

Single mothers' income in twelve rich nations

Differences in disadvantage across the distribution

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INAUGURAL III/LIS COMPARATIVE ECONOMIC INEQUALITY CONFERENCE

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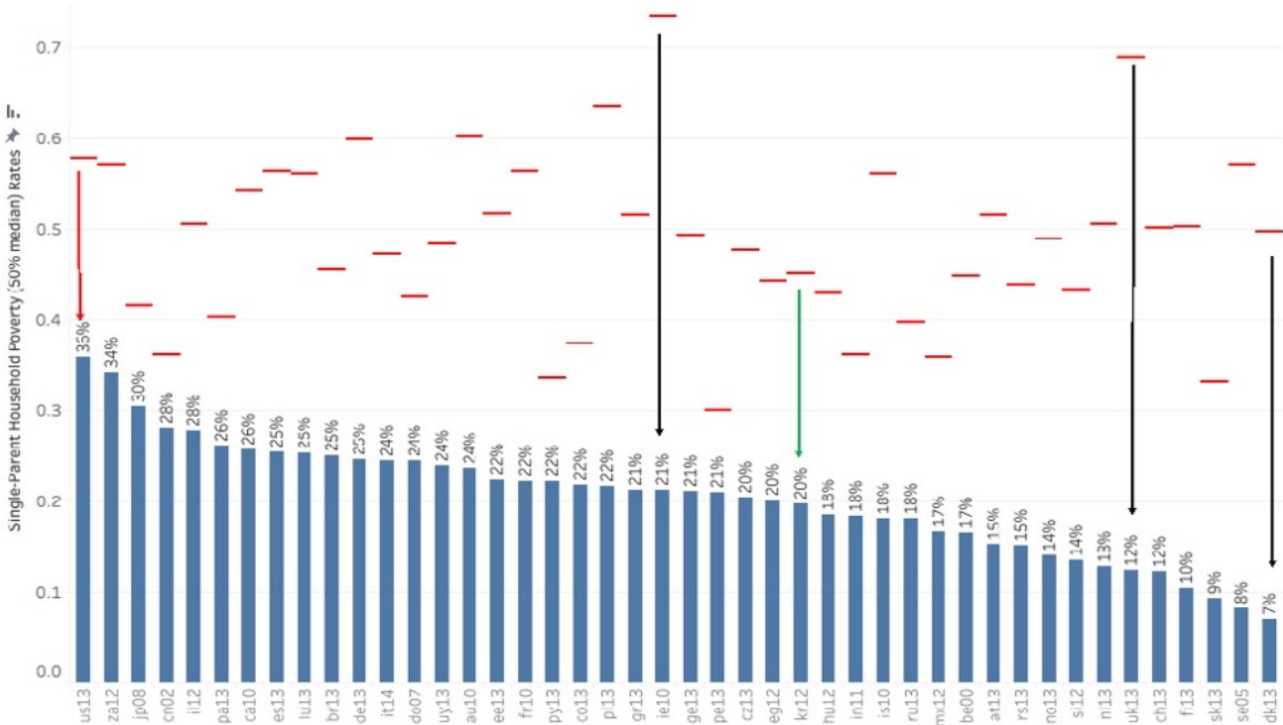
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Background: Cross-national differences in single mothers' poverty risks

- Single mothers face a high risk of poverty across rich nations (Gornick & Jantii, 2010).
- But there are large differences in poverty risks (e.g. Brady, Finnigan & Hubgen, 2017; Rothwell & McEwen, 2017)
- **United States exceptionalism**
 - Single mothers face a greater risk of poverty than their peers elsewhere.
 - The paucity of **public transfers** emphasised as a reason for high rates of single mother poverty
- **United Kingdom success**
 - Remarkable success of tax-benefit system plays in reducing single mothers' risk of poverty.

Single-parent Poverty Rates for Market and Disposable Income



Source: Luxembourg Income Study (LIS) Database

Half of all children in lone-parent families are in relative poverty

Exclusive: IFS study shows impact of Tory cuts to benefits and cost of living crisis on single mothers

- **Tm feeling the squeeze': single mothers on the living costs crisis**
- **Tories have shamed single parents and heaped financial pressure on them**
- **It's hard getting money to stretch': single mothers say they need support**



📍 The vast majority of the 1.8 million lone-parent families in Britain are headed by women. Illustration: Guardian Design

Half of all children in lone-parent families are now living in relative poverty, according to exclusive research that shows how a decade of austerity-driven cuts to benefits has left single parents among the most exposed to soaring

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INSIGHT

More single parents sliding into poverty – ‘families won’t have food this winter’

COST OF LIVING | Tuesday 1 November 2022 at 7:17pm



Sarah Corker
Social Affairs Correspondent



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Single parent families in crisis as millions plunged into poverty by ‘broken system’

Millions of vulnerable children are facing relative poverty this winter, as failures in the system designed to support them left one mother "reduced to tears, suffering panic attacks and sleepless nights".

Motivation

- Cross-national differences in poverty have been widely studied, but we know less about the wider economic circumstances of single mothers.
- While public transfers are effective at reducing poverty, they may be less effective at improving the incomes of those further up the distribution, particularly if means tested.
- In countries where there are low poverty “penalties” to single motherhood, achieved via redistribution through the tax and benefit system, income penalties may still be large.

This study's aims

- What is the association between single motherhood and income and how does it vary across the distribution?
- What role does employment (being in work and working hours) play in explaining cross-country differences?
- What is the role of policy in explaining how single mothers are faring across the distribution?

Tax/benefits and poverty & income

- Tensions in the tax-benefit system mean generous benefits, which protect single mothers from poverty, may not translate into improved economic status
 - Studies from the 1980s & 1990s showed a link between high rates of means testing and the low economic status of single mothers because work was discouraged (Wong, Garfinkel and McLanahan, 1993; Dickens and Elwood, 2003)
 - In-work benefits, which have been rolled out across countries, improved incentives to enter work but are often accompanied by high marginal tax rates, reducing incentives for increasing earnings (Brewer & Hoynes, 2019)
 - More generous benefits also draw more people into means testing
 - In the UK, few single parents escaped means testing with 84% of single parents entitled to Universal Credit, the main MTB for low-income workers, in 2019/20 (Waters and Wernham, 2021)

Hypotheses

- In countries with high levels of means-tested benefits targeted at single mothers:
 - poverty rates will be low, but income penalties may remain high,
 - the distribution of income will be compressed, with low levels of inequality between single mothers but at low levels of income.
- Lower levels of means tested benefits are expected to have fewer distortionary effects on employment, with single mothers having
 - higher earnings and income, but
 - greater inequality between single parents

Wider social processes matter to income too

- Countries differ widely in the extent to which mothers engage in paid work (Misra, 2012; Gonzalez, 2004)
 - **earnings penalties to motherhood** range from 21% in Denmark to 61% in Germany (Kleven et al, 2019)
 - large pay gaps (either because of non- or part-time employment) further disadvantage single mothers (Harkness, 2022)
- Compared to taxes and transfers, the importance of cross-country differences in single mothers' employment to poverty is less studied
- Mothers position in the labour market and treatment in the tax-benefit system is interrelated, based on gendered assumptions about work and care (Lewis, 1997)

Methods

DATA

I use harmonized micro data from the **Luxembourg Income Study** to compare the relative economic status of single mother households and those headed by couples with dependent children <18 in opposite sex households in the late 2010s.

Anglo-American

- United States
- Canada
- United Kingdom
- Ireland
- Australia

Central European

- Germany
- Netherlands

Nordic

- Finland
- Denmark
- Norway (no hours of work data)

Southern European

- Spain
- Italy (small N)

Sample sizes

	Sample size
United States	21,091
Canada	9,072
United Kingdom	5,024
Ireland	1,409
Australia	3,855
Germany	5,254
Netherlands	2,777
Norway	54,999
Finland	2,761
Denmark	20,445
Italy	1,074
Spain	3,424

Dependent and explanatory variables

Single mother headed households only.
Income is equivalized household income.

Controls

Base

- age (cubic),
- education (low, middle, high),
- region of residence,
- number of children (DV for 2 and 3 or more), and
- age of youngest child (DV for <15 and 5-11)

Additional

- FT and PT work dummy variables (except Norway)
- interaction terms for FT employment X education

Methods: Unconditional quantile treatment effect models

I compare single mother household heads to couples with children

Inverse probability weights (IPW) are used to reshape the observed distributions so they resemble those that would be observed if the full sample were either treated or untreated

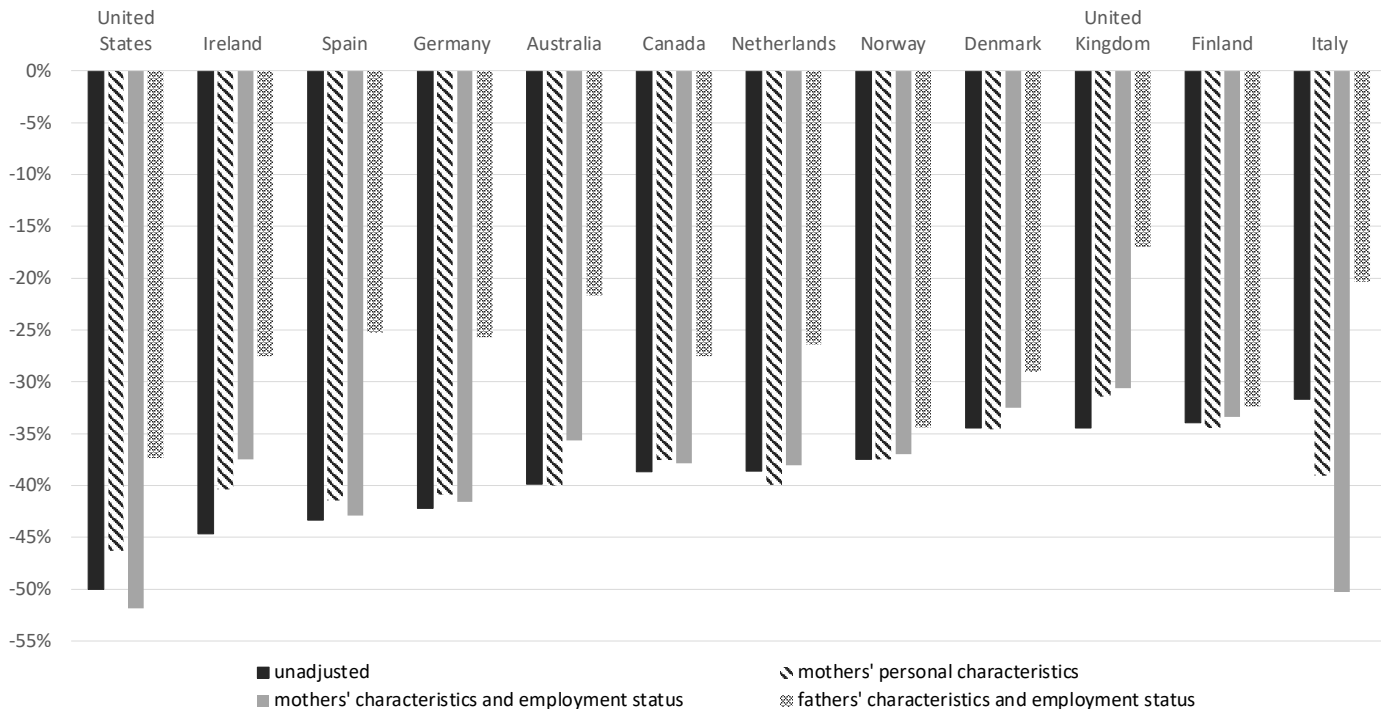
Weights are calculated by matching single mothers' characteristics (described before) to those of (i) mothers in couples and (ii) fathers in couples.

Comparing the “potential outcome” distributions for the treated (single mothers) with those for the untreated (couples) gives the distributional treatment effects.

I use recentered-influence functions (RIF) regressions with all models were estimated using stata's *rifhdreg* command (Rios-Avila 2020).

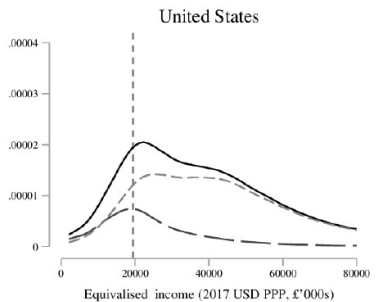
Average treatment effects (ATE) are reported.

Mean single mother income gaps

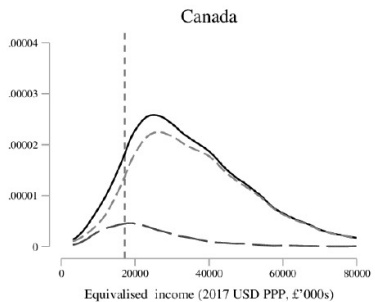


Kernel density estimates of the distribution of household income, single and couple parent households

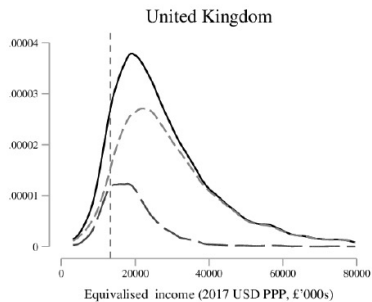
Kernel density estimates of **equivalised household income** All, single and partnered mothers



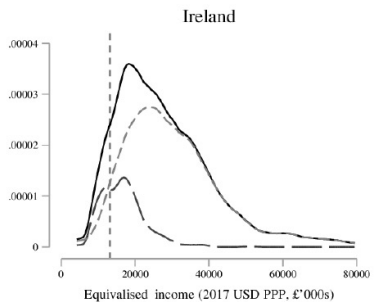
— All — Single mothers ··· Couples with children



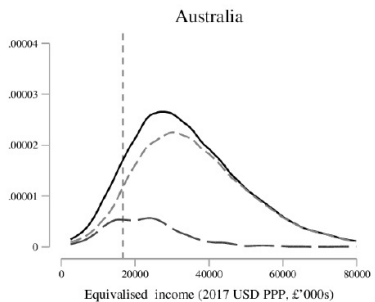
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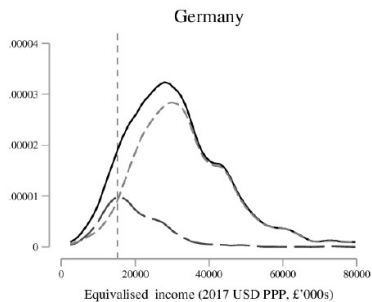
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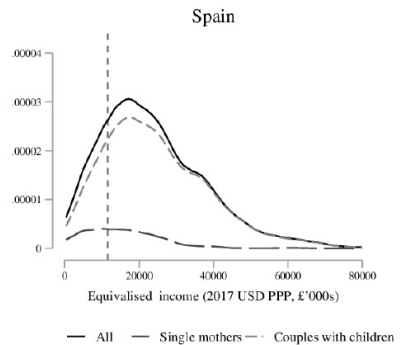
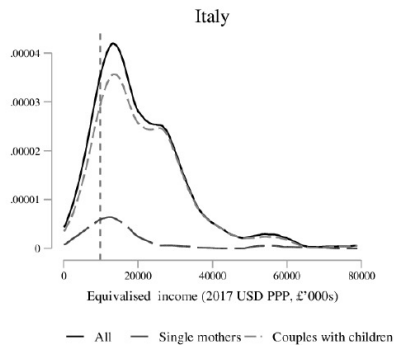
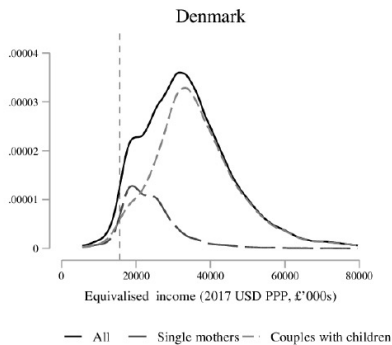
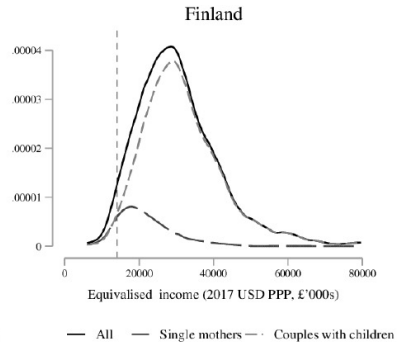
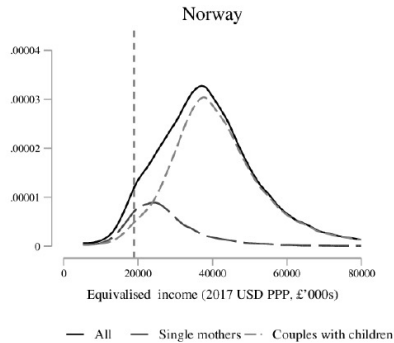
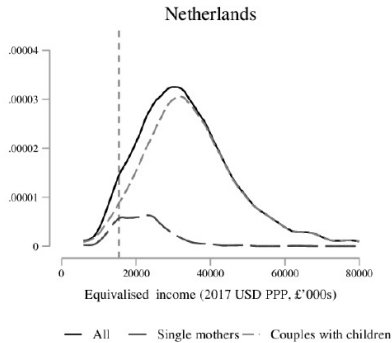


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— All — Single mothers ··· Couples with children

Kernel density estimates of **equivalised household income** All, single and partnered mothers



Reweighting the distribution

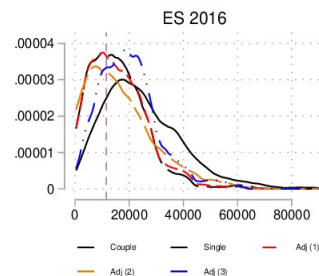
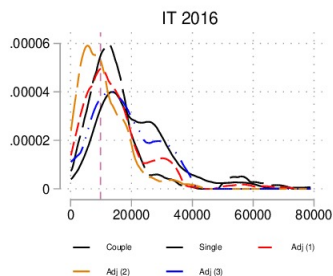
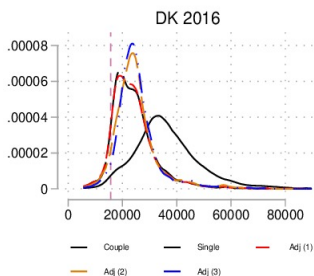
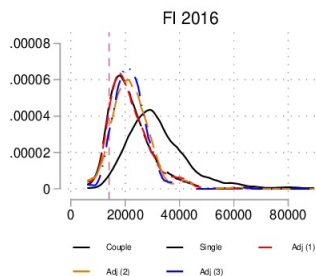
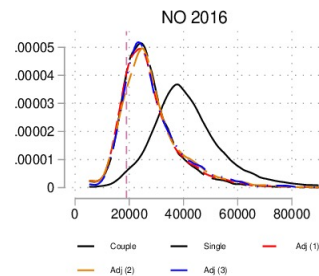
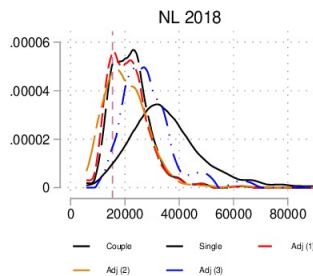
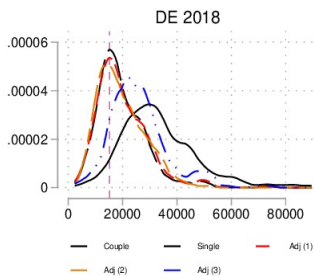
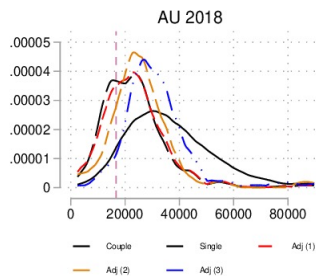
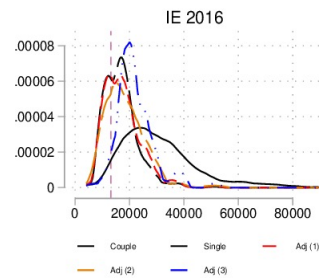
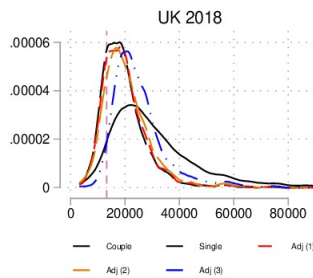
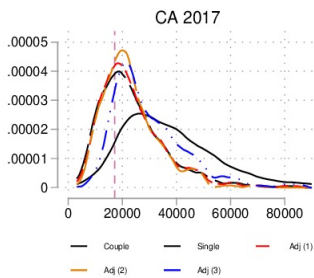
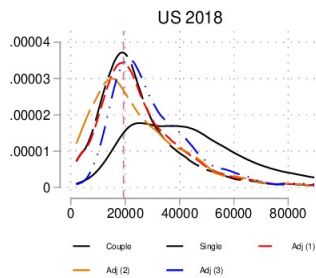
Solid lines - distribution prior to reweighting.

Adjustment 1 - matches single and partnered mothers on age, education, number and age of children, region;

Adjustment 2 - adds full and part-time employment;

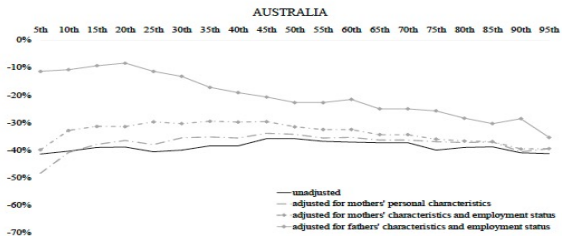
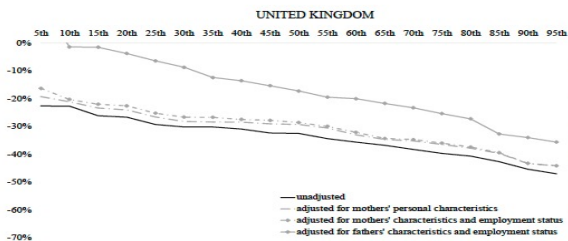
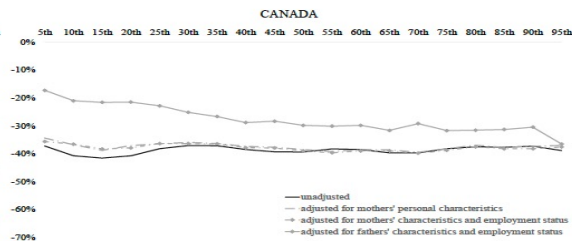
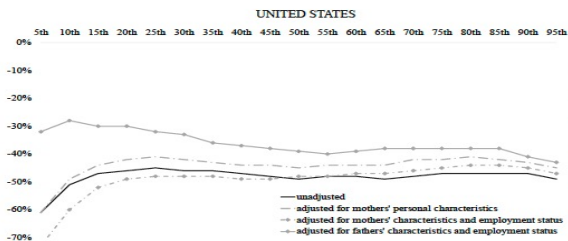
Adjustment 3 - matches the characteristics (adj. 2) of single mothers to those of fathers in couples

Reweighted counterfactual distribution (single mothers' income)



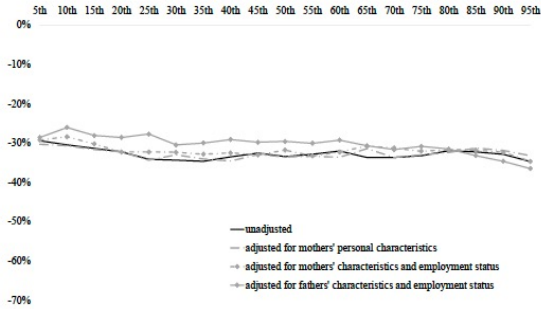
Unconditional Quantile Treatment Effects

Anglo-American Countries

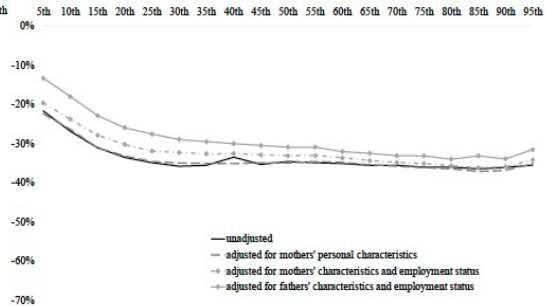


Nordic Countries

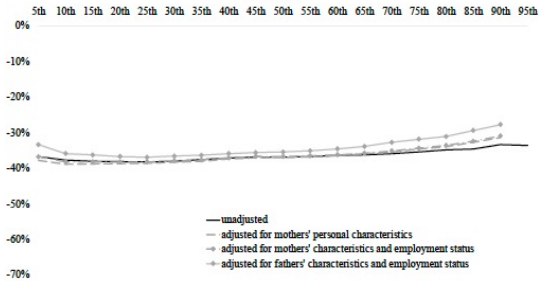
FINLAND



DENMARK

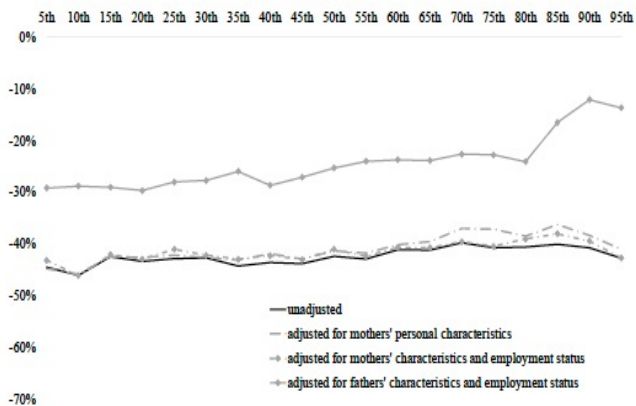


NORWAY

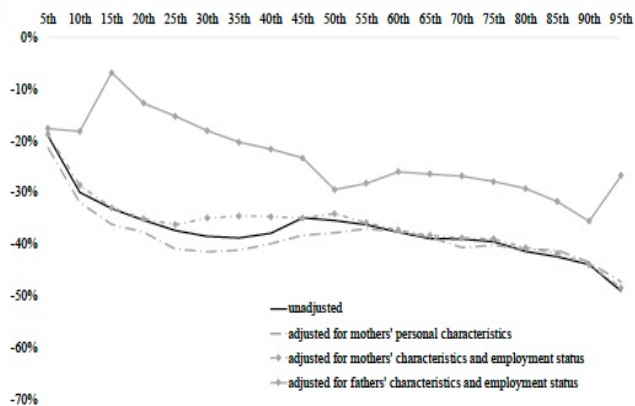


Western Europe

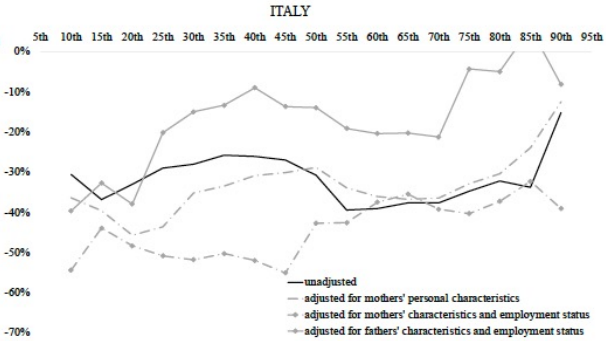
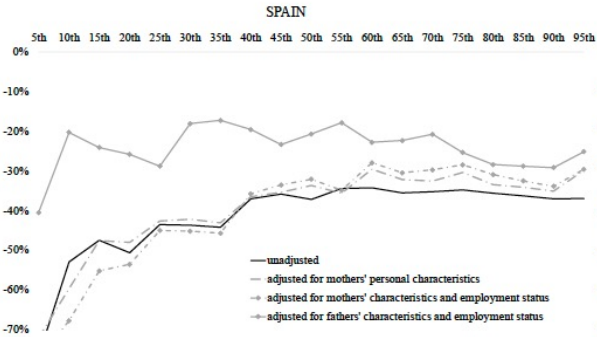
GERMANY



NETHERLANDS



Southern Europe



Estimation of overall treatment effect of single motherhood on inequality (Gini Coefficient * 100)

	Sample mean	(i) no controls	(ii) control for characteristics	(iii) adds employment controls
United States	34.8	-0.1	0.1	-0.1
Canada	28.6	-0.6	0.2	-0.7
United Kingdom	28.0	-6.6**	-5.7**	-7.0**
Ireland	25.8	-3.8**	-4.3**	-6.2**
Australia	28.0	-1.1	0.0	-2.2
Germany	25.2	-0.5	2.1	1.2
Netherlands	22.7	-5.3*	0.2	0.0
Norway	20.6	1.1**	3.6**	3.3**
Finland	21.0	-1.9	-0.9	-2.1
Denmark	20.0	-1.9**	0.0	-1.8
Italy	33.4	4.7	4.7	5.1
Spain	34.2	2.5	1.5	1.0

1. Summary of UQTE results

Single mother income penalties are large everywhere, but gradients differ.

- Income penalties are **largest for those at the bottom** of the income distribution in the **US, Spain and Italy**.
- They are **constant** across the distribution in **Canada, Australia, Germany, Norway and Finland**.
- Differences are smallest at the bottom of the distribution, and **highest at the top**, in the **UK, Ireland, Netherlands and Denmark**.

Differences in the characteristics or employment patterns of single mothers and mothers in couples do little to explain differences in income.

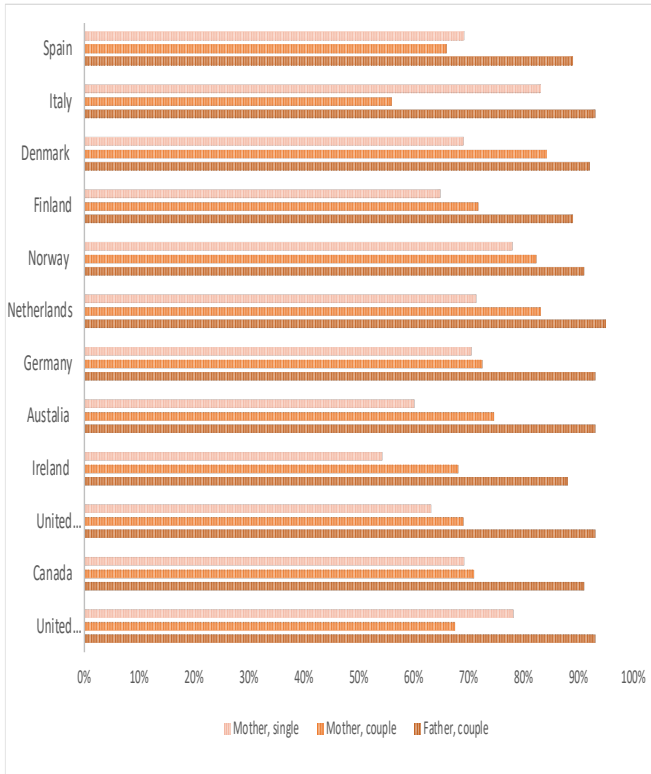
2. Summary of UQTE

Matching on (couple) fathers' characteristics does more to reduce the gap, but with differences across countries.

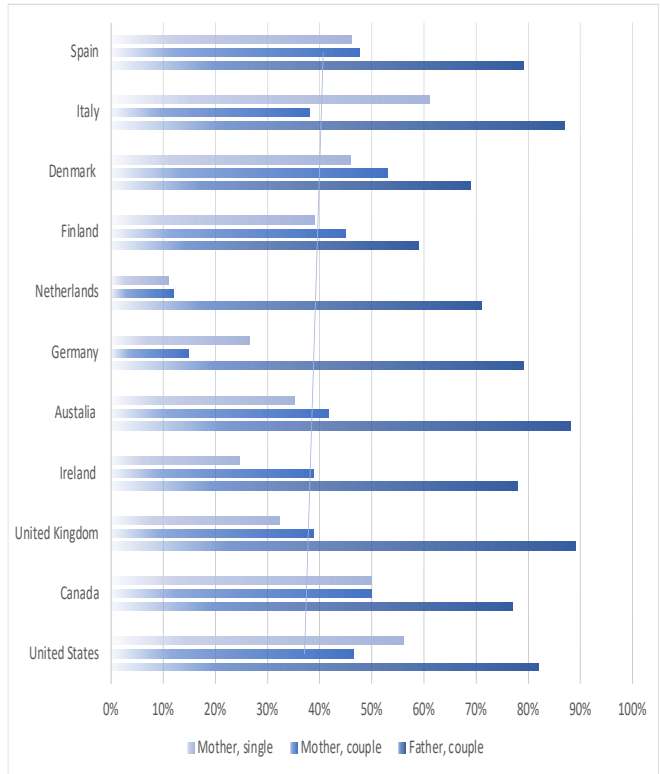
- In the **US, UK, Australia and Germany** single mothers' income would rise, particularly at the bottom of the distribution, because fathers are more likely to work.
- In the **Nordic countries**, there would be little change as single mothers' full-time employment rates are already high (reflecting high levels of gender equality in the labour market). **But earnings penalties to motherhood and the absence of a potential second earner mean income differences would remain.**

Single mothers' employment

Employment



Full-time Employment



Income Sources Across Countries

Income packages and penalties across the distribution

- Differences in income packages of single mothers are consistent with the income penalties associated with single motherhood in the UQTE.
 - Greater reliance on **earning** in **US, Italy and Spain** allows some single mothers to achieve higher levels of income but leaves others at risk of very low income.
 - In the **UK, Ireland and NL means tested benefits** comprise an important part of income and are effective at lifting the incomes at those of the bottom of the distribution.
 - In **Australia and Germany, universal transfers** provide important supplements to earnings across the distribution, but the the weak economic status of mothers means income remains relatively low.
 - **Nordic countries**, earnings are supplemented by **public universal, assistance and insurance transfers** which tend to reduce income gaps.

Summing up

1. Single mothers and income gaps

- Even when poverty is avoided, single mothers remain economically disadvantaged across countries and are often low income.
 - The US, stands out as having particularly large single mother income penalties – at 46% - with the UK having the smallest penalties, at 31%. Other countries fall in between.
- Single mothers' characteristics explain little of the income gap.
 - In the US, Italy and Spain income gaps would be even larger if single mothers' characteristics were more like those of women in couples.
- If single mothers had similar employment rates to fathers, potential income gains would be greatest in UK, Germany and Netherlands.
- But even if single mothers worked as much as fathers, income gaps would remain as the data for Nordic countries shows
 - single mothers who work fall behind dual, FT earner couples due to econ scale and pay penalties.

Summing up

2. Gradients in income gaps

- Income gaps are **smallest at the bottom** of the income distribution - single mothers' income is more equally distributed than couples' in the **Netherlands, Ireland, Denmark and the UK**.
 - High levels of means testing reduces poverty but leaves single mothers concentrated at the bottom of the income distribution.
- In the **US, Italy and Spain**, gaps are **largest at the bottom** of the distribution.
 - Lack of state support leaves single mothers dependent on their own earning.
- The Nordic countries combine high level of earnings with state support
 - But parenthood earnings penalties and dual FT earner norm means single mothers' incomes still fall behind:
 - Some of this is mechanistic: single mother with 1 child and median earnings would have income 29% lower than a couple both on median earnings with 2 children.
- There is less variation across the distribution in Canada, Australia, Germany Finland and Norway where benefits are less means tested.

Conclusions

- The forces driving single mothers' disadvantage differ across country.
- Their ability to avoid poverty is dependent on the level of the safety net, but even where it is sufficient to avoid poverty many remain disadvantaged.
- In the **UK**, low employment intensity and earnings holds income back with few single mothers in the middle of the income distribution. **Single mothers' financial security has not been accompanied by economic opportunity.**
- In the **US**, single mothers are more likely to be found in the middle of the distribution, but those with lowest incomes are highly disadvantaged. **Economic opportunity has not been accompanied by economic security.**

Policy should focus on enabling single parents to achieve both economic security and opportunity.

UK benefit changes have pushed people into dead-end, low-paid jobs, says IFS

Tougher rules have boosted employment but jobs offer scant career progression and contribute little to tax revenue



☑ The IFS found those encouraged to enter work tended to remain on low pay, were paying little in tax and were often still entitled to in-work benefits. Photograph: Mint Images/Getty Images/Mint Images RF

Tougher benefit rules have boosted employment in the UK in the past 25 years but only at the expense of trapping workers in dead-end jobs, according to a leading thinktank.

The Institute for Fiscal Studies (IFS) said successive waves of welfare changes since the late 1990s had imposed more stringent conditions on those

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Single-Parent Families and Public Policy:
Evidence from High-Income Countries

Special Editors: Janet C. Gornick, Laurie C. Maldonado,
and Amanda Sheely



SCAN ME

Thank-you!

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