

# The Aging Parent Penalty Across Countries

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# Motivation

- Gendered differences in childcare → other informal caregiving also unequally divided between genders?
- What are the costs to individuals supporting their aging or ill parents?
- This paper:
  - Exploit a health shock experienced by the parents of the individuals.
  - Classify Western European countries based on their elderly care systems.
- Find: gender-based differential effects:
  - In countries where parents rely on informal care, daughters assume caregiving responsibilities ⇒ **daughters' employment decreases**.
  - In countries where formal care is provided through the market, sons take on the financial support role ⇒ **sons' employment increases**.

# Literature

- Frimmel et al. (forthcoming, JOLE) found that parental health shock negatively affects their children's labor market outcomes in Austria.
  - Liberalization of formal care work mitigates the effects.
- Rellstab et al. (2020) found no effect in the Netherlands.

## Contributions:

- ➊ How different caregiving systems impact employment for children supporting their parents.
- ➋ Impact of elderly care division on adult children's time allocation decisions.
- ➌ Gendered implications of caregiving and financial responsibilities - context of elderly.

# Caregiving systems classification

- Elderly care responsibility:
  - Government.
  - Family (home production or market).
  - Individuals themselves (home production or market).

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- Elderly care responsibility:
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  - Individuals themselves (home production or market).
- Classified countries by caregiving systems, validated via three key aspects:
  - Formal policies: institutional settings for elderly care.
  - Norms and values: who is expected to care for the elderly.
  - Empirical reality: who is actually caring for the elderly.

# Three caregiving systems

- Categorizes 6 Western European countries into three groups:

① Family-based elderly care: **Spain, Italy**.

② Market-based elderly care: **Switzerland, Germany**.

③ Government-based elderly care: **Sweden, Denmark**.

Corresponds to Esping-Andersen (1999).

# Outline

- Data - Survey of Health, Aging and Retirement in Europe (SHARE) [▶ Data](#).
- Empirical strategy - Event Studies [▶ Empirical strategy](#).
- Health shock [▶ Health shock](#).

# Findings

When the parents fall ill...

## ① Family-based countries:

- Parents receive more help from their children.
- Daughters' employment decreases.

## ② Market-based countries:

- Parents receive more professional help & healthcare expenditures increase.
- Sons' employment increases.

## ③ Government-based countries:

- Parents receive more professional help & disability benefits increase.
- No change in the employment of daughters and sons.



# Conclusions

- Division between Family, Market, and Government care - aligns with local policies and norms.
- A gender division of caregiving duties results from these policies: ▶ Gender norms
  - Policies relying on family care - primarily affect women since caregiving responsibilities are typically divided along gender lines.
  - Policies relying on market care - primarily affect men who are more likely to fulfill the breadwinner role.

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## Thanks for listening

Comments welcome: [noa.delavega@eui.eu](mailto:noa.delavega@eui.eu)

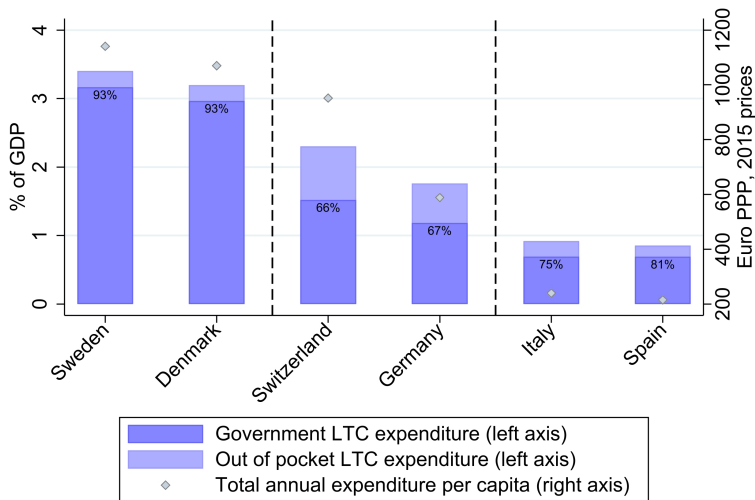
Personal website: [nodelavega.weebly.com](http://nodelavega.weebly.com)

## Formal policies: Long Term Care (LTC) expenditure

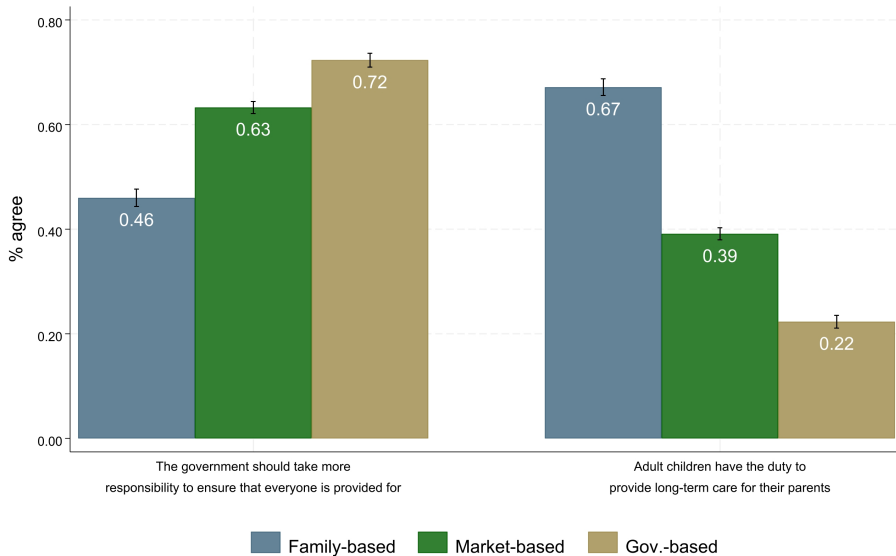
- LTC is a range of services for individuals with physical limitations.
- LTC caregiving systems criteria:
  - **Government-based**: government LTC expenditure of the total exceeds 90%.
  - **Market-based**: out-of-pocket LTC expenditure of the total exceeds 30%.
  - **Family-based**: low formal LTC expenditure; less than 1% GDP.

► OECD Health Data

# Long Term Care (LTC) OECD Health Data 2004-2015



# Norms: Eurobarometer survey



# Data

- Survey of Health, Aging and Retirement in Europe (SHARE).
- Average every two years between 2004-2015.
- Data on participants' social, economic, and health status.
- Additionally, participants supplied information about their adult children, including employment.
- Construct panel data following participants' children.

# Health shock

- A 'health shock'- the parent of an individual reports being diagnosed with a new health condition for the first time.
- After indicating in the previous wave, they had never been diagnosed.
- Following conditions:
  - Stroke
  - Cancer
  - Heart attack
  - Parkinson's disease
  - Chronic lung disease

► Back

► Identifying assumption

► Sampling

► Unexpected health deterioration

## Empirical Strategy

We estimate the following model, separately for market-, family- and government-based care countries (w):

$$y_{ijst}^w = c_i^w + \gamma_{is}^w + \sum_{\substack{k=-6 \\ k \neq -2}}^6 \beta_k^w I[k = t] + \epsilon_{ijst}^w \quad (1)$$

$y_{ijst}^w$  - outcome of interest for individual  $i$ , from household  $j$ , in year  $s$  and at event time  $t$ .

$c_i^w$  - individual fixed effects.

$\gamma_{is}^w$  - calendar year X country fixed effects.

Standard errors clustered at the parental household level (Abadie et al. 2023).

► Back



## Average effect

To allow estimation when the sample size is small:

$$y_{ijs}^w = c_i^w + \gamma_{is}^w + \beta^w Shock_{is} + \epsilon_{ijs}^w \quad (2)$$

$Shock_{is} = 1$  if in year  $s$  individual  $i$  is observed after their parents fall ill.

All other variables are as previously defined.

# Who takes care of the elderly after they fall ill?

- Help from the children [▶ Wording](#).
- Professional or paid help [▶ Wording](#).
  - Healthcare expenditures [▶ Wording](#).
  - Disability benefits [▶ Wording](#).

# Caregiving systems criteria

- ① **Family-based**: help from children  $\uparrow$  + Professional or paid help (0)
- ② **Market-based**: professional or paid help  $\uparrow$  + Healthcare expenditures  $\uparrow$
- ③ **Government-based**: professional or paid help  $\uparrow$  + Disability benefits  $\uparrow$

► Help from children

► Professional or paid help

► Healthcare expenditures

► Disability benefits

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► Help from children

► Professional or paid help

► Healthcare expenditures

► Disability benefits

Supports the classification of countries: who is actually caring for the elderly.  
**Also** link the employment results to the formal and informal care parents receive.

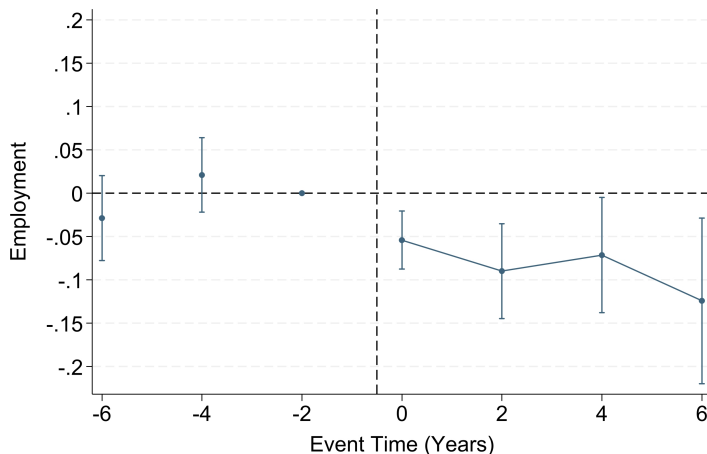
# Employment

# Employment

	Daughters			Sons		
	(1) Family	(2) Market	(3) Gov.	(4) Family	(5) Market	(6) Gov.
Employment	<b>-0.054***</b>	-0.020	0.012	-0.013	<b>0.041**</b>	-0.007
	(0.019)	(0.024)	(0.018)	(0.015)	(0.017)	(0.014)
Mean	0.632	0.722	0.803	0.848	0.836	0.851
Effect as % of mean	-8%	-3%	1%	-1%	5%	-1%
Observations	5,800	3,303	4,223	6,326	3,273	4,718
# individuals	1,714	1,065	1,258	1,876	1,061	1,392

In family-based care countries, daughters' employment decreases & in market-based care countries, sons' employment increases.

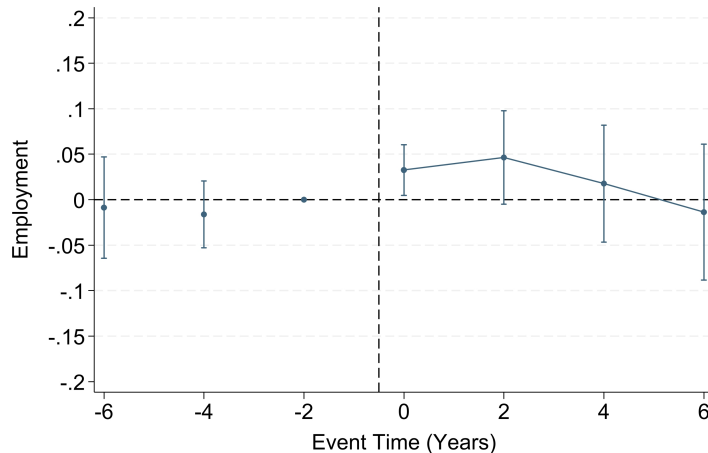
## Family-based care: daughters' employment



The decrease in daughters' employment in family-based care countries persists for 0-6 years after the health shock.

- ▶ Market-based care
- ▶ Government-based care
- ▶ Callaway and Sant'Anna, 2021

## Market-based care: sons' employment



Sons in market-based care countries experience a slight increase in employment, this impact decreases over the years.

► Family-based care

► Government-based care

► Callaway and Sant'Anna, 2021

► Siblings' gender composition



## Help from the children

- In each wave, the parents were asked:

*Has any family member from outside the household, any friend or neighbor given you any personal care/household/paperwork help?*

*Is there someone living in this household who has helped you regularly during the last twelve months with personal care?*

- Additionally, who has helped them (both questions).

- Children help=1 if the parent indicates that their child has helped them.

▶ Back

## Professional or paid help

- In each wave, the parents were asked:

*During the last twelve months, did you receive in your own home any of these kinds of care:*

- *Professional or paid nursing or personal care.*
- *Professional or paid home help for domestic tasks that they could not perform themselves.*

- Professional or paid help=1 if the parent indicates they received help.

► Back

## Amount paid on health

- In each wave, the parents were asked:

*About how much did you pay out-of-pocket for all your outpatient care/inpatient care/drugs/nursing services in the last twelve months?*

▶ Back

## Disability benefits

- In each wave, the parents were asked:

*Have you received income benefits from any of these sources in the year?*

- List of possible benefits depending on the country.
- Disability benefits=1 if parents received disability or sickness benefits from a public source.

► Back

## Help from children

	(1)	(2)	(3)
	Family-based	Market-based	Government-based
Help from children	<b>0.071***</b> (0.023)	0.003 (0.031)	0.016 (0.025)
Mean	0.124	0.112	0.124
Effect as % of mean	57%	3%	13%
Observations	11,168	5,974	7,950
# individuals	3,594	2,131	2,628

Family-based care countries, a shock to the parents' health increases the share of parents who received help from their children.

## Professional or paid help

	(1)	(2)	(3)
	Family-based	Market-based	Government-based
Professional or paid help	0.016 (0.017)	<b>0.045*</b> (0.027)	<b>0.029*</b> (0.017)
Mean	0.038	0.025	0.030
Effect as % of mean	42%	180%	97%
Observations	9,588	4,709	7,407
# individuals	3,623	2,084	2,684

Market- & government-based care countries, a shock to the parents' health increases the share of parents who received professional or paid help.

## Healthcare expenditures

	(1)	(2)	(3)
	Family-based	Market-based	Government-based
Health expenditure	<b>149*</b> (83)	<b>307**</b> (151)	53 (35)
Mean	292	315	257
Effect as % of mean	51%	97%	21%
Observations	9,628	5,273	7,485
# individuals	3,626	2,161	2,691

Market-based care countries highest increase in healthcare expenditure, family-based countries moderate increase, & government-based care countries small (insignificant) increase.

## Disability benefits

	(1)	(2)	(3)
	Family-based	Market-based	Government-based
Disability benefits	0.010 (0.012)	<b>0.019*</b> (0.010)	<b>0.048***</b> (0.015)
Mean	0.053	0.024	0.113
Effect as % of mean	19%	79%	43%
Observations	12,421	6,813	9,211
# individuals	3,643	2,176	2,698

Government-based care countries highest increase in disability benefits, market-based countries moderate increase (but lowest share).



# Heterogeneity: daughters' employment

Family-based care countries, daughters' employment rate decreases.

- The effect is more pronounced:
  - If the ill parent is not married. ▶ Marital
  - If the daughter lives closer. ▶ Distance
- The effect is driven by:
  - Parents with lower levels of education. ▶ Education
  - Parents without voluntary health insurance. ▶ Insurance
  - Having sisters mitigates the effect. ▶ Siblings

# Heterogeneity: sons' employment

Market-based care countries, sons' employment rate increases.

- Having brothers mitigates the effect. [► Siblings](#)
- Distance from the parents does not alter the effect. [► Distance](#)