

Social policy and the socioemotional development of children in lone parent families: Quasi-experimental evidence

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INRICH workshop, Paris, 1 June 2023

Social Science & Medicine 320 (2023) 115754



Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed



Lone parents' employment policy and adolescents' socioemotional development: Quasi-experimental evidence from a UK reform

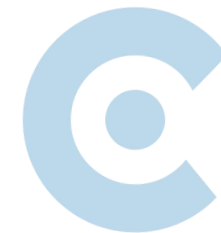
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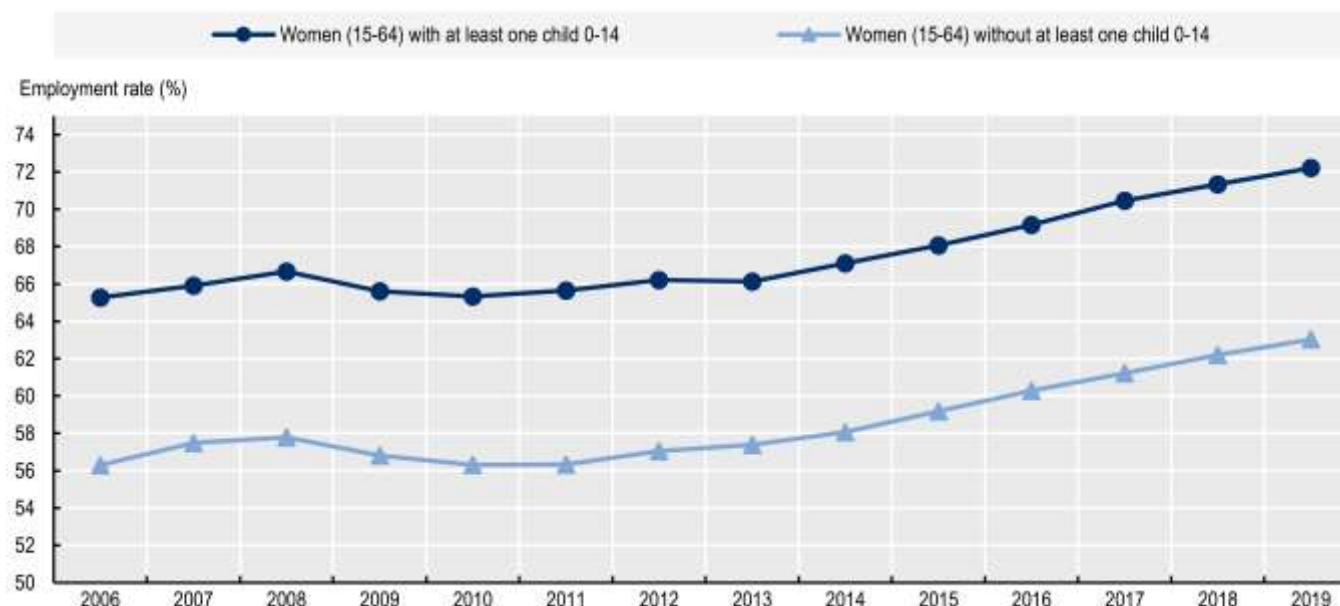
Motivation

- Children's socioemotional development is strongly influenced by the family environment
- Policies that influence parents' ability to care for children might influence the family environment, including work-family policies, early childhood education and child care, social benefit (antipoverty) policies, housing policies
- Maternal employment, the subject of policy reforms over the last two decades, influence the family environment, and might therefore also influence children's socioemotional development
- However, how maternal employment policies impact children's socioemotional development is less well understood

The employment rate of women with young children has risen steadily over the last decades in OECD countries



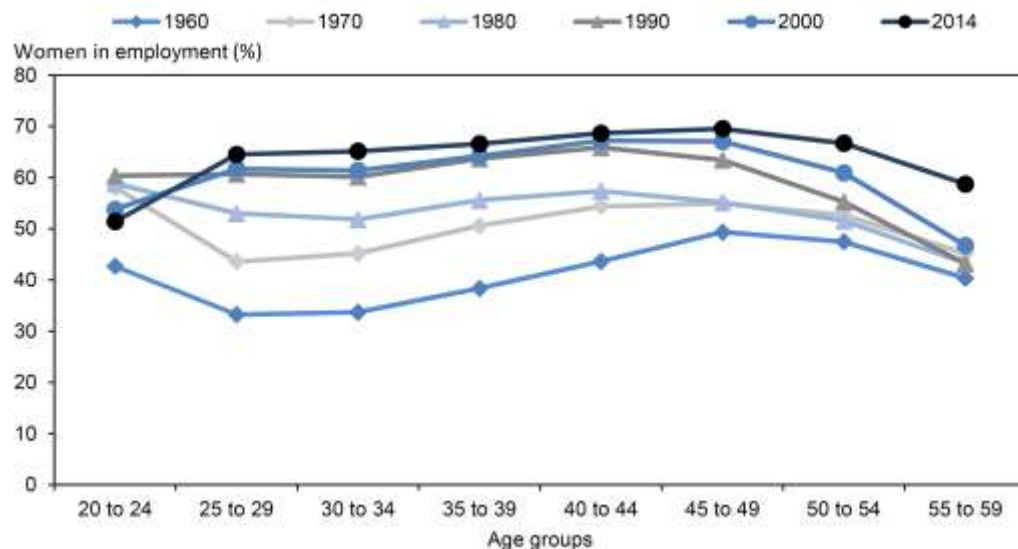
Trends in
maternal
employment
rates, 2006 to
2019 in the
OECD



Source: OECD Family Database (2020): For Canada, Canadian Labour Force Survey; for Iceland, Israel, New Zealand, and Mexico, OECD questionnaire; for European countries, European Union Labour Force Survey; for the United States, U.S. Current Population Survey.

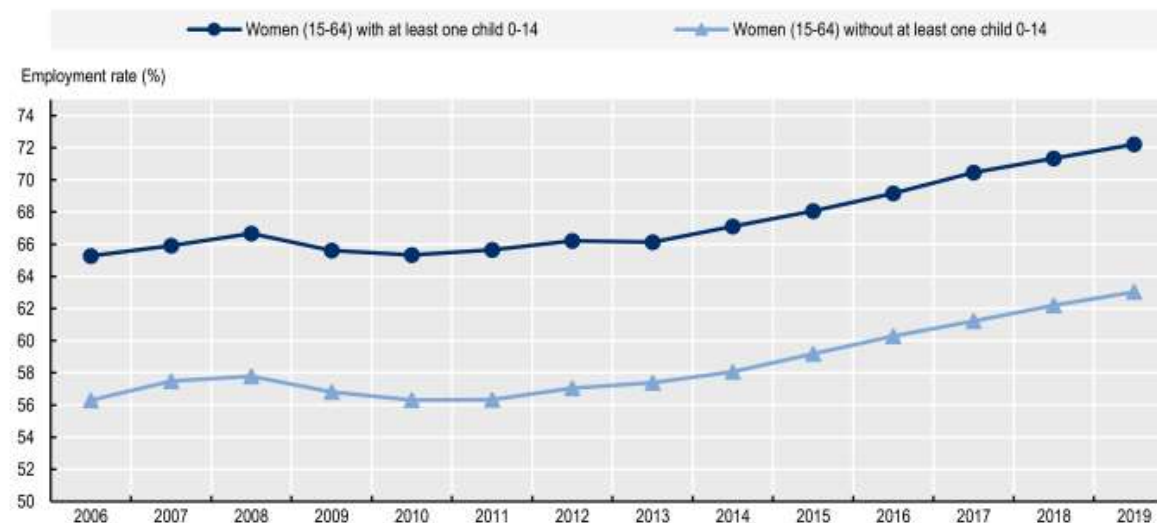


Age-employment profiles of women, 1960-2014, OECD



Source: OECD (2017), OECD Employment Database

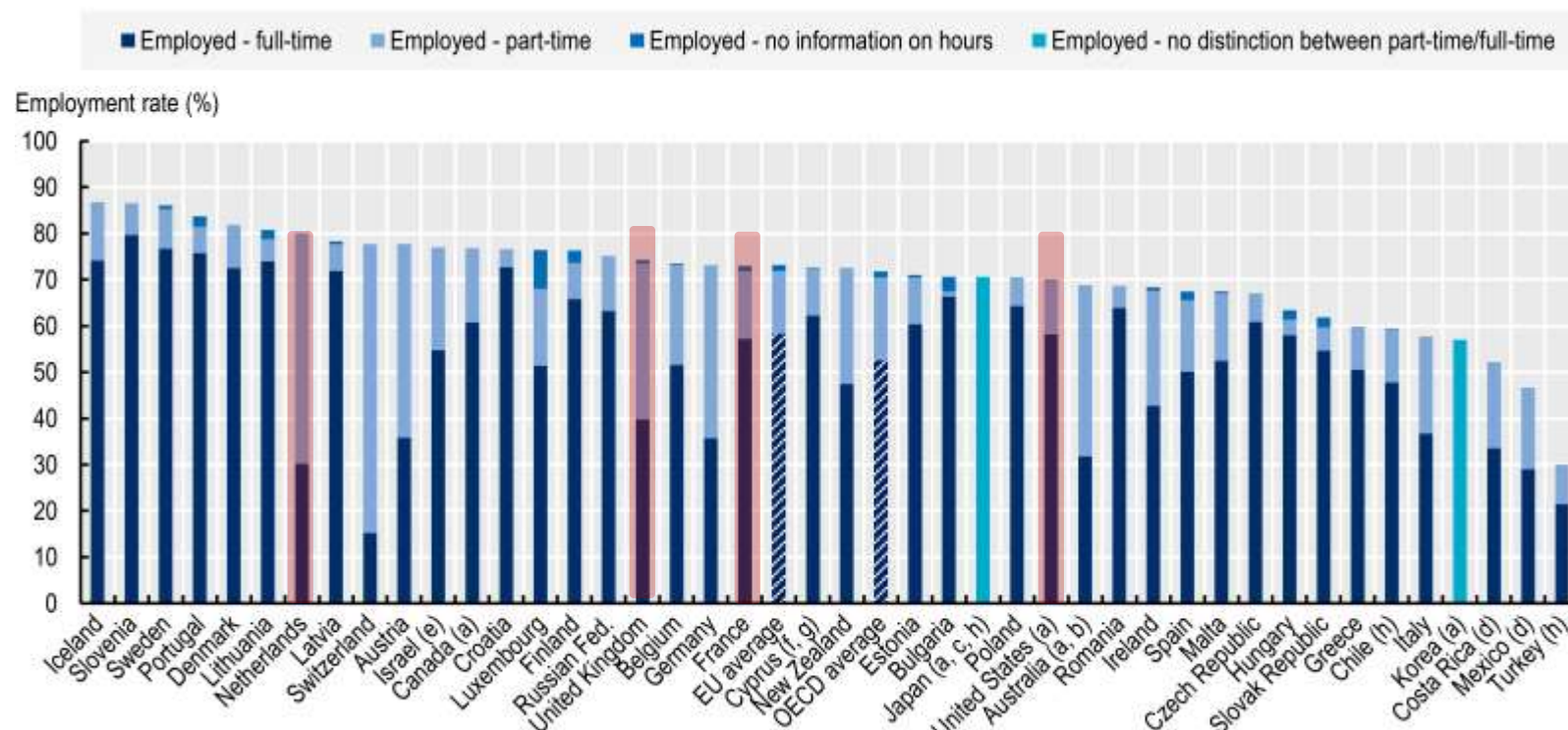
Trends in maternal employment rates, 2006 to 2019, OECD



Source: OECD Family Database (2020)



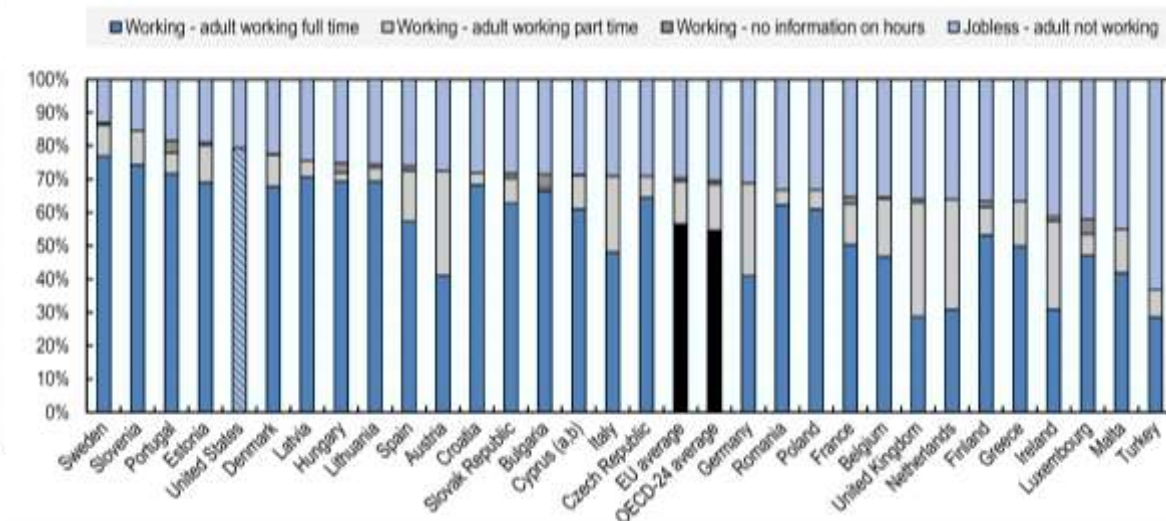
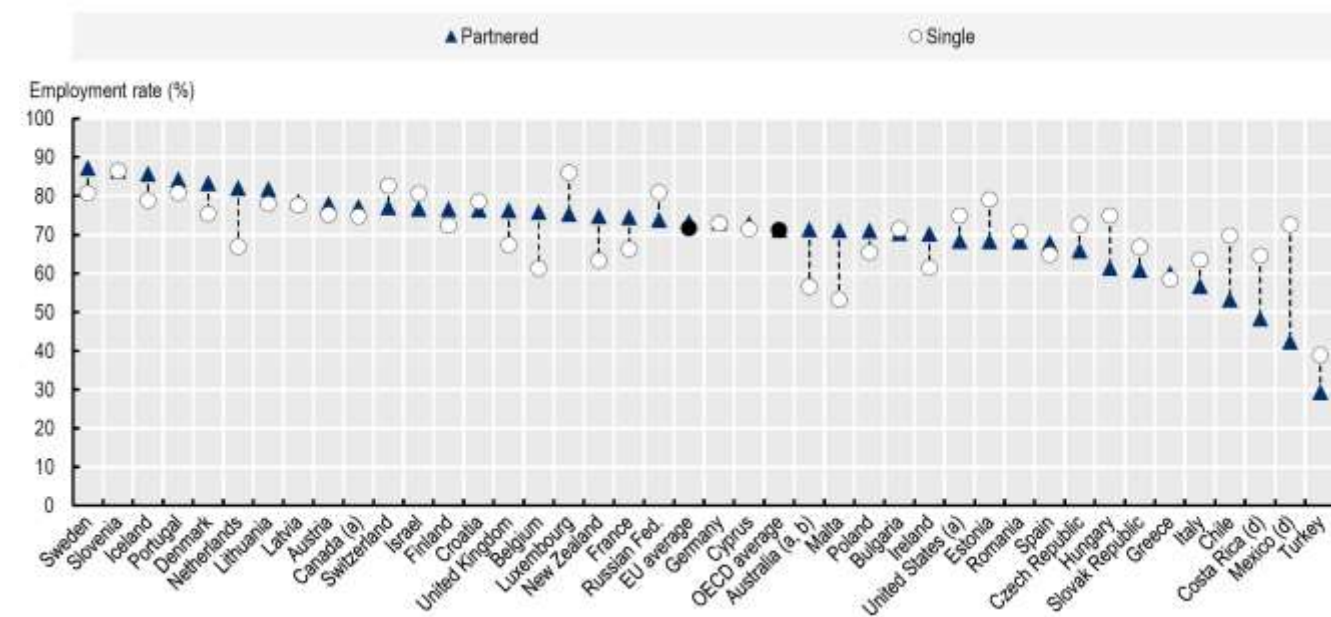
Maternal employment rates, 2019 or latest available year, OECD





Employment rates for partnered mothers and single mothers, 2019 or latest available, OECD

Children in single-parent households by household employment status, 2018



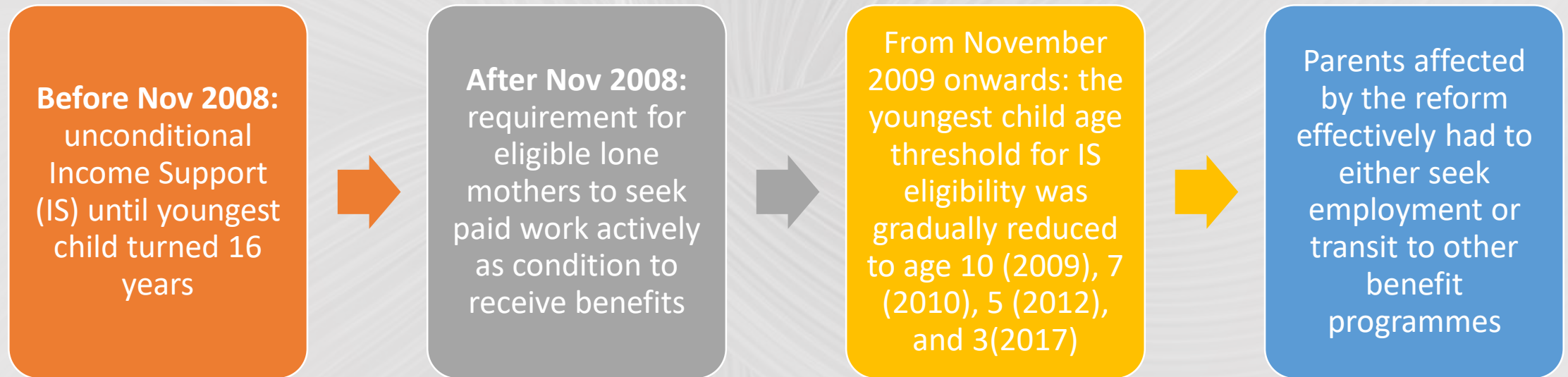


Maternal employment in the UK

- In the UK, the largest increase occurred among lone mothers (44.2 % in 1999 to 65.1 % 2022; OECD 2019)
- Lone parent families (most of which are headed by mothers) account for approximately 15% of families in the UK (ONS, 2021)
- Increase in lone mothers' employment prior to 2008 is often attributed to increases in value of working tax credit and better availability of childcare (Harkness, 2016)
- But increases from 2008 onwards are often attributed to welfare-to-work programmes, which targeted lone mothers by conditioning receipt of child and family benefits on work search (Millar, 2019).



The Lone Parent Obligation policy (LPO)





Theoretical framework: Positive effects?

- Welfare-to-work may also increase labour income (Johnsen and Reiso, 2020) and reduce poverty (Redmond, McGuinness, and Keane, 2020)
- **Family resource model** (Coleman, 1988; Thomson et al., 1994): parental investment of time and money critical to child development (Kalil and Mayer, 2016)
- Mothers' involvement in paid work may enhance **mother's sense of control and mental wellbeing** (Harkness, 2016; Harkness and Skipp, 2013), thus benefitting the child development
- Mothers may also **improve the quality of parenting** as a substitute for their reduced time with the child (Hsin and Felfe, 2014)
- It may also increase **social contacts, skills and experience**, in turn benefits child and adolescent socioemotional development (Harkness, 2016; Harkness and Skipp, 2013; Hsin and Felfe, 2014)



Theoretical framework: Negative effects?

- Welfare-to-work may reduce **family income**, worsen **mother's mental wellbeing**, increase **opportunity costs of time**
- **Increase in Low pay, low quality inflexible jobs** (Rafferty and Jay, 2017), which may lead to financial strain and reduced quality time for parenting (Heiland et al., 2017; Cobb-Clark et al., 2019)
- **The family stress model** (George, 1993; Conger et al. 1994, 2002): psychological stress associated with economic strain and unstable home environments (Hill et al., 2013; Layte, 2017; Akee et al., 2018).
- **Lone mothers** may be particular vulnerable:
 - Difficulty maintaining employment (Meier et al., 2016)
 - Lack social support (Cairney et al., 2003)
 - Increased poverty and social stigma (Park et al., 2014).



This study

To examine the causal impact of the LPO welfare-to-work reform on the socioemotional development of children and adolescents

Relevance: Evidence linking children's noncognitive, socioemotional skills with human capital formation and future labour market success and life chances (Heckman et al., 2019; Noray, 2020)



Data and sample

Data:

- UK Millennium Cohort Study (MCS, 2004-2018)

Outcomes:

- Child Strengths and Difficulties questionnaires (SDQ) total score and sub scores from early childhood to adolescence (aged 3, 5, 7, 14 and 17 years)

Sample:

- Lone mother families (i.e., the mothers were never married, legally separated, divorced, or widowed when surveyed)
- Partnered mother families (i.e., the mothers were married including civil partnership when surveyed)

Longitudinal data:

- final sample: 8436 children with 38812 observations

Maternal employment:

- whether in paid work; weekly work hours

Covariates

- child's age, number of siblings, mother's age, education, year, and region of residence

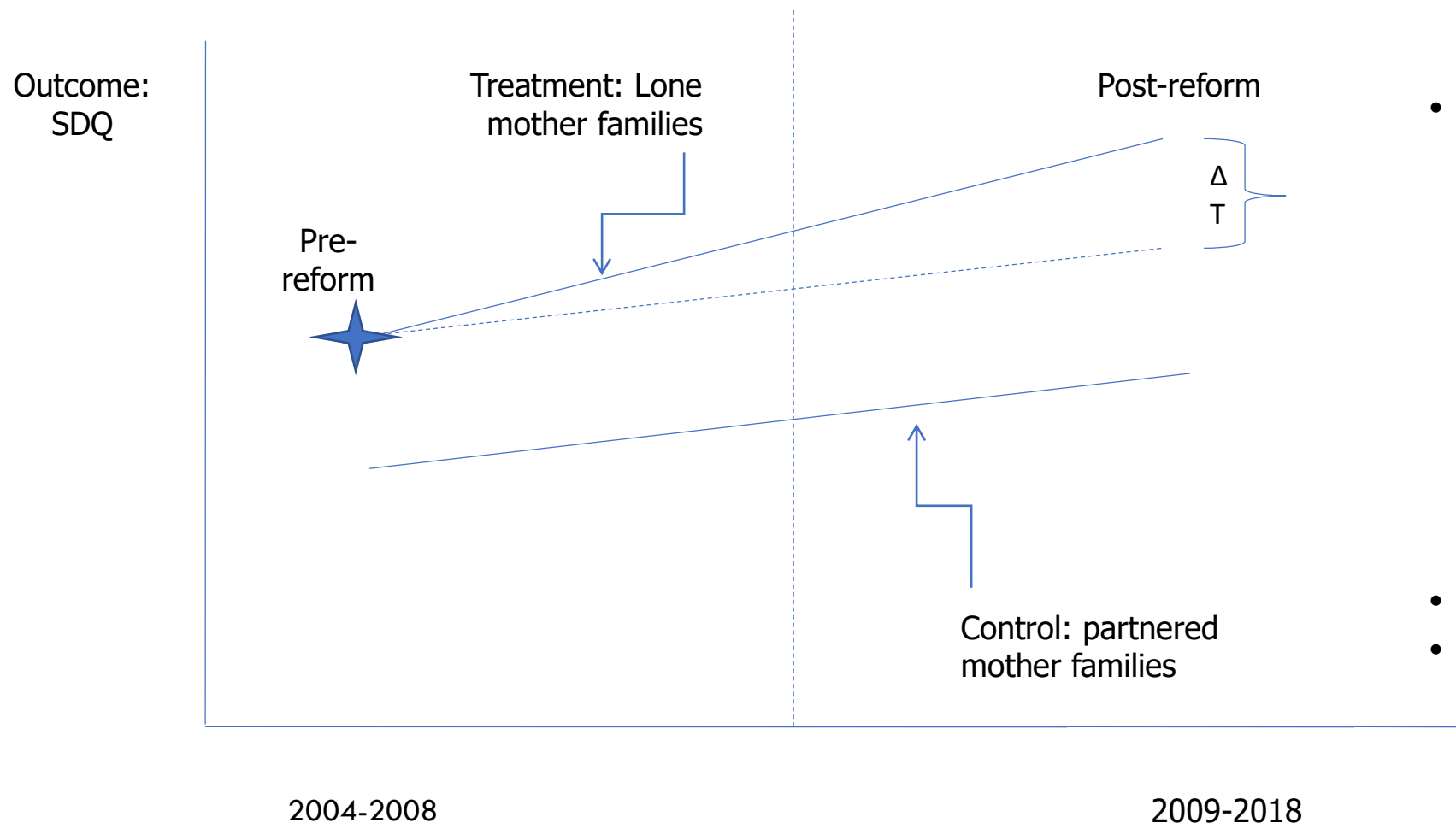


Research design

- **Difference-in-differences (DiD)**
 - Treatment group: lone mother families
 - Control group: partnered mother families
- **LPO policy exposure**
 - Pre-treatment (2004-2008): always potentially eligible for IS (MCS child below age 10 IS threshold)
 - Post-treatment (2015-2018): not eligible to IS (unless with the presence of a young child aged below 5 in 2015 or 3 in 2018)
- **Individual fixed effects**

$$Y_{it} = \beta_0 + \beta_1 time_i + \beta_2 treatment_i + \beta_3 time_i * treatment_i + \beta_4 X_{it} + \varepsilon_{it}$$

Difference-in-differences approach



- **LPO policy exposure**

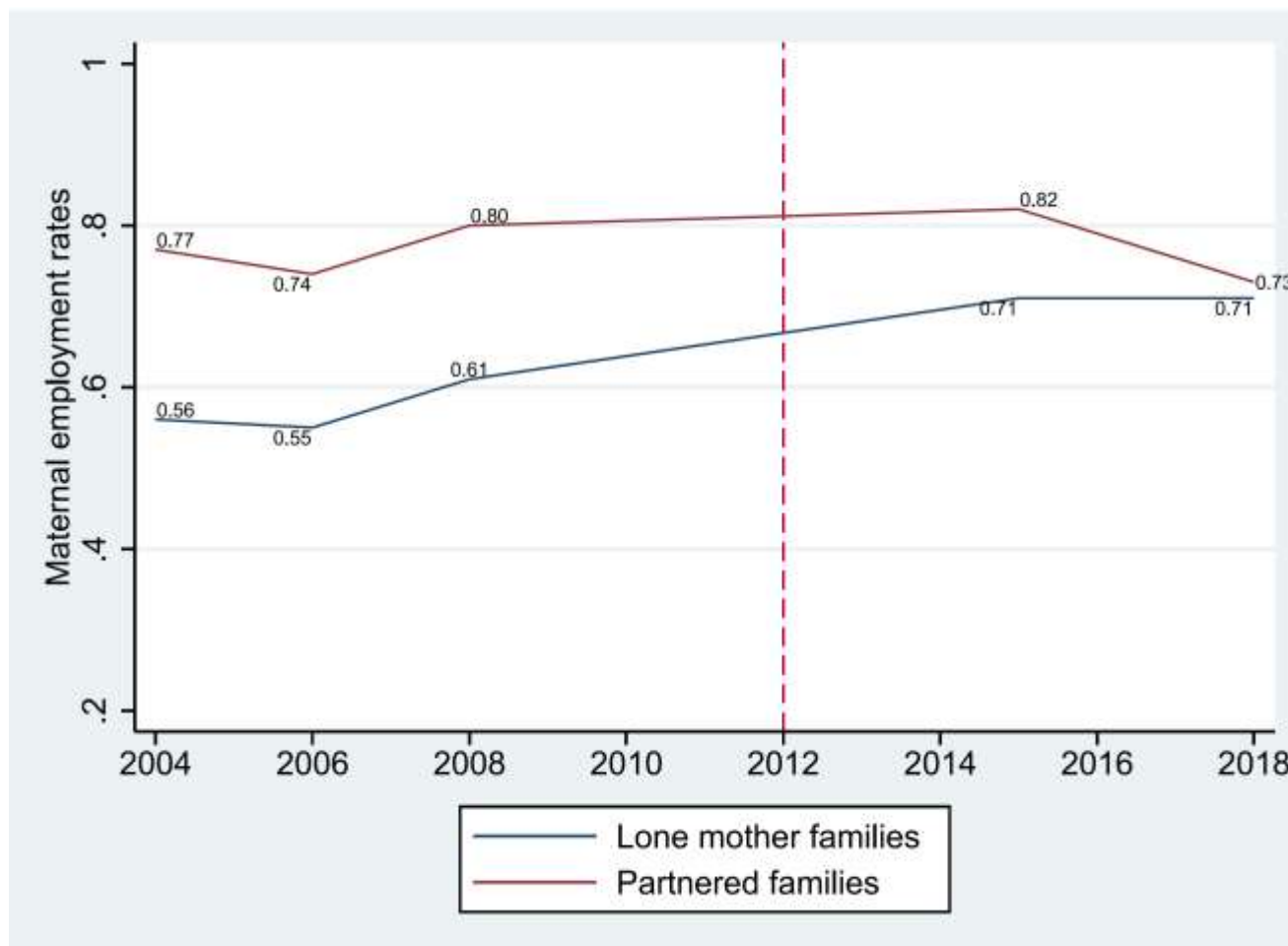
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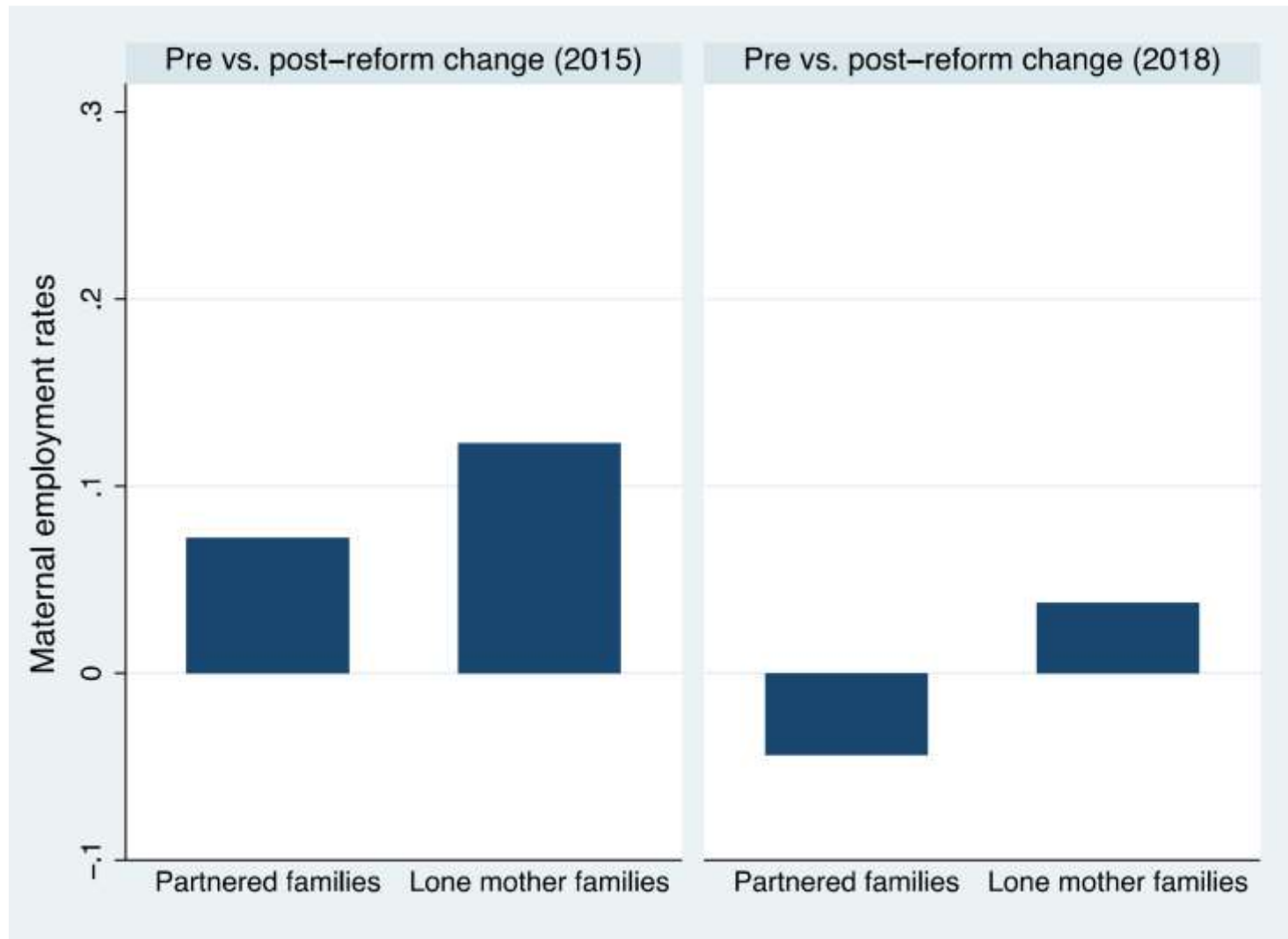


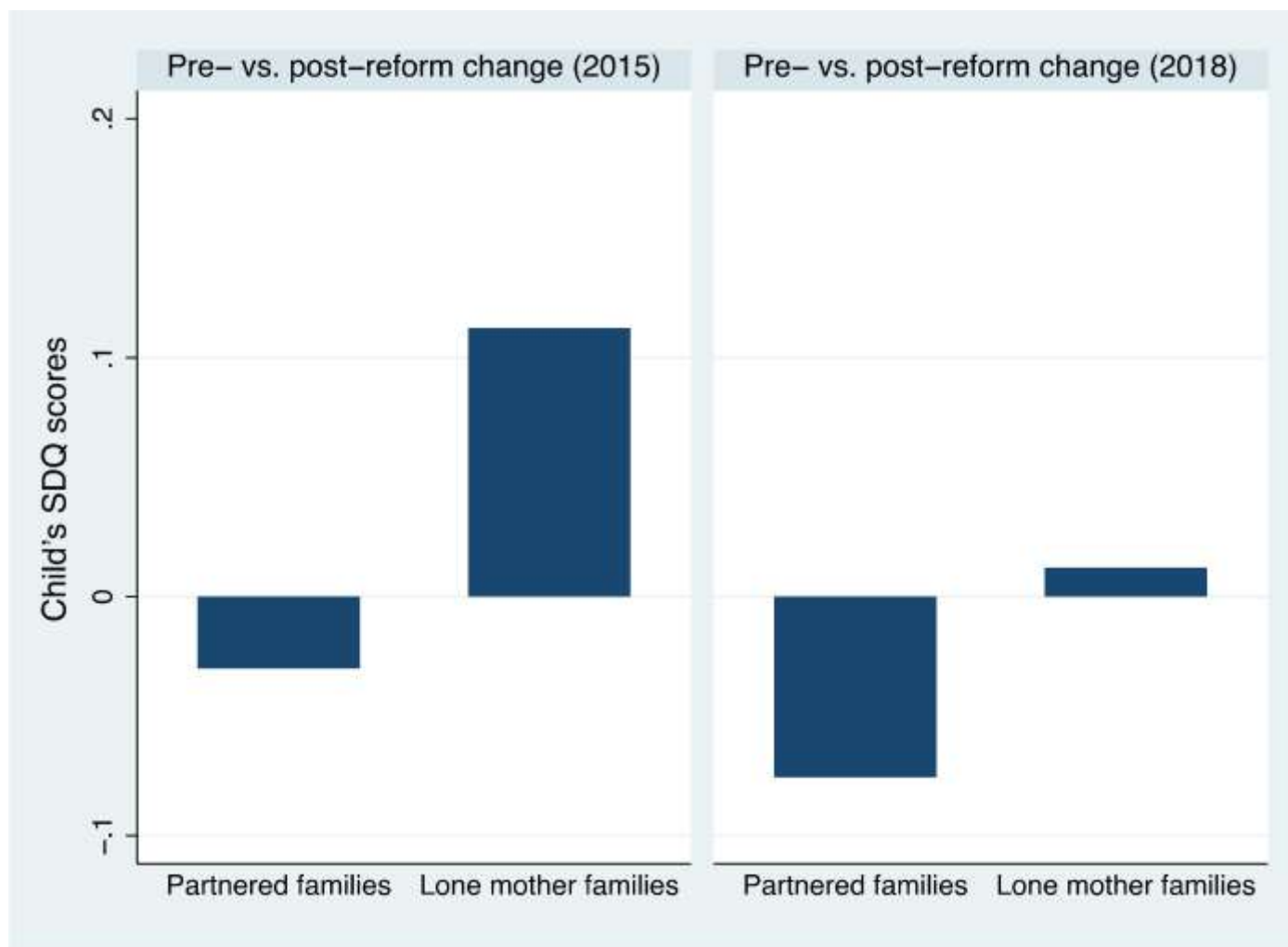
Trends in maternal employment rates, by family type, Millennium Cohort Study, 2004–2018





Changes in maternal employment rates before and after the LPO reform





Changes in
adolescents'
SDQ scores
before and after
the LPO reform



Impact of LPO on mother's employment

	(1)	(2)
	In employment	Weekly work hours (logged)
Diff-in-diff estimate: pre-post LPO reform X treatment status	0.102*** [0.084, 0.120]	0.280*** [0.202, 0.358]
Number of persons	11,142	11,142
Number of observations	46,875	39,519

Notes: Stars represent statistical significance: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Coefficients are reported, and 95% confidence intervals are included in the brackets. Covariates are controlled, including child's age, child's number of siblings, mother's age, mother's education, survey wave, and region.



Impact of LPO on adolescents' SDQ sub- scores

	SDQ sub-scores: internalising problems		SDQ sub-scores: externalising problems	
	(1)	(2)	(3)	(4)
	Emotional symptoms	Peer problems	Hyperactivity	Conduct Problems
Diff-in-diff estimate: pre- post LPO reform X treatment status	0.163*** [0.120, 0.206]	0.101*** [0.061, 0.141]	0.043* [0.008, 0.077]	−0.031 [−0.066, 0.005]
Number of persons	11,142	11,142	11,142	11,142
Number of observations	48,375	48,375	48,375	48,375

Notes: Stars represent statistical significance: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Coefficients are reported, and 95% confidence intervals are included in the brackets. Covariates are controlled, including child's age, child's number of siblings, mother's age, mother's education, survey wave, and region.



Impact of LPO reform on family outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
	Income	Housing	Poverty	Mother's poor self-rated health	≥13 K distress scale	Childcare time insufficient
Diff-in-diff estimate: pre-post LPO reform X treatment status	0.078*** [0.059, 0.097]	-0.021** [-0.035, -0.008]	0.008 [-0.011, 0.026]	0.046*** [0.032, 0.061]	0.030*** [0.018, 0.042]	0.048*** [0.025, 0.071]
Number of individuals	11,139	11,139	11,142	11,142	11,073	11,124
Number of observations	39,683	39,684	39,910	46,914	46,283	37,256

Notes: Stars represent statistical significance: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Coefficients are reported, and 95% confidence intervals are included in the brackets. Covariates are controlled, including child's age, child's number of siblings, mother's age, mother's education, survey wave, and region.



Heterogeneity & Robustness

- **Heterogeneity:**
 - Age 14 vs Age 17
 - Boys vs Girls
 - Mother in work vs Mother not in work
 - Mother work long hours vs Mother work in short hours
 - Mother in part-time work vs Mother not in work
 - Mother in full-time work vs Mother not in full-time work
 - Highly-educated mothers vs Less-educated mothers
- **Sensitivity**
 - Mothers' partnership status change
 - Mothers' take-up of Income Support
 - Common trends tests



Conclusions

- The LPO reform, which required lone mothers to search for work, led to a small increase in socioemotional problems
- The reform increased employment and income, but did not reduce poverty, and increased mother's psychological distress
- Policies are often implemented with 'good intentions' to address some policy goal (e.g., reduce Government expenditure, increase mother's employment), but consequences for the family environment and children's wellbeing are often overlooked
- It is critical to measure the impact of the various policies that affect families and children, and to incorporate these impacts in the assessment of their overall welfare costs and benefits



Social policies that may influence children's mental health

Early childhood
education programmes

Education policy, e.g.,
compulsory schooling
laws

Labour market policies,
e.g., retirement and
pension policy,
unemployment benefits

Family policy, e.g.,
maternity leave policy,
work-flexibility policies

Poverty reduction
policy, e.g., conditional
cash transfer
programmes

Housing policies, e.g.,
relocation programmes



Why invest in policies that favour the socioemotional well-being of children

- Most cost-effective period in a child's life to invest
- Long-run Influence on productivity, learning ability and poverty
- increases efficiency and effectiveness of school expenditures
- Improves children's survival, growth and development



Common trend tests, the Millennium Cohort Study, 2004–2008

	(1)	(2)	(3)	(4)
	In employment	Weekly work hours (logged)	SDQ scores (standardised)	SDQ scores (score 17 or above = 1)
Treatment × 2006	0.010 [-0.017, 0.037]	0.026 [-0.087, 0.138]	-0.002 [-0.058, 0.054]	-0.023** [-0.039, -0.008]
Treatment × 2008	0.009 [-0.018, 0.036]	0.036 [-0.078, 0.150]	0.031 [-0.025, 0.088]	-0.009 [-0.024, 0.007]
Treatment	-0.203*** [-0.223, -0.183]	-0.889*** [-0.971, -0.806]	0.353*** [0.312, 0.395]	0.073*** [0.062, 0.084]
2006	-0.023** [-0.038, -0.008]	-0.009 [-0.072, 0.054]	-0.395*** [-0.427, -0.364]	-0.036*** [-0.045, -0.028]
2008	0.034*** [0.019, 0.049]	0.119*** [0.056, 0.182]	-0.379*** [-0.410, -0.347]	-0.023*** [-0.032, -0.015]
Number of individuals	11,142	11,137	11,142	11,142
Number of observations	29,602	29,368	29,603	29,603

Notes: Stars represent statistical significance: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.



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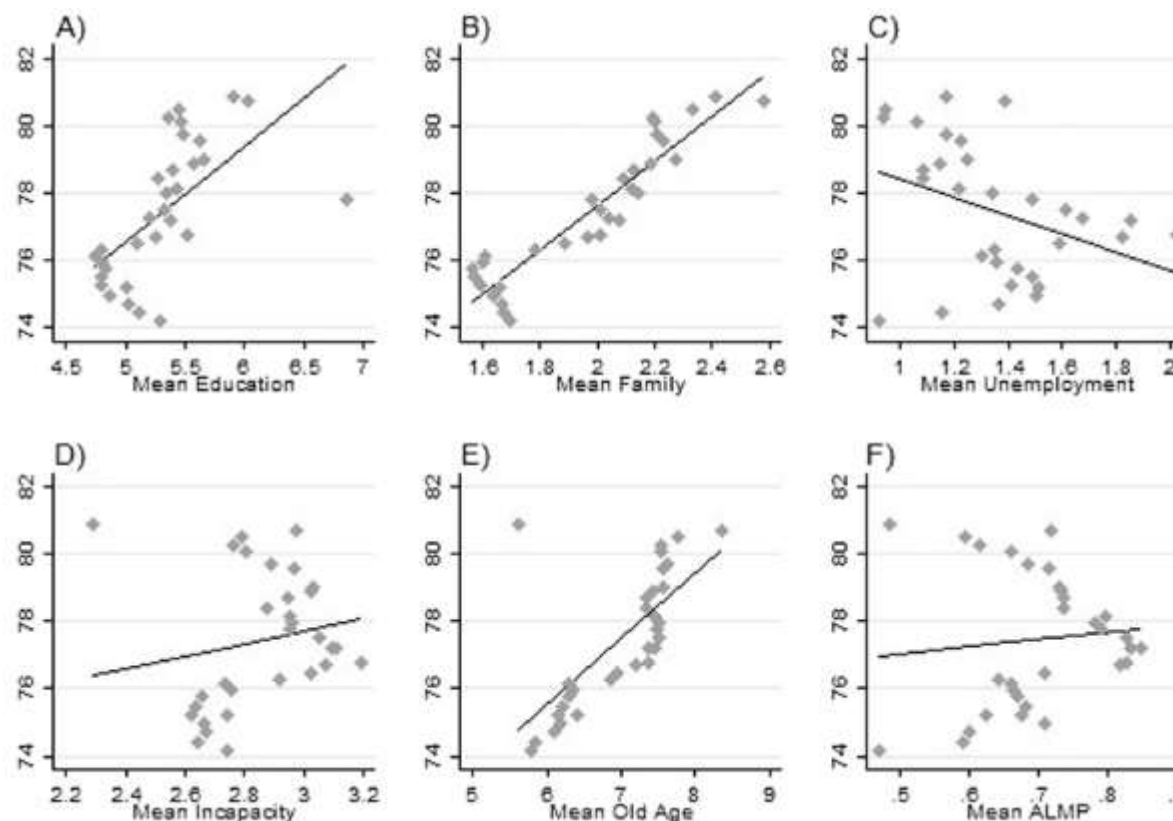
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Social Policy Expenditures and Life Expectancy in High-Income Countries

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The policy: Welfare-to- work

- Welfare-to-work policies may increase maternal employment (Gong and Breunig 2014; Narain et al. 2017; Redmond, McGuinness, and Keane 2020; Mogstad and Pronzato 2012; Johnsen and Reiso 2020; Avram, Brewer, and Salvatori 2018)
- But they may also have negative effects on mothers' health (Katikireddi et al., 2018), young children's and adolescents' cognitive development (Løken and Reiso, 2018; Herbst, 2017) and physical development (Gennetian et al., 2010)
- Impacts on socio-emotional development mixed (Løken, Lommerud, and Reiso 2018; Herbst 2017; Gennetian et al. 2010)



Welfare-to-work and children's well-being

- **Positive:**
 - Welfare-to-work may also increase **labour income** (Johnsen and Reiso, 2020) and reduce **poverty** (Redmond, McGuinness, and Keane, 2020), which may raise family investments in child socioemotional development (Noonan et al., 2018; McLanahan and Percheski, 2008)
 - It may also increase **social contacts, skills and experience**, incentivise **high quality parenting**, which in turn benefits child and adolescent socioemotional development (Harkness, 2016; Harkness and Skipp, 2013; Hsin and Felfe, 2014)
- **Negative:**
 - Welfare-to-work may reduce **family income**, worsen **mother's mental wellbeing**, increase **opportunity costs of time**, and negatively impact **parenting practices** and **work-family conflict**
 - A significant share of the increase in employment caused by welfare-to-work reforms is in **low pay, low quality jobs** (Rafferty and Jay, 2017)
 - For some families, it may not increase **mother's employment** (Gong and Breunig, 2014) or **earnings** (Mogstad and Pronzato, 2012; Mari and Keizer, 2020)