# Maternal Social Origin and the Intergenerational Transmission of (Dis)Advantage

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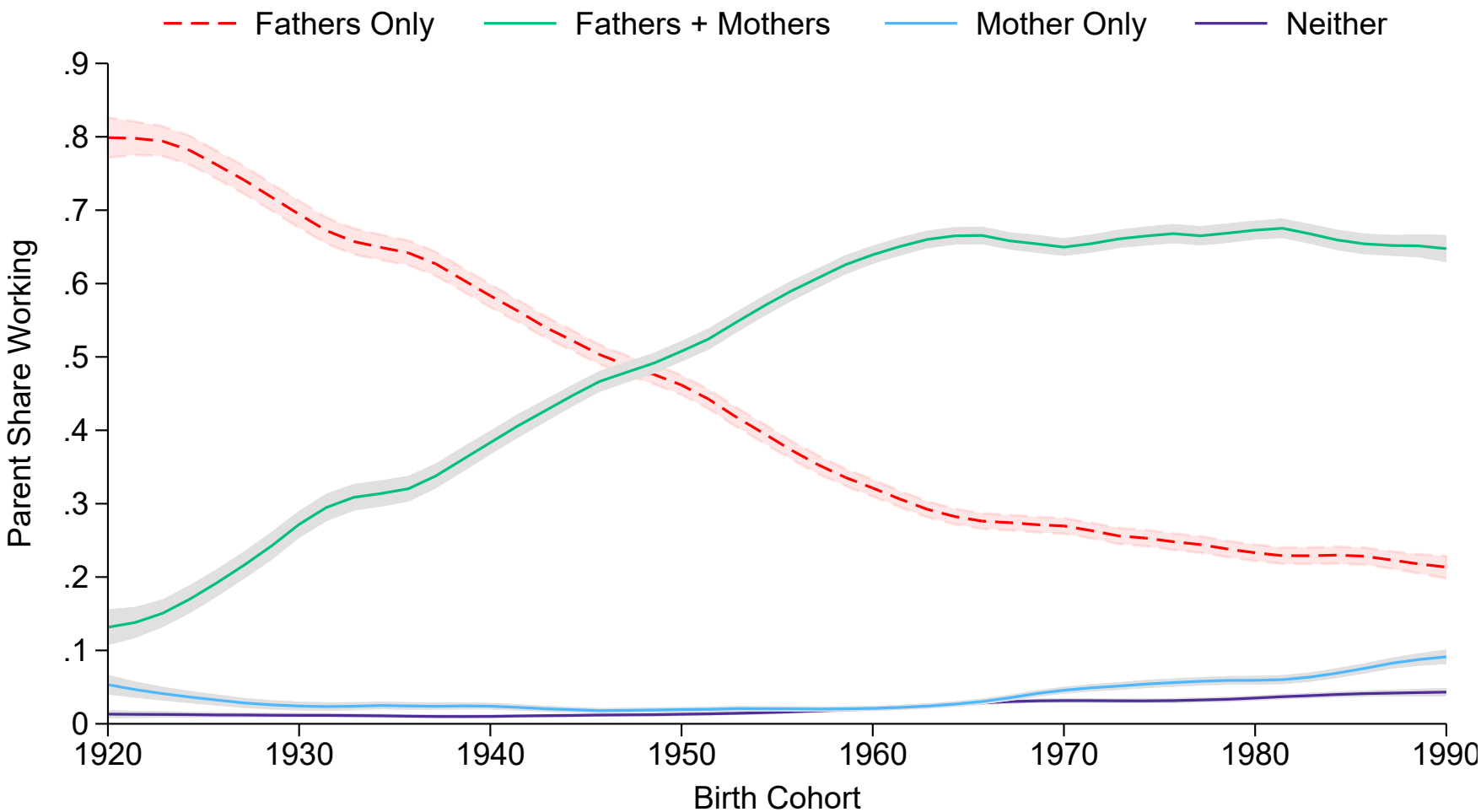
# Motivation I: Trends in female labour force participation

Increased labour market participation of women has changed two-parent households:

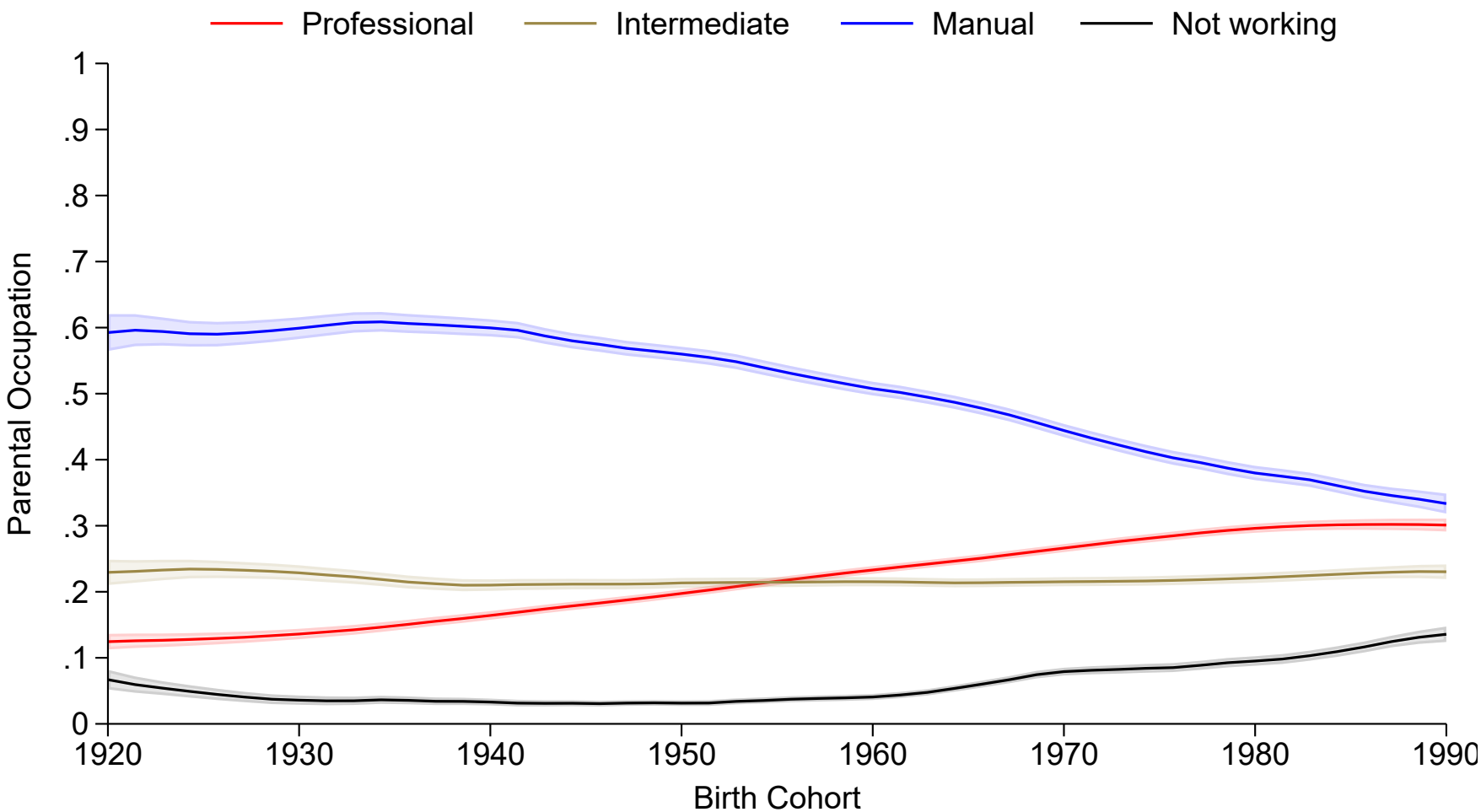
- two-working parents increasingly predominant household type
- mothers increasingly working in occupations classified the same or 'higher' than their spouse

## Figure 1: Number of working parents for those born 1920-1990



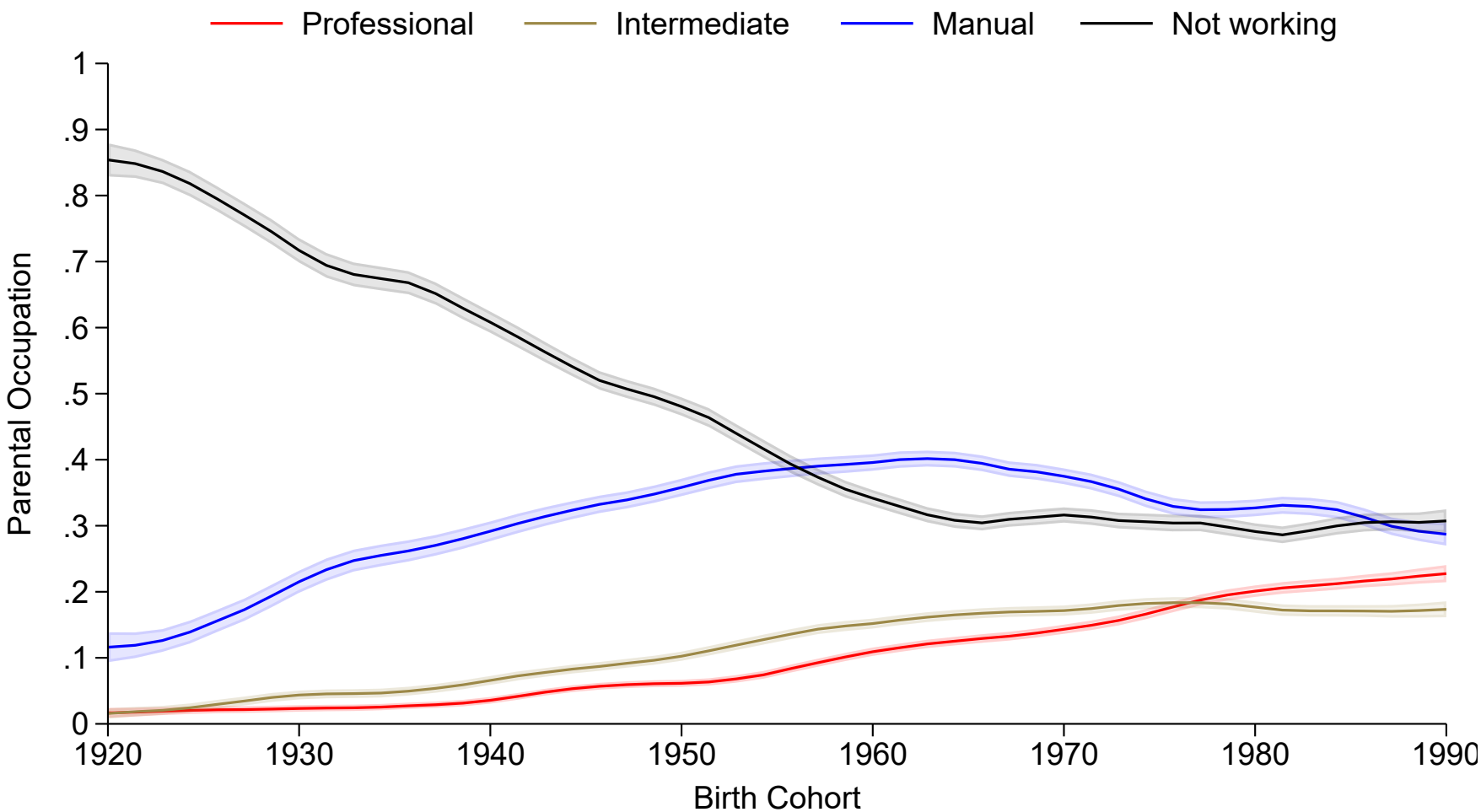

Parental status captured when children aged 14. Sample restricted to those with two parents and excludes parents who are deceased or not living with respondents. Excludes those born in Northern Ireland. Authors' calculations. Data Source: Understanding Society Waves 1-13, BHPS Waves 1-18.

## Figure 2: Father's Occupation (Social Class) for those born 1920-1990




Paternal status captured when children aged 14. Sample restricted to those with two parents and excludes parents who are deceased or not living with respondents. Excludes those born in Northern Ireland. Authors' calculations. Data Source: Understanding Society Waves 1-13, BHPS Waves 1-18.

## Figure 3: Mother's Occupation (Social Class) for those born 1920-1990




Maternal status captured when children aged 14. Sample restricted to those with two parents and excludes parents who are deceased or not living with respondents. Excludes those born in Northern Ireland. Authors' calculations. Data Source: Understanding Society Waves 1-13, BHPS Waves 1-18.

# Motivation II: How do thes trends affect social origin proxies

Social origin predominantly proxied with occupational information from just one parent, the 'dominance approach', which takes the 'higher' occupational status of the parents as a proxy for the offspring's social origin.

Criticised as male centric as this method largely omits the information of mothers (Goldthorpe 1983, 1984)

With more mothers in work and working in 'higher' occupations than their spouse, is this still appropriate? (Thaning and Hällsten 2020)

Also, with there being a gender pay gap in the UK, does the gender of the 'dominant' parent matter for the social origin pay gap?

# Motivation III: Social Origin Pay Gaps

Extensive literature describes the existence of social origin pay gaps in high-income countries.

Intergenerational persistence of labour market outcomes according to social origin.

UK: Crawford and Vignoles 2014; Crawford and Erve 2015; Laurison and Friedman 2016; Friedman, Laurison, and Macmillan 2017; Friedman and Laurison 2020; Britton et al. 2022

Sweden (Hällsten, 2013), Norway (Mastekaasa, 2011), Spain (Bernardi and Gil-Hernandez, 2021) and the US (Laurison and Friedman, 2024).

# Contributions

Contribute to the literature by showing how different measures of social origin matter for future generation's life outcomes (Ballarino, Meraviglia, and Panichella 2021)

We consider the occupational information of both parents (when respondent was aged 14), the 'dominant' and 'non-dominant' parent, and their gender.

We examine the influence of social origin on children's educational attainment, occupational status and earnings.

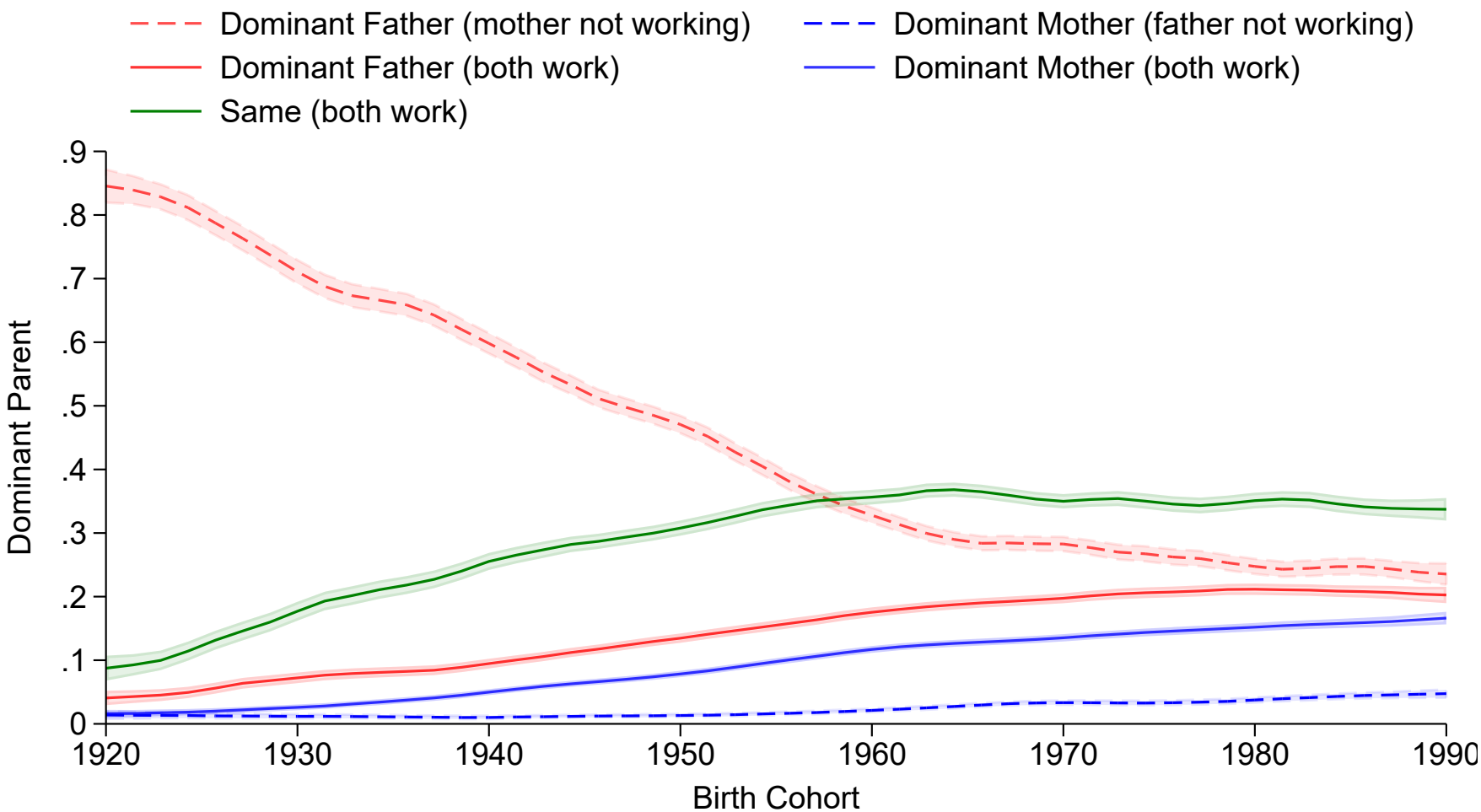
# The National Statistics Socio-economic classification (NS-SEC) 8-class version

- NS-SEC 1: Higher managerial and professional occupations (e.g. lawyer, doctor, engineer)
- NS-SEC 2: Lower managerial and professional occupations (e.g teacher, nurse)
- NS-SEC 3: Intermediate (e.g. graphic designers, medical secretaries)
- NS-SEC 4: Small employers and own account (self-employed)
- NS-SEC 5: Lower supervisory and technical (e.g. bakers, electricians)
- NS-SEC 6: Semi-routine (e.g. farm workers, housekeepers)
- NS-SEC 7: Routine (e.g. cleaners, labourers)
- NS-SEC 8: Never worked and long-term unemployed

# The National Statistics Socio-economic classification (NS-SEC) 3-class version

- NS-SEC 1 & 2: Professional/Upper-class origins
- NS-SEC 3 & 4: Intermediate/Middle-class origins
- NS-SEC 5-7: Manual/Working-class origins

## Figure 4: Gender of Socially Dominant Parent: One/Two Working Parents




Sample includes one- and two- working parents and excludes those who report that neither of their parents worked. Excludes those born in Northern Ireland. Authors' calculations. Data Source: Understanding Society Waves 1-13, BHPS Waves 1-18.

# Potential mechanisms - Gender of parent

The transmission effects of both parents working may differ depending on what parent is the 'dominant' parent. For example differing effects on the offspring's educational attainment, labour market aspirations and expectations, social networks, cultural capital etc.

- Father: fathers' transmission effects are larger for sons and mothers' transmissions effects are larger for daughters in relation to their educational outcomes (Bingley et al., 2022), subsequently impacting their labour market outcomes.
- Mother: mothers' work traditionality predicted daugthers' future plans over and above their own attitudes (Fulcher and Coyle, 2011)

# Potential mechanisms - Gender of parent & social class

The transmission effects of both parents working and the gender of the 'dominant' parent may also vary across social origin i.e. upper, middle, routine class.

Professional Class father 'dominant' parent:

- Male networks are more advantageous in the labour market, compared to female networks, as such networks are comprised of higher status connections and through such connections males receive more job leads (McDonald, 2011). 'Old Boys' network more beneficial for sons.

Professional Class mother 'dominant' parent:

- Evidence of a 'role model' effect for daughters if their mother is the breadwinner (Choi et al., 2023).
- Some evidence sons are more likely to follow in their father's occupational footsteps even if their mother is the 'dominant' parent (Jayet, 2023).

# Research Question

We focus on three research questions:

- Does the gender of the socially 'dominant' parent matter for children's life outcomes? i.e. educational attainment, occupational status and earnings
- Does this vary by social origin? i.e. those from upper, middle and routine class origins
- Does it vary by sons/daughters?

We explore these research questions relative to respondent's whose mother and father worked in intermediate occupations (NS-SEC 3 & 4) i.e. those from middle class-origins.

# Empirical Approach

# Data: Understanding Society

Life history data from from the harmonised British Household Panel Survey (BHPS) and its successor, Understanding Society, the UK Household Longitudinal Study (USoc) (1991-2022)

Key Variables:

- **Social origin**
  - Parental occupation retrospectively captured at the age of 14
  - National Statistics Socio-Economic Classification which we regroup:
    Professional Class (NS-SEC 1 & 2): Higher/Lower Professional and Managerial
    Intermediate Class (NS-SEC 3 & 4): Intermediate/Small Employers
    Routine Class (NS-SEC 5-7): Lower Supervisory/Semi-Routine/Routine

- **Outcome variables**
  - Educational attainment i.e. respondent's highest educational qualification
  - Occupational status i.e. NS-SEC 8 classification
  - Average gross labour income (captured between the ages 38-42), deflated using CPI Index, 2015

# Sample Selection

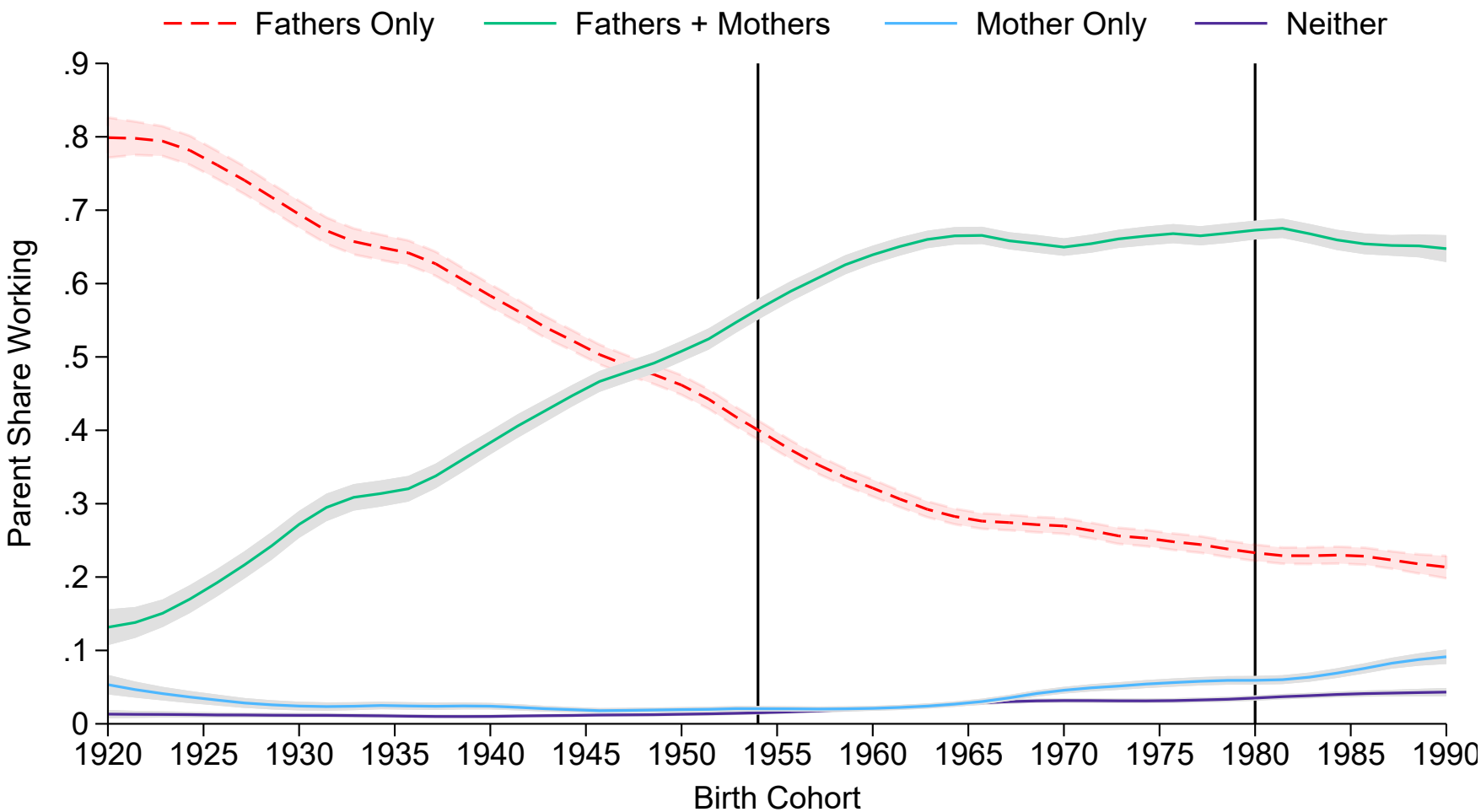
We restrict the sample to those who are born in the UK and report having two parents at the age of 14, one at least whom worked.

All cohorts are observed over the 5-year calendar year period in which they turn 38-42.

- 1953 $\rightarrow$observed at age 38 when interviews for BHPS first begin (1991)
- 1980 $\rightarrow$observed at age 42 when interviews for USOC end (2022)

Our final estimation sample (n=12,065) additionally excludes those with missing observations for date-of-birth and parental occupation.

## Figure 5: Cohort Estimation Sample: 1953-1980




Sample includes one- and two- working parents and excludes those who report that neither of their parents worked. Excludes those born in Northern Ireland. Authors' calculations. Data Source: Understanding Society Waves 1-13, BHPS Waves 1-18.

# Birth cohorts

Table 1: Birth cohorts of estimation sample

| | Decade | | | | |
|---|---|---|---|---|---|
| | 1950s | 1960s | 1970s | 1980s | Total |
| N | 1,279 (10.6%) | 4,364 (36.2%) | 5,756 (47.7%) | 666 (5.5%) | 12,065 (100.0%) |
| Birth Cohort | | | | | |
| 1953 | 138 | 0 | 0 | 0 | 138 |
| 1954 | 137 | 0 | 0 | 0 | 137 |
| 1955 | 126 | 0 | 0 | 0 | 126 |
| 1956 | 169 | 0 | 0 | 0 | 169 |
| 1957 | 190 | 0 | 0 | 0 | 190 |
| 1958 | 234 | 0 | 0 | 0 | 234 |
| 1959 | 285 | 0 | 0 | 0 | 285 |
| 1960 | 0 | 309 | 0 | 0 | 309 |
| 1961 | 0 | 353 | 0 | 0 | 353 |
| 1962 | 0 | 304 | 0 | 0 | 304 |
| 1963 | 0 | 310 | 0 | 0 | 310 |
| 1964 | 0 | 297 | 0 | 0 | 297 |
| 1965 | 0 | 284 | 0 | 0 | 284 |
| 1966 | 0 | 239 | 0 | 0 | 239 |
| 1967 | 0 | 560 | 0 | 0 | 560 |
| 1968 | 0 | 879 | 0 | 0 | 879 |
| 1969 | 0 | 829 | 0 | 0 | 829 |
| 1970 | 0 | 0 | 910 | 0 | 910 |
| 1971 | 0 | 0 | 811 | 0 | 811 |
| 1972 | 0 | 0 | 726 | 0 | 726 |
| 1973 | 0 | 0 | 670 | 0 | 670 |
| 1974 | 0 | 0 | 579 | 0 | 579 |
| 1975 | 0 | 0 | 480 | 0 | 480 |
| 1976 | 0 | 0 | 407 | 0 | 407 |
| 1977 | 0 | 0 | 424 | 0 | 424 |
| 1978 | 0 | 0 | 380 | 0 | 380 |
| 1979 | 0 | 0 | 369 | 0 | 369 |
| 1980 | 0 | 0 | 0 | 373 | 373 |
| 1981 | 0 | 0 | 0 | 293 | 293 |

# Household social class and dominant parent I

We categorise individuals into different household types based on their household occupational class & the 'dominant' gender of the household:

- Father Upper: Mother Upper
- Father Upper: Mother Middle
- Mother Upper: Father Middle
- Father Upper: Mother Lower
- Mother Upper: Father Lower
- Father Upper: Mother Not Working
- Mother Upper: Father Not Working

- Father Middle: Mother Middle (reference category)
- Father Middle: Mother Lower
- Mother Middle: Father Lower
- Father Middle: Mother Not Working
- Father Middle: Mother Not Working

- Father Lower: Mother Lower
- Father Lower: Mother Not Working
- Mother Lower: Father Not Working

# Household social class and dominant parent II

Table 2: Social Origin Statistics

| | Summary |
|---|---|
| N | 12,065 |
| Father Upper: Mother Upper | 947 (7.8%) |
| Father Upper: Mother Middle | 686 (5.7%) |
| Mother Upper: Father Middle | 347 (2.9%) |
| Father Upper: Mother Lower | 694 (5.8%) |
| Mother Upper: Father Lower | 442 (3.7%) |
| Father Upper: Mother Not Working | 1,019 (8.4%) |
| Mother Upper: Father Not Working | 65 (0.5%) |
| Father Middle: Mother Middle | 599 (5.0%) |
| Father Middle: Mother Lower | 954 (7.9%) |
| Mother Middle: Father Lower | 738 (6.1%) |
| Father Middle: Mother Not Working | 954 (7.9%) |
| Mother Middle: Father Not Working: | 52 (0.4%) |
| Father Lower: Mother Lower | 2,585 (21.4%) |
| Father Lower: Mother Not Working | 1,748 (14.5%) |
| Mother Lower: Father Not Working | 235 (1.9%) |

Individuals born between 1953-1980 and interviewed aged 38-42.
Sample conditional on two parent families with at least one working parent when the respondent was aged 14.

# Estimation Model

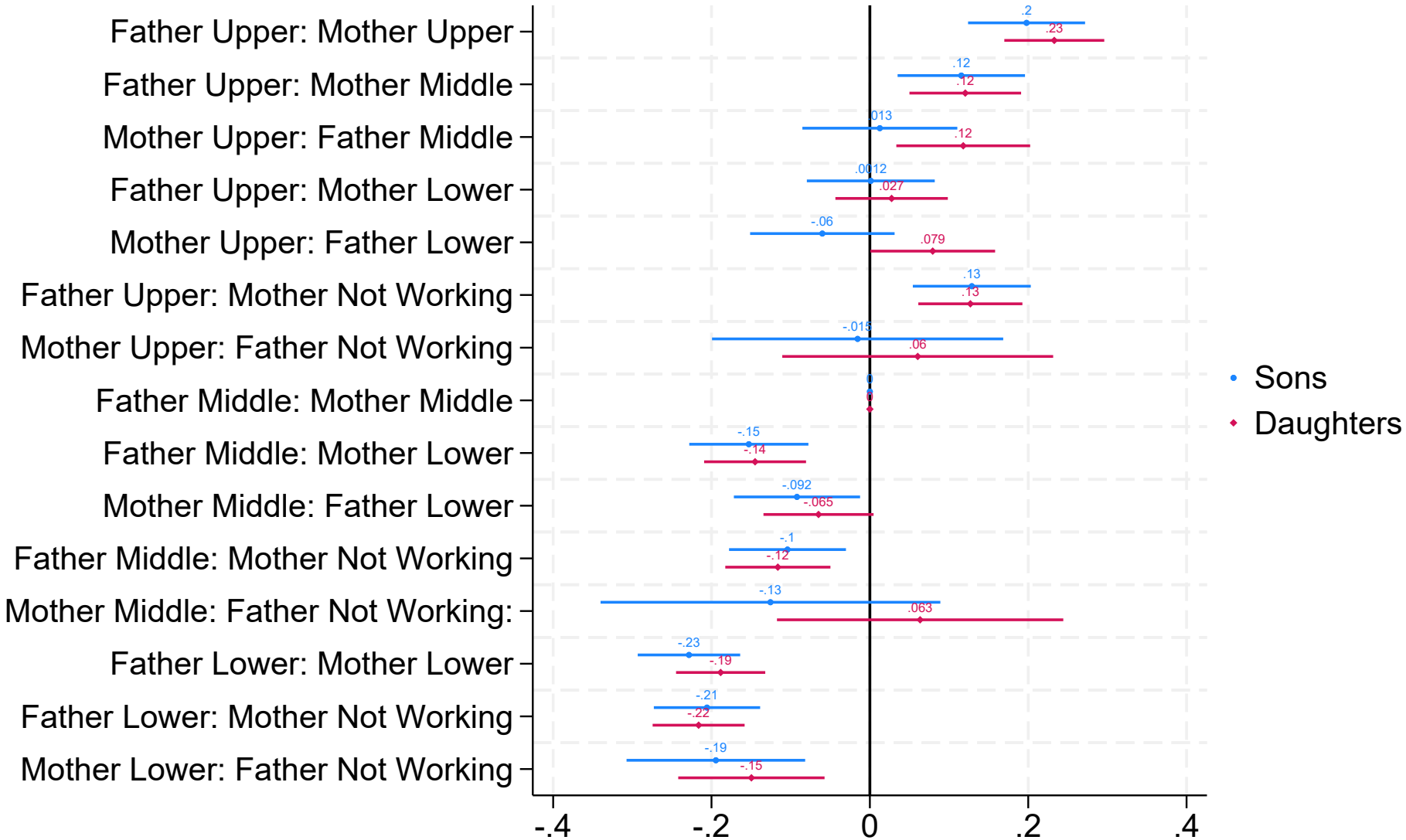
To estimate the relative influence of social origin and 'dominant' parental gender on respondent's life outcomes (educational attainment, occupational status and average lifetime earnings), captured between the ages of 38-42 for individual $i$, we employ the following models (linear probability model for educational attainment and occupational status and OLS for earnings):

$$\overline{education/occupation/earnings}_{i,c,r} = \alpha_0 + \beta SocialOrigin + \pi_r + \rho_c + \epsilon_{i,c,r} \quad (1)$$

where $c$ is birth cohort and $r$ is region.

# Results

# Educational attainment - Degree attainment



# Educational attainment findings

Professional Class Origins:

- Those whose both parents worked in professional/managerial occupations are most likely to hold a degree.
- Having a mother who worked in a professional/managerial occupation is more beneficial for daughters.
- Overall, daughters more likely than sons to hold a degree.
- No real difference for sons and daughters if one parent wasn't working.

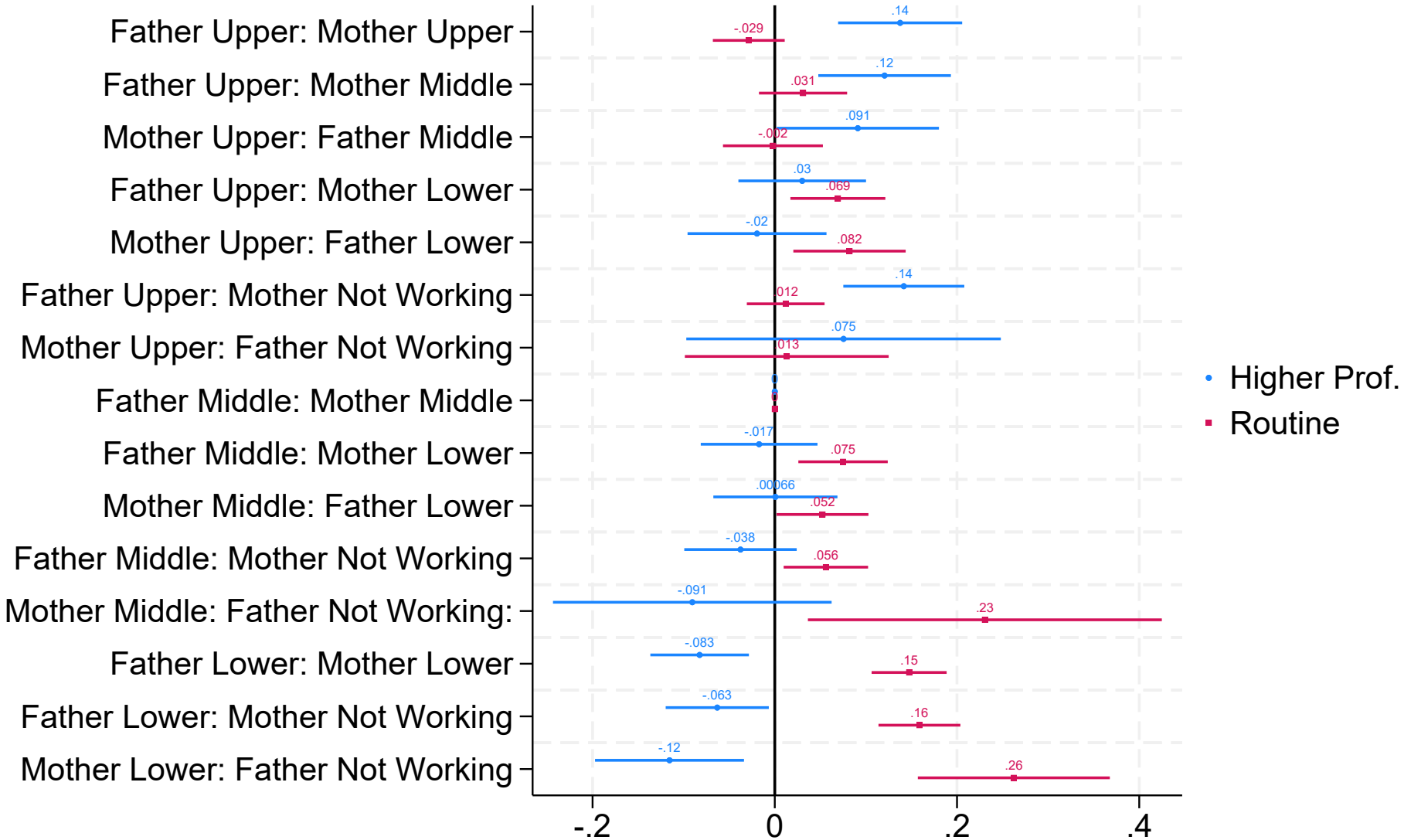
Middle Class Origins:

- Those who had one parent working in a 'lower' occupation or not working are significantly less likely to hold a degree.

Routine Class Origins:

- Those from routine origins are significantly less likely to hold a degree and least likely overall.
- Father working in 'lower' occupation or not working more likely to disadvantage sons.

# Occupational status/destinations - Sons



# Occupational status/destinations findings - Sons

Professional Class Origins:

- Sons from upper class origins more likely to work in similar jobs to their parents.
- Mother Upper: Father Lower significantly more likely to work in a routine job.

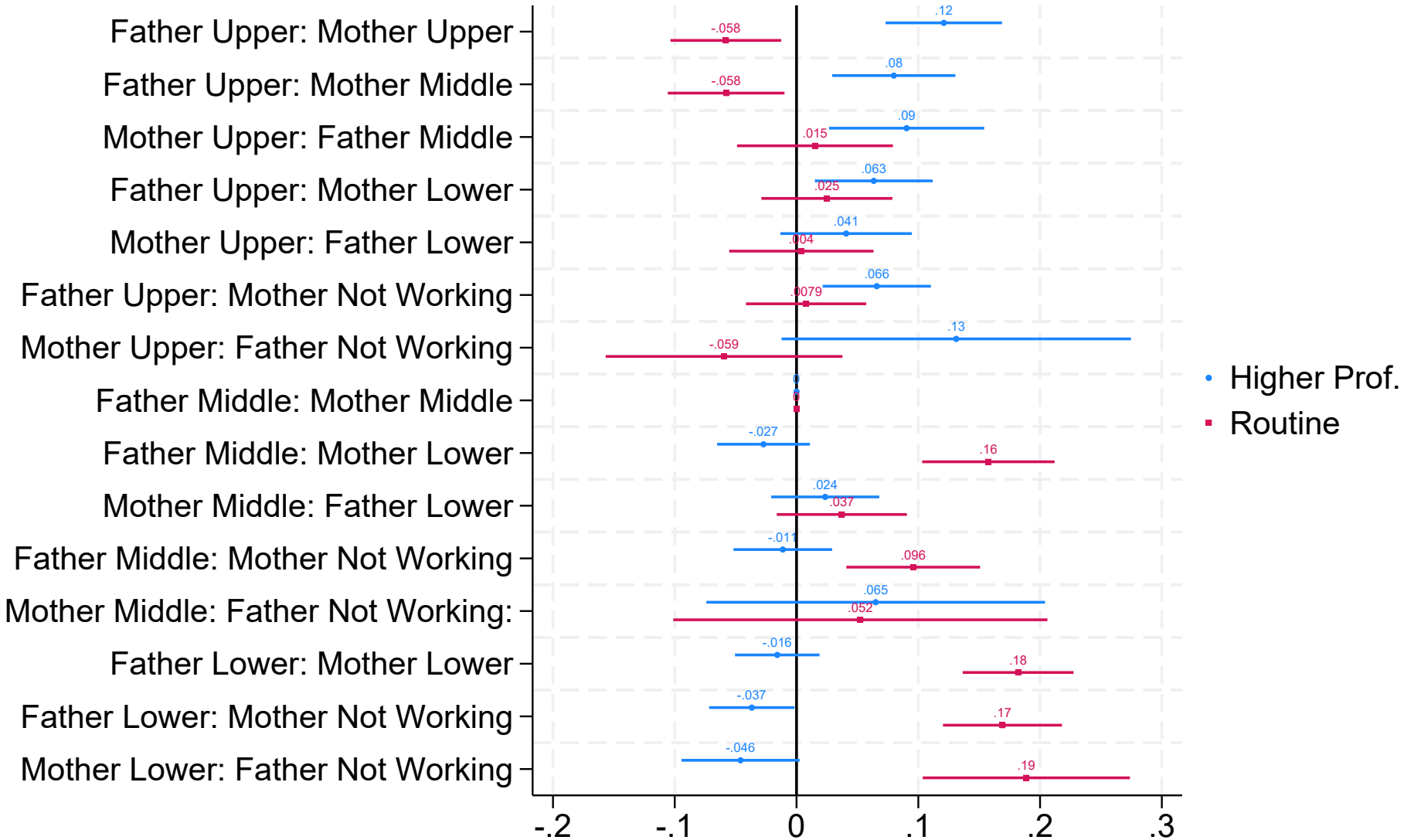
Middle Class Origins:

- Sons from middle-class origins have a higher probability of working on routine jobs.

Routine Class Origins:

- Significantly less likely to work in higher professional/managerial jobs.
- More likely to work in routine jobs, more so those whose mother worked in a routine job and their father did not work.

# Occupational status/destinations - Daughters



# Occupational status/destinations findings - Daughters

Professional Class Origins:

- Daughters from upper class origins more likely to work in similar jobs to their parents.
- Across all household types, daughters more likely to work in higher professional jobs.

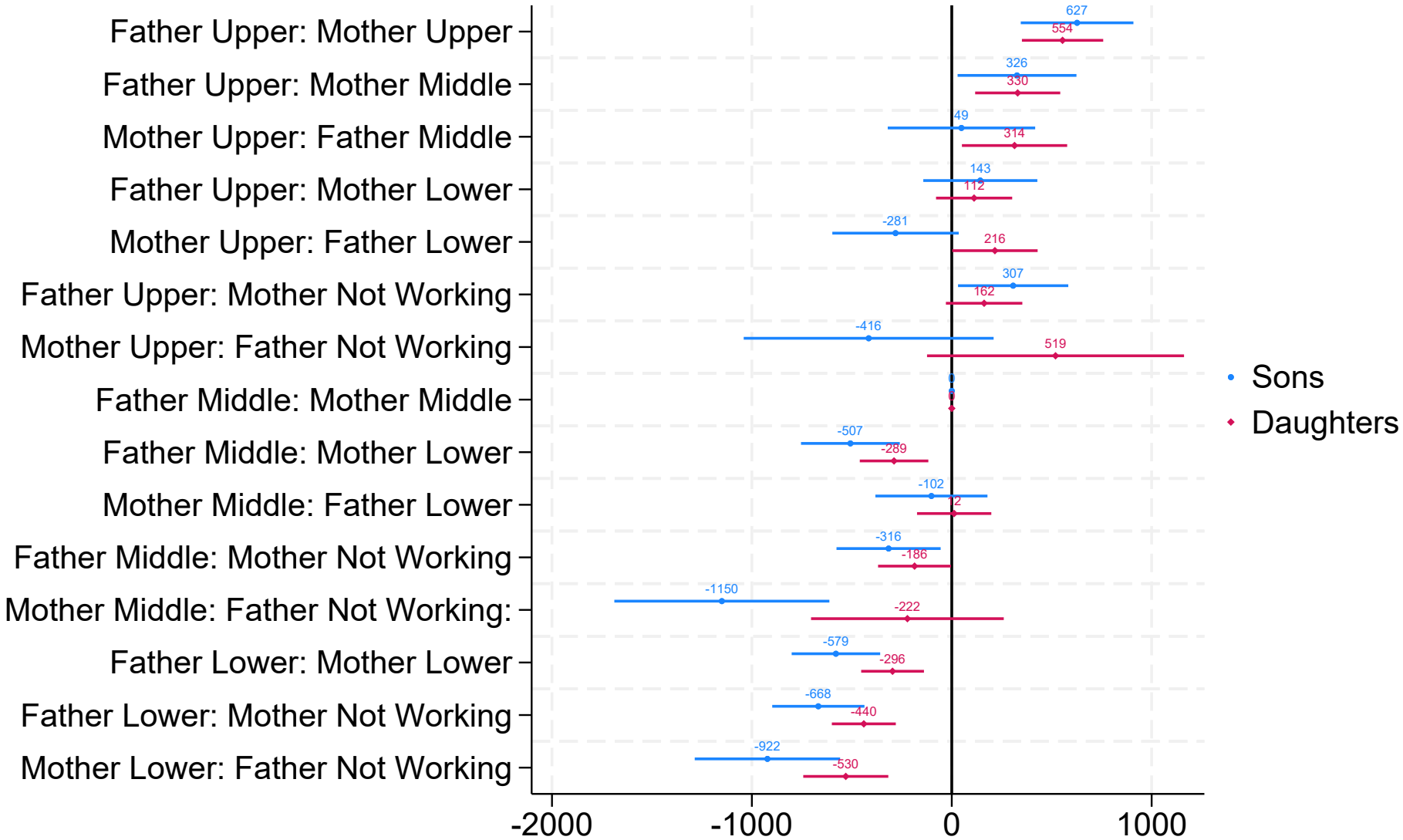
Middle Class Origins:

- One parent worked in routine job or did not work associated with higher probability of working in a routine job.

Routine Class Origins:

- Significantly more likely to work in a routine job.
- Some variance but results are broadly consistent across the three 'lower' social origin groups.

# Social origin pay gap



# Social origin pay gap findings

Professional Class Origins:

- Those whose both parents worked in professional/managerial jobs report the highest earnings.
- Daughters benefit more than sons from a working mother in a professional/managerial job.
- e.g. Mother Upper: Father Lower positive for daughters' earnings but negative for sons' earnings.

Middle Class Origins:

- Negative earnings if mother worked in 'lower'/not worked or father did not work.
- Daughters report higher earnings than sons.

Routine Class Origins:

- Respondents from routine origins earn significantly less.
- Across the three groups, daughters report higher earnings than sons.

# Conclusion

Those whose both parents worked in professional/managerial occupations report the best life outcomes, possibly indicating a double advantage of family resources, capital etc.

Contrary, those whose both parents worked in routine jobs or one worked in a routine job and the other parent did not work are the most disadvantaged. These findings highlight the importance of considering the occupational information on both parents.

We observe more of a class effect for those from working-class origins.

Gender of the 'dominant' parent and gender of the child seems to matter more for those from upper class origins e.g. daughters having a 'domiant' mother who worked in a professional/managerial occupation is associated with better life outcomes, whereas this is associated with poorer life outcomes for sons.

Thank you for listening!
We welcome suggestions, comments and ideas!

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