

DIFFERENCES IN GENDER PENSION GAPS IN PUBLIC AND
PRIVATE PENSIONS IN WEST GERMANY:
WHICH ROLE DO WORK-FAMILY LIFE COURSES PLAY?

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Mid-term conference: From the cradle to the grave? Social policy in diverse
temporal and spatial contexts

I. MOTIVATION & CONTRIBUTION

- High levels of Gender Pension Gaps (GPGs) and higher poverty risk of women in old age overall Europe (e.g. Hartz 2015; Hammerschmid and Rowold 2019a)

Evidence on Gender Pension Gap in Germany

1. Focus on labour market participation

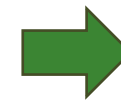
- Gender differences in duration of full-time employment as main factor (Frommert and Strauß 2013; Hänisch and Klos 2014)
- But: persistent Gender Wage Gap (Schmitt and Auspurg 2022)
- International literature: role of income highlighted (Bonnet et al. 2020; Even and Macpherson 2004; Levine et al. 1999)



Include data on annual earnings position
→ Role of earnings?

2. Focus on public or total pension income (sum of all three pillars)

- Decomposition analyses for public or total pensions only (Frommert and Strauß 2013; Hänisch and Klos 2014; Cordova et al. 2021)
- But: Pension privatisation (Ebbinghaus 2015)



Public & private pension income separately
→ Different mechanisms?

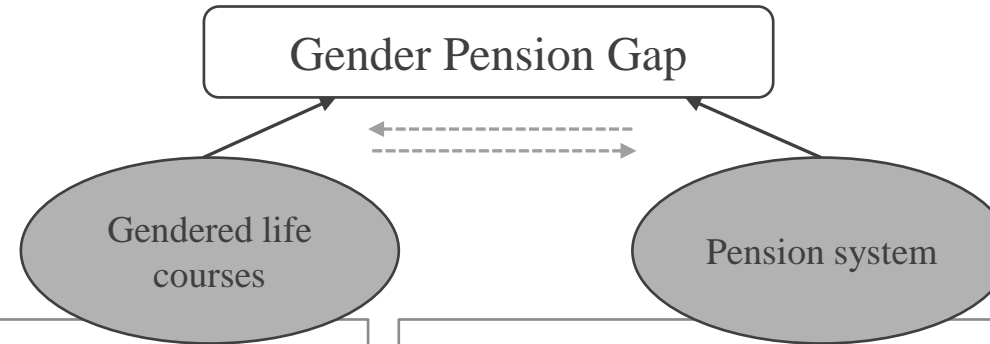
3. No consideration of life course complexities & focus on employment life

- But: Association of family life characteristics with women's pension income (Fasang et al. 2013; Kreyenfeld et al. 2018)
- Importance of family life for women's pension income (Allmendinger et al. 1992; Ginn et al. 2001; Meyer and Pfau-Effinger 2006; Fasang 2010; Frericks 2020)



Combination of MSA & KOB decomposition
→ Realisation of life course sensitive decomposition of GPG based on life course patterns (Rowold et al. 2022)
→ Role of work-family life courses?

II. THEORETICAL AND INSTITUTIONAL BACKGROUND



Life course perspective to theoretically approach GPG (Foster and Ginn 2018)

- Life courses shaped through individual opportunities
 - E.g. socio-cultural, normative and welfare state context, linked lives with others and timing of events (Elder et al. 2003; Bernardi et al. 2019)
- Traditionally gendered division of labour in West Germany (Becker-Schmidt & Krüger 2009; Meyer & Pfau-Effinger 2006)
 - Supported through welfare state: Tax Incentivation (joint taxation for married couples), poor public childcare infrastructure
- High gender inequalities in the labour market (e.g. Anker 1998; Joshi & Davies 2002; Gangl & Ziefle 2009; Boeckmann et al. 2014; Jalovaara & Fasang 2019; Schmitt and Auspurg 2022)
- Accumulation of such inequalities over the life course (e.g. O'Rand 1996)

Pension systems reward these life courses (Madero-Cabib & Fasang 2016)

- I. Strong link between contributions and pension income: disadvantageous for women (Horstmann et al. 2009; Lodovici et al. 2011; Grech 2013)
 - Individuals' contributions recorded as earning points (EP) in pay-as-you-go system; 1 EP= average income
 - Strong link between stable employment outcomes & pension income
- II. Redistributive elements addressing gender inequalities: beneficial for women (Leitner 2001; Horstmann et al. 2009)
 - Childcare benefits, treatment of low income or part-time work
 - Per child (born before 1992): 1 EP; low earning points topped up (max 75% of EP)
- III. Private pension part. disadvantageous for women (e.g. Jefferson 2009; Möhring 2018)
 - Stable (lifetime) earnings & employment, male-dominated occupations etc. (Ginn 2004; Fasang 2010)
 - Not mandatory
 - Occupational: differ by industries and company size (Ebbinghaus 2018; Wiß 2020)

III. EXPECTATIONS

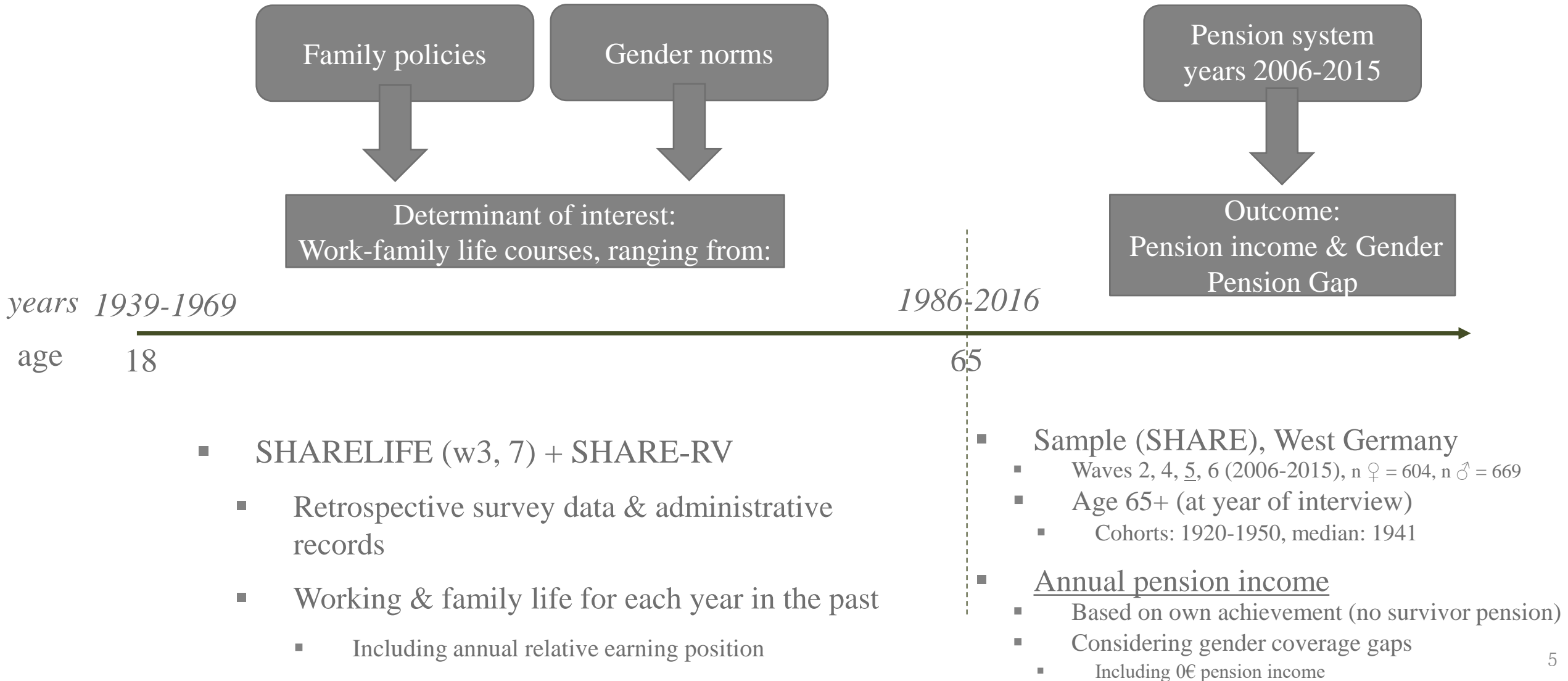
1. Earnings

- a) Lifecourse characterized by stable high income careers dominated by men associated with GPG beyond employment (*hypothesis 1a*)
- b) To a higher extent for private pensions (*hypothesis 1b*)

2. Public vs. private pensions

- a) Higher reproduction of inequalities in private pensions: GPG in private pensions more associated with gendered life courses (*hypothesis 2*).
- b) Gender-sensitive redistribution tendencies in public pensions: GPG reduced due to higher rewards for women/mothers (particularly in typical female life courses, *hypothesis 3*)

IV. DATA & METHOD

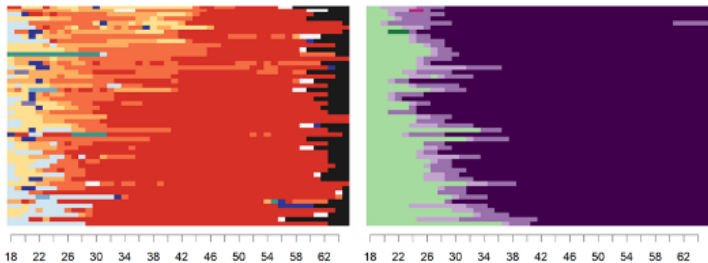


IV. DATA & METHOD

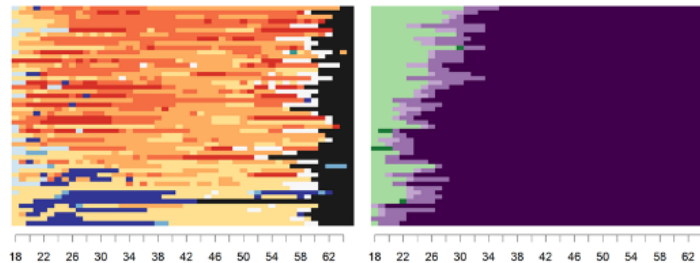
- Two-step procedure:
 1. Multichannel Sequence Analysis (MSA)
 - Identification and categorization of similar life course patterns
 - Outcome: typology of life courses as clusters
 - Two interlinked dimensions, work and family
 - Pooled over gender
 2. Kitagawa–Oaxaca–Blinder (KOB) decomposition of GPG
 - Using work-family life course clusters as explanatory variables

V. RESULTS OF THE SEQUENCE ANALYSIS (STEP 1)

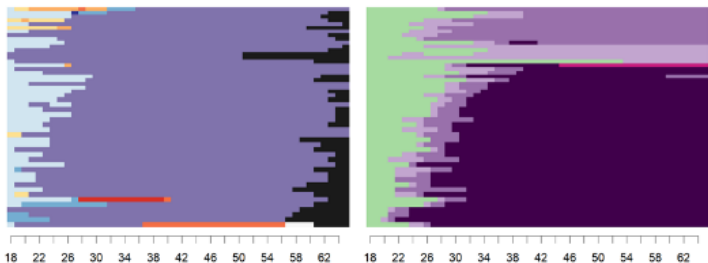
1: High income FT employed, 2+ children



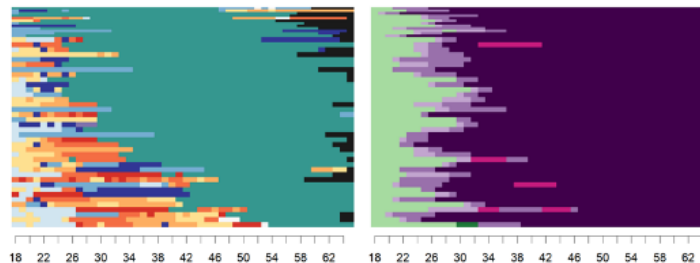
2: Low-medium income FT employed, 2+ children



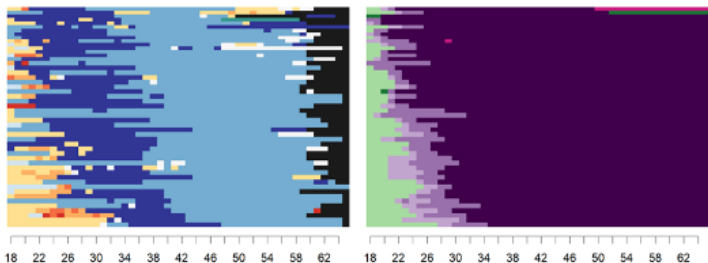
3: Civil servant, 2+ children



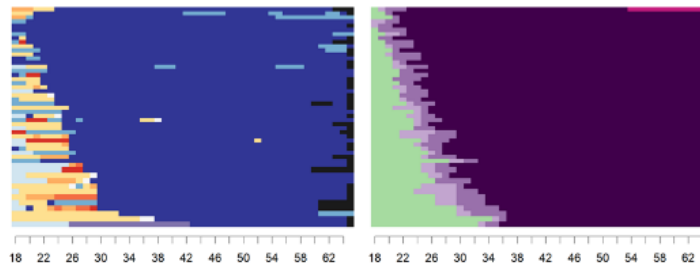
4: Self-employed, 2+ children



5: Pt or non-contributory employed, 2+ children



6: FT care or other, 2+ children

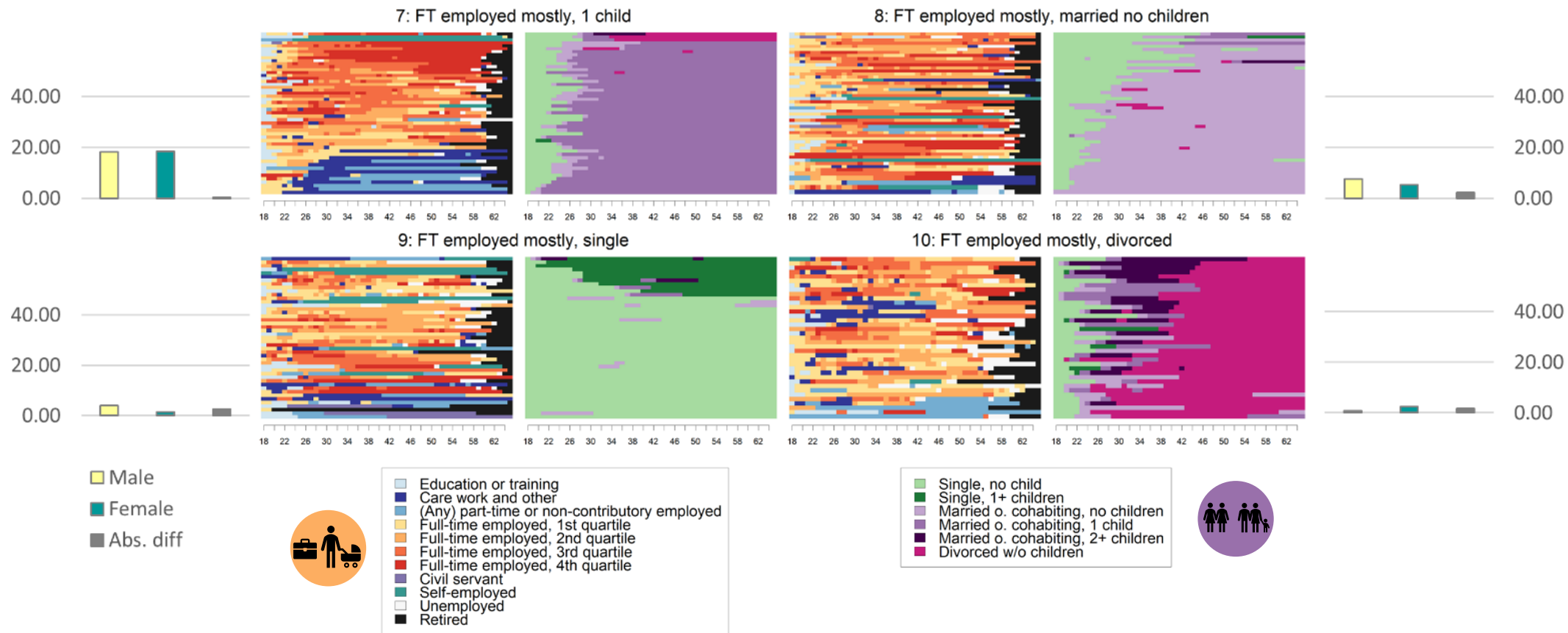


- Education or training
- Care work and other
- (Any) part-time or non-contributory employed
- Full-time employed, 1st quartile
- Full-time employed, 2nd quartile
- Full-time employed, 3rd quartile
- Full-time employed, 4th quartile
- Civil servant
- Self-employed
- Unemployed
- Retired

- Single, no child
- Single, 1+ children
- Married o. cohabiting, no children
- Married o. cohabiting, 1 child
- Married o. cohabiting, 2+ children
- Divorced w/o children



V. RESULTS OF THE SEQUENCE ANALYSIS (STEP 1)



IV. DATA & METHOD

Step 2: Kitagawa-Oaxaca-Blinder Decomposition

Decomposes mean differences in annual pension income between men and women (regression-based):

$$\bar{Y}_M - \bar{Y}_F = \underbrace{(\bar{X}_M - \bar{X}_F)' \hat{\beta}^*}_{(a) \text{ Explained part}} + \underbrace{\bar{X}'_M (\hat{\beta}_M - \hat{\beta}^*) + \bar{X}'_F (\hat{\beta}^* - \hat{\beta}_F)}_{(b) \text{ Unexplained part}}$$

Share of the gap

a) due to mean differences in characteristics, here: gender-specific distribution on life-courses

- *E.g. due to the underrepresentation of women in a certain life-course that is highly rewarded by the pension system (indicated by a high return; $\hat{\beta}^*$)*

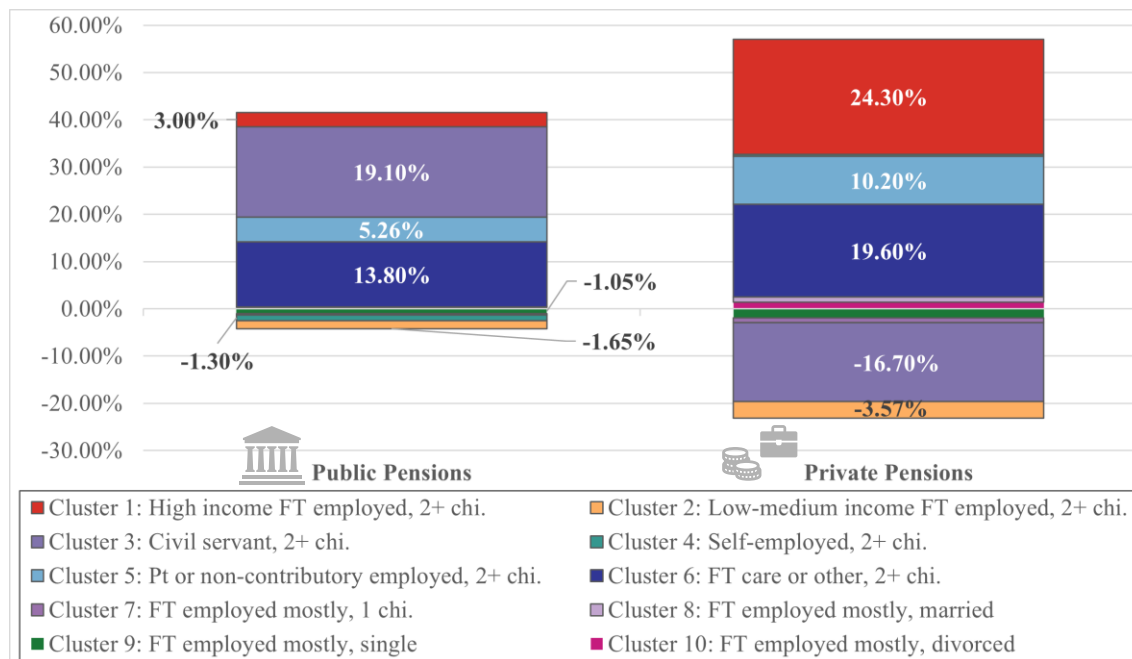
b) due to differences in returns for the same characteristic, here: same life-course pattern

- *E.g. due to differences in pension income of men and women who have the same work-family life-course pattern*

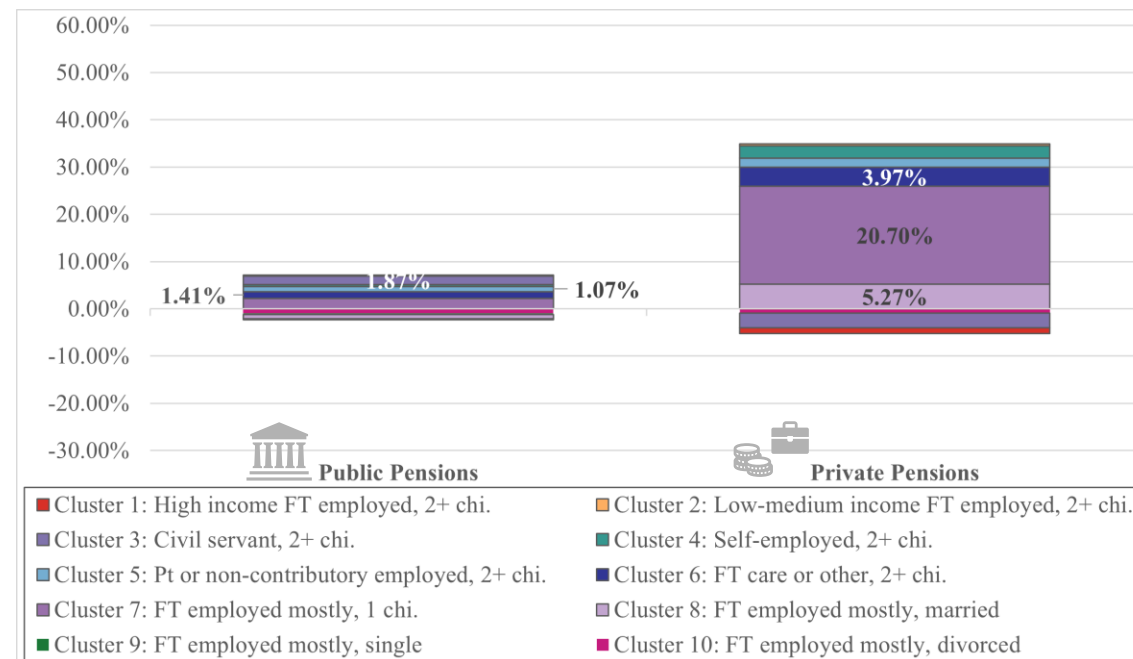
V. RESULTS OF KOB-DEKOMPOSITION (STEP 2): PUBLIC AND PRIVATE PENSION INCOME

Gender Pension Gap (Ø) Public pension Private pension
 58.3% (10.825€) 75.4% (2.337€)

Decomposed in a) explained share:
37.33%



Decomposed in b) unexplained share:
4.88%



- Marginal impact of the lack of women in the high-earnings cluster (*hypothesis 1a*)
 - Opposite association for low-income careers
 - Higher for private pension incomes (*hypothesis 1b*)
- GPG in private pensions more associated with gendered life courses (*hypothesis 2*)

- Public pension: gender-directed redistributive elements do not reduce GPG (gender-specific returns for the same life course, *hypothesis 3* rejected)

VI. SUMMARY & CONCLUSION

General

- Only life courses of parents with 2 or more children drive the gender gap in pension income -> highly gendered
 - Interrelation with inequal rewards for these by the German pension system

Earnings

- Labour market characteristics beyond (full-time) employment play a role!
 - Complements prior research (Fasang et al. 2013; Hänisch and Klos 2014; Cordova et al. 2021)

Private vs. public

- Privat pensions: Higher level of reproduction of gender inequalities, especially earnings
 - Strong status- & inequality-maintaining function of private pensions
- Public pension system: inefficient recognition of care work

VI. SUMMARY & CONCLUSION

Next steps:

- Extensions
 - Decomposition along the distribution (public pension)
 - Two-part model: differentiation between access to and income from private pensions
- Robustness checks

Future research:

- Need for more detailed life course data beyond employment participation
 - E.g. proxies for the horizontal and vertical gender-specific segregation (on industries, occupations, positions)
- Country and cohort comparisons
- Analyses of pension reforms

THANK YOU!



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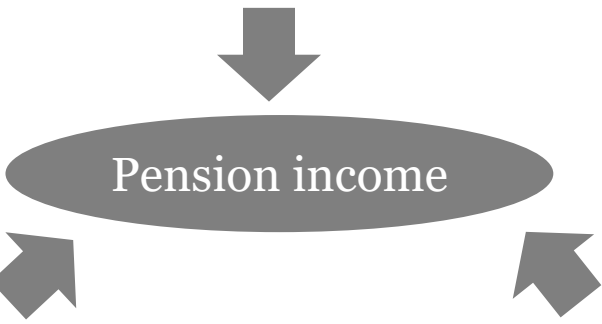
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APPENDIX

PENSION INCOME

- 1. Public old age pension
- 2. Public old age supplementary pension or public old age second pension
- 3. Public early retirement or pre-retirement pension
- 4. Public main/second public disability insurance pension, or sickness benefits

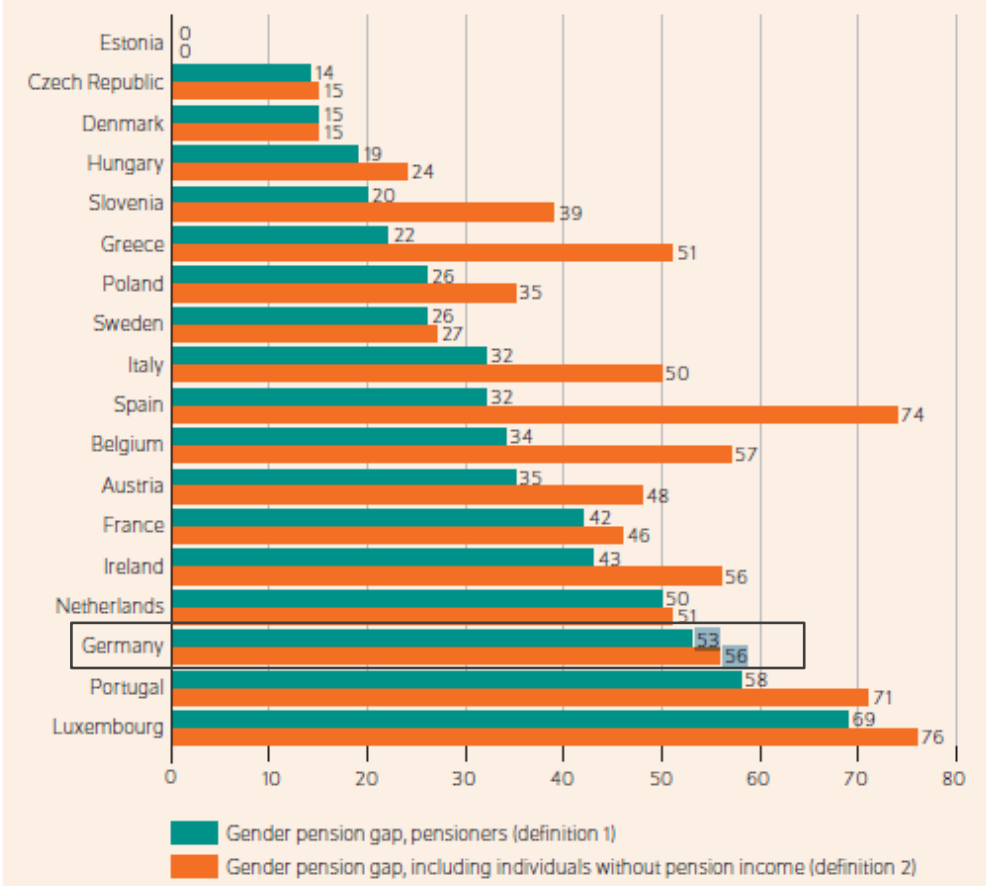


- 1. Occupational old age pension from the last job, from a second and/or a third job
- 2. Occupational early retirement pension
- 3. Occupational disability or invalidity insurance

- 1. Average payments of regular life insurance
- 2. Average payments of regular private annuity or private personal pension

[BACK](#)

The average gender pension gap¹ in several European countries
Individuals aged 65 and over, in percent



¹ Weighted (cross sectional weights), controlled for age, and adjusted for purchasing power. Pension income includes all three pillars of old age provision, excluding survivor's pension.

Sources: SHARE wave 5, wave 4 (Hungary, Poland, Portugal), wave 2 (Ireland, Greece), authors' own calculations.

KITAGAWA-OAXACA-BLINDER DECOMPOSITION

Decomposes mean differences in annual pension income between men and women (regression-based)::

$$\bar{Y}_M - \bar{Y}_F = \underbrace{(\bar{X}_M - \bar{X}_F)' \hat{\beta}^*}_{(a) \text{ Explained part}} + \underbrace{\bar{X}'_M (\hat{\beta}_M - \hat{\beta}^*) + \bar{X}'_F (\hat{\beta}^* - \hat{\beta}_F)}_{(b) \text{ Unexplained part}}$$

Share of the gap

- due to mean differences in characteristics, here: gender-specific distribution on life-courses
- due to differences in returns for the same characteristic, here: same life-course pattern
 - i.e. due to gender-specific differences in pension rewards within similar life-courses

Specifics

- If high level of group-specific segregation on cluster
 - Choice of reference coefficient per cluster: of cluster dominating group
 - E.g. female reference coefficients for female-dominated clusters
- Normalization of categorical variables including life course clusters (e.g. Yun 2005; Jann 2008; Fortin et al. 2011)

$$\text{Here: } \hat{\beta}^* = \begin{matrix} \hat{\beta}_M \\ \hat{\beta}_M \\ \hat{\beta}_M \\ \hat{\beta}_F \\ \hat{\beta}_M \\ \hat{\beta}_M \\ \hat{\beta}_M \end{matrix}$$

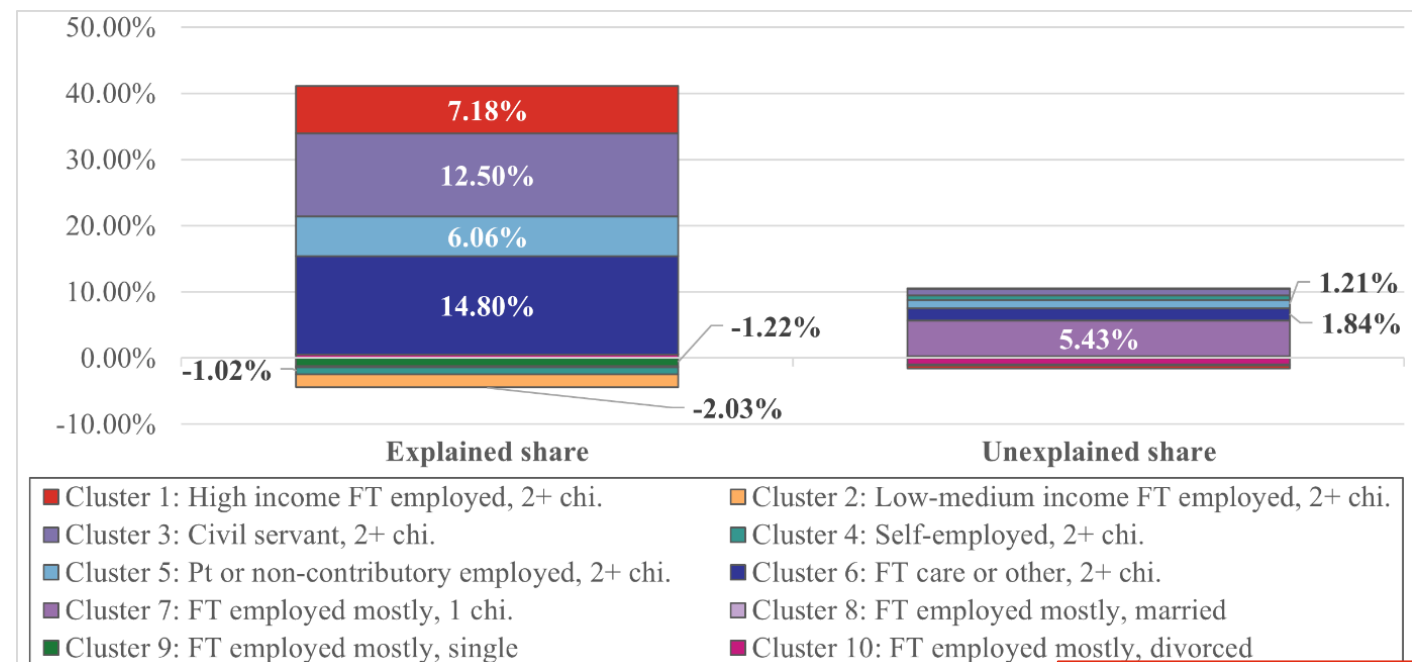
V. RESULTS OF KOB-DEKOMPOSITION (STEP 2): TOTAL PENSION INCOME

- 36.7% of the total GPG in West Germany 'explained' by gender-specific distribution on different life courses
 - And the unequal pension return to these gendered life courses
 - 20.86% of the gap due to female & care dominated life courses with low pension returns (clusters 5+6)
 - Privileged male dominated ones most highly rewarded: 19.18% of the GPG
- Differences in returns for the same life course (unexplained part) play a minor role

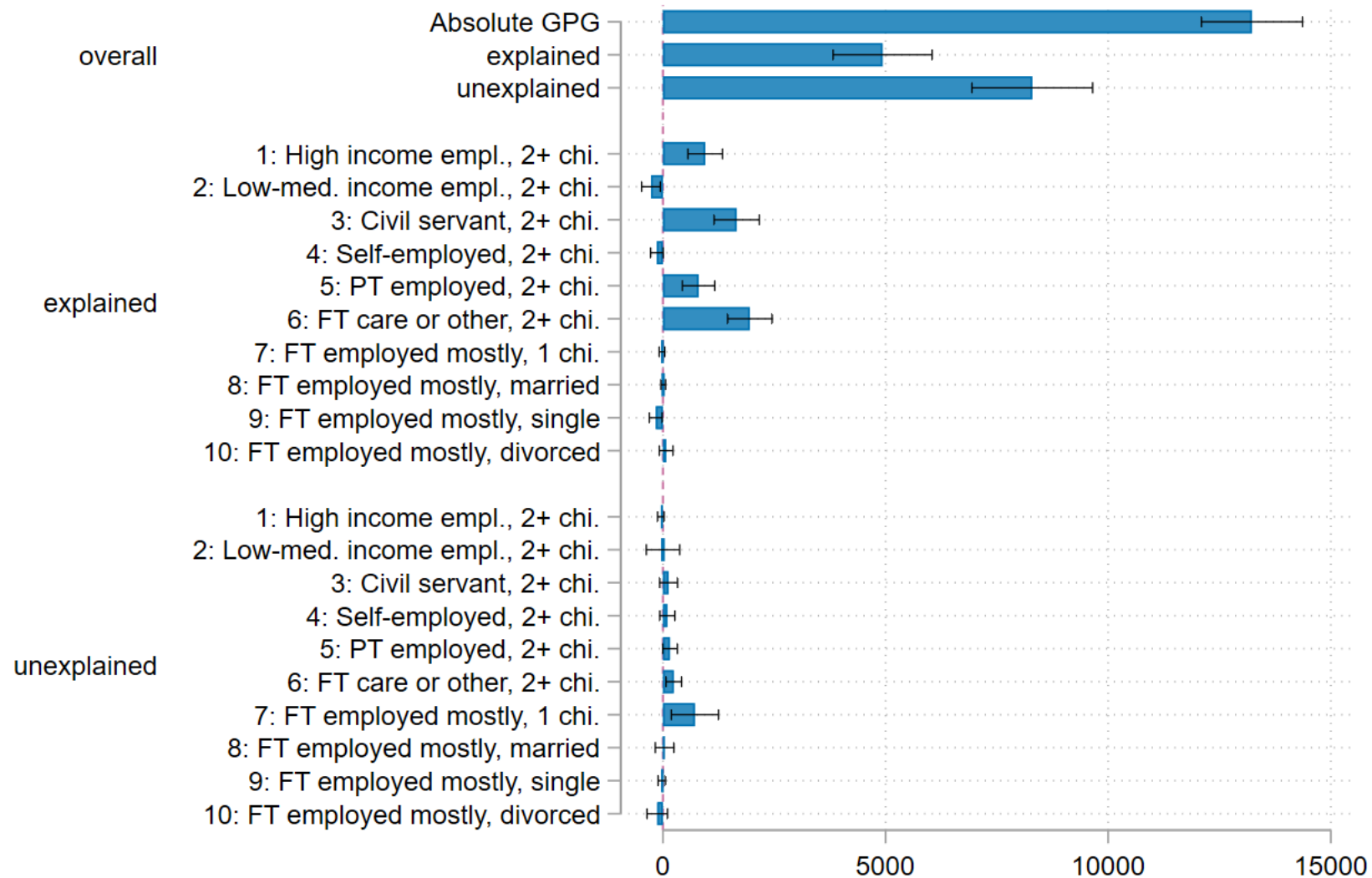
Gender Pension Gap in total pension income (Ø)

60.71% (13.299€)

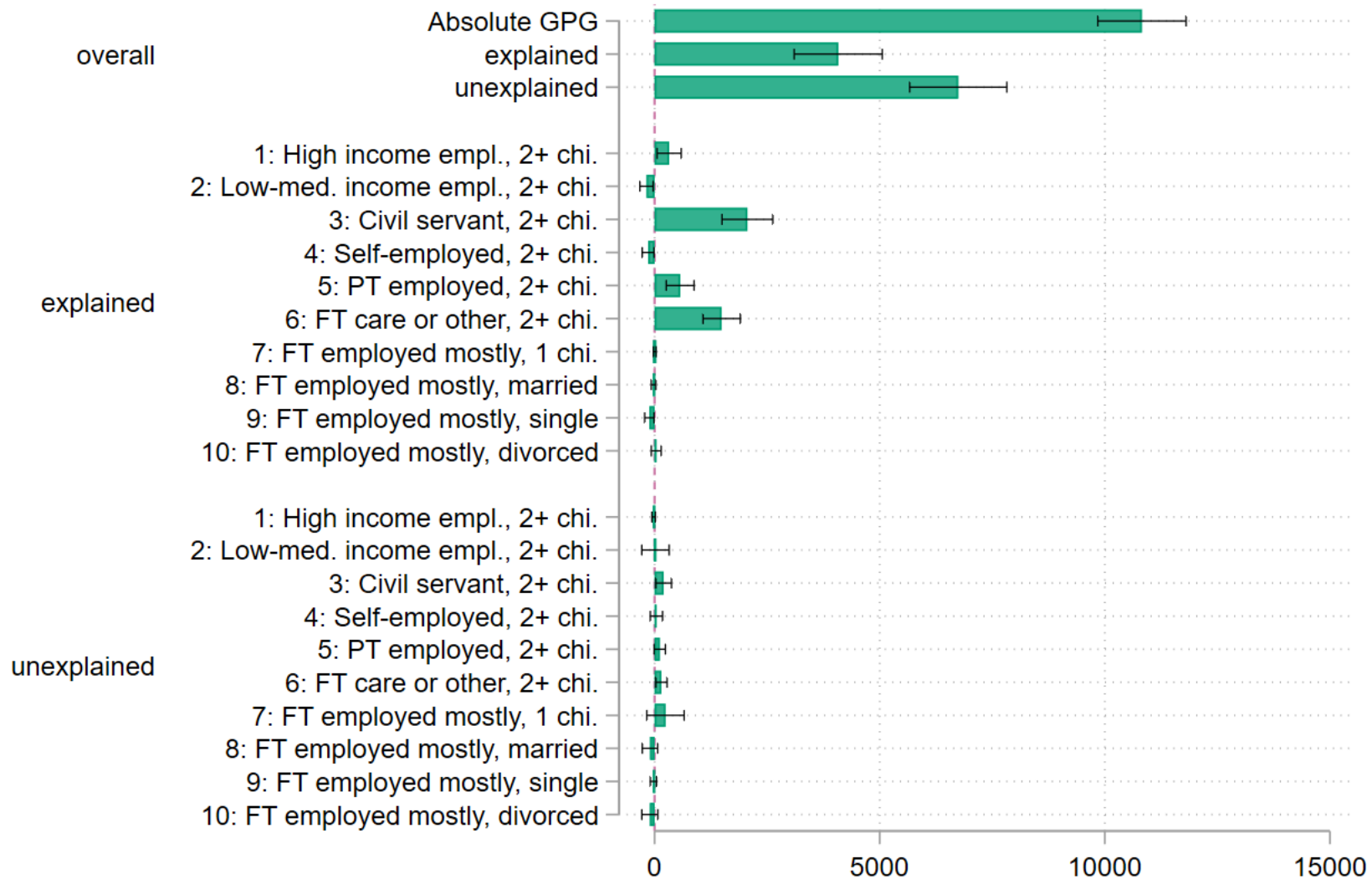
Decomposed in explained & unexplained shares by life course patterns:



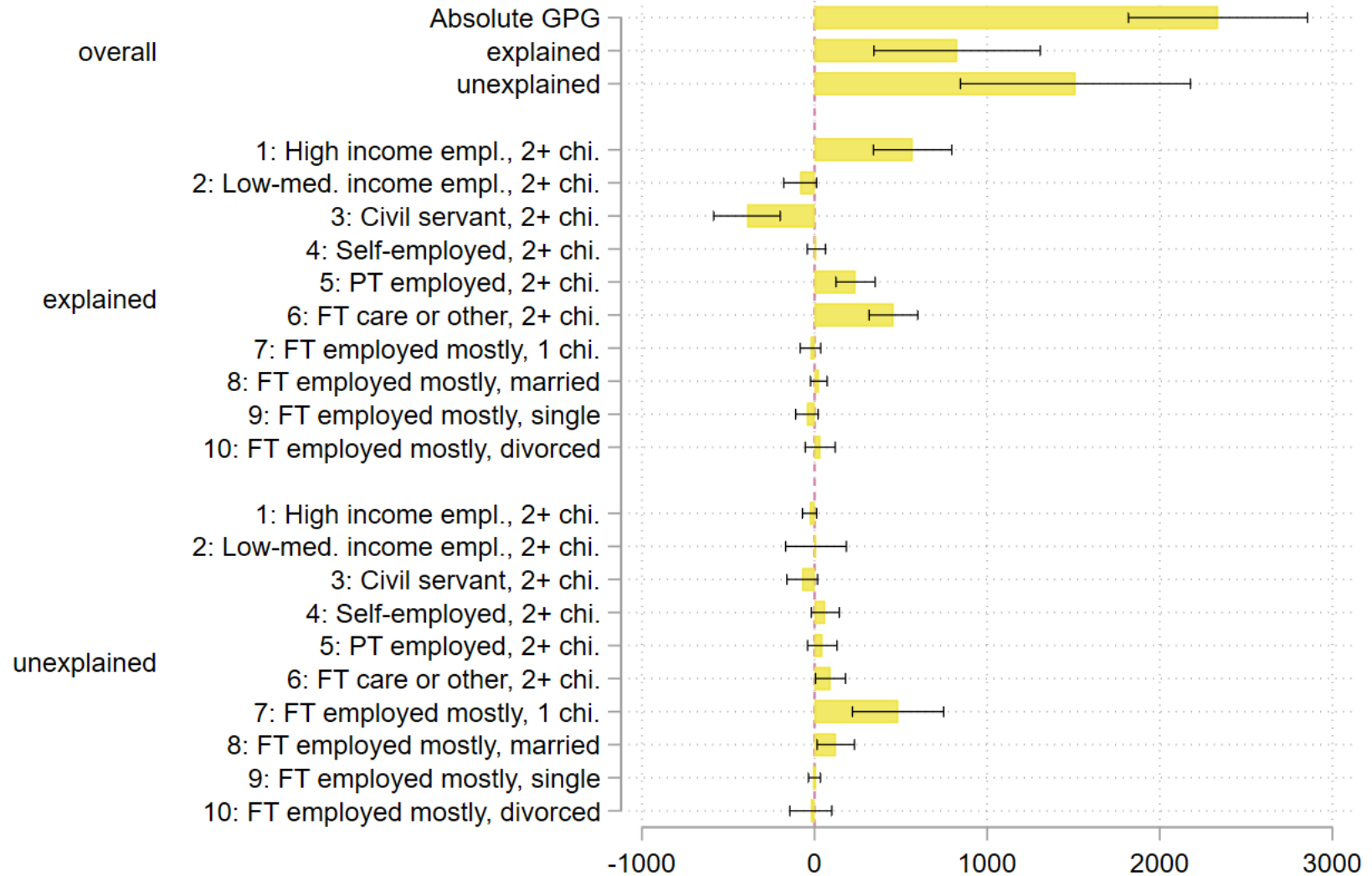
CONFIDENCE INTERVALS – TOTAL PENSION INCOME



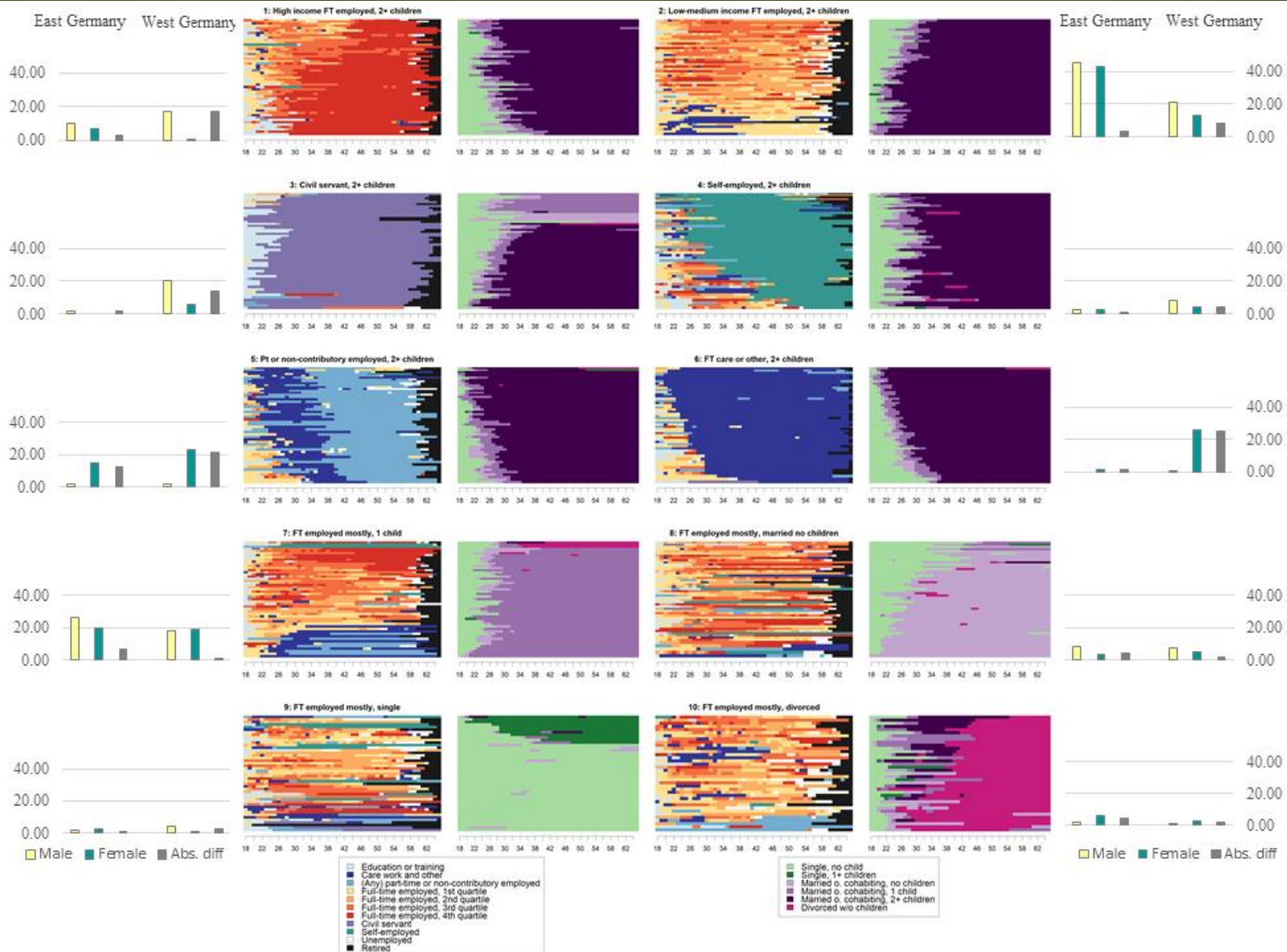
CONFIDENCE INTERVALS – PUBLIC PENSION INCOME



CONFIDENCE INTERVALS – PRIVATE PENSION INCOME



V. EAST AND WEST GERMANY COMPARISON: RESULTS STEP I



V. EAST AND WEST GERMANY COMPARISON: RESULTS STEP II

Geschlechtsspezifische Rentenlücke (Ø)

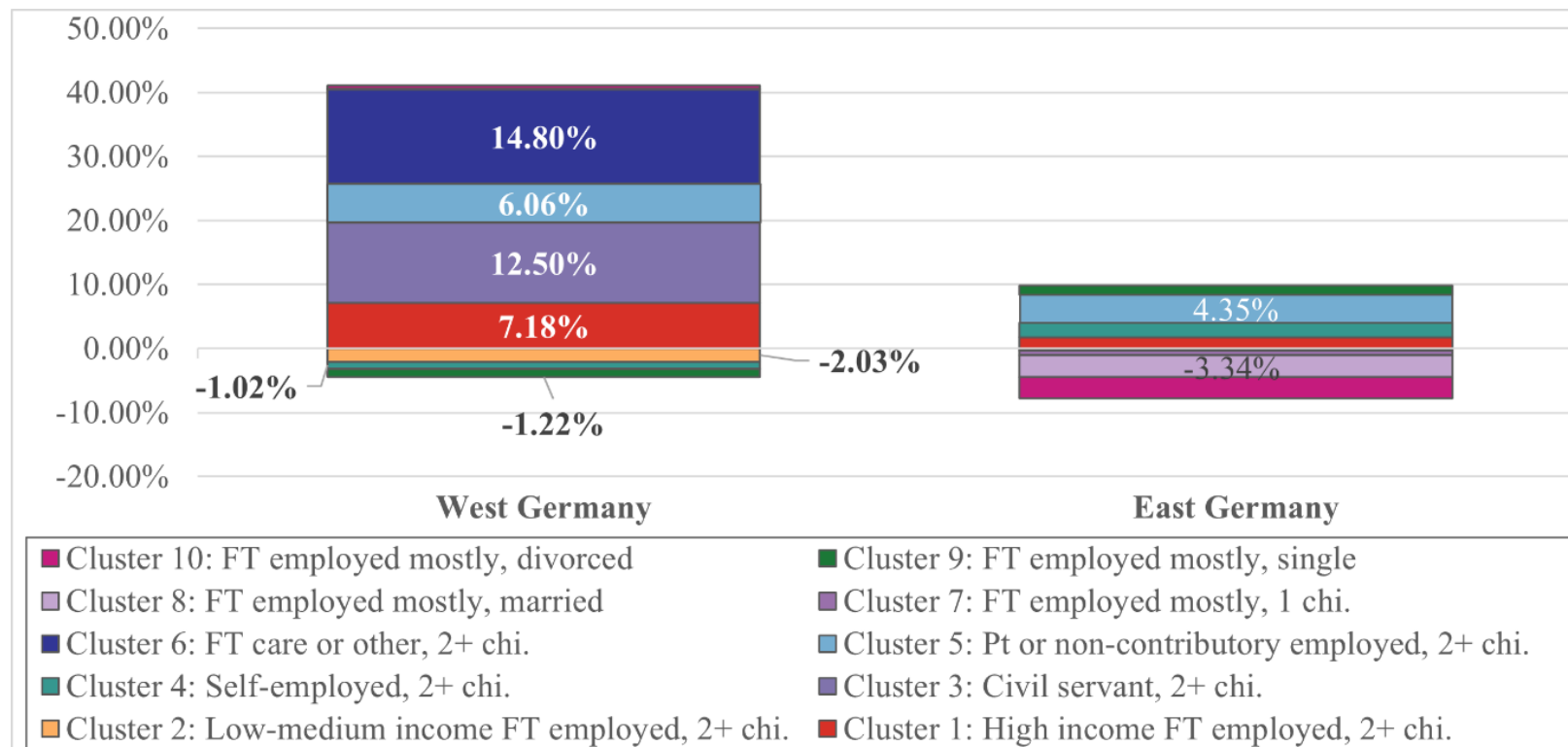
Westdeutschland
60,71% (13.229€)

Ostdeutschland
23,8% (3.044€)

Anteil erklärt durch geschlechtsspezifische Lebensverlaufsmuster insgesamt

36,7%

2,06%



- much lower gender-specific segregation on the life courses does not drive the GPG in East Germany at all
- high gender inequalities in pension income can be effectively prevented if welfare states create a context that enables a more gender-equal distribution of labour and thus maternal full-time employment