



Project results – data analysis and multicriterial decision-making

Project VS/2018/0380
Development of
microsimulation tools for
social insurance projection
(DEMTOP) and this seminar
has received financial support
from the European Union
Programme for Employment
and Social Innovation “EaSI”
(2014-2020). For further
information please consult:
<http://ec.europa.eu/social/easi>
The information contained in the
materials for this seminar does
not necessarily reflect the
official position of the
European Commission.

Jan Škorpík
Ankara, 2nd November 2021



Available data (I)

- Microdata on pensions in payment
 - Individual pensions and main variables
 - Yearly frequency (DEC RRRR)
 - Timeseries 2010 - 2020
- Microdata on Earnings and Working histories
 - Individual data
 - Employees and Self-employed
 - Data on self-employed are in pilot, availability is limited
 - Detailed information on employed for 2004 – 2019
 - Less details for period ~1950 to 2012

Available data (II)

- Microdata on sickness insurance beneficiaries
 - Temporary incapacity to work, maternity benefits etc.
- Microdata on other social benefit – Care Allowance
 - Problems with used identifier
- Microdata from extensive Earnings and Employment Survey – Information System on Average Earnings
 - Covering most employed
 - Large (50+) enterprises fully covered, smaller only a randomly selected subset (~1/4)
- General statistics
 - Czech Statistical Office and/or Ministry of Labour and Social Affairs



Previous activities - preparation

- Building the model
 - 2010 and 2011
- Feasibility Study on Possible Multi-criterial decision making
 - 2013
- Acquiring data
 - 2015 – ongoing
- Data transformation, checking quality, etc.
 - 2016 – 2019
- Connecting data from different datasets
 - 2018 – 2019



Current project – areas for data analysis and implementation

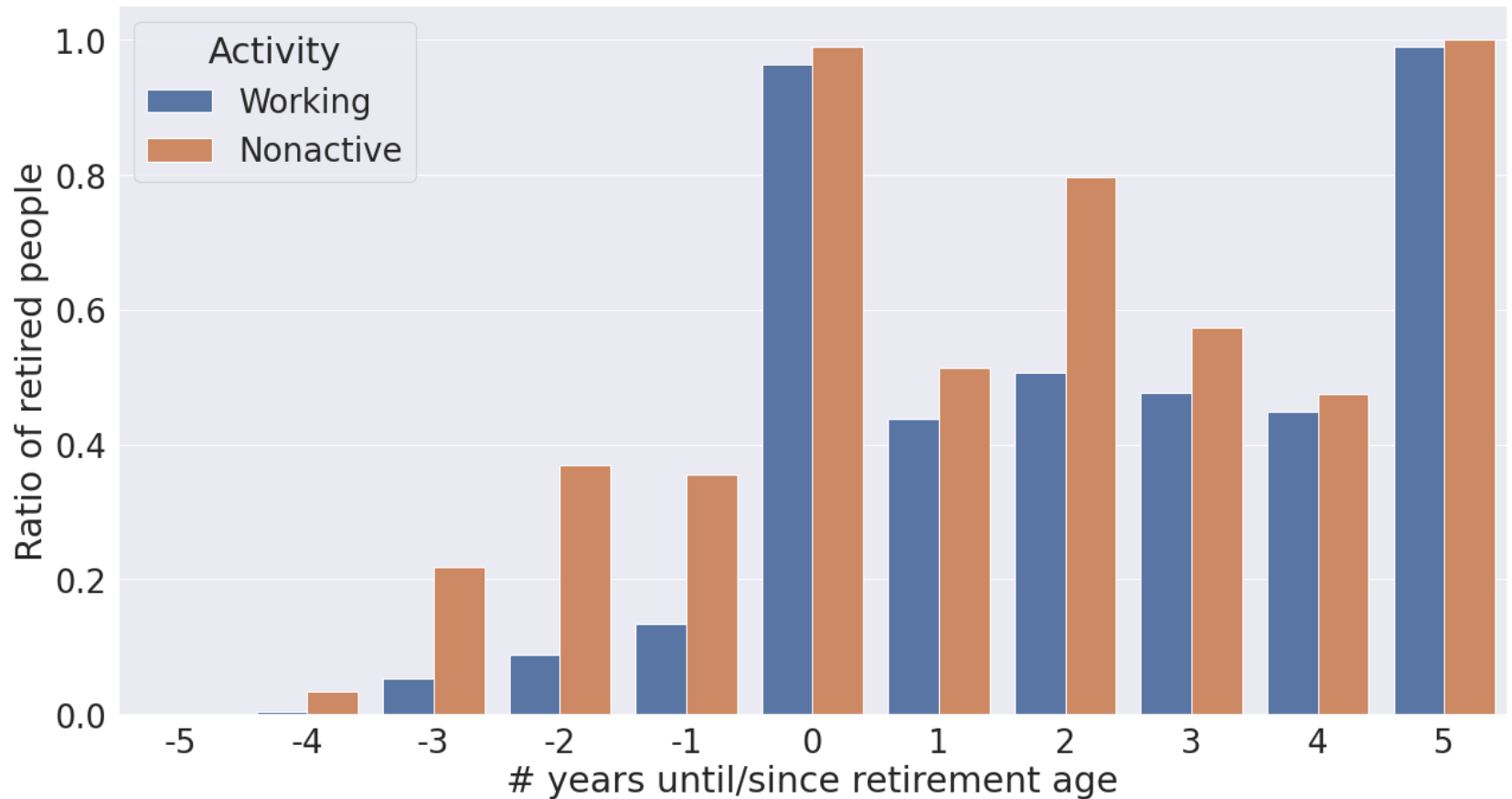
- Pension decision and timing
- Concurrence of old-age pension and work
- Care for dependent family members
- Region – Regional differences and Moving (region change)
- Profession
- Wages
- Self-employment
- Sickness and Disability

Decision to retire

- Question 1:
 - How does labour market attachment influence decision to retire? Are those without jobs more likely to retire earlier?
- Question 2:
 - Is the decision to retire driven by the relative difference in work income and pension? Are the ones who earn less and get a relatively generous pension more likely to retire earlier?

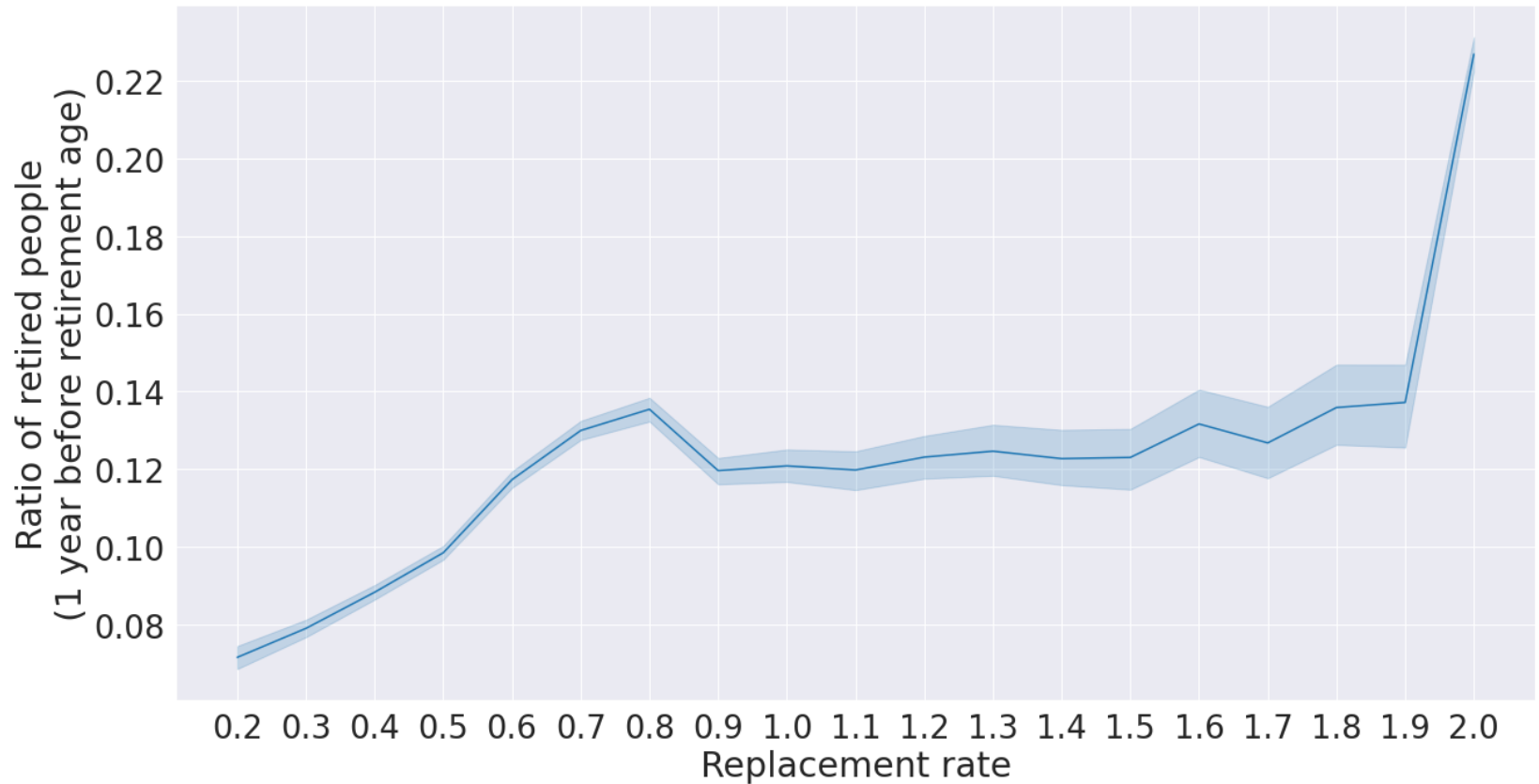


Decision to retire (Q1)





Decision to retire (Q2)

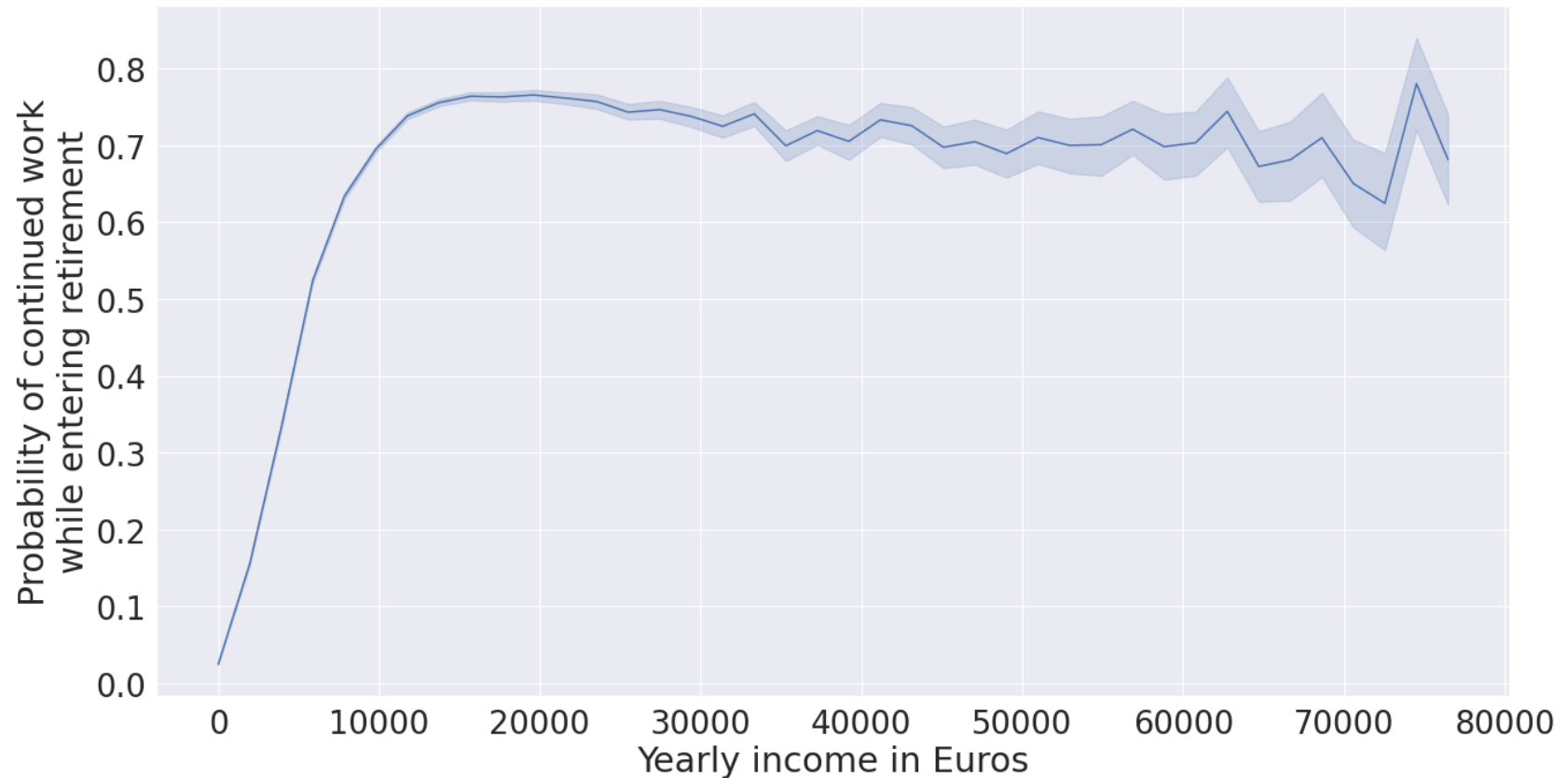




Claiming old-age pension while continuing to work

- Question:
 - Who is more likely to keep working in retirement? Is work in retirement forced by low income and need to cover for day-to-day expenses? Or do the more well-off keep working?
 - Keeping in mind that low/high pension can be caused by income as well as short/long working careers.

Claiming old-age pension while continuing to work (I)





Claiming old-age pension while continuing to work (II)



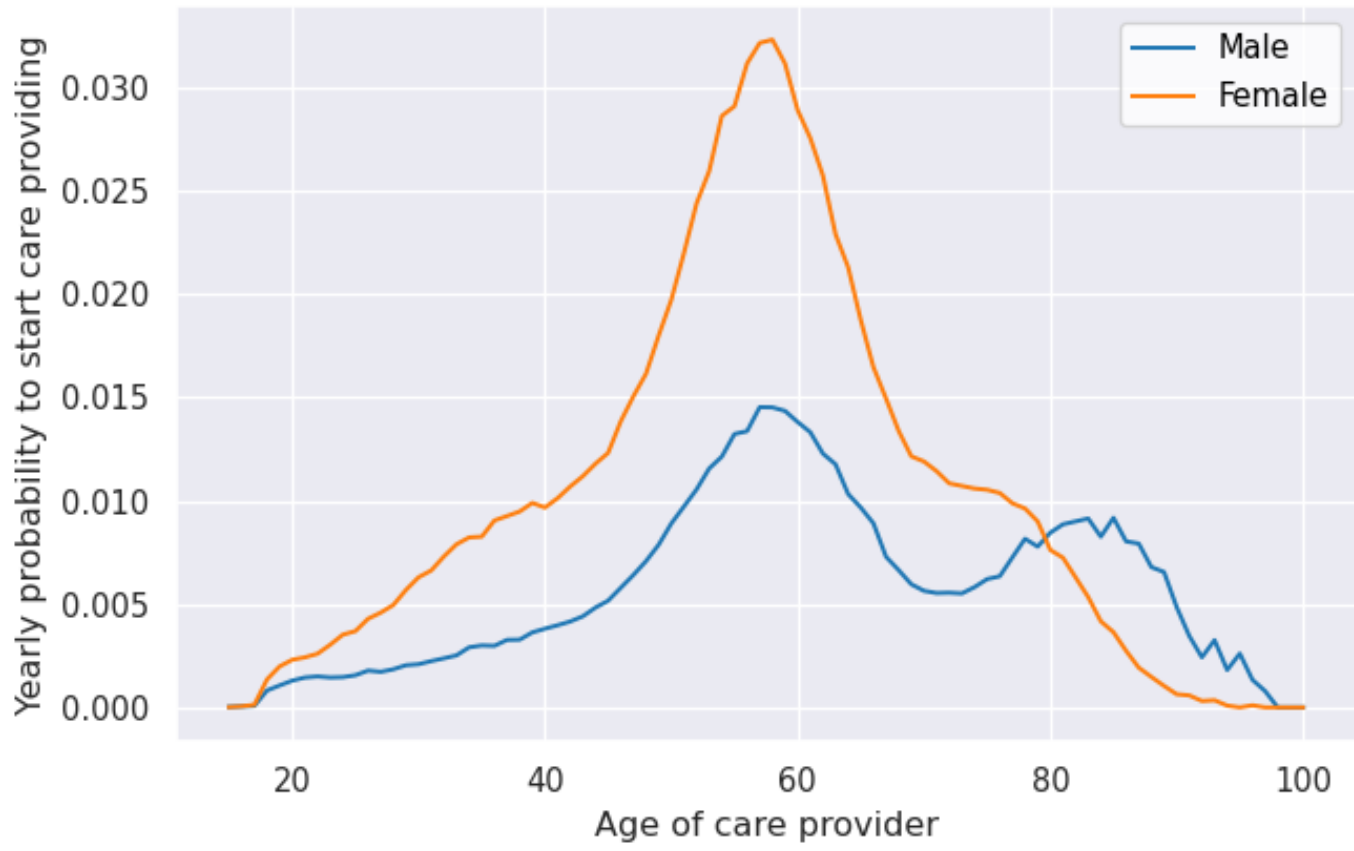


Care for family members

- Questions:
 - Who does provide informal home care to family members? At what age does the care start?
 - Who do we care for the most?
 - Is where we live a factor? Are there differences in urban and rural areas when it comes to providing care?

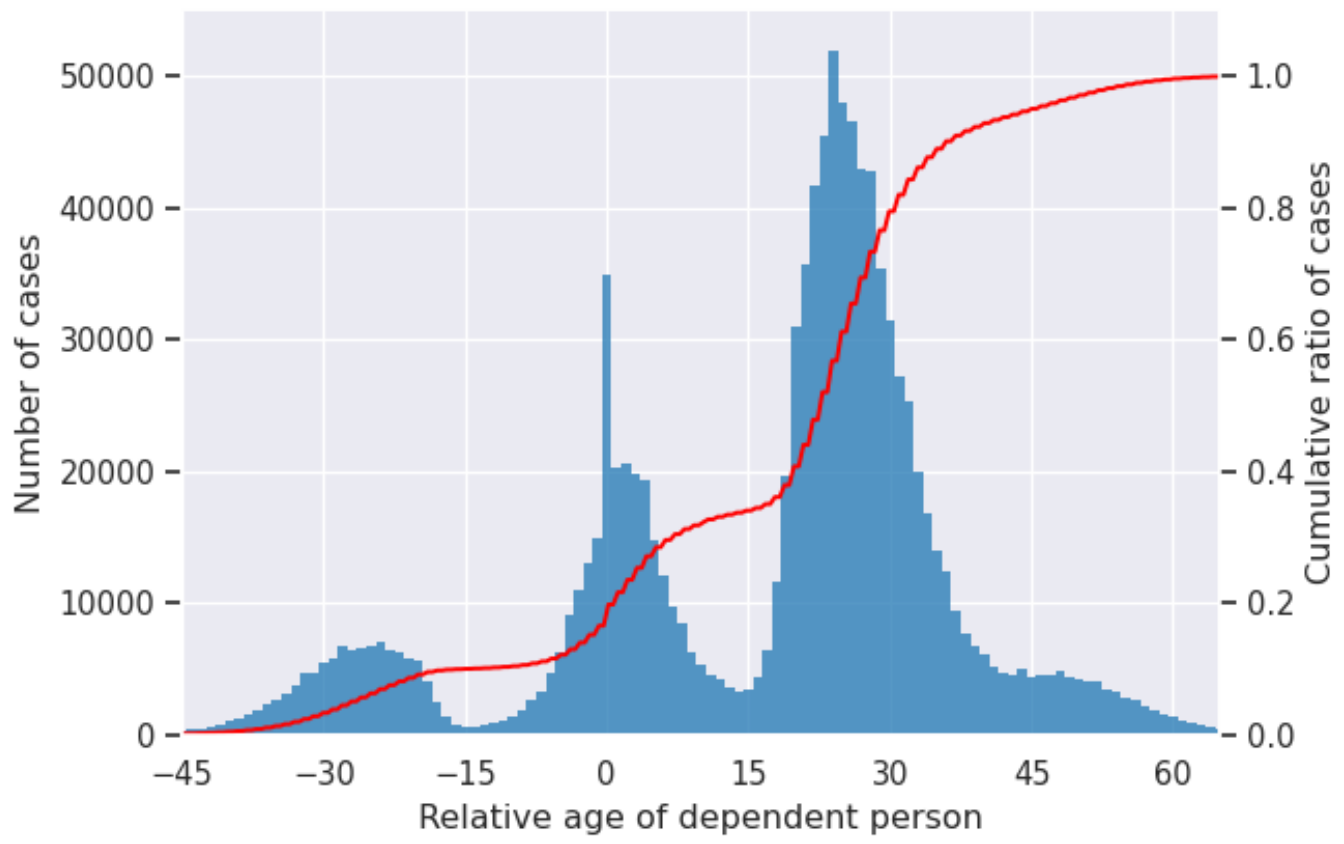


Care for family member (Q1)

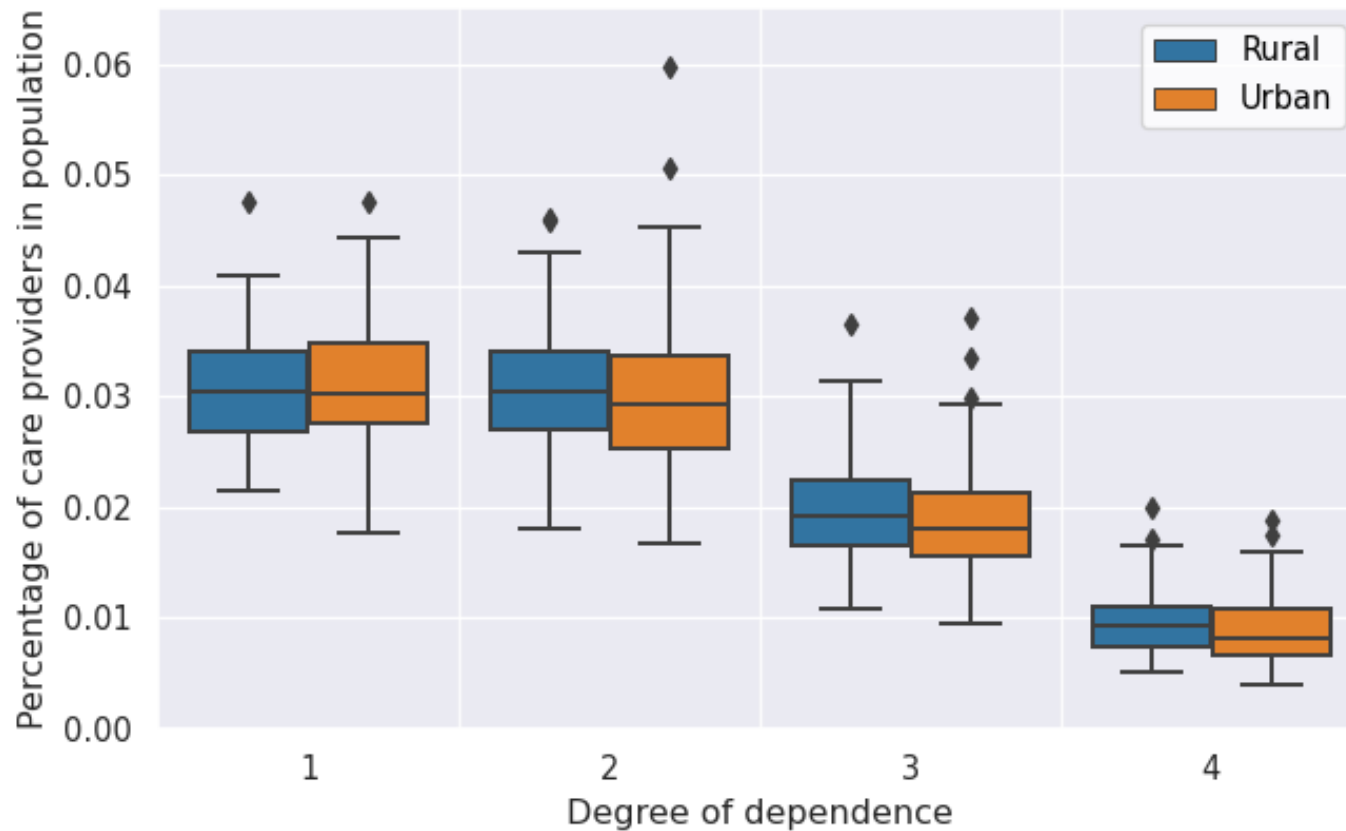




Care for family member (Q2)



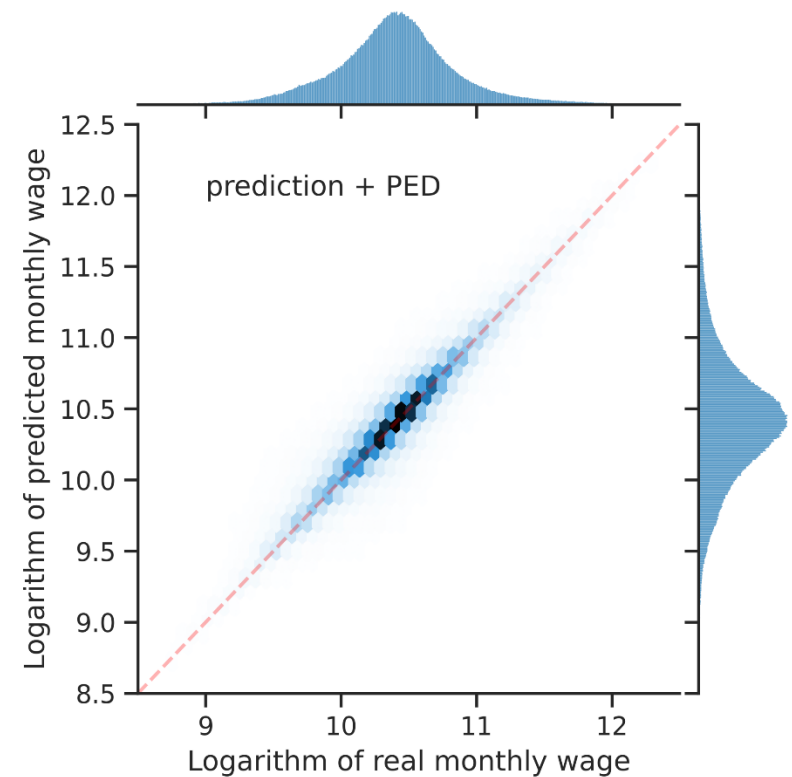
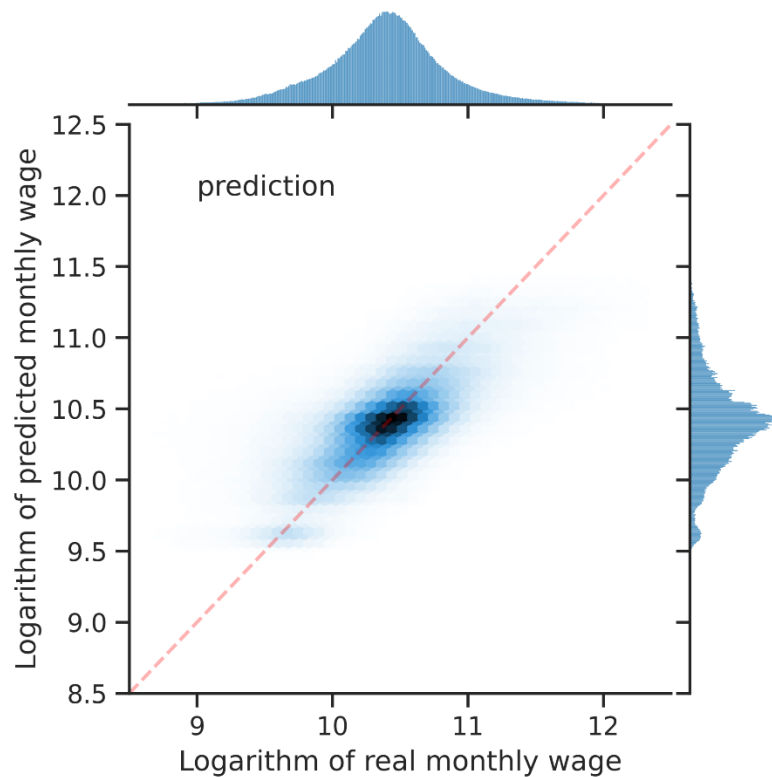
Care for family member (Q3)





Wage development analysis and modelling

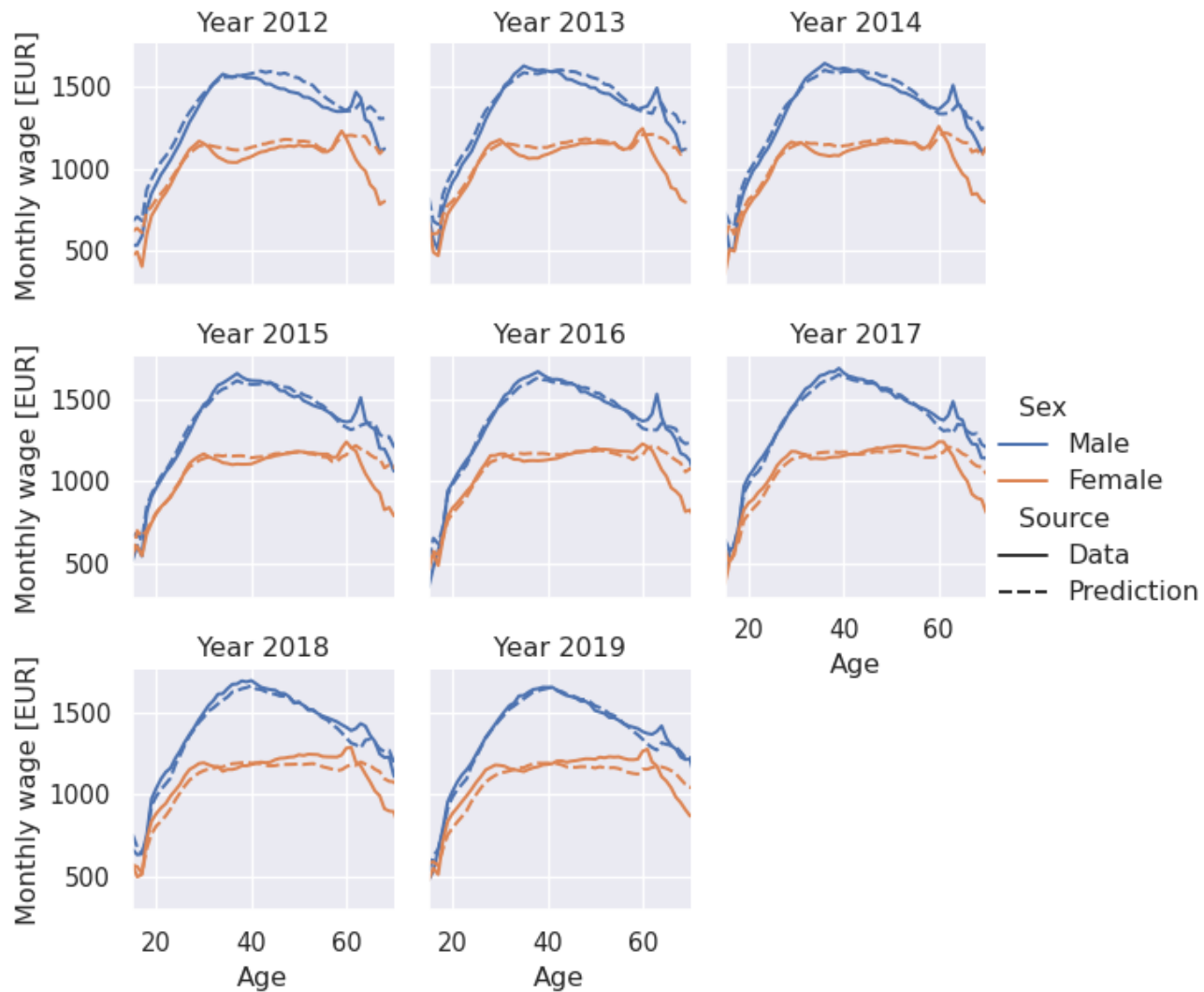
Wage development analysis and modelling



Wage development analysis and modelling



Wage development analysis and modelling



Wage development analysis and modelling

