

# Young women on the labour market in Hungary and Poland

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HANNA EROS (BUDAPEST INSTITUTE)

MATEUSZ SMOTER (INSTITUTE FOR STRUCTURAL RESEARCH)

JUDIT KREKO (BUDAPEST INSTITUTE)

SEPTEMBER 2022



## Table of content

|   |    |
|---|----|
| 1. Introduction   | 4  |
| 2. Employment rates of mothers in Poland and Hungary            | 6  |
| 3. Barriers to young women's labour market integration          | 15 |
| 3.1. Availability of early childcare                            | 16 |
| 3.2. Maternity leave and cash transfers                         | 22 |
| 3.3. Involvement of fathers                                     | 25 |
| 3.4. Attitudes towards gender roles                             | 29 |
| 3.5. Flexible work arrangements                                 | 31 |
| 4. The impact of the COVID-19 pandemic                          | 34 |
| 5. Do young women need different active labour market policies? | 37 |
| 6. Conclusions and policy recommendations                       | 40 |

IMPLEMENTED BY:

The „Youth employment partnerSHIP” project is funded by Iceland, Liechtenstein and Norway through the EEA and Norway Grants Fund for Youth Employment.

## Executive summary

The gender employment gap between young, prime-age men and women in Poland and Hungary is large in comparison to that in other EU countries. This is mainly due to the low employment rates among women with young children who withdraw from the labour market due to care duties. They face numerous barriers that hamper their return to employment, such as limited access to good quality and affordable childcare facilities, low levels of workplace flexibility, low engagement of fathers in childcare, and a lack of tailored active labour market policies that make it easier for parents to reconcile work and family life. Both countries are also characterised by a more traditional approach to gender roles that assumes that men should work outside the home while women should stay home to care for children. Reducing gender inequality in employment is desirable for social, economic, and individual reasons. Policy responses that aim to facilitate mothers' return to the labour market should take various interconnected factors into account. Therefore, improvements in access to good quality and affordable early childcare institutions should be accompanied by policies that facilitate a more equal division of childcare duties among parents in order to change the gender norms around work. Without such shifts, women will face a double burden of being responsible for both paid work and unpaid domestic labour. Therefore, policy programmes must ensure gender equality at every level, including in the design, implementation, and evaluation phase.

## 1. Introduction<sup>1</sup>

Increasing women's labour force participation has long been on the agenda of national and EU policymakers alike. Despite significant improvements in the last decades, female labour market activity rates remain below those of males, particularly in some Eastern and Southern European countries. This is especially the case for mothers with young children, who might find it difficult to enter or return to the labour market due to various obstacles, such as the lack of access to early childcare, benefit policy regimes that disincentivise maternal employment, traditional gender norms, or a lack of flexible work options that make it easier for mothers to reconcile work and family life.<sup>2</sup> Staying out of work for longer periods can lead to the depreciation of market-relevant knowledge and skills, which, in turn, hinders women's career prospects and lowers their wages – directly for those with children and through discrimination for those without. All of these factors contribute to the widening of the wage gap between men and women.

Reducing gender inequality in employment and including mothers in the labour market is desirable for many reasons. Besides the obvious economic benefits of a larger workforce, studies have shown that maternal employment can have a positive effect on the economic situation of a family (Dotti Sani and Scherer 2018). Indeed, the data suggest that child poverty tends to be lower in two-earner than in one-earner families (Thévenon et al. 2018). Moreover, being employed seems to have a significant positive influence on mothers' individual well-being as well. Full-time employed mothers report higher life satisfaction than part-time or unemployed mothers (Berger 2013), and working mothers are, in general, more economically independent, and thus have more freedom in directing their lives compared to homemakers (Korpi, Ferrarini, and Englund 2013). Furthermore, the evidence points to the importance of institutional factors in enabling women to reconcile motherhood with work; in countries with higher levels of support for working mothers – particularly in Nordic countries - fertility rates are found to be higher (Matysiak and Vignoli 2008; Ellingsæter 2009). There is already an extensive literature on the factors influencing the labour force participation of working-age women, with mixed results and recommendations. However, these studies generally agree that adequate institutional and policy contexts are needed to encourage mothers to return to formal work instead of remaining solely in their role as caregiver.

In the following sections, we will explore the factors that influence mothers' labour force participation, and will analyse the current regulations and their effects on maternal employment in two Central and East European (CEE) countries with relatively large gender employment gaps, Poland and Hungary. Countries in the region are interesting to study due to the historical context, as

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<sup>1</sup> We thank Iga Magda and Ágota Scharle for their valuable comments and suggestions.

<sup>2</sup> For an extensive overview of recent literature on the drivers of mothers labour supply in OECD countries, see Turon (2022).

during the communist period the social norm that women should work was strongly promoted, which resulted in these countries having higher female labour force participation rates than the EU-15 countries in 1990. Since then, however, this trend has reversed: currently, CEE countries have lower female labour market participation rates than the other EU countries, and more traditional attitudes towards gender roles. In our policy paper, we focus in particular on the availability of early childcare, institutional arrangements related to childcare leave, the involvement of fathers in caring for young children, attitudes towards gender roles, and flexible arrangements at work.

For our analyses, we use the European Labour Force Survey data for the years 2010 to 2020. In the first sections of the paper, however, we only analyse data for 2019 to get an uninterrupted picture of the labour market situation of women before the COVID-19 pandemic. Later, in section 5, we examine the impact of the pandemic on factors that influence mothers' labour market participation. We restrict our sample to people aged 15 to 44.

We find that in Poland and Hungary, the gender employment gap is relatively large in comparison to that in other EU countries. This gap is driven mainly by the low employment rates among women with young children (under the age of three) who withdraw from the labour market due to their childcare responsibilities. They face various barriers that hamper their participation in the labour market, such as limited access to good quality childcare facilities, low levels of workplace flexibility, a lack of adequate ALMPs that facilitate the reconciliation of work and family duties, low engagement of fathers in childcare, and stereotypes about gender roles.

Therefore, we argue that policy measures that aim to promote the labour market participation of women should address these interconnected factors, and that efforts should be made to integrate the gender perspective into all stages of the policymaking process, from the design of public policies, through to the implementation, monitoring, and evaluation of policies.

The paper is organised as follows. Section 2 presents data on the employment outcomes of women in Poland, Hungary, and the EU. Section 3 investigates the factors that affect the labour force participation of mothers. Section 4 analyses the effects of the COVID-19 pandemic on female employment. Section 5 discusses how ALMP can foster the labour market integration of mothers. Section 6 provides policy recommendations.

## 2. Employment rates of mothers in Poland and Hungary

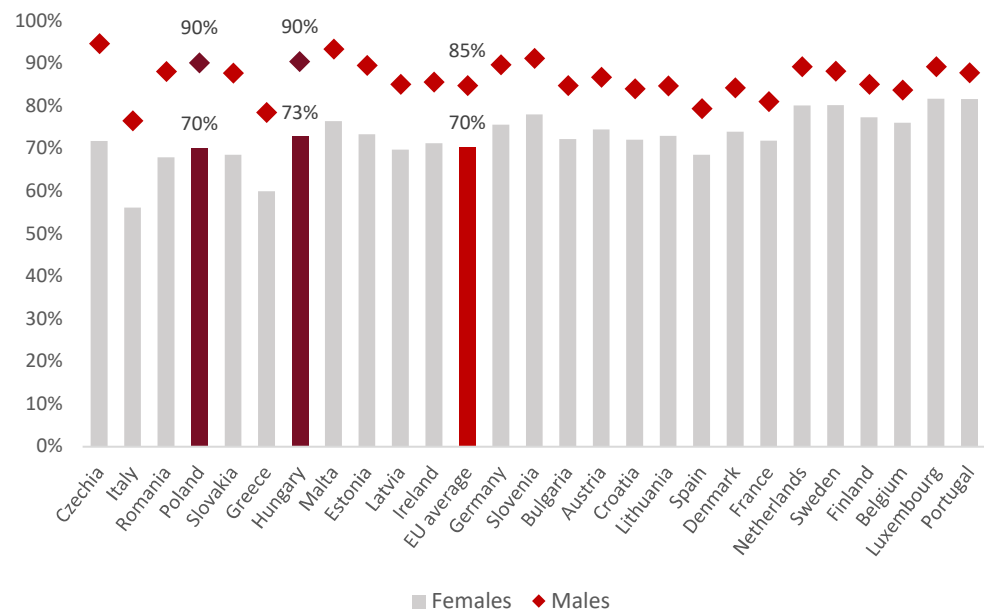
As this chapter focuses on the gender differences in the labour market participation of young people, and the role of parenthood in gender differences in employment, we limit our analysis to people aged 15-44. Since the length of parental leaves and the treatment of parental leave in the concept of employment differ across countries and hinder international comparisons, we deviate from the standard LFS employment concept<sup>3</sup>. We define employed persons as those who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed, but who had a job from which they were temporarily absent. However, we adjust for differing interpretations of absence due to maternity or parental leave, and we do not consider this period as employment. According to the new ILO guidelines introduced in 2020, absence due to parental leave can be considered employment if its duration does not exceed three months or the parent has a guarantee of being permitted to return to the same economic unit. Poland, for example, considers women on maternity leave as employed, while in Hungary, the classification of mothers on leave was changed in 2021. Previously in Hungary, the two-year period of insurance-based parental leave was excluded from employment, but since 2021, this whole period has been counted as employment as well.

In all EU countries, the employment rates of women tend to be lower than those of men. Poland and Hungary are, however, among the countries where the gender employment gap is relatively large. Figure 1 shows the employment rates among people aged 15 to 44 in all EU countries. In Hungary in 2019, the employment rate of women in this age group is 73%, while the employment rate of their male counterparts is 90%. Among the same age group in Poland, the female employment rate is 70%, and is thus 20 percentage points lower than the males employment rate. Thus, the difference in the employment rates of women and men, which may be referred to as the employment gap, is above the EU average in both countries. Moreover, while the employment gap between women and men has decreased in many EU countries over the course of the last 10 years, the opposite trend has occurred in Hungary and Poland (see Appendix, Figure A1).

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<sup>3</sup> The concept is based on the guidelines of the International Labour Organization (ILO): an employed person is a person aged 15 years or older who has worked for at least one hour during a given week; or who has a job from which she/he is permitted to be absent under certain conditions (holidays, sick leave, maternity leave, etc.) or for a certain duration.

Figure 1. Employment rate among people aged 15-44 in the EU countries, by gender.



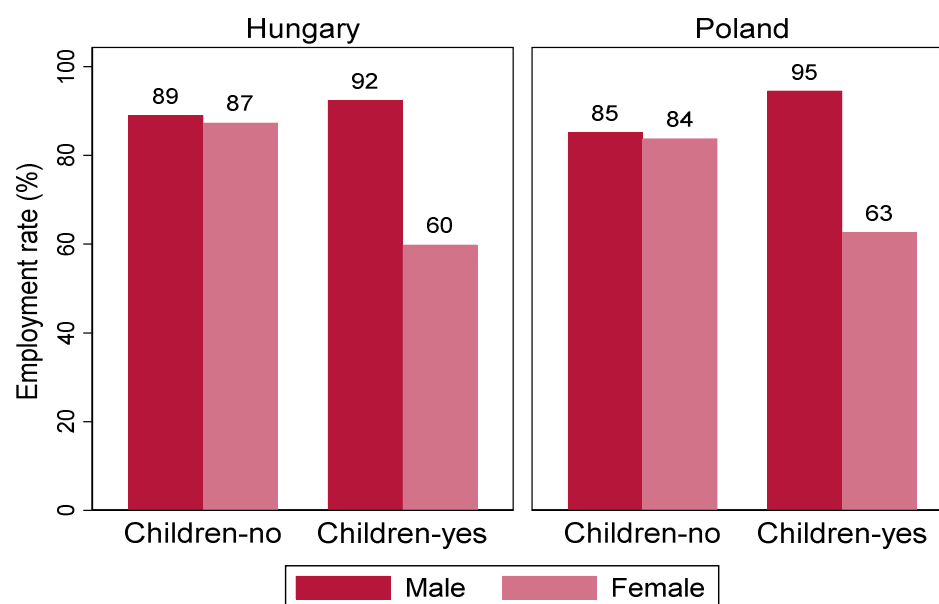
Notes: Arranged from the greatest to the smallest difference in the employment rate between men and women.

Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed, but had a job from which she was temporarily absent for reasons other than maternity or parental leave. The employment rate is calculated as a share of employed persons in the 15-44 age group who are employed or not employed, and are not in education.

Source: Authors' calculation based on the Labour Force Survey data.

The employment gap between women and men is driven by many interconnected factors, the most important of which is having children. Figure 2 shows the difference in the employment rates of women and men with and without children in Poland and Hungary in 2019. The presence of a child in the household influences male and female employment rates in the opposite direction. In both countries, there is also a small difference in employment rates between men and women without children; however, female employment rates decrease by 27 in Poland and by 21 percentage points in Hungary when there is a child in the household. On the other hand, male employment rates are slightly higher when there is a child in the household, though this is mainly because men with higher employment potential have a higher probability of becoming a father (see Kunze 2020). This trend suggests that women in both countries face considerable obstacles in combining work and family life.

Figure 2. Employment rates among people aged 15-44 in Poland and Hungary, by gender and parental status, 2019



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed, but had a job from which she was temporarily absent for reasons other than maternity or parental leave.

The employment rate is calculated as a share of employed persons in the 15-44 age group who are employed or not employed, and who are not in education.

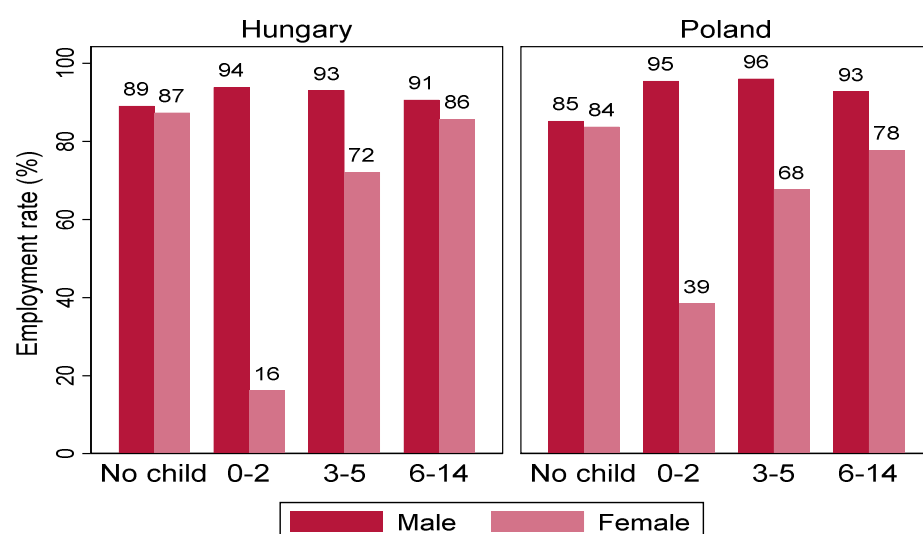
Source Authors' calculation based on the Labour Force Survey data for 2019.

Furthermore, the age of the children in the household plays a significant role in the labour market participation of mothers. Figure 3 shows the employment rate of both women and men by the age of the youngest child in Hungary and Poland in 2019. The employment rate among women with children under age three is strikingly low in Hungary, at only 16%; while it is somewhat higher in Poland, at 39%. On the other hand, in both countries, the male employment rate is higher among men who have a very young child than among men who are childless. The pattern of the female employment rate increasing with the age of the youngest child can be observed in both countries.

To gain a better understanding of the employment rates of mothers with the youngest children, we can divide the first age group into further two categories: children under 24 months old (under two years old); and children 24 months old or older, but under 36 months old (two years old). This categorisation is especially interesting in Hungary, where the relatively high-paying parental transfer, the GYED, ends when the child turns two, yet obligatory kindergarten does not start until age three. Consequently, we can observe in Figure 4 that in Hungary, employment is extremely low among mothers with a child under age two, at less than 9%; while it is much higher among mothers with a two-year-old, at 27%. In Poland, employment is somewhat higher among mothers with a child under age two, at 27%.



Figure 3. Employment rates for people aged 15-44 by gender and age of the youngest child (aged 0-14) in Hungary and Poland, 2019

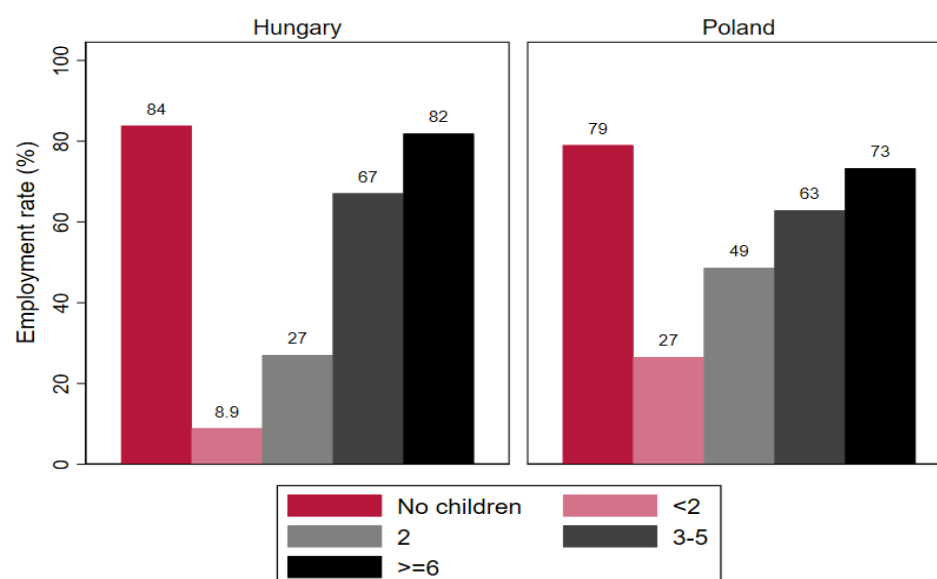


Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed but had a job from which she was temporarily absent for reasons other than maternity or parental leave.

The employment rate is calculated as a share of employed persons in the 15-44 age group who are employed or not employed, and are not in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Figure 4. Employment rate among females aged 15-44 by age of the youngest child in Hungary and Poland, 2019



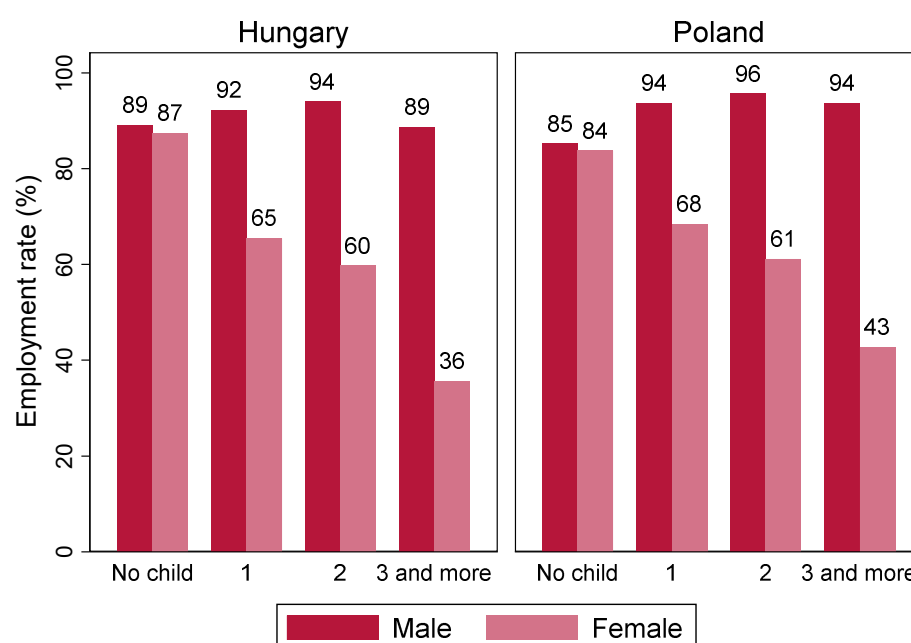
Employed: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed, but had a job from which she was temporarily absent for reasons other than maternity or parental leave.

The employment rate is calculated as a share of employed persons in the 15-44 age group who are employed or not employed, and are not in education.

Source Authors' calculation based on the Labour Force Survey data for 2019.

In addition to the age of the youngest child, the number of children in the household also has a significant effect on mothers' labour market decisions, as the more children a woman has to take care of, the less likely it is that she will be able to combine work and family life. This association is clearly reflected in Figure 5, which shows that in both countries, the female employment rate decreases as the number of children in the household increases. By contrast, the male employment rate in both countries is higher among men with children than among men who are childless, and increases with more children, albeit with a small decline among men with three or more children.

Figure 5. Employment rates for people aged 15-44 by gender and number of children in the household in Hungary and Poland, 2019



Notes: x-axis represents the number of children in the household

Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed, but had a job from which she was temporarily absent for reasons other than maternity or parental leave.

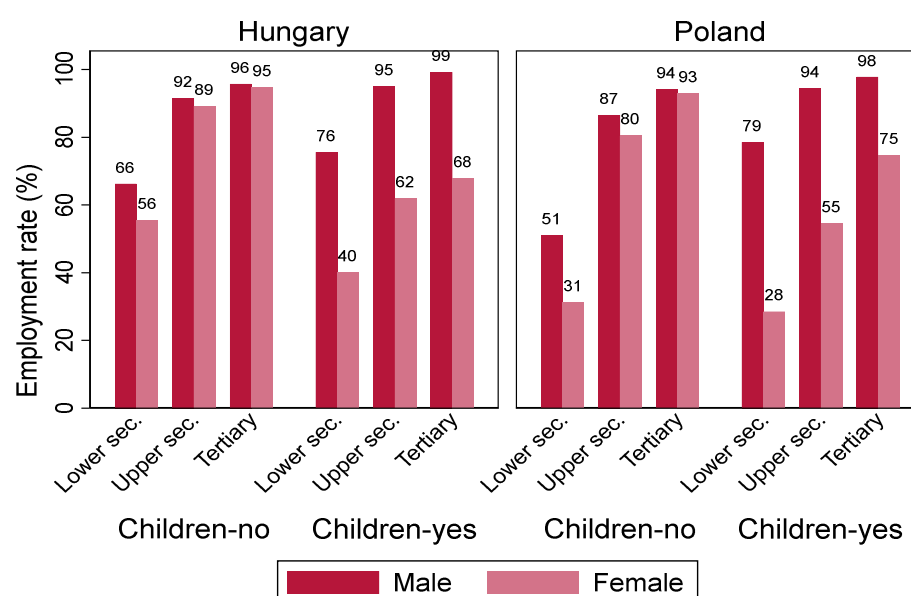
The employment rate is calculated as a share of employed persons in the 15-44 age group who are employed or not employed, and are not in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Furthermore, we can look at employment rates by different educational levels. Figure 6 shows how the employment rates of women and men in Hungary and Poland, both with and without children, vary depending on the highest educational level they attained (educational levels are derived from the International Standard Classification of Education, ISCED). The chart reveals that while the gender employment gap is mainly explained by the presence of children, lower educated women have a somewhat lower employment rate even without children in the household. In Hungary, the employment rates of childless females

are slightly lower than those of males at all educational levels (by 10, three, and three percentage points, respectively). However, when children are present in the household, this gap becomes much larger. Educational attainment is an even more important determinant of the gender gap in Poland, where having lower secondary education only has a dramatic effect on women's labour force participation. In Poland, the employment rate of the lowest educated mothers is 27%, but it is only slightly higher, at 29%, for the lowest educated childless women. At the same time, the employment rates of higher educated women and of men in Poland are comparable to the employment rates among the same groups in Hungary. In both countries, higher educated females experience a bigger drop in employment than lower educated women. This pattern contrasts with those in the majority of EU countries, where the maternal employment gap tends to be largest for lower educated women and smallest for higher educated women (Hofman 2020).

Figure 6. Employment rates for people aged 15-44 by gender, educational level, and having children in Hungary and Poland, 2019



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed, or who did not work during the week prior to being surveyed, but had a job from which she was temporarily absent for reasons other than maternity or parental leave.

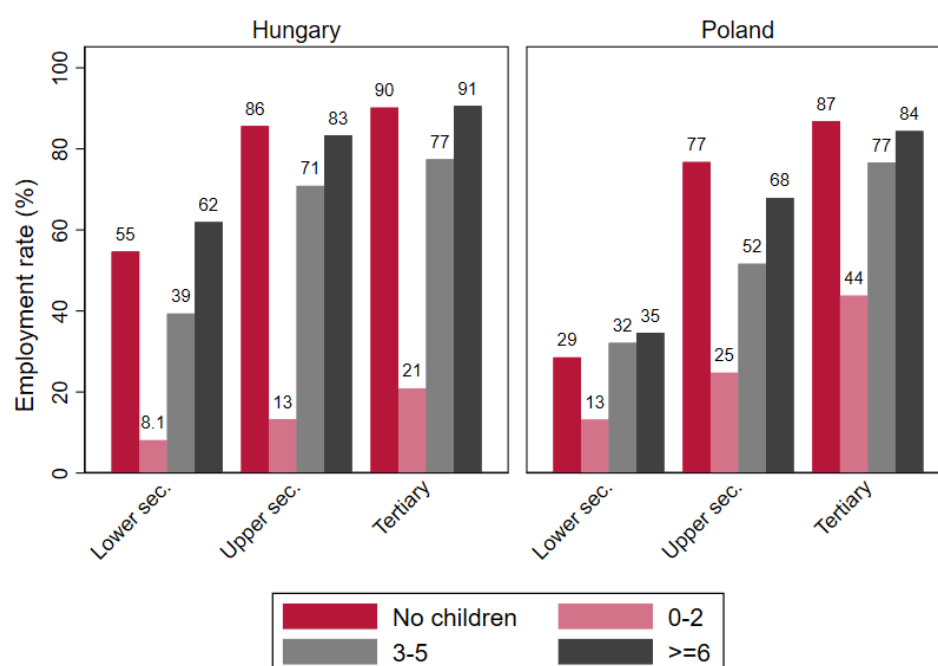
The employment rate is calculated as a share of employed persons in the 15-44 age group who are employed or not employed, and are not in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

This pattern is even more apparent when we look at the female employment rates of women with a child under age three (0-2 years old) (see Figure 7). Once again, we observe a huge negative employment effect of having young children, especially in Hungary. We also find that the higher employment rate of higher educated women is almost entirely annulled by the presence of a young child in the household. In Poland, employment among women with lower secondary education already very low; thus, the presence of a young child in the household

leads to a smaller employment drop. However, the decrease among higher educated women is larger.

Figure 7. Employment rate among females aged 15-44 by educational level and age of the youngest child in Hungary and Poland, 2019



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed; or who did not work during the week prior to being surveyed, but had a job from which she was temporarily absent for reasons other than maternity or parental leave.

The employment rate is calculated as a share of employed persons among the 15-44 age group who are employed or not employed and not in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019

## Regressions

In order to observe the relationship of employment with the potential influencing factors simultaneously, we estimate linear probability models to analyse the differences between female and male employment rates while controlling for other variables. The full regression output tables can be found in the appendix.

### Gender employment gap

The first regression aims to analyse the gender gap in employment in both Hungary and Poland by interacting the gender dummy with all other explanatory variables. The results of the regression are somewhat different in the two countries: by adding a child dummy, the employment gender gap disappears (and even turns positive) in Hungary, while it persists in Poland. Having a child significantly decreases the probability of employment for women (by 28 percentage points in Hungary and 23 percentage points in Poland compared to the probability of employment for men without children). At the same time, having a child is associated with higher employment rates among men. However, (Kunze 2020) presents evidence that while parenthood has a casual impact on

female employment, the higher employment rate among fathers than among childless men is not necessarily because having a child increases the paternal employment rate, but the other way around, as men with higher employment potential are more likely to become fathers. Education is found to be positively associated with employment rates among childless women: having upper secondary and tertiary education increases their employment rate more than it does for childless men, thereby decreasing the gender employment gap among higher educated groups. This effect is even stronger in Poland. Other factors that are shown to be correlated with the employment gap are marital status (married women are more likely to be employed in Hungary and less likely to be employed in Poland) and the type of residence (women living in urban areas are more likely to work than women living in thinly populated areas), although these effects are much smaller than that of having children.

#### *Employment rates of mothers and childless women*

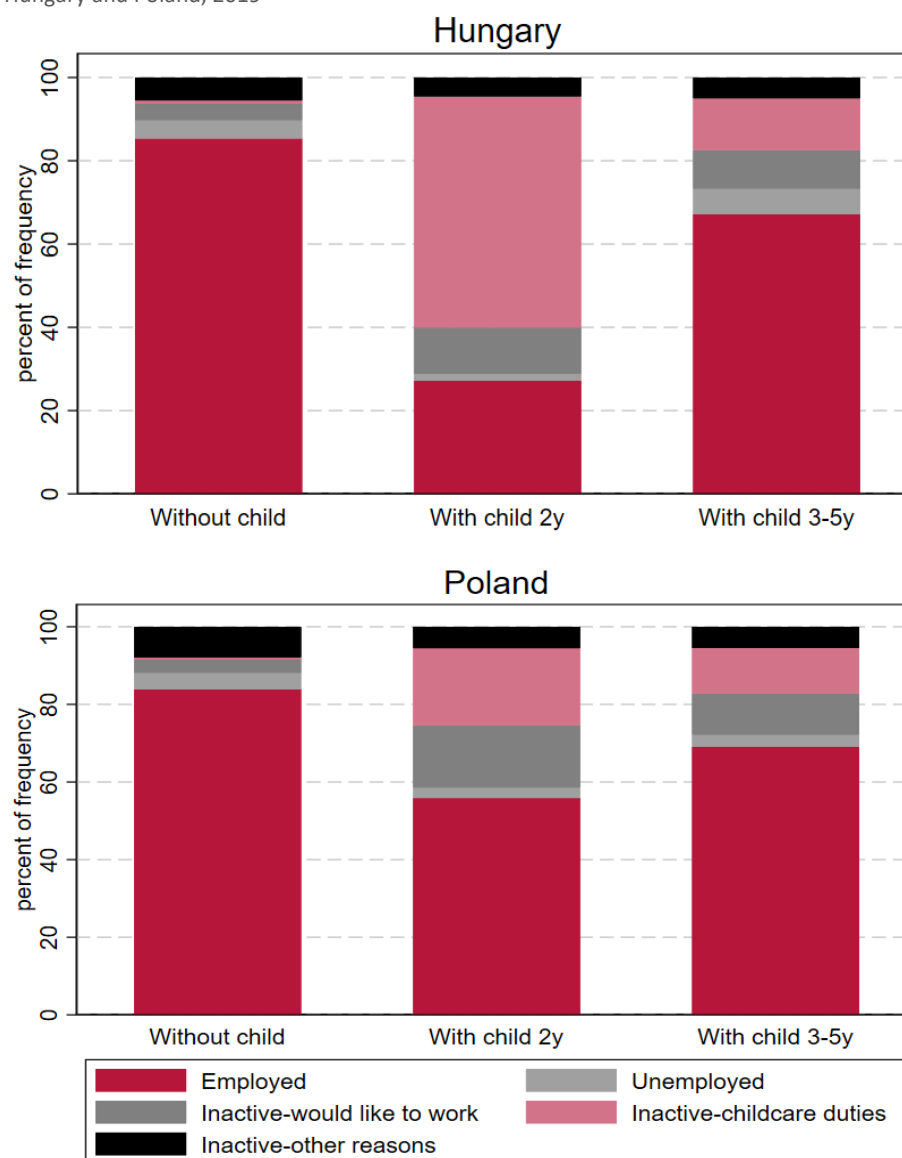
When only including women with and without children in the regression, we can further investigate the effect of maternity and its interaction with other factors on employment rates, as the explanatory variables are interacted with a categorical variable indicating the age of the youngest child (the same age groups as before). In line with the descriptive statistics, we find that having children under age three decreases the employment rate by 42 percentage points in Hungary and by 13 percentage points in Poland for mothers with lower secondary education only, and by even more for higher educated mothers, compared to the employment rate for childless women. As soon as the child turns three, however, this effect diminishes, and the employment rate of mothers with older children differs only marginally from that of childless women. Moreover, the positive effect of education almost completely disappears among women with children aged 0-2 in Hungary, which means that regardless of their education, women with a child under age three usually stay at home. While having children also decreases the positive effect of education in Poland, it does not completely cancel it out like it does in Hungary, and a small, albeit significant negative effect remains even when the child is older. As can be expected, women with more children are less likely to work than women with only one child. The presence of more than two adults in a household has a small positive employment effect, as it can be assumed that additional adults (such as grandparents) can help in childcare duties.

#### **Room for policy interventions: What do we know about the pool of non-employed mothers?**

Policy interventions to promote employment among women are most promising when aimed at those women who are 1) unemployed; 2) inactive but would like to work; or 3) inactive due to various constraints, but would like to work as well if these constraints were eliminated. Figure 8 shows the composition of non-employed women without children as well as with a two-year-old or a 3-5-year-

old child in Hungary and Poland<sup>4</sup>. The share of unemployed mothers is very low in both countries. However, among non-employed mothers whose youngest child is two to three years old, over 10% of those in Hungary and 20% of those in Poland would like to work. These mothers are an easier target for policies than the large pool of inactive mothers with childcare duties, as their reasons for not wanting to work may include various interconnected factors and obstacles that are more difficult to tackle with policies, such as societal attitudes towards gender roles.

Figure 8. Composition of working and not working women by age of the youngest child (0-14 y.o.) in Hungary and Poland, 2019



Source: Authors' calculation based on the Labour Force Survey data for 2019. As the chart is based on two different questions, the willingness to work and the reasons for inactivity may overlap. The

<sup>4</sup> We do not consider mothers with children under age two for two different reasons: first, the majority of them are inactive and do not want to return to the labour market; and, second, these questions of the LFS use the standard ILO definition for employment, which includes maternity leave in Poland, which would make the distinction between the categories difficult.

category of inactive due to childcare duties only includes those mothers who do not indicate a willingness to work.

### 3. Barriers to young women's labour market integration

Although the decision of mothers to stay away from the labour market and to take care of their family reflects individual as well as societal preferences, there is considerable evidence that spending long periods of time at home has negative consequences for the future career and wage trajectories of women. The decision of women to stay home might, for example, lead to a depreciation of their human capital (e.g., Blundell et al. 2016); suppress their voice in the family; or increase their risk of poverty, especially if they become a single mother (e.g., Blundell et al. 2016). At the same time, the effort to combine family obligations and work can result in mothers being segregated in lower-paid jobs (Costa Dias, Joyce, and Parodi 2020). There are multiple aspects to be considered here from the perspective of both the child's and the mother's well-being.

The (potential) effects on child development of parental employment and the simultaneous placement of children in early childcare institutions are usually assessed in three domains: physical well-being, intellectual (cognitive) development, and psychosocial development (Blaskó 2010). Generally, studies agree that mothers returning to work and enrolling their children in formal childcare from the age of three onwards has positive effects on the development and well-being of children (Felfe, Nollenberger, and Rodríguez-Planas 2015; Havnes and Mogstad 2011). Findings for children below age three are less conclusive. International research suggests that a mother being in full-time employment before her child is one year old may hinder the child's development (Blaskó 2008). This has been found to be the case for both the physical development (with breastfeeding being crucial for the health of a child; Binns, Lee, and Low 2016) and the cognitive and psychosocial development of a child (Hill et al. 2005; del Carmen Huerta et al. 2011).

However, when a child is over the age of one and a half to two years, there is generally no detectable negative effect of the mother returning to work. Moreover, it is not the mother's employment per se that is the decisive factor in how her work affects the child's well-being, but the circumstances of her employment (part-time, flexible working hours, teleworking, mother's attitude to work<sup>5</sup>), as well as the quality of alternative childcare (be it a nursery, a qualified nanny, an unqualified family member, or an unqualified paid employee; Fort, Ichino, and Zanella 2017; Noboa-Hidalgo and Urzúa 2012; Drange and Havnes

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<sup>5</sup> A role conflict may arise if, for example, the mother chooses an option different from the one that would suit her own preferences (being forced to work when she does not want to, or vice versa), and the resulting tension affects not only the mother's, but also the child's well-being (Blaskó 2010).

\*This role conflict is, of course, affected by societal expectations about working mothers.

2014), and the quality of the time the parents spend with their child (Adamson 2008).

As for the re-employment prospects of mothers, studies have identified a similar length of time as optimal for staying home with the child, although it is challenging to isolate the effect of leave schemes on the labour supply from other factors. In general, evidence from natural experiments suggests that the existence of parental leave is crucial in increasing maternal employment, as it promotes family-work balance (Kunze 2016). However, it has also been shown that taking a parental leave of more than two years has significant career costs for mothers (Kunze 2016; Ejrnaes and Kunze 2013).

There are also various constraints that mothers face when deciding between work and care activities, such as the availability and the quality of early childcare institutions, maternal leave legislation, the involvement of the father in childcare and home duties, societal attitudes towards working mothers, and the compatibility of work and family life (i.e., the availability of part-time or flexible work arrangements). In the following sections, we will try to disentangle the factors that can influence mothers' labour market participation, and will then analyse them in the context of Hungary and Poland.

### 3.1. Availability of early childcare

One of the obstacles that might hinder mothers from returning to work is the lack of early childcare, especially for children under age three. While estimating the causal relationship between early childcare and maternal employment is difficult due to its correlation with other factors that influence labour supply, changes in regulations and in strict eligibility cut-off dates have allowed researchers to study the effects of policy reforms in quasi-experimental settings. In general, the findings vary depending on the institutional and policy context of the country and the age groups studied. While in many countries, universal childcare is available only for children over age three, Kunze and Liu (2019) found that a reform that expanded childcare by 10 percentage points for 1-2-year-olds in Norway led to a short-term increase of 3.4% and a long-term increase of 2.8% in maternal employment for the targeted group. Other studies from France and Spain that used a natural experiment framework to look at the changes in the labour supply following the implementation of a childcare reform found that the effects were smaller if the initial female employment rate was high (France), and were bigger if the initial female employment rate was low (Spain) (Nollenberger and Rodríguez-Planas 2015; Givord and Marbot 2015). Moreover, all of the abovementioned studies found greater effects for mothers with two or more children (Kunze and Liu 2019; Nollenberger and Rodríguez-Planas 2015; Givord and Marbot 2015). Akgündüz, van Huizen, and Plantenga (2021) investigated an educational reform from 2009 in Poland that led to a sharp rise in the number of places available for preschool children in kindergartens. According to their



estimations, a 10-percentage-point increase in the ratio of places increased maternal employment by 4.2 percentage points. The effect was the strongest among mothers with a university degree and mothers with younger children.

Furthermore, the differences between similar countries in the estimated effects point to the importance of the institutional and policy context, and specifically to the generosity of parental leave schemes (Cattan 2016). These findings also show the influence of social factors, such as the availability of informal care and the prevailing gender roles (Kunze and Liu 2019; Cattan 2016). On the other hand, Kleven et al. (2020) emphasised the crucial role that prevailing gender norms play in maternal employment, and thus argued that childcare expansion policies might have a limited impact on efforts to close the gender employment gap.

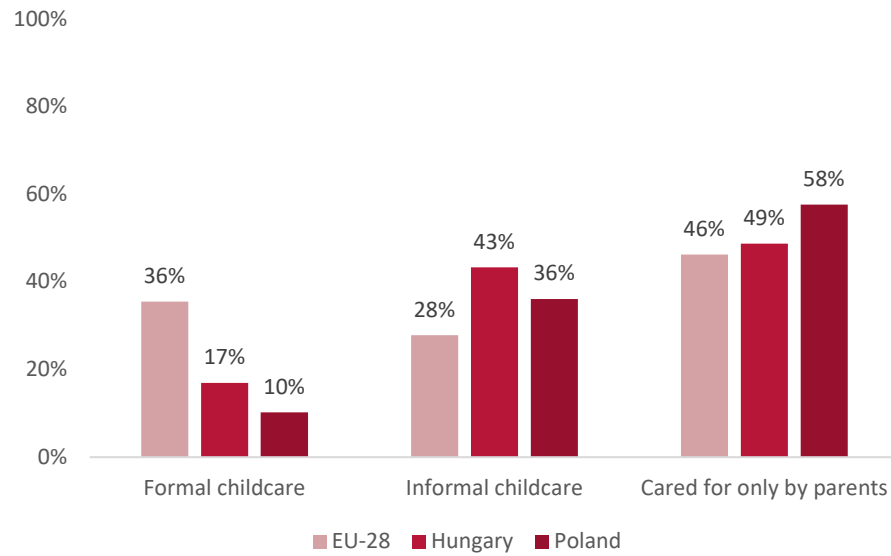
Overall, access to early childcare seems to play an important role in allowing mothers to return to formal work. Acknowledging this, the EU set out clear goals to expand access to universal childcare by 2010. However, many post-socialist and Southern European countries failed to meet the targets in time (Lovász 2016). As these countries have lower levels of maternal employment than many Western or Northern states, they could benefit greatly from universal preschool access starting from an early age (Cattan 2016; Lovász 2016).

To explore the patterns of early childcare in Hungary and Poland, we look at enrolment and occupancy rates in childcare facilities for the youngest children. In general, Central and Eastern European countries tend to have low enrolment rates for children below age three, with Hungary and Poland having enrolment rates of 17% and 10%, respectively (see Figure 11). While this share has increased somewhat in both countries over the years, it has remained significantly below the EU average (36%). Thus, parents in Poland and Hungary are more likely to care for their children by themselves or to use informal care<sup>6</sup> (such as child-minders or support provided by grandparents, friends, or relatives). Figure 11 shows that of children under age three, 43% in Hungary and 36% in Poland are using various informal care arrangements, compared to the EU average of 28%. Moreover, the share of children under age three who are being cared for only by their parents is higher in Hungary (49%) and in Poland (58%) than the EU average (46%). Informal and parents-only types of childcare are common in almost all Central and Eastern European countries (except Slovenia), whereas most Western European countries rely on formal childcare. While we do not have information on how many hours per day children spend in various childcare arrangements, we can assume that the hours spent in informal care are lower than those spent in formal care, and that informal care arrangements are likely to be less regular. These findings imply that one reason why mothers in Hungary and Poland may find it difficult to return to work instead of staying home to care for their children is that a high percentage of the available care in these countries is informal.

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<sup>6</sup> Informal childcare is typically characterised as unregistered by the state for quality control, child protection, and/or taxation purposes. It is most often provided by grandparents, other relatives, or unregistered nannies and child-minders (Janta 2014).

Figure 9. Childcare arrangements for children aged 0-2 in Hungary, Poland, and the EU, 2019



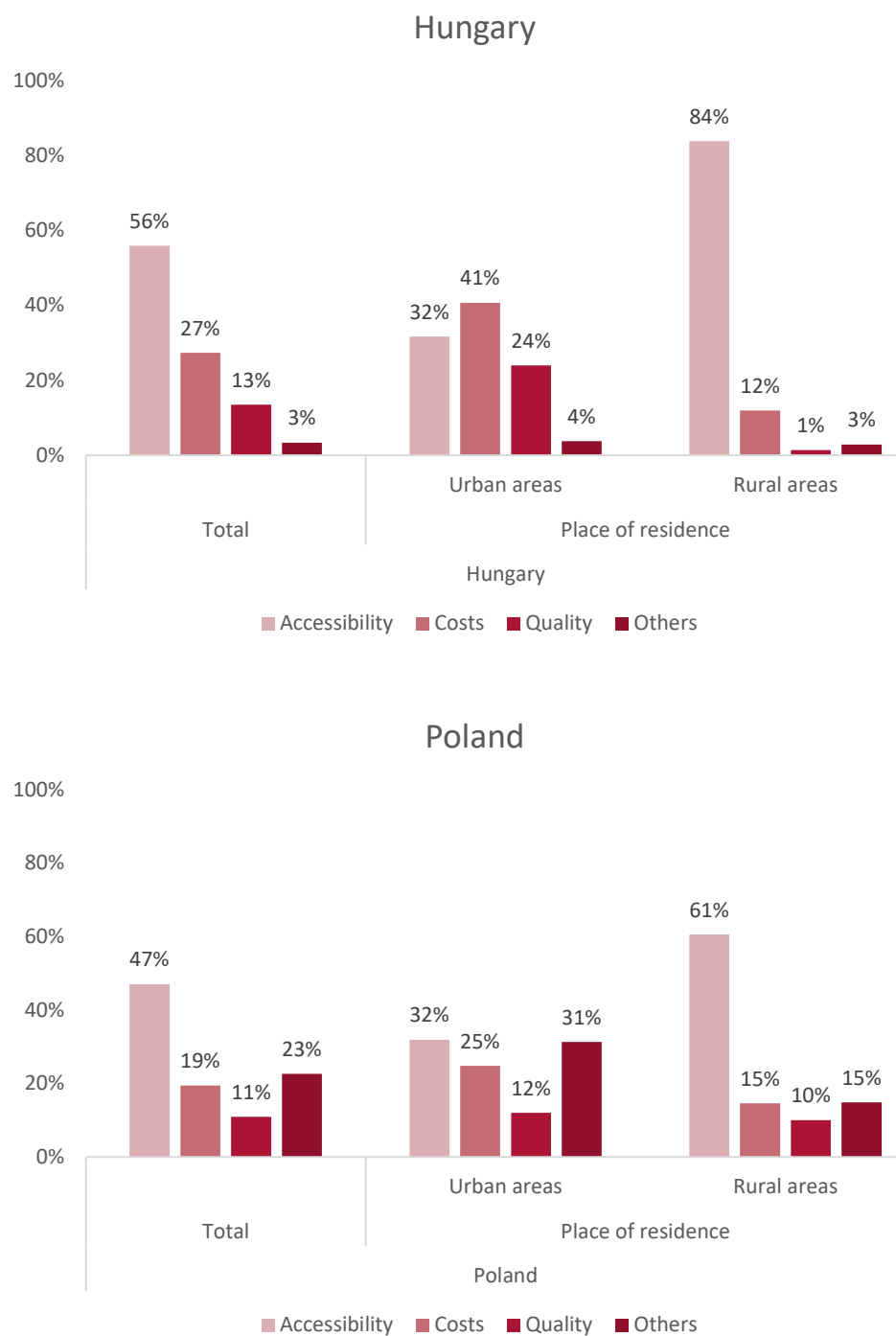
Note: According to the Eurostat definition, formal childcare includes nurseries, day-care centres, and other kinds of care organised/controlled by public or private structures. Informal childcare includes care provided by child-minders, grandparents, other household members, relatives, friends, or neighbours.

The shares do not add up to 100% because parents can use different types of childcare arrangements.

Source: Authors' calculation based on the Eurostat data for 2019.

On the other hand, the decision of whether to enrol children in childcare depends on the availability of affordable childcare and the willingness of parents to enrol their children in these facilities. When asked, the majority of parents in both Hungary and Poland who do not use formal childcare cited “no need” as their main reason for doing so (around 90% in Poland and Hungary according to the Labour Force Survey ad hoc module on reconciliation between work and family life from 2018). This finding points to the importance of prevailing gender roles in these two countries. Among parents who reported that they do not use childcare facilities but need them, the majority in both countries (56% in Hungary and 47% in Poland) cited limited accessibility as the main barrier (see Figure 10). Figure 10 shows that in both countries, this problem was reported more often by residents of rural areas (84% in Hungary and 61% in Poland) than by residents of urban areas (32% in Hungary and 32% in Poland). Residents of urban areas, in turn, were more likely to cite high costs (41% in Hungary and 25% in Poland) as a barrier to accessing care than residents of rural areas (12% in Hungary and 15% in Poland). These results suggest that the place of residence should be considered when introducing public policy reforms, as parents living in rural and in urban areas face different barriers to accessing to formal childcare facilities.

Figure 10. Reasons for not using childcare facilities among those individuals who need them in Poland and Hungary, by place of residence, 2019



Source: Authors' calculation based on the Labour Force Survey 2018 ad hoc module on reconciliation between work and family life.

## Early childcare in Hungary

In Hungary, the labour supply of mothers with children under age three is very low, while that of mothers with older children is high (Lovász and Szabó-Morvai 2019). Since 2015, enrolment in childcare is obligatory from the age of three, while children between 20 weeks and three years old can attend nurseries that are non-compulsory, and can charge a fee for their services to cover the difference between the actual costs of the care and the amount of the public subsidy. This fee is affordable to most families, as it must be proportional to the parents' monthly income. Moreover, access to nurseries is conditional on the parents' employment; parents must either present a certificate of employment or a confirmation of a future starting date two weeks prior to the enrolment of the child.

In response to the European Child Guarantee Program and the Barcelona objectives, the government launched an extensive capacity-building programme of nurseries in 2017. From that year onwards, all municipalities with more than 40 children under age three or with at least five children expressing need have been required to provide nursery places for these children. Since then, the ratio of children with no childcare facility in their vicinity has decreased from 26% to 21%.<sup>7</sup>

Nevertheless, despite the substantial improvements in the last decade, the level of childcare provision in Hungary continues to be well below the level needed to meet the Barcelona targets. In addition, the childcare supply varies widely across rural and urban settings (see Figure 11). In recent years, places were filled at an average rate of 94%, though usage dropped during the pandemic (in May 2020, it was 90%). Though one of the objectives of the expansion programme was to reduce regional variation, it persists in the availability of childcare.<sup>8</sup> Currently, there are 2380 settlements (out of around 3100) with no childcare facility for children under age three.

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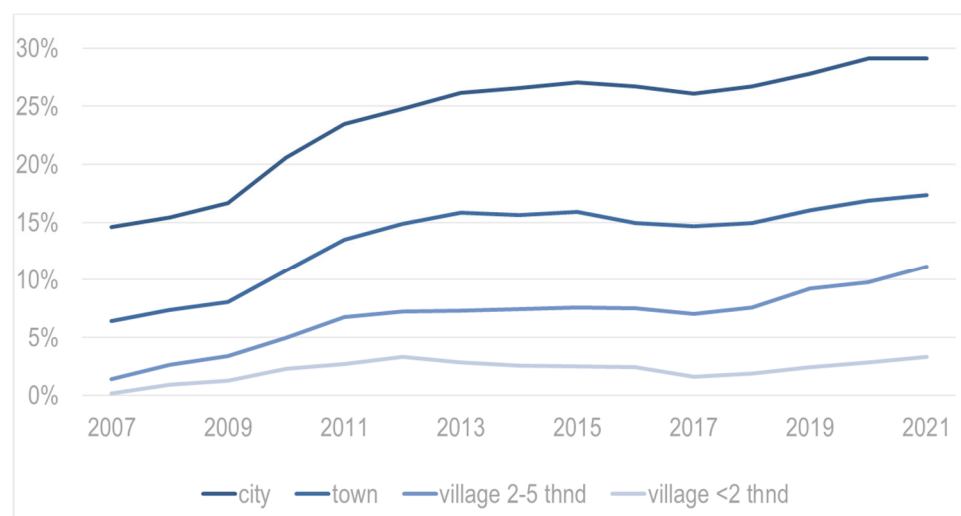
<sup>7</sup> Including villages cooperating with each other or a nearby town in providing day care. Central Statistical Office (2020). A kisgyermek napközbeni ellátása, 2020 (Childcare for small children, 2020). Accessible online at:

<http://www.ksh.hu/docs/hun/xftp/stattukor/kisgyermnapkozbeni/2020/index.html>

<sup>8</sup> Central Statistical Office (2020). A kisgyermek napközbeni ellátása, 2020 (Childcare for small children, 2020). Accessible online at:

<http://www.ksh.hu/docs/hun/xftp/stattukor/kisgyermnapkozbeni/2020/index.html>

Figure 11: Availability of childcare in nurseries (formal childcare capacity for children under age three, divided by the number of children under age three)



Notes: The authors' calculations based on T-STAR database.

These findings indicate that the lack of available and accessible childcare for children under age three may be a constraint on women returning to work (Lovász and Szabó-Morvai 2013). Therefore, providing access to subsidised childcare for children under age three could have a large impact on maternal employment in Hungary, with estimates of the potential increase in the activity rate ranging from 19% to 24% (Lovász and Szabó-Morvai 2013; Lovász and Szabó-Morvai 2019). However, the effectiveness of such an intervention could be constrained by other institutional factors, such as the generosity of family policies.

### Early childcare in Poland

In Poland, institutional childcare for children under age three is organised mainly in public and private nurseries and child clubs. There has been a sizeable increase in the number of these facilities in recent years (from 821 to 3848 nurseries between 2012 and 2020 and from 162 to 726 child clubs in the same period), which has translated into an increase in the rate of participation in formal childcare of children under age three (from 3.8% in 2012 to 12.8% in 2020) (Statistics Poland). Moreover, the occupancy rate (the number of children enrolled vs. the number of available places) has decreased from 94% in 2016 to 82% in 2020 (Statistics Poland). However, the availability of institutional childcare may still be limited. As around 45% of municipalities (71% of rural municipalities, 36% of rural-urban municipalities, and 10% of urban municipalities)<sup>9</sup> in Poland do not have any nurseries or child clubs, there is substantial spatial inequality.

## 3.2. Maternity leave and cash transfers

Another factor that highly influences the decision of mothers to return to work is the length and the generosity of parental leave schemes, as well as the option to combine leave benefits with work. As was discussed above, there is no consensus on the optimal length of time for a mother to stay home with a child. Thus, countries differ significantly in the leave benefits they offer to mothers. While parental leave is short and unpaid in the US, countries in Europe generally provide longer and more generous parental leave options (Kunze 2016; 2022). Even within Europe, there are significant differences between countries, with Northern European states providing the most flexible parental leave schemes, while Eastern European countries tend to offer longer but lower-paying options, primarily for mothers (Gehring and Klasen 2017). Although there is an abundance of literature on the (optimal) length of parental leave and its consequences on maternal employment, literature on the optimal benefit amount and its compatibility with work is scarce. This can be problematic, as leave length alone cannot fully explain the constraints that mothers face when deciding between staying home and returning to work. However, some studies have tried to establish a relationship between parental leave schemes and maternal labour supply by taking more of these factors into consideration. In their investigation of the aggregate effects of parental leave legislation on the labour market outcomes of mothers in 16 European countries, Akgunduz and Plantenga (2013) found that while participation rates increase when paid leave is introduced, the positive effects diminish with the length and the generosity of the leave schemes. From a purely participation-focused point of view, they concluded that 30 weeks of paid leave deliver the best results, but also noted that unpaid leave offered on top of

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<sup>9</sup> The administrative division of Poland is based on three levels of subdivision. Poland is divided into voivodeships (provinces); voivodeships are further divided into powiats (counties or districts); and powiats are, in turn, divided into gminas (communes or municipalities). Poland currently has 16 voivodeships, 380 powiats, and app. 2500 gminas.

this period seems to influence mothers' labour market participation as well (Akgunduz and Plantenga 2013). A study from Norway that analysed mothers' responses to the expansion of paid leave from 18 to 35 weeks with 100% income replacement showed that the reform did not crowd out unpaid leave, and thus that mothers increased the length of their leave by the additional time offered (G. Dahl et al. 2013). The authors also found that the expansion of paid leave had no significant effect on mothers' labour force participation, but a regressive effect on income distribution, as high- and middle-income families benefited much more from the reform than lower-income or ineligible mothers (G. Dahl et al. 2013). Lalive et al. (2014) studied mothers' return to work behaviour by analysing mixes in the length of job protection and cash benefits (equally long, one longer than the other). By exploiting a series of policy changes in Austria, they concluded that longer cash benefits lead to a significant delay in the return to work, depending on the relative length of the job protection and the benefit (Lalive et al. 2014). Finally, (Gehring and Klasen 2017) pointed out that different family policies – including leave schemes and cash benefits – are only effective in promoting maternal employment if they are designed to ensure the best possible family-work balance for mothers; not only in terms of length and benefit amount, but also in terms of flexibility and compatibility with work.

### **Maternity leave and cash transfers in Hungary**

Hungary is one of the most generous countries in Europe when it comes to the length of maternity leave. If a woman uses all the paid maternity, parental, and home care leave options available to mothers, she can take up to 160 weeks of leave from employment (or up to eight years with at least three dependent children; OECD 2021). On the other hand, the payment rates – i.e., the proportion of previous earnings replaced by the benefit for a person earning 100% of the average national full-time wage – for parental leave are rather low after the second birthday of the child, although mothers are eligible for pension and healthcare benefits during the whole duration of the leave.

The parental transfer system in Hungary consists of leave entitlements of various lengths and payment rates, depending on the age of the child and the previous employment status of the transfer receiver (see Table 1 below and Table A1 in Appendix A for a detailed explanation). In the first six months after the birth of her child, a mother is eligible to receive the CSED, which covers 100% of the pre-birth wage, provided she has been employed for at least 365 days in the previous two years<sup>10</sup>. During this transfer period, the mother is not allowed to be employed. After that time, the GYED is available to both parents until the child is two years old. The GYED covers 70% of the parent's previous wage, but only up to 1.4 times the minimum wage. Since the introduction of the GYED Extra in 2014, parents have been permitted to return to full-time employment one year – and, since 2016, six months – after the birth of the child while still receiving the full GYED amount. On the other hand, any parent can receive the GYES until the child

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<sup>10</sup> The father is eligible only if the mother has died or has lost her parental rights.

turns three regardless of her/his previous employment activity. The GYES provides health care and pension insurance coverage, but only a low benefit amount of 28,500 HUF per month (around 8% of the average wage) for one of the parents. For parents with at least three children, the GYET provides a fixed amount of 28,500 HUF for the period when the youngest child is between three and eight years old. In line with the international findings, Szabó-Morvai (2015) estimated the causal effect of the GYED on the maternal labour supply using a differences-in-differences method, and found no significant effect in the first two years after the birth of a child, but a negative effect starting when the child turns three. The negative effect was shown to be stronger for mothers with low levels of education.

*Table 1. A short summary of parental transfers in Hungary*

| HUNGARY                      |      |      |      |                              |   |   |   |   |        |
|------------------------------|------|------|------|------------------------------|---|---|---|---|--------|
| Age of the child             | 1    | 2    | 3    | 4                            | 5 | 6 | 7 | 8 | ... 18 |
| Mother has worked before     | CSED | GYED | GYES | GYET (if 3 or more children) |   |   |   |   |        |
| Mother has not worked before | GYES |      |      | GYET (if 3 or more children) |   |   |   |   |        |

This generous parental leave system allows mothers to stay home with their child until the age of three, and is an important determinant of the low maternal employment rate among mothers with the youngest children. The introduction of the GYED Extra may have contributed to the increase in the employment rate of these mothers from around 6% in 2014 to 9% in 2019; however, this percentage is still very low compared to the rates in other European countries.

### **Maternity leave and cash transfers in Poland**

Poland provides shorter (up to one year) paid leave, which is divided into two separate components. The first component, maternity leave, is granted right after the birth and lasts up to 20 weeks (14 weeks for the mother and the remaining six weeks for the mother or the father). It is followed by the second component, parental leave, which lasts up to 32 weeks, and can be shared by the parents. It is available until the child reaches age six. The average compensation rate for paid leave is 80% of the pre-leave wage. The allowance is available for employees covered by health insurance, regardless of their type of contract. A period of parental leave can be followed by a period of childcare leave, which can last up to 36 months, and can be used by both parents. However, childcare leave is unpaid, and it is granted only to parents who had been employed for at least six months. Consequently, mothers in Poland are encouraged to return to the labour market earlier than mothers in Hungary, which is reflected in the employment rates of mothers with children under age three (see Figure 3 in the previous section).



Table 2. Short summary of parental transfers in Poland

| Poland              |                          |                             |   |                                 |   |
|---------------------|--------------------------|-----------------------------|---|---------------------------------|---|
| age of child        | worked before            | transfer                    | eligibility   | compensation rate               | flexibility/work  |
| 0-24 months         | Not required             | <b>Paid paternity leave</b> | Only the father, paid paternity leave of 2 weeks in the first 24 months after birth             | 100% of previous earnings       | Employment not allowed  |
| 0-20 weeks          | Not required             | <b>Paid maternity leave</b> | Only the mother during the first 14 weeks. Remaining 6 weeks can be divided between the parents | Up to 100% of previous earnings | Employment not allowed  |
| 20 weeks to 6 years | Not required             | <b>Paid parental leave</b>  | Both parents can use 32 weeks until the child reaches the age of 6                              | Up to 80% of previous earnings  | Part-time employment allowed (maximum 20 hours a week)  |
| 20 weeks to 6 years | Required - min. 6 months | <b>Unpaid care leave</b>    | Both parents can use 36 months until the child reaches the age of 6                             | No                              | Employment allowed. Number of hours not specified. Working hours must enable personal childcare |

### 3.3. Involvement of fathers

Another factor that we deal with in this paper is the involvement of fathers in childcare and housework duties. The level of engagement of fathers in child and family services depends in part on regulations that allow them to stay home with a child (paternal leave and parental leave available to both parents), and in part on the prevailing gender norms in the society that govern roles of parents and the division of unpaid work in families. Traditionally, both care and household chores were the responsibility of women in the family, which often prevented them from engaging in paid work. Although studies have shown that the increased involvement of fathers can lead to higher employment rates among mothers (Fanelli and Profeta 2021; Stertz, Grether, and Wiese 2017), and countries have taken steps to reduce the gender gap in unpaid work, other studies have found that women still carry out the bulk of housework and childcare duties, especially in Eastern European countries (Scharle 2015; Fodor and Balogh 2010).

#### *Paternal and parental leave for fathers*

Various countries have introduced policies that allow fathers to take on a bigger share of the childcare duties at home with the aim of improving employment opportunities for women. We must distinguish between two forms of leave available to fathers: first benefits and leave schemes available only to fathers; and, second, parental leave schemes that either of the parents can use.

There are several studies analysing the effects of benefits and leave schemes available only to fathers. Northern European countries were among the first to introduce paid leave for fathers, and continue to offer the longest and most flexible leave schemes. Ekberg, Eriksson, and Friebe (2013) analysed the effect of the introduction of the “Daddy Month” in Sweden by comparing data on children born before and after the reform, and found that fathers took 15 more days of parental leave while mothers took about 20 fewer days of parental leave. However, they reported no evidence of a behaviour change in gender duties when it came to caring for sick children, the unit used to measure housework (Ekberg, Eriksson, and Friebe 2013). Later, a second month of paternity leave was introduced in Sweden, and Duvander and Johansson (2019) found that it further decreased the number of days mothers spent on maternity leave without increasing the number of days fathers spent on paternity leave. While the authors observed no effect on the sharing of childcare, they argued that more time is needed to incorporate these reforms into parents’ behaviour, and that they appear to be having an indirect positive impact on gender equality (Duvander and Johansson 2019). A shorter paternity leave of two weeks was introduced in Spain in 2007. A study by Farré and Gonzalez (2017) found that it increased the re-employment probability of mothers by 11% in the short run, but had no effect on the longer-term employment behaviour of either parent. Recent studies conducted in Quebec and Germany (Patnaik 2019; Tamm 2019) provided evidence that “daddy quotas” not only increased the uptake of parental leave by fathers, but also increased their engagement in housework and childcare. These effects persisted even after the leave ended. Some of these studies suggested that even a short paternity leave may translate into a more equal division of household duties in the long run.

#### *Housework duties at home*

Literature on the effects of fathers’ involvement at home on maternal employment is quite limited. However, the few existing studies on this topic showed positive labour force outcomes of increased paternal participation in childcare and housework. Seiger and Wiese (2011) found a positive association between increased participation of fathers and mothers’ well-being upon their return to employment after maternity leave; while Stertz, Grether, and Wiese (2017) argued that women with more egalitarian partners (e.g., who take on a bigger share of the duties at home) tend to take a shorter maternity leave and are less likely to decrease their working hours. Fanelli and Profeta (2021) analysed Central and Eastern European countries, and observed that more paternal participation at home (both housework and childcare) has the potential to increase maternal employment, as mothers are more likely to work full-time if they have a partner who helps. On the other hand, they found no relationship between the time mothers spent on childcare and housework and fathers’ employment outcomes. Another important finding from their paper is a positive correlation between fathers’ involvement at home and the fertility rate of mothers.

The division of unpaid work in Poland is comparable to that in Hungary, with women being much more invested in housework and childcare duties than men. Similar to Hungary, the latest data available in Poland on time division in families stems from 2010, and reveals that around 71% of women, but just 39% of men, spend at least one hour daily on caring activities.<sup>11</sup> The gender gap also persists in the division of housework, with about 82% of women and only 34% of men cooking and doing housework for at least one hour per day.

## **Involvement of fathers in Hungary**

### *Parental leave for fathers*

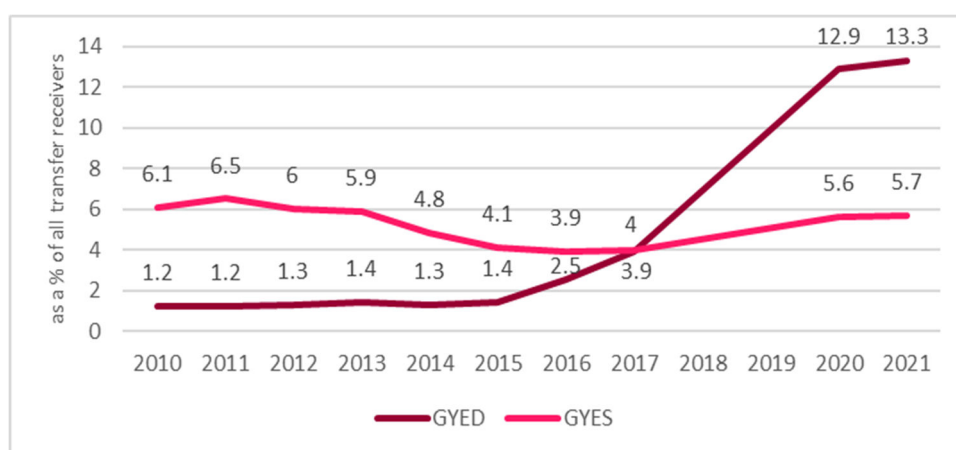
As for the regulation of parental leave in Hungary, the paid paternity leave that is available for fathers only is very short, limited to five days at a 100% payment rate (see Figure A6 in the appendix). Even so, the take-up rate of this leave is very low, with only around 25 out of 100 fathers making use of paid paternity leave (OECD, 2019b). Until 2014, fathers could only use the childcare fee (the GYED, the parental leave available until the second birthday of the child) after the child's first birthday; however, since 2016, fathers are eligible for the transfer after the child turns six months old. Additionally, since the introduction of the GYED Extra in 2014, both parents can work full time from the time the child turns six months old, and either of them can receive the cash transfer. While the proportions of the GYES and the GYED received by fathers in 2014 were 4.5% and 1.3%, respectively; by 2020, these proportions had risen to 5.5% and 13%.<sup>12</sup> This likely occurred because the GYES is a fixed amount while the GYED is linked to earnings; thus, even if the father is officially the one claiming the GYED, in reality, it might still be the mother who is staying home with the child if this is financially more beneficial for the family. However, this potential increase in family income comes with a price: the mother is no longer eligible for health and pension insurance if the father is the one receiving the GYED. In this case, the GYED Extra fails to fulfil its purpose of incentivising mothers to return to work, and instead contributes to the further reinforcement of traditional gender roles and the widening of the wage gap between women and men. Hence, it appears that the GYED Extra was not implemented carefully, and is therefore unlikely to encourage many mothers to return to employment.

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<sup>11</sup> [https://eige.europa.eu/sites/default/files/documents/20190371\\_mh0319024enn\\_pdf.pdf](https://eige.europa.eu/sites/default/files/documents/20190371_mh0319024enn_pdf.pdf)

<sup>12</sup> Source: admin data 2017 and KSH data 2021

Figure 11. Percentage of males among transfer receivers (GYED and GYES) in Hungary, 2010-2017



Source: Own illustration based on Hungarian admin data and KSH data.

### *Division of housework and childcare duties*

The persistence of traditional gender roles in Hungary is also reflected in the division of unpaid work among men and women in terms of both childcare and housework chores. The latest available data on time usage in the family is from 2016, and shows that around 56% of women cook and do housework for at least one hour daily, while this share is only 14% among men.<sup>13</sup> This gap is even wider among couples with children, with 72% of women and only 11% of men in these families performing housework duties. The data also indicate that on an average day, Hungarian women spend almost five hours on unpaid work (two hours more than men), of which one hour is spent exclusively on childcare. This large gender discrepancy in housework and childcare duties is typical in EE countries.

### **Involvement of fathers in Poland**

#### *Parental leave for fathers*

In Poland, the paternity leave may be taken exclusively by fathers, lasts two weeks, and is fully compensated. Fathers are also permitted to use six weeks out of 20 weeks of the maternity leave, the full period (32 weeks) of the parental leave, and the full period (36 months) of the unpaid childcare leave. The uptake of childcare leave by fathers is still low, but increasing. Among the individuals who received childcare leave allowances in 2020, males constituted 29%. We do not have information about how many days were taken by men and women, but it might be assumed that the majority of days were taken by women, as 94% of the allowances taken by men were for the period of the short-term paternity leave (two weeks). Fathers are much less willing to take longer periods of leave. Figure 12 shows the percentage of maternity and parental allowances granted to fathers

<sup>13</sup> Source: EIGE Gender Equality Index, Hungary 2021 <https://eige.europa.eu/gender-equality-index/2021/domain/time/HU>

in the years 2015-2020. According to the figure, only around 7-9% of the maternity allowances and around 1% of the parental allowances were taken by fathers. These shares were relatively stable over this period. However, as these figures do not indicate how long the allowances that were taken lasted, we do not know how parents were sharing the leave time between them.

### 3.4. Attitudes towards gender roles

Attitudes towards gender roles influence maternal labour force participation through two channels: directly through social pressure and indirectly through the manifestation of these attitudes in the form of family and employment policies. Additionally, policies might shape public opinion on gender roles (Scharle 2015). One example of this dynamic was reported by Farré et al. (2022), who investigated the effects of the introduction of paternity leave on gender norms in Spain, and found that children whose fathers were eligible for the new policy had more egalitarian attitudes towards gender roles at home and in the labour market at the age of 12.

While some studies tend to characterise societies as traditional or liberal/egalitarian when discussing gender norms and their implications for maternal employment, others argue that this classification is too vague to reflect the reality of such a multidimensional question (Grunow, Begall, and Buchler 2018). Most researchers agree, however, that quantifying gender attitudes and their effects is rather hard, and they often rely on opinion surveys to try to establish a relationship between gender norms and the employment outcomes of mothers. Fortin (2005), using the data from the World Value Survey in 25 OECD countries, found that anti-egalitarian views are negatively associated with female employment rates and the gender pay gap.

Some researchers argue that intergenerational transmission plays an important role in transforming women's role in the economy. Fernandez, Fogli, and Olivetti (2004) provided evidence that the wives of men whose mothers worked are more likely to work. Farré and Vella (2007) showed that mothers with less traditional views about the role of women are more likely to have working daughters and working daughters-in-law. Huerta et al. (2013) showed that fathers in families with a non-traditional gender role division are more likely to take child-related leave.

Studies investigating attitudes towards gender roles in post-socialist countries are still rare, and often report diverging results. Fortin (2005) provided evidence that while post-socialist Central European countries have high levels of female employment, they also, on average, have very conservative gender role attitudes. This combination imposes a double burden on women, as they are expected to take on the role of a homemaker while also taking up paid employment. Michón (2010) found that the Visegrad countries are all moving towards more equality for men and women in the labour market, and that social approval of the two-

breadwinner family – a model that was highly preferred before 1989 – has strengthened over the years. On the other hand, Fodor and Balogh (2010) emphasised the differences they found when examining gender attitudes in 13 East and Central European countries. They assigned liberal gender scores to countries, identifying Moldova as the country with the most conservative view on gender roles, followed by Hungary, and, Lithuania; and Slovakia, Poland, and the Czech Republic as the countries with more liberal views.

There is a large body of literature on the discrepancies between individual and public attitudes towards various social norms. It has, for example, been observed that individuals anticipate what is socially desirable and adjust their behaviour to social expectations. Bursztyn et al. (2017) provided evidence that single female students report lower desired salary levels and a willingness to work long hours when they expect their classmates to see their preferences. Using an experimental setting, Bursztyn et al. (2020) provided evidence that men from Saudi Arabia are against female labour force participation when they share opinions publicly, but support the idea privately. Thus, they found that men tend to underestimate the level of support for women working outside the home by other men, which appears to be relatively high. The authors explained that when the men are informed that the acceptance level is higher than they predicted, their willingness to help their wives search for jobs increases.

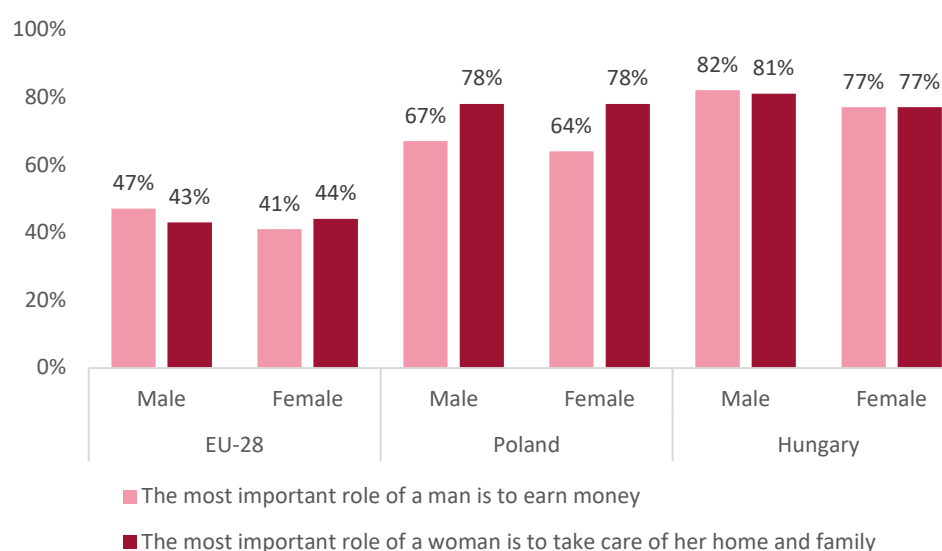
Research has also shown that people are prone to peer influence and social pressure. Dahl et al. (2014) found that co-workers and brothers are more likely to take paternity leave if their peers were exogenously induced to take up leave. Welteke and Wrohlich (2019) reported that maternal decisions regarding parental leave are significantly influenced by co-worker choices. Brenøe and Zölitz (2020) observed that studying with more female peers increases gender segregation in educational choice and affects labour market outcomes. Porter and Serra (2020) found that a role model intervention in class increases interest in economics for female students.

The effectiveness of policies promoting maternal employment also depends in large part on the gender norms in a country. Kleven et al. (2020) showed that if gendered preferences are sufficiently strong, even large policy expansions might fail to spark changes in traditional gender roles. Along the same lines, Kleven et al. (2019) found a strikingly large correlation between gender norms and child penalties: the more conservative the gender norms are in a country, the higher the child penalties mothers have to face after the birth of their first child. On a more positive note, Farré et al. (2022) analysed the longer-term effects of counter-stereotypical policy changes in Spain by looking at the attitudes of children towards gender roles whose parents were affected by the changes. They discovered that children whose fathers were eligible for paternity leave had a more egalitarian view of gender roles both at home and in the labour market.

Thus, this study provides evidence of an inter-generational change in attitudes as a consequence of policy exposure.

Figure 13 shows that attitudes towards gender roles in Poland and Hungary are more conservative than in other EU countries. Overall, in the EU, slightly more than 40% of males and females agree with the statement that the most important role of a man is to earn money. In Poland and Hungary, around 4/5 of males and females agree with this view. Attitudes towards the role of women are also more traditional in these countries. In the EU, around 47% of males and 41% of females agree with the statement that the most important role of a woman is to take care of her home and family. Around 2/3 of males and females in Poland and 82% of males and 77% of females in Hungary agree with this view. Interestingly, the respondents' attitudes towards gender roles do not vary significantly depending on their sex; as Figure 13 shows, males and females have roughly the same opinions on gender roles.

Figure 12. Attitudes towards gender roles in Poland, Hungary, and the EU, by gender



Note: The chart shows the percentage of people who agree with the statements about gender roles.

Source: Authors' calculation based on the Special Eurobarometer: Gender Equity, 2017.

### 3.5. Flexible work arrangements

Flexible work arrangements include various atypical working forms, such as part-time work, flexible work hours, or working from home. While research findings generally suggest that flexible working forms can ease the motherhood penalty by facilitating work-life balance, there is ongoing discussion pointing out that flexible schemes may also have negative effects for mothers.

Among the studies that reported positive employment outcomes, Chung and van der Horst (2018) investigated both spatial and temporal flexibility, and found that teleworking can help women to maintain their working hours after childbirth,

while flexible time arrangements can encourage them to continue working instead of solely caring for a child. Other studies have focused on the effects of flexible arrangements on gender wage gaps, and have found that all kinds of flexible working forms can reduce the wage penalty that mothers face in the workplace (Goldin 2014; Fuller and Hirsch 2019). On the other hand, Fuller and Hirsch (2019) argued that different flexible work arrangements have varying effects on women from different educational backgrounds, with higher educated women benefiting from flexibility more than lower educated women. The findings of studies that investigated the effects of various flexible work arrangements separately are not fully consistent. While remote work seems to promote work-life balance, and thus the employment of mothers, (Sherman 2019) found evidence that flexible working can also have negative career consequences (Chung and van der Lippe 2020). The use of flexible hours or part-time work arrangements can create a stigma against women that is often reflected in worse employment opportunities and wages. Moreover, workers who use flexible arrangements may be perceived as less productive and less committed to the company (Fernandez-Lozano et al. 2020; Chung 2020; Munsch 2016a; Leslie et al. 2012). Chung (2022) argued that flexible work arrangements do not disrupt traditional gender roles, as women usually expand their childcare and housework activities when working flexibly, and thus maintain their role as the main caregiver in the household. Kurowska (2020) provided evidence that in a more traditional society such as Poland, men are able to “escape” the trap of the double burden of paid and unpaid work when working from home, while women are not. Therefore, when placed in an environment where unequal gender roles prevail, flexible working arrangements may even exacerbate gender inequalities in the labour market and within the household, especially if they are used only by women, and they are used persistently.

Researchers have often concluded that in many cases, women, and especially mothers, are less likely to have access to flexible working forms (Brescoll, Glass, and Sedlovskaya 2013; Munsch 2016b). Moreover, Magda and Lipowska (2021) reported that employers in Central Eastern European countries (including Hungary and Poland) are less likely than employers in other European countries to offer flexible working hours to women, and that they generally do not offer additional flexibility for parents.

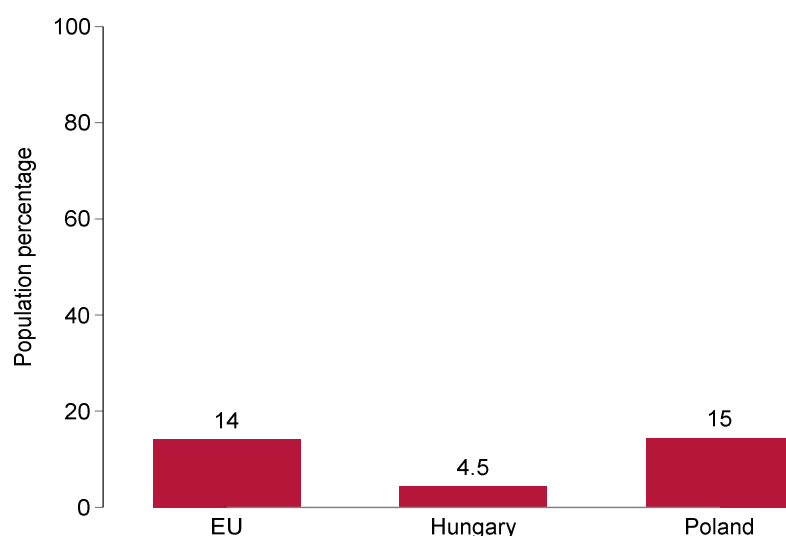
Figures 14 and 15 show two aspects of flexibility in the workplace in Poland and Hungary. Figure 14 shows that telework is not very common among women in Hungary; in 2019, only 4.5% of women in Hungary reported that they work from home sometimes or usually. In Poland, 15% of women reported working from home, which is close to the EU average (14%). Figure 15 shows that in comparison to the EU average, smaller shares of women in Poland and Hungary indicated that they can easily adjust the start or the end of their working day to accommodate their care responsibilities (42% in the EU, 20% in Hungary and 13% in Poland).

Considering the low employment rates of mothers with children under age three in Hungary and Poland, the spread of flexible work arrangements could help to



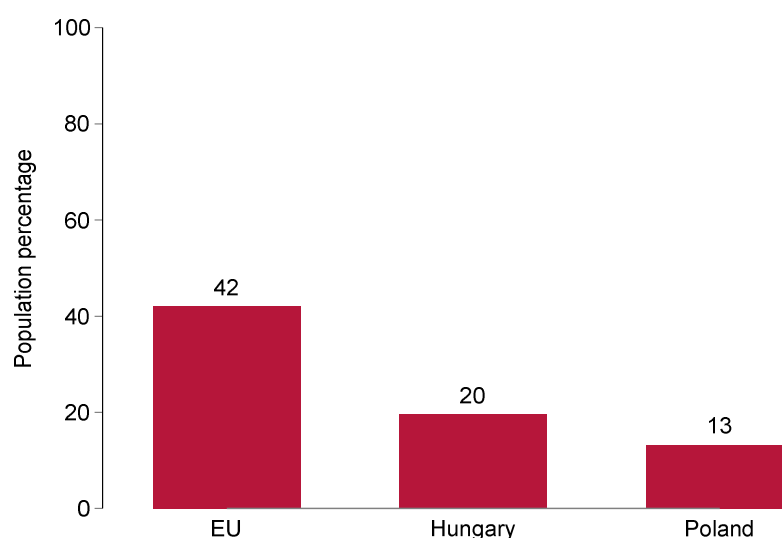
reduce the gender employment gaps in these countries. However, these schemes are double-edged swords: permanent full-time remote work can have negative social consequences, and permanent part-time work can hamper career advancement. These disadvantages are particularly likely to become salient if flexible forms of employment are taken up only by women. Hence, policies have to seek a good balance to ensure that flexible working schemes are a blessing rather than a curse.

*Figure 13. Work from home among women aged 15 – 44 in Hungary, Poland, and the EU, 2019*



Note: The graph presents the share of women who declared that they work from home sometimes or usually. Source: Authors' calculation based on the Labour Force Survey data.

*Figure 14. Option to vary the start and/or the end of the working day to accommodate care responsibilities among women (aged 15 – 44) with children in Hungary and Poland, 2019*



Note: The graph presents the share of women who declared that it is generally possible for them to vary the start and/or the end of the working day to accommodate their care responsibilities. Source: Authors' calculation based on the Labour Force Survey 2018 ad hoc module on reconciliation between work and family life.

## 4. The impact of the COVID-19 pandemic

While in the previous sections we intentionally analysed the labour market outcomes of women before the COVID-19 pandemic in order to provide an uninterrupted picture of the previous situation and the existing policies; in this section, we will examine the effects of the pandemic on the labour force participation of women, and, more precisely, of mothers. Women's employment was affected by the crisis in several ways: first by the lockdowns that forced most face-to-face workplaces to close, and second by the closure of childcare facilities and schools that imposed additional duties on mothers. As women are overrepresented in jobs that require personal contact and cannot be done from home, several studies found that workplace closures had a larger negative employment effect on women than on men (Montenovo et al. 2020; Alon et al. 2020; Fabrizio, Gomes, and Mendes Tavares 2021; Albanesi and Kim 2021). Furthermore, the closure of kindergartens and schools placed additional childcare duties on mothers, who were, in turn, often unable to complete their own work. As a consequence, women were often fired, or even decided to exit the labour market altogether (Albanesi and Kim 2021; Szabó-Morvai and Vonnák 2021). Thus, both the demand and the supply for the female labour force declined significantly during the lockdowns. Therefore, researchers expect to observe diverging long-term effects of the pandemic on the employment outcomes of women. While some are hopeful and have highlighted the potential of the pandemic to reshape gender relations for the better, others are fearful that the crisis has only exacerbated the existing gender inequalities at home and on the labour market (Dias, Chance, and Buchanan 2020; Cook and Grimshaw 2021).

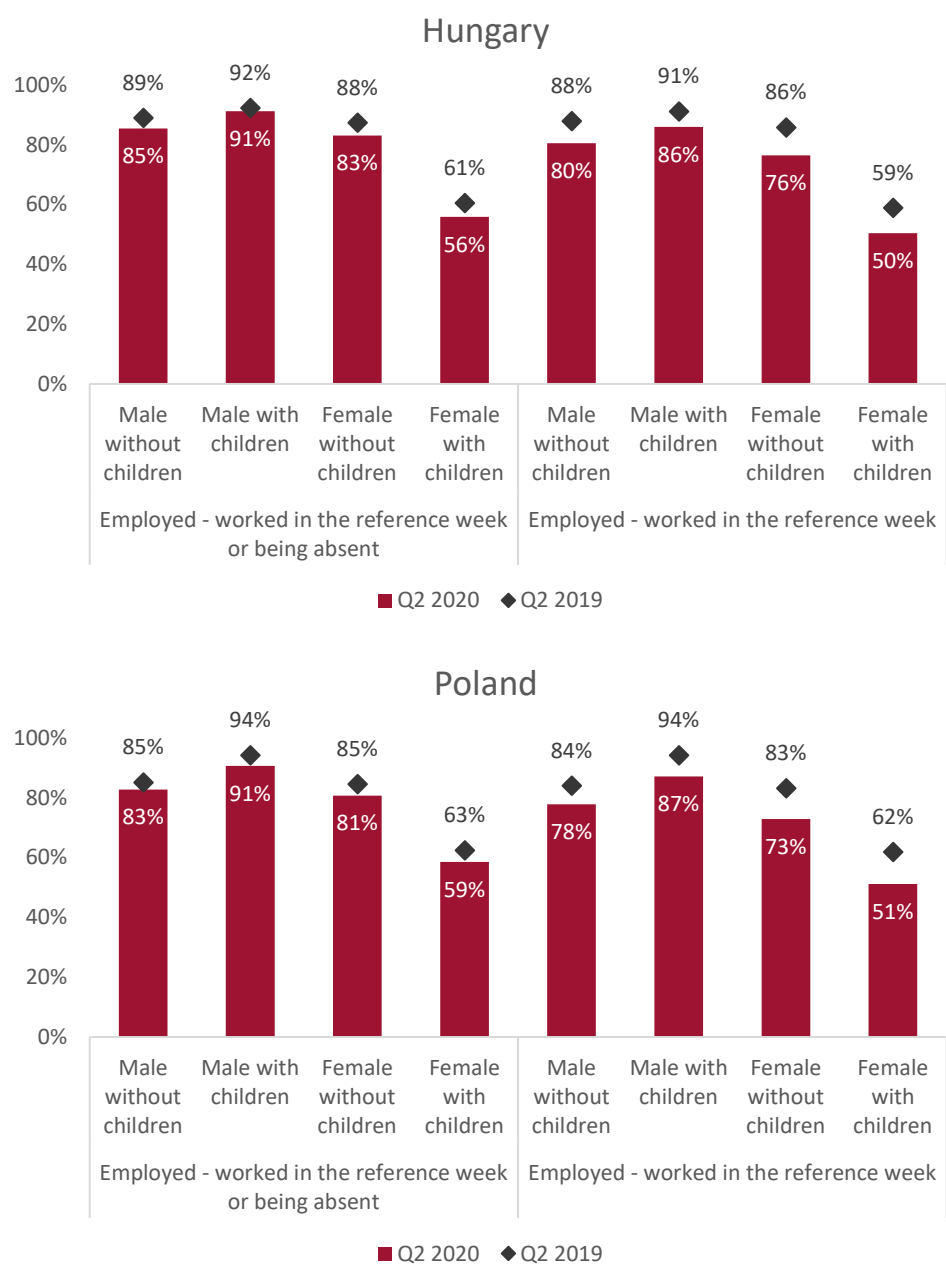
Several studies have analysed the effects of the pandemic on the employment prospects of parents, as they were additionally burdened with childcare duties at home after the closure of kindergartens and schools. Relying on data from the Current Population Survey, researchers from the USA found that mothers were more likely to suffer the loss of employment as a consequence of the pandemic than any other cohorts, and especially women with young children and less educated women (Fabrizio, Gomes, and Mendes Tavares 2021; Russel and Sun 2020; Heggeness 2020). Conversely, Dias, Chance, and Buchanan (2020) found that fathers were less likely to lose their jobs during lockdowns, contributing to the widening of the gender wage gap. Studies from Europe observed similarly disproportionate effects for mothers' labour force participation, with estimates of a 5.8-hour decline in working hours for mothers when schools were closed (Hanzil and Rehm 2021; Cook and Grimshaw 2021).

In a country like Hungary, where it is primarily the responsibility of women to take care of their children, it was expected that mothers would stay home with their children when kindergartens and schools closed. In a study by Szabó-Morvai and Vonnák (2021) of 25- to 45-year-olds, the authors investigated the impact of the pandemic on mothers with children over age four but under age 11, many of whom would have already returned to the labour market after maternity leave.

They found that after the closures, men and women with no young children were 2.4 percentage points more likely to leave the labour market. On the other hand, even before the pandemic, women with young children were five percentage points less likely to be employed than the rest of the active population, a difference that increased by a further 3.2 percentage points after school closures (Szabó-Morvai and Vonnák 2021). Another study by Köllő (2021) reported that the proportion of jobseekers among mothers with children aged 4-10 had increased significantly as early as March 2020 (compared to that among women without children aged 4-10 in April), as well as in March 2021, when schools were closed again during the second wave. On the other hand, Köllő (2021) found that the share of jobseeking mothers has since returned to its 2019 level.

Figure 16 shows the difference in employment rates between Q2 of 2019 and 2020, by gender and parental status. We use two definitions of being employed. On the left side, we consider individuals who worked in the reference week for at least one hour, or did not work but had a job, as employed (definition 1). On the right side, we consider only those individuals who worked in the reference week for at least one hour as employed (definition 2). The figure shows that in both countries, there was a drop in the employment rates between Q2 2019 and Q2 2020. It is, however, noticeable that regardless of their parental status, women were hit hard by the COVID-19 pandemic, as the differences in the employment rates in the pre-pandemic and the pandemic period are slightly higher among females. What is interesting is that the decrease in the employment rates is more pronounced when we take into account those individuals who were working at least one hour during the reference week. This may suggest that employers were using various strategies (e.g., having employees take leave) to maintain employment levels during the lockdown.

Figure 15. Quarterly employment rates in Poland and Hungary, by gender and parental status



Source: Authors' calculation based on the Labour Force Survey 2018 ad hoc module on reconciliation between work and family life.

## 5. Do young women need different active labour market policies?

Considering the gender differences in labour supply decisions and employment barriers, active labour market policies must also apply a gender perspective in formulating programmes and addressing the specific needs of young women, and above all of young mothers. In this section, we rely on evaluation studies from the Youth Employment PartnerSHIP project.

The gender aspect might be relevant and should be taken into account at different levels of labour market policies. The first level of potential intervention is outreach to inactive young women. Our studies found that the registration rate is generally lower for female than for male NEETs, mainly due to young women having childcare and other family obligations (Smoter 2021; Csillag, Scharle, and Molnár 2021). This implies that reaching out to this group requires different strategies. Even if young women involved in care duties do not want to take a job in the near future, PES programmes could help them to prepare for a job in the future and prevent them from losing their attachment to the labour market, which could lead to long-term unemployment or inactivity.

Some of the questions that might follow are whether the design of active labour market policies reflects the specific needs of young women and parents, and whether the selection mechanisms ensure that young women and men can participate in the programme that is the most helpful for them. For example, there is evidence that childcare is vital for inactive and unemployed parents who would like to return to the labour market. Participation in ALMP may include support in finding or even providing childcare, which would give young mothers a chance to participate in the programmes (Hofman 2020). Special mentoring and counselling that includes advice for young mothers on how to combine motherhood and work might have a beneficial impact on mothers' employment prospects (Hofman 2020).

Programme designs also must address multiple barriers, such as the specific needs of mothers who are from a disadvantaged group or a minority or a migration background, or who are lone parents. In an extensive survey of the international literature on active labour market policies for lone parents, Millar and Crosse (2016) concluded that those programmes that combined some kind of employment incentive or subsidy with additional elements, such as financial support, child support, or tax credits, had the best results, and that these supplementary programmes were essential in preventing poverty among lone parents.

ALMS are often implemented in cooperation with private firms in the form of on-the-job training programmes, wage subsidies, or apprenticeship programmes. In this case, policies must ensure that the participating firms are committed to gender equality, are free of discriminatory practices, and offer flexible solutions

(for example, subsidised jobs with flexible or reduced working time, arrangements for breastfeeding) that are suitable for young women.

Nevertheless, the general framework of national policies and legislation defines the scope for active labour market employment policies. While these policies directly affect the labour supply decisions of women, they also interact with active labour market policies, and thus influence the potential scope of employment policies. For example, the rules regarding the combination of earnings with parental benefits and the conditionality of different benefits fundamentally determine how labour market policies can reach out to inactive young persons.

A crucial question is whether mothers have access to public childcare facilities when they are unemployed or inactive but participate in labour market programmes (Hofman 2020). For example, in Hungary, the children of unemployed parents or ALMP participants are not automatically eligible to use public nurseries, which creates a vicious circle by hindering parents with young children from engaging in job searches, participating in training programmes, and preparing for employment. In Poland, parents participating in ALMP are eligible to receive a refund for their childcare costs. However, this option is very rarely used by the ALMP participants, as either the PES counsellors do not offer it or participants are not interested in using it as the amount that can be reimbursed is very low.

There is ample evidence in the literature that because women are generally more distant from the labour market, and have more outside options because they have more childcare duties and perform other unpaid work than men, they usually profit from ALMP more than men (e.g., Bergemann and Van Den Berg 2008; Kluve et al. 2019; Lechner and Wiehler 2011). However, evaluations of the YEP project yielded mixed results regarding the gender aspect of the evaluated ALMP.

The counterfactual evaluation of wage subsidies in Poland (Kunze et al, 2022) concluded that female participants in the wage subsidy programme were more likely to be out of unemployment registers throughout most of the 36 months of observations, while the programme had no or a negative impact on males. Although this finding is, at first sight, in line with the main strand of the literature, the mechanism behind the results is unclear, as being out of the PES register can imply both employment and inactivity. Another evaluation in Poland (Madon et al. 2021) found that ALMP participation is segregated by gender, as women are over-represented in on-the-job training and are under-represented in classroom training.

In contrast, the Hungarian evaluation (Csillag, Scharle, and Molnár 2021) concluded that male participants profited somewhat more from participation in ALMP. Our assumption is that the gender differences can probably be attributed to the selection of the programme participants. Specifically, compared to the male participants, the female participants were more educated and had shorter unemployment and NEET histories, even after including maternity leave. This was

because the women participants were even more strongly selected from the pool of jobseekers. Thus, the usual finding in the literature that women have greater distance to the labour market did not hold for these women participants. In addition, the evaluation found that being a mother reduced women's chances of participating in the good quality job trial programme, and that mothers were more likely to participate in public works programmes for very low salaries. Although we do not know whether the adverse selection of young mothers and women can be explained by supply or demand factors, in either case, it shows that the programme did not help these women to combine work and motherhood.

## 6. Conclusions and policy recommendations

Our study has shown that compared to other EU countries, Poland and Hungary have a relatively large gender employment gap in their young and prime-age population. This gap is driven mainly by the low employment rates of women with young children (under three years of age) who have withdrawn from the labour market due to their childcare duties. Even though a relatively large share of these women would like to work and are potentially available to work, they face various constraints and barriers that prevent their integration into the labour market.

In particular, mothers often face difficulties accessing early childcare institutions (especially in rural areas), or the quality of these institutions does not meet their needs (more often in urban areas). Evidence suggests that compared to the EU average, parents in Hungary and Poland have a higher probability of working in non-flexible workplaces with limited options to work remotely or to choose their own start and finish times. In Hungary, the long parental leave that is available to parents until their youngest child turns three if they have one or two children, or until their youngest child turns eight if they have at least three children, might also restrain the labour supply of mothers.

Female NEETs are less likely to register at employment offices than young males, which indicates that reaching out to inactive young mothers requires more effort and a tailor-made approach. In addition, there is a lack of adequate ALMP measures targeted at mothers, which may be explained by the failure to treat the gender perspective as an integral dimension of the design, implementation, and evaluation of public policies. The labour market measures available through public employment services (PES) are often insensitive to the needs of women, and to barriers they face.

Gender norms appear to be a crucial factor in the relatively large gender employment gap among young people, and especially in the low employment rates of mothers with young children. The attitudes towards gender roles in Hungary and Poland are based on the still popular belief that a woman's primary sphere is in the home while a man's primary sphere is in the labour market, which legitimise not just the lower engagement of fathers in home duties, but also the mother taking on most of the childcare duties. The gender imbalance in norms is reflected in the large gender gap in the time dedicated to unpaid work; the fact that the majority of inactive young women do not express a willingness to work and a need for childcare; and attitudes towards the role of women and men in the family.

Even well-designed childcare leave schemes and greater access to childcare might have a limited impact on gender inequality if traditional gender norms persist. This suggests that policies should seek to influence attitudes regarding the division of labour in the family, in addition to advocating standard policy measures. For example, there is some evidence that paternity leave can help to change gender norms among the children of the fathers who take leave.



The policy responses that aim at improving the access of young mothers to the labour market should take all these interconnected factors into account. Family policies may promote maternal employment if they are designed to ensure the best possible gender balance regarding childcare. Therefore, efforts to improve access to good quality early childcare institutions should be accompanied by policies that incentivise a more equal division of childcare duties, by, for example, encouraging fathers to use child-related leaves as well as exclusive “daddy leaves” to ensure that they take part in the care of their children from infancy onwards. This may result in a more equal division of childcare and housework in later years.

Policies should also aim to ensure gender balance in the take-up of flexible working-time arrangements for care purposes, and to improve work-life balance. Such policies can help change gender norms with respect to care so that flexible working does not reinforce the traditional gender division of housework and paid work, and women are less likely to be penalised when they work flexibly.

Outreach to inactive young women is also of utmost importance. Even for young women who do not want to take a job in the near future due to their care obligations, PES could offer training or other active labour market programmes that prepare them for a job in the future and prevent them from losing their attachment to the labour market, which could lead to long-term unemployment or inactivity.

PES may promote labour market participation by offering subsidies or support for accessing to childcare to women who take part in ALMP. This can help young mothers (and fathers) engage in a job search or training, and return to work. This support for programme participants may range from advice and information, to vouchers, to childcare subsidies or services. Counselling on work-life balance may also be beneficial. Mothers facing multiple barriers to employment (for example, if they have been out of work for several years, have no prior work experience, have a minority background, etc.) may need additional mentoring and counselling to gain self-confidence and job search skills. The internal rules and incentives of the PES should help to ensure that young women and men can participate in the programme that is the most helpful for them.

It is also important to incentivise the employers. Policies must ensure that firms promote gender equality, are free of discriminatory practices, and offer flexible solutions (for example, subsidised jobs with flexible or reduced working time available for both parents, or arrangements for breastfeeding) that are suitable for young parents. In addition, governments should think about requiring companies to report the take-up of child-related leaves and flexible working arrangements to encourage them to monitor these issues.

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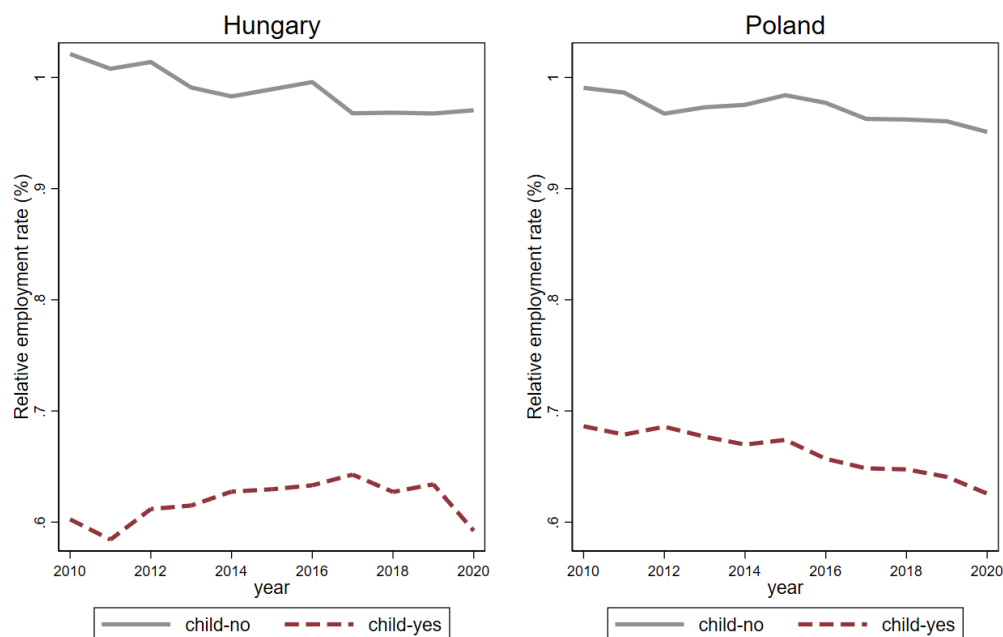


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## Appendix A

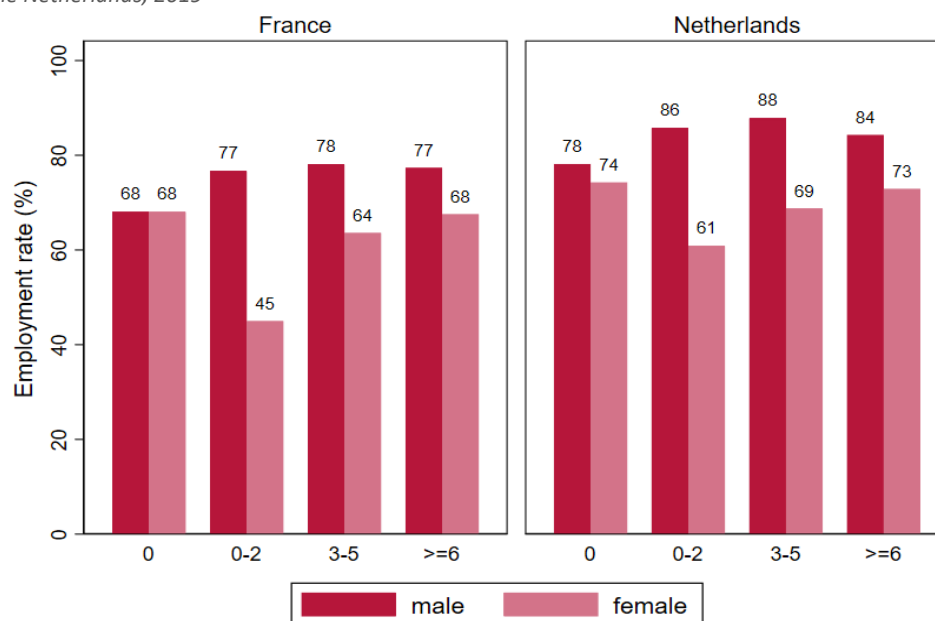
Figure A1. Relative employment rates of women to men aged 15-44 in Poland and Hungary parental status, 2010-2019



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed. Employment rate is calculated without those in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Figure A2. Employment rates among 15-44-year-olds by the age of the youngest child in France and the Netherlands, 2019

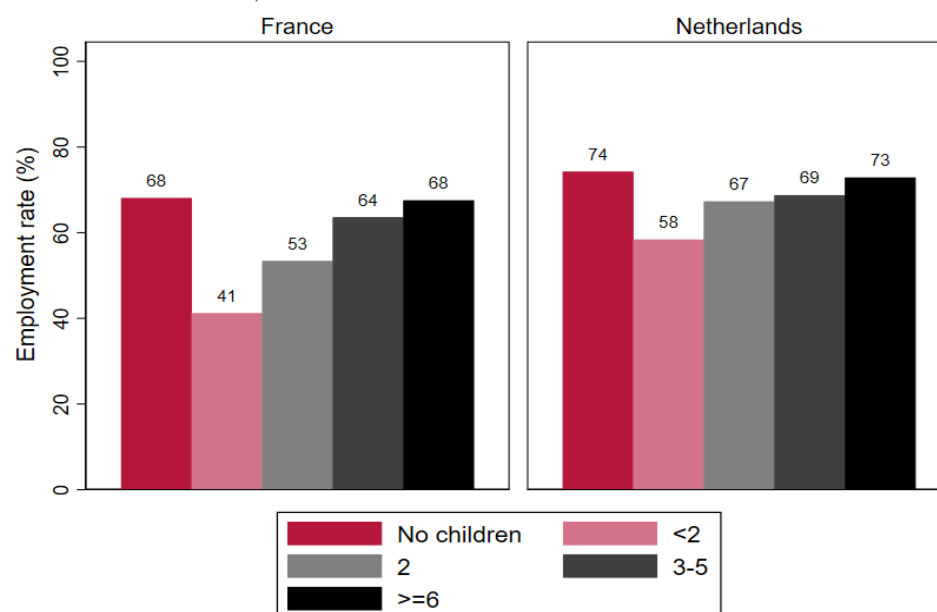


Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed. Employment rate is calculated without those in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.



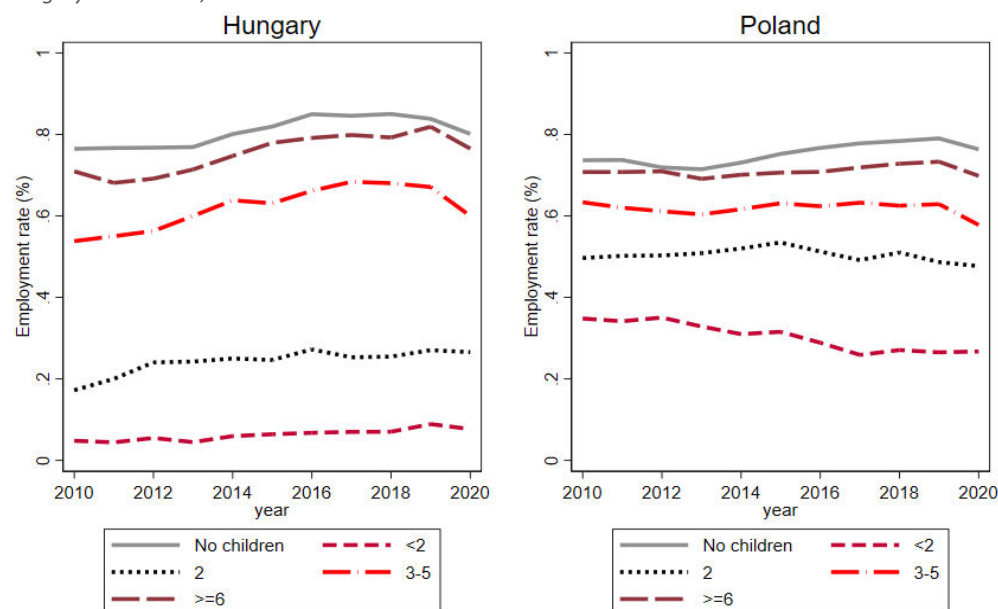
Figure A3. Employment rates among 15-44-year-old women by the age of the youngest child in France and the Netherlands, 2019



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed. Employment rate is calculated without those in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

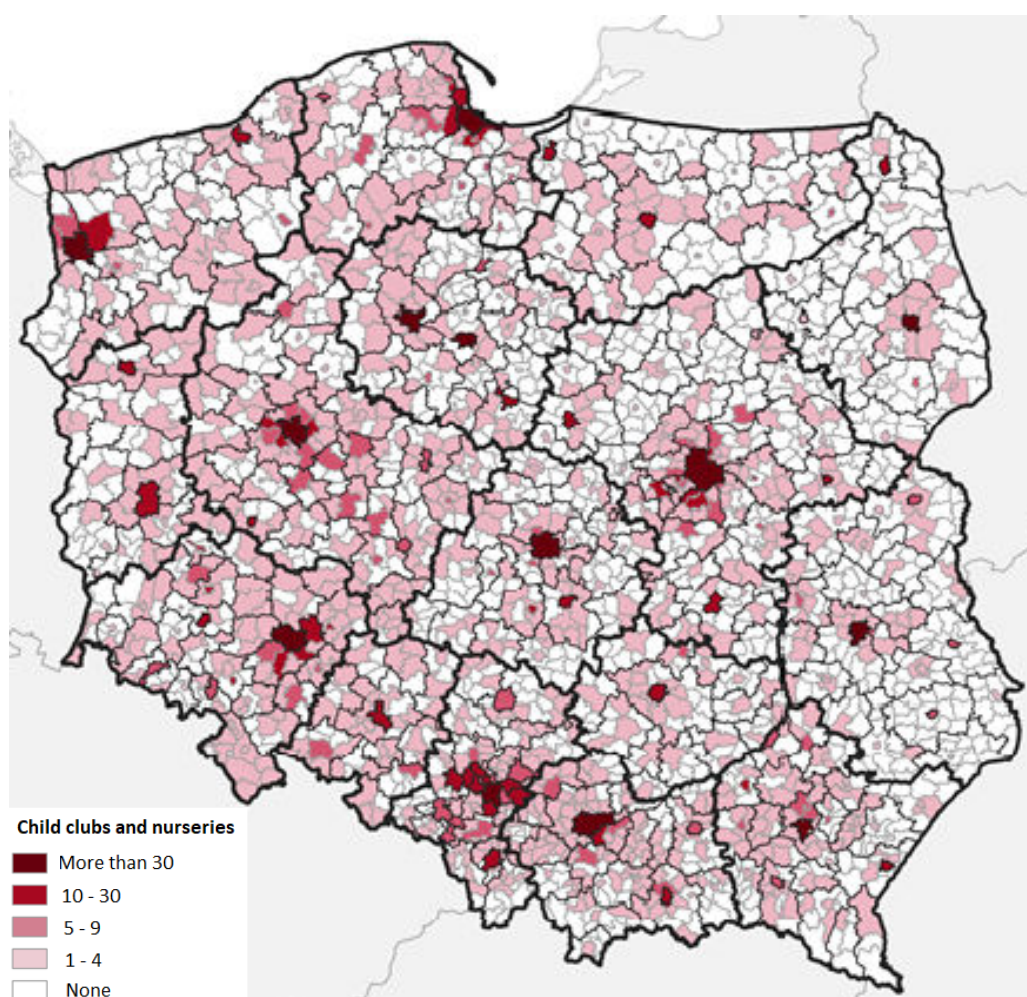
Figure A4. Employment rate among 15-44-year-old women by the age of the youngest child in Hungary and Poland, 2010-2020



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed. Employment rate is calculated without those in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Map A1. Distribution of child clubs and nurseries in Poland



Source: Authors' calculation based on the Local Data Bank for 2020.

Figure A5: Weeks of total paid weeks available to mothers and average payment rates across total paid leave period in %, 2020

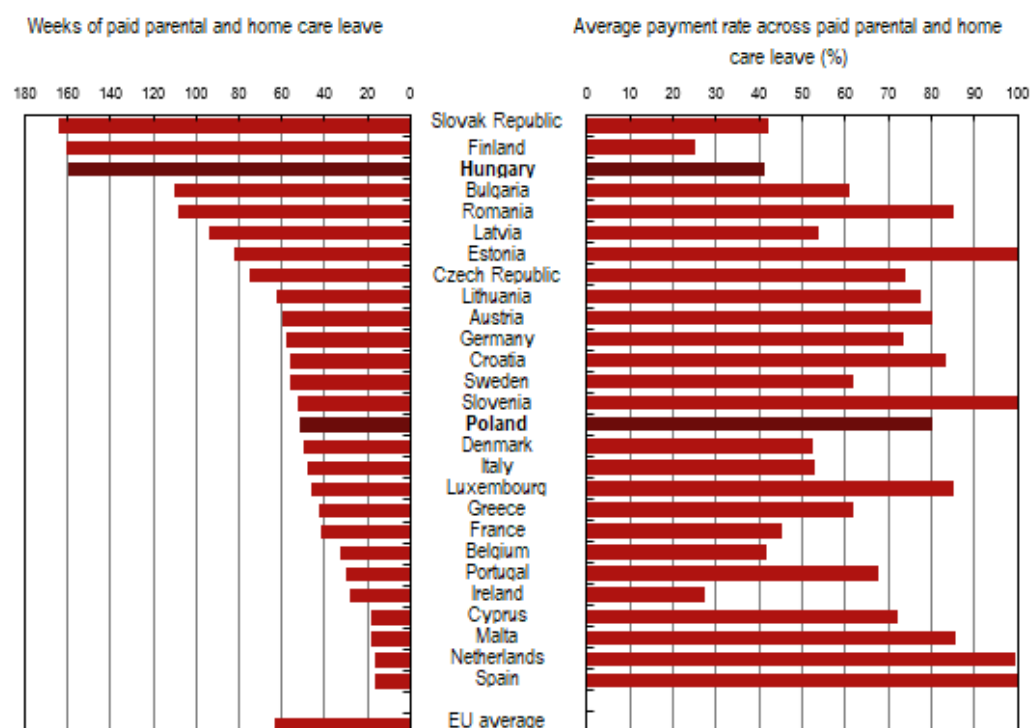
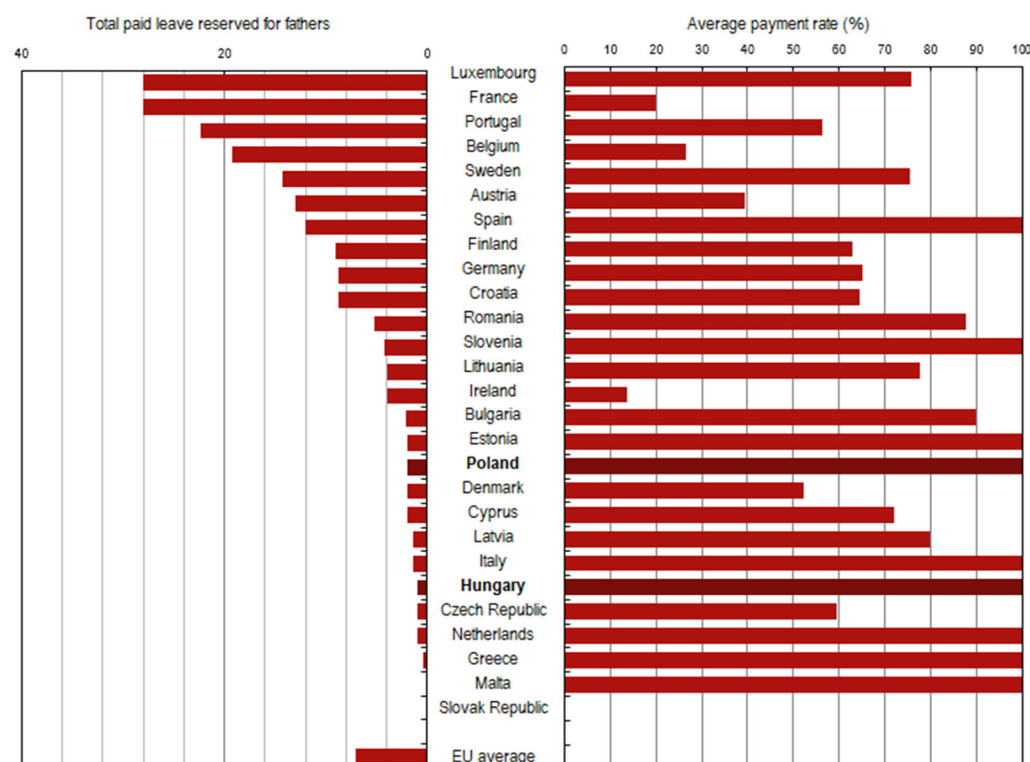


Figure A6: Weeks of total paid weeks available to fathers and average payment rates across total paid leave period in %, 2020

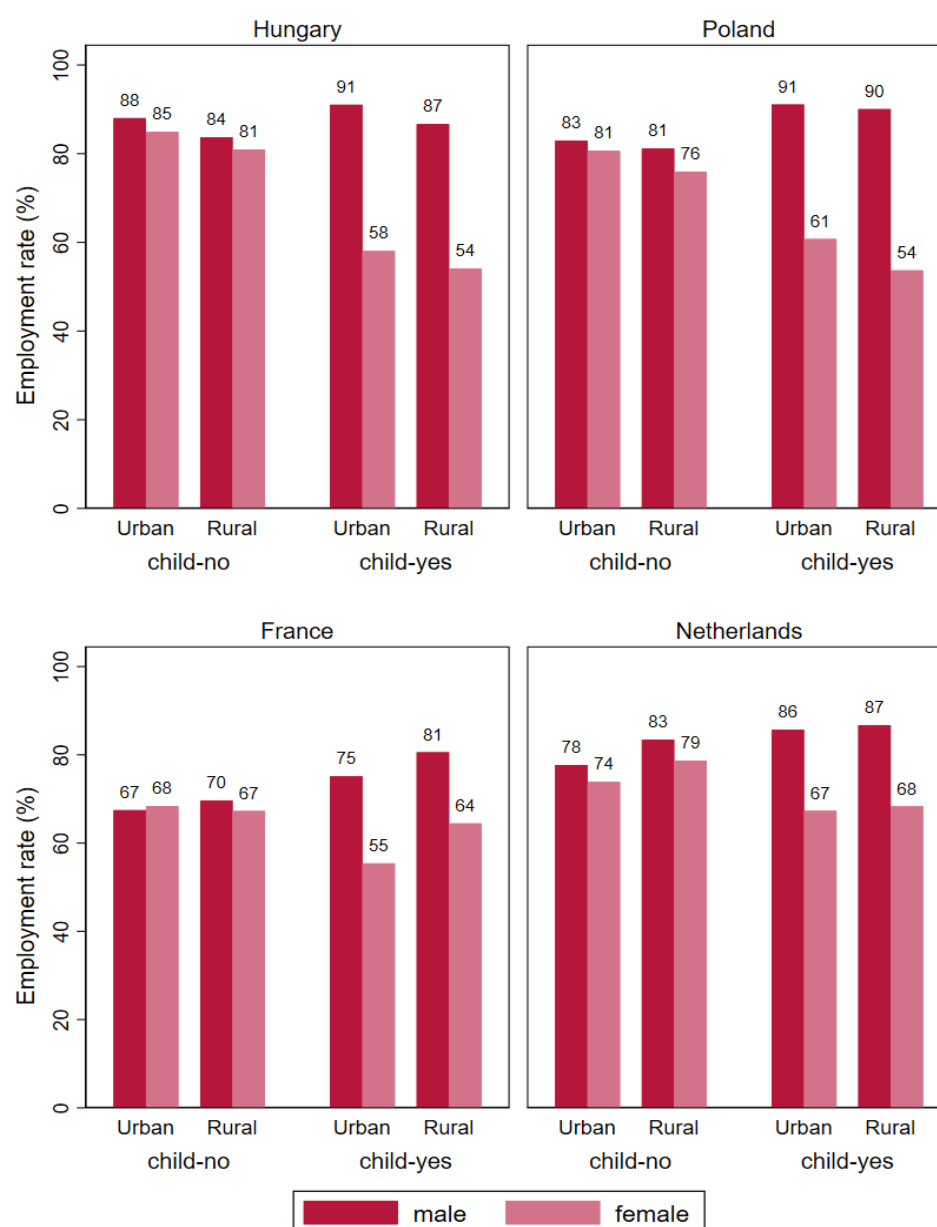


Own illustration, based on the OECD Family Database: Key characteristics of parental leave systems, available under [https://www.oecd.org/els/soc/PF2\\_1\\_Parental\\_leave\\_systems.pdf](https://www.oecd.org/els/soc/PF2_1_Parental_leave_systems.pdf)

Table A1. Summary of parental leave transfers in Hungary and Poland

| Hungary             |                          |                             |  |  |   |
|---------------------|--------------------------|-----------------------------|--|--|---|
| age of child        | worked before            | transfer                    | eligibility  | compensation rate  | flexibility/work  |
| 0-2 month           | Yes                      | <b>Paid paternity leave</b> | Only the father, paid paternity leave of <b>5 days</b> in the first 2 months after birth   | 100% of previous earnings  | -   |
| 0-6 month           | Yes                      | <b>CSED</b>                 | Only the mother, given that<br>-she must have been employed at least for 365 days within the two years before the birth;<br>or<br>-she must have completed two semesters at a higher education institution recognised by the state within two years prior to the birth         | Until 2021: 70% of previous earnings<br>From 2021: 100% of previous earnings | Employment not allowed  |
|                     | No                       | <b>GYES</b>                 | see GYES   |  |   |
| 6-24 months         | Yes                      | <b>GYED</b>                 | Either of the parents living with the child<br>-must have been employed at least for 365 days within the two years before the birth;<br>or<br>-must have completed two semesters at a higher education institution recognised by the state within two years prior to the birth | 70% of previous earnings, until max. 140% of the statutory min. wage         | Work unlimited hours after the child turns 6 months old   |
|                     | No                       | <b>GYES</b>                 | see GYES   |  |   |
| 24-36 months        | -                        | <b>GYES</b>                 | All parents. Also foster parents and guardians (grandparents: after the child turns 1)   | Fixed amount of 28,500 HUF / month (around 8% of avg. wage)                  | Work unlimited hours after the child turns 6 months old   |
| 3-8 years           | -                        | <b>GYET</b>                 | Either of the parents in a family with three or more children - leave during the period between the 3 <sup>rd</sup> and 8 <sup>th</sup> birthday of the youngest child   | Fixed amount of 28,500 HUF / month   | 30 hours a week, or unlimited hours if the work is done at home                                 |
| Poland              |                          |                             |  |  |   |
| 0-24 months         | Not required             | <b>Paid paternity leave</b> | Only the father, paid paternity leave of 2 weeks in the first 24 months after birth  | 100% of previous earnings  | Employment not allowed  |
| 0-20 weeks          | Not required             | <b>Paid maternity leave</b> | Only the mother during the first 14 weeks. Remaining 6 weeks can be divided between the parents  | Up to 100% of previous earnings  | Employment not allowed  |
| 20 weeks to 6 years | Not required             | <b>Paid parental leave</b>  | Both parents can use 32 weeks until the child reaches the age of 6   | Up to 80% of previous earnings   | Part-time employment allowed (maximum 20 hours a week)  |
| 20 weeks to 6 years | Required - min. 6 months | <b>Unpaid care leave</b>    | Both parents can use 36 months until the child reaches the age of 6  | No   | Employment allowed. Number of hours not specified. Working hours must enable personal childcare |

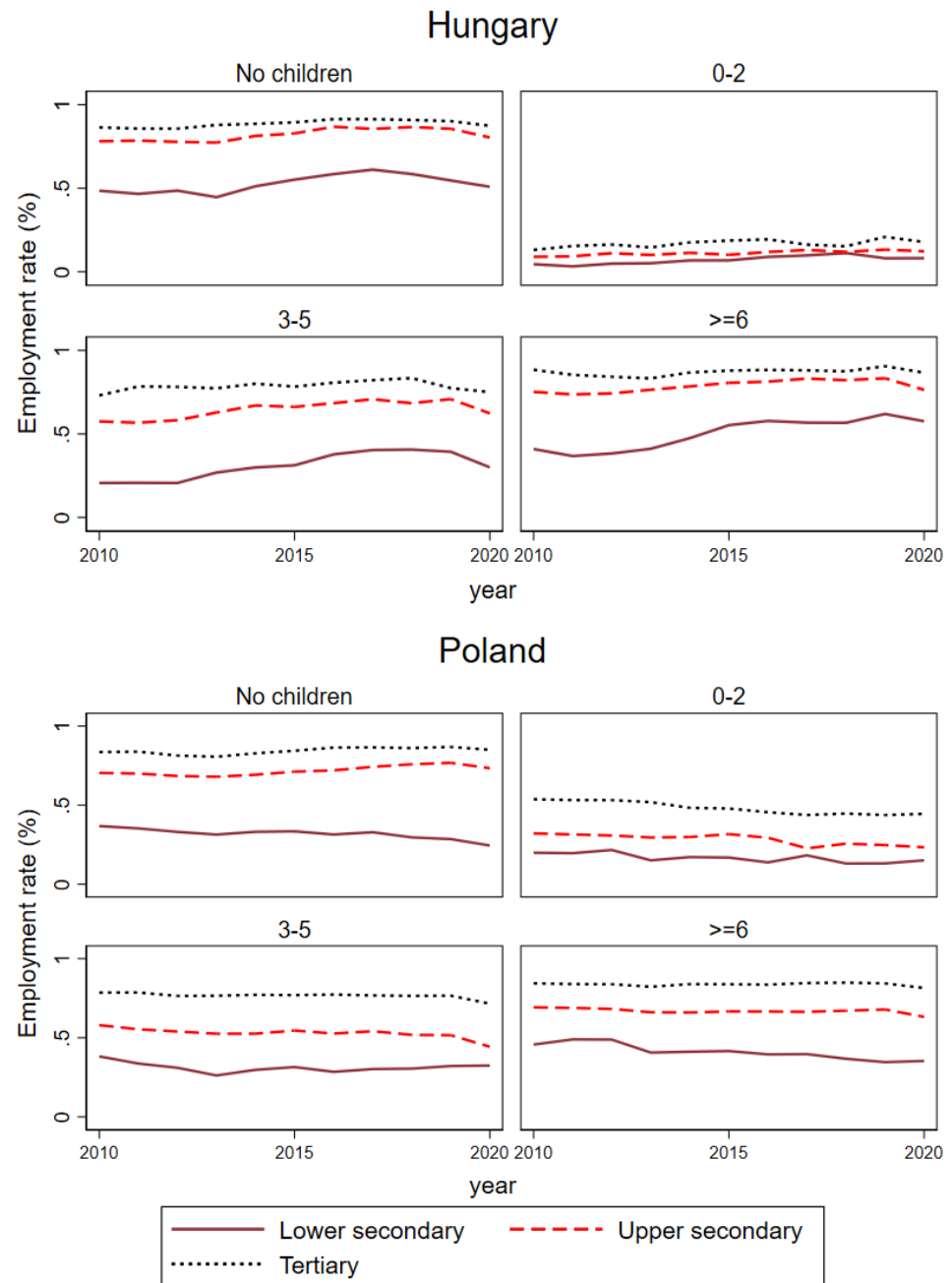
Figure A6. Employment rates for 15-44 y.o. by gender, place of residence and children in Hungary and Poland, 2019



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed. Employment rate is calculated without those in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Figure A7. Employment rate among women aged 15-44 by education and age of the youngest child in Hungary and Poland, 2010-2020



Employed person: A person aged 15-44 who worked at least one hour and did not attend any formal education during the week prior to being surveyed. Employment rate is calculated without those in education.

Source: Authors' calculation based on the Labour Force Survey data for 2019.

## Appendix B - Regressions

### *Sample*

For our analyses, we use the European Labour Force Survey data for Hungary and Poland for the years 2010 to 2019. We restrict the sample in the regressions to the 15-45 age group, as well as to those who have not been a student or apprentice in regular education during the four weeks prior to the survey. When only analysing differences in outcomes among females, we further restrict the sample to females in the sample.

### *Variables*

We construct three age categories: one for those aged 15 to 24, a second for those aged 25 to 34, and a third for those aged 35 to 44. Having a child is defined as a) one adult with at least an own son or daughter under age 15, b) one couple with at least an own son or daughter under age 15, and c) two adults (not a couple) or more with at least an own son or daughter under age 15. Furthermore, we generate a categorical variable for the number of own children under age 15 in the household using the same definitions as above, and create four categories: 0 for no children, 1 for one child, 2 for two children, and 3 for three or more children. As the age of the youngest child plays a defining role in the labour force participation of parents, and especially of mothers, we define another categorical variable for the age of the youngest child in the same household with the following four categories: no children, a child between zero and two years old (younger than three years old), a child between three and five years old (three years old or older but younger than six years old), and a child six years old or older. These categories are in line with the ages when children usually go to a nursery, and later to primary school.

Our main outcome of interest is whether a person worked at least one hour in the reference week, which equals 1 if he/she “Did any work for pay or profit during the reference week – one hour or more (including family workers but excluding conscripts on compulsory military or community service)”; or “Was not working but had a job or business from which he/she was absent during the reference week (including family workers but excluding conscripts on compulsory military or community service)”. Due to diverging methodologies in some European countries, including Poland, some people on maternity or parental leave are also considered employed when using this definition. Therefore, we need to separately exclude them when constructing the variable.

Other variables that we include in our regression are the number of adults in the household, the educational level of the person, as well as the person’s marital status. The number of adults in the household is a dummy variable indicating whether there are more than three adults living in the same household, as the presence of an adult other than the parents (often a grandparent) can alter the caretaking practices in a family, and can thus influence the labour market participation of the parents (especially the mother). As for the educational level, a categorical variable is constructed, with three categories for lower secondary, upper secondary, and third level or tertiary education. Moreover, the marital status is defined by a dummy variable, with 0 being single and 1 being married or widowed, divorced or legally separated.

Table B1. Probability of being employed in Hungary and Poland, 2019

| VARIABLES                       | Hungary                 | Poland                  |
|---------------------------------|-------------------------|-------------------------|
| Female                          | 0.0350***<br>(0.0126)   | -0.0562***<br>(0.0140)  |
| Child                           | 0.0131**<br>(0.00513)   | 0.0216***<br>(0.00536)  |
| Female x Child                  | -0.282***<br>(0.00714)  | -0.229***<br>(0.00719)  |
| Age 15-24                       | -0.0948***<br>(0.00701) | -0.0118<br>(0.00779)    |
| Female x Age 15-24              | -0.170***<br>(0.0103)   | -0.140***<br>(0.0115)   |
| Age 25-34                       | 0.0102**<br>(0.00510)   | 0.0366***<br>(0.00463)  |
| Female x Age 25-34              | -0.178***<br>(0.00728)  | -0.170***<br>(0.00637)  |
| Age 35-44                       | -                       | -                       |
| Upper secondary                 | 0.217***<br>(0.00565)   | 0.252***<br>(0.00787)   |
| Tertiary                        | 0.243***<br>(0.00779)   | 0.292***<br>(0.00851)   |
| Female x Upper secondary        | 0.0285***<br>(0.00823)  | 0.0846***<br>(0.0124)   |
| Female x Tertiary               | 0.0663***<br>(0.0105)   | 0.210***<br>(0.0129)    |
| Partner in the same hh          | 0.0895***<br>(0.00601)  | 0.136***<br>(0.00623)   |
| Female x Partner in the same hh | -0.147***<br>(0.00807)  | -0.138***<br>(0.00798)  |
| Female x Married                | -0.0784***<br>(0.00800) | -0.102***<br>(0.00826)  |
| 3 or more adults in hh          | 0.00162<br>(0.00495)    | -0.0122**<br>(0.00512)  |
| Female x 3 or more adults in hh | 0.0392***<br>(0.00720)  | 0.0287***<br>(0.00724)  |
| Intermediate area               | -0.0237***<br>(0.00690) | -0.0225***<br>(0.00542) |
| Thinly populated area           | -0.0198***<br>(0.00676) | -0.0128**<br>(0.00519)  |
| Female x Intermediate area      | -0.00490<br>(0.00974)   | -0.0151**<br>(0.00753)  |
| Female x Thinly populated area  | 0.00168<br>(0.00959)    | -0.0288***<br>(0.00731) |
| Constant                        | 0.711***<br>(0.00870)   | 0.582***<br>(0.00899)   |
| Observations                    | 53,763                  | 62,947                  |
| R-squared                       | 0.220                   | 0.183                   |



Notes: The sample is limited to people aged 15-44. Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Table B2. Probability of being employed among women (aged 15-44.) by age of the youngest child in Hungary, 2019

| VARIABLES                 | x No children           | x Child 0-2             | x Child 3-5            | x Child 6-14           |
|---------------------------|-------------------------|-------------------------|------------------------|------------------------|
| Age of child              |                         | -0.417***<br>(0.0225)   | -0.0647**<br>(0.0261)  | 0.0611***<br>(0.0211)  |
| <i>Education</i>          |                         |                         |                        |                        |
| Upper secondary           | 0.333***<br>(0.00992)   | -0.348***<br>(0.0163)   | -0.0478***<br>(0.0179) | -0.140***<br>(0.0151)  |
| Tertiary                  | 0.382***<br>(0.0115)    | -0.353***<br>(0.0195)   | 0.0424**<br>(0.0214)   | -0.0789***<br>(0.0180) |
| Partner in the same hh    | 0.0492***<br>(0.00713)  | -0.127***<br>(0.0175)   | -0.114***<br>(0.0178)  | -0.0391***<br>(0.0125) |
| <i>Place of residence</i> |                         |                         |                        |                        |
| Intermediate area         | -0.0245***<br>(0.00949) | 0.0277<br>(0.0190)      | -0.0740***<br>(0.0223) | 0.00536<br>(0.0172)    |
| Thinly populated area     | -0.0211**<br>(0.00938)  | 0.0271<br>(0.0188)      | -0.0353<br>(0.0220)    | 0.0184<br>(0.0171)     |
| 3 or more adults in hh    | 0.00724<br>(0.00714)    | 0.0658***<br>(0.0145)   | 0.0273<br>(0.0170)     | -0.000464<br>(0.0129)  |
| <i>Number of children</i> |                         |                         |                        |                        |
| 2 children                |                         | -0.0350***<br>(0.00654) |                        |                        |
| 3 or more children        |                         | -0.147***<br>(0.00908)  |                        |                        |
| Age 15-24                 |                         | -0.145***<br>(0.00767)  |                        |                        |
| Age 25-34                 |                         | -0.0288***<br>(0.00542) |                        |                        |
| Constant                  |                         | 0.604***<br>(0.0125)    |                        |                        |
| Observations              |                         | 26,100                  |                        |                        |
| R-squared                 |                         | 0.427                   |                        |                        |

Notes: The sample is limited to people aged 15-44. Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Authors' calculation based on the Labour Force Survey data for 2019.

Table B3. Probability of being employed among women (aged 15-44) by age of the youngest child in Poland, 2019

| VARIABLES                 | x No children           | x Child 0-2             | x Child 3-5            | x Child 6-14          |
|---------------------------|-------------------------|-------------------------|------------------------|-----------------------|
| Age of child              |                         | -0.130***<br>(0.0317)   | 0.0300<br>(0.0347)     | 0.0740**<br>(0.0288)  |
| <i>Education</i>          |                         |                         |                        |                       |
| Upper secondary           | 0.474***<br>(0.0171)    | -0.366***<br>(0.0302)   | -0.244***<br>(0.0320)  | -0.181***<br>(0.0266) |
| Tertiary                  | 0.599***<br>(0.0173)    | -0.269***<br>(0.0304)   | -0.110***<br>(0.0323)  | -0.131***<br>(0.0271) |
| Partner in the same hh    | 0.0481***<br>(0.00797)  | -0.0688***<br>(0.0180)  | -0.0561***<br>(0.0185) | -0.00113<br>(0.0129)  |
| <i>Place of residence</i> |                         |                         |                        |                       |
| Intermediate area         | -0.0379***<br>(0.0101)  | 0.0118<br>(0.0162)      | -0.0357**<br>(0.0176)  | 0.00589<br>(0.0146)   |
| Thinly populated area     | -0.0468***<br>(0.00980) | 0.0262<br>(0.0160)      | 0.00590<br>(0.0175)    | 0.00333<br>(0.0142)   |
| 3 or more adults in hh    | -0.0125<br>(0.00884)    | 0.0361**<br>(0.0159)    | 0.0533***<br>(0.0180)  | 0.0351**<br>(0.0140)  |
| <i>Number of children</i> |                         |                         |                        |                       |
| 2 children                |                         | -0.0463***<br>(0.00605) |                        |                       |
| 3 or more children        |                         | -0.131***<br>(0.0100)   |                        |                       |
| Age 15-24                 |                         | -0.0703***<br>(0.00967) |                        |                       |
| Age 25-34                 |                         | -0.0408***<br>(0.00526) |                        |                       |
| Constant                  |                         | 0.369***<br>(0.0177)    |                        |                       |
| Observations              |                         | 31,981                  |                        |                       |
| R-squared                 |                         | 0.237                   |                        |                       |

Notes: The sample is limited to people aged 15-44. Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Authors' calculation based on the Labour Force Survey data for 2019

