Inequality of Opportunity and Couples

Andreas Peichl Martin Ungerer

IT2015, 15 Jan 2015

Motivation

- Inequality of Opportunity (IOp) is concerned with the source of inequality: Circumstances vs. Choices
- Roemer (1998): Equality of Opportunity, and many others
- Nobody should be held responsible for circumstances beyond the sphere of individual control
- Lessons for redistributive policies

Research Question:

- Philosophical: Are we responsible for our partner? (in progress)
- Empirical: Does this matter when measuring IOp?

How to measure Inequality of Opportunity

Divide characteristics into Circumstances C_i and Effort E_{it}:

$$\ln \omega_i = \alpha C_i + \beta E_i + u_i, \tag{1}$$

$$E_i = \kappa C_i + v_{it} \tag{2}$$

$$\ln \omega_i = \underbrace{(\alpha + \beta\kappa)}_{\psi} C_i + \underbrace{\beta v_{it} + u_i}_{\eta_i} \tag{3}$$

Ex ante, parametric estimator (Niehues and Peichl, 2013):

$$\widehat{\omega_i} = \widetilde{\mu}_i^{LB} = \exp[\widehat{\psi} C_i + \sigma^2/2] \tag{4}$$

- Mean log deviation: $MLD\{\widetilde{\mu}_i^{LB}\}$
- IOp Ratio: $\frac{MLD\{\widetilde{\mu}^{LB}\}}{MLD\{w_i\}}$

Responsibility for Partner's Variables

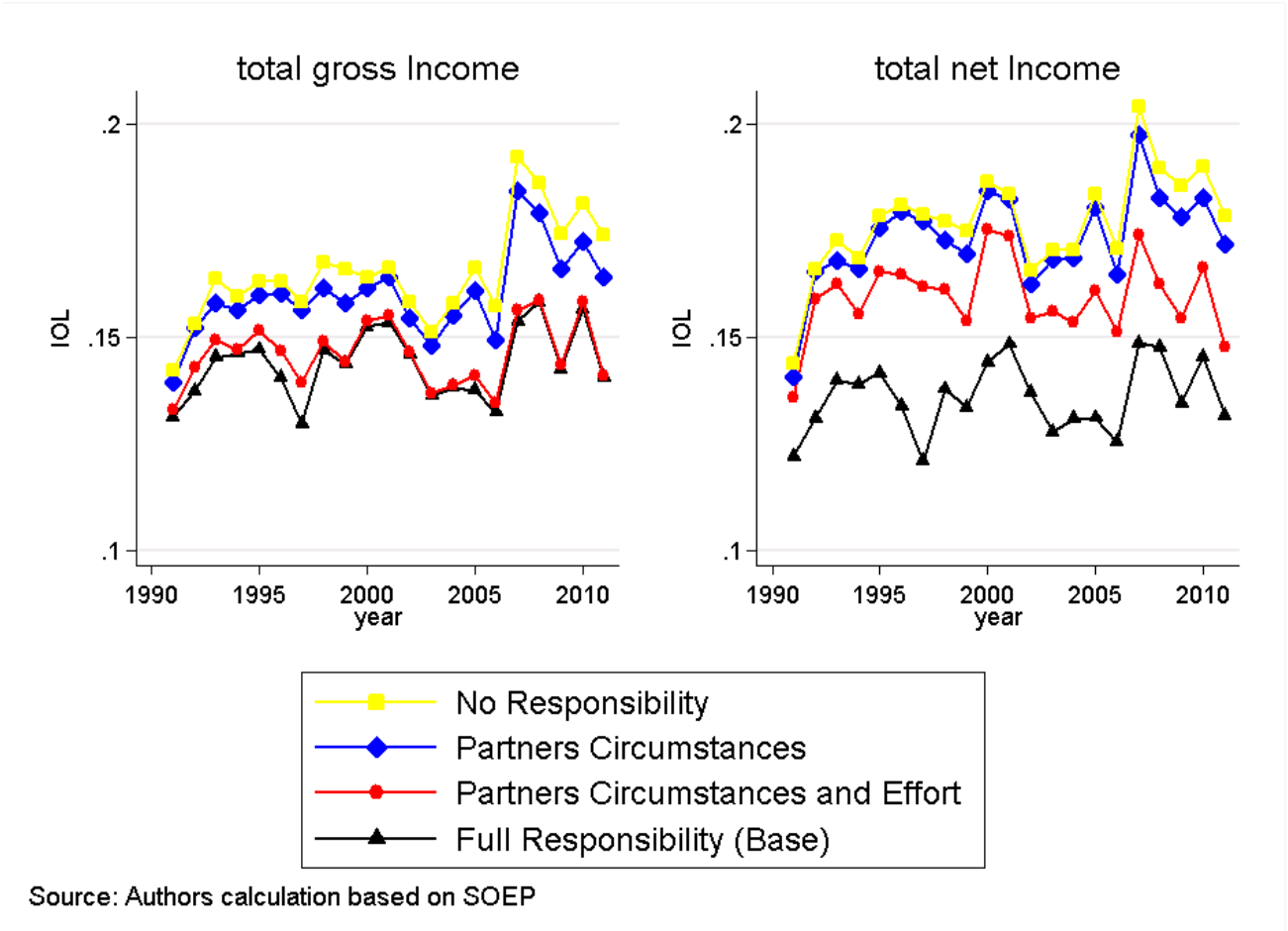
- Full Responsibility (Baseline case in previous Literature)
  Implications of wage setting within the joint decision on effort and labour supply are anticipated
- Responsible for Partner's Circumstances and Effort
  Joint decision on labour supply and effort (unitary model)
  $ln\omega_i = \psi C_i + \zeta ln\omega_i^P + \eta_i$
- Responsible for Partner's Circumstances
  Circumstances are known when entering a relationship (collective model) $ln\omega_i = \psi C_i + \lambda E_i^P + \zeta ln\omega_i^P + \eta_i$
- No Responsibility
  Nobody should be held responsible for circumstances beyond the individual sphere of control
  $ln\omega_i = \psi C_i + \phi C_i^P + \lambda E_i^P + \zeta ln\omega_i^P + \eta_i$

Data and Methodology

- Baseline lower bound estimation following Niehues and Peichl (2013)
- SOEP Data from 1991 to 2011, restricting the sample to couples
- Circumstance variables
  Gender, fathers occupation/education, East-Germany, ethnic, childhood urbanization, year of birth, body hight
- Effort variables
  Work experience, working hours, education, industry

IOp Levels

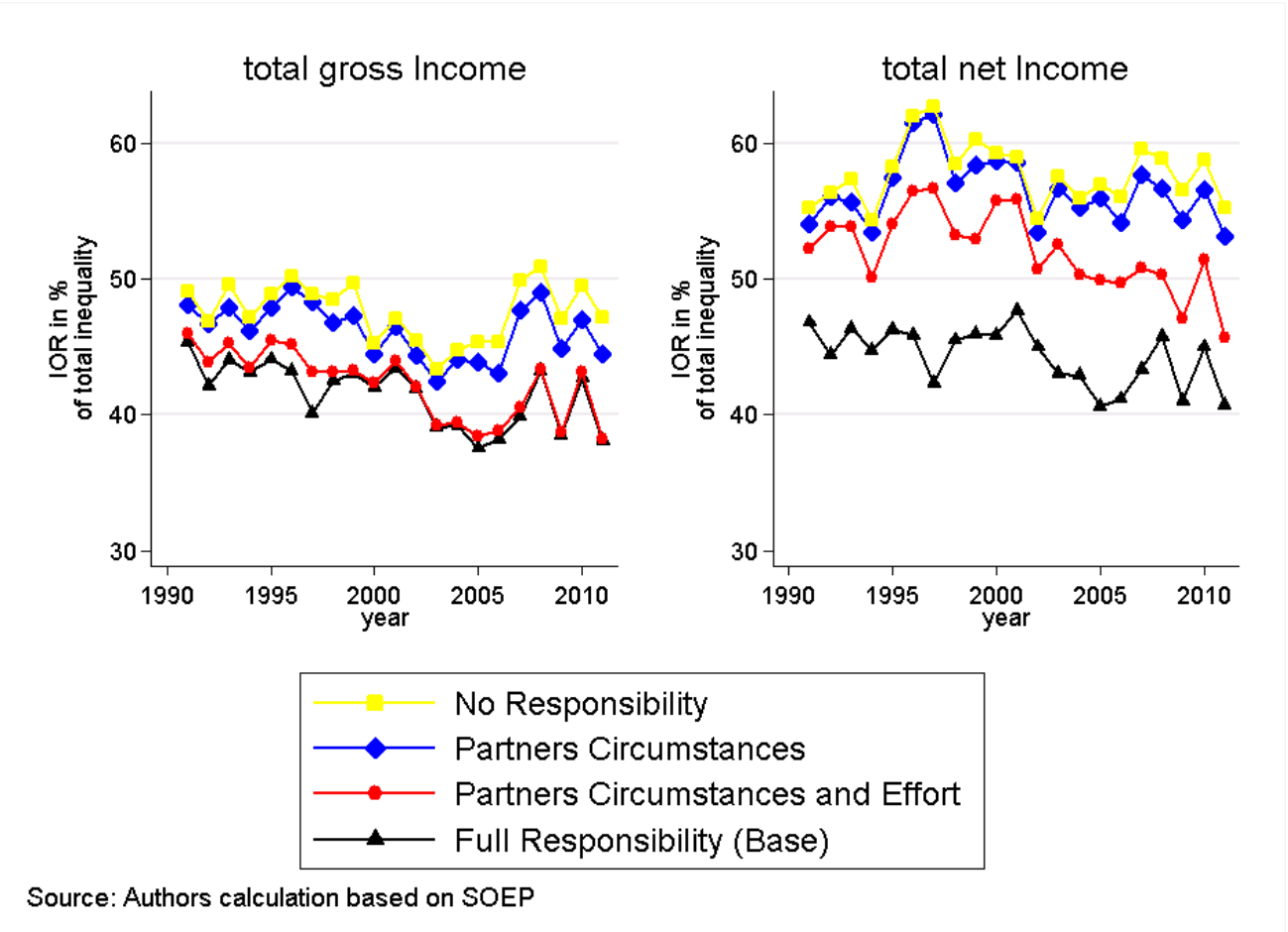
IOL for annual income - gross vs. net



Source: Authors calculation based on SOEP

IOp Shares

IOR for annual income - gross vs. net



Source: Authors calculation based on SOEP

Conclusion

- If taken into account, the personal characteristics of the partner clearly matter
- Responsibility for partner's circumstances and effort only has a significant effect in net income; Changing correlation in spouses earnings
- Responsibility for partner's circumstances is only slightly different from case of no responsibility starting in 2005; increasing explanatory power of partner's circumstances
- Robustness checks via resampling show significant assortative mating in education
- Overall decrease in IOR is mainly driven by increased inequality in earnings

Thank you for your attention

Comments, Questions and Critique:
ungerer@zew.de

Related Literature

Inequality of Opportunity

- Rawls, J. (1958): "Justice as fairness", Phil. Rev
- Roemer, J. E. (1998): Equality of Opportunity, Harvard University Press.
- Niehus, J. and Peichl A. (2013): Upper bounds of inequality of opportunity: theory and evidence for germany and the us, Social Choice and Welfare

Couples and assortative mating

- Aaberge, R. et al (2005): birds of a feather flock together: The impact of choice of spouse on family labor income inequality, Labour
- Lise, J. and Seitz, S. (2011): Consumption inequality and intra-household allocations, The Review of Economic Studies

Assortative Mating and Hypergamy

Findings in the original sample:

- Negative earnings correlation for couples, declining over time
- Assortative mating in education

Rematching couples in order to account for potential assortative mating:

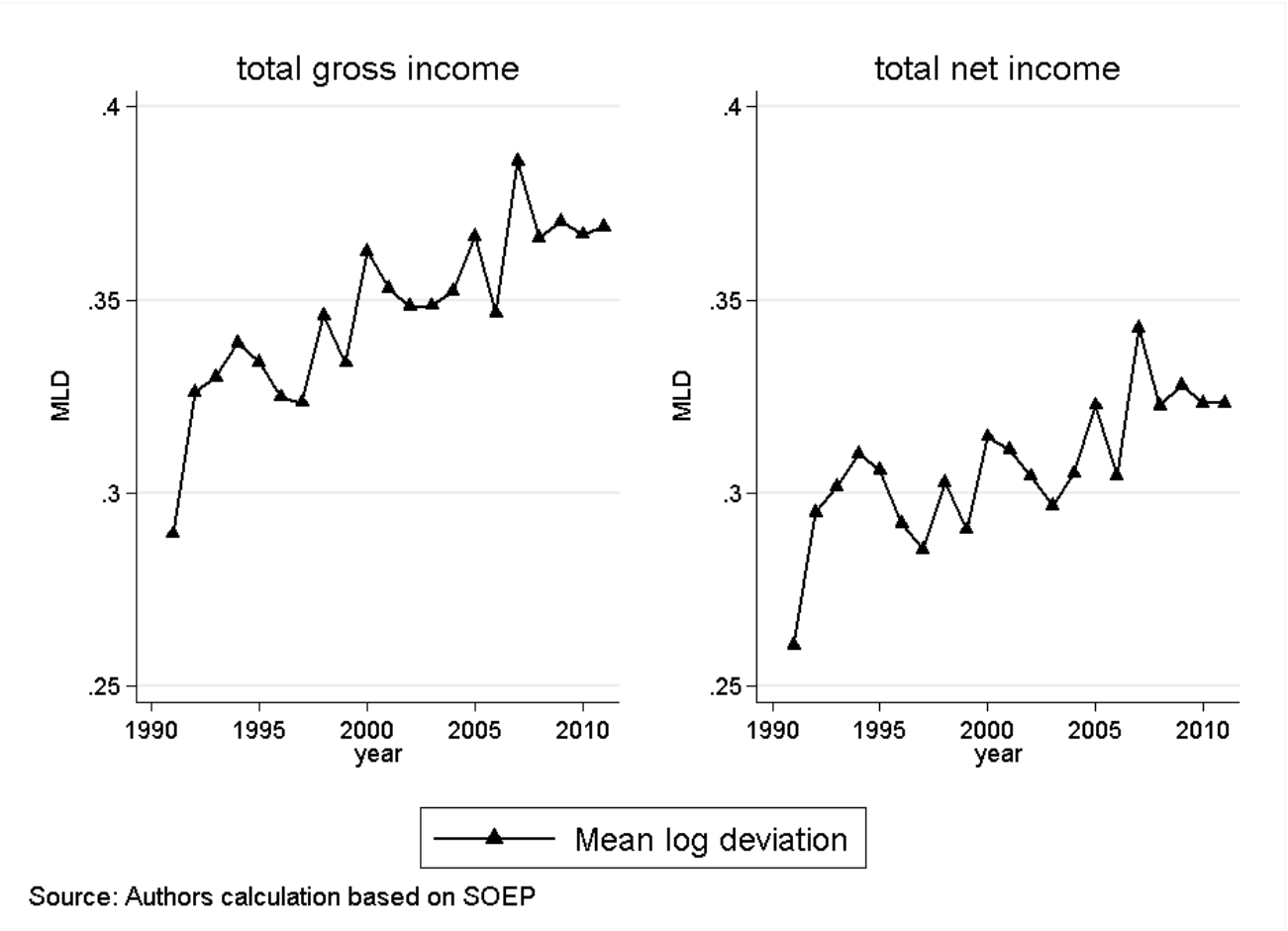
- Higher correlation (less negative) in earnings
- Almost no correlation in education

Lessons:

- Hypergamy (women leveling up) is declining
- Assortative mating in education is mostly constant

Mean Log Deviation

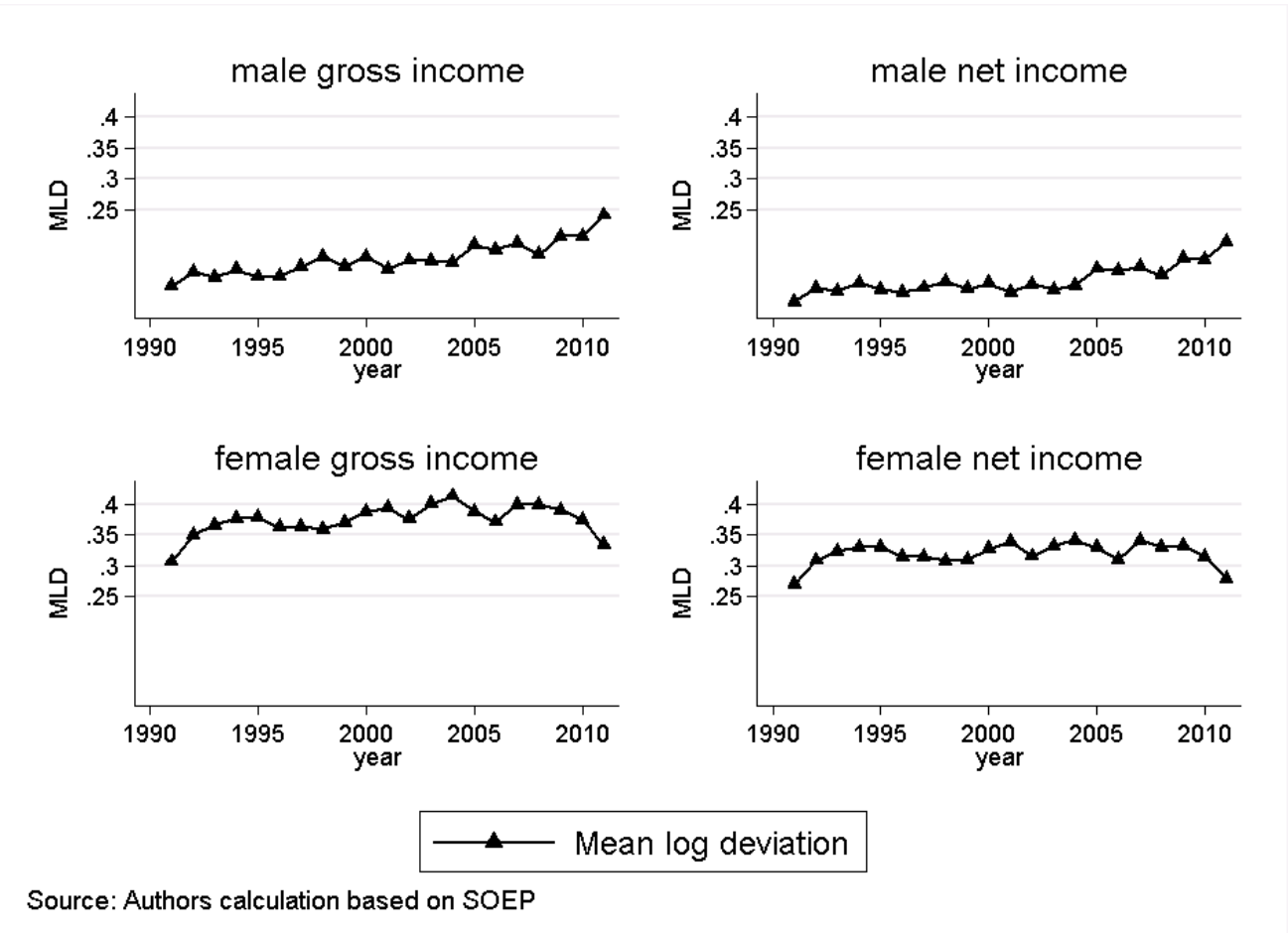
MLD for annual income - gross vs. net



Source: Authors calculation based on SOEP

MLD - Male vs. Female

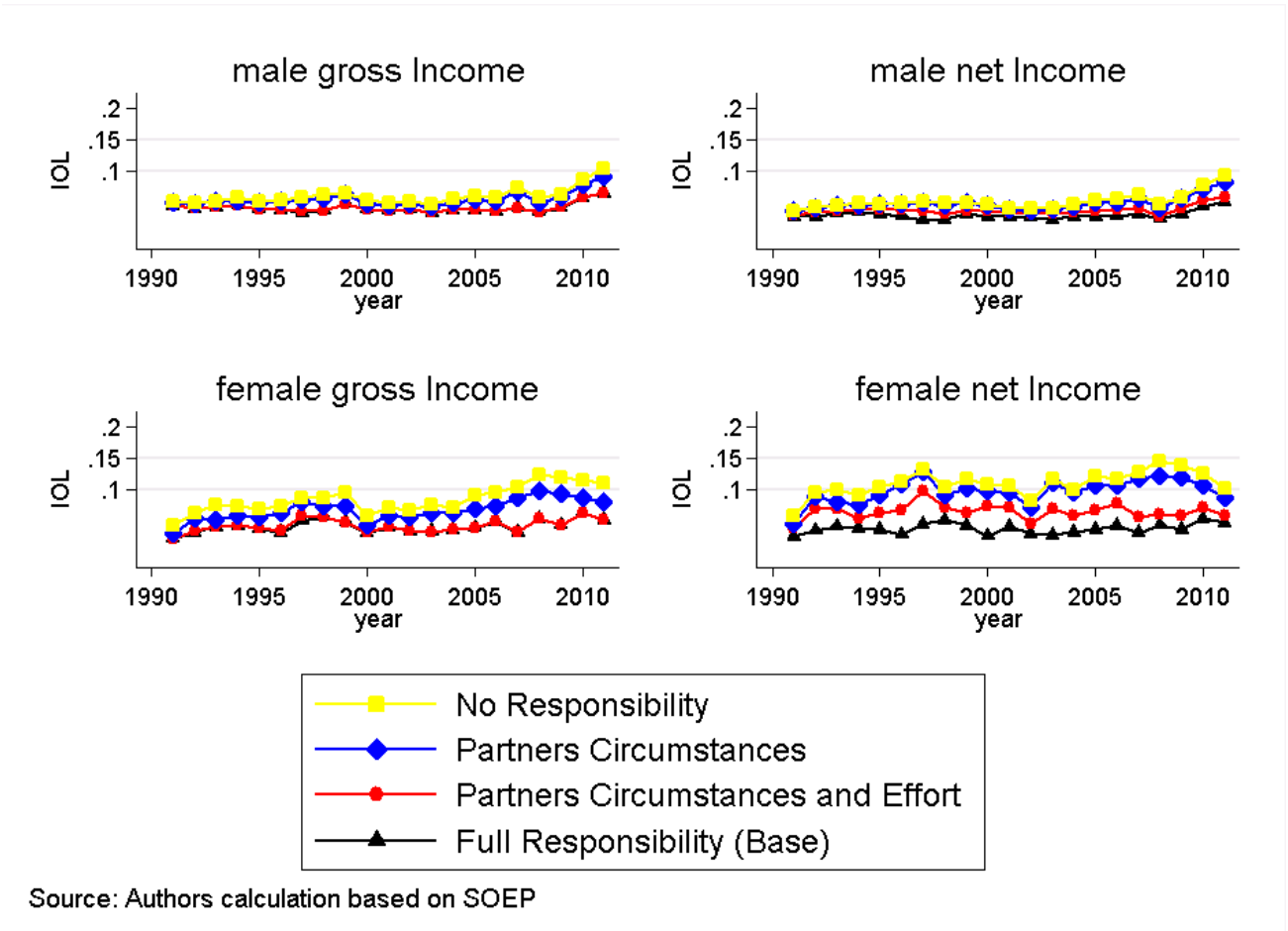
MLD for annual income - male vs. female



Source: Authors calculation based on SOEP

IOL - Male vs. Female

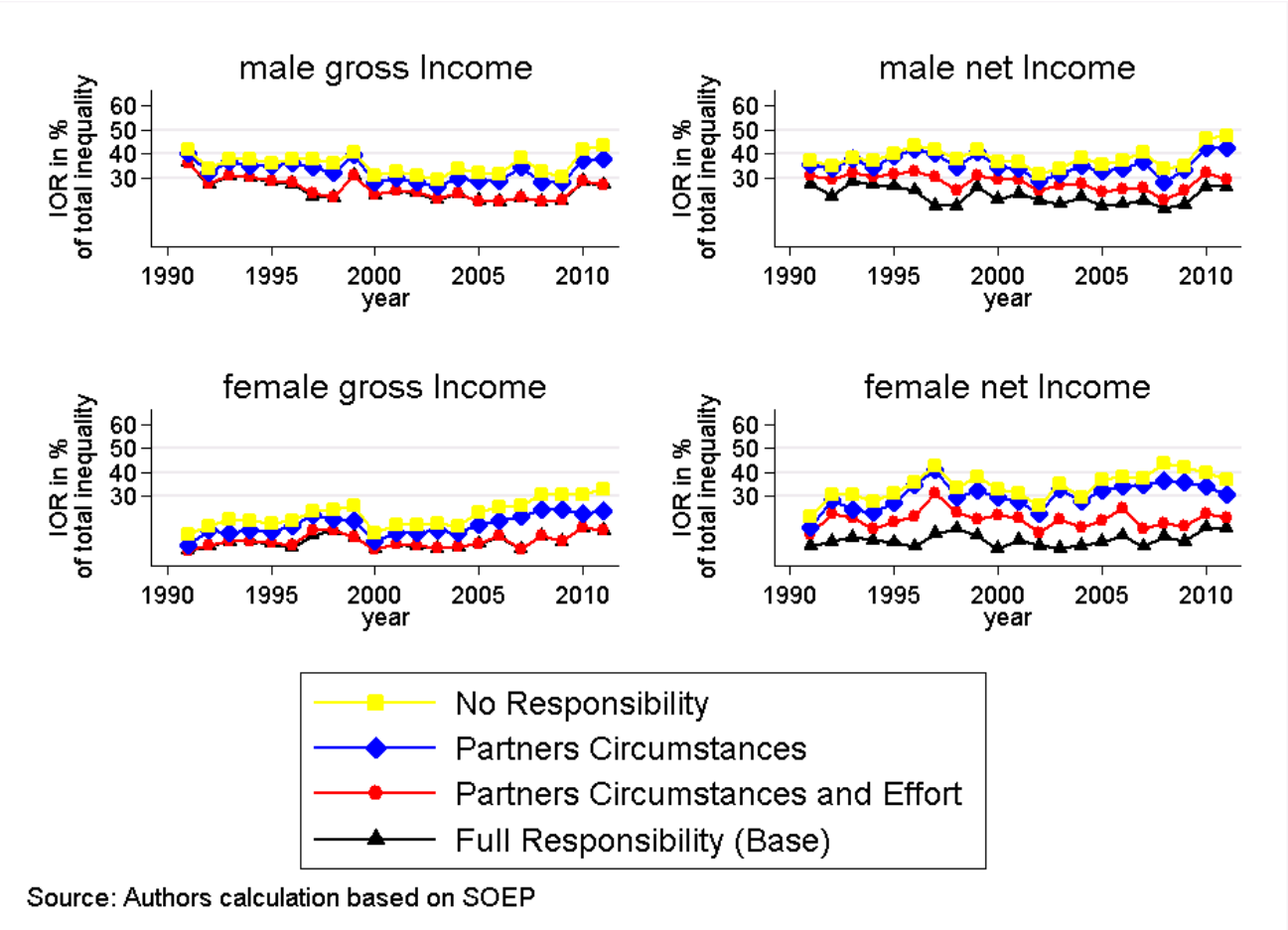
IOL for annual income - male vs. female



Source: Authors calculation based on SOEP

IOR - Male vs. Female

IOR for annual income - male vs. female



Source: Authors calculation based on SOEP