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Gender and education inequalities in parental employment and earnings when having a child with increased care needs: Belgium versus Norway

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Abstract
Caring for children with increased care needs can be demanding and the time required to provide such care hampers parents' employment participation. Especially, mothers and lower educated parents are affected by the increased care burden and reduce or stop their employment participation. So far, the literature lacks studies investigating the employment impact in a comparative perspective. We fill this gap by comparing Belgium and Norway. We use comparable administrative datasets, identifying children with increased care needs as those receiving a cash benefit designed to financially compensate for the extra private care. The results confirm that gender and education inequalities exist in both countries. Moreover, we find that the negative care burden gap in employment depends on the country of residence, with significantly larger inequalities in Belgium. Our analyses suggest that increased support on multiple fronts is needed for these families.

Keywords
Children, disability, education, gender, increased care needs, inequality, parental earnings, parental employment

Introduction

In this article, we contrast parental employment and labour earnings between families of children with and without increased care needs. First, we investigate how the employment and wage gaps differ between mothers and fathers. Second, we examine how these gaps vary according to the parents' educational level. Third, to add to the existing research, we explore whether the employment and wage gaps of parents caring for children with

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increased care needs differ between welfare states, comparing Belgium and Norway.

Over recent decades, welfare states have increasingly embraced a political commitment to full employment. Nowadays, policymaking is dominated by the social investment perspective in Europe, Australia, Canada and in some less developed welfare states of Asia and Latin America. In addition to investment in human capital from early childhood onwards, social investment places individual responsibility and social inclusion through labour market participation at the forefront (Hemerijck, 2017). Working-age adults are expected to participate in gainful employment and work-facilitating family policies, such as childcare and parental leave, are pushed forward to accomplish this. The European Commission (2013) and the OECD (2006) have adopted the social investment perspective on policymaking and emphasized the importance of activation to achieve economic growth and combat poverty and social exclusion.

For the two countries under study, different approaches to activation are taken. In Belgium, activation measures mainly focus on stimulating job demand (by reducing employer's social security contributions), which, to some extent, are matched by job supply measures (e.g. cutting down the low wage employee's social insurance contributions and intensified monitoring and sanctioning of the unemployed; Hemerijck and Marx, 2010). In Norway, job supply measures are the core of the activation strategy, mainly by tightening eligibility criteria for welfare benefits and strengthening obligations to participate in activation and training programmes (Halvorsen and Jenses, 2004). In addition, people who were spared from activation policies before (e.g. single mothers, people with disabilities and people giving care) are nowadays increasingly included throughout European welfare states (Burkhauser et al., 2016; Good Gingrich, 2008; Lindsay et al., 2015; Roets et al., 2012).

In families with children with increased care needs, employment participation is challenging for the parents (Cantillon and Van Lancker, 2013). These children usually require more care, and the time required to provide such care hampers the parents' employment participation. Previous research has highlighted that gender and education inequalities in this employment impact exist. Especially, mothers are affected by the increased care burden as they, rather than fathers, reduce working hours or retract completely from the labour market (Brown and Clark, 2017; Stabile and Allin, 2012). In fact, gender inequalities in the work–care division are more apparent in families with children with increased care needs than in families with children without increased care needs. Moreover, the effect of having children with increased care needs on parental employment seems to be stronger among less educated parents, signalling the existence of education inequalities (DeRigne and Porterfield, 2017; Lu and Zuo, 2010; Vinck and Van Lancker, forthcoming; Wasi et al., 2012). On top of these indirect costs, parents also face direct costs related to the child's medical and care needs which impose an additional burden on the household budget (Stabile and Allin, 2012). These direct costs depend on the welfare state settlement, the severity of the increased care needs, the child's age and household composition (Mitra et al., 2017). Together, the direct and indirect costs force these families to make ends meet with lower incomes (Larkins et al., 2013). Yet, their poverty risk is also strongly tied to processes of social stratification (Shahtahmasebi et al., 2011): parents have on average lower educational levels; a higher risk of divorce and are more likely to be disabled themselves (e.g. Blackburn et al., 2010; Sebrechts and Breda, 2012).

The literature on how having children with increased care needs is related to parental employment is short of comparative studies, however. We contribute to the existing research by investigating how mothers and fathers with various educational levels cope differently with the increased care burden in Belgium versus Norway. We use comparable administrative datasets defining children with increased care needs as children who receive a cash benefit that partially compensates the extra care needs they impose on their environment. Comparing Belgium and Norway is interesting as they represent two different welfare regimes. The Norwegian work–family policies promote a dual earner–dual carer family model for all, while in Belgium, more traditional family support policies are combined with a weaker form of dual earner policies which are more socially unequally distributed than in Norway (Ghysels and Van Lancker,

2011; Korpi, 2000; Korpi et al., 2013). There is a strong connection between these welfare state's provisions and labour market participation. Therefore, we expect a stronger and more unequal care burden gap in Belgium than in Norway.

Theoretical framework, previous research and hypotheses

Although gender inequalities in paid employment have substantially decreased in Western countries over the last 50 years, mothers still tend to reduce their paid work upon parenthood, even in welfare states with elaborated dual earner policies (Uunk et al., 2005). This indicates that gender inequalities in the division of care and work still exist. Especially, when children have increased care needs, mothers are likely to reduce or stop their employment participation (Brown and Clark, 2017; Stabile and Allin, 2012). This pattern is found in Australia (Crettenden et al., 2014; Gordon et al., 2007; Zhu, 2016), Belgium (Debacker, 2007; Van Landeghem et al., 2007), Norway (Brekke and Nadim, 2016; Hauge et al., 2013), Sweden (Olsson and Hwang, 2006), Taiwan (Chou et al., 2018) and the United States (DeRigne and Porterfield, 2010, 2017; Porterfield, 2002; Powers, 2001, 2003; Wasi et al., 2012). This gendered division in paid work can be explained from different angles.

According to the specialization theory (Becker, 1991), the division of paid and unpaid work is a rational contract between the partners motivated by a utility maximization. The partner who earns less, often the woman, is expected to do a larger share of the housework and caring tasks, while the partner who earns more, often the man, will specialize in paid employment. According to this perspective, the expectation is that caring for children with increased care needs will mainly be negatively associated with maternal employment and less so with paternal employment.

The gendered work–care division can also be explained from a gender role perspective. The question of how to balance work and parenthood is tied to people's identities as moral beings and their understanding of 'the proper thing to do' in given circumstances (Finch, 1989). It invokes notions of what a good mother or father is, what is best for the children, and what makes for a meaningful life. Gender role expectations held by others are important in this context. Although women have massively entered into paid employment and men have increasingly taken on household chores and childcare duties, the behaviour typically associated with being a 'good mother' still differs from being a 'good father': it is generally expected from mothers to have main caregiving responsibility, while fathers have the main breadwinning responsibility (Duncan et al., 2003). In other words, traditional views on gender roles persist. Against this background, we further expect that having children with increased care needs will be negatively related to maternal employment and less to paternal employment.

H1: The negative care burden gap is stronger for mothers than for fathers

Previous research has shown that several factors at the household, organizational and welfare state level influence the employment participation among parents of children with increased care needs. At the household level, the household type, age, number of children, severity and type of increased care needs are found to be important factors in this context, though the results are generally inconclusive (Brown and Clark, 2017; Stabile and Allin, 2012). Only regarding the severity of the child's increased care needs, previous research consistently reports a positive relationship (except Powers, 2003): the more severe the child's increased care needs, the more challenging it will be for the parents to work (Chou et al., 2018; Crettenden et al., 2014; DeRigne, 2012; Gordon et al., 2007; Hauge et al., 2013; Leiter et al., 2004; Lu and Zuo, 2010; Vinck and Van Lancker, 2020; Wasi et al., 2012). Moreover, organizational level factors, such as supervisory support and workplace flexibility as well as welfare states' policy measures like good quality, available and affordable childcare and paid parental leave, are also essential in understanding the parental employment impact (Brown and Clark, 2017).

Some studies also look into the mitigating role of parents' educational qualifications on the care burden effect. The results generally show that the effect on parental employment is stronger among less educated parents (DeRigne and Porterfield, 2017; Lu

and Zuo, 2010; Vinck and Van Lancker, 2020; Wasi et al., 2012), only Leiter et al. (2004) report the opposite. According to the human capital theory (Becker, 1985), individuals who invest in their education and training anticipate a return on investment in terms of higher future pay. Hence, parents with high educational qualifications have higher opportunity costs of staying at home. This means that highly educated parents of children with increased care needs have a stronger attachment to the labour market and thus will withdraw to a lesser degree than lower educated parents. Moreover, higher educated individuals hold other types of jobs. They have more choice in how they control their tasks and working time making it easier to combine work and care. On this basis, we suppose that the adverse employment gap of having children with increased care needs will be stronger for lower than for higher skilled parents.

H2: The negative care burden gap is stronger for lower skilled parents

The existing literature remains short of comparative studies on the parental employment impact of having children with increased care needs, however. Yet, one could expect that these patterns differ between welfare states as the level and type of welfare state support influence the parental labour market attachment (Gornick and Meyers, 2003). Welfare states have different histories, normative gender roles expectations and policy measures that contribute to this employment obligation. In the Nordic welfare states, here represented by Norway, both full employment and gender equality have historically been high on the political agenda (Esping-Andersen, 1990). From the beginning, especially Sweden and Norway incorporated activation and work-facilitating policy measures into their income maintenance systems to ensure high labour market participation by both men and women (Kautto et al., 2001). Norway supports the dual earner–dual carer household that encourages the sharing of care and paid work obligations between the parents (Korpi, 2000). This is exemplified by the right to and high availability of public childcare for the youngest children (Haug and Storø, 2013) and the extensive and generous parental leave scheme, with a substantial number of weeks reserved for fathers. These policies have led to changing gender role perspectives in Norway: mothers are nowadays supposed to work, whereas fathers have to take on part of the daily care work when they have young children (Ellingsæter and Gulbrandsen, 2007). Still, we should be careful attributing the comparatively high employment rates in the Nordic countries solely to the provision of work-facilitating policies. Havnes and Mogstad (2011) show that the large expansion of publicly provided childcare during the 1970s in Norway has not resulted in a higher net employment rate as it mainly replaced informal childcare use.

Belgium represents the conservative-corporatist welfare states. It is characterized by a traditional family support model combined with a weak type of a dual earner model (Korpi, 2000). When the conservative-corporatist countries designed their welfare states after the Second World War, they saw the family as the cornerstone of their income maintenance systems (Esping-Andersen, 1990). A division of labour was envisioned by a male breadwinner–female carer household. Men were expected to fully participate in employment, through which they built up social rights for themselves and for their wives who were responsible for the care of the young and the old. Only when the family was not able to provide the aid themselves, the welfare state stepped in. This stands in sharp contrast to the social democratic welfare states of Northern Europe that socialized care for children, the elderly and the disabled from the outset (Esping-Andersen, 1990). Since the mid-1990s, Belgium has made the turn to an 'active' welfare state and later to a 'social investment state' which implied a stronger emphasis on activation and human capital investment from early childhood onwards instead of solely focussing on passive income protection (Esping-Andersen et al., 2002; Vandenbroucke, 2013). Today, childcare is largely publicly provided and parents pay an income-related fee, though there remains a lack of availability and the use of the existing places is largely socially stratified (Van Lancker, 2013). The parental leave scheme has similar characteristics to the Norwegian system, though it is less extended in duration and pay. Supplemental Appendix 1 overviews the relevant family policy measures in Belgium and Norway.

As combining paid work and increased care responsibilities may be less challenging in Norway, we expect a stronger negative care burden gap in Belgium than in Norway. Specifically, we suppose that gender and education inequalities are larger in the former country. Regarding gender inequalities, the Norwegian welfare state is characterized by a stronger gender equality ideology and stronger women-friendly policies than the Belgian welfare state. Korpi et al. (2013) show that dual earner–dual carer family policies have contributed to higher female employment rates and smaller gender inequalities in employment than in countries where family policies are more traditional as they focus on supporting women's unpaid care work. This result mainly applies to women with low and medium educational qualifications. Hence, we expect that both gender and education inequalities are larger in Belgium.

H3.1: The negative care burden gap is more unequal in terms of gender in Belgium than in Norway

H3.2: The negative care burden gap is more unequal in terms of education in Belgium than in Norway

Data, variables and methods

Hitherto, comparative studies on the parental employment gap between families of children with and without increased care needs are scarce due to the lack of sufficient, reliable and comparable data. In fact, to our knowledge, no such studies exist. We draw on comparable administrative datasets to investigate this. For Belgium, the microdata consists of a cross-sectional random sample of children below the age of 21 from the Datawarehouse Labour Market and Social Protection (DWH LM&SP) on 31 December 2010. The DWH LM&SP compiles administrative data from Belgian social security agencies as well as personal and household information from the National Register. To this microdata, parental education information is added from the 2011 Census, a snapshot of the Belgian population on 1 January 2011. For Norway, the administrative data are obtained from the Medical Birth Registry of Norway (MBRN), containing information on all births in Norway, and is linked to the National Education Database (NUDB) and Historical Event Database (FD-Trygd) of Statistics Norway. The FD-Trygd panel has information on personal and household characteristics along with employment income. The Norwegian sample consist of all children born in Norway between 2000 and 2005 as well as their mothers and fathers. The last observation point we have is 2008.

Both datasets allow us to compare families of children with and without increased care needs. To do so, we define children with increased care needs as children receiving a non-means-tested cash benefit designed to financially compensate for the extra private care. This corresponds to children receiving the supplemental child benefit in Belgium and children receiving the attendance benefit in Norway (see Supplemental Table A1.2 in Supplemental Appendix 1 for a detailed description of the entitlement criteria). The control groups are children who do not receive these benefits.

In Belgium, to be entitled to the supplemental child benefit, children need to receive the regular child benefit, should be less than 21 years old and their increased care needs must be assessed by a medical doctor of the Federal Public Service for Social Security. These doctors score the child on a 36-point scale for which they make use of standardized criteria. The scale gauges the impact of the child's increased care needs in terms of (i) the physical and mental consequences (maximum 6 points), (ii) the consequences for the child's participation in daily life (maximum 12 points) and (iii) the consequences for the family (maximum 18 points). The higher a child scores on the scale, the higher the impact on the family's care burden and the higher the supplemental child benefit. The supplement ranges from €80 for the lowest scores up to more than €500 per month if the child scores at least 18 points (Famifed, 2018). Of all Belgian children below 21 in 2015, 2.37 percent receive the supplemental child benefit (Famifed, 2016).

In Norway, children who need long-term private care and supervision due to a medical condition may be entitled to attendance benefits from the Norwegian Labour and Welfare Administration (NLWA). The application form needs to specify the private care arrangements taken to cope with the child's increased

care needs. To assess the eligibility for attendance benefits at different rates, NLWA considers the degree of physical and mental functional impairment, the amount of help for personal care and supervision needed, the need for stimulation, training and physical activity, and to what extent giving care restricts the care provider. The overall workload of the care provider is the determining factor. The benefit is paid at four different rates, ranging from €128 up to €770 per month (Norwegian Labour and Welfare Administration (NLWA), 2018).

To harmonize both datasets, we focus on children born between 2000 and 2005 in Belgium and Norway, respectively, living together with two parents to understand which parent bears the burden of the increased care needs. We randomly select one focal child per household in both the treatment and control groups. The sample sizes, after deleting observations with missing information on one of the variables of our interest (see Supplemental Appendix 2), are n = 3876 children with and n = 4494 without increased care needs in Belgium,[1] and n = 7680 and n = 231,746 in Norway. Information of other household members is added to the sample and a population weight is applied to the Belgian data to represent the full population of children with and without increased care needs. Supplemental Appendix 3 presents descriptive information for both samples: 2.3 percent of Belgian children and 3.2 percent of Norwegian children are identified as children with increased care needs in 2010 and 2008, respectively.

We estimate two linear regression models to examine how and in what way parental employment and earnings are related to having children with increased care needs. For that, we contrast families with children with increased care needs to a control group of families with children without increased care needs. To be able to compare the effect sizes across the two countries and to overcome the problem of unobserved heterogeneity, we follow Mood (2010) and estimate a linear probability model on 'parental employment' (0/1) in the first model. Logistic and probit regressions are estimated as sensitivity checks yielding comparable results.[2] In the second model, we run an ordinary least squares (OLS) regression on 'parental earnings' (i.e. gross yearly employment income, purchasing power parity (PPP)-adjusted, ln transformed) for employees only. These analyses will enable us to shed light on the existence and extent of an employment and wage gap between parents of children with and without increased care needs.

In both models, we are particularly interested in the gender (H1) and education inequalities (H2) of having a young child with increased care needs in a comparative perspective. For that, we include interactions between having a child with increased care needs on *the* one hand, and the parent's gender and educational level on the other. We are aware that other intersections might exist (e.g. Vinck and Van Lancker, 2020). We control for the parent's country of birth, age at the child's birth, the child's age and gender, number of siblings, age of the youngest child in the household, employment status of the partner and the region of residence (Supplemental Appendix 2). To answer H3.1 and H3.2, we test the significance of the difference between Belgium and Norway applying a two-sample t-test (Supplemental Appendix 4).

Results

The predicted employment probabilities and gross labour earnings of parents with and without children with increased care needs are presented in Supplemental Appendix 4. Figures 1 and 2 visualize these results. They combine information on the marginal main effects (coloured parts of the bars) and interaction effects (cross-hatched parts of the bars) of (1) having a child with increased care needs, and (2) being a mother or (3) being low- or medium-skilled, using the mean for all other variables in the model.

First, compared with parents of children without increased care needs, negative employment and wage gaps exist for parents of children with increased care needs in Belgium and Norway, indicated by the negative diamonds in Figures 1 and 2. However, this is not true for *all* parents. Among Belgian fathers, no significant wage gap is found (Figure 2), while there is no significant employment gap for high-skilled fathers in the two countries (Supplemental Table A4.1).

Second, the negative care burden gap that is observed for parents of children with increased care

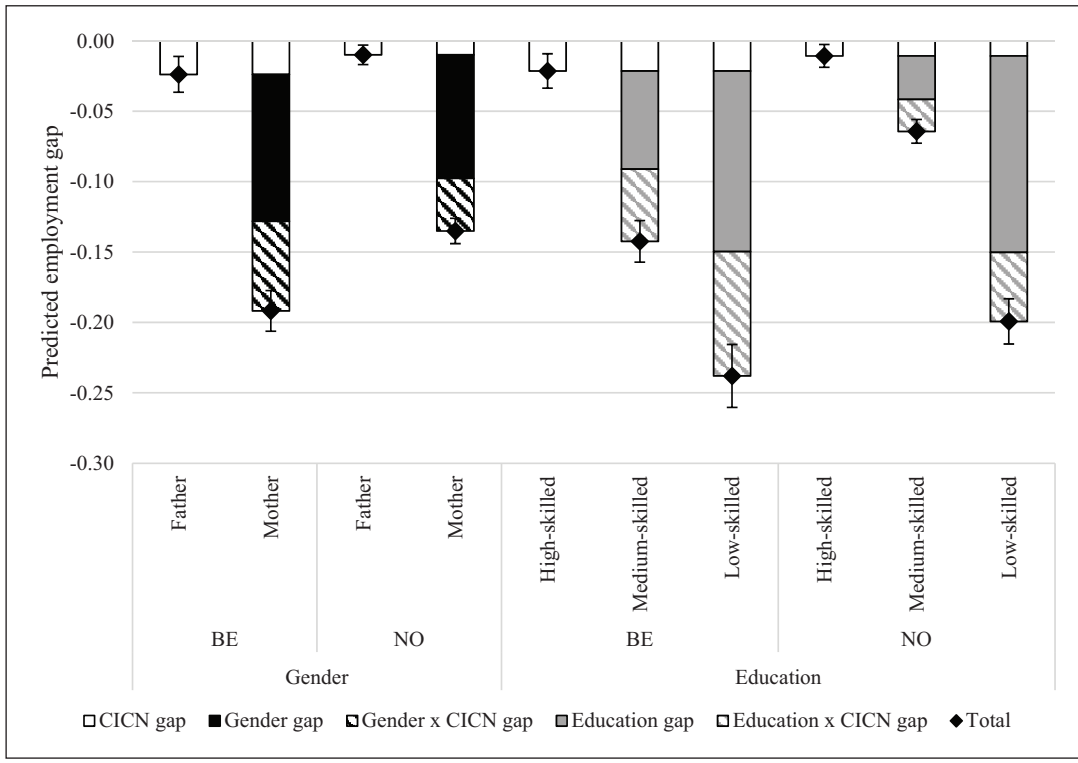

Figure 1. Marginal effects of having a child with increased care needs on parental employment by gender, educational level and country one is living in, for average values of other variables in Supplemental Table A4.1.
Source: Authors' calculations on DWH LM&SP (2010) and Census (2011) for Belgium, and on MBRN (2000–2005), NUDB and FD-Trygd (2008) for Norway.
Note: For the two countries, marginal effects for gender and education inequalities are calculated separately, at means of the other variables in the models. Parents without a child with increased care needs are the reference; 95% confidence intervals for total employment gap are presented by the black lines.

needs differs by the parent's gender, educational level and country of residence.

Regarding the employment gap (Figure 1), Belgian mothers of children with increased care needs have a 17 percentage points (pp) lower employment probability compared with fathers, all else being equal. The corresponding number for Norwegian mothers is 13 pp. This is because, on the one hand, mothers have lower employment probabilities than fathers in general (black part), and on the other, because these gender inequalities are intensified among mothers of children with increased care needs (black–white cross-hatched part). Hence, we can accept H1: the gap is stronger among mothers than among fathers of children with increased care needs. Moreover, these gender inequalities are significantly larger in Belgium (−4.3 pp, Supplemental Table A4.3), both for children in general (−1.7 pp) and for children with increased care needs in particular (−2.6 pp). Hence, we find support for H3.1 in case of parental employment.

The care burden gap in employment also differs significantly by the parents' educational level. In both countries, parents who are lower skilled have a larger employment gap compared with high-skilled parents, supporting H2. In Belgium, low-skilled parents of children with increased care needs have a 22 pp lower employment probability compared with their high-skilled counterparts. The corresponding number for Belgian medium-skilled parents is 12 pp.

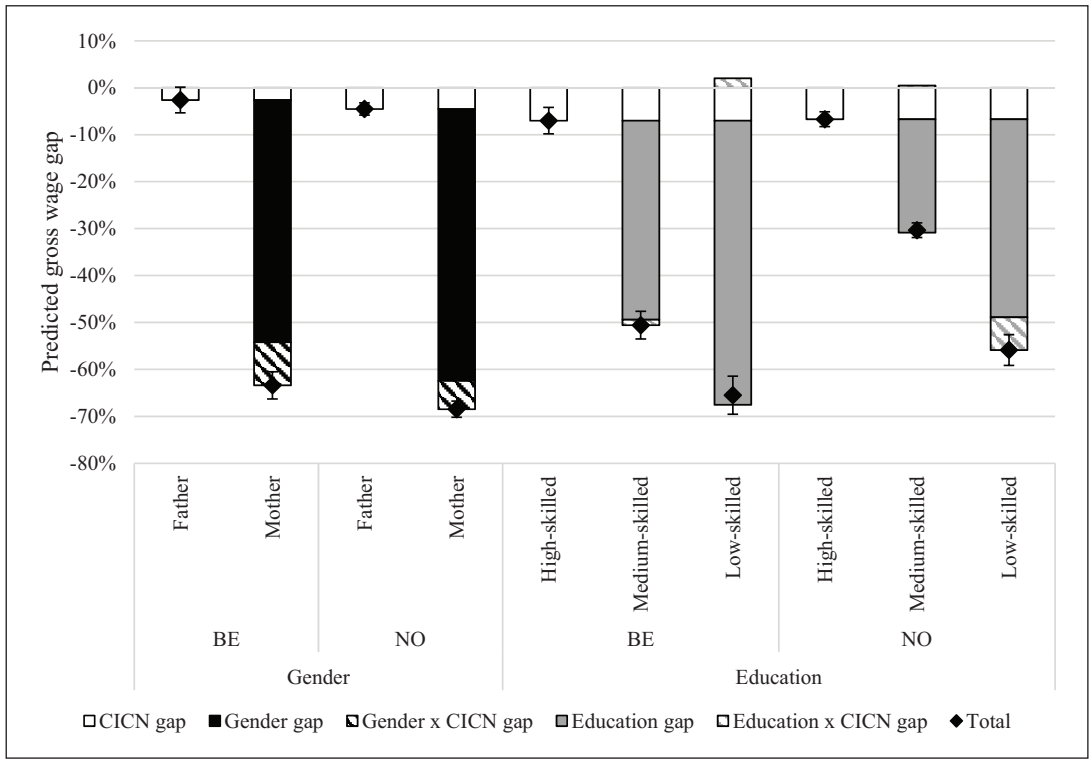

Figure 2. Marginal effects of having a child with increased care needs on parental labour earnings by gender, educational level and country one is living in, for average values of other variables in Supplemental Table A4.2.
Source: Authors' calculations on DWH LM&SP (2010) and Census (2011) for Belgium, and on MBRN (2000–2005), NUDB and FD-Trygd (2008) for Norway.
Note: For the two countries, marginal effects for gender and education inequalities are calculated separately, at means of the other variables in the models. Parents without a child with increased care needs are the reference; 95% confidence intervals for total gross wage gap are presented by the black lines.

In Norway, the difference equals 19 pp for low-skilled and 5 pp for medium-skilled parents. Again, this is the result of lower employment probabilities for lower skilled parents in general (grey part) and of intensified education inequalities among parents of children with increased care needs (grey–white cross-hatched part). Moreover, the education inequalities differ significantly between the two countries (Supplemental Table A4.3). Low-skilled parents of children with increased care needs have a 2.8 pp lower employment probability in Belgium (−3.9 pp significant difference for children with increased care needs and + 1.1 pp insignificant difference for children in general). For medium-skilled parents, the corresponding number is 6.7 pp (−3.9 pp significant difference for children in general and −2.9 pp significant difference for children with increased care needs). Hence, we can accept H3.2 in case of parental employment.

Similar patterns are true for parental earnings (Figure 2). In both countries, employed mothers of children with increased care needs have a larger wage gap than employed fathers, all else being equal. Belgian mothers have a 61 percent lower wage, whereas the gap is 64 percent in Norway. Once more, this gives us support for H1. In both countries, this is largely explained by the wage gap observed for mothers in general (52% for Belgium and 58% for Norway, black part), as the wage gap for mothers of children with increased care needs only marginally

adds to this (9% for Belgium and 6% for Norway, black–white cross-hatched part). However, this time we cannot accept H3.1 (Supplemental Table A4.3). The gender inequalities in labour earnings for parents in general are in fact significantly *smaller* in Belgium than in Norway (6 pp), whereas for parents of children with increased care needs the gap in Belgium is not significantly different to the Norwegian gap.

For the education inequalities, only among Norwegian low-skilled parents, intensified inequalities in labour earnings exist when they have children with increased care needs. These parents earn 49 percent less than their high-skilled counterparts, because low-skilled parents have a wage gap compared with high-skilled parents in general (grey part) and because this gap is intensified when they have children with increased care needs (−7 pp, grey–white cross-hatched part). A wage gap also exists for Norwegian medium-skilled (−24%), Belgian medium-skilled (−43%) and Belgian low-skilled parents (−58%), yet only due to the wage gaps these parents have *in general* (grey part), not because these gaps are intensified for parents of children with increased care needs (grey–white cross-hatched part). Comparing the total education inequalities between Belgium and Norway, we find significantly larger differences in the former country, due to larger education inequalities for lower skilled parents in Belgium in general, not for parents of children with increased care needs in particular (Supplemental Table A4.3). In fact, for low-skilled parents of children with increased care needs, we find significantly *smaller* education inequalities in Belgium (9 pp), closing their wage gap to 10 pp difference between the two countries. As we do not find significantly larger education inequalities in the negative care burden gap in Belgium, we cannot accept H3.2 in the case of parental earnings.

Discussion

We should note that our analyses are constrained by some limitations. First, with the available data, we can test *correlations* between having children with increased care needs and parental employment or labour earnings, not the *causal* relationship between them. Parents may have unobserved characteristics affecting their employment and labour earnings as well as the likelihood of having children with increased care needs. For Norway, our results are comparable with the longitudinal Norwegian register study of Brekke and Nadim (2016). In that study, a quasi-experimental difference-in-difference design is used to examine the *causal* impact of having children with increased care needs on parental labour market participation and earnings, strengthening the robustness of our results.

Second, we only consider children with increased care needs if they are administratively recognized and receive a cash benefit. Country differences may therefore arise if the selected children differ between the two countries. However, the eligibility criteria to receive the cash benefits are comparable (Supplemental Appendix 1): both include (1) a (certain) degree of incapacity, (2) the impact of the increased care needs on different facets of the child's daily life and (3) how providing care affects the caregiver's/family's life. Yet, the definition used in this study does not represent *all* children with increased care needs. For Belgium, Vinck et al. (2019) estimate the non-take up rate of the supplemental child benefit to be at least 10 percent, whereas for Norway, Brekke et al. (2020) reports a 5 percent non-take up rate of the attendance benefit for children with Down syndrome. In both countries, children with a migration background are less likely to receive the benefit than their native counterparts (Brekke et al., 2020; Vinck and Van Lancker, 2020). Given that (1) the entitlement criteria are comparable, (2) both benefits are prone to non-take up and (3) children with a migration background are less likely to receive the benefits, it is safe to assume that both benefits capture similar groups of children with increased care needs in the two countries. Moreover, our findings are consistent with previous studies applying a more extensive definition of children with increased care needs (Albertini Früh et al., 2016 for Norway; Sebrechts and Breda, 2012 for Belgium). Therefore, we believe that our results can be extended to children with increased care needs who are not administratively recognized.

Third, the Norwegian data only allow us to observe a household's composition at the child's birth and we assume this situation still holds true in

2008. This could imply that the Norwegian mothers and fathers in our data are actually single parents facing additional challenges of combining work and family life as they are the sole carers. However, Tøssebro and Wendelborg (2017) report a lower separation risk for families caring for children with intellectual and developmental disabilities in Norway than for families with children in general. Hence, we are confident in the reliability of our results, but this issue could be addressed in future research.

Finally, the use of formal and informal care, both general and disability-specific, could not be taken into account. Without a doubt, using these care services is helpful for parents in combining work and care. Future research should look into whether the gender and education inequalities reported here still hold if the children's care use is controlled for.

Against a background where everyone is expected to fully participate in employment, our analyses allow us to formulate policy implications that can be informative for other welfare states too. As families with children with increased care needs face an additional challenge in combining work and care, our analyses suggest that increased support on multiple fronts is needed, particularly for mothers and low-skilled parents. First, improved access to and use of high-quality care services could allow parents to partly outsource their child's care and hence increase their employment participation. Yet, reducing the general gender and education inequalities with which parents are confronted will be crucial too. Integrating mothers and lower skilled parents into the labour market will be helpful for families of children with and without increased care needs alike. In this respect, Belgium as well as other welfare states, can learn from the equality promoting employment policies of Norway.

Second, even if care provisions are improved and parents are integrated in the labour market, this will not suffice. We demonstrate that families with children with increased care needs have to get by on lower incomes because of reduced labour earnings. They are probably also confronted with higher direct costs related to the child's medical and care needs putting an additional burden on the household budget (Mitra et al., 2017). Extra financial support could be provided to these families to (partly) compensate the income loss they experience and, hence, (partly) offset the increased poverty risk they possibly face.

Finally, workplace support could be crucial too. Equipping parents with increased flexibility in their jobs will provide them with more opportunities to combine work and care (Brown and Clark, 2017). This will probably be the most challenging for jobs occupied by people holding lower educational qualifications (Kossek and Lautsch, 2018).

Conclusion

In this article, we investigate how and in what way parental employment and labour earnings differ between families of children with and without increased care needs, comparing Belgium with Norway. We are interested in how these employment and wage gaps vary by the parent's gender (H1), educational level (H2) and country of residence (H3.1 and H3.2). To our knowledge, this is the first comparative study of its kind. We draw on comparable administrative datasets.

The results show that parents of children with increased care needs work and earn less than parents of children without increased care needs. Our analyses confirm that gender and education inequalities exist in the employment and wage gap. Moreover, we find that the negative care burden gap differs by the country of residence. The driving force behind these gaps, however, depends on the outcome variable.

For employment participation among parents of children with increased care needs, we find, in both countries, a stronger care burden gap among mothers than among fathers (supporting H1), as well as among lower skilled parents than among high-skilled parents (supporting H2). This is because mothers and lower skilled parents have lower employment probabilities in general, and these inequalities are intensified for parents of children with increased care needs. In addition, these gender and education inequalities are stronger in Belgium, for parents in general as well as for parents of children with increased care needs in particular (supporting H3.1 and H3.2).

We find comparable results for labour earnings. Again, gender and education inequalities exist in

Belgium and Norway. Yet, this time, the wage gaps are largely the result of gender and education inequalities that exist for parents in general. For parents of children with increased care needs, the inequalities are only marginally (for gender) or insignificantly (for education, except low-skilled parents in Norway) intensified. However, this time, the gender and education inequalities are not significantly larger in Belgium. In fact, the gender inequalities are significantly smaller among Belgian parents in general, whereas there is no significant difference for parents of children with increased care needs in particular. The education inequalities, on the other hand, are significantly larger for Belgian parents in general, but not for parents of children with increased care needs. Actually, among the latter, the gap is significantly smaller for low-skilled parents in Belgium.

To conclude, in both Belgium and Norway, parents of children with increased care needs are confronted with additional difficulties in employment and earnings, particularly mothers and lower skilled parents. This suggests that the burden of increased care needs falls mostly on mothers and that highly educated parents, even those who have to take on increased care needs, have a stronger attachment to the labour market than lower educated parents. Yet, the institutional context of the country in which parents live matters. When we look at whether parents are employed or not, the gap is smaller in the Norwegian equality promoting welfare state. A long-standing tradition of full employment and an elaborated policy package to make this work seem to pay off.

Authors' Note

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Supplemental material

Supplemental material for this article is available online.

Notes

1. The employment status builds upon an administrative record indicating in which branch of the Belgian social security system one is registered. If parents do not occur in any social security record, they are assigned to the 'other' category (including housewives, rentiers, outbound frontier workers, and international officials and diplomats) and assumed not to be working. In the analyses, parents belonging to this 'other' group are excluded.
2. These models constrain the predicted outcome to fall within the 0 to 1 range. Results are available upon request.

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