possibly long-lasting consequences for the quality of worker careers.

Figure 3.9. The wage effects of career breaks

Percentage change in earnings for women aged 25 to 34 conditional on potential experience and education



Source: OECD calculations based on Estonian Tax and Customs Board Register.

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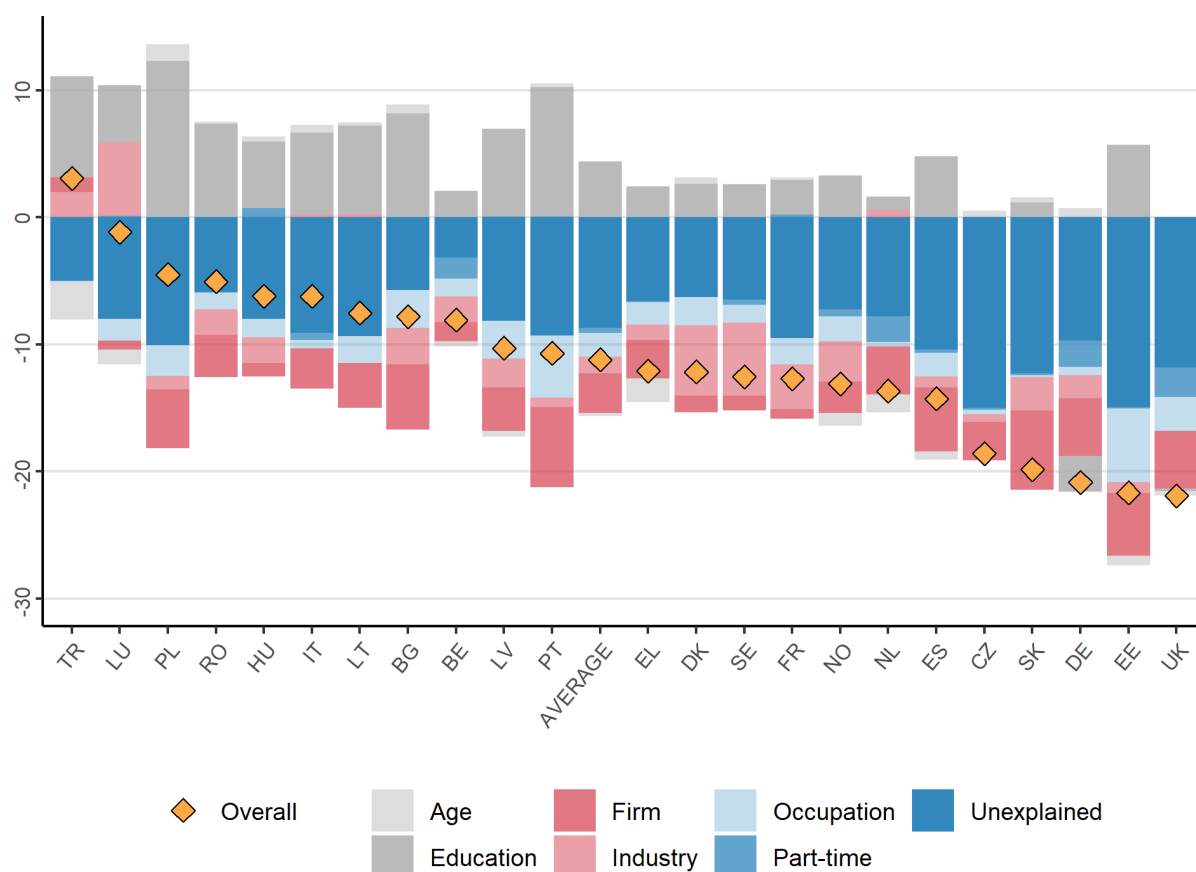
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Annex 3.A. Additional data on the gender pay gap across countries

Annex Figure 3.A.1. Decomposing the gender pay gap across countries

Contributions to the gender pay gap (average hourly wage of men minus average hourly wage of women divided by average hourly wage of men), percentage points, 2002-18



Note: The chart reports estimates of the contribution of worker, firm and job characteristics to the gender wage gap, obtained estimating different specifications of the following equation: $\log(w_i) = \beta female_i + X_i\gamma + year_i + \varepsilon_i$ where w_i is the hourly wage of individual i ; $female_i$ is a dummy variable for women; X_i is a vector of additional individual-level characteristics, $year_i$ is a dummy capturing the survey wave's year (2002, 2006, 2010, 2014 or 2018); and ε_i is the error term. The overall gender pay gap (black dots) is obtained estimating the β coefficient from a specification in which the cohort dummy is the only variable in vector X_i . The age component (light blue bars) is obtained as the difference between the β coefficients obtained from the first specification and an alternative one also including age bracket dummies (for age 14-19, 20-29, 30-39, 40-49 or 50-59). The education component (blue bars) is obtained as the β coefficients obtained from the earlier specification and an alternative one in which age dummies are interacted with education dummies (one each for lower secondary, upper secondary and post-secondary). Industry and firm components (dark and light green bars respectively) are obtained similarly, including industry (at the 1-digit NACE2 level) and firm dummies (obtained exploiting information on the firm identifier). Part-time and occupation components (orange and gold components) are obtained similarly, including a part-time dummy and occupation dummies (for each 2-digit ISCO occupation), respectively. Finally, the unexplained component (red bars) is calculated as the β coefficient obtained from the most comprehensive specification.

Source: OECD calculations based on Estonian Tax and Customs Board Register.

Notes

¹ Employers' discriminatory behaviour may be rooted in conscious or unconscious biases against women ("taste-based discrimination"), may reflect the perceptions of employers that women are on average less productive than men ("statistical discrimination") or be based on profit considerations by paying lower wages to women given that women enjoy more limited outside options than men due to their greater unpaid work burden ("monopsonistic discrimination").

² Masso et al. (2022^[9]) focus on the period 2006-17 whereas the present paper focuses on the period 2002-18.

³ Using the average firm effects of women does not change the results. The correlation coefficient between the average firm fixed effects of men and those of women across industries is 0.94.

4 A summary view of support for families with very young children in Estonia

This chapter looks at the public supports available for parents with very young children. It describes the features of Estonia's maternity, paternity and parental leaves, and its relative generosity compared with many other OECD countries. However, mothers rather than fathers use leave entitlements, and the chapter describes some options to generate a more equal use of leave entitlements among fathers and mothers. The chapter analyses the linkages between the parental leave and formal childcare systems and briefly considers pertinent issues around cost and access. The last section of the chapter points out that reliance on informal care to address the needs of elderly relatives will increasingly hamper women's labour force participation unless greater formal service support becomes available.

4.1. Introduction and main findings

Enabling men and women with caring responsibilities to better balance their work and family lives is not only key for their well-being, it also brings a wide range of economic benefits (European Commission, 2019^[1]). Closing gender gaps in labour market outcomes by improving women's labour supply, earnings and career progression thanks to greater work-life balance positively impacts women's and their families' standard of living. Greater work-life balance also allows companies to access a wider talent pool and a more motivated and productive workforce. A rise in women's employment and working hours could also help address the challenge of demographic ageing and thus enhancing countries' financial stability.

In Estonia, significant efforts have been made to improve work-life balance for parents of children above 3. Since 2009, the country has been constantly exceeding the Barcelona target of having at least 90% of children between 3 and school age enrolled in pre-primary education: 93% of children in this age range attend kindergarten in 2019, with little variation across Estonian counties (Lang et al., 2021^[2]). Most of them are enrolled in local government childcare institutions that provide services from 7 a.m. to 7 p.m. on weekdays, what is more at a modest price. Out-of-pocket childcare costs in Estonia as a percentage of family net income are among the lowest OECD-wide (OECD, 2020^[3]).

There are three types of pre-primary groups: crèche (for children below 3); pre-primary groups (for children between 3 and 7); pre-primary groups for children with special needs (for children between 3 and 7). In pre-primary schools, groups are usually organised according to the age of children: younger (between 3 and 5 years of age); medium-aged (between 5 and 6 years of age), and older ones (between 6 and 7 years of age). However, some kindergartens also operate with mixed age-groups that can include children with special needs as well. All children attaining age 7 before 1 October of the current year must attend school.

For children above 7 enrolled in basic education, state or municipally owned schools provide out-of-school-hours services conditional to the needs of working parents (Santiago et al., 2016^[4]). Although the maximum weekly workload of a basic school student¹ varies from 20 hours in Grade 1 to 32 hours in Grade 9 and is thus lower than the 40 hours worked by a parent on a full-time contract, basic schools typically organise "long day groups" that are formed after regular curricular instruction at the request of working parents. They are designed to assist students in doing their homework, and to engage them in a variety of recreational activities, including hobby education – a non-formal learning service in which young people participate voluntarily to develop their competences, be it in music, sport, technology (e.g. manual work), or other areas of their interest. Nearly 20% of Estonian children (age 6 – 11, use is highest amongst 7- and 8-year-olds) participate in such services, which is almost 10 percentage points lower than on average in other OECD countries (OECD Family Database).

What is more, Estonian men and women have satisfactory access to flexible working time arrangements, i.e. the possibility to accumulate hours for days off (full or half days) and to vary the start and end of daily work. According to the Gender Equality Act that came into force in 2004, "upon promotion of equal treatment of men and women, an employer shall (...) create working conditions which are suitable for both women and men and enhance the reconciliation of work and family life, taking into account the needs of employees". Based on the 2018 Eurobarometer on work-life balance, more than two-thirds of respondents in Estonia (63% of men and 70% of women) report that "flexitime" is "very widespread" or "fairly widespread" in the "company or organisation where [they] currently work/last worked". This is substantially higher than on average in other European countries (Figure 4.1).

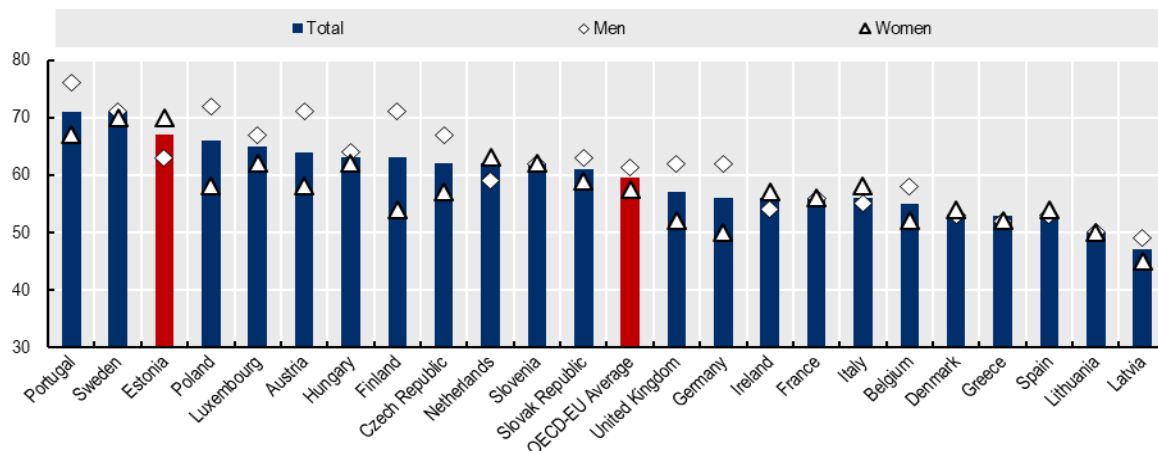
Main findings

- Estonian parents with children at least 3 years of age are generally able to reconcile full-time work with family commitments. Until they go to primary school at age 7, 90% of children aged 3 and over are enrolled in pre-primary education. In addition, Estonian men and women are overall satisfied with their access to flexible working time arrangements.
- The Estonian system aims to provide a continuum of support to families with paid leave offering a total of 605 calendar days of maternity-, paternity- and shared parental benefits that can be taken up until the child turns 3 years old. Most parents take the entire leave during the 18 months following childbirth, upon which the child should get access to publicly provided formal childcare. However, for many parents with very young children, the balance of work and care commitments is fully tilted towards care responsibilities often until children are 2 to 3 years of age. The optimal time of parental leave in terms of child- and family-well-being is hard to pin down. It will also vary across parents and children. In any case, a prolonged period of leave has considerable implications for career enhancement of leave-takers, and economic family well-being, and since the vast majority of those who take leave for more than 1 year are women, gender equality in labour market outcomes. A more equal sharing of parental leave can enhance gender equality in the labour market as well as family- and child-well-being.
- Maternity leave is for 100 calendar days (14 weeks) paid at 100% of earnings without cap, at least 30 calendar days of which have to be taken before expected birth. Paternity leave is for 30 calendar days paid at 100% up to a threshold of EUR 4 043 per month in 2022 – about 3 times average earnings. During the subsequent parental leave period, parents can receive the parental allowance at a payment rate of 100% (up to a threshold as under paternity leave) for 68 weeks (if taken directly in one row/part after maternity leave, this would be until the child is around 18 months old). The leave is a family entitlement, so one of the parents can claim it at the time, except for 8 weeks that parents can use parental leave simultaneously. Most Estonian families use the entire period of paid parental leave. The period of employment-protection around parental leave lasts until the child turns three, and the majority of leave takers extend their parental leave beyond 18 months. Recent reform abolished the payment of a flat-rate childcare benefit to families until children are 3 years of age: this benefit is not paid to children born after 1 September 2019.
- The Estonian system stands out from that of most other countries as being on leave while receiving the parental allowance is *not* compulsory – the system facilitates taking leave on a part-time basis. The parental leave benefit is reduced by 50 cents for each Euro earned in excess of 1.5 times average salary (EUR 2 021.54 per month in 2022). Fathers can claim the payment once the child is 70 days old (the earliest date at which maternity leave expires) and if they have taken their entitlement to 30 days of paternity leave. This facilitates fathers claiming the paid leave payments (which from a household perspective makes financial sense as their earnings are often higher than their partners' earnings), but women still make up over 85% of paid parental leave takers. They also make up the totality of adults in childbearing age who interrupt their presence in the workplace for more than 2 years to take care of their child(ren).
- To enhance gender equality in labour market outcomes, it is critical to foster a more equal use of leave entitlements among fathers and mothers, and limit the length of career breaks after childbirth for women since these breaks curtail their career opportunities and contribute to gender pay gaps over the life course (Chapter 3):

- Recent attempts to increase the attractiveness of the paid parental leave for Estonian fathers may have triggered some perverse effects. While the share of fathers who receive the parental leave benefit has increased, early indications suggest that a significant fraction of the fathers receiving the parental allowance continue working, which may complicate the return to work for their partners.
- Meanwhile, policy reform could increase childcare leave periods for the exclusive use by fathers. This could be by introducing a “father quota” – a non-transferable period of parental leave that is reserved to fathers who take time off to care for children, or a further extension of paternity leave.
- Reform could be introduced gradually. For example, the leave period for fathers could be increased to 3 months, while the paid leave period mothers can take overall after childbirth is reduced to 15 months. At a later stage, the period of paid leave mothers can take could be reduced to a year (the OECD average) as the reserved period for fathers is increased.
- It is vital that the policy system provides a *de facto* continuum of supports to parents with young children. To that end, it is important that childcare places are accessible when paid parental leave runs out. While more than 90% of children in-between 18 and 36 months of age get a place in kindergarten, nearly 10% of these children do not. And when parents with children in this age-group get a place, it is usually several months after the date at which they had intended their child to start attending formal care (often only in August/September).
- The forecast decline of pre-school children between 2020 and 2030 should partly absorb the current demand for places in local government kindergarten for children between 1.5 and 3 years of age. Assuming the demand will remain unchanged, there should be no shortage of kindergarten places in 2030 in Estonia, except in Tallinn and Tartu counties. However, a more gender-equal use of leave entitlements for a shorter duration will require an increase in capacity so that more one-year olds can attend local government kindergarten. It may therefore be necessary to devote more public investment to formal childcare to ensure that parents with very young children can return to work when they want, rather than when a childcare place becomes available. There is room in Estonia to re-direct public investment in families away from cash support to greater investment in childcare.
- Opportunities to reconcile work and family life are not only hampered when children are very young, but also when long-term care needs for older relatives come to the fore.
 - In Estonia, informal care is the backbone of the current long-term care system, and very much relies on women to care for relatives, which curtails their ability to actively participate in the labour market at an increasing rate.
 - Estonian authorities are taking action to alleviate the informal care burden by focusing on improving the efficiency of integrated long-term care service delivery, but increased funding towards formal service delivery is necessary to reduce the reliance on female relatives.

Figure 4.1. More than two-thirds of respondents consider flexible work arrangements as widespread in Estonia

Share of respondents who report flexitime is “widespread” (i.e. “very widespread” or “fairly widespread”) in the company/organisation where they currently work/last worked



Note: Data refer to all employed or previously employed individuals less than 65 years old.

Source: European Commission (2018_[5]), Flash Eurobarometer 470: Work-Life Balance, http://data.europa.eu/88u/dataset/S2185_470_ENG.

4.2. Limiting the length of career breaks after childbirth

Career breaks after childbirth are particularly long in Estonia, and disproportionately affect women. There are several options the Estonian Government could consider to strengthen current efforts to generate a more equal sharing of paid and unpaid work among parents of very young children.

4.2.1. Overview of the challenge

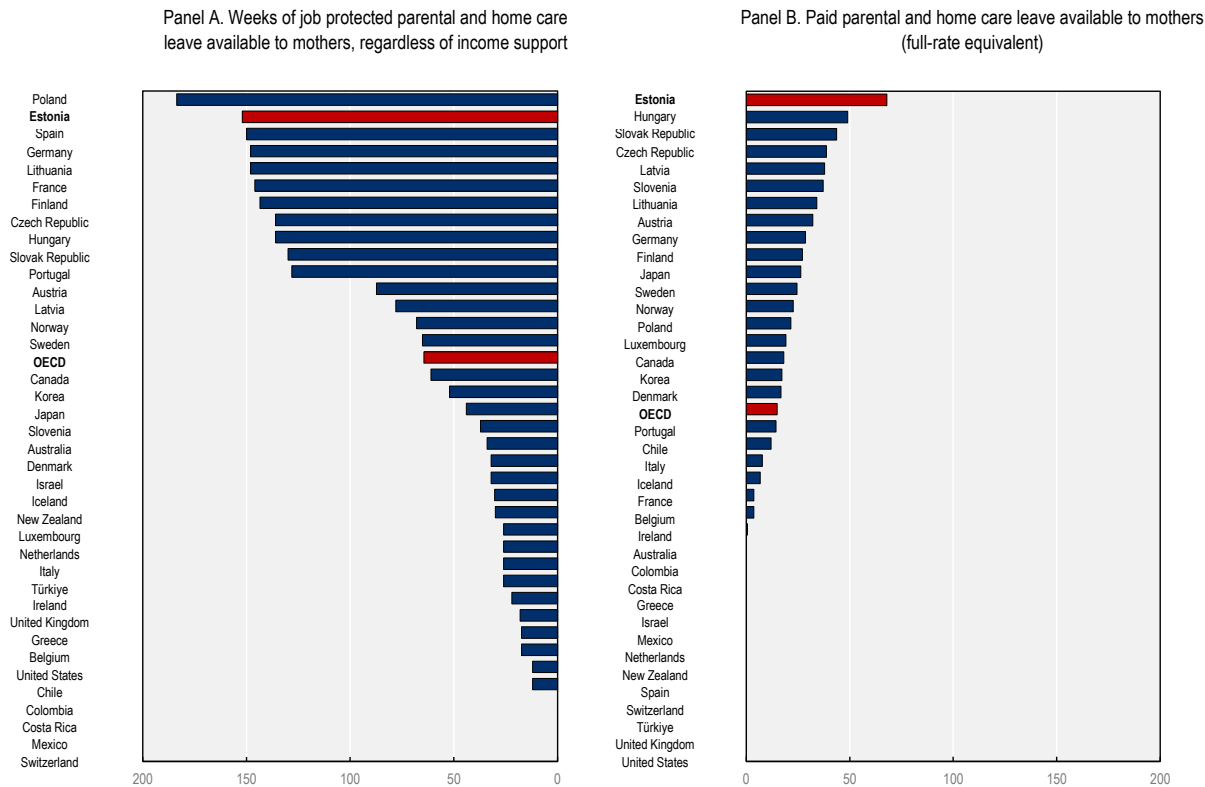
Employment-protected parental leave (which is coupled with employment-protected home care leave in some countries) is one of the longest in Estonia (Panel A of Figure 4.2.). This leave of absence allows Estonian parents to stay away from work until their child turns three, meaning that employers have an obligation to keep their (or a similar) job open for them until then. In a context where Estonian mothers must take at least 4 weeks of leave after childbirth, this means that employment-protected (paid and unpaid) parental and home care leave available to mothers lasts 152 weeks in Estonia, as opposed to 64 weeks OECD-wide. Mothers have access to a longer employment-protected parental leave only in Poland (184 weeks).

When the length of the paid parental leave is expressed in “full-rate” equivalent, i.e. the number of weeks paid at 100% of previous earnings, Estonia has the longest period across OECD countries (Panel B of Figure 4.2.). The parental leave is calibrated so that parents are compensated at 100% of their previous earnings during 18 months after childbirth,² whereas mothers without previous earnings receive the minimum wage.³ This pattern significantly differs from the situation that prevails in other OECD countries. While the “full-rate” equivalent paid parental leave is 68 weeks in Estonia in 2022, it lies below 20 weeks OECD-wide in 2020 (noting that the length of the full rate equivalent paid maternity leave in Estonia in 2022 is the same as the average in other OECD countries in 2020: 14 weeks). Estonian mothers can even extend their parental leave entitlements further: if they only take the 4 weeks of maternity leave that are required before expected birth, the remaining 6 available pre-birth leave weeks are transferred to the

shared parental leave entitlement – prolonging the potentially available “full-rate” equivalent parental leave even further to 74 weeks. The latter is the same length as for those mothers that are not entitled to maternity leave benefits before birth. However, any of these shifts of maternity leave towards parental leave do not change the total length of maternity and parental leave that mothers can take.

Figure 4.2. The length of parental leave in Estonia is one of the highest OECD-wide

Length in weeks of employment-protected parental and home care leave available to mothers (absolute and full-rate equivalent values), 2022 for Estonia and 2020 for all others



Note: Home care leave (also called childcare or child raising leave) is an employment-protected leave of absence that can follow parental leave and that typically allows at least one parent to remain at home to provide care until the child is two or three years of age. Home care leaves are less common than the other three types of leave (maternity, paternity and parental leave) and are offered only in a minority of OECD countries. They are also often unpaid. Where a benefit is available, home care leaves tend to be paid only at a low flat-rate.

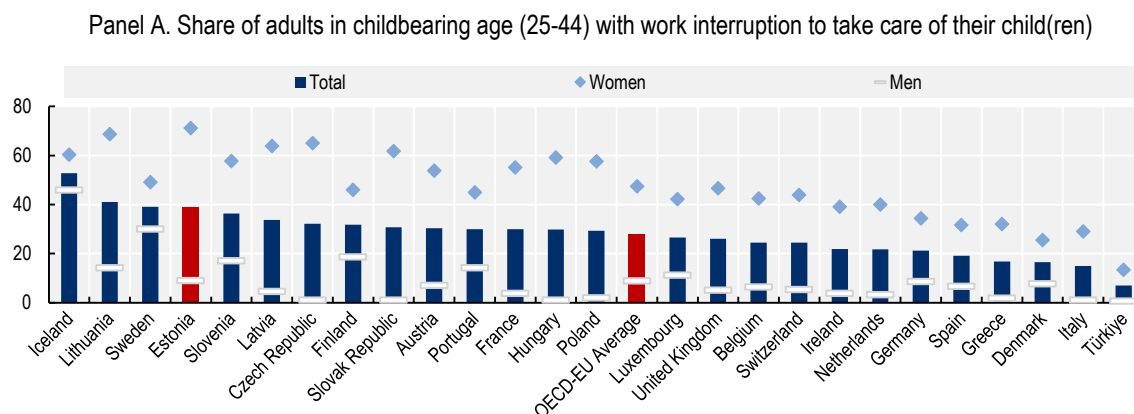
Panel B Data for the OECD average does not include Austria, Chile, France, Germany and Lithuania as they are based on net income compared to gross income for other countries.

Source: OECD Family Database, indicators PF2.1 Key characteristics of parental leave systems and PF2.5 Trends in leave entitlements around childbirth (<https://www.oecd.org/els/family/database.htm>).

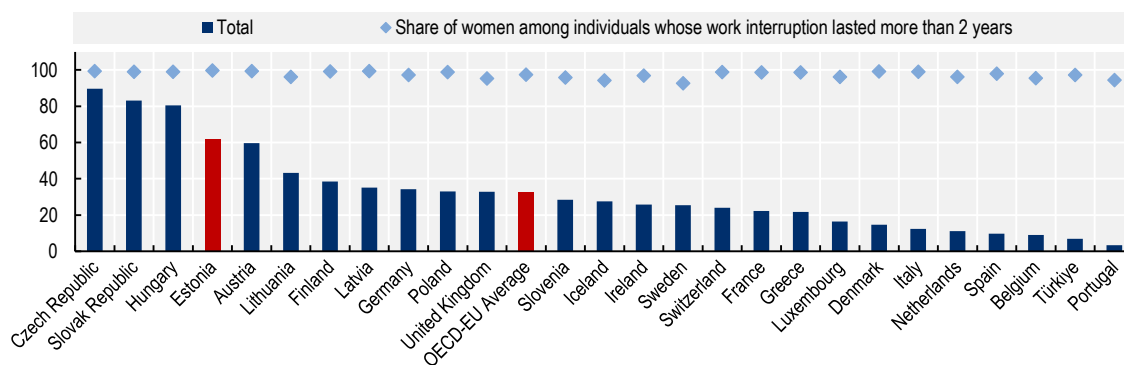
According to the Estonian Social Insurance Board, most parents in Estonia use the parental leave, at least during the entire period that is fully compensated. In addition, a significant share of parents extend their parental leave beyond 18 months. In 2010, this was the case for a majority of Estonian parental leave takers, with 63% staying on leave between 1.5 and 3 years. In 2018 a majority (62%) of Estonian adults in childbearing age (25-44) who interrupted their paid work to take care of their child(ren), did so for more than 2 years (Panel B of Figure 4.3.). This share is nearly twice as high as on average in other OECD-EU countries that are also part of the EU, noting that Estonia already stands out as one of OECD-EU countries where the share of adults with a work interruption for childcare reasons is one of the highest (Panel A of Figure 4.3. .

Figure 4.3. Estonian mothers are not only much more likely than fathers to interrupt their career for childcare reasons, they are also the only parents who do so for more than 2 years

Incidence of work interruption for childcare purposes in 2018, by gender



Panel B. Share of individuals whose work interruption lasted more than 2 years among adults in childbearing age with work interruption to take care of their child(ren)



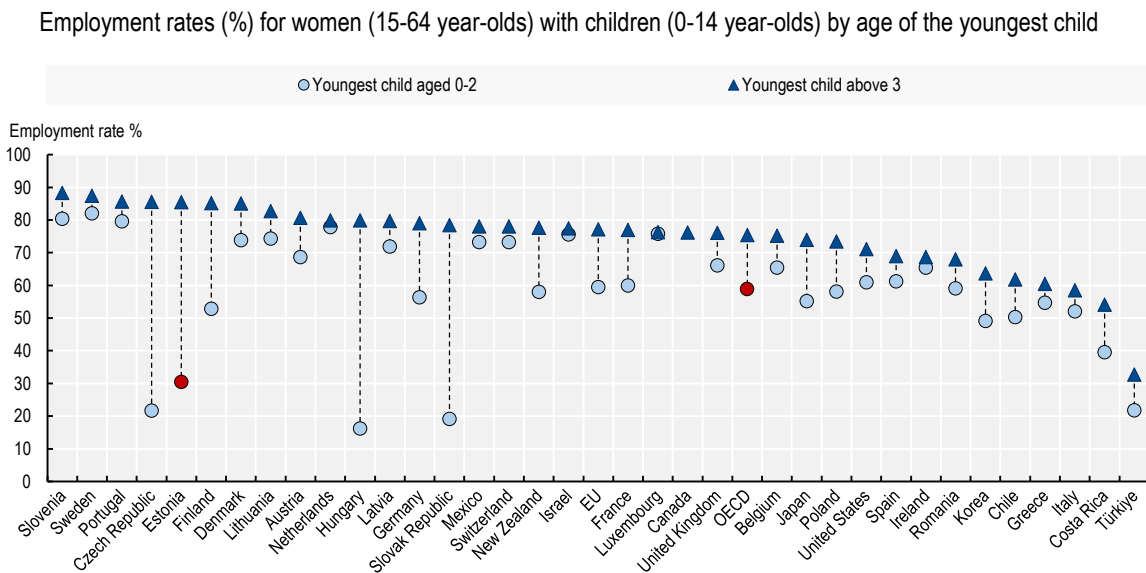
Note: The data for both panels are sourced from an ad-hoc module to the EU Labour Force Survey (LFS), released in 2019. LFS data for ad hoc modules, once released, are usually not revised, unless major errors are identified in the delivered or processed data. Therefore, the data presented in both panels are not affected by the implementation of the new [EU Labour Force Survey methodology](https://ec.europa.eu/eurostat/databrowser/view/LFSO_18STWKED_custom_1550504/default/table?lang=en) in 2021, which, among changes in sampling and the structure of the questionnaire, affects the definition of employment, particularly in relation to maternity-, paternity- and parental leave. Source: Panel A: Eurostat Population by effects of childcare on work, https://ec.europa.eu/eurostat/databrowser/view/LFSO_18STWKED_custom_1550504/default/table?lang=en; Panel B: Eurostat: Population with work interruption for childcare purposes by duration of interruption [lfs_18stlenned], https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfs_18stlenned&lang=en.

At the same time, women are over-represented among parental leave takers. According to the Estonian Social Insurance Board, 83% of parental leave takers in 2021 were women, which is only slightly lower than the share of female leave takers (90%) in 2010. The gender gap in the share of adults in childbearing age who have interrupted their paid work to take care of their child(ren) is also the second highest of OECD-EU countries. While 71% of Estonian women in childbearing age stopped working, for childcare purposes, at least temporary, this was the case for only 9% of Estonian men in the same age range (Figure 4.3. , Panel A).⁴ Estonian men are not only less likely than Estonian women to interrupt their career for childcare reasons, they are also less likely to do so for a long period: all Estonian adults in childbearing age who interrupted their paid work for more than 2 years are women (Figure 4.3. , Panel B).

The combination in Estonia of a three-year long employment-protected parental leave and of its disproportionate uptake by mothers explains why the employment rate of Estonian women whose youngest child is under 14 strongly depends on whether the child is below or above 3 years of age (Figure 4.4.). While the employment rate of Estonian women whose youngest child is below 3 is one of the lowest OECD-wide (30.4%), the employment rate of Estonian women whose youngest child is above 3 is one of the highest (85.5%).

Figure 4.4. The share of Estonian women in work with children not yet 3 years of age is low

Employment rates (%) for women (15-64 year-olds) with children (0-14 year-olds) by age of the youngest child, 2019 or latest available year



Note: See Chart LMF1.2.A from OECD Family Database, LMF1.2 Maternal employment. Estimates for children above 3 based on youngest child aged 3-5 and 6-14. The data concern 2019 and predate the January 2021 change in the LFS definition that now considers all workers on parental leave in employment regardless of its duration. For most countries, women on maternity parental leave are considered as employed. Estonian mothers on maternity leave are considered as employed, while those on parental leave were considered inactive by the ELFS in 2019. See more information here: http://www.oecd.org/els/emp/LFSNOTES_SOURCES.pdf. Source: OECD Family Database, LMF1.2 Maternal employment (<https://www.oecd.org/els/family/database.htm>).

To improve gender equality in labour market opportunities and reduce gender pay gaps (Chapters 2 and 3), it is critical to limit the length of women’s career breaks after childbirth. The *Employment Contracts Act* stipulates that “upon termination of pregnancy and maternity leave, a woman has the right to use the improved working conditions which she would have been entitled to during her absence”. In other words, benefits that were granted to all staff during a woman’s maternity leave should be extended to her when she returns. However, this provision is not sufficient to compensate women for the detrimental effects of long career breaks, for at least four reasons. First, the provision does not cover parents returning from parental leave. Second, long career breaks after childbirth entail a risk of work skills deterioration. Third, long career breaks after childbirth contribute to voluntary and involuntary sorting of women in childbearing age into lower-paying firms. Because they know their capacity to offer flexibility in excessive working hours to be low after childbirth, they are not incited to apply to higher-paying firms – where the capacity to provide excessive working hours tends to be in greater demand and thus rewarded at a disproportionately higher rate than in other firms (See (Goldin, 2014_[6]) for evidence of this non-linear relationship between hourly wage and working hours). Meanwhile, because they anticipate that, relative to men, women will be less

available for work after childbirth, higher-paying firms may engage in hiring discrimination against female applicants in childbearing age. Finally, long career breaks after childbirth also contribute to voluntary and involuntary sorting of women in childbearing age into lower-level occupations, tasks and responsibilities *within* firms. Young women may “voluntarily” stick to lower-paid but less demanding jobs to ensure reconciliation of their professional workload with a surge in their unpaid work burden in the event where they become mother. Meanwhile, because they anticipate that women will stay away from their job for a substantial period of time after childbirth, employers face lower incentives to invest in improving their human capital and promote them to (high) managerial positions.

Estonia has taken action to limit involuntary sorting of women in childbearing age into lower-paying firms and into lower-level occupations, tasks and responsibilities within firms. Unless agreed otherwise and starting from 1 April 2022, parents (mostly mothers in practice) will have to notify employers about their decision to go on parental leave and return from parental leave 30 calendar days before going on leave and returning, as opposed to 14 days beforehand. Extension of the advance notice period will contribute to reduce the substantial administrative and organisational burden that employers associate with childbirth. At the same time, employees received the right to request opportunities for reconciling work and family life, such as flexible working, to which the employer must respond within a reasonable time (15 days). Yet, more efforts are needed to mitigate the motherhood penalty, as detailed in the next section.

4.2.2. Possible avenues to shorten the length of career breaks after childbirth

To limit the length of career breaks after childbirth, different measures could be contemplated, including: (i) generating a more equal use of leave entitlements among fathers and mothers and (ii) ensuring that parents have a place in local government kindergarten when their child turns 18 months and thus when *paid* parental leave ends.

Generating a more equal use of leave entitlements among fathers and mothers

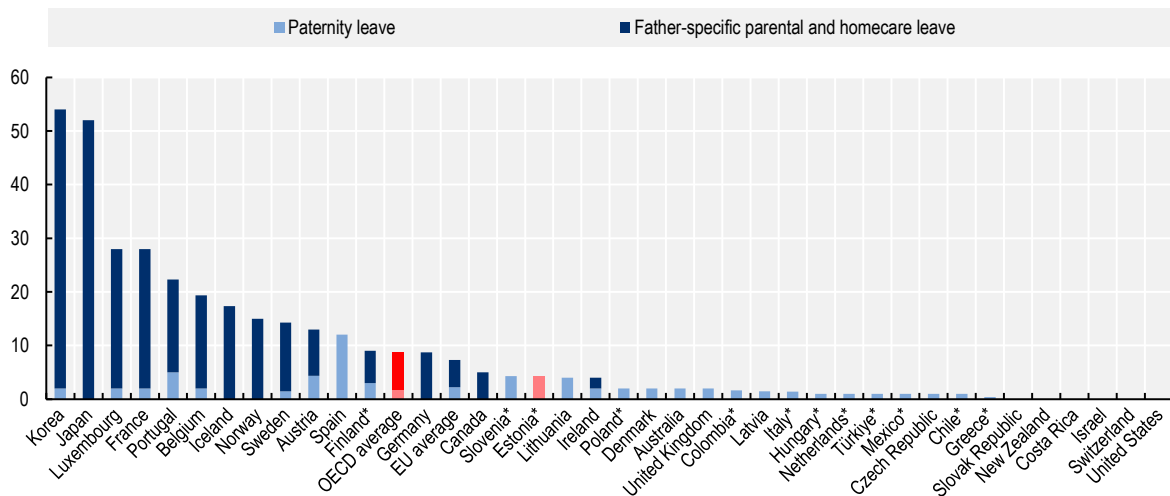
Significant steps in Estonia were recently taken or are planned to be implemented in the near future to increase the involvement of fathers in caregiving when children are very young:

- First, on 1 July 2020, paternity leave for fathers was extended from 10 working days – which was only available to fathers in dependent employment – to 30 calendar days available to all fathers, including those who are unemployed, inactive and self-employed. This is paid at 100% of previous earnings, more than three times longer than OECD-wide (Figure 4.5).
- Second, in a context where paid parental leave benefit in Estonia can be received while earning, the labour earnings threshold above which parents partially lose parental leave benefit was increased on 1 March 2018. From that date onwards, the parental leave benefit is reduced only if monthly labour earnings exceed 1.5 times average salary (EUR 2 021.54 in 2022) – while before March 2018 parental leave benefit was reduced if monthly labour earnings exceeded the benefit rate (EUR 470 in 2018). This change had a double objective: inducing more mothers, notably those earning higher wages before childbirth, to work part-time while being on paid parental leave, and making paid parental leave more attractive to fathers by improving the possibility for those who take the parental leave to not fully disconnect from work while taking care of their new-born.
- Third, on 1 April 2022, the attractiveness of paid parental leave was further enhanced since parents became able to take the parental leave in turn, rather than having to decide which one takes the parental leave in full, at the exclusion of the other. Following this change, the parental leave system was made highly flexible since parents are able to stop and restart receiving the benefit on a daily basis, meaning that both parents will be able to alternate days where they work at their employer’s site and days where they take care of their child at home.

- Finally, since 1 April 2022, maternity leave has been reduced from 140 to 100 calendar days – up to 70 days before and 30 days after expected birth – in order to increase the duration of parental leave. At the same time, up to 40 days of the pre-birth maternity leave can be transferred towards paid parental leave (and can thus be taken by both parents). Consequently, the length of paid parental leave rose from 435 to 475 days, i.e. nearly 16 months, which can be extended to 515 days with unused pre-birth maternity leave. Parents are allowed to be simultaneously on paid leave for up to 60 days, noting that, in case they jointly take these two months, the remaining period of paid parental leave is reduced by 120 days.

Figure 4.5. Since its extension on 1 July 2020, paternity leave is more than three times longer in Estonia than OECD-wide

Duration of paid paternity leave and paid father-specific parental and home care leave in weeks, 2022 for Estonia and 2020 for all others



Notes: 1) The figure only shows the leave period that are available for the *exclusive use* by fathers; 2) Countries highlighted with an asterisk (*) are those where the average payment rate for paid father-specific leave is 100% of previous earnings.

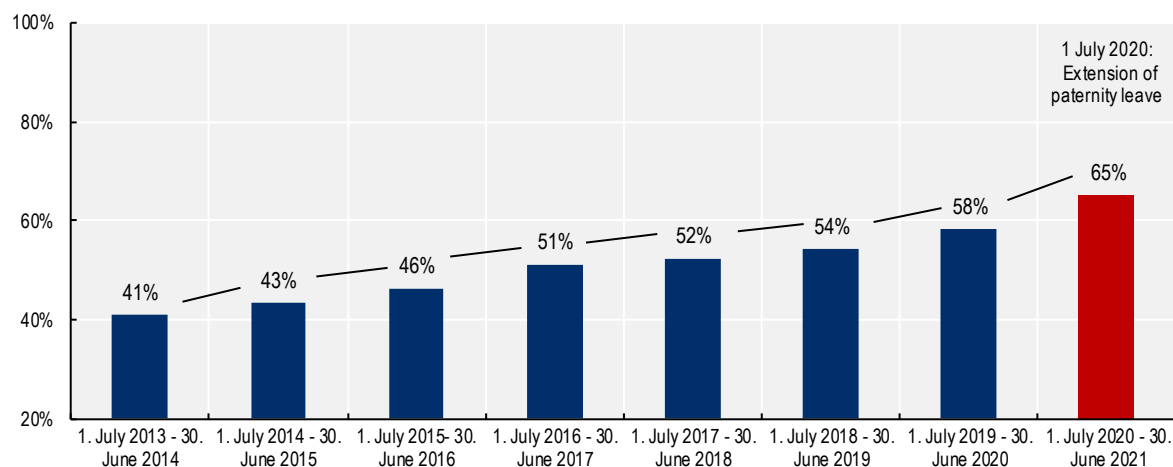
Source: Tables PF2.1.C-PF2.1.E from the OECD Family Database, <https://www.oecd.org/els/family/database.htm>.

Fathers appear to have welcomed the extension of the paternity leave. The upward trend in the take-up rate of paternity leave accelerated following this extension instead of slowing down (Figure 4.6). What is more, data from the Social Insurance Fund reveal that fathers who took the paternity leave after July 2020 used it for an average of 25.1 days, hence in almost full length.

Meanwhile, attempts to increase the attractiveness of paid parental leave for fathers have led to increased use by fathers of parental leave benefit. According to the Social Insurance Board, the share of fathers among recipients of parental leave benefit doubled (16% in March 2021 as opposed to 8% in March 2018), following the increase in March 2018 of the labour earnings threshold above which parents partially lose parental leave benefit. But there is more – fathers are not only more likely to receive the parental leave benefit, those who do increasingly stay connected to work. The share of male parental leave benefit recipients who receive income from work increased from 53% to 71% between 2018 and 2021, while this share had been stable at around 50% before. By contrast, the share of female parental leave benefit recipients who receive income from work is much lower and changed little in recent years: from 7% to 9% between 2018 and 2021.

Figure 4.6. The uptake of paternity leave in Estonia accelerated after the reform of July 2020

Men in paternity leave as a proportion of births



Note: The structurally upward trend hold despite take-up rates of paternity leave for the period from July 2020 to June 2021 underestimating the ratio of paternity leave recipients to the number of births. Since the extension of July 2020, fathers can use the paternity leave until the child turns 3, while they were previously only allowed to use the paternity leave either 2 months before or 2 months after childbirth.

Source: Social Insurance Board, Statistics Estonia, Ministry of Social Affairs calculations.

Does this mean that the share of “superdads” working and caring in Estonia is higher than the share of “supermums”, and that it is increasing at a faster rate? Probably not. New data is yet to become available, but there is a risk that in households where fathers receive both parental leave benefit and income from work, this complicates the return to work for their partners. From a household perspective, this is not surprising. Since men often earn more than women do, and the relevant benefit payment rate will be higher, this organisation of responsibilities maximises household income. The relatively high EUR 2 021.54 earnings threshold (1.5 times average earnings) above which the parental leave benefit is reduced allows a large share of fathers to work full time. As a result, the reform may not have fundamentally changed the distribution of unpaid work within households.

Against this backdrop, it seems critical to consider, in addition to the recent extension of paternity leave, complementary policies to increase the actual take up of care leave by fathers (rather than just their receipt of the parental leave benefit). Evidence suggests that, unless a “father quota” (a non-transferable period of leave that is reserved to fathers) or “bonus period” (additional paid leave only awarded when fathers take a specified period of leave) is introduced, the likelihood of fathers to take a significant share of the parental leave will remain low (OECD, 2017^[7]; OECD, 2018^[8]). Almost half of OECD countries are implementing this strategy (Figure 4.5). For example, as an intermediate step, the leave period for fathers could be increased to 3 months, while the paid leave period mothers can take overall after childbirth is reduced to 15 months. Finland recently introduced parental leave reform in this vein. As from September 2022 onwards, both parents are entitled to 160 parental allowance days (about 6.4 months of leave) of which 63 parental allowance days (about 2.5 months) can be transferred to the partner (Ministry of Economic Affairs and Employment, 2022^[9]).

These changes seem all the more important since greater equality in caregiving around birth has downstream effects on gender equality in parenting behaviour as children age. Fathers’ leave-taking increases their involvement in childcare and housework, and such effects increase with the length of the leave (and persist after fathers return from leave) – see (Huerta et al., 2013^[10]) in Australia, Denmark, the United Kingdom and the United States; (Almqvist and Duvander, 2014^[11]) in Sweden; (Pailhé, Solaz and Tô, 2019^[12]) in France; (Patnaik, 2019^[13]) in Canada (Quebec); (Tamm, 2019^[14]) in Germany; (Meil et al., 2021^[15]) in Spain.

Ensuring that parents have a place in local government kindergarten when paid leave runs out

In many OECD countries, the net (out-of-pocket) childcare costs for parents are high, despite supports such as free or subsidised access to public Early Childhood Education and Care (ECEC) facilities, cash supports and/or tax reliefs. Calculations using comparable data on childcare prices charged to parents, and accounting for all relevant support provisions, show that net costs of couple where both partners earn two-thirds of the average wage as well as for single mothers who earn two-thirds of the average wage are zero (Figure 4.7.). Together with Latvia and Italy, Estonia therefore has the lowest formal childcare costs for parents of all OECD countries.

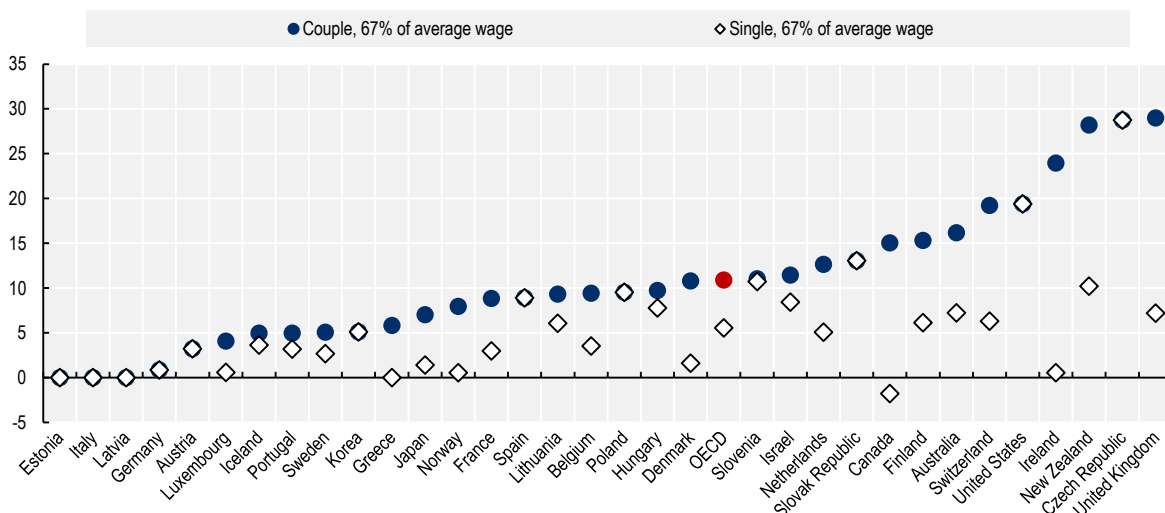
Despite these low fees in general, the satisfaction with the childcare cost in public centres varies greatly. A roughly similar share of Estonian parents are “satisfied”, “unsatisfied” as well as “neither satisfied nor unsatisfied” with the fees they have to pay for formal childcare. At the same time, poor and low-income families are generally less satisfied with the costs of ECEC in Estonia (Lang et al., 2021^[2]). The considerable variation may be due to the fact that the amount of the childcare fee is in the exclusive competence of the local governments, which results in very diverse childcare costs all over Estonia (Kalma, 2019^[16]).

Irrespective of the childcare costs, getting access to a formal ECEC-place is a different matter altogether. The logic of the Estonian system is that when the period of paid parental leave ends, a childcare place is available to ensure a continuum of supports for families during early childhood. However, as illustrated above, a significant share of parents who were working before childbirth stay on parental leave beyond the paid leave period. One reason is the lack of capacity in local government kindergarten when children turn 18 months. Indeed, although the *Preschool Childcare Institutions Act* requires municipalities to provide pre-primary education services to all children aged 1.5-7 years, Estonia has been consistently below the Barcelona target of having at least 33% of children under 3 attend pre-primary education. In 2019, the average number of places for 1.5-3 year-old children in local government kindergartens was 0.47 per child of that age, which is almost half of the average number of places for 3-7 year-old children (Lang et al., 2021^[2]). Capacity falls short of demand. While the share of children below 1.5 and above 3 who applied to a place in local government kindergarten but did not get one is negligible (less than 1%), it reaches nearly 10% among children between 1.5 and 3. Moreover, when parents finally get a place, this is usually several months after the date when they had intended for their child to attend formal care (usually when paid parental leave ends and the child turns 18 months).⁵ A survey conducted late 2020 among a representative sample of nearly 3 500 Estonian parents of preschool children aged 0-7 showed that the average waiting time for a kindergarten place among those who did not get a place at the desired time varied between 7.6 and 10.1 months (Lang et al., 2021^[2]). In general, it is only in August/September that empty spots open-up in formal childcare since it is at that period that children in their last year of pre-primary education leave kindergarten and start compulsory basic education.

The demographic trends should partly absorb the current demand for places in local government kindergarten for children between 1.5 and 3. Due to the declining share of women in childbearing age and a low fertility rate, the number of pre-school children will fall by 11.1% between 2020 and 2030. Assuming the demand will remain unchanged, there should be no shortage of kindergarten places in 2030 in Estonia, except in Tallinn and Tartu counties (Lang et al., 2021^[2]).

Figure 4.7. Net childcare costs in Estonia are low in international comparison

Childcare costs as percentage of wage for a couple where both parents earn 67% of the average wage / for a single who earns 67% of average wage, 2021 or latest year available



Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. For couples, both parents earn 67% of the average wage. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled. In the case of Estonia, childcare settings for Tallinn municipality were modelled. Data for Australia, Canada, Israel, Korea, Switzerland, Türkiye, and the OECD average refer to 2020. For more detail, see the OECD Tax-Benefit Model Methodology.

Source: OECD Tax and Benefit Models, 2022, <http://oe.cd/TaxBEN>.

However, the demand for places in local government kindergarten may not remain at its current level, as the labour supply of women with very young children is intended to increase. Efforts to accomplish a more gender-equal distribution of parental leave use over a shorter period of overall duration (see above), including more parents getting back to paid work after a year at most – at least on a part-time basis, will require an increase in capacity so that more one-year olds can attend local government kindergarten.

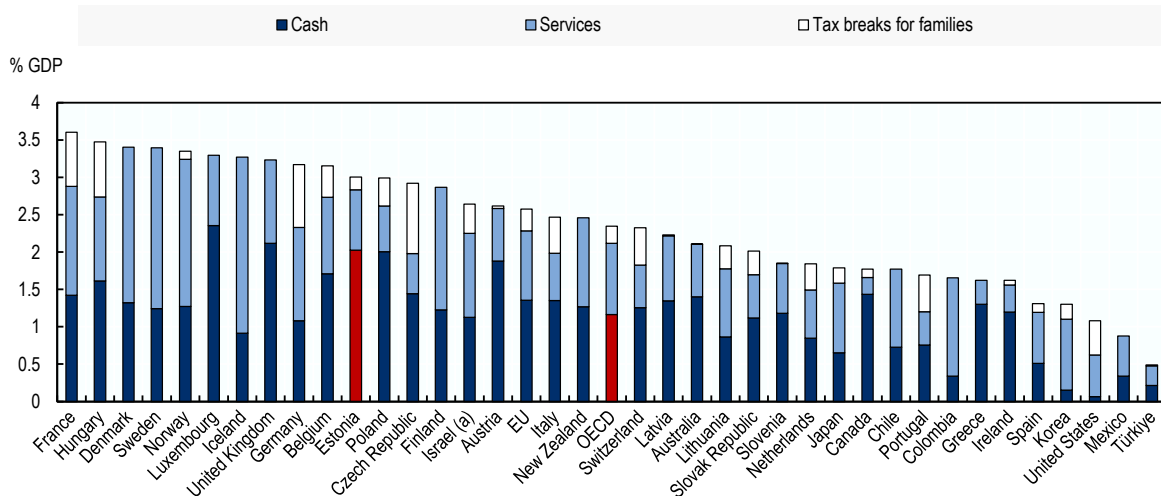
One way to achieve this objective could involve, following a recommendation by the Estonian Commissioner for Gender Equality and Equal Treatment, starting compulsory education one year earlier (Pakosta, 2017^[17]), as in most OECD countries (OECD, 2018^[18]). This measure would free up a large number of places in local government kindergarten given that 97% of children aged 6-7 are enrolled in preschool education (Lang et al., 2021^[2]). In addition, advancing the age of entry into compulsory education by one year and thus allowing local government kindergarten to welcome a greater share of children aged between 1.5 and 3 would also be highly beneficial in terms of children's learning and development. There is widespread evidence that it is during their first three years of life that children grow and learn at a faster rate than at any other time in their lives (OECD, 2020^[19]).

However, the latter option may not fit in with the prevailing education policy objectives. An alternative could consist in devoting more public investment to formal childcare to ensure that parents with very young children can return to work when they want, rather than when a childcare place becomes available. There is room in Estonia to re-direct public investment in families away from cash support to greater investment in childcare (Figure 4.8). Estonia spends about 3% of GDP on family benefits, almost the same as in Iceland (3.2% of GDP). But where 70% of such spending in Iceland – and over 60% in Denmark and

Sweden as well as 40% across the OECD on average – goes toward formal childcare and other family services, this proportion is only 27% in Estonia (i.e. 0.8% of the total 3% of GDP that go to any public spending on families, see Figure 4.8). However, micro-simulations suggest, that the Estonian family benefits had an important role in reducing child poverty in the country (Sinisaar, 2021^[20]).

Figure 4.8. The share of public spending on family benefits devoted to formal childcare and other services is one-third lower in Estonia than OECD-wide

Public expenditure on family benefits by type of expenditure, in percent of GDP, 2017 and latest available



Note: Public spending accounted for here concerns public support that is exclusively for families only (e.g. child payments and allowances, parental leave benefits and childcare support). Spending in other social policy areas such as health and housing support also assists families, but not exclusively, and is not included here.

Source: OECD Social Expenditure Database, <http://www.oecd.org/social/expenditure.htm>.

4.3. Supplementing informal care with formal home and institutional care for family members in need of long-term assistance

In Estonia, informal care is the backbone of current long-term care provisions. According to Article 27 of the *Constitution of the Republic of Estonia*, “the family is required to provide for its members who are in need”, i.e. typically elderly individuals and non-elderly individuals with disability. In addition, Chapter 8 of the *Family Law Act* established a duty to provide maintenance “arising from filiation”. It stipulates a two generations up and down legal obligation to assist family members unable to cope by themselves: “adult ascendants and descendants related in the first and second degree are required to provide maintenance” (Article 96(1)). Importantly, upcoming changes to the *Social Welfare Act and Family Law Act* – foreseen for the second quarter of 2022 – will remove second degree relatives from the list of persons required to provide care and assistance. Nevertheless, these legal provisions contributed to the view that public authorities should first make sure that the family of the person in need is not capable of giving assistance themselves before providing tax-financed public support. As such, these provisions explain why public spending on long-term care in Estonia is substantially lower than on average in other OECD countries, leaving most of this care to be financed out-of-pocket (OECD, 2020^[21]).

A comprehensive review of long-term care policies would involve a detailed assessment of the interaction of policies, such as social care provisions and health- and pension systems. Such an undertaking is beyond the scope of this review. However, the issue is directly relevant, as long-term care responsibilities curtail family members' (especially women's) ability to participate actively in the labour market at an increasing rate. According to the Estonian Social Survey, women made up almost 60% of informal long-term carers in 2020, and women assisting elderly relatives and family members with disability were more than twice as likely as their male counterparts to devote 20 hours or more per week providing such care. This gender divide has worsened since 2016 and is not expected to improve in future years since the Estonian population is not only ageing rapidly, it is also ageing less healthily than in most other EU countries, predisposing people to more severe disabilities in old age. In Estonia, one in four individuals aged 65 years or over report long-standing severe limitations in usual activities due to health problems in 2019, as opposed to one in six on average in other OECD countries which are also EU members (Eurostat, 2022^[22]).

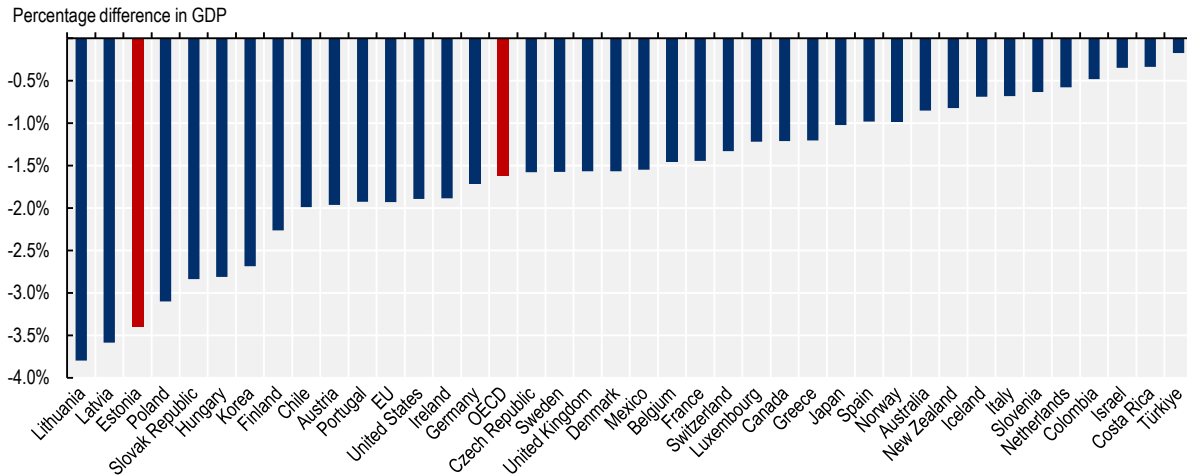
Estonian authorities are taking action to alleviate the informal care burden by focusing on getting more value for money with the current low level of public funding, notably through the provision of better integrated long-term care services. Currently, these services are fragmented due to the separation of funding streams between state and local government levels. Long-term health care services, such as inpatient and home-based nursing care, are financed at the state level through social security contributions and payroll taxes. In turn, long-term social care services, such as help with daily activities in the home or in social welfare institutions, are financed primarily through local government taxes with limited equalisation payments from the state for lower-income municipalities (European Commission, 2018^[23]; European Commission, 2020^[24]).

However, to support increased female labour supply it is important to complement efforts to counter the fragmentation of long-term care between health and social services by strategies to significantly increase public spending, in order to improve coverage of formal health and long-term care services. From an efficiency and equity point of view, there is limited room for additional public funding for long-term care to flow from social security contributions and payroll taxes. The tax wedge, which measures the extent to which labour income is taxed, is higher in Estonia than on average in other OECD countries (OECD, 2021^[25]). Further increasing the tax burden would be detrimental to employment, especially for low-income workers, and thus to equity in a context where Estonia already lags behind in terms of income inequality and poverty (OECD, 2017^[26]).

Some of the health problems in Estonia, which contribute to the long-term care needs, may be related to specific risky behaviour. For example, Estonia shows one of the highest alcohol consumption levels OECD-wide. This does not only have individual health implications, but is also associated with an expected decrease in GDP between now and 2050 because of its upward effect on health expenditure and downward effect on workforce productivity (OECD, 2021^[27]). Estonia's GDP is estimated to be 3.4% lower on average between now and 2050 due to alcohol consumption (excluding any impact on the alcohol industry), while GDP is expected to decrease by just slightly more than 1.5% OECD-wide over this period (Figure 4.9.). Thus, on top of improving public funding for long-term care, it would be important to reduce heavy alcohol consumption in order to reduce health spending, increase workforce productivity, and close the gender health gap (Chapter 2), in a context where men are more likely to be heavy drinkers than women (OECD, 2021^[27]).

Figure 4.9. Estonia shows one of the strongest alcohol consumption-related decrease in GDP forecast between now and 2050 OECD-wide

Percentage difference in GDP due to diseases caused by alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men, average 2020-50



Source: OECD (2021^[27]), Preventing Harmful Alcohol Use, OECD Health Policy Studies, <https://doi.org/10.1787/6e4b4ffb-en>.

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Notes

¹ According to the Basic Schools and Upper Secondary Schools Act that was passed in 2010, the maximum weekly workload of a basic school student in terms of "number of lessons" is as follows: Year 1: 20; Year 2: 23; Years 3-4: 25; Year 5: 28; Years 6-7: 30; and Years 8-9: 32. A lesson is associated to approximately 60 minutes: 45 minutes of learning/teaching and a minimum of 10 minutes of recess.

² Before 1 July 2020, the parental leave benefit could be claimed only during the 18 months consecutive to childbirth. Starting from 1 July 2020, while the total amount of the parental leave benefit remains unchanged, it can be claimed in instalments until the child turns 3. Yet, there does not seem to be a risk that this change will lead more parents to return to full-time work only then: data from the Estonian Social Insurance Board show that a negligible fraction of parental leave benefit recipients (0.1%) makes use of this possibility to claim the benefit in instalments.

³ If the mother did not work before childbirth she is entitled to 30 days of maternity leave after birth, after which the parental benefit is paid for 515 days or 74 weeks. If the mother did work before childbirth and was entitled to full maternity leave, including weeks before expected birth, the right to the parental benefit begins when the maternity leave ends. The maternity leave for these mothers lasts 100 days compensated at 100% of previous earnings. Given that mothers can take up to 30 days of maternity leave after childbirth, the parental benefit is paid for 475 days (or 68 weeks) starting from the day following the end of the maternity leave. However, up to 40 of the pre-birth maternity leave days can be transferred to paid parental leave and thus extend it to 515 days or 74 weeks.

⁴ 29% of women in childbearing age did not report having interrupted their career for childcare reasons in the LFS ad hoc module of 2018, this group includes women who did not take leave, women who dropped out of the labour force altogether, childless women, non-response and misreporting (women who may not consider that taking parental leave constitutes a work interruption).

⁵ The fact that their entitlement to the parental leave benefit comes to an end is one of the two main reasons why parents apply to a place in a local government kindergarten, the other being their belief that formal childcare is a key contributor to their child's development (Lang et al., 2021^[21]).

5 Combating gender-based discrimination and enhancing women's bargaining power within firms in Estonia

This chapter explores options to enhance women's bargaining power within firms. After setting out the wage bargaining context, the chapter investigates ways to amend the Gender Equality Act to ensure compliance with the future EU Directive on Pay Transparency. The chapter also discusses approaches to secure employers' observance of their obligation to report gender gaps as specified by law. It ends by looking at ways and means of equipping employers with the knowledge and skills to improve the situation of female job candidates and employees.

5.1. Introduction and main findings

Traditional gender norms contribute to root the belief within firms that female employees, irrespective of their prevailing family obligations, cannot perform as well as male employees, not to mention at managerial- and executive-level positions. These norms also fuel many women's lower assessment of their self-worth in the labour market, as reflected by their tendency to ask for lower salaries than comparable men. It is possible to mitigate the negative effect of traditional gender norms on the gender pay gap within firms if pay structures along a specific job classification system are negotiated through collective bargaining rather than at an individual level. However, this approach is hardly an option in Estonia that shows the lowest trade union density OECD-wide.

In a context where most wages in Estonia are subject to individual pay negotiations, implementation of pay transparency policies, i.e. policies that attempt to share pay information, appear as a promising way to counter gender-based discrimination and improve women's bargaining power within firms. Yet, there is a widespread misconception among employers and employees in Estonia that pay transparency policies are not legal. In particular, although these policies rely on aggregate, not individual data, many employers and employees view them as conflicting with the obligation stipulated in the *Employment Contracts Act* to keep individual wages confidential (Sepper, 2021^[1]; Aavik et al., 2020^[2]).

This chapter explores options to increase pay transparency, notably by enshrining this policy in law as it was intended in the *Gender Equality Act and Other Acts Amendment Act* initiated in 2016 that ultimately dropped out of the legislative proceedings. After providing background on wage bargaining in Estonia, the chapter investigates ways to amend the *Gender Equality Act* to ensure compliance with the future EU Directive on Pay Transparency. This is followed by a discussion of approaches to secure employers' observance of their obligation to report gender gaps as specified by law, and to equip them with the knowledge and skills to improve the situation of female job candidates and employees.

Main findings

- Renewal of the *Gender Equality Act and Other Acts Amendment Act* initiated in 2016 (but which never passed) could bring two major changes to ensure greater gender equality in the labour market.
 - First, to provide a complete picture of gender differences in the workplace, this amendment could mandate the reporting by employers of both the gender composition of the workforce and pay differentials between men and women.
 - This approach should induce employers to take action not only to close the gender pay gap by job category, but also help reduce horizontal and vertical segregation.
 - Importantly, reporting the gender composition on top of the gender pay gap may allow countering a potential perverse effect of pay transparency policies when they only focus on pay reporting. The latter policies may indeed create incentives for employers to refrain from hiring women in job categories with the largest gender pay gap: due to justified confidentiality and representativeness concerns, employers are typically not required to report gender pay gaps in job categories where the number of employees of either gender falls below a given threshold.

Of course, enshrining in the law the obligation for employers to report gender pay gap (on top of gender composition) will necessitate to also clarify what “pay” means, noting that a legal definition of pay is thus far absent from the *Employment Contracts Act*. Finally, mandating pay transparency policies also involves defining the share of the labour force that these policies cover. To ensure a sizeable effect on the overall gender wage gap, it seems

appropriate to seek to comply with one of the key pillars of the 2014 EU Recommendation on Pay Transparency, i.e. making pay reporting compulsory for private and public companies with at least 50 employees. Still, a significant number of OECD countries (nearly one-fifth) rely on lower thresholds that vary between 10 and 35 employees.

- Second, this amendment could operationalise the concept of “equal pay for work of equal value”.
 - The law should not limit itself to defining the concept of “equal pay for work of equal value”. The legal framework should also mandate that employers subject to pay transparency policies report gender pay gaps along gender-neutral job classification systems devised based on objective work-related characteristics, so that job categories used for reporting correspond to categories of work of equal value (as already the case in Belgium, Finland, France, Iceland, Portugal and Spain).
 - The design of such job classification systems should be validated and verified by a government body to avoid conscious and/or unconscious gender biases. This objective was already part of the draft of the *Gender Equality Act and Other Acts Amendment Act* that envisaged the creation of a Pay Competence Centre at the Labour Inspectorate in charge of monitoring equal pay reporting and implementation.
 - On top of sector- or firm-specific gender-neutral job classifications, the establishment by the Pay Competence Centre of a gender equal job valuation common to all sectors and firms should be encouraged. Indeed, mandating equal pay reporting including along a job classification which is the same for *all* employers would improve the comparability of their performance in terms of equal pay and hence facilitate peer pressure and emulation. This provision may be especially important in Estonia where collective agreements are scarce and thus where the emergence of sector- or firm-specific gender-neutral job classification may be difficult.
- Effectiveness of pay transparency policies strongly depends on employers’ compliance with their obligation to report gender gaps as specified by law, which means that enforcement mechanisms to avoid failure to submit said information should be implemented.
 - Most of the 18 OECD countries that mandate some form of systematic, regular reporting on gender gaps in private sector firms do so by imposing financial penalties to non-compliers. Yet, this mechanism does not seem to lead to high compliance rates, potentially due to low fine amounts and/or to a lack of monitoring of pay transparency policies by government agencies (and thus low rates of fines issued).
 - Following the UK example, obliging employers to publish their gender gap statistics on media available to both employees and the general public appears as a more promising enforcement mechanism than reliance on financial penalties. Such an approach also has the advantage of creating awareness around pay transparency policies and their objective.
 - To eliminate the administrative burden associated to pay reporting, one option could be to task a state public body with the responsibility of computing and publishing firm-level gender gaps based on administrative data. This novel initiative in international perspective (only Lithuania has adopted such approach thus far) would be relatively easy to implement in Estonia, based on the palgad.stat app based on the “payroll app” already managed by Statistics Estonia to report occupation-based gender composition and pay gaps at both the national and local (county) level. Accordingly, Estonia is developing a Pay Mirror app that, by 2024, will allow employers to automatically generate information on the gender pay gaps that prevail within their organisation, based on administrative data. Reliance on such digital

tool brings several benefits, on top of increasing buy-in of pay transparency policies among employers.

- First, this strategy ensures that the figures produced are accurate and comparable across employers. It therefore saves considerable oversight costs that are typically incurred to ensure that employers do not generate inaccurate information whenever the burden of providing gender-disaggregated statistics lies with them.
- Second, this strategy improves the quality of reporting, noting that evidence shows significant quality differences in companies' reporting within countries.
- Public reporting of firm-level gender gaps provides organisations with strong incentives to improve their performance in terms of gender equality, because such progress allows them to enhance their attractiveness among job candidates, employees, customers and suppliers concerned by working with socially-responsible employers. However, public reporting will do little good if, as it is currently the case in most countries, employers are not concomitantly provided with guidelines and training on how to improve the situation of female job candidates and employees.
 - Evidence of what works when training HR staff and managers not to discriminate remains scarce. Nevertheless, the current state of knowledge suggests a list of good practices, noting that this list is consistently evolving, as new results from rigorous impact evaluations (including those that are currently being carried out in Estonia) are emerging.
 - Against this backdrop, the Ministry of Social Affairs could create online training courses directed at employers and devised along these good practices, in the framework of the Virtual Competence Centre that the ministry is developing with funding from the EEA and Norway Grants.
 - To further encourage employers to implement these good practices, a government-led certification programme could be put in place to reward employers who take a set of concrete actions to improve the labour market situation of women.

5.2. The context in which wage bargaining plays out

Chapter 4 outlined that improving work-life balance opportunities for men and women should limit not only voluntary, but also involuntary (or discrimination-based) sorting of women into lower-paying firms and into lower-level occupations, tasks and responsibilities within firm (Correll, Benard and Paik, 2007^[3]; Petit, 2007^[4]; Baert, De Pauw and Deschacht, 2016^[5]). A more equal sharing of unpaid work between men and women should also improve women's bargaining power with a given employer. It would also "expand the labour market" in which women search for a job or consider exit options, beyond firms located within a short commute distance or firms that provide more family amenities in exchange of less pecuniary rewards (Hirsch, 2016^[6]; Le Barbanchon, Rathelot and Roulet, 2020^[7]; Fluchtmann et al., 2021^[8]).

However, the persistence of traditional gender norms constitutes an important barrier to the full elimination of gender-based discrimination and to the full equalisation of women's and men's bargaining power within firms. Indeed, these norms contribute to root the belief that female employees, irrespective of their prevailing family obligations, cannot perform as well as male employees, not to mention at managerial- and executive-level positions. Traditional gender norms also negatively operate through their internalisation by women, which fuels women's lower assessment of their self-worth in the labour market, as reflected by their tendency to ask for lower salaries than comparable men, the so-called "gender ask gap" (Roussille, 2021^[9]). Estonia is no exception. Evidence based on data from the Estonian electronic job-search site CV Keskus and CV-Online shows that women ask for lower wages than men, especially at the upper end of the wage distribution (Meriküll and Mõtsmees, 2017^[10]; Räs, Täht and Unt, 2021^[11]).

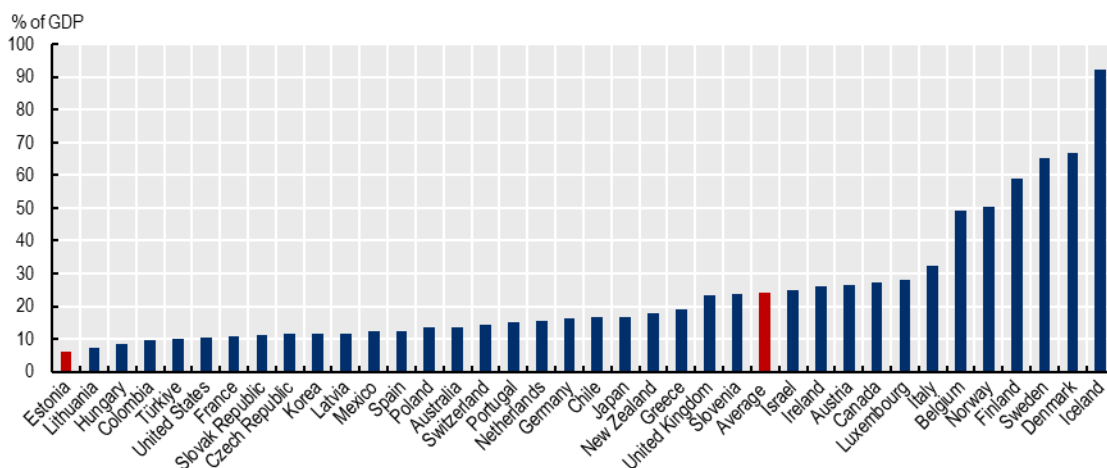
It is possible to mitigate the negative effect of traditional gender norms on the gender pay gap within firms if pay structures along a specific job classification system are negotiated through collective bargaining rather than at an individual level. However, this approach is hardly an option in Estonia that shows the lowest trade union density OECD-wide (Figure 5.1).

Beyond the minimum wage agreement that applies to all economic sectors, the terms and conditions of working time, rest time and remuneration are defined by collective agreement in only one sector in Estonia, i.e. health care (OECD, 2019^[12]; OECD, 2017^[13]).¹ Overall, according to the 2019 edition of the European Company Survey, wages were set by collective bargaining in only 6% of establishments in Estonia, which is less than a tenth of the average in other OECD countries that are also part of the EU (Eurofound and Cedefop, 2020^[14]).

In a context where most wages in Estonia are subject to individual pay negotiations, implementation of pay transparency policies, i.e. policies that attempt to share pay information, appear as a promising way to counter gender-based discrimination and improve women's bargaining power within firms. In this regard, the web application developed by Statistics Estonia (in partnership with the Commissioner for Gender Equality and Equal Treatment and researchers at the University of Tartu and Tallinn University of Technology) constitutes a significant progress (Box 5.1). By helping women be more confident in salary negotiations and thus ask for higher wages, this application should contribute to reduce the gender wage gap. Indeed, field experimental evidence shows that, when female candidates are informed about the median wage offered by firms to similar (male and female) candidates, they revise the wage they ask upward, thereby driving the gender ask gap to zero (Roussille, 2021^[9]). It is worth stressing that, following this change, female candidates do not receive fewer bids from employers than men do, suggesting they face little penalty for demanding wages comparable to those asked by men.

Figure 5.1. Trade union density in Estonia is the lowest OECD-wide

Share of workers who are members of a union, OECD countries, 2020 or latest available year



Note: Trade union density is defined as the share of workers who are union members. Data refer to 2020 for Canada, Iceland, Ireland, Mexico and the United States; data refer to 2019 for Austria, Belgium, Denmark, Estonia, Finland, Germany, Italy, Japan, Lithuania, Luxembourg, the Netherlands, Norway, Spain, Sweden, Türkiye and the United Kingdom; data refer to 2018 for Australia, Chile, the Czech Republic, Hungary, Korea, Latvia, New Zealand, the Slovak Republic and Switzerland; data refer to 2017 for Colombia, Israel and Poland; data refer to 2016 for France, Greece and Portugal; data refer to 2015 for Slovenia.

Source: OECD (2021^[15]), *Pay Transparency Tools to Close the Gender Wage Gap*, <https://doi.org/10.1787/eba5b91d-en>.

Yet, despite its many strengths, this application is just one step on the path towards pay transparency. Indeed, there is a misconception in Estonia that pay transparency policies are not legal (Sepper, 2021^[1]; Aavik et al., 2020^[2]). In particular, although these policies rely on aggregate, not individual data, many employers and employees view them as conflicting with the obligation stipulated in the *Employment Contracts Act*² to keep individual wages confidential. Consistent with this misconception, Estonia is characterised by the fourth smallest share (57%) of respondents in favour of publishing gender-disaggregated average wages per job type in the organisation or company where they work, just before Poland (54%), Lithuania (51%) and Latvia (42%). This is significantly less than the average support for pay transparency that prevails among OECD countries that are also part of the EU (Figure 5.2.).

Box 5.1. Making occupation-based gender composition and wage gap more transparent: The path-breaking “payroll app” in Estonia

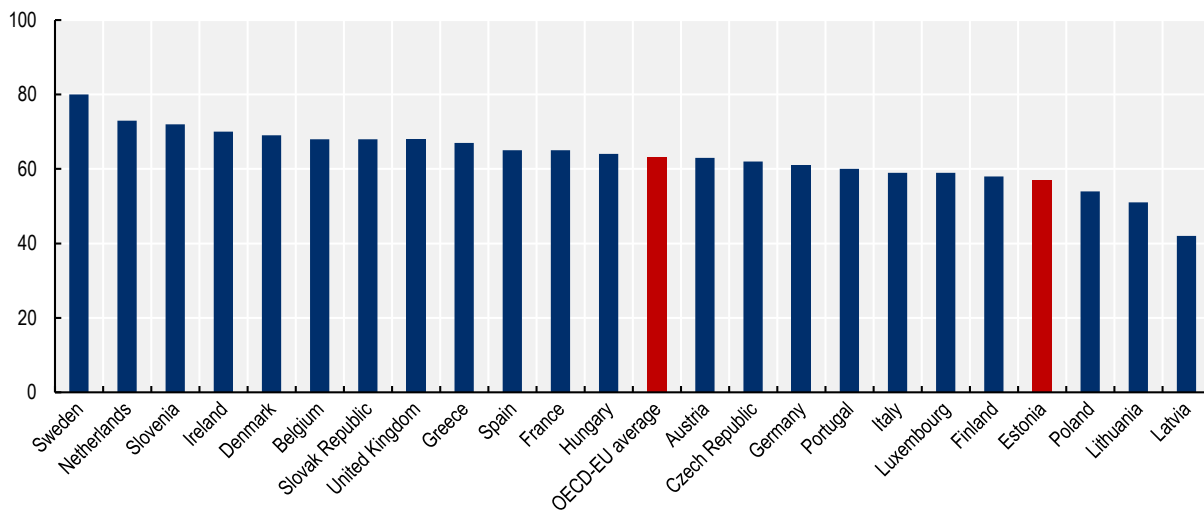
The “payroll app” (palgad.stat.ee) developed by Statistics Estonia (in partnership with the Commissioner for Gender Equality and Equal Treatment and researchers at the University of Tartu and Tallinn University of Technology as part of the project InWeGe (Income, Wealth, Gender)) is based on administrative data. This application helps visualise common occupations in Estonia defined based on the International Standard Classification of Occupations, two critical items of information: (i) the number of men and women working full time; (ii) the distribution of gross monthly wages of men and women working full-time, clearly indicating their mean and median value.

As such this application allows creating awareness on the extent of horizontal segregation (the fact that unbalanced gender composition prevails in a significant number of occupations), vertical segregation (the fact that women are underrepresented in management occupations) and pay differences between men and women within occupation. Awareness on the latter dimension is further enhanced by the possibility for users to enter their gross wage. This information allows the application to compare this wage with the average wage of men and women working in the same occupation, and to convey this comparison in a striking way: “You earn X Euros more/less than women/men on average”.

Overall, this application stands out as a best practice OECD-wide. A close equivalent is the “Gender Atlas” portal in Mexico (http://gaia.inegi.org.mx/atlas_genero/) that is maintained by the National Institute for Statistics and Geography (Instituto Nacional de Estadística y Geografía (INEGI)) and its public social programme evaluation institution (Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL)). This portal presents gender-disaggregated statistics, such as average employment rates and hourly labour earnings, computed for each of Mexico’s 32 federal entities. However, this information is not computed by occupation nor does it allow visualising trends over time.

Figure 5.2. A small majority of respondents support pay transparency in Estonia

Share of respondents in favour of publishing gender-disaggregated average wages per job type in the organisation or company where they work



Source: European Commission (2018_[16]), *Gender equality 2017*, Special Eurobarometer 465 – June 2017, <https://data.europa.eu/doi/10.2838/431877>.

In this setting, the web application developed by Statistics Estonia may fail to generate strong support among the general public. It could even yield perverse effects by providing employers with essential information to further exploit their wage-setting power when negotiating pay with female job candidates or employees (Sepper, 2021_[11]). To avoid such negative effects, it is critical to counter the popular view that pay transparency policies are illegal by enshrining these policies in law. Moreover, for these policies to be an effective and powerful instrument to close the gender pay gap, this legislative step could be complemented by a strategy to enforce these laws and to support employers in their efforts to close gender gaps in their workforce, through guidelines and training. These additional steps would allow Estonia to align with the proposal for an EU Directive on Pay Transparency³ published in March 2021. On top of making public pay reporting mandatory for private and public employers (including in job advertisements through the publication of the initial level of pay or range of pay), this proposal also puts strong emphasis on enforcement mechanisms (European Commission, 2021_[17]).

5.3. Enshrining pay transparency policies in law

Estonia is not part of the 18 OECD countries which mandate some form of systematic, regular reporting on gender wage gaps in private sector firms – noting that many of these pay reporting rules also cover the public sector (OECD, 2021_[15]). According to the *Gender Equality Act* (Art. 11), Estonian employers are required to “regularly provide relevant information to employees and/or their representatives concerning equal treatment of men and women in the organisation and measures taken to promote equality”. However, this provision does not explicitly refer to an obligation to disclose gender pay gaps.

Yet, Estonia was once on a good track to mandate pay reporting by law. In 2016, the government prepared the draft of the *Gender Equality Act and Other Acts Amendment Act* that ultimately dropped out of the legislative proceedings for not having been adopted before the parliamentary elections of 2019. The draft imposed a legal obligation to both private and public sector employers to inform employees or their representatives at least once every two years about measures adopted in the organisation to foster gender equality. This information was explicitly supposed to include a comparison of average pay of men and women by groups or categories of jobs or public service positions.

It is of tremendous importance that, as planned to ensure compliance with the future EU Directive on Pay Transparency, Estonia persists with these efforts to amend the *Gender Equality Act* and enshrine pay transparency policies in law. Following the 2014 EU Recommendation on Pay Transparency, a new amendment could bring two major changes to ensure greater gender equality in the labour market. First, to provide a complete picture of gender differences in the workplace (and also avoid perverse effects), the new amendment could mandate the reporting by employers of *both* the gender composition of the workforce and pay differentials between men and women. Second, the new amendment could operationalise the concept of “equal pay for work of equal value” by mandating the creation of a gender-neutral job classification system devised based on objective work-related characteristics.

5.3.1. Both gender composition and pay reporting

Mandating the reporting of *both* the gender composition of the workforce and pay differentials between men and women, organisation-wide and by job category within the organisation, is a promising way to engage employers in gender equality. Among the 18 OECD countries which mandate pay reporting, nine also require employers to produce statistics on gender composition: Austria, Chile, Finland, France, Israel, Italy, Japan, Korea and Norway (OECD, 2021^[15]). This approach should induce employers to take action not only to close the gender pay gap by job category, but also to mobilise against horizontal and vertical segregation that drive gender pay gaps across job categories. Indeed, measuring the proportion of men and women in each category of employee, as stipulated by the 2014 EU Recommendation on Pay Transparency, facilitates creating awareness on the extent of horizontal segregation, and notably the fact that women are concentrated in certain jobs, such as the “5 Cs” (cleaning, catering, cashiering, caring and clerical work), characterised by low pays. Moreover, this measure also permits drawing attention on the extent of vertical segregation, i.e. the fact that women are underrepresented in job categories, such as management positions, featuring high levels of tasks and responsibilities. Importantly, reporting the gender composition on top of the gender pay gap may allow countering a potential perverse effect of pay transparency policies when they only focus on pay reporting. The latter policies may indeed create incentives for employers to refrain from hiring women in job categories with the largest gender pay gap: due to justified confidentiality and representativeness concerns, employers are typically not required to report gender pay gaps in job categories where the number of employees of either gender falls below a given threshold.

Of course, enshrining in law the obligation for employers to report gender pay gaps (on top of gender composition) will necessitate to also clarify what “pay” means, noting that a legal definition of pay is thus far absent from the Estonian *Employment Contracts Act*. In particular, it would be useful to determine whether the remuneration that should be considered in the calculation of the gender pay gap only includes the basic wage or salary, or whether, as is the case in France for instance, it also comprises other benefits and supplementary benefits paid, directly or indirectly, in cash or in kind. The latter include severance pay, retirement pay, bonuses for special hardship not related to the employee, seniority bonuses, accommodation or overtime pay.

Mandating pay transparency policies also involves defining the companies, and the labour force covered by these policies. To ensure a sizeable effect on the overall gender wage gap (while maintaining a degree of anonymity), the 2014 EU Recommendation on Pay Transparency suggest to make pay reporting compulsory for companies with at least 50 employees in both the private and public sectors. A significant number of OECD countries (nearly one-fifth) use a lower threshold: at least 35 employees (35+) in Denmark, 30+ in Finland, 25+ in Iceland, 20+ in Lithuania, and 10+ in Canada and Sweden. For small-size companies, i.e. those that comprise between 10 and 49 employees, reporting rules can be adapted. For instance, these firms could be required to report less detailed statistics, such as gender gaps aggregated at the organisation level rather than disaggregated by job category within the organisation.

5.3.2. Operationalising the concept of “equal pay for work of equal value”

Given that the main purpose of pay reporting is to measure the wage of men and women in a *comparable* work situation, it is important that the concept of equal pay for work of equal value be defined in national law as enshrined in European treaties since 1957.⁴ More precisely, the legal framework could clarify that equal pay for work of equal value implies that men and women should be paid the same amount in two situations: (i) if they do identical or similar jobs; (ii) but also if they do completely different work that can be shown to be of equal value, when based on “objective” criteria. The latter point is important to help correct for the historical undervaluation of jobs and sectors that have typically been considered “women’s work”. In Spain for instance, the Supreme Court found that, although housekeepers and bartenders in the same hotel were not doing the same job, it was not justified that housekeepers (mostly women) were underpaid relative to bartenders (mostly men) since these jobs were related to work of equal value (Spanish Supreme Court No. 2328/2013).

In Estonia, like in a large majority of OECD countries, the concept of gender-based wage discrimination is applied to men and women doing the same work or work of equal value (*Gender Equality Act* 6(2)⁵). However, contrary to most of these countries, Estonia does not envision in its legal framework a classification that would describe which jobs correspond to the same work or work of equal value. Yet, for operationalisation purposes, it is important that the law does not limit itself to defining the concept of “equal pay for work of equal value”, but also ensures that employers subject to pay transparency policies do report gender pay gaps by job categories that correspond to categories of work of equal value.

To that end, the legal framework could endorse the use of gender-neutral job classification systems devised based on objective work-related characteristics, whose adoption by employers would be mandatory, as it is already the case for the private sector in Belgium, Finland, France, Iceland, Portugal or Spain (OECD, 2021^[15]). Such job classification systems should not factor in the characteristics of workers most likely to hold a given job, such as their gender, but focus instead on the objective characteristics necessary to perform the job. These objective characteristics include “the skills needed, the amount of responsibility involved, the necessary education level, working conditions that apply, the degree of leadership called for, the accuracy required, and so on” (International Labour Office, 2008^[18]; European Commission, 2017^[19]). Yet, the design of such job classification systems may still be subject to conscious and/or unconscious bias against women. Therefore, it seems desirable that the law also mandates that the job classification systems used be checked and verified by a government body for gender biases, and that penalties for non-compliance be enforced and sufficient to ensure companies fulfil their obligations (Wagner, 2020^[20]). This objective was already part of the draft of the *Gender Equality Act and Other Acts Amendment Act* that envisaged the creation of a Pay Competence Centre at the Labour Inspectorate in charge of monitoring equal pay reporting and implementation.

As an alternative to sector- or firm-specific gender-neutral job classifications, the Pay Competence Centre could foster a gender equal job valuation common to all sectors and firms, such as the International Standard Classification of Occupations that already underlies the “payroll app” (Box 5.1). Indeed, mandating equal pay reporting including along a job classification which is the same for *all* employers would improve the comparability of their performance in terms of equal pay and hence facilitate peer pressure and emulation. This provision may be especially important in Estonia where collective agreements are scarce and where the introduction and enforcement of sector- or firm-specific gender-neutral job classification may be difficult. In France for instance, since 2019, public and private employers with at least 50 employees must publish, among other indicators, the average pay gap between men and women, by age group and category of equivalent positions, noting that, by default, the job classification for these categories is the French “socio-professional category (SPC)” system which applies to all employers regardless of size and sector.

5.4. Enforcing pay transparency policies

Effectiveness of pay transparency policies strongly depends on employers' compliance with their obligation to report gender gaps as specified by law. This means that enforcement mechanisms to avoid failure to submit said information (and, if possible, to avoid the submission of false information) should be put in place. Most of the 18 OECD countries that mandate some form of systematic, regular reporting on gender gaps in private sector firms do so by imposing financial penalties in case of non-compliance. However, this mechanism does not seem to lead to high compliance rates, potentially due to low fine amounts and/or to a lack of monitoring of pay transparency policies by government agencies (and thus the limited number of fines imposed). In fact, very few OECD countries which rely on financial penalties are able to report what share of employers were non-compliant and which were actually fined (OECD, 2021^[15]).

Obliging employers to publish their gender gap statistics on media available to both employees and the general public appears as a more promising enforcement mechanism than reliance on financial penalties. For instance, the United Kingdom adopted a “name and shame” approach in which a company's overall gender pay gap or failure to report is published online, on both their organisation's website and on the UK Government website. This approach has led to 100% reporting compliance in the first two years of the pay reporting requirement programme directed at large firms (more than 250 employees). Such an approach also has the advantage of creating awareness around pay transparency policies and their objective. In the United Kingdom, the release of gender pay gap statistics receives considerable media attention each year and encourages an ongoing public debate about gender equality in the workplace and beyond (Blundell, 2021^[21]).

Although a recent study estimates that the pay reporting cost to companies is well under EUR 1 000 annually (Eurofound, 2020^[22]), the most commonly-cited barrier to effective company pay reporting by OECD countries is the administrative and/or economic burden for employers (OECD, 2021^[15]). To eliminate the administrative burden associated to pay reporting, one option could be to task a state public body with the responsibility of computing and publishing firm-level gender gaps based on administrative data. This novel approach in international perspective has already been implemented in Lithuania where the Social Security Fund is in charge of reporting gender-disaggregated labour earnings in firms where the number of insured persons is at least eight (of which more than three are women or more than three are men). This approach would also be easy to implement in Estonia, based on the *palgad.stat* already managed by Statistics Estonia to report occupation-based gender composition and pay gaps at both the national and local (county) level (Box 5.1). Accordingly, Estonia is developing a Pay Mirror app that, by 2024, will allow employers to automatically generate information on the gender pay gaps that prevail within their organisation, based on administrative data. Reliance on such digital tool brings several benefits, on top of increasing buy-in of pay transparency policies among employers. First, this strategy ensures that the figures produced are accurate and comparable across employers. It therefore saves considerable oversight costs that are typically incurred to ensure that employers do not generate inaccurate information whenever the burden of providing gender-disaggregated statistics lies with them. Second, this strategy improves the quality of reporting, noting that there are significant quality differences in companies' reporting within countries. Even countries with relatively advanced and longstanding auditing systems – such as Finland and Sweden – report that some companies are doing the bare minimum to meet reporting requirements, let alone advance an action plan to combat their firm's gender wage gap (OECD, 2021^[15]).

An alternative but less ambitious approach could consist of leaving the responsibility of computing the gender pay gap with firms while assisting them in doing so. For instance, the Federal Office for Gender Equality (FOGE) in Switzerland has developed an online tool, called Logib, that the Equal Pay International Coalition (EPIC) has recognised as “an EPIC good practice” (See https://www.equalpayinternationalcoalition.org/whats_new/logib-is-epics-1st-good-practice/). Logib, which is available free of charge on the FOGE website (See <https://www.ebg.admin.ch/ebg/en/home/services/logib-triage.html>), is an Excel-based programme that allows firms with more than 50 employees to proceed to a quick and easy assessment of their gender pay gap.

5.5. Supporting employers in their journey towards gender equality

Public reporting of firm-level gender gaps provides organisations with strong incentives to improve their performance in terms of gender equality, because such progress allows them to enhance their attractiveness among job candidates, employees, customers and suppliers concerned by working with socially-responsible employers. These reputational effects may be particularly strong among multinationals, to the extent that the international competition they are exposed to force them to care more about their external image. However, foreign-owned firms in Estonia have a substantially larger gender wage gap than domestic-owned firms, presumably because they tend to reward employees (often men) able to provide temporal flexibility (24/7 availability for job purposes) at a disproportionately higher rate (Vahter and Masso, 2018^[23]; REGE, 2019^[24]).

However, public reporting will do little good if employers are not concomitantly provided with guidelines and training on how to improve the situation of female job candidates and employees. Across the OECD, the lack of guidance is widespread and may help to explain why pay reporting requirements have thus far led to reductions⁶ in the gender wage gap through a decrease in men's wages, rather than an increase in women's wages (OECD, 2021^[15]; Blundell, 2021^[21]; Bennedsen et al., 2019^[25]). Evidence to identify what works when training HR staff and managers not to discriminate remains scarce. However, the current state of knowledge suggests that this training should include the following three steps in order to reduce discriminatory attitudes and behaviours (Devine et al., 2012^[26]; Chang et al., 2019^[27]):

- Informing participants about conscious and unconscious bias against women that underlies prejudice and stereotyping, and about how this bias can result in discrimination if uncontrolled;
- Making participants aware of their bias by means of implicit association tests (IAT) like the IAT "Gender-Career" and the IAT "Gender-Science" developed by Harvard University (<https://implicit.harvard.edu/implicit/selectatest.html>) to test the strength of automatic associations between "women"/"family" and "men"/"career" on one hand, and between "women"/"liberal arts" and "men"/"science" on the other hand;
- Familiarising participants with human resource management strategies that deny conscious and unconscious bias the chance to operate, noting that the list of these strategies is consistently evolving, as new results from rigorous impact evaluations (including those that are currently being carried out in Estonia) are emerging (Box 5.2)

The Estonian Ministry of Social Affairs could create online training courses directed at employers and devised along the aforementioned steps in order to reduce discriminatory attitudes and behaviours in the workplace. Indeed, the unique large-scale randomised control trial in a multi-national organisation that has been conducted thus far has shown that even a brief (one-hour long) online training can change attitudes and behaviours towards women in the workplace (Chang et al., 2019^[27]). This e-learning could be provided through the Virtual Competence Centre (<https://eeagrants.org/archive/2014-2021/projects/EE-LOCALDEV-0004>), an online one-stop-shop aimed at raising awareness and promoting gender equality among key stakeholders that the Ministry of Social Affairs is developing with funding from the EEA (European Economic Area) and Norway Grants. Employers could be directed to these resources via the Pay Mirror App that is being developed to help them easily produce payroll reports and thus identify pay gaps in their midst.

To further encourage employers to implement actionable strategies to combat gender-based discrimination presented in the online training, a government-led certification programme could be put in place. In Estonia, the Diversity Charter (<https://humanrights.ee/en/topics-main/diversity-and-inclusion/charter/>) and the Diverse Workplace label (<https://humanrights.ee/en/topics-main/diversity-and-inclusion/mitmekesise-tookohamargis/>) already allow showcasing companies or organisations that engage in actions to value every employee irrespective of their gender, ethnic background, skin colour, age, disability, sexual orientation and religious or political views. However, it could be useful to complement these general equality seals by a label that specifically focuses on gender equality and rewards employers who take a set of concrete actions, like those highlighted in Box 5.2, to improve the labour market situation of women. This label could be viewed as an extension of the "family-friendly employer" label that was awarded by the Ministry of Social Affairs between 2017 and 2020 (with support of the European Social Fund) to praise employers who develop an organisational culture that helps employees with young children or caring for an older relative balance their working and family life.

Box 5.2. Human resources strategies that deny conscious and unconscious bias a chance to operate

In addition to informing participants about the specific underlying psychological processes believed to produce discriminatory outcomes, and to make them aware about their own biases, non-discrimination training should familiarise HR staff and managers with the strategies to recruit and manage staff in an objective manner.

Regarding recruitment, these strategies include:

- Drafting a job profile that clearly describes the tasks related to the position to be filled (which is preferable to a long list of skills and requirements that may intimidate some candidates, chief of which women known to have lower self-confidence than men notably due to their internalisation of traditional gender norms);
- Selecting applications based on an assessment grid that focuses on the skills needed for the tasks described in the job profile;
- Formalising the conduct of the job interview. This formalisation involves that the same questions be asked to all candidates, in the same order and by the same interviewer(s), with the sole purpose of determining whether candidates have the required skills. Without a consistent protocol, recruiters tend to let their prejudice and stereotypes become self-fulfilling: when their bias is positive, recruiters are more likely to begin the interview with the candidates' strengths, which increases candidates' chances of excelling, and vice versa. A number of studies confirm that a consistent interview protocol ensures skills-based recruitment (Bohnet, 2016^[28]). For example, students' performance in the United States at the end of their first year of university is not correlated with their entry ranking when this ranking is based on an oral admissions procedure that varies from one panel to another. More specifically, the results show that a non-standardised interview is no more effective than a selection procedure based on random selection of eligible students (DeVaul et al., 1987^[29]).

These strategies could be complemented by approaches aimed at broadening the recruitment pool. For instance, field experiments recently conducted by Kantar Emor (the Estonian branch of Kantar, an international data, insight and consultancy company) with the support of the Estonian Ministry of Social Affairs revealed the importance of writing job ads in an inclusive way in order to diversify the profiles of job applicants. In fact, explicitly stating that *both* men and women are expected to apply when the job ad concerns a position that is typically male-dominated allows significantly increasing the share of female job applicants.

Regarding staff management and promotion, a growing literature is emerging that identifies approaches to limit gender-based discrimination in performance assessment and/or promotion to high managerial position. For instance, changing the scale of a quantitative rating of performance from a 1-10 to a 1-6 scale hinders managers' tendency to give men higher performance ratings than women, even when their qualifications and behaviours are identical (Rivera and Tilcsik, 2019^[30]). Indeed, a 6/6 is less associated by individuals to extraordinary performance than a 10/10, which means, in a context where traditional gender norms lead to reserving labels like "superstar" and "genius" for men, that the 6-point scale limits the expression of gender bias more than the 10-point scale does. Similarly, a longer shortlist increases the consideration of female candidates at executive-level positions (Lucas et al., 2021^[31]).

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Notes

¹ In other sectors than health care, collective agreements occur at the firm level, but, unsurprisingly given the weak unionisation rate, their coverage is low (less than 10% of Estonian employees). According to the Estonian Trade Union Confederation (EAKL), the main central federation of Estonian employees, there were only 102 ongoing firm-level collective agreements in 2021. This number represents a negligible fraction of the 7 447 firms with more than 10 employees – of these 7 447 firms, 6 157 are small-size (10-49 employees), 1 115 are medium-size (50-249 employees) and 175 are large (more than 250 employees) (OECD, 2020_[33]). There is little prospect that coverage of workers will increase in the immediate future. A recent decision by the Supreme Court of Estonia questions, in a context of low trade union density, the constitutionality of extending a collective agreement between a federation of employers and a union of employees (or between a central federation of employers and a central federation of employees) to non-signatory employers and their employees. For further information, see <https://www.riigikohus.ee/et/lahendid/?asjaNr=2-18-7821/71>.

² Article 28(13) of the *Employment Contracts Act* stipulates that employers are forbidden to disclose to a third-party information about wages without the employee’s consent or without a legal basis.

³ The exact name of this proposal is “Proposal for a Directive of the European Parliament and of the Council to strengthen the application of the principle of equal pay for equal work or work of equal value between men and women through pay transparency and enforcement mechanisms”.

⁴ Equal pay for equal work or work of equal value is one of the European Union's founding principles. The principle of equal pay between women and men has been enshrined in the Treaties since 1957 (Article 157(1-2)). Article 4 of Directive 2006/54/EC implements the principle of equal pay by providing that, for the same work or for work of equal value, direct and indirect discrimination on the grounds of sex is prohibited in all aspects and conditions of remuneration (European Commission, 2020^[32]).

⁵ According to the Gender Equality Act, the law deems as discriminatory “conditions for remuneration or conditions for the provision and receipt of benefits related to the employment relationship which are less favourable regarding an employee or employees of one sex compared with an employee or employees of the other sex doing the same work or work of equal value”.

⁶ These reductions are observed in countries where enforcement mechanisms of pay transparency policies and/or wage gap visibility are strong enough, as it is the case in Denmark or the United Kingdom. In other countries, pay transparency policies seem to have had little effect.

6 Chasing out traditional gender norms, in educational settings and beyond in Estonia

This chapter investigates ways to depart from social interactions that perpetuate restrictive gender roles. After exploring options to chase out traditional gender norms in educational settings, this chapter discusses strategies to trigger social change among Estonian citizens, beyond initial and life-long learning and training. These strategies include establishing gender equality as a national priority through gender mainstreaming in both policy making and budgeting and better involving the public in the fight against gender-based violence and the norms that fuel it.

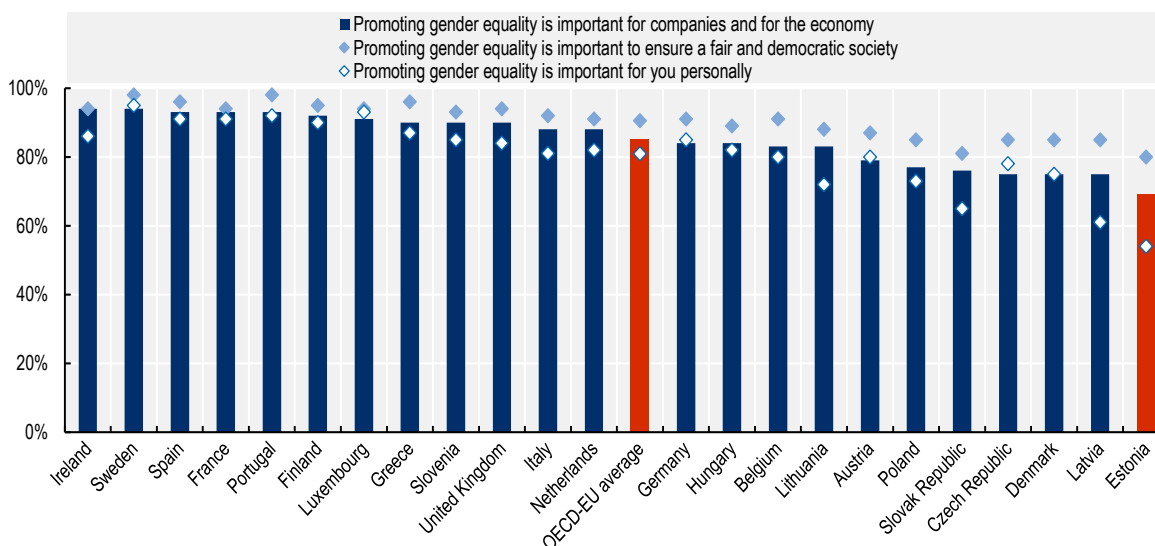
6.1. Introduction and main findings

In many ways, the work-life balance and pay transparency policies described in Chapters 4 and 5 come too late – they seek to remedy gender gaps in the labour market after years of social interactions that largely endorse traditional gender roles. For a structural shift towards gender equality, this ex-post approach should be complemented by efforts to chase out social norms that view men and women as fundamentally different and unequal.

Ensuring that men and women living in Estonia take ownership of the imperative to redress gender inequalities appears as a particularly critical goal. EU-wide, Estonia has the lowest share of respondents to survey questions who recognise gender disparities as an issue: only a small majority (54%) report that promoting gender equality is important for them personally, as opposed to 81% on average in many other European OECD countries (Figure 6.1). Levels of agreement of Estonian respondents with the statement that “promoting equality is important to ensure a fair and democratic society” or that it is important “for companies and the economy” are higher. Still these levels are again the lowest of surveyed OECD countries. These levels also reveal that, if the significance of gender equality as an ethical issue is well understood by Estonian citizens, many of them are still not convinced by the idea that levelling the playing field for men and women pays. The economic case for gender equality is made in Chapter 7.

Figure 6.1. Awareness that gender inequality is an issue is the lowest in Estonia

Share of respondents who agree with each of the following statements, in 2017



Source: European Commission (2018^[1]), *Gender equality 2017*, Special Eurobarometer 465 – June 2017, <https://data.europa.eu/doi/10.2838/431877>.

Education is a powerful tool for changing social norms because it contributes to shape the values and attitudes of the next generations (in the case of training carried out in the initial education system), and of the current generations in the case of life-long training. It is therefore critical to mainstream gender equality in educational settings. However, it is also important to engage the public on taking an active role in promoting gender equality outside educational settings, by establishing gender equality as a national priority and embedding it at the core of national policies, an objective that entails embracing gender mainstreaming in both policy making and budgeting (OECD, 2013^[2]; OECD, 2015^[3]).

The general public should also get better involved in the fight against gender-based violence¹ and the norms that fuel it. After exploring options to chase out traditional gender norms in educational settings, this chapter investigates strategies to promote gender equality and trigger social change among Estonian citizens, beyond initial and life-long training.

Main findings

- The mainstreaming of gender equality in educational settings should notably transit through ensuring that school staff and instructional materials do not perpetuate traditional gender norms. However, it seems critical to complement this general approach by a series of more specific actions in schools (from pre-primary education onwards) and life-long training to steer *both* more women and men towards EHW (education, health and welfare) and ICT (information and communication technology) studies and training. Achieving this objective would contribute to create a culture of gender equality while preparing youth and adults for the future of work. It would reduce the gender wage gap, break down stereotypes about the jobs that are best suited for women and for men, and address worrisome labour shortages in EHW and ICT.
- There is widespread evidence that school staff are gender biased, and Estonia is no exception. It seems critical to remedy this situation by introducing systematic pre- and in-service training on gender equality directed at future and incumbent teachers, career counsellors and youth workers at all levels and in all types of education. On top of equipping them with the skills to not reproduce and fuel gender stereotypical attitudes and behaviours, the training could also provide guidance on how to embed gender equality throughout the curriculum, as well as on how to more explicitly teach gender equality in the framework of specific school subjects, including personal, social and health education (PSHE) of which sexuality education is part.
- While avoiding spreading gender stereotypical worldviews is a matter of consideration in the review process of textbook proposals, and the curricula of both basic and upper secondary schools in Estonia define gender equality as a core value, there is no efficient national mechanism to prevent a textbook full of gender stereotypes from reaching children. The review of textbooks could thus be improved by an increased focus on gender equality. To enhance enforcement, the Ministry of Education and Research could publish guidelines to tackle gender bias in instructional materials.
- Limiting the sorting of female and male students and adults into different fields of study and different jobs implies improving the recognition of EHW jobs and extensively communicating on initiatives aimed at raising their status, in the framework of information campaigns among the general public, adult learning and career counselling at school. Retaining more women and attracting more men in EHW jobs notably implies offering better opportunities for career progression through wage structures that reward professional development instead of tenure, for instance through pay rises associated with the successful completion of in-service training offering essential new qualifications.
- Investing in digital skills training of *both* women and men is also essential. Teaching digital skills has been considered a national priority in Estonia since the launch of the Tiger Leap programme in 1996. Since the mid-2010s, an impressive set of policies have been implemented to fully mainstream the theoretical and applied learning of basic and more advanced digital skills in the Estonian education system, leading the share of primary and lower secondary schools with an elective subject focusing on ICT to reach 77% in 2020/2021, up from 50% in 2015/2016. To ensure that the improved participation of male and female students in ICT activities translates into more girls choosing ICT careers, one could consider more systematically adopting a gender

lens throughout the curriculum, for instance by increasing pupils' and students' exposure to female role models working in STEM fields.

- To chase out traditional gender norms, it is also important to engage the Estonian public on taking an active role in promoting gender equality, beyond initial and life-long training.
- First, for the purpose of leading by example, it is important to officially establish gender equality as a national priority and thus place it at the core of national policies. This objective entails embracing gender mainstreaming in policy making and budgeting by ensuring that, in all areas where gender gaps exist, efforts to close these gaps are exerted by state and local government authorities and funded in a long-term and sustainable perspective, based on the national budget, rather than exclusively based on external funds aimed at supporting short-term one-off projects. Achieving this objective could involve, as recommended by the Praxis Centre for Policy Studies, enshrining in the *State Budget Act* the obligation to plan at least one activity related to tackling the gender gap under each programme included in the national budget. This legal step could be complemented by advice and support directed at policy makers to ensure enforcement of gender budgeting, for instance by broadening the responsibilities of the Equality Competence Centre for the Use of the Cohesion Policy Funding, currently restricted to helping policy makers adopt a gender lens when carrying out European Structural and Investment Funds.
- Second, since violence against women constitutes the most blatant and destructive expression of traditional gender norms, it appears essential to intensify efforts to get everyone involved against this violence, and thus against the norms that fuel it.
- One way to achieve this objective could be, as planned in the violence prevention agreement for 2021-25, to continue organising yearly awareness-raising events with large media coverage on strategic dates, e.g. on the International Day for the Elimination of Violence against Women (25 November). These events should allow not only informing the public about action taken by Estonian authorities to combat gender-based violence, but also clarifying why these policies are undertaken by highlighting their significant returns in terms of social and economic well-being.
- It is also important to promote the victim support services and reporting mechanisms at the disposal of the public. This approach would encourage victims, witnesses, as well as (potential) perpetrators to report the violence they undergo, witness, or (intend to) perpetrate, and thus to become a game-changer in the fight against gender-based violence. Notably, more efforts could be devoted to advertising the national women's helpline and to remind witnesses of the life-saving role they can play by calling emergency numbers whenever they hear or see a person being beaten or violently threatened by a current or former partner. In addition, there is no information campaign that regularly reminds (potential) witnesses of the life-saving role they can play by calling emergency numbers whenever they hear or see a person being beaten or violently threatened by a current or former partner. Finally, it is critical to better publicise the hotline maintained by the Social Insurance Board to help (potential) perpetrators of domestic violence avoid (re)taking action.

6.2. Countering traditional gender norms in educational settings

Although educational settings in OECD countries formally commit to providing equal opportunities for females and males, women are still underrepresented in ICT (information and communication technology) while men are underrepresented in EHW (education, health and welfare), as shown in Chapter 2. There is increasing evidence that these gaps reflect attitudes rather than ability (OECD, 2015^[41]), and that the attitudes of students are in turn shaped by deeply ingrained social expectations about the roles of men and women. As an illustration, gender differences in motivation and achievement are nearly non-existent in

early childhood and the first school years, but become increasingly apparent afterwards, especially in contexts characterised by high prevalence of traditional gender norms (Evans, Schweingruber and Stevenson, 2002^[5]; Hyde, 2005^[6]; Bertrand, 2020^[7]). Recent research also reveals that girls' math scores suffer when they grow up in families biased towards sons (Dossi et al., 2021^[8]).

The mainstreaming of gender equality in educational settings should transit through ensuring that school staff and instructional materials foster a culture of gender equality. Staff at all levels and in all types of education, including teachers, career counsellors and youth workers, are important starting points for promoting gender equality in education as their attitudes, instructional and counselling practices are known to influence students' motivation, performance and career choice substantially. Textbooks can also constitute powerful levers of positive social change (OECD, 2015^[4]).

However, it seems critical to complement this general approach by a series of more specific actions in schools (from pre-primary education onwards) and life-long training to steer *both* more women and more men towards EHW and ICT studies and training. Achieving this objective would produce a triple dividend. First, by lessening gender imbalances in EHW and ICT, it would reduce the gender wage gap. Second, greater gender balance in these sectors would also help break down gender stereotypes that consider women as better suited for jobs involving caring, teaching and other socially oriented activities, and men as more suitable for occupations associated with higher-status roles (e.g. science, technology, engineering and mathematics). For instance, as the pre-school years are an age where conceptions of gender roles and stereotypes are often formed (Martin and Ruble, 2004^[9]; Martin and Ruble, 2010^[10]), rising the share of men among pre-primary teachers well above its current level (less than 4% OECD-wide) would trigger more equal gender norms in the future (OECD, 2019^[11]). Third, steering *both* more females and more males towards EHW and ICT studies and training would allow addressing worrisome labour shortages in these sectors (that are critical for economic and social prosperity). In sum, avoiding that females and males sort into different fields of study and jobs would contribute to create a culture of gender equality while preparing youth and adults for the future of work.

6.2.1. Ensuring that school staff and textbooks foster a culture of gender equality

This objective entails training teachers and guidance counsellors on gender equality and reviewing instructional materials to avoid that they perpetuate gender stereotypes.

Training teachers, career counsellors and youth workers on gender equality

There is widespread evidence that school staff are gender biased. In particular, the stereotypical view that boys have more developmental resources in mathematics than girls turns out to be pervasive among teachers and guidance counsellors (Lavy and Sand, 2018^[12]). This is problematic since research has shown that these beliefs are strongly self-fulfilling (Carlana, 2019^[13]). Different channels are at play. One of them is the so-called “stereotype threat” effect by which individuals feel threatened by the possibility that their performance will confirm a negative stereotype about their group abilities (Steele, 1997^[14]). By undermining their self-confidence, this perceived threat ultimately does impair their performance. For instance, when asked to study a complex figure and later to reproduce the figure from memory, girls outperform boys if the task is described as testing drawing ability, but they underperform boys if the task is described as testing geometry ability (Huguet, Brunot and Monteil, 2001^[15]; Huguet and Régner, 2009^[16]). Another channel through which gender stereotypical beliefs become self-fulfilling prophecies are through discriminatory teaching practices (Box 6.1). Discrimination in grading has also proven to be widespread and consequential for boys' and girls' academic achievements. While girls often score higher than boys on name-blind math tests, primary school teachers award higher scores to boys once presented with recognisable boy and girl names on the same tests (Lavy and Sand, 2018^[12]). These biases do not only have short-term consequences. They also impact students' enrolment in advanced level math courses in high school. Teachers' biased behaviour at early stage of schooling therefore have long run implications

for occupational choices and earnings at adulthood since enrolment in advanced courses in math and science in high school is a prerequisite for post-secondary schooling in STEM (science, technology, engineering and mathematics).

Box 6.1. Gender bias in the classroom

The impact of unconscious teacher bias is long understood and well-documented (OECD, 2015^[4]). Through thousands of hours of classroom observations, Myra and David Sadker and Karen R. Zittleman identified specific ways in which implicit and stereotypical ideas about gender govern classroom dynamics (Sadker, Sadker and Zittleman, 2009^[17]). They, as others have, found that teachers spend up to two-thirds of their time talking to male students; they also are more likely to interrupt girls but allow boys to talk over them. Teachers also tend to acknowledge girls but praise and encourage boys. They spend more time prompting boys to seek deeper answers while rewarding girls for being quiet. Boys are also more frequently called to the front of the class for demonstrations. When teachers ask questions, they direct their gaze towards boys more often, especially when the questions are open-ended. Yet, until they view their videotaped interactions, teachers believe they are being balanced in their exchanges.

Source: Soraya Chemaly (2015^[18]), "All teachers should be trained to overcome their hidden biases", <https://time.com/3705454/teachers-biases-girls-education/>.

As in other countries, more needs to be done in Estonia to avoid that the educational system perpetuates traditional gender norms, as reflected by current practice regarding manual training classes in Grades 2 and 3 of primary education. These classes involve two types of activities: traditionally male activities such as woodwork and metalwork, and traditionally female activities such as cooking, sewing and knitting. For practical reasons, this training is organised by dividing the class into two groups of similar size. However, instead of alternating each type of activity across these groups during a similar share of the school year (thereby ensuring that each group is equally exposed to both traditionally male and female activities), the curriculum requires that pupils choose one unique type of activities during the whole school year. This requirement leads to a composition of group by gender, and further entrenchment of gender stereotypes: girls sort into cooking, sewing, and knitting, while boys sort into woodwork and metalwork. The Estonian Commissioner for Gender Equality and Equal Treatment has called for reform of the curriculum that would allow all pupils to attend both types of activities over the course of the school year (Pakosta, 2017^[19]) – accordingly, the Ministry of Education and Research is planning to regulate this practice in 2022. Similarly, a recent analysis of educational projects in Estonia financed by the European Structural and Investment Funds revealed that these projects were hardly carried out in a way that promotes gender equality (Sepper, Murasov and Mägi, 2020^[20]). As regards career counselling at school for instance, apart from ensuring that boys and girls have equal access to it, implementation of the projects did not focus on avoiding gender-stereotypical counselling. Career counsellors were not encouraged to give both boys and girls a complete overview of potential career choices by, for example, drawing their attention to occupations where their gender is underrepresented.

Despite low awareness on gender equality among university students enrolled in educational and social sciences (Mägi et al., 2016^[21]), there is neither pre- nor in-service mandatory training courses on gender equality for Estonian teachers, career counsellors and youth workers. Between 2013 and 2016, two pre-service and one in-service training courses on gender equality were developed, with support from the Mainstreaming Gender Equality and Promoting Work-Life Balance Programme of the Norwegian Financial Mechanism 2009-14 (PRAXIS Center for Policy Studies, 2016^[22]). However, due to a lack of subsequent national funding, these courses did not outlive the project's timeline and thus stopped in 2016.

This situation could be remedied by introducing compulsory pre- and in-service training on gender equality directed at future and incumbent teachers, career counsellors and youth workers. Given that these professionals work with hundreds of pupils in their career, this training should have strong multiplier effects and thus far-reaching positive consequences in terms of propagating a culture of gender equality within society.

Following insights on the type of de-biasing training that works (Chapter 5), this training could inform teachers and career counsellors about:

- conscious and unconscious bias, notably against girls and women ;
- the strong self-fulfilling effects of such bias, especially in educational settings;
- their own bias by means of implicit association tests (IAT).

The latter step appears particularly important. According to recent research, revealing to teachers their stereotypes against a specific group, e.g. immigrants, allows diminishing their propensity to discriminate against pupils stemming from this group when they grade them. Absent this awareness, teachers tend to give lower grades to minority students although they turn out having the same performance as others when participating in standardised blindly-graded tests (Alesina et al., 2018^[23]).

On top of equipping teachers, career counsellors and youth workers with the skills to not reproduce and fuel gender stereotypical attitudes and behaviours, the training could also provide guidance on how to embed gender equality throughout the curriculum, as well as on how to more explicitly teach gender equality in the framework of specific school subjects, including sexuality education (OECD, 2020^[24]). UNESCO has developed extensive guidelines on how to organise school-based sexuality education so that it not only contributes to reduce unintended pregnancies and sexually transmitted infections (STIs), but also works as a powerful vehicle against gender inequalities, including gender-based violence (UNESCO, 2018^[25]). Estonia's approach to teaching sexuality is often presented as a model (World Health Organization, 2018^[26]; Cook, 2019^[27]). On top of being the first country of the former Soviet Union to officially introduce school-based sexuality education (it was in 1996), Estonia has also been very successful in averting adolescent pregnancies and STIs, presumably thanks to sexuality education and the concomitant provision of youth-friendly sexual and reproductive health services throughout the country. Estonia could strengthen its reputation as forerunner in this field by mandating training of teachers in basic and upper secondary education in charge of the subject of personal, social and health education (PSHE) – of which sexuality education is part. This training could follow UNESCO's international technical guidance and thus induce teachers to put greater emphasis on gender equality through denouncing the many negative effects to individuals, families, and society as a whole, produced by power imbalances in relationships.

Eradicating sexism from instructional materials

UNESCO has repeatedly shown that gender bias is rife in textbooks around the world (UNESCO, 2008^[28]; UNESCO, 2015^[29]). They represent women as “trapped in the domestic sphere and displaying coquetry, frailty, emotionality and dependence” and portray men as embodying “moral and physical strength, authority and independence” (Brugeilles and Cromer, 2015^[30]). As an illustration, in a textbook, a girl is pictured dreaming of her wedding day, while a boy imagines becoming a doctor. In another textbook, students are asked to complete sentences about Mr Thompson, who is in the garage washing his car, and Mrs Thompson, in the kitchen preparing lunch (“she [likes] cooking very much,” they discover).

These accounts are not specific to reading, history, and geography textbooks known to be full of social representations. They also concern mathematics textbooks in which abstract ideas are typically translated into examples drawn from the children's everyday life in order to make learning easier. As such, mathematics textbooks convey many gender stereotypical representations of society. Gender bias in textbooks is also not specific to developing countries. For instance, a mathematics textbook preparing to the General Certificates of Secondary Education, the main qualifications taken by students at school-leaving age in England, Wales and Northern Ireland, conveyed the belief that women are more likely than men to come up with incorrect answers to mathematics problems (Bloom, 2018^[31]). More precisely, on several occasions, pupils were asked in the textbook to identify the answer given to a mathematics problem as incorrect – and to explain why. The incorrect answer appears far more likely to relate to a woman's name than to a man's. In the 86 questions where the answer was incorrect, 62% of the incorrect answers were coming from women.

Holding educational publishers responsible for not perpetuating traditional gender norms appears as an important prerequisite towards enhancing girls' self-confidence and achievements in fields where they are underrepresented, and thus improve their future life chances. In Estonia, Article 20 of the *Basic Schools and Upper Secondary Schools Act* deals with the regulation of educational publishers. For their textbooks to be validated and thus join the set of teaching materials among which schools and teachers can freely choose, educational publishers must submit their textbook proposal to the scrutiny of two reviewers. These two reviewers, typically working or retired teachers, are asked by the Ministry of Education and Research to examine whether the textbook's content complies with a set of requirements detailed in a regulatory document. In particular, the reviewers should confirm that the information contained in the textbook is age appropriate, consistent with the national curriculum, and that it contributes to "the moral, physical and social development of the pupil" (Haridus- ja teadusministeerium, 2016^[32]).

However, while avoiding spreading gender stereotypical worldviews is a matter of consideration in the review process of textbook proposals, and the curricula of both basic and upper secondary schools in Estonia define gender equality as a core value, there is no efficient national mechanism to prevent a textbook full of gender stereotypes from reaching children. The review of textbooks could thus be improved by an increased focus on gender equality. To enhance enforcement, the Ministry of Education and Research could publish guidelines to tackle gender bias in instructional materials. In this regard, the guidelines recently issued by Pearson, the British multinational publishing and education company, may serve as a useful source of inspiration (Box 6.2).

Box 6.2. Pearson's guidelines to help its employees tackle gender bias in school textbooks

In 2020, Pearson launched guidelines to tackle gender bias in its exams and textbooks, by 'flipping stereotypes' – for example by showing 'girls dressing up as a firefighter/astronaut/mechanic' and boys 'watering plants' or 'playing in a pretend kitchen'.

Unconscious bias

The guidance says employees should "look for and remove unconscious bias in fictitious graphs" – for example "a tally of full-time salaries where the majority of men are paid higher than women or a chart about part-time workers which are all female".

When using fact-based data which indicate gender equality in textbooks, it says "related content should highlight an awareness of this being an issue and any future proposals to address the issue".

The guidance says staff should "avoid unconscious bias in characteristics and behaviours ascribed to a gender", for example "a woman being sensitive to other's needs or a man being assertive".

Non-human characters

Employees are advised to make sure that "female" robots, dinosaurs, and animals are represented, but not in a stereotypical way.

"Be alert to the removal of gender stereotyping where characters are animals, aliens, talking objects, etc. and apply the same guidelines to such characters as you would to humans."

"Avoid ascribing stereotypically feminine or masculine traits or appearances (e.g. long eyelashes to an animal to indicate they are female or a bow tie to indicate they are male). Instead, just depict them neutrally, and use pronouns and names to indicate that they are female."

Humankind not mankind

The guidance says that the use of "she" and "he" should be balanced throughout all products to ensure equal representation, and that the "use of the singular 'they' as a pronoun" should be considered.

It says that gender neutral terms should be used rather than the generic term "man" – for example "humankind or humanity, not mankind", "synthetic or manufactured, not man-made", and "staff or employees, not manpower".

Source: Hazell (2020^[33]), Guidelines launched to tackle gender bias and stereotypes in school textbooks and exams, <https://inews.co.uk/news/education/school-textbooks-exams-guidelines-pearson-gender-bias-stereotypes-768727>; Pearson (2020^[34]), Gender Equality Guidelines, <https://www.pearson.com/content/dam/one-dot-com/one-dot-com/uk/documents/news/2020/pearson-gender-equality-guidelines.pdf>.

6.2.2. Improving the recognition of EHW jobs

EHW is characterised by significant present and upcoming shortfalls in workers. This is especially the case in teaching and long-term care (LTC). OECD-wide, the average age of lower secondary teachers is 44 years old, with more than one-third (35%) being over 50. Combined with an average pension age at 64, these figures imply that education systems will have to renew at least one-third of their teaching workforce in the next 15 years, meaning that governments need to plan ahead to fight against teacher shortages (OECD, 2020^[35]). This challenge is particularly acute in Estonia: with a proportion of lower secondary teachers aged 50 or more at 53%, Estonia has one of the fastest ageing teaching workforce (OECD, 2020^[36]). Similarly, the LTC workforce, i.e. nurses and personal care workers, is not keeping pace with the

growth in the number of older adults who require LTC services (OECD, 2020^[37]). The number of LTC workers will need to increase by 60% by 2040 or 13.5 million workers across the OECD to keep the current ratio of carers to elderly people. Estonia is no exception. With 5.5 LTC workers per 100 individuals aged 65 and over in 2016, Estonia performs only slightly better than the OECD average which is characterised by 5 LTC workers per 100 individuals aged 65 over (these figures are expressed in absolute terms, not in full-time equivalents). This is much lower than the ratio that prevails in Finland (8), Sweden (12) or Norway (13).

Labour shortages in teaching and LTC jobs are mainly due to their lack of recognition, and their relatively low wages. In Estonia, the ratio of lower secondary teachers' actual salaries relative to earnings for tertiary-educated workers is equal to 0.95 (OECD, 2021^[38]), which is higher than the OECD average (0.90) but still below 1 and notably lower than the ratio that prevails in Latvia (1.35), Lithuania (1.19) or Finland (0.98). LTC workers also earn much less than those working with similar qualifications in other parts of the health care sector like hospital workers (OECD, 2020^[37]). The median hourly wage for LTC workers is one of the lowest in Estonia where it comes close to the minimum wage.

The low status of jobs in teaching and LTC contributes to the gender pay gap in Estonia, in a context where women make up the bulk of teachers and long-term carers. Estonia is one of the three OECD countries with the highest average share of women among teachers in early childhood, primary and secondary education, just behind Lithuania and Latvia (Chapter 2 includes details on OECD PISA scores by boys and girls and educational choices made by young men and women). This average share is equal to nearly 90%, which is 10 percentage points higher than on average in other OECD countries (Panel A of Figure 6.2). The share of women among pre-primary teachers is particularly high (it is the highest of the OECD): only 0.5% of teachers in early childhood education are men. Similarly, while women represent more than 90% of the LTC workforce OECD-wide, this share reaches 100% in Estonia (Panel B of Figure 6.2).

To promote gender equality while addressing present and upcoming labour shortages, it is critical to both retain more females and attract more males in EHW jobs, chief of which by improving the recognition associated to these jobs. Two main policies could help reach this objective.

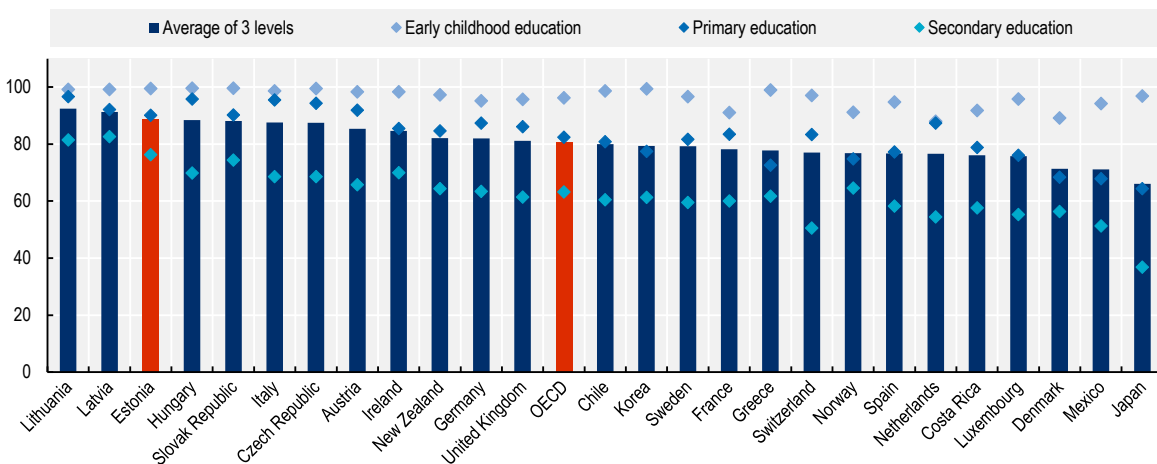
First, steering more females and more males towards EHW jobs is unlikely to happen without increasing entry wages. Moreover, it is also important to offer better opportunities for career progression through wage structures that reward professional development instead of tenure, for instance through pay rises associated with the successful completion of in-service training offering essential new qualifications. Wage increases exclusively based on tenure may have a demotivating effect since they do not necessarily recognise performance and may even inadvertently advantage weaker staff with fewer employment opportunities elsewhere. Improving teachers' salaries was one of the goals of the Estonian Lifelong Learning Strategy 2014-20 (OECD, 2020^[36]). As a result of these efforts, the average teacher salary increased by 59% between 2013 and 2018, which outstripped the national average salary increase. In 2019, the minimum teacher monthly salary was set at EUR 1 250, bringing the average salary to EUR 1 500. The government also provided additional funding to municipalities in order to increase the salaries of teachers in early childhood education and care, which have typically been lower than other teachers' salaries (OECD, 2019^[11]). Consequently, the rise in Estonia in teachers' satisfaction with the profession between 2013 and 2018 was the highest of OECD countries (OECD, 2020^[35]). Despite this significant progress, there is still room for improvement. In 2014, Estonia introduced a new competence-based career structure and teacher certification process. The structure has four career grades – ranging from teacher to master teacher – with each grade based on qualifications, professional competence, and experience. New professional standards for the different grades that focus on inclusive education and digital pedagogy came into effect in 2020. Yet, the overall certification process remains voluntary and does not influence progression on the salary scale, while making it compulsory and consequential for pay would be a prerequisite to enhance the status of jobs in teaching (OECD, 2020^[36]). As for advancing pay for long-term care workers, much also remains to be done. It would be critical to

increase entry wages for this profession as well, and also better reward skills development, such as the acquisition of more advanced geriatric care and co-ordination care competencies, whose need will keep increasing in the future (OECD, 2020^[37]).

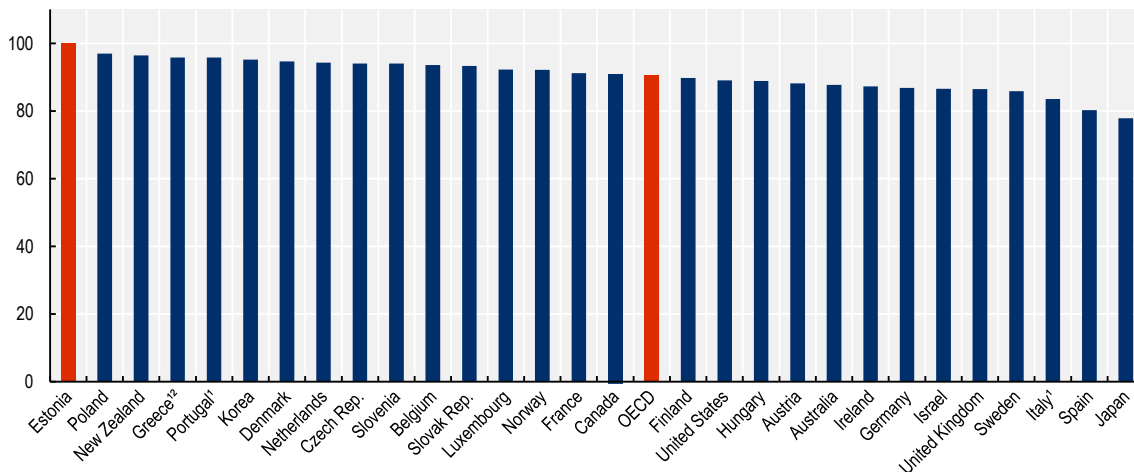
Figure 6.2. The share of women in teaching and LTC in Estonia is (one of) the highest OECD-wide

Share of women among teachers and the LTC workforce (nurses and personal care workers), in 2019 and 2016 respectively

Panel A: Share of women among teachers at different education levels, 2019



Panel B: Share of women in the long-term care workforce, 2016 (or nearest year)



Source: OECD (2021^[39]), “Gender distribution of teachers, by level of education (2019): Percentage of women among teaching staff in public and private institutions”, in *Education at a Glance 2021: OECD Indicators*, <https://doi.org/10.1787/8730900f-en>; OECD (2020^[37]), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, <https://doi.org/10.1787/92c0ef68-en>.

Second, attracting and retaining *both* more females and more males in EHW jobs entails improving working conditions. In Estonia, much progress has been made in this regard in the field of teaching (OECD, 2020^[36]). The OECD Education database shows that in 2020, Estonian teachers taught annually for 592 hours at primary level, and 609 hours at lower secondary level, which is significantly below OECD averages (equal to 789 and 713 hours, respectively – <https://data.oecd.org/teachers/teaching-hours.htm#indicator-chart>). Furthermore, in 2019, teacher-to-student ratios were slightly lower than 13 in

Estonia in both primary and secondary school. In contrast, the OECD average was slightly higher than 13 on average: i.e. 13 in secondary education and 14.5 in primary education (<https://data.oecd.org/teachers/students-per-teaching-staff.htm#indicator-chart>). The heavy workload conducive to physical and mental health risk factors remains an important issue for LTC workers (OECD, 2020^[37]). In this context, it seems important to foster greater use of technologies that have enormous potential to support LTC workers, particularly when it comes to improving communication with and monitoring of elderly people in need of care. For instance, in Estonia, the government funded a personal alarm button service that allows elderly people to feel safer at home (it takes an average of 30 minutes for a professional to arrive at a person's home when needed). But the range of innovative technologies could be further enriched and generalised in the field, from simple and easy to access technologies, such as smartphones, sensors and GPS monitors, to more complex devices such as surveillance and companionship robots or comprehensive technologies such as self-sufficient smart homes (OECD, 2020^[37]).

Of course, it is critical to widely communicate on the aforementioned efforts to improve the recognition attached to EHW jobs. It is also essential to do so with a gender lens to give men the extra motivation many need to join these jobs, for instance through the involvement of engaging male role models.² Different options are possible to implement this communication strategy:

- A first step is to use media and campaigns directed at the general public. In Estonia, the “Study to Become a Teacher” campaign featured videos of celebrities recalling their memories of school and of teachers explaining why they enjoy their jobs. Advertisement campaigns to change the poor image of LTC have also been implemented in several countries. These campaigns aim to present a positive side of ageing, promote the good aspects of LTC careers and emphasise LTC workers’ key contribution to their society’s well-being.
- These general awareness raising activities should be complemented by more explicit recruitment campaigns, such as “The Best Job in the World is Vacant” campaign that was conducted between 2012 and 2014 in Norway to bring new workers into ECEC pre-service training (OECD, 2019^[40]). These campaigns should pay particular attention to reaching out to potential new recruits, such as newly unemployed individuals and individuals weakly attached to the labour market, since this approach would allow widening the pool of female and male applicants. For instance, Japan introduced basic LTC training courses targeting middle-aged and older workers to prepare themselves to return to work after a long break, and provided support for beginners to take LTC training courses. With this policy, Japan managed to increase the number of LTC workers by 20% between 2011 and 2015 (OECD, 2020^[37]).

For these outreach initiatives to be successful, they require strong co-ordination between several stakeholders: governments providing funding for training (which may include financial incentives for targets to enrol), training providers, public employment services, etc. Involving schools at early stages of the curriculum seems equally important, so that pupils can start thinking about their career early on, with full knowledge and thus without misjudging EHW jobs and discarding them from their set of potential career choices. In the United Kingdom, the “Proud to Care” initiative sought to improve the sector’s image by organising networks of Care Ambassadors who visited schools, on top of job centres, to talk about their jobs in a way that contributed to raise these jobs’ profile and elevate the status of workers doing them (OECD, 2020^[37]).

6.2.3. Investing in digital skills training with a gender lens

Like EHW, ICT is characterised by significant labour shortages. A majority (55%) of EU enterprises that recruited or tried to recruit ICT specialists³ in 2019 had difficulties in filling their vacancies, including in Estonia where this share reaches 60% (Eurostat, 2021^[41]). Against this backdrop, it is critical that educational settings intensify their efforts to foster greater interest in ICT careers, notably among women.

Indeed, consistent with the observation that women are underrepresented among ICT graduates (Chapter 2), the vast majority of persons employed as ICT specialists are men: men account for about 8 out of every 10 ICT specialists in a majority of EU countries, including Estonia. This objective of steering more boys and more girls towards ICT is all the more important since the demand for ICT specialists should continue to grow: these workers are instrumental in helping employers adapt to the increasingly digital and data-intensive business environment. As an illustration, the number of ICT specialists in the EU grew by more than 50% from 2011 to 2020, over 9 times as high as the increase (5.5%) for total employment (Eurostat, 2021^[41]). Estonia is no exception, with ICT being the fastest-growing sector of the country (Lind, 2018^[42]).

Box 6.3. The “Tiger Leap” programme

Today, Estonia is one of the most developed e-societies. In order to achieve this, it went through an intense process of change since gaining independence in 1991 after five decades of Soviet rule. The newly independent country faced severe challenges in the 1990s such as steeply rising unemployment, which exceeded 15% in 2000. Digitalisation was virtually non-existent.

One of the most influential turning points in the post-Soviet period was the project Tiger Leap (Tiigrihüpe) launched in 1996. Tiger leap – a reference to the economic boom of the economies of Chinese Taipei, Hong Kong (China), China, Korea and Singapore – aimed to establish an up-to-date IT infrastructure in the country, with a special focus on schools, to boost economic growth and improve the education system. It notably consisted in:

- Providing each school in Estonia with computers and Internet access.
- Training teachers how to use computers in school and in teaching.
- Developing educational software to enable digital learning.
- Fostering students’ IT skills.
- Supporting municipalities in developing an ICT structure.

The Tiger Leap programme was followed by the Tiger Leap Plus programme in 2001 to also induce a rapid change towards digitalisation in areas other than education, such as public services.

Source: OECD (2020^[43]), Strengthening the Governance of Skills Systems, <https://doi.org/10.1787/3a4bb6ea-en>.

Teaching digital skills

Teaching digital skills has been considered a national priority in Estonia since the launch of the Tiger Leap programme in 1996 (Box 6.3). This goal was notably embedded in a path breaking initiative called “ProgeTiger” (Box 6.4) that started in 2012, and inspired the Lifelong Learning Strategy 2014-20. Since the mid-2010s, an impressive set of policies have been implemented to fully mainstream the theoretical and applied learning of basic and more advanced digital skills in the Estonian education system, leading the share of primary and lower secondary schools with an elective subject focusing on ICT to reach 77% in 2020/2021, up from 50% in 2015/2016 (Leppik, Haaristo and Mägi, 2017^[44]). These policies include:

- The intensification of pre- and in-service training to help teachers develop their digital skills (OECD, 2020^[36]). Against the backdrop of the Education strategy 2021-35, a comprehensive digital competence portal was created (<https://digipadevus.ee/>). This portal allows informing Estonian teachers about the digital skills they are expected to equip their students with, at different stages of the school curriculum, but also assisting them in acquiring and mastering those skills, notably

thanks to 15 teacher training packages devised by the Estonian Education and Youth Board (Harno).

- Increased funding for ICT equipment in basic and upper-secondary education to help teachers engage with their pupils in computer programming, robotics and 3D graphics.⁴ Based on EU and government funding, nearly 11 million Euros are being invested over the period 2015-23, in the framework of two programmes: “Klass+” to ensure the dissemination of modern and innovative learning resources and “Smart learning” (*Nutikas Õppimine*), to ensure high-quality education with digital learning resources. Moreover, in 2021, the Ministry of Education and Research supported schools by distributing a total of 2 800 computers to students in need, via an allocation of 900 000 Euros to the Estonian Union of Child Welfare.
- A continued effort to develop digital competences from kindergarten onwards (Box 6.4). In the new pre-primary education curriculum issued in 2022, digital skills training is explicitly presented as compulsory, noting that almost all Estonian kindergartens already familiarise children with ICT, including in the framework of device-free children’s games (<https://harno.ee/progetiigri-programm>). For instance, to teach children the “if..., then..., else...” algorithmic thinking, simple tasks are typically proposed by pre-primary teachers, such as this one: “When I show a red balloon, you clap twice; When I show a yellow balloon, shake your head; When I show you a blue one, jump up twice; Otherwise – raise your hands up”.

To ensure that the improved participation of male and female students in ICT activities translates into more girls choosing ICT careers, one could consider more systematically adopting a gender lens throughout the curriculum, for instance by increasing pupils’ and students’ exposure to female role models working in STEM fields. In France for instance, a one-hour in-school intervention of female scientists in the framework of the L’Oréal Foundation’s programme “For Girls in Science” strongly affected high school students’ perceptions and choice of undergraduate major (Breda et al., 2021^[45]). More precisely, the intervention improved students’ understanding of the career paths they can aspire to if they study STEM, helped mitigate some of the stereotypes typically associated with STEM occupations (such as being hard to reconcile with family life), and heightened the perception that these jobs pay better. What is more, the intervention led to a significant increase in the share of girls who enrol in selective and male-dominated STEM undergraduate programs in college. These findings are not specific to France. In Estonia, a recent lab experiment consisted in showing to upper-secondary school students a short video of Kadri-Liis Kusmin, an Estonian software engineer, talking about her struggles to choose a profession when she was graduating (This experiment was conducted in the framework of the partnership between the Estonian Ministry of Social Affairs and Kantar Emor referred to in Chapter 5). The results indicate that this brief exposure to the personal story of a female scientist significantly increased girls’ probability to “imagine [themselves] studying or working in ICT”, while it had no impact on boys.

Providing extra attention and support to girls while teaching digital skills in regular curricular instruction would also help increase their currently low participation in ICT hobby groups: while girls were overrepresented among children and youth attending hobby education in “music and art” (71%) during year 2019/2020, they were underrepresented among those enrolled in ICT hobby activities (23%).⁵

Box 6.4. The ProgeTiger programme

Estonia launched the ProgeTiger programme (see <https://www.educationestonia.org/progetiger>) in 2012. Currently, this programme is co-ordinated by the Education and Youth Board (a government agency of the Ministry of Education and Research that deals with the implementation of Estonian education and youth policy) and funded by the Ministry of Education and Research and the European Union (mainly via the European Social Fund).

Its objective is to provide children and youth with the skills they need to cope in the future, by making them proficient in STEAM subjects, i.e. Science, Technology, Engineering, Arts, and Mathematics. By integrating STEM subjects with arts subjects, ProgeTiger aims to appeal to both female and male students and teach them to use engineering or technology in imaginative designs or creative approaches to real-world problems while building on their mathematics and science base. As such, ProgeTiger stands out as a unique initiative to develop students' innovation capacity and critical thinking.

In practice, ProgeTiger involves 3 main activities:

- computer programming, i.e. creating an executable computer programme to accomplish a specific computing result or to perform a specific task, which implies generating algorithms and implementing them in a chosen programming language (commonly referred to as coding);
- robotics, i.e. designing, constructing, operationalising and using robots that can substitute for humans and replicate human actions;
- 3D graphics, i.e. designing three-dimensional images which allow producing two types of reality:
 - “virtual reality” (a completely synthetic virtual world inside which the user is placed and can then move around and interact with completely computer-generated elements);
 - “augmented reality” (where the user stays grounded in the real world but where the real world is overlaid by virtual elements placed “in front of” and “behind” the user to provide her/him with an immersive experience).

The programme is directed at all young children, from kindergarten to both general and vocational upper secondary education. In pre-primary education, teachers rely on tablets with coding game, different robots like Qobo, mTiny, Blue-Bot, Matata Lab, LEGO WeDo Set, or animation creation apps. In basic education, teachers use educational tools for computer programming (e.g. Scratch), robotics, and 3D graphics, noting that digital skills are supposed to be taught both as a separate subject and in a cross-curricular perspective – in the latter case, each teacher is expected to integrate ICT in the subject she/he teaches; e.g. music programs in music lessons, etc. In general and vocational upper secondary education, students are taught programming languages (Python, JavaScript etc.) to make games, web-pages and apps, etc. and are offered different elective courses of informatics. They are also given an overview of the diversity of the ICT-sector to help them in their career choices.

6.3. Countering traditional gender norms beyond educational settings

The objective of countering traditional gender norms should go beyond educational settings, through engaging the Estonian public on taking an active role in promoting gender equality, in every aspect of life. Two policies could be implemented in priority to foster this public engagement. First, for the purpose of leading by example, it seems critical to officially establish gender equality as a national priority and thus place it at the core of national policies. This objective implies that Estonia embraces gender mainstreaming in policy making and budgeting by ensuring that, in all areas where gender gaps exist, efforts to close

these gaps are exerted by both state and local government authorities and funded in a long-term and sustainable perspective, based on the national budget, rather than exclusively based on external funds aimed at supporting short-term one-off projects. Second, to the extent that violence against women constitutes the most blatant and destructive expression of traditional gender norms, it appears essential to induce every Estonian citizen to stand up against this violence, and thus against the norms that fuel it.

6.3.1. Embracing gender mainstreaming in policy making and budgeting

Gender mainstreaming in policy making is currently receiving great attention in Estonia. To improve the ability of the state and local governments to systematically reduce gender inequality at the national and subnational levels, the Ministry of Social Affairs launched in 2022 a project to build institutional capacity for gender mainstreaming, together with the Ministry of Finance, Ministry of Culture, Ministry of Education and Science and the Ministry of Economic Affairs and Communication. The aim of this initiative is to identify, by 2023, the most efficient (both resource- and outcome-wise) and sustainable approach to co-ordinate, support and implement gender mainstreaming in policy making.

Box 6.5. Public budgets are a good place to deal with gender issues

The budget is the central policy document of government. Given the central role that the budget plays in determining how public resources are allocated to deliver outcomes, it is appropriate that cross-cutting priorities such as gender be considered as part of the budget process.

The *OECD Recommendation on Budgetary Governance* recognises a role for modern budgeting to move beyond a traditional technocratic exercise, stating that it can help “show how annual and multi-annual objectives will be prioritised and achieved”. This is one of the reasons that we are seeing the emergence of gender budgeting, as well as other initiatives such as “green budgeting”, “well-being budgeting” and “SDG budgeting”. Governments increasingly realise that the budget process is a powerful tool for delivering on national policy goals. Applying this in support of gender equality, and reconciling this modern role with the traditional priority of effective budgetary management, is a key challenge of gender budgeting. But given the “power of the purse”, dealing with horizontal policy objectives such as gender equality as part of the budget process offers considerable opportunity to influence government-wide policy making and deliver on outcomes in a way that might not otherwise be feasible.

Nevertheless, the budget process alone cannot, and should not, try to assume onto itself the responsibility for solving all the problems of society. A whole-of-government approach involving the contribution of all government ministries and agencies is essential in areas such as understanding societal needs, setting of priorities, as well as policy development and implementation.

Source: Downes and Nicol (2020^[46]), “Designing and implementing gender budgeting – a path to action”, *OECD Journal on Budgeting*, <https://doi.org/10.1787/689198fa-en>.

Efforts are also underway to improve gender mainstreaming in budgeting, which involves taking a gender perspective into account in every step of the budgeting process (Box 6.5), and thus achieving equality between women and men by focusing on how public resources are collected and spent (OECD, 2013^[2]; OECD, 2015^[3]; OECD, 2017^[47]; Downes and Nicol, 2020^[46]).⁶ Regarding the way public resources are collected, Estonia took care to design tax policies that provide households’ primary and secondary earner with equal financial incentives to engage in paid work. In particular, Estonia opted for separate rather than joint taxation, which means that the household’s second earner, i.e. the female partner in most cases, does not face disincentives to work. Regarding the way the Estonian national budget is allocated, the switch to activity-based budgeting in 2020 opens the possibility to proceed to this allocation through a gender lens.

Indeed, following this reform, the state budget features costs based on the resources needed to implement specific activities and thus achieve specific outcomes, rather than based on a classification of functioning costs, e.g. staff costs – an approach viewed as leading to too strong a disconnect between policy objectives and the budget (Sepper, 2020^[48]). More precisely, according to the recent amendments to the *State Budget Act* (<https://www.riigiteataja.ee/en/eli/513112019002/consolide>) the national budget is now disaggregated into performance areas that are each related to one of Estonia’s strategic development plans. Each performance area is itself divided into one or several “programmes”, i.e. documents that describe the activities, impact assessment and financing scheme targeted at the achievement of a sub-objective of a performance area or of a development plan (Art. 19(5)).

That said, gender budgeting is not yet fully implemented in Estonia. Gender equality is the explicit purpose of only one performance area (and one related “programme”) in the State Budget Strategy (SBF) 2020-23 (Box 6.6). Gender equality is present in some other sections of the SBF, but not in a way that makes it a clear policy goal. For instance, the programme “Children and families” uses the gender gap in employment for parents of young children as one of its indicators. However, the target of closing this gap is not plainly stated, nor are ways and means identified on how to close the gender employment gap among parents.

Box 6.6. Gender equality in the Estonian State Budget Strategy 2020-23

According to the Estonian State Budget Strategy (SBF) 2020-23, gender equality is an explicit objective of the performance area “Social security” that relates to the Well-being development plan 2016-23, meaning that part of the budget devoted to the sub-item “Social security” of this development plan should be allocated to promoting gender equality (Sepper, 2020^[48]). More precisely, the performance area “Social security” aims at improving social cohesion through decreasing poverty and inequality, including via closing the gender pay gap. To reach the latter objective, a programme is spelled out in the SBF that relies on the following three indicators: (i) number of women with a degree in STEM per thousand 20-29 year-old women; (ii) number of inhabitants who perceive gender pay gap as a big or very big problem in the society; and (iii) Estonia’s score of the gender equality index maintained by the European Institute for Gender Equality (EIGE).

Yet, well-being is not the only dimension in which gender equality could be mainstreamed in Estonia. In Canada for instance, “Poverty reduction, health and well-being” is only one of the six key areas in which gender equality is explicitly stated as a critical objective, in the backdrop of the Gender Results Framework that guides Ministerial decision making in relation to resource allocation (Downes and Nicol, 2020^[46]). The five other key areas are: (i) education and skills development; (ii) economic participation and prosperity; (iii) leadership and democratic participation; (iv) gender-based violence and access to justice; and (v) gender equality around the world.

Estonia could consider transposing the Austrian method to gender budgeting, which is viewed as a best practice example (OECD, 2017^[47]). Austria’s Constitution has included gender budgeting as a requirement for all levels of government since 2009. Concretely, this approach entails that each Austrian ministry and supreme state organ defines a maximum of five outcome objectives, including one that aims to achieve gender equality.

Transposing the Austrian method to gender budgeting to the Estonian context could entail enshrining in the *State Budget Act* the obligation to plan at least one activity explicitly related to tackling a gender gap under each programme included in the budget (an approach that is currently absent) – or to addressing some other inequality in case there are no difference between men and women in the policy area under consideration (Sepper, 2020^[48]). This recommendation, made by the Praxis Centre for Policy Studies in the framework of the EU Mutual Learning Programme on Gender Budgeting, would allow giving substance to the guidelines on “horizontal principles” that were issued in 2014 in Estonia. These guidelines require

that development plans pay attention to five horizontal themes defined by governmental decree. One of them is the principle of equal opportunities which itself requires equal treatment on four grounds: gender, age, disability and ethnicity. Mandating that each programme in the state budget strategy explicitly sets gender equality as a policy sub-objective (and plans a series of action to achieve it) would ensure that gender equality does not remain an empty concept in Estonia policy making. This legal step could be complemented by advice and support directed at policy makers to ensure enforcement of gender budgeting. For instance, one could widen the responsibilities of the Equality Competence Centre for the Use of the Cohesion Policy Funding (Box 6.7), currently restricted to helping policy makers adopt a gender lens when carrying out European Structural and Investment Funds (ESIF) programmes and projects, so that these responsibilities also include assistance to policy makers when aiming to mainstream gender in the national budget strategy. Of course, this expansion of responsibilities would necessitate an increase in the resources devoted to the Centre (Sepper, 2020^[48]).

Box 6.7. The Estonian Equality Competence Centre for the Use of the Cohesion Policy Funding

In 2015, the Equality Competence Centre for the Use of the Cohesion Policy Funding was created at the office of the Commissioner for Gender Equality and Equal Treatment. Its purpose was to provide support to policy makers for gender mainstreaming in the process of planning, implementing, monitoring and evaluating European Structural and Investment Funds (ESIF) programmes and projects, i.e. European Social Fund (ESF), European regional development fund (ERDF) and Cohesion Fund (CF). In 2019, the centre was transferred to the Ministry of Social Affairs.

6.3.2. Getting everyone involved in the fight against gender-based violence

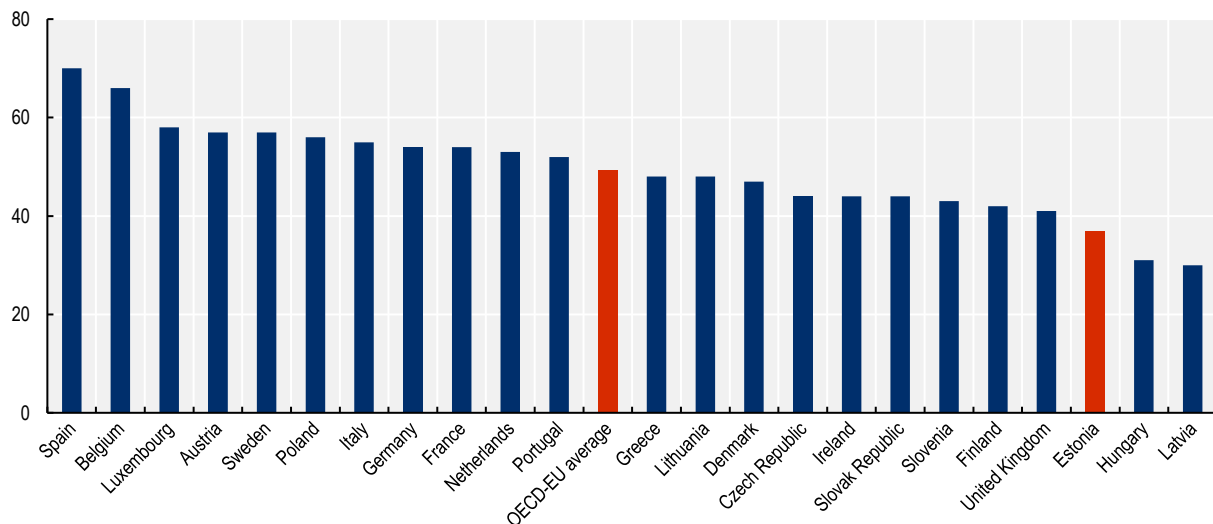
Intimate partner violence constitutes one of the most widespread, persistent and devastating human rights violation in the world (OECD, 2020^[49]; OECD, 2021^[50]). More than one in three women worldwide report having experienced physical or sexual violence in their lifetime. And according to UN Women data, 1 in 2 women killed worldwide were killed by their partners or family in 2017; while only 1 out of 20 men were killed under similar circumstances (Queisser, 2020^[51]).⁷

Although more needs to be done, progress in combating intimate partner violence has been significant in Estonia (WAVE, 2019^[52]; Equal Treatment Network in Estonia, 2021^[53]), in each of the three policy areas viewed as critical to remedy and prevent such violence, i.e. victim support, criminalisation of intimate partner violence and its enforcement, and work with perpetrators to avoid recidivism (Queisser, 2020^[51]). These achievements have notably been possible thanks to a whole-of-government approach that materialises through the close collaboration of five key stakeholders: the Ministry of Interior, the Ministry of Justice, the Ministry of Social Affairs, the prosecution authority, and the police.

Yet, awareness of the Estonian public that intimate partner violence is an issue and justifies action against it remains low. While nearly a majority of respondents (59%) in OECD countries that are also part of the EU reported in 2019 being “very willing” or “willing” to intervene when witnessing an incident of intimate partner violence, this was the case of only a small minority of respondents in Estonia (37%) (Figure 6.3). This share that prevails in Estonia is half the one observed in Spain where the government’s mobilisation to avoid that domestic violence be considered a private matter to be resolved within the confines of the home notably translated through more than 1.5 billion Euros spent on the “National Strategy for the Eradication of Violence against Women” during the 2013-16 period (See https://violenciagenero.igualdad.gob.es/planActuacion/estrategiaNacional/docs/Estrategia_Nacional_Ingl_es.pdf).

Figure 6.3. Willingness to take an active role in combating intimate partner violence is low in Estonia

Share of respondents who report being “very willing” or “willing” to intervene when witnessing an incident of intimate partner violence, 2019



Source: European Union Agency for Fundamental Rights (2020), Fundamental Rights Survey 2020, <https://fra.europa.eu/en/data-and-maps/2021/frs>.

Against this backdrop, it appears essential to intensify efforts to induce every Estonian citizen to stand up against gender-based violence (in particular, intimate partner violence), and thus against the norms that fuel it. One way to achieve this objective could be, as it is planned in the violence prevention agreement for years 2021-25, to continue organising yearly awareness-raising events with large media coverage on strategic dates, e.g. on the International Day for the Elimination of Violence against Women (25 November). These events should allow not only informing the public about action taken by Estonian authorities to combat gender-based violence, but also clarifying why these policies are undertaken by highlighting their significant returns in terms of social and economic well-being (EIGE, 2014^[54]; EIGE, 2021^[55]).

It is also important to promote the victim support services and reporting mechanisms at the disposal of the public. This approach would encourage victims, witnesses, as well as (potential) perpetrators to report the violence they undergo, witness, or (intend to) perpetrate, and thus to become a game-changer in the fight against gender-based violence. Estonia meets the Istanbul Convention standards of national women’s helpline service provision (Box 6.8). There is one national women’s helpline in Estonia called Ohvriabi Kriisitelefoni (Victim’s Crisis Helpline; tel.: +372 116 006) that the Social Insurance Board Victim’s Support Unit is responsible for running and overseeing. The helpline is free of charge, available 24/7 and provides multilingual support – languages available are Estonian, Russian and English. However, this helpline is not advertised in the framework of regular multilingual awareness-raising campaigns. Moreover, there is no information campaign that regularly reminds (potential) witnesses of the life-saving role they can play by calling emergency numbers whenever they hear or see a person being beaten or violently threatened by a current or former partner. Finally, it is critical to better publicise the hotline maintained by the Social Insurance Board to help (potential) perpetrators of domestic violence avoid (re)taking action (<https://sotsiaalkindlustusamet.ee/en/victim-support/support-line>).

Box 6.8. The Istanbul Convention's standards regarding national women's helplines

The Council of Europe Convention on preventing and combating violence against women and domestic violence, better known as the Istanbul Convention (IC), is a human rights treaty of the Council of Europe against gender-based violence which was opened for signature on 11 May 2011, in Istanbul, Türkiye. The IC aims at zero tolerance for such violence and has been signed by 45 countries as of 2019, including Estonia (who is also among the 35 countries who ratified the IC).

The IC specifies in Article 24 that “parties shall take the necessary legislative or other measures to set up state-wide round-the-clock (24/7) telephone helplines free of charge to provide advice to callers, confidentially or with due regard for their anonymity, in relation to all forms of violence covered by the scope of this Convention”. The Explanatory Report further stresses the recommendation, that every country should establish at least one free national helpline covering all forms of VAW operating 24 hours a day, seven days a week and providing crisis support in all relevant languages.

National women's helplines are in many cases the first point of contact for a woman who is experiencing gender-based violence and looking for support. The relative anonymity of this support often encourages and enables women who would find it difficult to seek help in person, to make a first vital step towards safety. National women's helplines provide immediately accessible help for both women who are, for example, intending to leave a violent relationship, as well as to those who are not yet ready to leave and who can, with the support of telephone advice, plan the necessary steps towards leaving or even just increase their overall safety in their current situation. This applies especially to women in rural and/or remote areas, where other specialised support services may not be available in the immediate vicinity.

Source: WAVE (2019^[52]), WAVE Country Report 2019: The Situation of Women's Specialist Support Services in Europe, www.wave-network.org.

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Notes

¹ Based on the definitions advanced by the Declaration on the Elimination of Violence Against Women (OHCHR, 1993^[56]) and by the Istanbul Convention (Council of Europe, 2011^[57]), gender-based violence includes sexual violence and domestic violence, i.e. violence perpetrated by a current or former partner, or by other family members. Evidence shows that gender-based violence is disproportionately perpetrated against women.

² In some countries, the gender lens has been even more pronounced. In Norway, the Norwegian Men in Health Recruitment Programme was set up to recruit (unemployed) men aged 26-55 to the health and care sector. It entails eight weeks of guided training as health recruits in a regional health institution or health care service. The Programme has been very effective in steering more men towards careers in LTC (OECD, 2020^[37]).

³ ICT specialists refer to workers who have the ability to develop, operate and maintain ICT systems (and for whom ICT constitute the main part of their job).

⁴ Indeed, according to a survey conducted in Estonia in 2013 among 517 first-year university students in ICT-related curricula, having had concrete (and fun) experience with ICT (through web page design, games and software programming, or computer building) is the “breaking point” most cited by students to explain their interest in ICT. More than one-third (36%) view this direct experience as instrumental, as compared to only 2% who report that “earning a good salary” was the main reason behind their choice (Kori et al., 2015^[58]).

⁵ These estimates stem from analysing the entire universe of individuals below 18 who attend public hobby schools, i.e. basic education public schools who offer hobby education after regular curricular instruction as well as local government establishments operating in the area of youth work. See <https://www.haridussilm.ee/ee/huviharidus/oppivad-isikud>.

⁶ See also the OECD gender budgeting framework (<https://www.oecd.org/gov/budgeting/gender-budgeting.htm>) and the OECD toolkit for mainstreaming and implementing gender equality (<https://www.oecd.org/gender/governance/toolkit/>).

⁷ Against this backdrop, the OECD is mobilising against gender-based violence. In February 2020, OECD Ministers and other global leaders joined to discuss how to prevent, address, and eradicate violence against women (OECD, 2020^[49]). Moreover, the OECD is undertaking a research project in 2021-22 on: (i) mainstreaming gender-based violence concerns throughout government; (ii) integrated service delivery for survivors; and (iii) improving gender-based violence data collection.

7 Gender equality pays in Estonia

The gender gaps on the Estonia labour market remain stubbornly persistent and have not noticeably decreased over the past two decades. This chapter assesses past economic gains from increases in female employment and includes projections of potential economic growth under a range of different labour market scenarios for men and women in Estonia. Section 7.2 considers the labour market position of Estonian men and women and discusses gains that have been made from increasing female employment in Estonia and selected OECD countries. Section 7.3 provides two separate assessments of the potential economic gains from closing gender gaps: i) a cross-country assessment of the economic gains from partially or fully closing gender gaps in labour force participation and working hours by 2050 in Estonia and selected OECD countries, and ii) an analysis of country-specific scenarios on potential economic output.

7.1. Introduction and main findings

Women's employment is an important contributor to economic performance across countries. The persistence of unequal chances of labour market success for men and women does not only go against the moral imperative of gender equality on the labour market and in society as a whole, it also entails significant economic costs by excluding talents from the labour market and by preventing many among those employed from realising their full productive potential.

Women's labour input and the utilisation of their talent, boost national output considerably, and increasing labour market participation of women across the OECD has therefore been an important driver of economic growth over past decades (see e.g. OECD (2018_[1])). But how important have changes in women's employment outcomes been for Estonia? To answer this question, this chapter looks at employment trends for men and women in Estonia and selected neighbouring countries over the past 20 years, and based on the changes in these outcomes, estimates their relative contribution to the growth in economic output. Subsequently, the chapter looks at different future labour force scenarios for men and women and how these could potentially affect economic development in the years to come.

The chapter relies on two frameworks to measure the importance women's employment on past economic output and the potential for additional future growth. The first framework uses growth accounting – a procedure used to identify and decompose the sources of past economic growth. With this, it is possible to account for the contribution increases of women's labour market engagement had for economic growth over the past 20 years, which has been quite substantial for Estonia. The second framework uses the OECD long-term growth model to estimate the impact of greater gender equality on the labour market for future economic output. The exercise draws on hypothetical scenarios of convergence between men's and women's employment rates, working hours, productivity and life expectancy, and reports the deviations from the baseline in terms of GDP per capita growth.

7.2. Women's employment and past economic growth

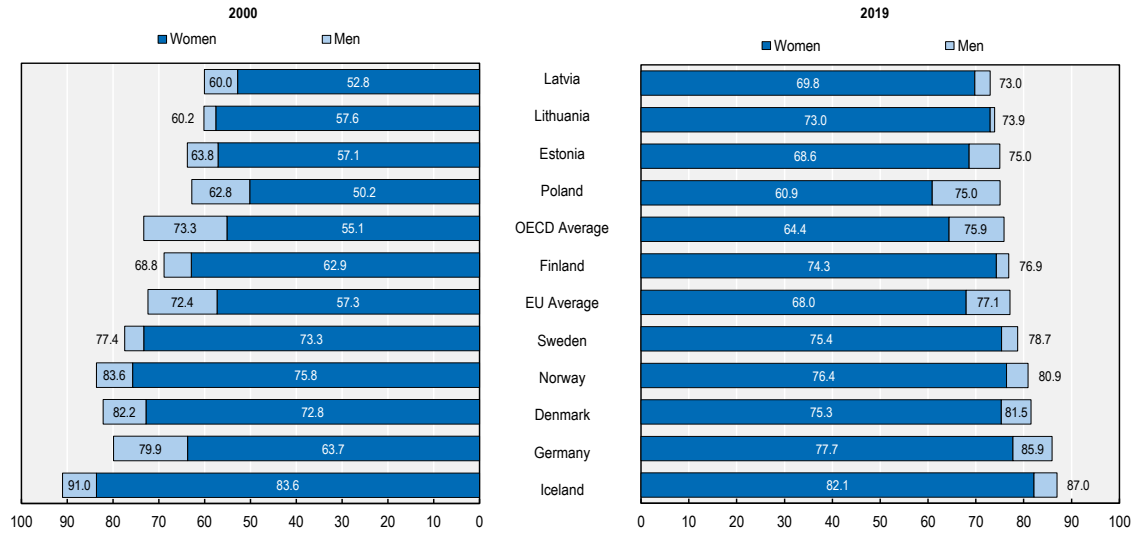
7.2.1. The labour market outcomes of Estonian men and women over the past 20 years

The previous chapters have shown that gender gaps on the Estonian labour market remain stubbornly persistent. Even though the gaps in employment rates and working hours are comparatively small in relation to the OECD average, the past 20 years have not shown a substantial reduction of gender gaps in employment rates and working hours. For example, based on National Accounts data estimates, 75% of Estonian men and 69% of Estonian women aged 15-64 were employed in 2019 (see Figure 7.1). For women, this is slightly above the OECD average, though the gap between men and women in Estonia is hardly different from where it stood in 2000 (7 percentage points). While men's employment rates are generally higher than women's employment rates across the OECD, some other countries have seen a convergence of the two. In Germany, for example, the gender gap in employment rates was halved over the past two decades (from 16 to 8 percentage points).

Despite generally stronger decreases in men's working hours, the total hours worked by male employees are still higher than those of female employees across all countries (see Figure 7.2). However, in Estonia, the difference between male and female working hours is noticeably smaller than for the OECD and EU average – while Estonian women worked for about 1 829 hours per year in 2019, men worked only 121 hours more (1950 hours). Despite being small, this gap has not closed over the past 20 years, contrary to some other countries. For example, the large working hour's gap in Iceland shrunk from 653 hours in 2000, to 309 hours in 2019. Over the same period, women's working hours increased in Lithuania, Norway and Sweden.

Figure 7.1. Gender employment gaps have narrowed in many countries, but not in Estonia

Employment-to-population rate, 15-64 year-olds, selected OECD countries, 2000-19, National Accounts Data

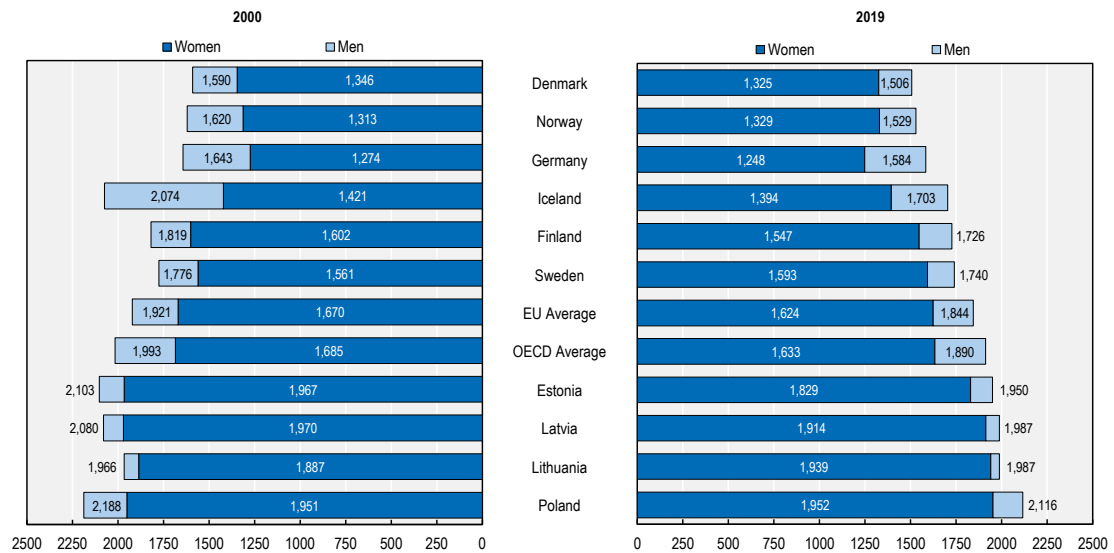


Note: The figure is based on the National Accounts data, which provide cross-country macroeconomic indicators on economic output and input factors. Employment input in the National accounts may differ from Labour Force Survey estimates – for various coverage, definitional and methodological reasons (see e.g. Ward, Zinni and Marianna (2018^[2])). The OECD and EU averages only include countries for which the necessary data for the growth accounting exercise is fully available between 2000 and 2019. The OECD average here does not include Australia, Chile, Colombia, Costa Rica, the Czech Republic, Japan, Korea, Luxembourg, Mexico, New Zealand, and Türkiye. The EU average does not include EU countries that do not belong to the OECD, Luxembourg, and the Czech Republic. See Annex 7.B for more detail.

Source: OECD estimates based on data from the OECD National Accounts Database, <http://www.oecd.org/std/na/> and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

Figure 7.2. The decline in men’s working hours outpaced that of women, but less so in Estonia

Average annual hours worked per employee, 15-64 year-olds, selected OECD countries, 2000-19, National Accounts Data



Note: The figure is based on the National Accounts data, see notes to Figure 7.1. See Annex 7.B for more detail.

Source: OECD estimates based on data from the OECD National Accounts Database, <http://www.oecd.org/std/na/> and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

Accounting for the link between women's employment and past economic growth

To what extent have changes in women's labour input contributed to past economic growth? To answer this question, this section draws together historical time-series on macroeconomic performance and women's employment, and combines them with a growth accounting exercise (for an overview see Box 7.1). In this exercise, growth in GDP per capita is decomposed into parts that can be accounted for by changes in: labour productivity, the working-age share of the population, as well as male and female headcount employment and total annual hours worked by men and women aged 15 to 64 (see Annex 7.B for more on methods and detail).

Some limits to this exercise are important to state at the outset. For instance, the estimates shown here do not account for the impact of any changes in female paid work on unpaid work and household production, which has considerable, though not monetarily remunerated, economic value in itself (see e.g. OECD (2021^[3])). As a result, the estimates may overstate the boost to actual living standards enjoyed by households that follows an increase in women's employment. Estimates also do not account for any gender differences in productivity, and implicitly assume that one additional hour of labour input produces the same output regardless of sex, age, education, and/or any other factor. The growth accounting exercise is also predominantly based on National Accounts data (OECD, 2021^[4]), which are not always fully consistent with estimates from Labour Force Surveys – for various coverage, definitional and methodological reasons (see e.g. Ward, Zinni and Marianna (2018^[2])).

Increases in female employment outcomes across the OECD have been an important driver of economic growth over the 20 years between 2000 and 2019. Figure 7.3 and Annex Table 7.A.1 summarise results from the growth accounting exercise for Estonia and selected neighbouring OECD countries, by presenting the average annual growth in GDP per capita (in percentage) and the percentage point contribution of each included component. With output increasing about 3.93% on average per year, Estonia has enjoyed considerable economic growth over this period, well above the OECD total (1.20%) and comparable to its direct neighbours in the Baltic countries (Latvia and Lithuania).

While increases in labour productivity had the greatest impact on economic growth across the OECD overall (+1.20 percentage points), increases in female employment have been important as well (+0.28 percentage points). Overall, women's employment has been particularly important in countries with generally higher average annual growth, such as Estonia's Baltic neighbours Latvia (+0.72 percentage points) and Lithuania (+0.61 percentage points). Despite seeing much more modest growth, Finland and Germany also benefitted considerably from increases in women's employment (+0.40 p.p. and +0.47 percentage points, respectively), predominately driven by large increase in the female employment rate. In the other Nordic countries, much of the increase in female employment rates were realised before 2000, and are thus less important for the time-frame considered here (see OECD (2018^[1])).

With particularly stable gender employment gaps in Estonia however, the economic growth of the past 20 years has been driven more by changes in male employment (+0.57 percentage points) than by changes in female employment (+0.40 percentage points). The main reason for the weaker contribution of female than male employment on economic growth is the change in the female working-age population. To illustrate this, Annex Table 7.A.2 further decomposes the gender-disaggregated employment components of the growth accounting exercise into a part attributable to changes in the male and female employment rates and a part attributable to changes in their share of the working-age population. In Estonia, the female share of the working-age population has been shrinking between 2000 and 2019, such that the population aged between 15 and 64 is now made up of equal parts men and women. The decline in the female working-age share relative to that of men dampened the positive contribution of female employment rates alone, which sum up to 0.49 percentage points of annual growth (the "raw" effect of employment rates), by 0.09 percentage points.

Box 7.1. Measuring the contribution of changes in women's employment to economic growth

The analysis in this section is based on growth accounting – a procedure used to identify and decompose the sources of past economic growth. A detailed overview of the procedure is given in Annex 7.B, but the basic idea is to use information on observed trends in macroeconomic indicators to split growth into its main components parts – that is, under standard macroeconomic theory, into labour, capital, and total factor productivity (Solow, 1956^[5]). Data permitting, the contribution of each of these main components can then be further decomposed into their sub-components. For example, the contribution of labour input to growth can be split between changes in employment in the different sectors of the economy, while the contribution of capital can be divided between ICT-related capital (e.g. computer hardware, telecommunications equipment, and computer software) and non-ICT capital (more traditional forms of capital, like machinery and transport equipment).

In this report, the focus is on the contribution of labour input to economic growth and, in particular, on the contribution of women's labour input. Growth accounting is used to identify and separate the contribution of labour from the other two main components – capital and total factor productivity, from here on labelled together as “labour productivity” – and then to decompose the contribution of labour input itself. Labour input is, in this instance, separated into three parts: changes in the size of the working-age population, the employment rate, and average hours worked per employed person. The contributions of changes in both the employment rate and average working hours are decomposed by gender and, where possible, by age group too. These two factors are where the main interest lies as they provide information on the extent to which changes in men's and women's employment rates and working hours have contributed to economic growth.

Note: See OECD (2018^[1]) for a previous growth accounting exercise that focussed on the Nordic countries.

Except for Denmark, declines in the female working-age share are present in all other presented countries, and thus dampen the positive contribution of raw female employment increases, though this effect is weaker than in Estonia (Annex Table 7.A.2). These small changes in the gender-composition of the working-age population can, for example, in part be attributed to the moderate convergence of life expectancy for men and women for most age groups across the OECD (see e.g. *OECD Health Database* or Raleigh (2019^[6])).

For Estonia and most of its neighbours, the total working hours of men and women in have been decreasing since 2000 (see Figure 7.2). In these countries, changes in working hours generally had a dampening effect on economic growth as the total labour input per worker diminished. In most countries, the reduction of men's working hours was greater than for women's working hours. In Germany and Lithuania, increases in female working hours had a positive effect on the average annual GDP per capita growth. Across the OECD, changes in men's working hours reduced average annual growth by 0.32 percentage points, while changes in women's working hours increased growth by 0.03 percentage points per year.

The development in Estonia stands in contrast to its neighbours and the OECD overall. Here, the changes in women's working hours (-0.26 percentage points) have reduced economic growth stronger than changes in men's working hours (-0.16 percentage points), while the “raw” decrease in hours worked per year was very similar for men and women (see Figure 7.2). Similar to the employment component discussed above, this can mainly be attributed to the decrease of women's share among the working-age population, which decrease women's share of the employed labour force – even as the employment rates of men and women grew at a similar pace. A further decomposition of the gender-disaggregated working hours, therefore, shows that as the female share of all employed in the Estonian labour force has decreased between 2000 and 2019, it reduced average growth by 0.07 percentage points per year (see

Annex Table 7.A.3). As a result, the female share of the working hours component in the growth accounting exercise shrunk between 2000 and 2019, increasing the negative effect of the “raw” decrease in female hours worked (-0.19 percentage points) further. With the decrease in the female employed labour force, the male share of the employed labour force increased and thus the stronger “raw” effect of the reduction of male working hours (-0.23 percentage points) is dampened somewhat. An opposite pattern can be observed in Germany, where the contribution of the raw decrease in female working hours on average annual economic growth was negative (-0.04 percentage points), but the strong increase in the female share of the employed labour force makes the economic contribution of female working hours positive (+0.09 percentage points).

Figure 7.3. Gains in female employment have been an important driver of GDP growth (2000-19)

Average annual rate of growth in GDP per capita (%) and disaggregation of growth into its primary components, Estonia and selected OECD countries, 2000-19



Note: Estimates based on the decomposition of national accounts data using labour force survey estimates. See notes to Figure 5.1 for OECD and EU totals. See Annex 7.B for more detail.

Source: OECD estimates based on data from the OECD National Accounts Database, <http://www.oecd.org/std/na/> and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

7.3. Closing gender employment gaps and their potential impact on economic growth

The following sections of this chapter look to the future and aim to project how much Estonia could gain from closing remaining gender gaps in employment outcomes. It concentrates first on the potential economic gains from partially or fully closing gender gaps in labour force participation (LFP) rates and working hours for Estonia and selected OECD countries. In a second step, the chapter zooms in on Estonia in detail by considering potential economic effects of weakening some of the underlying gender norms that drive gender gaps on the countries labour market (e.g. differences in unpaid work and educational choices), as well as the considerable difference in life expectancy and healthy life years between men and women.

The potential impact of a narrowing of the gender gaps in labour market outcomes works primarily through an increase in labour input, through rising women's aggregate working hours or growing the female labour force. More equal gender norms work predominately through increased access to more productive jobs for women, following more equal sharing of unpaid work at home and less gender stereotyping in educational choices, as well as increased female bargaining power and reduced bias and discrimination by employers. These changes also have spill-over effects to other employment outcomes, as increased access to more productive jobs could increase wages among women, which in turn could attract more women to enter the labour force.

The projections presented in this chapter follow simplified calculations based on the OECD Long-Term Model (Guillemette and Turner, 2018^[7]; 2021^[8]) and the OECD's in-house labour force projection models. They take the OECD's standard baseline projections until 2050 for both the size of the labour force between ages 15 and 74 and economic output and adjust estimates following a range of scenarios about future labour market development. These scenarios are based on a given set of assumptions about changes in the gender gaps in LFP rates, working hours, life expectancy as well as hourly wages and labour productivity. A detailed methodology that underlies the projections is available in Annex 7.B.

Similar to the growth accounting exercise above, these projections have clear limitations. For example, the resulting estimates are mechanical only and assume that any changes in LFP rates or working hours do not interact with factors outside of the model or have any indirect effects beyond its scope. In addition, only the detailed scenarios assume differences in male and female productivity. For technical reasons, the measures and units used here differ slightly from those used in the growth accounting exercise – while the earlier results included the 15-64 year-old age group, the estimates here are based on the 15-74 year-old age group. This is done to help ensure compatibility with the inputs used for the OECD's standard long-term growth models and because the participation of over-65 workers is likely only to increase in importance in future decades (OECD, 2020^[9]; Geppert et al., 2019^[10]). The outputs of the OECD's in-house labour force projection models used here also project LFP rates, rather than employment rates. As a result, all economic production is presented as *potential* economic output (potential GDP per capita), which refers to economic output at full-employment of all members of the labour force.

In addition, the labour market projections for LFP rates and working hours used in this exercise are based on Labour Force Survey data, in contrast to the National Accounts data used on the growth accounting framework. As mentioned above, these sources are not always perfectly consistent with each other, but both are necessary for the respective exercises presented here. As a result, some of the presented figures presented in the dedicated sections may differ from each other. For example, the LFP rates based on the National Accounts data tend to be slightly higher than those based on Labour Force Surveys (Ward, Zinni and Marianna, 2018^[2]).

7.3.1. Closing gender gaps in labour market outcomes: basic scenarios

The basic growth scenarios model changes in the gender gaps in labour force participation and working hours for Estonia and selected OECD countries, including Latvia and Lithuania and Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), as well as Germany and Poland. These scenarios offer a cross-country perspective of the potential for additional economic growth that a closing of the present gaps may hold by 2050. The assumptions in this set-up are straightforward: The necessary adjustment for gender gaps in LFP and working hours to close is assumed to occur linearly between the projection start year (2020) and two target years (2035 and 2050). The basic scenarios do not say anything about the mechanism underlying the narrowing of gender gaps in the labour market. The section that zooms in on Estonia below has a closer look at potential drivers of narrowing gender gaps.

Closing gender gaps in labour force participation holds growth potential

In an initial step, the basic scenarios are modelled following slightly adapted and extended prescriptions of the G20 Brisbane declaration of closing the gender gap in employment 25% by 2025 – a benchmark target for international progress on gender equality in labour participation established by the G20 in 2014 (ILO, IMF, OECD and World Bank Group, 2014^[11]). In the adapted target for this projection exercise, starting from the year 2020, this goal is pushed to 2035 and complemented with a target that closes 50% of the gap by 2050 in *Scenario A*, as well as a set of more ambitious goals in *Scenario B*:

- *Baseline*: The baseline scenario, where LFP rates of men and women (aged 15-74) are estimated using the OECD's standard dynamic age-cohort model, which projects participation rates (by gender and five-year age groups) based on current (2016-20) rates of labour market entry and exit. This scenario services as the reference or business-as-usual scenario.
- *Scenario A*: gender LFP gaps reduced by 25% by 2035 and by 50% in 2050. In this scenario, within each five-year age group, the LFP rate of the gender group with the highest probability of being in the labour force is held at the baseline and the LFP rate of the gender group with the lowest probability of being in the labour force is projected so that the gender LFP gap falls by 25% by 2035, and 50% by 2050 in each five-year age group relative to the baseline.
- *Scenario B*: gender employment gaps reduced by 50% by 2035 and by 100% in 2050. In this scenario, within each five-year age group, the LFP rate of the gender group with the highest probability of being in the labour force is held at the baseline and the LFP rate of the gender group with the lowest probability of being in the labour force is projected so that the gender LFP gap falls by 50% by 2035, and 100% (i.e. is fully closed) by 2050 in each five-year age group relative to the baseline.

Figure 7.4 shows how the aggregate labour force participation rate could evolve in Estonia and selected other OECD countries under each of the scenarios across the projection period between 2020 and 2050.

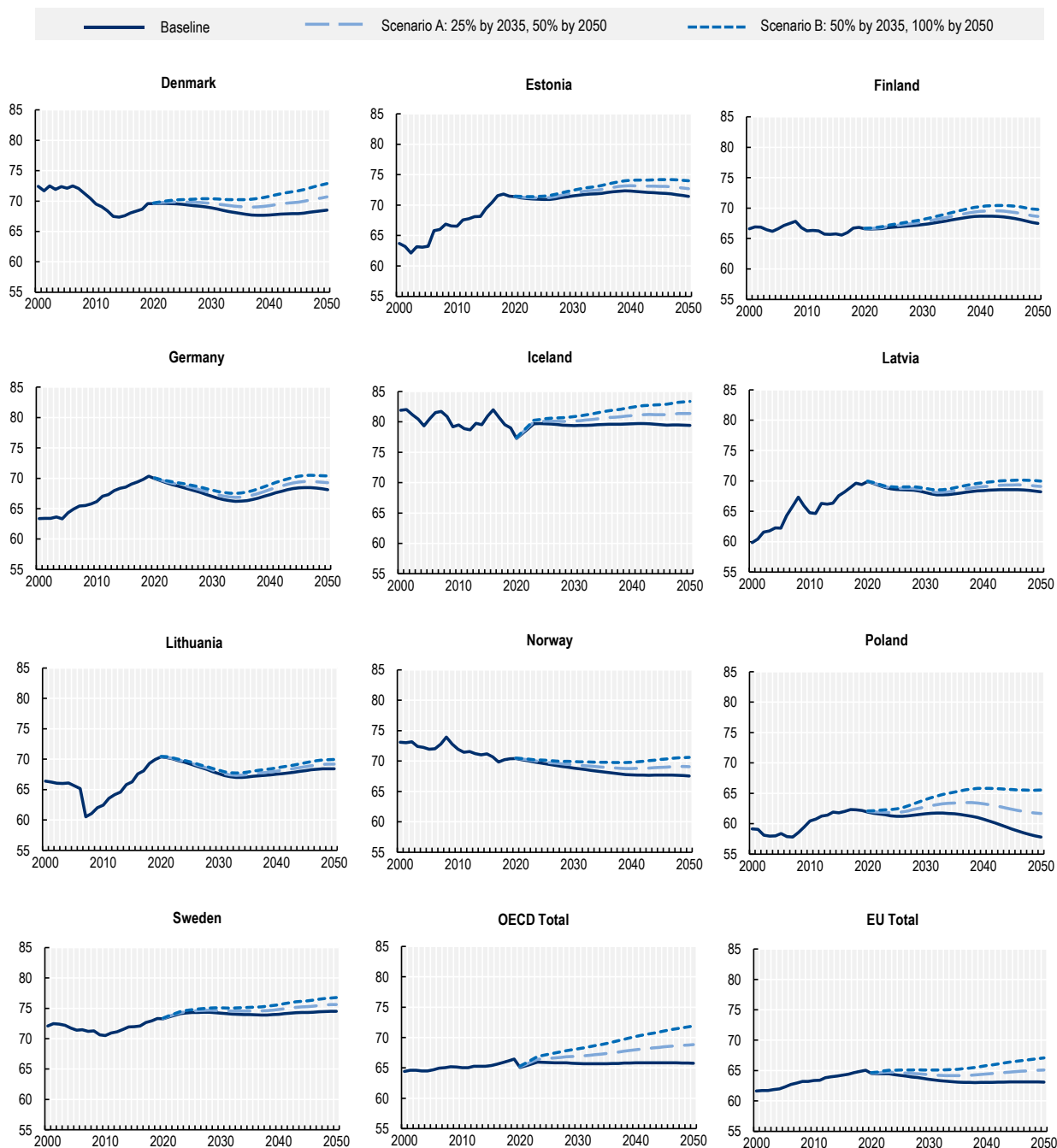
Over the early 2000s and well into the 2010s, the LFP rates in Estonia and Latvia rose between 8 and 10 percentage points, as both men and women increased their labour force participation over this period. This pattern is broadly similar to Germany but contrasts with the developments of potential employment in the Nordic countries, where over the same period Denmark, Finland and Norway experienced a decline in LFP rates while these stagnated in Iceland and Sweden. In Latvia and Lithuania, LFP-rates dropped sharply with the financial crisis at the end of the 2000s, but they have since increased to a level comparable with LFP-rates in Estonia. The increase of labour force participation in the three Baltic countries over the 2000-19 period outpaced the rise in labour force participation across the EU and the OECD on average.

The baseline labour force projections from 2020 until 2050 point to rather stable LFP rates for Estonia, but also for Iceland and Sweden, as well as to a limited degree in the OECD overall. Some countries are projected to experience small decreases in LFP-rates well into the 2030s, which are then followed by a slight increase towards 2050 (e.g. Germany, Latvia and Lithuania). In all three of these countries, the LFP rate levels are projected to fall only slightly below 2020 levels by the year 2050. Poland, which already has the lowest LFP-rates among the presented countries, may see their labour force participation fall by a further 5 percentage points by 2050.

One major driver of these labour force trends for all countries are the projected demographic changes over the coming decades. As populations age, a lower population-share will be of working-age (age 15-64), and thus, even a constant LFP-rate at each age will eventually lead to a decrease of aggregate labour supply in a given country as labour force participation usually declines for those beyond 65 years of age. In Estonia for example, about 64% of the population was aged 15-64 in 2020, while demographic projections estimate a fall to 59.5% by 2050. Similar developments can be observed in virtually all countries presented here.

Figure 7.4. Closing gender gaps in labour force participation: basic scenarios

Actual (2000-19) and projected (2020-50) labour force participation rate under different gender gap scenarios, 15-74 year-olds, 2000-50, Estonia and selected other OECD countries, percentage



Note: Data based on Labour Force Surveys and OECD in-house labour force projections, see Annex 7.B. The OECD and EU totals are the weighted total across all OECD and EU member countries. For the OECD total, data for Türkiye is missing.

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ, the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>, and Employment Projections,.

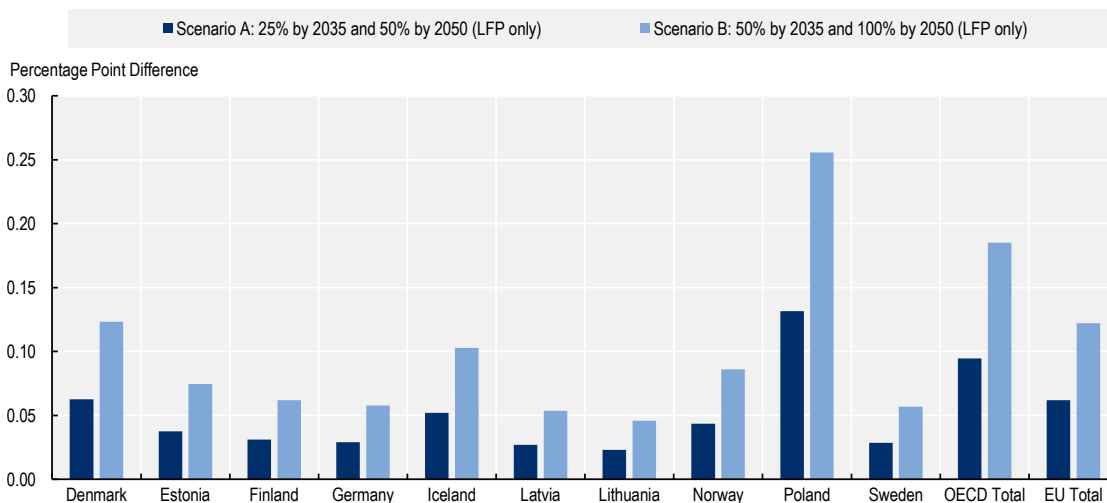
At the same time, low fertility rates in the past affect how many people enter the labour force a couple of decades later. This negatively affects LFP-rates over time. In Estonia (1.85) and Latvia (1.75), average

total fertility rates since the latter half of the 20th century (1950–2015) have been below the TFR in Lithuania (2.01) (Manakov, Suvorkov and Stanaitis, 2017_[12]). While more recent figures in these countries– 1.66 in Estonia as well as 1.61 in Latvia and Lithuania in 2019 – coincide with or fall slightly above the OECD total (1.61), they are well below levels that can offset population ageing and therefore result in a shrinking workforce and LFP rate (*OECD Family Database*). However, in some cases, recent trends in labour participation also play a role, especially those among young people in education. In Estonia, for example, labour force participation rates for young people in their early 20s (20–24 year-olds) has fallen in recent years, partly because they are staying longer in education and thus enter the labour force at a later age.

Closing gender LFP gaps and boosting female employment can reduce these expected declines in the overall LFP rate, or spur on additional increments to projected LFP-rate increases (Figure 7.4). As growing labour input increases economic production, rising female labour force participation towards male participation will increase total economic output. Figure 7.5 and Annex Table 7.A.4 show that the annual potential GDP per capita growth is projected to increase when gender gaps in labour force participation narrow and effects are particularly pronounced when the gender gap is assumed to be closed fully by 2050 (Scenario B).

Figure 7.5. Closing gender gaps in labour force participation will spur economic growth

Estimated difference relative to the baseline in the projected average annual rate of growth in potential GDP per capita over the period 2020–50, different gender gap scenarios (narrowing gender gaps in labour force participation only), percentage points, Estonia and selected other OECD countries



Note: See Annex 7.B for a description of the methods and data used. The OECD and EU totals are the weighted total across all OECD and EU member countries. For the OECD total, data for Türkiye is missing.

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ, the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>, and Employment Projections; and the OECD Long-Term Growth Model, <https://doi.org/10.1787/b4f4e03e-en>.

However, the magnitude of the potential increase in labour force participation varies across countries. The size of the effect naturally depends on the initial size of the gender employment gap. As such, countries with small differences in men's and women's labour force participation rates at baseline only record a limited effect. For example, Lithuania could expect 0.02 percentage points additional growth in potential

GDP per capita per year in Scenario A and 0.05 percentage points in Scenario B. Estonia, has a slightly larger gender LFP gap at baseline, thus it could expect 0.04 percentage points or 0.07 percentage points of additional growth per year under the respective scenarios. This is noticeably smaller than the OECD (0.09 percentage points and 0.19 percentage points, respectively) and the EU total (0.06 percentage points and 0.12 percentage points, respectively). Of the countries presented, Poland could expect the largest increases in annual GDP growth, reaching up 0.13 and 0.26 percentage points in the respective scenarios. Despite lower gender LFP gaps in 2019, Denmark and Iceland see a smaller baseline convergence of men's and women's labour force participation rates until 2050 than Germany, where the gender gap in the LFP is projected to almost half over this period. Thus, the scenarios that close gender LFP gaps in Germany have a lower effect on economic growth relative to baseline than Denmark and Iceland. The accumulated boost for the Estonian potential GDP per capita ranges from 1.2% in Scenario A to 2.3% of additional potential output per capita in Scenario B in 2050.

Closing gender gaps in working hours would have limited effect on growth in the three Baltic countries

This section considers a narrowing of the working hours gap between men and women in combination with a narrowing of gender gaps in labour force participation (see Annex 7.B for details). The following working hours scenarios are considered first:

- *Scenario C:* gender working hour gaps reduced by 25% by 2035 and by 50% in 2050. In this scenario, within each five-year age group, the weekly working hours of the gender group with the highest hours are held at the baseline and the weekly working hours of the gender group with the lowest hours are projected to increase so that the gender working hour gap falls by 25% by 2035, and 50% by 2050 in each five-year age group relative to the baseline.
- *Scenario D:* gender working hour gaps reduced by 50% by 2035 and by 100% in 2050. In this scenario, within each five-year age group, the weekly working hours of the gender group with the highest hours are held at the baseline and the weekly working hours of the gender group with the lowest hours are projected to increase so that the gender working hour gap falls by 50% by 2035, and 100% (i.e. is fully closed) by 2050 in each five-year age group relative to the baseline.

Figure 7.6 shows the average weekly working hours fell or remained broadly stable until 2020 for all selected countries. The baseline scenario assumed that average hours of work remain stable within each 5-year age group (see Annex 7.B). Any dynamics that are visible after 2020 are thus fully driven by demographic changes, but remain marginal in all cases.

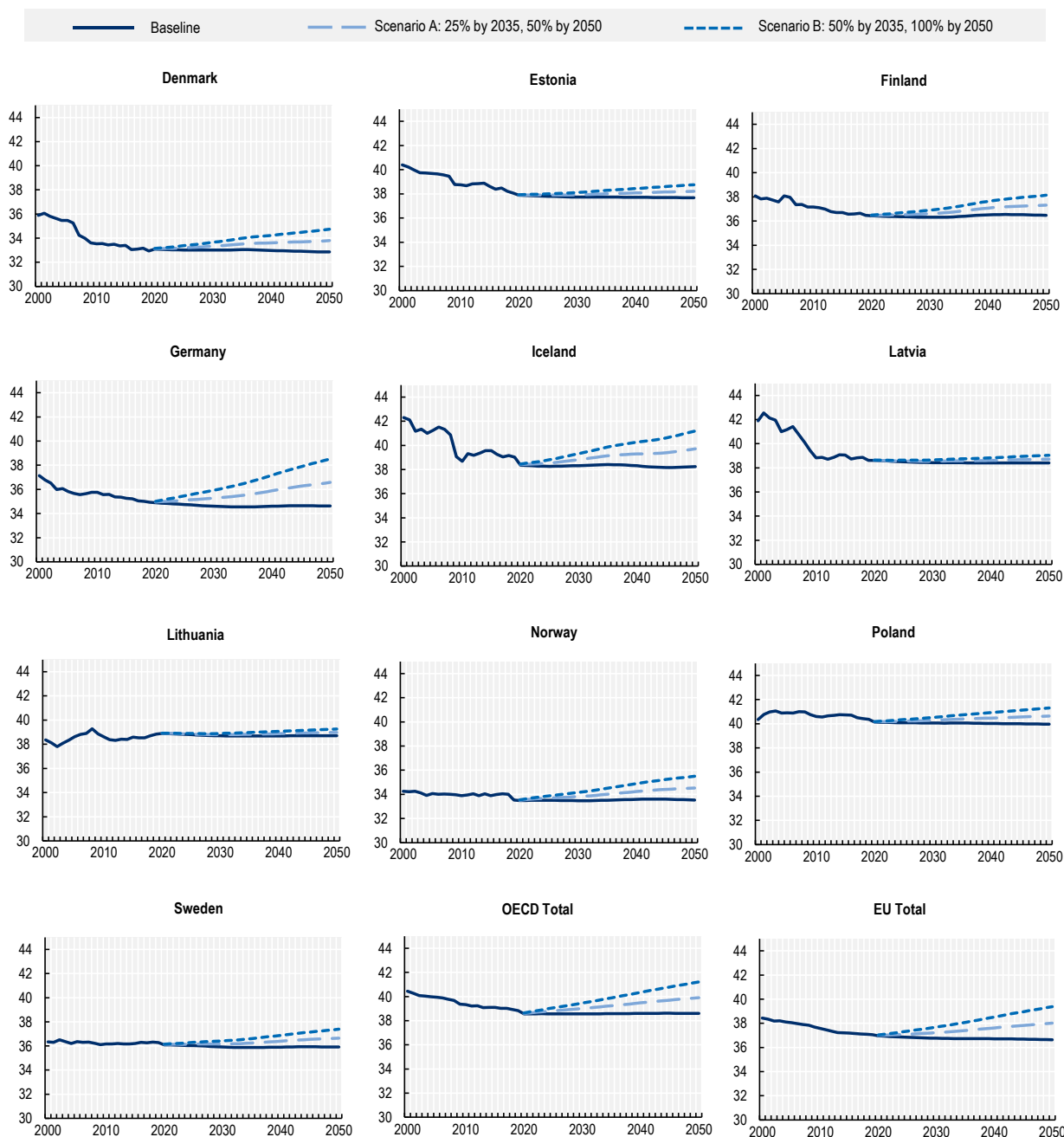
While most Nordic countries have small gender gaps in labour force participation rate relative to the OECD total (see above), there are larger gaps between men and women in terms of working hours in some of these countries. For example, in 2020 Icelandic men worked 42.1 hours per week, while Icelandic women worked for only 34.6 hours. At the same time, men worked an average of 41.3 hours and women 35.1 hours per week across the OECD. In contrast, the Baltic countries have particularly small gender gaps in working hours. In Estonia, for example, men worked an average of 39.1 hours per week, while women did so for 36.7 hours. As a result, the Baltic countries see very limited changes in average weekly working hours when closing the gender gap working hours, while the Nordics and the OECD overall exhibit more noticeable changes under the different scenarios.

One of the reasons for the differences between Baltic and Nordic countries is the substantially lower incidence of part-time work among women in Estonia, Latvia and Lithuania (Riekhoff, Krutova and Nätti, 2019^[13]). While 13% of Estonian women work part-time, 24% of Danish women did so in 2020, with comparable patterns across the other Baltic and Nordic countries (OECD, 2021^[14]). In conjunction with generally shorter work weeks (e.g. 37 hours in Denmark), average working hours in the Nordic countries – except for Iceland – are thus well below the Baltic countries, yet relatively close to the OECD total (36.4 hours). The largest effects on potential labour force participation in terms of persons *and* hours are

projected for Germany, where part-time work is more common among women than in Nordic countries (OECD Employment Database).

Figure 7.6. Closing gender gaps in working hours: basic scenarios

Actual (2000-19) and projected (2020-50) average weekly working hours under different gender gap scenarios, 15-74 year-olds, 2000-50, Estonia and selected other OECD member countries

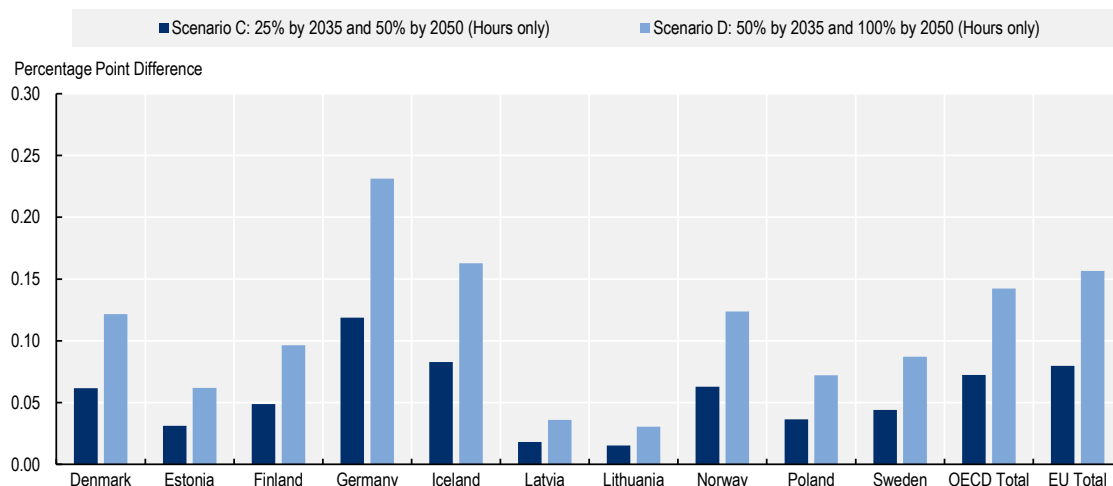


Note: Data based on Labour Force Surveys and OECD in-house labour force projections, see Annex 7.B. The OECD and EU totals are the weighted total across all OECD and EU member countries. For the OECD total, data for Türkiye is missing.
 Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>, and Employment projections.

In view of the limited effects of closing gender gaps in working hours in Baltic countries, the associated projected changes to average annual potential GDP per capita between 2020 and 2050 are also relatively small (Figure 7.7 and Annex Table 7.A.4). While the OECD may grow by additional 0.07 percentage points per year in Scenario C and 0.14 percentage points in Scenario D, this would only be 0.03 percentage points and 0.06 percentage points for Estonia, respectively. In contrast, the Nordic countries and Germany could potentially benefit much more from a narrowing of the gender gap in working hours. Germany, for example, would see additional 0.12 percentage points of annual growth when closing the working hour gap by half, and 0.23 percentage points when closing it completely by 2050. The latter would correspond to a total accumulated difference in the potential GDP per capita of 7.4% in 2050, while for Estonia it would be much smaller with 1.9%.

Figure 7.7. Closing gender gaps in working hours shows similar growth potential

Estimated difference relative to the baseline in the projected average annual rate of growth in potential GDP per capita over the period 2020-50, different gender gap scenarios (closing gender gaps in working hours only), percentage points, Estonia and selected other OECD member countries



Note: See notes for Figure 7.5.

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ, the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htmv>, and Employment Projections; and the OECD Long-Term Growth Model, <https://doi.org/10.1787/b4f4e03e-en>.

Combining a narrowing of gender LFP gaps with a simultaneous narrowing of the gaps in working hours can be expected to further stimulate economic growth. Two additional scenarios are considered here:

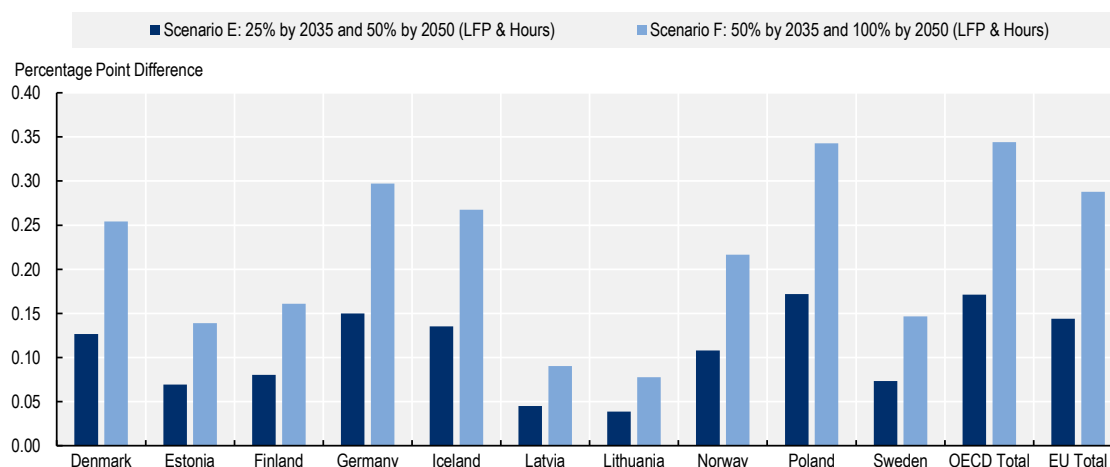
- **Scenario E:** gender LFP and working hour gaps reduced by 25% by 2035 and by 50% in 2050. This scenario follows the approaches of Scenario A and Scenario C, so that the gender employment and working hour gaps fall by 25% by 2035, and 50% by 2050 relative to the baseline.
- **Scenario F:** gender LFP and working hour gaps reduced by 50% by 2035 and by 100% in 2050. This scenario follows the approaches of Scenario B and Scenario D, so that the gender employment and working hour gaps fall by 50% by 2035, and 100% (i.e. are fully closed) by 2050 relative to the baseline.

Across the OECD, annual potential GDP per capita would grow an additional 0.17 percentage points (Scenario E) or 0.34 percentage points (Scenario F), respectively (see Figure 7.8 and Annex Table 7.A.4).

While overall somewhat smaller than in the Nordics and Germany, where the effects are strongly driven by the closing of the working hours gap, Estonia could see the largest additional growth in potential GDP per capita among the Baltic states. Closing half of the gender LFP and working hours gap by 2050 would add 0.07 percentage points of additional annual growth relative to the baseline projections, and closing both altogether over this period would add additional 0.14 percentage points of annual GDP per capita growth. This would increase potential GDP overall by 2.1% (Scenario E) or 4.3% (Scenario F) in 2050.

Figure 7.8. Closing LFP and working hours gaps simultaneously would boost GDP strongly

Estimated difference relative to the baseline in the projected average annual rate of growth in potential GDP per capita over the period 2020-50, different gender gap scenarios (closing gender gaps in labour force participation and working hours simultaneously), percentage points, Estonia and selected other OECD member countries



Note: See notes for Figure 7.5.

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ, the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>, and Employment Projections; and the OECD Long-Term Growth Model, <https://doi.org/10.1787/b4f4e03e-en>.

7.3.2. Zooming in on Estonia: Unpaid work, educational sorting and life expectancy

This section considers more detailed scenarios in order to illustrate the dynamics that could lead to more gender equality in the Estonian labour market. Rather than an international comparison, these scenarios zoom in on Estonia in isolation to reflect the country-specific context that can differ markedly from other OECD countries (e.g. concerning the gender LFP gap among older workers). In contrast to the basic scenarios above, where gender LFP- and working hours gaps converge over time to a certain level, the detailed scenarios generally model a one-off permanent change in labour force participation, working hours, life expectancy or productivity at different ages that transmit through the population as it ages.

Below, three different scenarios are considered: more equal sorting of boys and girls into different fields of study; less sexist prejudice on the labour market and less gender stereotyping within households and families; and, a convergence of (healthy) life expectancy for older populations. Details on the exact mechanisms of the scenarios are given in each of the respective sections.

The scenarios presented here are stylised and only serve as illustrative examples of what *could* happen if action regarding the issues were undertaken. The model dynamics and parameters chosen may not fully reflect “real-world practice”, but nonetheless reflect real issues as identified in the previous chapters. Again, the scenarios illustrate the potential gains the Estonian labour market and economy may reap, when closing gender gaps in labour force participation.

Educational sorting: More women into STEM fields

A substantial part of the gender differences in labour market outcomes can be linked to differential labour market sorting between men and women (Card, Cardoso and Kline, 2016^[15]; Masso, Meriküll and Vahter, 2020^[16]). Differential enrolment across educational fields and tracks is often one of the drivers behind differences in sorting across occupations and industries. For example, women often tend to enrol more in educational fields with lower earnings potential and to a larger extent sort into occupations with lower earnings (Sloane, Hurst and Black, 2020^[17]; Couppié, Dupray and Moullet, 2014^[18]).

Gendered segregation is particularly strong in STEM programmes (Science, Technology, Engineering and Mathematics) and may have a dampening effect on the overall productivity of women workers in the economy. Like in many other countries, Estonian boys and young men are more likely to be enrolled in, and graduate from, STEM programmes, while Estonian girls and young women graduate more from EHW programmes (Education, Health and Welfare). In 2018, for example, 47% of male graduates were previously enrolled in STEM programmes, while it was only 21% of female graduates. At the same time, 9% of male and 26% of female graduates were previously enrolled in EHW fields (OECD, 2019^[19]). As wages are generally higher and differences between male and female wages lower, a persistent underrepresentation of women and girls in STEM tracks prevents the closing of the gender wage gap. At the same time, a shortage of workers in STEM sectors could mean that women's productive potential may not be fully exploited, potentially reducing overall economic output (Breda et al., 2021^[20]).

Less gender stereotyping in education and life-long learning, for example by increasing students' exposure to female role models, could help increase the share of women in STEM fields, and improve women's access to more productive jobs (see e.g. Breda et al. (2021^[20])). As a result, women's average economic productivity should increase, along with their wages and the aggregate economic output. A better allocation of women's talent across occupations is, for example, an important factor for economic growth in the United States (Hsieh et al., 2019^[21]).

The educational sorting scenario thus assumes a change of the gender gap in enrolment and graduation rates, which leads to a closing of the gender productivity gap among typical graduates (age 15-24 year-olds), approximated by the wage gap between men and women at different ages (more details in Annex 7.B). This reduces the productivity gap between men and women over time and increases overall productivity in Estonia. At the same time, the labour force participation and working hours of both men and women follow the baseline projections of the previous section.

Table 7.1 shows the effects this scenario could have on the Estonian economy. If enrolment and graduation rates are more equal among men and women, and the gap in productivity of the jobs held by men and women graduating subsequently closes from 2020 onwards, the annual potential GDP per capita growth is projected to increase by 0.30 percentage points until 2050. This would increase Estonian potential GDP per capita by about 9.63% in 2050.

Unpaid work and leave-taking: Weakening traditional gender norms in families

Persistent gender norms and a traditional division of paid and unpaid work can have substantial effects on women's opportunities in the labour market. For example, the career interruptions related to taking maternity and/or parental leave limit the labour supply and productivity of female employees with young children. As a result, mothers' career paths are negatively affected in the medium to longer term (see e.g. Kleven et. al (2019^[22]; 2019^[23]), and for Estonia, Masso et. al (2020^[16])). At the same time, women, and in particular mothers, take on a majority of the childcare work over the years following childbirth, along with a majority of other unpaid housework (OECD, 2021^[3]; 2017^[24]).

Table 7.1. Growth scenarios for Estonia

Estimated difference in economic growth relative to the baseline, different gender gap scenarios

Scenario	Detail	Age	Difference in projected potential GDP, 2050, %	Difference in the average annual rate of growth in potential GDP, 2020-50, percentage points	Difference in projected potential GDP per capita, 2050, %	Difference in the average annual rate of growth in potential GDP per capita, 2020-50, percentage points
Educational sorting	Productivity gap closure (100%)	15-24	9.63	0.30	9.63	0.30
Unpaid work and leave-taking	LFP & HRS gap closure (100%) + productivity gap closure (50%)	25-49	10.30	0.33	10.30	0.33
Life expectancy	LFP gap closure (100%) + life expectancy gap closure (100%)	50+	0.96	0.03	-3.10	-0.10
Female labour force participation only	Convergence to Iceland's female LFP	15-74	5.97	0.19	5.97	0.19

Note: The first two scenarios assume no changes in the population development, whereas the male population increase in the last scenario. Therefore, potential GDP and potential GDP per capita are similar in the first two scenarios and differ in the last scenario (as the population base increases). See Annex 7.B for a description of the method and data used. LFP: Labour force participation rate; HRS: Working hours.

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ and Eurostat Population Projections, <https://ec.europa.eu/eurostat/web/population-demography/population-projections/database>, the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm> and Employment Projections,; the OECD Long-Term Growth Model, <https://doi.org/10.1787/b4f4e03e-en>, and the Eurostat Structure of Earnings Survey, https://ec.europa.eu/eurostat/cache/metadata/en/eam_ses2014_esms.htm.

The norms around unpaid work and parental leave-taking in Estonian families have remained rigid. For example, when it comes to taking leave to care for very young children, Estonian mothers are still about 11 times more likely to use publicly administered parental leave than fathers (*OECD Family Database*). Estonian women also spend 55% more of their time on unpaid activities in and around the household than men (*OECD Time-Use Database*). These patterns limit the time Estonian women can spend in *paid* work and inhibits their possibilities to advance in the labour market, with negative implications for pay, particularly in jobs with inflexible hours, as well as for their human capital accumulation and productivity (Goldin, 2014^[25]).

A consequence of the unequal division of unpaid work is that women can face additional effects that limit their access to better paid and more productive jobs. Employers may engage in bias and discriminatory behaviour towards women, regarding hiring and career advancement, as they may assume that women will be less committed to their job due to their greater share of unpaid work (Ciminelli, Schweltnus and Stadler, 2021^[26]). More productive firms may discriminate more against women at the hiring stage than less productive firms, as the chance that a female job seeker exceeds the necessary productivity level is lower the higher the firms own productivity is.

Women's greater share of unpaid work also makes their labour market more monopsonist than for men (e.g. women may be more likely to exclude workplaces that involve a long commute from their job search/exit options (Le Barbanchon, Rathelot and Roulet, 2020^[27])). This pattern implies that employers have a stronger wage-setting power over women than over men, regardless of their prejudice/stereotype. In other words, due to their greater share of unpaid work, women cannot bargain their wages as assertively as men do, meaning that they are more likely to be paid below their productivity potential.

More equal gender norms provide a boost to women's productivity as they reduce the factors limiting labour force participation and access to more productive jobs, see e.g. Farré and González (2019^[28]) and Druedahl, Ejrnæs and Jørgensen (2019^[29]). Outsourcing unpaid work to household service providers will increase employment in this sector, which is predominantly female, as well as increase the labour supply of women previously engaged in unpaid work at home (OECD, 2021^[3]).

In practice, the gender norms scenario assumes an equal sharing of unpaid work in the household and an equal sharing of parental leave-taking. This is assumed to lead to a closing of the baseline LFP and working hours gap for men and women aged between 25 and 39. At the same time, this scenario assumes productivity increases among women, in a way that it closes the gender productivity gap by 50% over the same age group. As shown in Table 7.1, more equal sharing of unpaid work and leave-related career breaks could increase annual potential GDP per capita growth by 0.33 percentage points until 2050. This would raise the Estonian potential GDP per capita in 2050 by approximately 10.30%.

Life expectancy: Longer lives for men

Health problems can significantly impair the quality of life, but they also may reduce the ability to work and engage on the labour market. Such health problems become more prevalent as individuals age and the health status of the workers thus becomes an important determinant of labour market attachment at older ages (OECD, 2019^[30]). In Estonia, the life expectancy, as well as the expectancy of disability-free lives, are noticeably different for men and women (see also Chapter 2). New-born males are expected to live for about 53 years without activity-imitating disabilities, while newborn females can do so for 56 years (Statistics Estonia, 2019^[31]). In the middle of their labour market career at age 40, women are also expected to live for roughly 44 additional years, which is about 8 years longer than for Estonian men aged 40 (OECD Health Database). For men, these figures are particularly low relative to other OECD countries and can have important implications for their late and extended work lives.

In sharp contrast to other OECD countries, the gender employment gap in Estonia reverses among older workers (55-74). For example, while the probability of labour force participation for women aged 60 to 64 is almost 18 percentage points lower than that of their male counterparts OECD-wide in the labour-force projection model for 2020, Estonian women of this age are nearly 7 percentage points more likely than men to be employed. This latter result is consistent with the significantly lower number of healthy life years of Estonian men.

Fostering healthier lives, particularly for men, could significantly increase the quality of life as well as the ability to engage in paid employment towards the end of their life. As such, it may not only increase life satisfaction, but also the aggregate LFP rate of men and overall economic output in Estonia. The life expectancy scenario assumes that the life expectancy gap for men and women aged 50+ closes, particularly by lowering men's probability of dying at each age to women's probability of dying at the same age. This should come with an increase of the healthy life years of men and their possibility to engage in paid employment so that the gender LFP gap for men and women aged 50+ closes in full, while the working hours gap is unaffected and follows the baseline scenario. An increase in life expectancy increases total economic output but also increases the elderly population. As a result, the effect on GDP per capita is ambiguous, as it depends on the relative size of the effects on the population size and economic output.

Table 7.1 shows that increased life expectancy indeed has a twofold effect. While the longer lives of men increase the total population base, it does so by predominately increasing the population among ages with comparatively low LFP rates. As a result, the increase of the population weighs stronger than the additional economic output, thus reducing potential GDP per capita in 2050 by 3.10%. However, on an aggregate basis, the total potential economic output in 2050 is increased by 0.96% through more old-age labour force participation. One of the reasons for the relatively weak effect of closing the LFP gap among older workers is that the OECD baseline projections already assume a convergence of labour force participation among older ages. Among the 55-69 year-olds, for example, the gender gaps in labour force participation practically close already in 2023, based on the recent labour market entry and exit rates and demographic developments that define the baseline projections.

Increasing female employment only: Reaching Iceland's labour force participation

The previous scenarios have all assumed that more gender equality on the labour market and at home closes labour market gaps between men and women, by assuming that the lowest of labour force participation rates for men and women in each age group converge to the highest LFP in the same age group. As such, wherever female LFP is lower than the male LFP in a specific age group, it cannot increase above male levels even though more gender equality could potentially spur even larger gains in the engagement on the labour market. At the same time, even though more gender equality could further increase labour force participation of older women, the projections only increase male LFP for those aged 55 and above and leave female LFP at older ages entirely unaffected.

For this reason, the last scenario presented in this chapter considers an increase in female LFP rates in isolation, without being bound by or affecting male LFP at all. Here, Iceland serves as the benchmark for women's engagement on the labour market. In Iceland, female LFP rates for those aged 15-74 are by far the highest in the OECD. At the same time, while women's usual working hours and GDP per capita differ somewhat from Estonia, they do so to a lesser extent than other countries with notably higher female LFP than Estonia. As such, the labour force participation of women across all age groups is allowed to increase to the levels of Iceland, without being bound by male LFP.

Table 7.1 shows that such a scenario would boost GDP and GDP per capita by about 6% in 2060 relative to the baseline scenario that does not assume any divergence from the LFP projections. This corresponds to an additional 0.19 percentage points of average annual growth between 2020 and 2050. This is more than twice as large than a closure of gender labour force participation gaps alone and is driven by particularly strong increases in LFP for younger women (aged 15-39) and those aged 60 to 69. While the former is mainly driven by the overall high rates of female LFP at the commencement of labour market careers and throughout prime childbearing ages, the latter is increasing particularly because changes in female LFP rates are not bound by the low labour market engagement of older males in Estonia.

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Annex 7.A. Additional tables and figures

Annex Table 7.A.1. Decomposition of the drivers of GDP per capita growth (2000-19)

	GDP per capita growth, avg. annual rate (%)	Percentage point contribution of main components					
		Labour productivity	Working age share of population	Male employment	Female employment	Male working hours	Female working hours
Denmark	0.87	1.22	-0.21	-0.02	0.08	-0.22	0.01
Estonia	3.93	3.67	-0.30	0.57	0.40	-0.16	-0.26
Finland	1.05	0.97	-0.40	0.32	0.40	-0.21	-0.03
Germany	1.14	0.90	-0.25	0.22	0.47	-0.29	0.09
Iceland	1.67	2.53	-0.01	-0.06	-0.11	-0.61	-0.07
Latvia	4.72	4.02	-0.41	0.60	0.72	-0.20	-0.02
Lithuania	5.32	4.08	-0.11	0.63	0.61	0.05	0.06
Norway	0.64	0.77	0.08	-0.06	-0.01	-0.20	0.05
Poland	3.77	3.35	-0.50	0.58	0.45	-0.09	-0.01
Sweden	1.39	1.36	-0.07	0.07	0.05	-0.06	0.04
OECD Total	1.20	1.20	-0.07	0.08	0.28	-0.32	0.03
EU Total	1.14	1.03	-0.25	0.16	0.44	-0.34	0.09

Note: Estimates based on the decomposition of national accounts data using labour force survey estimates. The OECD and EU totals only include countries for which the necessary data for the growth accounting exercise is fully available between 2000 and 2019. The OECD total here does not include Australia, Chile, Colombia, Costa Rica, the Czech Republic, Japan, Korea, Luxembourg, Mexico, New Zealand, and Türkiye. The EU total does not include Luxembourg and the Czech Republic. See Annex 7.B for more detail.

Source: OECD estimates based on data from the OECD National Accounts Database <http://www.oecd.org/std/na/> and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

Annex Table 7.A.2. Decomposition of the employment component

	Decomposition of the contribution of the employment-to-population rate (percentage points)					
	Men			Women		
	Employment	Share of the whole working age population	Employment rate	Employment	Share of the whole working age population	Employment rate
Denmark	-0.02	0.00	-0.02	0.08	0.00	0.08
Estonia	0.57	0.10	0.47	0.40	-0.09	0.49
Finland	0.32	0.02	0.31	0.40	-0.02	0.42
Germany	0.22	0.01	0.21	0.47	-0.01	0.48
Iceland	-0.06	0.07	-0.13	-0.11	-0.06	-0.05
Latvia	0.60	0.05	0.55	0.72	-0.05	0.77
Lithuania	0.63	0.06	0.57	0.61	-0.06	0.67
Norway	-0.06	0.03	-0.09	-0.01	-0.03	0.02
Poland	0.58	0.04	0.54	0.45	-0.03	0.48
Sweden	0.07	0.02	0.05	0.05	-0.02	0.07
OECD Total	0.08	0.01	0.07	0.28	-0.01	0.28
EU Total	0.16	0.00	0.15	0.44	0.00	0.45

Note: See notes for Annex Table 7.A.1. See Annex 7.B for more detail.

Source: OECD estimates based on data from the OECD National Accounts Database <http://www.oecd.org/std/na/> and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

Annex Table 7.A.3. Decomposition of the working hours component

	Decomposition of the contribution of average working hours (percentage points)					
	Men			Women		
	Working hours	Share of all employed	Hours worked per employed	Working hours	Share of all employed	Hours worked per employed
Denmark	-0.22	-0.06	-0.16	0.01	0.05	-0.04
Estonia	-0.16	0.07	-0.23	-0.26	-0.07	-0.19
Finland	-0.21	-0.06	-0.15	-0.03	0.05	-0.08
Germany	-0.29	-0.17	-0.12	0.09	0.13	-0.04
Iceland	-0.61	0.03	-0.64	-0.07	-0.02	-0.04
Latvia	-0.20	-0.07	-0.13	-0.02	0.06	-0.08
Lithuania	0.05	0.02	0.03	0.06	-0.02	0.08
Norway	-0.20	-0.02	-0.18	0.05	0.02	0.03
Poland	-0.09	0.01	-0.11	-0.01	-0.01	0.00
Sweden	-0.06	0.00	-0.06	0.04	0.00	0.05
OECD Total	-0.32	-0.13	-0.19	0.03	0.11	-0.08
EU Total	-0.34	-0.19	-0.15	0.09	0.16	-0.07

Note: See notes for Annex Table 7.A.1. See Annex 7.B for more detail.

Source: OECD estimates based on data from the OECD National Accounts Database <http://www.oecd.org/std/na/> and the OECD Employment Database, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>.

Annex Table 7.A.4. Further gains in growth from closing gender gaps in labour force participation

Scenario:	Difference in the average annual rate of growth in potential GDP per capita, 2020-50, scenario vs. baseline, percentage points					
	A	B	C	D	E	F
	25x35, 50x50	50x35, 100x50	Baseline	Baseline	25x35, 50x50	50x35, 100x50
LFP	<i>Baseline</i>	<i>Baseline</i>	25x35, 50x50	50x35, 100x50	25x35, 50x50	50x35, 100x50
Hours						
Denmark	0.06	0.12	0.06	0.12	0.13	0.25
Estonia	0.04	0.07	0.03	0.06	0.07	0.14
Finland	0.03	0.06	0.05	0.10	0.08	0.16
Germany	0.03	0.06	0.12	0.23	0.15	0.30
Iceland	0.05	0.10	0.08	0.16	0.14	0.27
Latvia	0.03	0.05	0.02	0.04	0.05	0.09
Lithuania	0.02	0.05	0.02	0.03	0.04	0.08
Norway	0.04	0.09	0.06	0.12	0.11	0.22
Poland	0.13	0.26	0.04	0.07	0.17	0.34
Sweden	0.03	0.06	0.04	0.09	0.07	0.15
OECD Total	0.09	0.19	0.07	0.14	0.17	0.34
EU Total	0.06	0.12	0.08	0.16	0.14	0.29

Note: See Annex 7.B for a description of the method and data used. The OECD and EU totals are the weighted total across all OECD and EU member countries. For the OECD total, data for Türkiye is missing. LFP: Labour force participation; HRS: Working hours.

Source: OECD estimates based on OECD population data, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ, the OECD Employment Database and Employment Projections, <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>; and the OECD Long-Term Growth Model, <https://doi.org/10.1787/b4f4e03e-en>.

Annex 7.B. Methodology

This annex provides detail on the methods and data used in this chapter. It covers the theoretical background as well as the data and estimation procedure for both the growth accounting exercise and the growth projection scenarios.

Growth accounting

The first analysis is based on growth accounting – a procedure used to identify and decompose the sources of economic growth. Using macroeconomic time-series, the basic principle of growth accounting is to split economic growth into its main components parts under standard macroeconomic theory: labour, capital, and total factor productivity (Solow, 1956^[5]). Data permitting, the contribution of each of these main components can then be further decomposed into sub-components, as required.

The starting point for the growth accounting exercise is a standard Cobb-Douglas production function with constant returns to scale. Total economic output, measured by Gross Domestic Product (GDP), can be expressed using the following multiplicative function:

$$Y = K^{1-\alpha} \cdot \left(A \cdot Q \cdot E \cdot \frac{H}{E} \right)^\alpha \quad (1)$$

where Y is GDP, K is physical capital, A is technological progress, Q is human capital per person employed, E is headcount employment, H is total hours worked (and therefore, H/E hours worked per person employed), and α is the labour share of output.

After some manipulations, this can be re-written as:

$$Y = \left(\frac{K}{Y} \right)^{(1-\alpha)/\alpha} \cdot A \cdot Q \cdot E \cdot \frac{H}{E} \quad (2)$$

and output per person, measured by GDP per capita, can be expressed as:

$$\frac{Y}{P} = \left(\frac{K}{Y} \right)^{(1-\alpha)/\alpha} \cdot A \cdot Q \cdot \frac{WP}{P} \cdot \frac{E}{WP} \cdot \frac{H}{E} \quad (3)$$

where P stands for the population and WP for the working-age population, Y/P is GDP per capita, K/Y is the capital-to-output ratio, WP/P is the working-age share of the population, and E/WP is the employment-to-working-age-population ratio or employment rate. In this particular model, employment is limited to those of working-age (15-64 year-olds) only. This is to allow for better modelling of how shifts in the working-age share of the population contribute to output.

GDP per capita can be considered as the product of labour utilisation (covering the working-age share of the population, the employment-to-working-age-population ratio, and hours worked per person employed), and labour productivity or output per hour worked, covering all other factors (physical capital, technological progress, and human capital):

$$\frac{Y}{P} = \left(\frac{Y}{E \cdot H} \right) \cdot \left(\frac{WP}{P} \cdot \frac{E}{WP} \cdot \frac{H}{E} \right) \quad (4)$$

where:

$$\frac{Y}{E \cdot H} = \left(\frac{K}{Y} \right)^{(1-\alpha)/\alpha} \cdot A \cdot Q \quad (5)$$

Labour utilisation itself can be split into components. The focus here is on disaggregating the employment rate (E/WP) and hours worked per person employed (H/E) by gender and, where possible, age group, as expressed by the following two additive functions:

$$\frac{E}{WP} = \sum_{G \in \{(15-24)men, (15-24)women, (25-54)men, (25-54)women, (55-64)men, (55-64)women\}} \frac{E_G}{WP} \quad (6)$$

and

$$\frac{H}{E} = \sum_{G \in \{(15-24)men, (15-24)women, (25-54)men, (25-54)women, (55-64)men, (55-64)women\}} \frac{H_G}{E} \quad (7)$$

Lastly, the model shown in equation 4 can be re-written in growth rates to give changes in economic output over time, as expressed by the following additive function:

$$g_{\frac{Y}{P}} = g_{\left(\frac{Y}{E.H}\right)} + g_{\frac{WP}{P}} + g_{\frac{E}{WP}} + g_{\frac{H}{E}} \quad (8)$$

where the g is the growth rate for the given factor, and with growth rates for the employment rate ($g[E/WP]$) and hours worked per person employed ($g[H/E]$) themselves calculated as

$$g_{\frac{E}{WP}} = \sum_{G \in \{(15-24)men, (15-24)women, (25-54)men, (25-54)women, (55-64)men, (55-64)women\}} g_{\frac{E_G}{WP}} \quad (9)$$

and

$$g_{\frac{H}{E}} = \sum_{G \in \{(15-24)men, (15-24)women, (25-54)men, (25-54)women, (55-64)men, (55-64)women\}} g_{\frac{H_G}{E}} \quad (10)$$

It is equations 8-10 that form the core of the growth accounting exercise.

Estimation itself is conducted using the “Shapley decomposition” (Shorrocks, 2013_[32]) – a procedure initially used in the inequalities literature to identify the contribution of different income sources to income inequality, but more recently it has also been applied elsewhere as, for instance, the decomposition of the drivers of poverty reduction (Azevedo et al., 2013_[33]). Shapley decomposition runs through all possible sequences (effectively, combinations) of a given function to isolate the contribution of a given component – in this case, the contributions of growth in labour productivity ($Y/(E.H)$), growth in the working-age share of the population (WP/P), growth in the employment rate (E/WP), and growth in average hours worked per person employed ($H.E$). It has the advantage of producing additive estimates (so that, in this case, growth in GDP per capita is estimated as the sum of growth in the various components) and, at least when the number of components is fairly low, is also simple to calculate. A detailed overview of the Shapley decomposition method itself can be found in Shorrocks (2013_[32]).

The estimates are produced in two stages. First, growth in GDP per capita is decomposed into each of its main components – as shown in equation 8 above, growth in labour productivity ($Y/(E.H)$), in the working-age share of the population (WP/P), in the employment rate (E/WP), and in average hours worked per person employed ($H.E$). Second, the contributions of growth in both the employment-to-population rate (E/WP) and average hours worked per person employed ($H.E$) are then themselves decomposed by gender and, where possible, by age group too, as shown in equations 9 and 10. It is these last two decompositions (of the employment rate and average working hours) that are the focus here as they provide information on the extent to which changes in men’s and women’s employment rates and working hours have contributed to economic growth. This procedure is run separately for each country.

The data used for the growth accounting exercise are based on a combination of official macroeconomic data from national accounts databases and employment and working hours estimates from labour force surveys. Data for the first stage are taken from the *OECD National Accounts Database*. The data series used include Gross Domestic Product (GDP), total population, total employment, and average working hours per person employed (see Annex Table 7.B.1 for a summary). On occasion, important series are missing in the OECD database. Where this is the case, values are imputed or interpolated using information from alternative national accounts databases, such as those published by national statistical offices.

Annex Table 7.B.1. Summary of data series used in growth accounting

Series	Details	Main source	Additional sources
GDP (expenditure approach)	Constant prices, constant PPPs, OECD base year (USD 2015)	OECD National Accounts Database	
Total population	National concept, 1000s	OECD National Accounts Database	
Total employment	Domestic concept, 1000s	OECD National Accounts Database	OECD Employment Database
Hours worked for total employment	Domestic concept, hours, millions	OECD National Accounts Database	OECD Employment Database
Population by age and gender	1000s	OECD Employment Database	
Employment by age and gender	1000s	OECD Employment Database	
Average usual weekly working hours by age and gender	Total employment, total declared employment	OECD Employment Database	Statistics Finland, Statistics Sweden

The second stage of the growth accounting exercise requires data on population, employment, and working hours that are disaggregated by age and gender. Because national accounts databases do not typically disaggregate information by age or gender, these data are estimated using information from labour force surveys – in short, the overall national accounts series on population, employment and hours are split and “*allocated*” across the various gender- and age groups according to the distribution of the given series provided by labour force survey data. The labour force survey estimates for employment and working hours are re-scaled before this “*allocation*” so that the aggregated estimates for the working-age population match exactly those from the national accounts series.

The labour force survey data used for this second stage are taken primarily from the *OECD Employment Database*. Where data are missing, values are imputed using information from alternative sources such as national statistical offices or are estimated by trending the nearest observation back or forward using alternative but similar series (see Annex Table 7.B.2). For a lack of sufficiently comparable data, the OECD average and totals presented in the results figures and tables do not include Australia, Chile, Colombia, Costa Rica, the Czech Republic, Japan, Korea, Luxembourg, Mexico, New Zealand and Türkiye; while the EU average and total does not include the Czech Republic, Luxembourg and EU-countries that do not belong to the OECD.

Annex Table 7.B.2. Country-specific notes for the data series used in the growth accounting

Series	Country	Details
Total employment	Iceland	Data missing in the OECD National Accounts Database for years before 2008. Data for years before 2008 are estimated by trending backwards using alternative data from the Labour Force Survey (total labour force).
Hours worked for total employment	Iceland	Data missing in the OECD National Accounts Database for years before 2008. Data for years before 2008 are estimated by trending backwards using alternative data from the Labour Force Survey (average annual hours worked per worker/year and total employment).
Average usual weekly working hours by age and gender	Finland	Data missing in the OECD Employment Database for years before 2001. Data for years before 2001 are estimated by trending backwards using alternative data on working hours (average annual hours actually worked) provided by Statistics Finland.
	Sweden	Data missing in the OECD Employment Database for years before 2002. Data for years before 2002 are estimated by trending backwards using alternative data on average usual weekly working hours provided by Statistics Sweden.

Forward-looking growth projections

The economic growth scenarios are based on the OECD Long-Term Model, which projects economic outcomes until 2060, following a range of projections on productivity, employment and population development (Guillemette and Turner, 2018^[7]; 2021^[8]). Production of these estimates themselves takes place in two stages. First, estimates of the size of the labour force and overall average working hours are produced under different scenarios by applying the assumed labour participation (LFP) rates and working hours to the OECD's in-house labour force projection model. For the various hypothetical "gender gap" scenarios, participation rates and, where needed, working hours for the relevant gender and age groups are adjusted so that they meet the given assumed gender gap targets by the given target year.

Second, estimates of potential GDP per capita and annual growth of the potential GDP per capita under each scenario are produced by combining the labour force and working hours estimates with a modified version of the long-term growth models presented by the OECD in OECD Economic Outlook No. 109 (see Guillemette and Turner (2021^[8]) for detail). The theoretical foundation for the long-term growth models is similar to that outlined for the growth accounting exercise above. The models estimate potential GDP based on a range of long-term growth determinants and their long-term dynamics within the given country as well as on convergence patterns between countries across the projection period (here, 2020 to 2050).

The potential economic output (Y) in the model is based on a simple Cobb-Douglas production function with constant returns to scale featuring physical capital (K), trend potential employment (N) as production factors, hours worked (H), plus trend labour efficiency per hour worked (E). Trend employment, hours worked and labour efficiency enter separately for men (m) and women (w) and each age group a :

$$Y_t = \left[\sum_g \sum_a N_{g,a} * H_{g,a} * E_{g,a} \right]^\alpha K^{1-\alpha} \quad (1)$$

Where α denotes the labour share and is fixed at 0.67. Trend employment and labour efficiency for gender g and age group a are defined as follows:

$$N_{g,a} = ER_{g,a} * P_{g,a} \quad (2)$$

$$E_{g,a} = \frac{EFF_0}{\bar{H}_0} * PROD_{g,a} \quad (3)$$

Where $ER_{g,a}$ and $PROD_{g,a}$ are the employment rate and productivity factor for gender g and age group a (in the initial basic scenarios no gender differences in productivity are assumed). In addition, E_0 is the baseline trend labour efficiency per worker and \bar{H}_0 are the average hours worked per worker at baseline. Throughout the calculations of the baseline model and the scenarios, working-age is defined as 15 to 74. All computations in this model are based on separate input for sex-specific 5-year age groups, even if a specific input is not available on such a disaggregation. In the following, we describe the model inputs in some more detail (see also Annex Table 7.B.3).

The capital stock is based on the baseline output of the OECD Long-Term Model and taken as an exogenous input up until the start year of scenario modelling. As changes in potential trend employment generally also necessitate changes in the capital stock, K is assumed to grow at the same rate as aggregate trend employment and average trend labour efficiency so that the capital-to-output ratio is stable in both baseline and scenario outcomes. This abstracts somewhat from a dynamic adjustment of the capital stock as modelled in the OECD Long-Term Model, but the impact on model outcomes is, at most, marginal. Likewise, trend labour efficiency is based on the baseline output of the OECD Long-Term Model, but taken as fully exogenous.

Annex Table 7.B.3. Summary of data series used in growth projections

Input	Details	Main source	Additional sources
Physical capital (K)	Adjusted for stable capital-to-output ratio stable from 2020.	OECD Long-Term Model	
Trend labour efficiency (E)	Taken as exogenous from OECD Long-Term Model. For detailed scenarios, gender differences are proxies by raw gender wage gaps for Estonia from Eurostat Structure of Earnings Survey (2014).	OECD Long-Term Model	Eurostat Structure of Earnings Survey
Trend employment (N)	Projection of future labour participation by gender and five-year age group using current rates of labour market entry and exit.	OECD Long-Term Employment Projections	Eurostat Population Projections and Population Statistics
Hours worked (H)	No projections are available. Thus, from 2020, fixed at the 2019 level within each 5-year age group.	OECD Employment Database	

Trend employment is based on long-run projections on employment rates and population. These baseline demographics use Eurostat Population Projections from 2020 to 2050 as well as Eurostat's historical Population Statistics. Labour force participation rates are based on an OECD dynamic age-cohort model that, under baseline conditions, projects future labour participation by gender and five-year age-group using current rates of labour market entry and exit. Hours worked per worker are based on the average usual weekly hours worked on the main job for total declared employment in the OECD Employment Database, and extrapolated to hours worked per worker per year. In the absence of future projections of the hours worked, the latest data point is kept fixed and projected into the future (i.e. it is assumed that hours worked to stay the same until 2050).

Basic scenarios

Potential GDP per capita under each scenario is estimated by adjusting projections from these long-term growth models according to the assumed change (relative to the baseline) in the overall labour force participation rate and the assumed change (relative to the baseline) in overall average usual weekly working hours. The adjustment under these scenarios for employment and working hours is assumed to occur linearly between the projection start year (2020) and the target year (2035 and 2050). As introduced above, the basic scenarios follow slightly adapted and extended prescriptions of the G20 Brisbane declaration of closing the gender gap in employment by 25% by 2025. This is goal extended to 2035 and at a 50% closure target for 2050 in Scenario A and add a more ambitious goal in Scenario B, while similar targets for working hours are treated in Scenario C and Scenario D. Combined scenarios on LFP rates and working hours are treated in Scenario E and Scenario F. In each of these scenarios, the LFP rate and the weekly worked hours for each age group and country converge to the highest level for each age group and country so that the target closure of the baseline gaps is reached by 2035 and 2050 (see details for each scenario in Chapter 5).

As mentioned above, the capital stock is adjusted so that the capital-to-output ratio is stable. Changes and developments in other production factors – such as population trends and labour efficiency – are only considered in the detailed scenarios (see below). The resulting estimates are aggregated across both genders and all five-year age groups to produce estimates of the size of the overall labour force (15-74 year-olds) and overall average working hours. Due to a lack of sufficient data on working hours, projections for Türkiye are missing from the OECD average.

Projections used in these scenarios are simply mechanical. In other words, they assume that any changes in labour force participation rates or weekly working hours do not interact with, or have any indirect effects on, other labour inputs or any other production factors (except physical capital growing to ensure a stable capital-to-output ratio). It is possible, for example, that changes in labour force participation rates and

weekly working hours among, say, parenting-age women (25-54 year-olds) could lead to changes in participation and/or hours among older workers if, for instance, grandparents or older friends and relatives are used as substitute carers for children. If any such indirect effects occur, the impact of changes in patterns of paid work on the overall labour supply may differ from those estimated here. It should also be noted that the projections do not explicitly factor in any possible effects of changes in patterns of paid work on household production. Again, to the extent that changes in male or female labour supply lead to changes in household production or shifts between measured and unmeasured economic activity, the estimates shown here may not fully capture the effects of a change in patterns of paid work on economic output. All of the potential effects of more equal sharing of unpaid work come from an exogenous shock in the detailed scenarios (see below).

Lastly, the measures and units used for these forward-looking projections differ slightly from those used in the growth accounting exercise. Specifically, while the latter concentrates on employment rates and a 15-64 year-old age group, here estimates are based on labour force participation rates (i.e. the employed plus unemployed population) and a 15-74 year-old age group. This is to help ensure compatibility with the inputs used for the OECD's standard long-term growth models – which use the age-group 15-74 as their core input (Guillemette and Turner, 2018^[7]; 2021^[8]) – and because the participation of over-65 workers is likely to increase in importance in future decades. As a result, all economic production is presented as potential economic output (potential GDP per capita).

Detailed scenarios

In contrast to the basic scenarios above, where gender LFP- and working hours gaps converge over time to a certain level, the detailed scenarios generally model a shock to labour force participation, working hours, life expectancy or productivity at different ages. Over time, these shocks transition to older age groups as the population groups subjected to the shocks age (i.e. the shock is assumed to be permanent). For example, assuming a shock that closes the gender LFP gap by 50% at ages 15-29 in 2020, some people of this group will have turned 30 by 2021. As the shock persists, the gender LFP gap of 30-year-olds will remain closed by 50% relative to the baseline. In the absence of more detailed age groupings, it is therefore assumed that the gender LFP gap in the 30-34 age group closes by 50% for a fifth of this group in 2021, then for two-fifths a year later, reaching a closing by 50% for all members of this age group by 2025. In 2026, this cycle continues, and the gender LFP gap closes for one-fifth of all 35-39 year-olds and so on. With this approach, shocks on either LFP rates or working hours slowly transition throughout the population over time.

The detailed scenarios consider gender differences in economic productivity, proxied by the relative difference in male and female wages across all age. While this measure is imperfect, productivity has been previously linked to the overall wage gap between men and women (e.g. Card, Cardoso and Kline (2016^[15]) and Masso, Meriküll and Vahter (2020^[16])). This does not assume that men and women have different productive potential, but rather that men and women have different access to the most productive jobs, resulting from a variety of reasons related to gender norms as present on the Estonian labour market (see below). In practice, the approach is based on the raw wage gender wage for different age groups in the Eurostat Structure of Earning Survey 2014, i.e. the gender wage gap between all men and women without controlling for individual and job characteristics. As these wage gaps were only available for 10-year age groups, each 5-year age group modelled in the growth projections is assigned the wage gap of the 10-year age group they are contained in (i.e. the wage gap of 40-49 year-olds is assigned to those aged 40-44 and 45-49). As no gender wage gap beyond age 60 is available, these age groups are assigned the wage gaps of the closest age group (i.e. 50-59 year-olds).

Closing productivity and/or wage gaps would also affect labour force participation rates, as the incentives to enter the labour market increase with earnings. To link changes in productivity and wages with labour supply, the own-wage elasticities of labour supply as estimated by Bargain, Orsini and Peichl (2014^[34]) are

used. The own-wage elasticity is an estimate that is indicative of the relative change in labour supply following a change in wages, based on historical labour market data. For Estonia, the own-wage elasticity estimated by Bargain, Orsini and Peichl (2014^[34]) only come disaggregated by gender and marital status. Thus, the projections assign a weighted average of the elasticity for single and married women by age group (based on single/married shares by age group for 2011 from Eurostat) and increase their LFP rate according to the increase in productivity/wages. Any of these effects are entering the projections before the employment rate shocks. Here, the projections also abstract from the own-wage elasticity concerning working hours as they are typically negligible (Bargain, Orsini and Peichl, 2014^[34]).

With gender gaps in productivity, it is assumed that more equal gender norms decrease the gender wage and gender productivity gaps over time. By closing the gap in gender norms, the scenarios assume a lower prevalence of sexist prejudice and gender stereotyping, as well as a more equal sharing of unpaid work between men and women. Thinking in a between firm/within-firm framework, several channels should, under reasonable assumptions, lead to productivity increases among women (and potential decreases among men). A more equal sharing of unpaid work, would increase women's bargaining power and human capital accumulation within firms, decrease their tendency to sort into less productive firms, as well as decrease discrimination against women across firms (more productive firms discriminating against them out of fear they will be less committed to their job due to their family responsibilities) and within firms (women being discriminated against in access to high managerial positions).

Raw wage gaps are linked to gender differences in productivity and are closed in a similar fashion as in the other scenarios (shock and transition over time). As such, assuming a shock closing the gender productivity gap by 50% for 30-34 year-olds, the gender productivity gap for the 35-39 year-olds will close some years later. Given equation (3), a closing of the gender gap in productivity increases overall labour productivity per worker and hour worked, and in turn increases economic output.

The life expectancy scenario assumes a reduction in the gender health gap by increasing in life expectancy for men. Current life expectancy is substantially lower for men than for women. In 2020, older women have a higher labour force participation rate than their male peers and this scenario assumes that the gender employment gap among older workers closes following increases in life expectancy and healthy life years. Based on Eurostat migration, death and fertility projections starting from 2020 (for earlier years it takes actual population figures), the scenario then introduces a shock to the male death probability for each age group 50+ to close the gap to the female equivalent, starting from 2020. It follows that the population of men increases somewhat.

Gender Equality at Work

The Economic Case for More Gender Equality in Estonia

Gender equality is not just about fairness and equity; it is also about economic empowerment and economic growth. Estonia has made great strides towards gender equality. Girls today outperform boys in educational attainment, but they are less likely than boys to study mathematics or information and communication technology. The gender employment gap is small, but Estonian women are still less likely to make it to the top, and career breaks around childbirth contribute to the declining but still considerable gender wage gap.

This review considers the gender gaps in labour market outcomes and explores the gap in pay between men and women with equivalent skills within and across firms. It considers family support policies for households with young children, women's bargaining position in firms, initiatives to combat gender-based discrimination as well as changing gender norms in education. It then explores the potential economic gains of greater gender equality under different scenarios. Indeed, a greater sharing of paid and unpaid work between men and women will lead to economic gains, but it requires changing norms, mindsets, and attitudes. Such changes take time, but policy has a role to play in raising public awareness of gender biases in society and promoting change.



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