Net childcare costs in EU countries, 2021

BETTER POLICIES FOR BETTER LIVES

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Table of contents

FIGURES

BOXES

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1 Introduction

1. Early childhood education and care (ECEC, or "childcare") is attracting growing policy attention in the European policy debate.[1] Young children are increasingly cared for out-of-home in day-care centres, kindergartens or pre-primary schools, rather than by parents or relatives at home. On average across EU countries, one-third of children under the age of three participate in out-of-home ECEC, rising to almost 90% for three- to five-year-olds.[2]

2. High-quality ECEC carries many social and economic benefits. A growing body of research recognises that participation is beneficial for young children, especially those from low-income backgrounds (OECD, 2018[1]; Browne and Neumann, 2017[2]). Accessible, affordable and good-quality ECEC also protects against poverty and strengthens equality of opportunity by facilitating parental employment, boosting family income, and by promoting child development, child well-being, and success later in life (OECD, 2018[3]; OECD, 2015[4]; OECD, 2011[5]).

3. This note focuses on measures that provide support to parents with childcare needs and assesses the resulting net cost of non-parental childcare for families. It also quantifies the extent to which these costs shape financial work incentives for mothers. The note examines low- and median-income families with two pre-school children aged two and three. Results refer to policies that were in place on 1 January 2021 and build on previous similar studies (OECD, 2020[6]; Rastrigina et al., 2020[7]; Browne and Neumann, 2017[2]; Pacifico and Richardson, 2014[8]; OECD, 2007[9]). Based on the new findings, the note discusses key recent policy trends.

4. Policy measures affecting the provision and cost of ECEC span a range of different policy domains, including childcare fee regulations, tax rules and benefit provisions, each with their own set of objectives and trade-offs. Assessing the net effects of all these provisions on the cost of childcare to parents is complex and requires, among other things, the adoption of a *family perspective* (rather than an institutional one). The results illustrated in this note are based on output from the OECD tax-benefit model (TaxBEN). The use of TaxBEN enables accurate international comparisons and consistent monitoring of net childcare costs for a broad range of typical families. This is possible because the model puts all the complex country-specific rules and regulations affecting these costs into a unified methodological framework, developed by the OECD in conjunction with an extended network of experts working in the national administrations.

5. To facilitate cross-country comparisons, to the extent possible, the analysis provided in this note focuses on same family circumstances, types of childcare providers and regional coverage across countries, i.e. childcare centres for two- to three- year-old children in a typical region – often the national capital - giving preference to publicly provided care, where such an option exists. These model-based estimates provide reliable and comparable results for the assumed scenarios. However, extrapolation of the current

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[1] The importance of ECEC in reducing inequalities early in life is high on the EU policy agenda. As far back as 2002, the Barcelona Objectives set ECEC participation targets for children of different ages. These targets have been generally achieved at EU level and a revision is underway to set new targets for the coming years. More recently, the adoption of the European Child Guarantee emphasises the need to ensure free access to key services, including ECEC, for various groups of children in need (European Commission, 2022[12]).

[2] OECD Family Database, http://www.oecd.org/els/family/database.htm.

results to other situations should be done with caution. For more details on the methodology for collecting information on childcare cost and assumptions, see the guidelines for country experts and country-specific policy descriptions.

6. The remainder of this note proceeds as follows. **Section 2** describes the OECD tax-benefit model, in particular the childcare module, and outlines the methodology for calculating net childcare costs. **Section 3** sets out the main results on the levels of childcare costs in EU countries and recent trends. **Section 4** assesses the impact of childcare costs on the financial work incentives of mothers. **Section 5** concludes.

2 Assessing net childcare costs with the TaxBEN model: Methodology

7. The OECD tax-benefit model (TaxBEN) examines the costs of Early Childhood Education and Care (ECEC) from the parents' perspective. ECEC includes any regulated arrangements providing care and/or education for children under compulsory primary school age. This section explains the methodology for calculating ECEC (or childcare) costs in TaxBEN, and explains the decisions taken, and assumptions made, to make such an exercise feasible and to ensure the comparability of results across countries.

8. Parents' out-of-pocket costs for childcare depend on many factors, including gross childcare fees (or childcare prices), fee reductions and childcare benefits available to them, parents' employment status, earnings and other factors. The TaxBEN model provides a unified framework for estimating the cost of childcare to parents in a consistent way across countries, taking into account both the gross childcare fees and entitlements to fee subsidies, childcare benefits and tax concessions related to childcare use. These entitlements can be calculated for specific family types, accounting for interactions with other elements of tax-benefit systems. The model enables assessment of the affordability of childcare to families and the effects of childcare costs on financial work incentives in EU countries.[3]

9. TaxBEN uses a "synthetic" household approach: it simulates taxes, transfers and childcare costs for a number of hypothetical policy-relevant family types, e.g. a couple with two children. This approach is well suited for cross-country comparisons of policies as policy effects can be shown for the same household situations across different countries[4]. Moreover, this enables analysis of the most recent policies avoiding time delays related to microdata access and its transformation.

10. The TaxBEN model accounts for a broad range of policy levers including income taxes, social security contributions, unemployment benefits, social assistance benefits, housing benefits, in-work benefits and family benefits. For more details on the assumptions behind standard TaxBEN calculations, see OECD (2020[10]).

11. The TaxBEN childcare module simulates gross childcare fees and entitlements to fee subsidies, childcare benefits and tax concessions related to childcare for hypothetical household circumstances. Gross fees are defined as the fees charged to parents after any public subsidies received by the provider but before any fee reductions or discounts to the user. Gross fees include the cost of meals, but exclude other optional services, e.g. related to health care, transportation, special classes or activities, etc.

12. This note focuses on a measure of net costs of childcare (or "out-of-pocket" expenses). Net childcare cost shows net reduction in family budgets resulting from the use

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[3] See Annex A for more details on the OECD standard indicators of net childcare costs and work incentives.

[4] A different approach is taken by Hufkens and Verbist (2017[11]), who incorporate childcare costs into EUROMOD (a population-based microsimulation model) and use policies and/or costs from a particular city or region in six EU countries. They calculate the net cost of childcare for a representative sample of the population. However, in this case the comparison of policy effects between countries is affected by the composition of population, which itself might be an outcome of child-related policies.

of centre-based care. It is calculated by comparing net income of a family that purchases childcare and an otherwise similar family where no childcare services are bought (for example, if the family is able to use unpaid informal care). The net childcare cost is an estimate of the amount that parents have to pay for formal childcare less all childcare-related benefits, fee reductions and tax concessions, plus any impact of childcare use on other benefits and taxes (e.g. a loss of homecare allowance provided to parents who do not use formal childcare).

13. The net costs are driven by three main categories of childcare supports:

- **Government subsidies** that directly reduce the fees (prices) that parents pay and that depend on individual family circumstances. These subsidies are identified whenever sufficient information is available to calculate the difference between the fees charged to parents and the "gross" fees before subsidies are applied. In countries where a differentiated fee structure is in place, the "gross fee" corresponds to the maximum fee charged by the childcare provider.
- **Childcare benefits** paid to parents, who use formal childcare, to assist them with the childcare costs they incur.
- **Tax concessions** that are conditional on childcare use or spending levels.

14. Other tax-benefit instruments can also affect net childcare costs if the rules governing these instruments depend on the use of childcare. For example, net childcare costs will increase if a family loses eligibility to a homecare allowance once they start using formal childcare.[5] In some countries, childcare expenses might be subtracted from income for the purpose of means test, resulting in the opposite situation.

15. Fees vary not only by country but also frequently by characteristics of children or parents and according to the type of care provided. For an international comparison, it is therefore useful to focus on specific circumstances that can be compared across different countries. Specifically, results in this note relate to:

- **Mothers**: Women still overwhelmingly remain the main caregivers when non-parental childcare is unaffordable or unavailable. Childcare costs are a greater constraint for women whose earnings tend to be lower than men's and therefore women's employment is more responsive to childcare costs.
- **Families with two children aged two and three**: The choice of children ages reflects the structure of ECEC systems and support policies in many EU countries, which frequently makes a distinction between services and support for young children (below three years old) and older children (aged three and above)[6]. By focusing on children age two and three, the model attempts to cover a wider range of policies available in the countries, and at the same to target the ages for which enrolment in pre-primary school is not yet compulsory.[7] The policies for very young children (one year old and below) are beyond the scope of this report, as their needs are more likely to be better served by a carefully balanced broader set of policies, including effective maternal and paternal leave entitlements, and

[5] Note that homecare allowance will affect net childcare costs only in case it is available to working parents, because net childcare costs are calculated comparing identical *working* families that use or do not use formal childcare. If homecare allowance is available to non-working parents only, it will increase participation tax rate on entering employment (see Section 4), as in this case calculations compare a situation of a *non-working* parent, who does not use formal childcare, with a situation of an identical *working* parent who does.

[6] See for example, the typology of early childhood education and care provisions in the OECD Family Database.

[7] In 2021, there are only two EU countries, France and Hungary, where compulsory pre-school starts at the age of three.

measures that actively encourage employment before childbirth and after child-related career breaks.

- **Low- and median-income families:** The focus of this note is on low-income and median-income families. Low-income and single parent families have been shown to benefit most from good-quality non-parental childcare, whereas median-income couples provide a useful benchmark for comparison and monitoring general trends. Results for low-income (median-income) single parents refer to mothers working full time with earnings equal to the 20th (50th) percentiles of the female full-time earnings distribution. For two-parent families, results assume that both parents work full time with earnings equal to the 20th or 50th percentiles of the respective gender-specific earnings distribution.
- **Full-time care in a typical childcare centre**: The note assumes the use of public[8] childcare providers where these are commonly available. In some cases, this may not be enough to cover needs of full-time working parents and other forms of care may be important, so actual costs may be higher. The full time care is generally assumed to be 40 hours per week. The focus on public centre-based care is a consequence of data availability. First, information on the prices charged for other types of care services is not available on a comparative basis. Second, differences in quality standards make cost comparisons across multiple forms of childcare less informative[9].

16. The analysis in this note does not account for limited availability of childcare, other than through the effect of supply-side constraints on childcare prices. The results, therefore, give a calculation of the cost of a particular type of centre-based childcare that is assumed to be available to low-income and middle-income parents. Although designed to be comparable across countries, country-specific institutional settings and constraints should be borne in mind when interpreting results. For example, free or heavily subsidised childcare places may not be available to all parents who want them in some countries. Also, the quality of the childcare provision described by the model will differ between countries. These factors, which cannot be systematically examined in the TaxBEN model, are of course also decisive factors influencing the employment and childcare decisions of parents with young children.

17. In some cases, fees and public support measures vary across regions or municipalities. This makes cross-country comparison challenging. Where this is the case, region-specific fees and policy settings are used in the TaxBEN model (see Box 1). This “region-focused” approach is important to account for support provided by local governments, which is often targeted at low-income families and other disadvantaged groups. However, differences across regions can be important. The previous OECD report (Rastrigina et al., 2020$_{[7]}$) provides an overview of regional differences in childcare policies and highlights difficulties in collecting information on childcare costs across regions in EU countries. The results presented in this note refer to selected regions, often a capital region.

18. This note covers 27 EU countries as of 1 January 2021 and refers to policies that were in force at that time. In all cases, calculations make use of the institutional information on childcare settings and support, including all relevant cost components as kindly provided by national delegates to the OECD Working Party on Social Policy in response to

[8] Public childcare facilities are defined in this note as facilities owned and operated by public authorities at central, regional or local level. Private facilities are owned by profit-oriented companies or by non-profit organizations; they can be either self-financed or publicly subsidized.

[9] Country-by-country information on the use of both formal and informal care is available in the OECD Family Database (indicators PF3.2 and PF3.3).

comprehensive policy questionnaires administered by the OECD Secretariat.[10] For more details on the methodology for collecting information on childcare cost, see the guidelines for country experts.

Box 1. Region-focused approach in the TaxBEN model

Childcare fees and childcare support are often regulated and provided at a local level. Since 2019, the TaxBEN model adopts a "region-focused" approach for childcare cost calculations. This means that instead of modelling average fees in a country (which, if available, are often collected following different methodologies and for selected years only), the model focuses on specific rules of a sub-national jurisdiction (region, municipality or other), which is in charge of regulations on childcare fees and provisions to reduce such fees. This approach has advantages and disadvantages. Focusing on a particular region narrows the scope of the model. At the same time, the estimates are more precise, ensure a family perspective in a specific jurisdiction, and provide clear policy implications, instead of averaging across very different policy settings. Focussing on a specific jurisdiction also enables taking into account support that is provided at the sub-national level, which is often particularly important for vulnerable groups, such as lone parents, low-income families, and large families. The list below provides the jurisdictions that are chosen for modelling in TaxBEN:

country	***region***	**country**	***region***
Austria	*Vienna*	Italy	*Rome*
Belgium	*French community*	Latvia	*Riga*
Bulgaria	*Sofia*	Lithuania	*Vilnius*
Croatia	*Zagreb*	Luxembourg	*national rules*
Cyprus	*average fees*	Malta	*national rules*
Czech Republic	*Prague*	Netherlands	*average fees*
Denmark	*average fees*	Poland	*Warsaw*
Estonia	*Tallinn*	Portugal	*national rules*
Finland	*Helsinki*	Romania	*national rules*
France	*national rules*	Slovak Republic	*Bratislava (Dubravka)*
Germany	*Berlin*	Slovenia	*average fees*
Greece	*Athens*	Spain	*Madrid*
Hungary	*Budapest (District 8)*	Sweden	*Stockholm*
Ireland	*average fees*		

[10] Policy information for EU Member States that are not members of the OECD was kindly provided by national experts as identified by the European Commission. Country-specific policy information is available through: http://www.oecd.org/els/soc/benefits-and-wages-country-specific-information.htm.

3 Affordability of non-parental care: Net childcare cost indicators

19. Childcare affordability is an important concern for parents with small children. This section examines net childcare costs of families with two children calculated using comparable data and accounting for relevant support provisions. The OECD *net childcare cost* (NCC) indicator shows net reduction in family budgets resulting from the use of centre-based care (see Annex A for more details on the NCC indicator).

20. Before accounting for any support measures, the typical gross childcare cost charged to parents for using centre-based childcare is nearly one quarter of the median full-time wage earned by women in EU countries on average (Figure 1).[11] Gross childcare fees range from less than 5% in **Austria** and **Germany,** where parents living in the capitals benefit from free public childcare, to almost 80% of median female earnings in the **Netherlands**, where the market is dominated by private childcare providers and there are no fee regulations.

21. Almost all countries offer some support to parents that reduces the gross costs for at least some family types. Childcare support, on average, lowers the fees charged to low- and middle-earning lone-parents by around 70%, and to low- and middle-earning couples by about 50-60%. Childcare support tends to be more substantial in countries where gross fees are higher, e.g. in the **Netherlands**, **Greece**, and **Luxembourg**. In rare cases, the net costs of childcare can be higher than the gross childcare fees. In the **Czech Republic** and **Finland**, this arises because families lose homecare allowance when using subsidised childcare, thus lowering their disposable income.

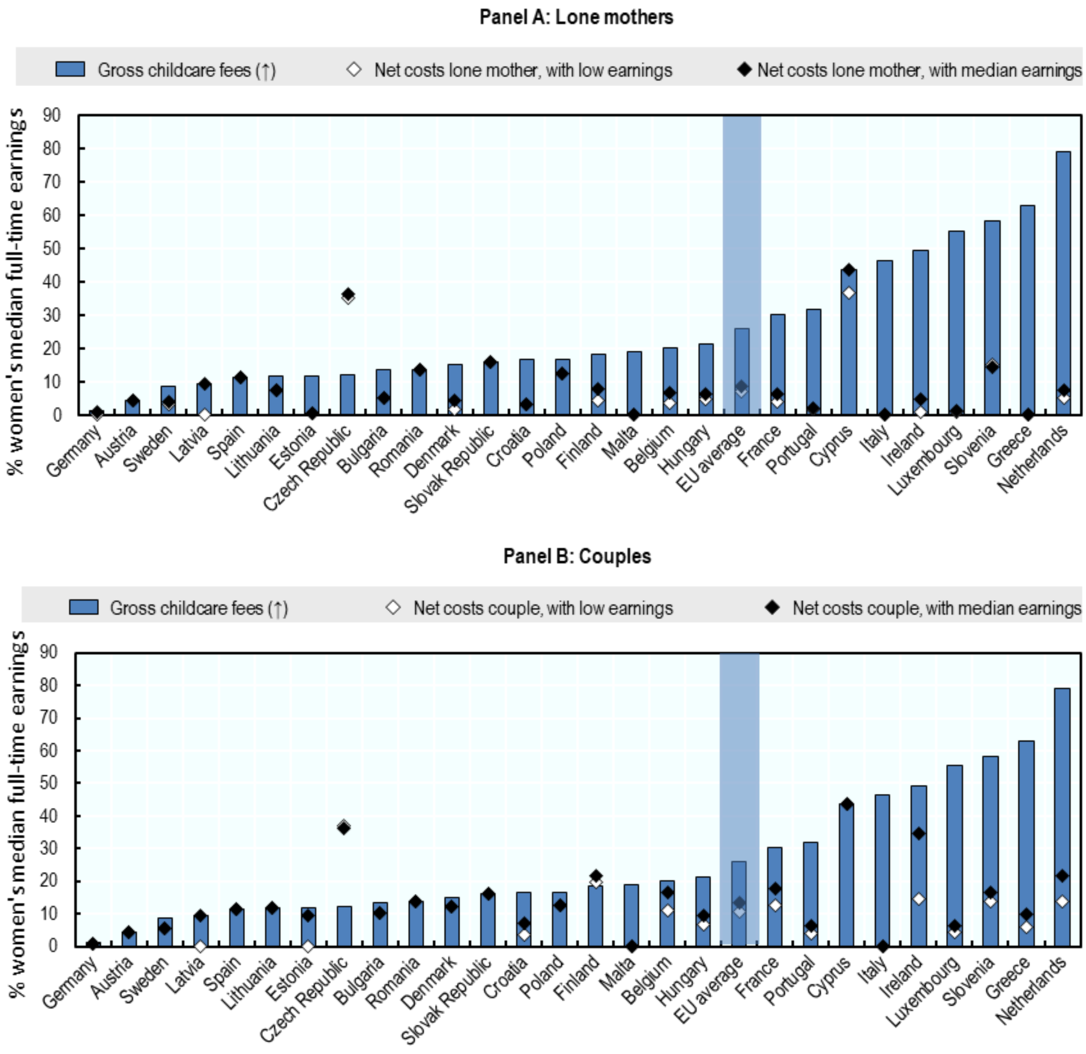
22. Several countries do not offer childcare support that reduces gross fees to families considered in this note. In such cases, net childcare costs are equal to gross. For example, in **Austria, Spain** and **Romania** the care itself is provided free of charge, but all parents have to pay for the cost of meals.[12] In the **Slovak Republic**, childcare benefits exist, but families often opt to receive a more generous parental allowance instead, which does not reduce childcare fees as it is available to parents regardless of whether they use childcare or not.

[11] Calculations refer to full-time care in a typical childcare centre for a two-child family, where all parents are in full-time employment and children are two and three years old, respectively.

[12] In Spain, in the Comunidad de Madrid, parents have to pay also for additional hours of childcare above 7 hours per day.

Figure 1. Gross and net costs of childcare, as percentage of women's median full-time earnings, 2021

For two children in full-time care

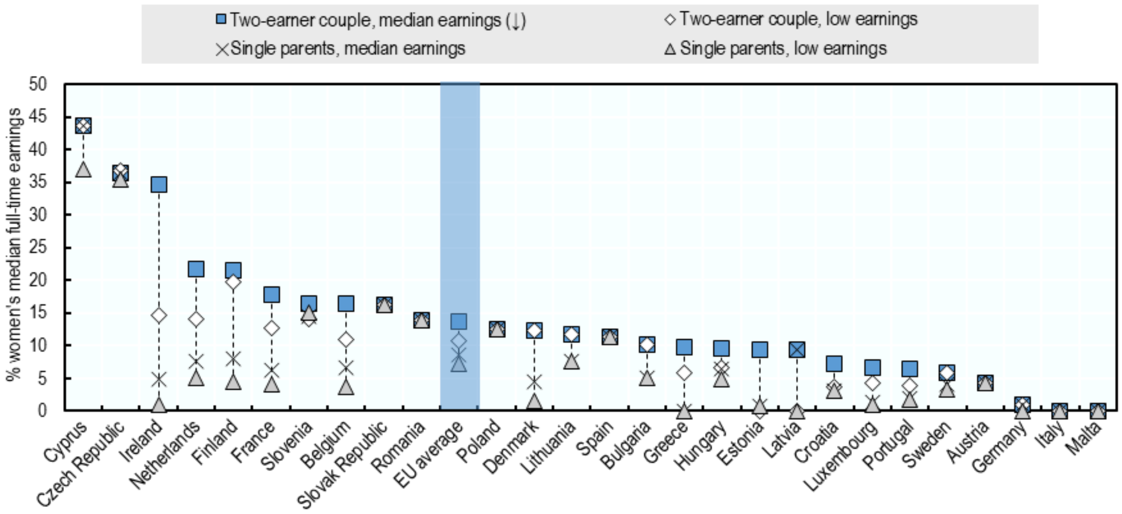


Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. Low earnings refer to the 20th percentile, and median earnings to the 50th percentile, of the full-time gender-specific earnings distribution. Couples contain two earners, male and female; single parents are females. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled (see Box 1).
Source: OECD Tax and Benefit Models, 2021. http://oe.cd/TaxBEN.

23. Net childcare costs, i.e. gross childcare costs after accounting for relevant support measures, on average in the EU account for 14% of women's median full-time earnings for a middle-income two-earner couple. This percentage goes down to 11% for low-income couples, and to 7-9% for lone parents (see Figure 2).

Figure 2. Net childcare costs, as percentage of women's median full-time earnings, 2021

For two children in full-time care



Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. Low earnings refer to the 20th percentile, and median earnings to the 50th percentile, of the full-time gender-specific earnings distribution. Couples contain two earners, male and female; single parents are females. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled (see Box 1).
Source: OECD Tax and Benefit Models, 2021. http://oe.cd/TaxBEN.

24. Despite the multiple types of childcare support (Figure 3 shows net childcare costs decomposed by type of support), net childcare costs for parents remain high in some EU countries. For example, net childcare costs are more than one third of the median female earnings in **Cyprus** and in the **Czech Republic** for all family types considered in this note. For median-income couples, net childcare costs also tend to be high in **Ireland**, the **Netherlands** and **Finland**. In the **Czech Republic** and **Finland**, the high costs are related to the loss of generous homecare allowances (see dark grey bars in Figure 3).[13] In **Cyprus, Ireland**, and in the **Netherlands**, where mainly private facilities provide childcare, governments have lower control over fees, whereas public support is targeted to the most disadvantages.

25. At the other end of the spectrum, net costs are very low or zero in **Malta, Italy**, and **Germany**, where families with children in public childcare centres can benefit from heavily subsidised childcare fees or may be exempt from fee payments altogether, at least as long as there is sufficient supply.[14] Typical childcare costs are also comparatively low for low-income families or lone parents in **Denmark**, **Latvia**, **Estonia, Greece, Portugal** and **Luxembourg**. The recent reform of childcare support in **Ireland** provided significantly higher benefits to low-income families, driving the net childcare costs for low-income lone parents close to zero.

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[13] In the Czech Republic, parents using formal childcare for more than 92 hours per month lose eligibility for the so-called "Parental Allowance", a benefit for families rising the youngest child under 48 months at home.

[14] The calculations assume *Rome* for Italy and *Berlin* for Germany (see Box 1, which describes the choice of regional assumptions in TaxBEN).

26. In eight EU countries, net childcare costs do not vary (or vary little) between the family types and earnings levels studied in this note. In most of these countries, free or subsidised provision is available to all parents irrespective of income, e.g. in **Austria**, **Germany, Malta, Poland, Spain**, and **Romania**.[15] In **Italy**, support is provided to all family types considered in this note because of the income levels examined (low and medium earnings). On the contrary, in **Slovak Republic** all the families considered in this note do not qualify for special discounts (e.g. granted to recipients of social assistance), and hence all families face the same net childcare costs.

27. Nearly all remaining EU countries target support for childcare towards low-income families. This is done either through income-dependent fee structures (**Belgium, Denmark**, **Finland**, **France**, **Greece**, **Hungary**, **Italy**, **Luxembourg**, **Portugal**, **Slovenia**, and **Sweden**), means-tested childcare benefits (**Netherlands**, **Italy, Ireland**) or by providing special support to low-income families eligible to other social benefits or with income levels below certain thresholds (**Estonia, Latvia, Lithuania**). Income-based targeting is particularly evident in some countries with above-average fees and predominantly private provision. For example, in the **Netherlands,** a two-earner couple with median earnings pays as much as 22% of the median full-time wage earned by women, whereas a low-earning lone parent pays 5%. Similarly, after the introduction of National Childcare Scheme in **Ireland**, a median-income couple pays one third of the median female earnings, whereas a low-earning lone parent pays only 1%.

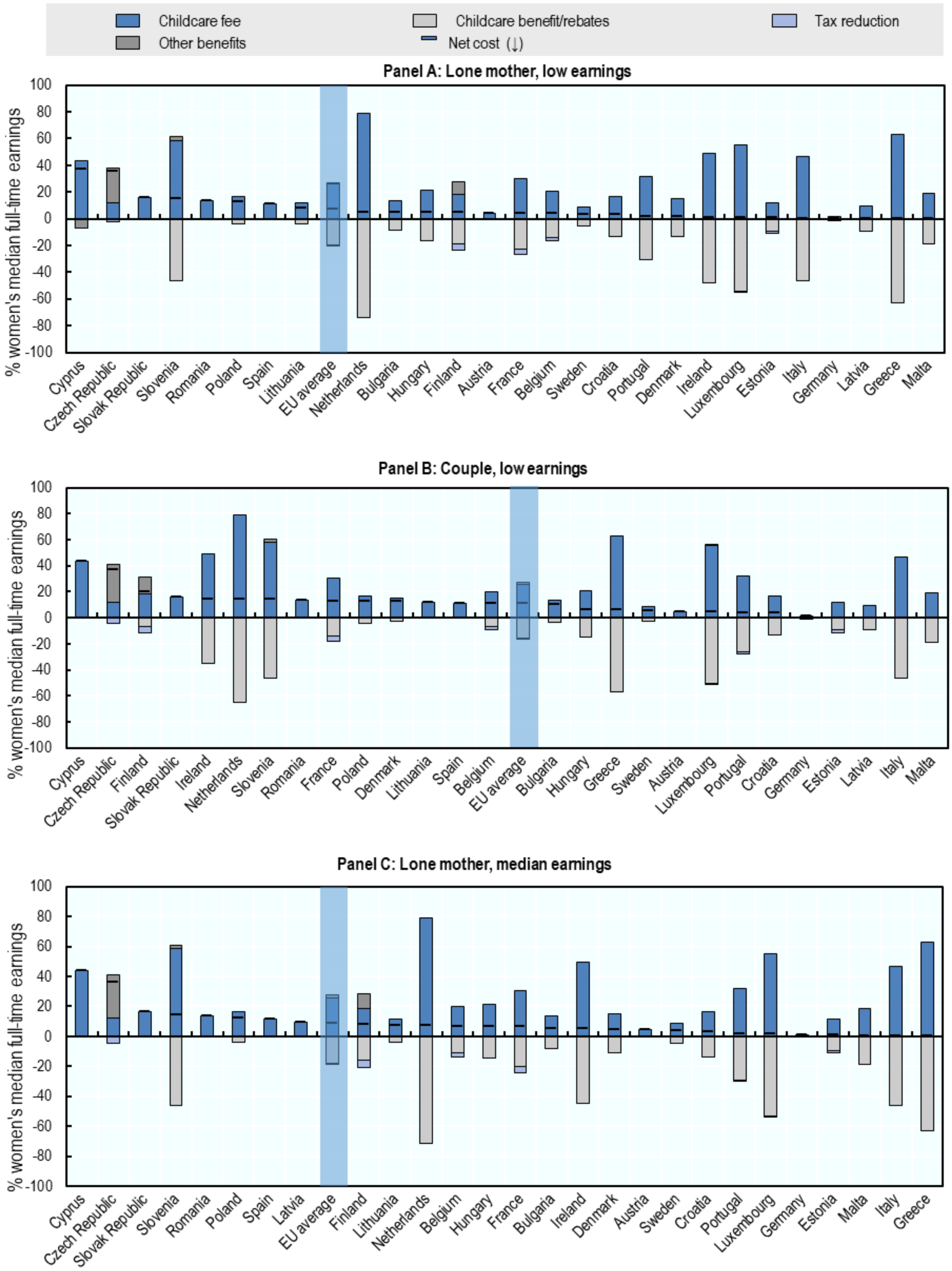
28. Lone parents often receive more support than partnered mothers at the same level of earnings. In most countries, this arises because fee subsidies and means-tested benefits depend on family income rather than individual earnings. However, in a small number of countries (**Bulgaria**, **Croatia** and **Lithuania)** lone parents receive a special discount whereas childcare fees or benefits are not income-dependent. **Denmark** and **Greece** provide both discounted fees for lone parents and income-related support.

29. Net childcare costs can be expressed not only in terms of median female earnings (Figure 1, Figure 2, and Figure 3), but also in terms of the disposable household income (Figure A B.1 in Annex B). Changing the denominator typically increases the indicator for low-earning lone parents, as their net income is usually below the median wage, and reduces the indicator for couples, as income of two-earner families is naturally higher. In some countries, this results in a similar degree of affordability across family types (e.g. **Lithuania** and **Hungary**). In other countries, on the contrary, low-earning families have greater difficulty affording childcare than medium-earning families (e.g. **Romania, Czech Republic,** and **Cyprus**). On average, net childcare costs represent about 8% of disposable income for low- and medium-income families. However, net childcare cost vary considerably between countries, ranging from zero in **Malta** and **Italy** to more than 30% of disposable income for a lone parent families in **Cyprus** and the **Czech Republic.**

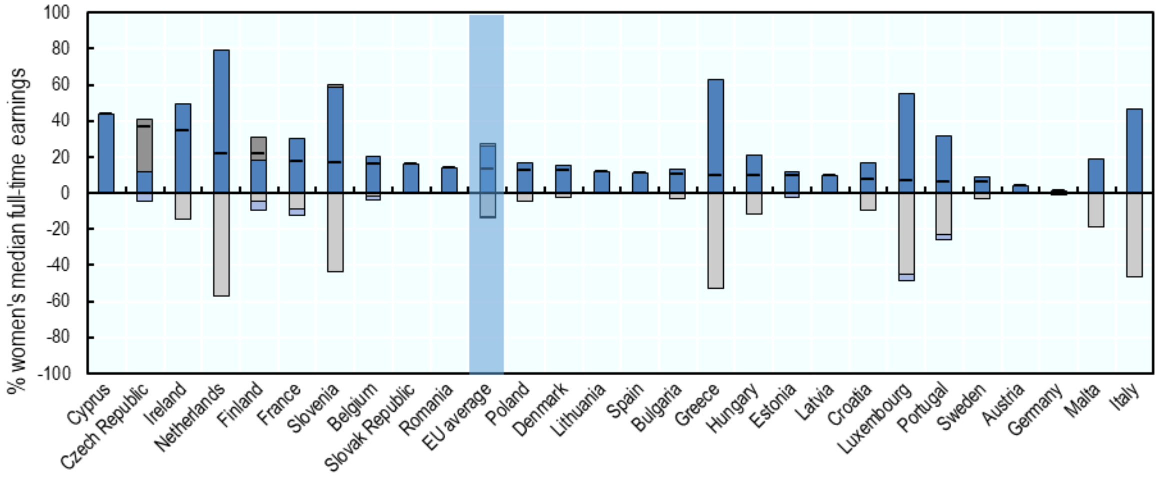
[15] In case of Malta, free childcare is available to all parents in paid work. In Poland, Spain and Romania, the childcare provision is free (in Madrid for up to 7 hours per day), but parents have to pay relatively high prices for meals. In Romania, discounts for meal costs can be provided on ad-hoc basis for especially vulnerable groups, but such discounts are outside the scope of the model.

Figure 3. Net childcare costs decomposed by instrument, as percentage of women's median full-time earnings, 2021

For two children in full-time care



Panel D: Couple, median earnings



Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. Low earnings refer to the 20th percentile, and median earnings to the 50th percentile, of the full-time gender-specific earnings distribution. Couples contain two earners, male and female; single parents are females. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled (see Box 1).
Source: OECD Tax and Benefit Models, 2021. http://oe.cd/TaxBEN.

Box 2. Changes in Net childcare costs in EU countries between 2019 and 2021

Since 2019, net childcare costs noticeably decreased in five EU countries for most family types studied in this note (see Figure 4). The most substantial reduction occurred in **Ireland** following introduction of a new national childcare scheme that granted significantly higher benefits to low-income parents. In **Spain**, childcare provision became free in Madrid with fees charged only for meals and childcare provision for more than 7 hours a day. In **Finland**, the municipality of Helsinki abolished supplement for home care allowance for two-years-old children, hence reducing implicit “opportunity” costs of public childcare use for parents. In **Romania** and **Bulgaria**, slightly decreasing indicators reflect slower growth in childcare fees relative to wage growth.

An opposite trend occurred in four EU countries, leading to higher net childcare cost indicators in 2021. In the **Czech Republic**, increases are related to more generous parental allowance, which adds to net childcare costs as it is withdrawn once parents start using childcare. In **Poland**, Warsaw municipality abolished childcare fees for children below 3 years old, at the same time raising meal costs and removing discounts for low-income families and siblings, which pushed total childcare costs upwards. In **Cyprus** and in the **Slovak Republic**, childcare fees grew faster than wages resulting in modest increases in the indicator. Despite generally increasing childcare fees in **Cyprus**, low-earning single parents saw their net childcare costs falling as they became eligible to a more generous guaranteed minimum income package, which includes means-tested childcare benefit.

In the remaining two thirds of the EU countries, net childcare cost indicators remained relatively stable over the last two years for most family types considered in this note. However, lone mothers at median earnings in **Latvia** saw a substantial rise in childcare costs as their earnings crossed the income threshold that defines eligibility to free meals in Riga. Similarly, in **Croatia** and **Slovenia**, income of couples on median earnings exceeded a threshold and pushed these families into the next income bracket with higher childcare fees. This trend highlights the importance of regular uprating of income eligibility thresholds in line with wage growth. On the contrary, fixed childcare fees lead to minor reductions in net childcare costs over time for median-income couples in **Latvia** and **Luxembourg**.

Between 2019 and 2021, the EU average net childcare cost indicator decreased by less than one percentage point for single parents and low-income couples, and remained stable for medium-income couples. The slight tendency for the EU average to decrease was mainly driven by substantial reductions in net childcare costs in Ireland (shown with a separate scale in Figure 4).

Figure 4. Net childcare costs indicator, percentage point change, 2019-2021

For two children in full-time care

Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. Low earnings refer to the 20th percentile, and median earnings to the 50th percentile, of the full-time gender-specific earnings distribution. Couples contain two earners, male and female; single parents are females. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled (see Box 1). Net childcare cost indicators are expressed as percentage of median female earnings in respective year.
Source: OECD Tax and Benefit Models, 2021. http://oe.cd/TaxBEN.

4 Can parents afford to work? Childcare costs and work incentives

30. Accessible and affordable childcare makes it easier for parents to participate in paid work. While causal links between childcare use and employment among parents are complex, a growing body of research suggests that providing families with access to affordable childcare can boost maternal employment (Browne and Neumann, 2017[2]).[16]

31. This section examines the link between the costs for centre-based childcare and work incentives using the OECD *participation tax rate* (PTR) indicator calculated for single mothers and mothers in couples who take up full-time employment at low and median earnings (see Annex A for more details on the PTR indicator). As this indicator measures the fraction of additional earnings lost through higher taxes, childcare costs and benefits withdrawn when taking up employment, larger values imply weaker incentive to take up work.[17]

32. On average across the EU, when a low-earning single mother takes up full-time work, she loses 57% of her gross employment earnings through the combined effect of higher taxes and lower benefits. After factoring in childcare costs, the average loss across the EU increases to 67% of gross earnings (Figure 5 – Panel A). For low-earning mothers with a working partner the loss associated with taking up full-time work is slightly smaller: 35% of the additional gross earnings before accounting for childcare costs, and about 50% after (Figure 5 – Panel B). [18]

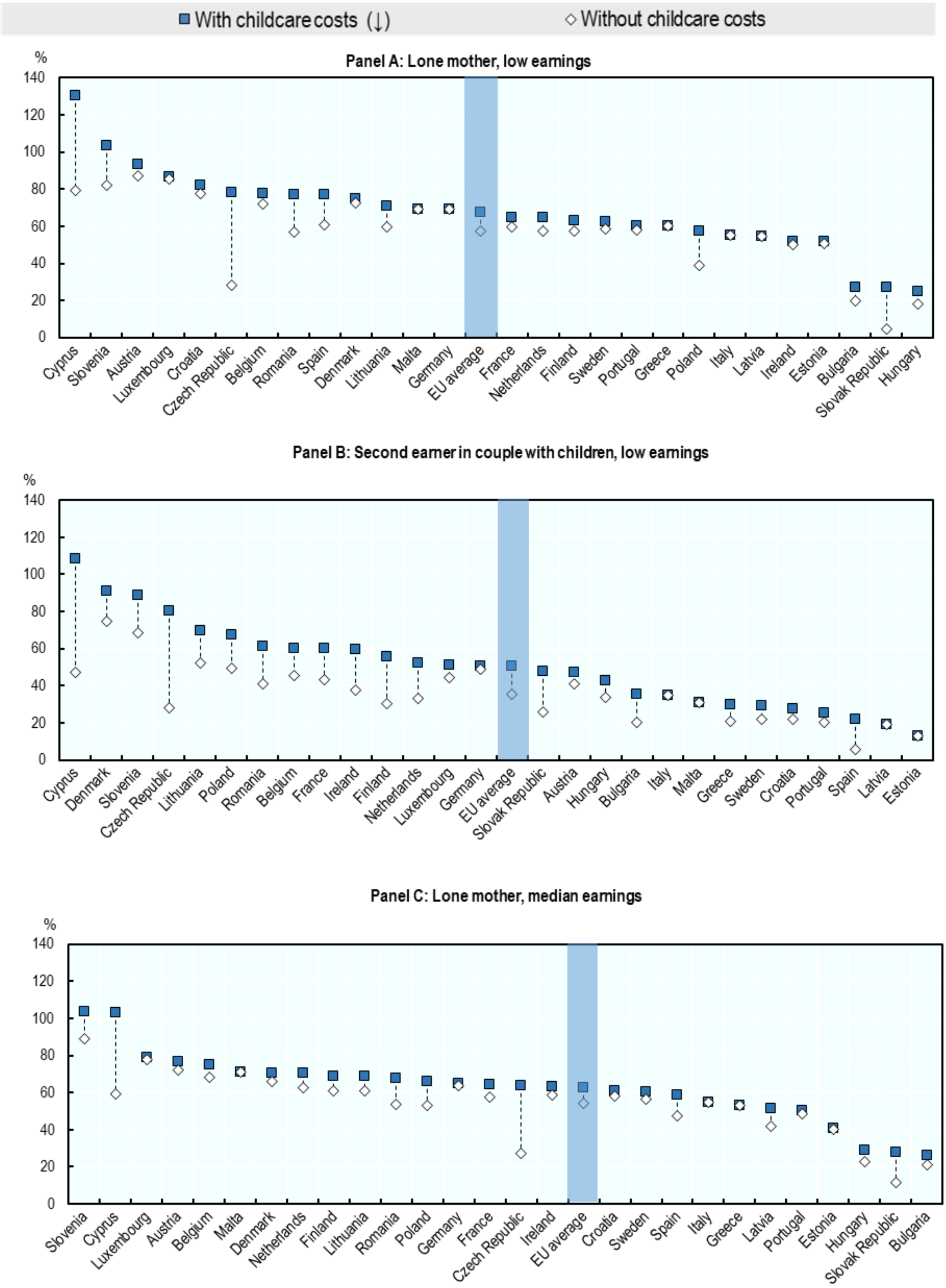
33. In some countries, low-wage employment offers mothers no or very little financial gain, especially once childcare costs are taken into account. For example, in **Cyprus**, **Slovenia**, **Austria** and **Denmark**, low-earning mothers entering work may lose more than 90% of their earnings to childcare costs, higher taxes and withdrawal of social benefits that depend on earned income or working hours (Figure 6 – Panel A and B). In **Cyprus** and **Slovenia**, childcare costs push PTRs for single mothers above 100%, implying that mothers are financially better off not working at all, even if they start working at median earnings (Figure 5 – Panels C and D). The use of childcare has a particularly large impact on work incentives also in the **Czech Republic** and **Ireland** for median-earning mothers in couples.

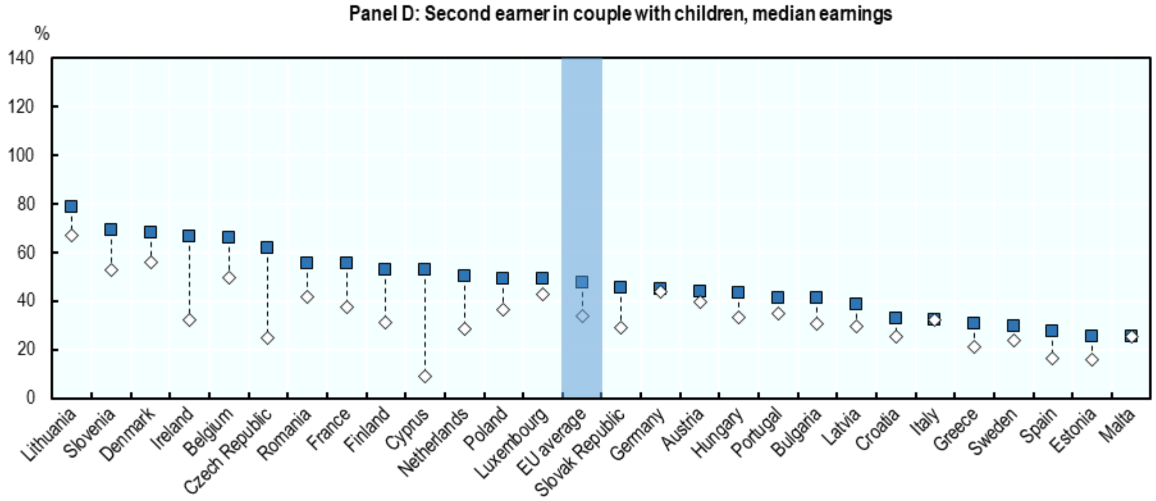
16 The OECD's *Faces of Joblessness* project examines a broad range of employment barriers and finds that unmet care responsibilities affect up to one quarter of all jobless people, and much higher shares of jobless women.

17 PTRs are calculated assuming that families incur childcare costs only when all parents are in full-time paid work. When one of the parents is not in work, it is assumed that they take care of children at home.

18 The distance between the markers in Figure 5 shows the effect of net childcare costs on work incentives. The larger the distance the more childcare costs weaken work incentives.

Figure 5. Participation tax rates for mothers entering full-time employment, 2021





Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. Low earnings refer to the 20th percentile, and median earnings to the 50th percentile, of the full-time gender-specific earnings distribution. Couples contain two earners, male and female; single parents are females. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled (see Box 1). The PTRs with and without childcare costs are calculated for two otherwise identical families except that one uses centre-based childcare when both parents are working and the other does not, e.g. because other relatives provide informal child care. Both families do not use childcare if at least one parent is out of work. Results assume that social assistance and housing benefits are available if relevant income and eligibility conditions are satisfied.
Source: OECD Tax and Benefit Model, 2021. http://oe.cd/TaxBEN.

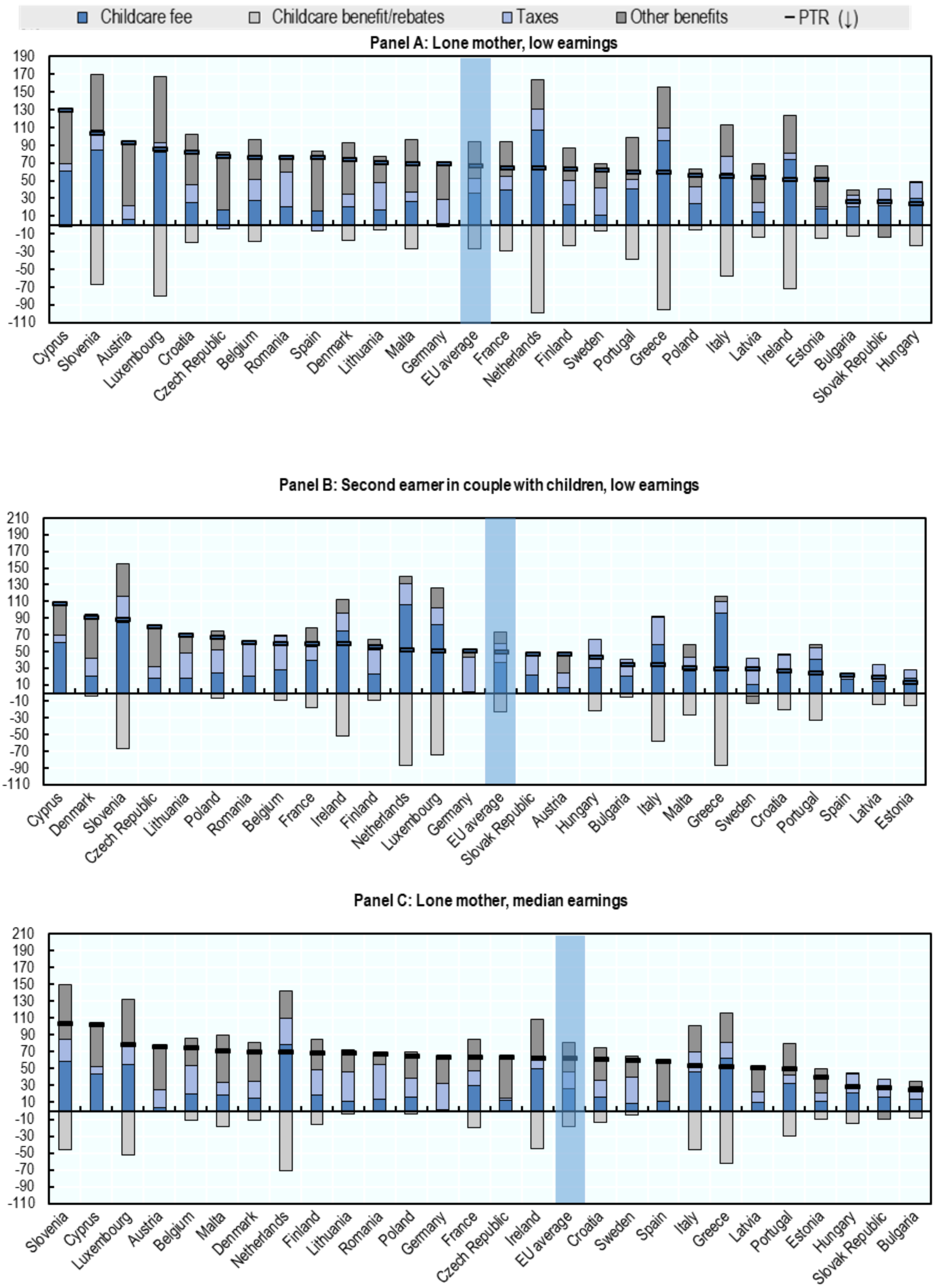
34. However, high net childcare costs are not the only reason behind weak work incentives for low-earning single mothers. For example, in **Austria**, **Croatia**, **Luxemburg**, **Belgium** and **Denmark**, low work incentives for single mothers (Figure 5 - Panel A) occur mainly because of other design features of the tax and benefit systems, notably the withdrawal of other cash benefits whose amounts depend on earned incomes (Figure 6 decomposes PTRs by tax-benefit instrument).

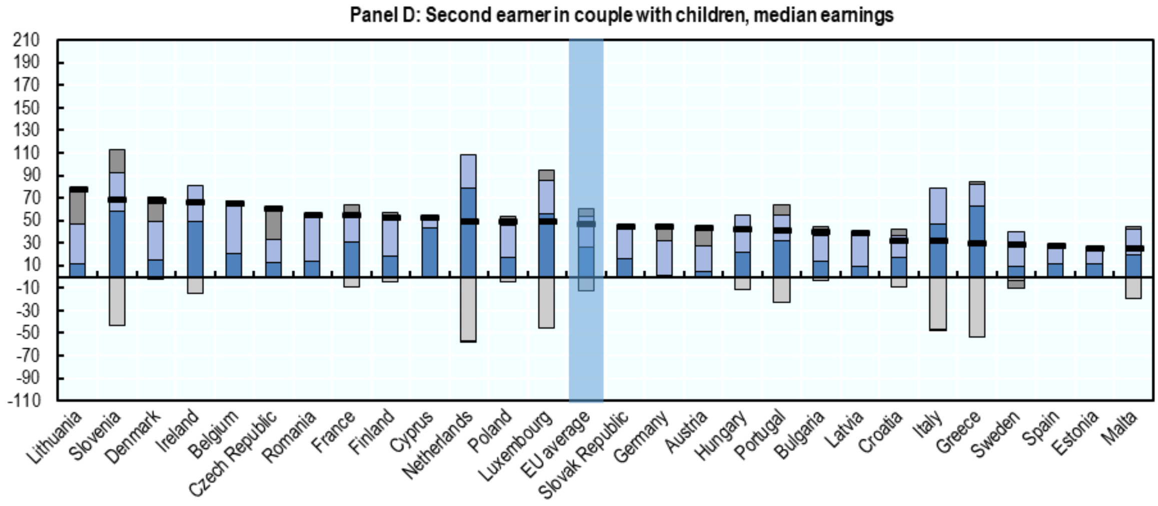
35. Some benefit entitlements can make using non-parental childcare more financially burdensome for families, rather than less. This happens in countries that provide ‘homecare’ and ‘child raising’ allowances to parents who use informal childcare at home instead of formal centre-based childcare, e.g. in **Finland**[19], **Slovenia** and the **Czech Republic**. As these entitlements are lost when parents start using formal childcare services, homecare allowances effectively become an additional cost that adds to the cost paid for the childcare itself.

36. However, when homecare allowances are available on a part-time or flexible basis they can help parents combine part-time work with part-time care for children at home. For example, in **Finland**, parents with children under age three who work no more than 30 hours per week are entitled to a “flexible care allowance” that can be paid to both parents at the same time as long as they make work arrangements that allow them to look after the child at different times.

[19] In 2020, the municipality of Helsinki (assumed in TaxBEN) abolished a supplement for home care allowance for two-years-old children, hence reducing the disincentives to work for mothers with children of that age. Since 1 June 2021, the municipality further limited eligibility for the supplement to children under one-year old (this policy will be included in the TaxBEN model in 2022). At the same time, the government re-established subjective right to early childhood education and care without 20 hours restriction and reduced childcare fees. National-level home care allowance is still being paid to parents with children under 3 years old who do not use public childcare.

Figure 6. Participation tax rates on entering full-time employment using childcare, decomposed by instrument, 2021





Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family, where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. Low earnings refer to the 20th percentile, and median earnings to the 50th percentile, of the full-time gender-specific earnings distribution. Couples contain two earners, male and female; single parents are females. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled (see Box 1). The PTRs with childcare costs are calculated for the families that use centre-based childcare when both parents are working and do not use childcare when at least one parent is out of work. Results assume that social assistance and housing benefits are available if relevant income and eligibility conditions are satisfied.
Source: OECD Tax and Benefit Model, 2021. http://oe.cd/TaxBEN.

5 Conclusions

37. This note uses OECD tax-benefit model (TaxBEN) to examine the net childcare costs for working parents in EU countries in 2021, and to assess how these costs affect parents' financial work incentives. The results show that while all countries provide some support to assist parents with childcare costs, there is a wide variation between and within countries in relation to the type and generosity of this support and the resulting net costs to parents.

38. The note focuses the analysis on mothers in low- and middle- income families with two children aged two and three, the age at which parental leaves are usually exhausted but enrolment in primary school is not yet possible. This focus reflects the reality that women overwhelmingly remain the main caregivers when non-parental childcare is unavailable or unaffordable. The household's decision to place children in formal childcare usually reflects a financial decision with reference to a mother's earnings. It is especially important to provide strong incentives for women in low-income families to take up work and use childcare as these families are shown to benefit most from good-quality non-parental childcare.

39. Without any support measures, in EU countries on average, gross full-time childcare fees for two children represent nearly one quarter of a women's median full-time wage. After accounting for support measures, these costs reduce to 14% of a women's median wage for a middle-income two-earner couple, 11% for low-income couples and 7-9% for lone parents. However, there is variation in net childcare costs across both countries and family types. For example, net childcare costs are more than one third of median female earnings in **Cyprus,** the **Czech Republic**, and for some families in **Ireland**. On the contrary, net costs are close to zero in **Malta, Italy**, and **Germany** and comparatively low for selected low-income and single parent families in **Denmark**, **Latvia**, **Estonia, Greece, Portugal,** and **Luxembourg**. Two-earner couples with median earnings generally have higher net childcare costs than other family types, particularly lone parents with low earnings. These differences are broadly consistent across countries, and reflect governments prioritising vulnerable groups.

40. Between 2019 and 2021, the EU average net childcare cost indicators remained relatively stable. The most substantial reduction in net childcare costs, especially for low-income and lone parent families, is observed in **Ireland** due to the introduction of a new national childcare support scheme. Somewhat smaller reductions occurred in **Spain**, **Finland**, **Romania** and **Bulgaria**. The net childcare cost indicators increased in four European countries. In the **Czech Republic**, the increase is due to a more generous parental allowance, whereas in **Poland** it is driven by higher meals costs and removal of fee rebates for low-income families. In **Cyprus** and in the **Slovak Republic**, childcare fees grew faster than wages resulting in an increase of the net childcare cost indicator.

41. Childcare costs can significantly weaken the incentives for mothers of young children to do paid work. On average across EU countries, about two-thirds of gross earnings of a low-paid lone mother are lost to a combination of taxes, withdrawn benefits and childcare costs when they move into work. In several countries, parents cannot afford to work as childcare costs can lead to a reduction of disposable income when taking up full-time employment (e.g. single mothers in **Cyprus** and **Slovenia**). While childcare costs have an adverse effect on work incentives of mothers, other out-of-work benefits that are lost upon taking up employment also dampen work incentives even for women with access to informal or low-cost care options (e.g., mothers in **Austria,** and **Denmark**). This

highlights the need to look beyond individual policy areas when considering the incomes, choices and constraints facing parents of young children.

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Annex A. Net childcare cost and work incentives indicators

Net Childcare Cost indicator

The Net Childcare Cost (NCC) indicator measures the net reduction in family budgets resulting from the use of centre-based care. It is calculated by comparing net income of a family that purchases childcare and an otherwise similar family where no childcare services are bought (for example, if the family is able to use unpaid informal care). Formally, the indicator is calculated as follows:

$$NCC = y_{nc} - y_{wc}$$

where y_{wc} is the net income of a family that uses centre-based childcare, and y_{nc} is the net income of an otherwise identical working family that does not use childcare.

Net incomes are computed as follows:

3.1. Net income without childcare: $y_{nc} = W - T_{nc} + B_{nc}$

3.2. Net income with childcare: $y_{wc} = W - T_{wc} + B_{wc} - (CC - CB)$

Net incomes in the equations above are a function of the following elements:

1. *W* is the sum of full-time earnings at the family level;
2. *T* is the total amount of tax liabilities;
3. *B* is the total amount of benefit entitlements except childcare benefits;
4. *CC* is gross childcare fees charged by childcare centre before any fee reductions applied to the users (e.g. before discounts for low-income families);
5. *CB* is the sum of fee reductions and childcare benefits.

While earnings *W* in both equations are identical, tax liabilities *T* and benefits entitlements *B* may differ if calculation of any of tax-benefit instruments depend on childcare use, childcare expenses or childcare benefits.

Net childcare costs can be expressed in absolute terms (e.g. in national currency units) or in relative terms, e.g. as percentage of average wage (or as in this note as percentage of median female full-time wage) or as percentage of the net household income (see Annex B).

Participation Tax Rate indicator

The Participation Tax Rate (PTR) indicator measures a fraction of gross earnings that a family loses to higher taxes, lower benefits and childcare costs when one family member (in this note a mother) takes up employment. Calculations assume that families incur childcare costs only when all parents are in full-time paid work. When at least one of the parents is not in work, it is assumed that they take care of children at home without additional monetary costs.

Formally, the PTR is calculated as 1 (or 100%) minus the change in the net household income y_{net} relative to the change in the gross household income y_{gross} resulting from a transition from out of work into work:

$$PTR = 1 - \frac{\Delta y_{net}}{\Delta y_{gross}}$$

The change in net incomes is computed as follows:

$$\Delta y_{net} = y_{iw} - y_{ow}$$

3.3. Net income *in-work* using childcare: $y_{iw} = W_{iw} - T_{iw} + B_{iw} - (CC - CB)$

3.4. Net income *out-of-work* without childcare: $y_{ow} = W_{ow} - T_{ow} + B_{ow}$

The change in gross incomes is computed as follows (and in the context of this note is equal to the new gross earnings of a mother):

$$\Delta y_{gross} = W_{iw} - W_{ow}$$

The elements in the equations above are interpreted as follows:

6. *W* is the sum of full-time earnings at the family level;
7. *T* is the total amount of tax liabilities;
8. *B* is the total amount of benefit entitlements except childcare benefits;
9. *CC* is gross childcare fees charged by childcare centre *before* any fee reductions applied to the users (e.g. before discounts for low-income families);
10. *CB* is the sum of fee reductions and childcare benefits.

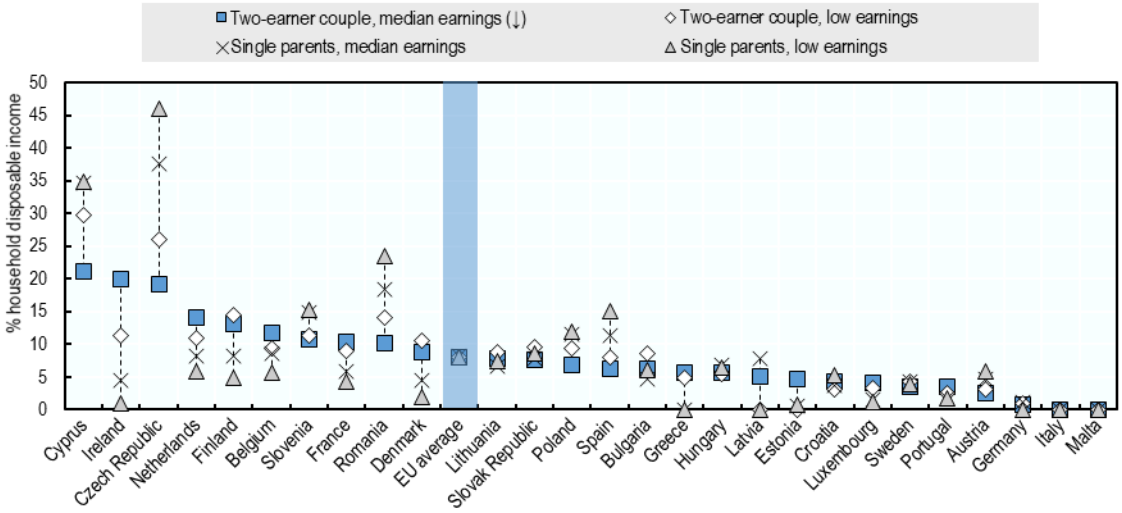
If the family keeps 100% of additional earnings from the new employment (i.e. $\Delta y_{net} = \Delta y_{gross}$), PTR is equal to zero. On the opposite, if the family loses 100% of additional earnings to higher taxes, lower benefits and childcare costs (i.e. $\Delta y_{net} = 0$), PTR is equal to 1 (or 100%). Thus, a *higher* PTR value is associated with *weaker* financial work incentives.

The PTRs analysed in this note are calculated assuming no eligibility to unemployment benefits. Social assistance and housing benefits are available if the family satisfies the relevant income and eligibility conditions. When in work, mothers do not receive temporary 'into-work' benefits, thus PTRs estimated in this note show work incentives in the 'long-term'.

Annex B. Additional figures

Figure A B.1. Net childcare costs, as percentage of household disposable income, 2021

For two children in full-time care



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Source: OECD Tax and Benefit Models, 2021. http://oe.cd/TaxBEN.