# Grandparental childcare and parent's labour supply: Evidence from Europe

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# Acknowledgements

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More info: www.factage.eu

# The historical importance of grandparents

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# Motivation

Demographic change ➡️

    Need for longer working lives (current & future) ➡️

    More time used for employment by
       grand-parental generation ➡️

       *Potential* less time used for grandparental
         childcare

⬇️

**Parent's labour supply may go down**

# Potential implications

**The link:**

Potential less time used for grandparental childcare

Parent's labour supply may go down

**Has implications for:**

Projections of overall labour supply (from e.g pension reforms), dynamic effects.

Gender equality (if differentiated gender effects).

Inequality (within generations).

Fertility.

Academic outcomes of grandchildren.

General implications for amount of volunteering work.

# Related literature

**Main studies:**

*Dimova/Wolff* (2011)  - Europe (SHARE)

*Assave* et al. (2012) – 7 countries (Gender & Generations survey)

*Compton/Pollak* (2014) – US

*Arpino* et al. (2014) – Italy

*Kanji* (2018) - UK

Our contribution:

revisit EU countries

(more) explicit treatment of causal effect

Can include more data points and therefore allow for more heterogeneity (effect of children's age / mother's education)

# Data – SHARE survey

Data taken from wave 1-6 of the SHARE survey (2004/5 -2015)

**Cover 12 countries:** AT, BE, CZ, DK, FR, DE, EL, IT, NL, ES, SE and CH.

Our observed information:

**Dependent variable**:

      mother's and father's employment status

**Independent variables**:

      Grandparents caring at least weekly

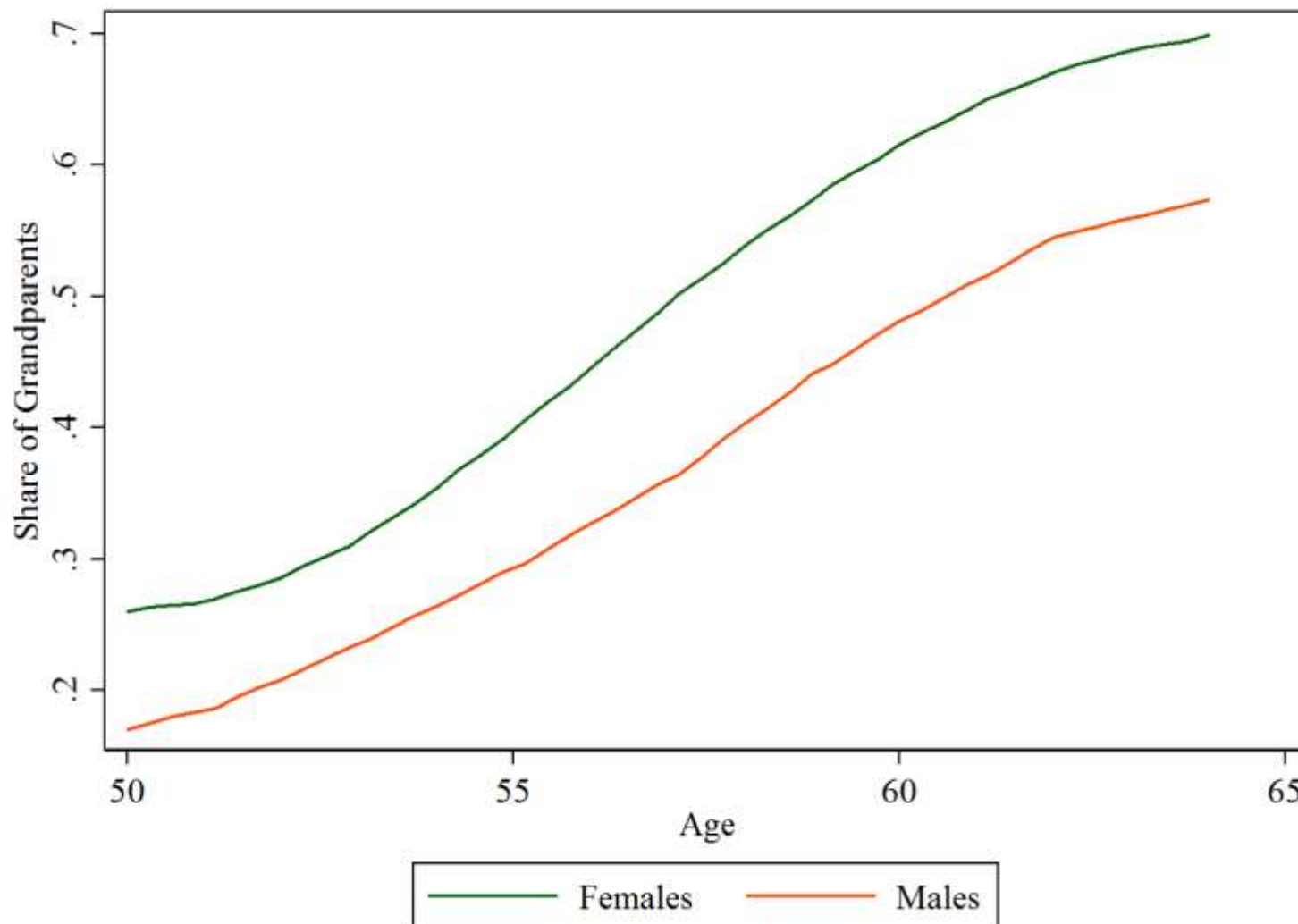      Number of children (of father and mother)

      Age of parent

      Age of youngest grandchild

      Condition on primary working age (25-54 y/o) and youngest child<10 y/o
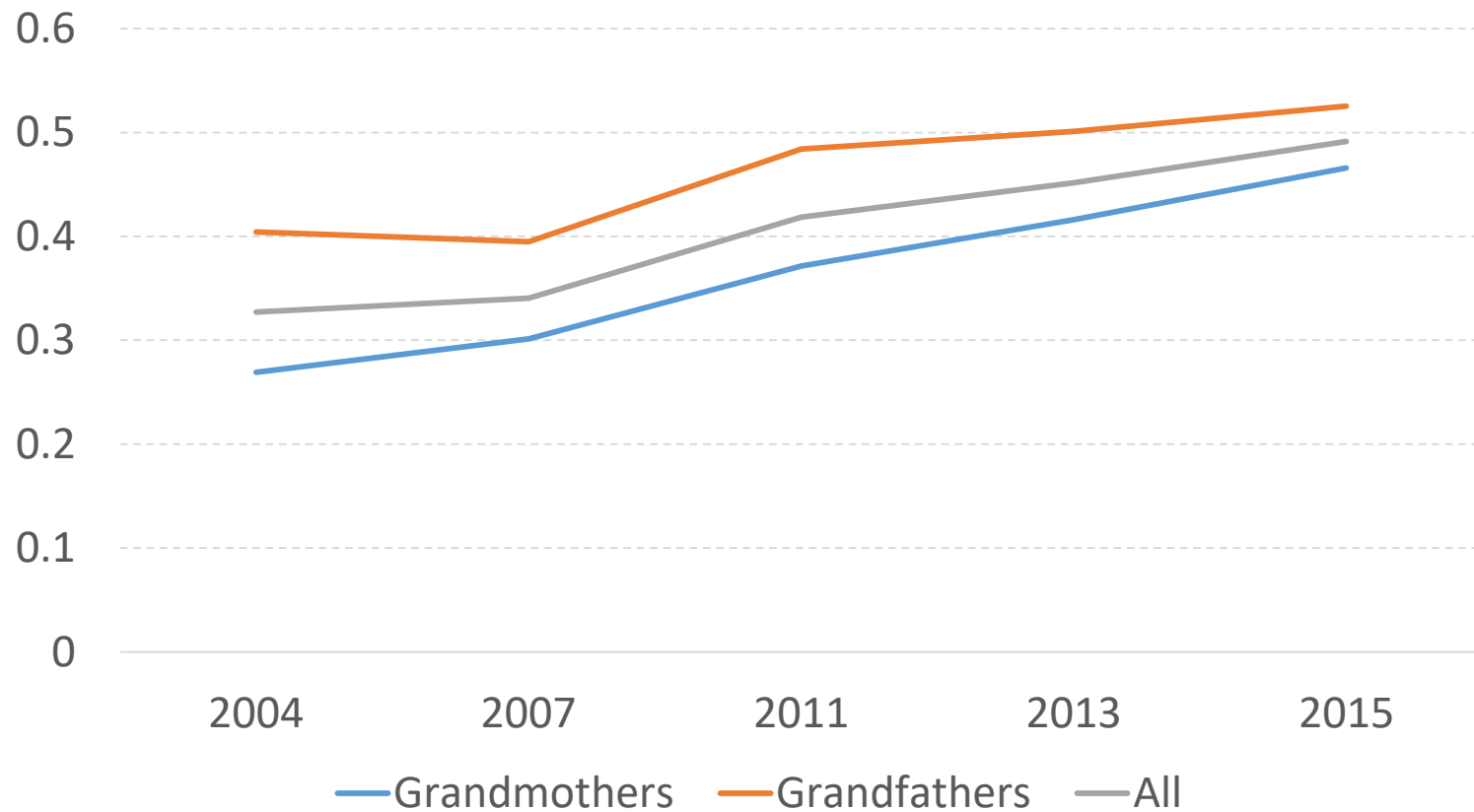
Total of 50,000+ observations

# Some descriptive statistics
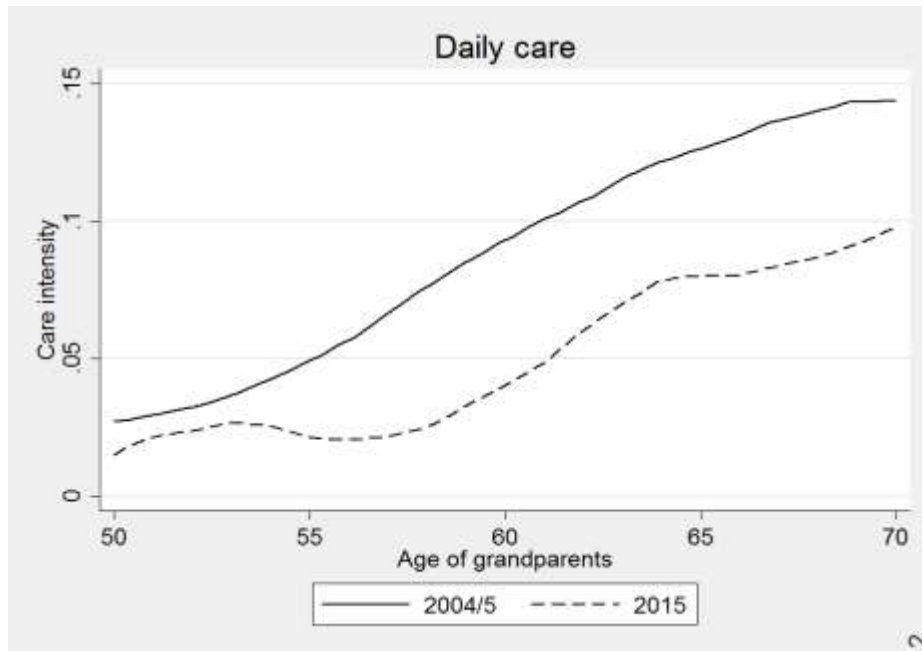
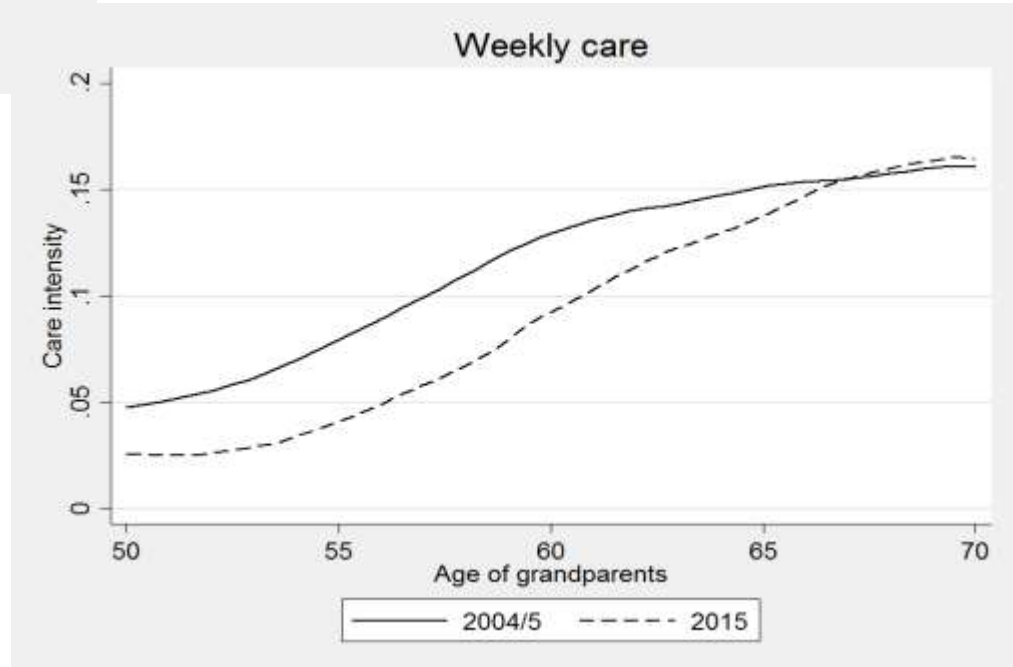**Share of population being grandparent**

# Some descriptive statistics

## Labour Force Participation of Grandparents at Age 55-64

# Some descriptive statistics



Some evidence that grandparental care has decreased.

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# Estimation

**The model**

$$mother\ working_i = \alpha + \gamma \cdot grandparental\ childcare_i + \sum_k \beta_k x_{ki} + \varepsilon_i$$

*mother working* is binary (working / not working)
*grandparental childcare* is binary (caring at least weakly / not caring)
*x other controls*

Estimation either by OLS or Maximum Likelihood (probit / logit)

**Endogeneity**

Estimated partial correlation may not be causal.

OLS-IV and IV-Probit, instruments:
Distance between parent and grandparent (0/1, cutoff at 25km)
Number of siblings of parent

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# Results (1/4)

**OLS – Pooled sample**

|  | (1) | (3) | (5) | (6) |
|---|---|---|---|---|
| Dependent variable: parent's work status (1/0) | WOMEN | MEN | WOMEN Waves 4-6 | WOMEN Wave 1 |
|  |  |  |  |  |
| Weekly childcare (incl. daily care) | 0.112*** (0.00963) | 0.0097 (0.00630) | 0.093*** (0.0125) | 0.138*** (0.0193) |
|  |  |  |  |  |
| Observations | 27,231 | 26,260 | 17,505 | 4,648 |
| R-squared | 0.140 | 0.055 | 0.131 | 0.134 |

*Sample: SHARE waves 1, 2, 4, 5, 6. Parent aged 25-54 who has less than 5 children and at least one child who is 10 years old or younger.*
Note: *** $p < 0.01$, ** $p < 0.05$. OLS regressions.
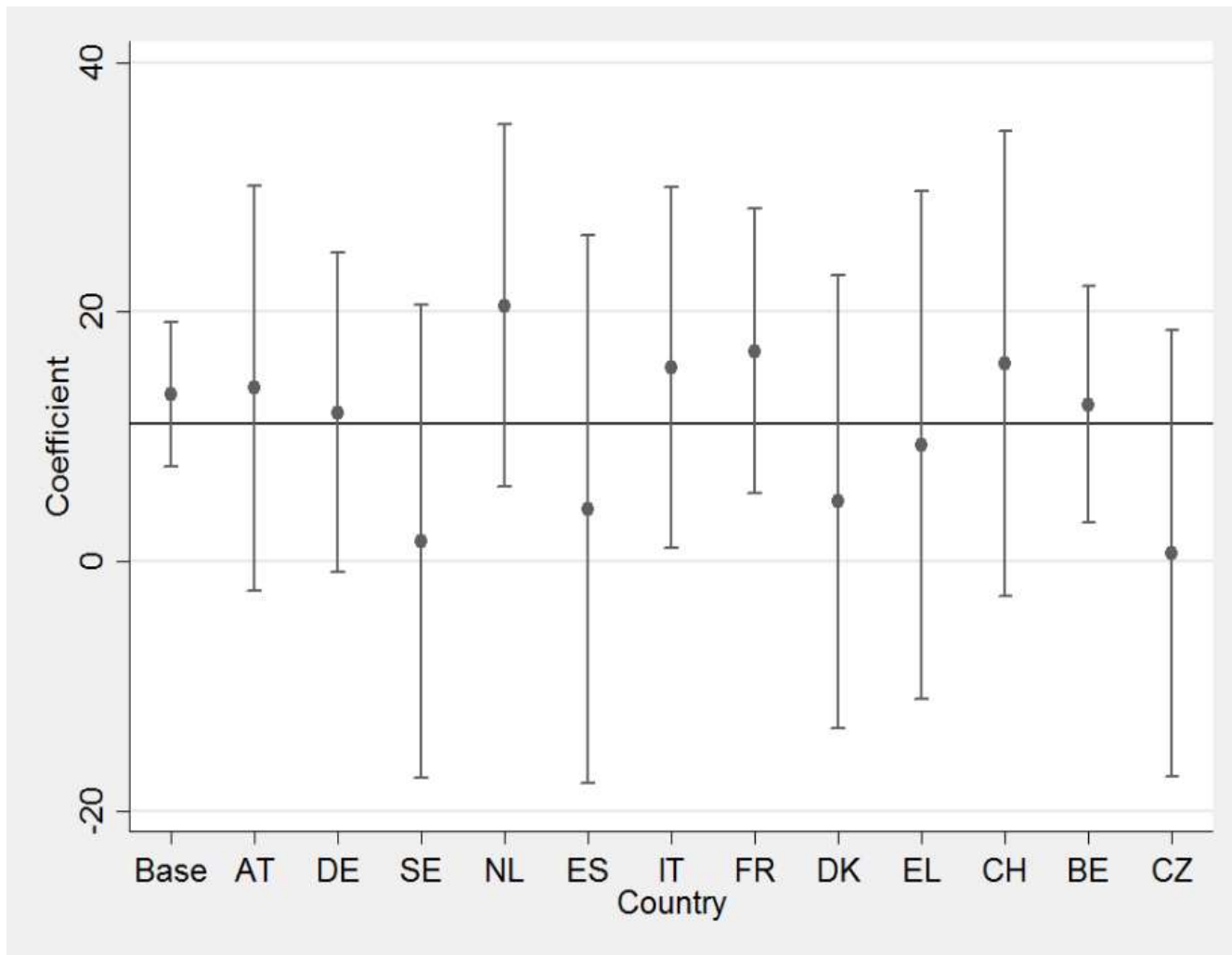
# Results (2/4)

**OLS-IV – Pooled sample**

| Dependent variable: | Employed |
|---|---|
|  |  |
| Looking after grandchildren (at least once per week) | 0.134*** (0.029) |
| Kleibergen-Paap Wald rk F statistic | 891.76 |
| Hansen J statistic, Chi2(1) | 0.195 (p=.66) |
| Observations | 24,709 |
| R-squared | 0.137 |

*Sample: SHARE waves 1, 2, 4, 5, 6. Parent aged 25-54 who has less than 5 children and at least one child who is 10 years old or younger.*
Note: *** p<0.01, ** p<0.05. OLS regressions.

# Results (3/4)

**OLS-IV – country specific results**



*Sample: SHARE waves 1, 2, 4, 5, 6. Parent aged 25-54 who has less than 5 children and at least one child who is 10 years old or younger.*
Note: *** p<0.01, ** p<0.05. OLS regressions.

# Results (4/4)

Further results based on pooled sample:

Grandchild age (some importance)

Parents education (not very important)

Macroeconomic importance (approx. 2% LS increase for 25-54 y/o women).

On validity of instruments:

Falsification procedure based on adults not (yet) parents.

# Limitations

A lot of noise in key measurements.

One can criticize the instrumental strategy.

Country heterogeneity large (child care service, parental leave policies).

Longevity and increasing age of first birth

# Concluding

Link between grandparental care and maternal labour supply

Country differences prevalent

Large samples needed to tease out effects

Speaks to the wider issue of 'total effect' of longer working lives.

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# Thank You!