



Who cares? The employment effects of informal care

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Motivation

Informal care provision common, supposed to be cheap

- ▶ 41-60% of 80+ and 21-43% of 65+ receive informal support)

Informal care is being promoted

- ▶ The majority of European countries offer cash benefits to recipients of care, informal caregivers, or both (low, no substitute for paid employment)

Opportunity costs to informal care providers

Research Question

What is the effect of informal care on labor market participation?

Concerns

Endogeneity problem: poorer labor market opportunities more likely to care

→ Older literature ignores, newer literature draw mixed conclusions, elderly CG

Van Houtven et al., 2013 – The effect of informal care on work and wages (Journal of Health Economics)

decrease in likelihood of working (men)

decrease in work hours per week (women)

Bolin et al., 2008 – Your next of kin or your own career? Caring and working among the 50+ of Europe (Journal of Health Economics)

negative effects on employment probability

Contribution

Look at younger population, in their working ages, for a substantial part of european countries

Use of a dataset that allows better identification of potential caregivers

Instrument: very close to requirements to be eligible for health benefits

Survey of Health and Retirement in Europe (2004/2005 and 2006/2007)

Original data:

45,800 Individuals aged 50+ from 19 European countries, 65,000 observations

Micro data on health, socio-economic status

Individuals in SHARE provide information concerning their health and care status (+ who provides care), information with respect to their children

Reshape the data set of the responding individuals into a child data set

Data set - Sample

Selection of the children:

1. Sort in ascending order by
 - majority
 - geographic proximity
 - year of birth
 2. random selection if all things are equal
- age 15 to under 65
 - not permanently sick or disabled

58,537	parent observations
37,100	parent households
83,507	individuals

Key variables

Dependent

Working	0	part-time, unemployed, in training, parental leave, retired, homemaker, other
	1	full-time, self-employed
(other definitions, mlogit)		

Endogenous

caregiver	provides informal care to parents
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Instrument

potentialCG parent receives informal personal care, irrespective from whom

Assumption:

no direct impact on employment status

not correlated with unobserved determinants of the labor market status

First Stage

Effects on probability to provide care

	All		Male		Female	
potentialCG	0,097***	(0,004)	0,063***	(0,004)	0,133***	(0,006)
<i>N</i>	83507		42302		41205	
adj. R^2	0,0891		0,0564		0,1197	
F Statistic on excluded IVs	F(1,26321)		F(1,20066)		F(1,19804)	
	= 735,804		= 241,435		= 569,597	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: exogenous variables include age, age2, male, married, education, children, number siblings, youngchild, country-dummies

Descriptives

9,147 potential caregivers

4,494 Other potential caregivers in the household of the dependent

1,108 caregivers

repeated cross-section

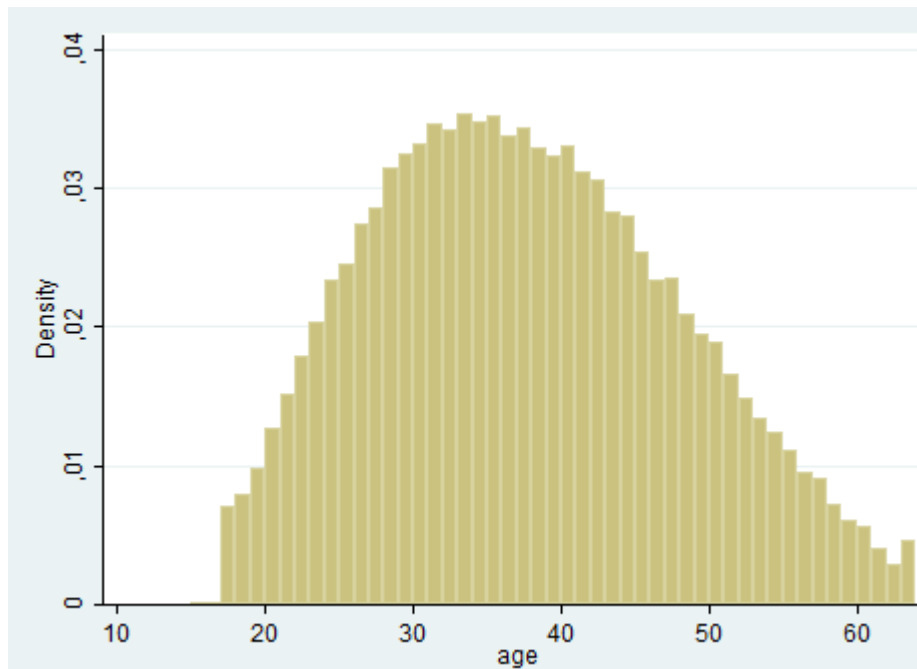
Characteristics of adult children

	men		women		all	
	no care	care	no care	care	no care	care
working	0.80	0.69	0.57	0.46	0.69	0.53
age	37.02	42.81	37.11	45.55	37.06	44.70
married	0.55	0.48	0.60	0.59	0.57	0.56
children	1.07	1.03	1.25	1.37	1.16	1.27
numb.siblings	1.97	2.01	1.98	1.86	1.97	1.90
youngchild	0.36	0.21	0.39	0.22	0.37	0.22
obs	41,960	342	40,439	766	82,399	1,108

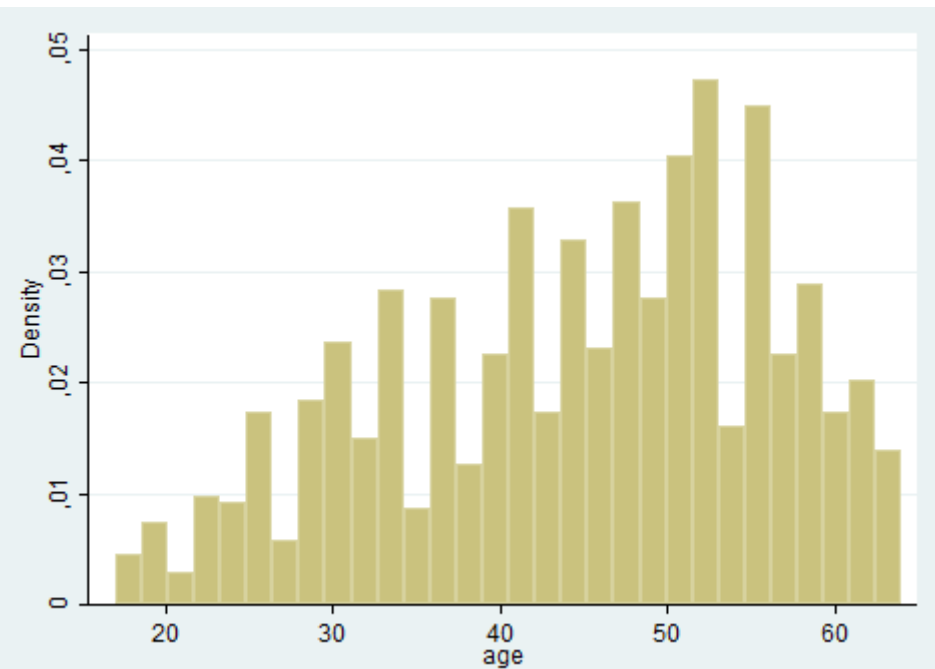
note: other control variables include education and country dummies

Age distribution

Age distribution - sample



Age distribution - caregivers



Results

Effects on Employment Status						
	All		Male		Female	
caregiver	-0,056	(0,055)	0,020	(0,100)	-0,126 [*]	(0,062)
age	0,085 ^{***}	(0,001)	0,091 ^{***}	(0,002)	0,083 ^{***}	(0,002)
age2	-0,001 ^{***}	(0,000)	-0,001 ^{***}	(0,000)	-0,001 ^{***}	(0,000)
male	0,240 ^{***}	(0,004)				
married	0,069 ^{***}	(0,004)	0,122 ^{***}	(0,005)	0,012	(0,006)
education	0,049 ^{***}	(0,001)	0,022 ^{***}	(0,002)	0,069 ^{***}	(0,002)
children	-0,039 ^{***}	(0,002)	-0,012 ^{***}	(0,002)	-0,063 ^{***}	(0,004)
number siblings	-0,006 ^{***}	(0,001)	-0,025 ^{***}	(0,002)	0,013 ^{***}	(0,002)
youngchild	-0,044 ^{***}	(0,005)	0,006	(0,005)	-0,109 ^{***}	(0,007)
_cons	-1,249 ^{***}	(0,024)	-1,033 ^{***}	(0,031)	-1,241 ^{***}	(0,035)
<i>N</i>	83076		42096		40980	
adj. <i>R</i> ²	0,2023		0,2396		0,1437	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: country dummies not shown



Findings

- Negative effects of providing care on the probability of working (for women)
- lower likelihood of working due to providing care than in previous literature



Thank you for your attention.



Additional slides

OLS results

Effects on probability to work

	All		Male		Female	
caregiver	-0,101***	(0,015)	-0,083**	(0,025)	-0,104***	(0,018)
age	0,085***	(0,001)	0,091***	(0,002)	0,083***	(0,002)
age2	-0,001***	(0,000)	-0,001***	(0,000)	-0,001***	(0,000)
male	0,240***	(0,003)				
married	0,069***	(0,004)	0,122***	(0,005)	0,013*	(0,006)
iscd_c	0,049***	(0,001)	0,022***	(0,002)	0,069***	(0,002)
children	-0,039***	(0,002)	-0,012***	(0,002)	-0,063***	(0,004)
siblings	-0,006***	(0,001)	-0,025***	(0,002)	0,013***	(0,002)
youngchild	-0,044***	(0,005)	0,006	(0,005)	-0,109***	(0,007)
N	83076		42096		40980	
adj. R-sq	0,2025		0,2402		0,1437	

Standard errors in parentheses

* p<0.001

Available information

„gender“; „year of birth“; „proximity to parent“;

"step adoptive or foster child"; "marital status"; "has a partner"; "contact with parent"; "year moved out from parents household"; "Working" (occupation); "education"; "further education/training: country specific category"; "number of children"; "year of birth youngest child"

Results

Effects on Employment Status			
	All	Male	Female
caregiver	-0,056 (0,055)	0,020 (0,100)	-0,126* (0,062)
age	0,085*** (0,001)	0,091*** (0,002)	0,083*** (0,002)
age2	-0,001*** (0,000)	-0,001*** (0,000)	-0,001*** (0,000)
male	0,240*** (0,004)		
married	0,069*** (0,004)	0,122*** (0,005)	0,012 (0,006)
education	0,049*** (0,001)	0,022*** (0,002)	0,069*** (0,002)
children	-0,039*** (0,002)	-0,012*** (0,002)	-0,063*** (0,004)
number siblings	-0,006*** (0,001)	-0,025*** (0,002)	0,013*** (0,002)
youngchild	-0,044*** (0,005)	0,006 (0,005)	-0,109*** (0,007)
_cons	-1,249*** (0,024)	-1,033*** (0,031)	-1,241*** (0,035)
<i>N</i>	83076	42096	40980
adj. R^2	0,2023	0,2396	0,1437

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: country dummies not shown

Working 0 part-time, unemployed, in training, parental leave, retired,
homemaker, other
1 full-time, self-employed

Results 2

Effects on Employment Status			
	All	Male	Female
caregiver	-0,067 (0,051)	0,009 (0,094)	-0,125* (0,057)
age	0,090*** (0,001)	0,090*** (0,002)	0,093*** (0,002)
age2	-0,001*** (0,000)	-0,001*** (0,000)	-0,001*** (0,000)
male	0,136*** (0,003)		
married	0,064*** (0,004)	0,104*** (0,004)	0,024*** (0,006)
education	0,045*** (0,001)	0,022*** (0,002)	0,064*** (0,002)
children	-0,033*** (0,002)	-0,012*** (0,002)	-0,050*** (0,003)
number siblings	-0,007*** (0,001)	-0,018*** (0,002)	0,003 (0,002)
youngchild	-0,013** (0,004)	0,004 (0,004)	-0,041*** (0,007)
_cons	-1,212*** (0,024)	-0,980*** (0,031)	-1,332*** (0,034)
<i>N</i>	83076	42096	40980
adj. R^2	0,1991	0,2422	0,1657

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: country dummies not shown

Working 0 unemployed, in training, parental leave, retired, homemaker
1 full-time, part-time, self-employed

Results 3

Effects on Employment Status

	All	Male	Female
caregiver	-0,207*** (0,048)	-0,212* (0,083)	-0,231*** (0,055)
age	0,035*** (0,001)	0,034*** (0,002)	0,040*** (0,002)
age2	-0,000*** (0,000)	-0,000*** (0,000)	-0,001*** (0,000)
male	0,121*** (0,003)		
married	0,021*** (0,003)	0,061*** (0,004)	-0,022*** (0,005)
education	0,044*** (0,001)	0,022*** (0,001)	0,062*** (0,002)
children	-0,025*** (0,002)	-0,004 (0,002)	-0,044*** (0,003)
number siblings	-0,007*** (0,001)	-0,017*** (0,001)	0,003 (0,002)
youngchild	-0,015*** (0,004)	-0,006 (0,004)	-0,037*** (0,006)
_cons	0,031 (0,027)	0,274*** (0,033)	-0,113** (0,041)
<i>N</i>	74157	38139	36018
adj. R^2	0,1158	0,0824	0,1349

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: country dummies not shown

Working 0 unemployed, retired, homemaker
 1 full-time, part-time, self-employed

Results 4

Effects on Employment Status

	All	Male	Female
caregiver	-0,193 ^{***} (0,048)	-0,196 [*] (0,077)	-0,220 ^{***} (0,057)
age	0,019 ^{***} (0,001)	0,014 ^{***} (0,001)	0,027 ^{***} (0,002)
age2	-0,000 ^{***} (0,000)	-0,000 ^{***} (0,000)	-0,000 ^{***} (0,000)
male	0,124 ^{***} (0,003)		
married	0,019 ^{***} (0,003)	0,062 ^{***} (0,004)	-0,025 ^{***} (0,005)
education	0,043 ^{***} (0,001)	0,019 ^{***} (0,001)	0,062 ^{***} (0,002)
children	-0,028 ^{***} (0,002)	-0,007 ^{***} (0,002)	-0,047 ^{***} (0,003)
number siblings	-0,007 ^{***} (0,001)	-0,018 ^{***} (0,001)	0,003 (0,002)
youngchild	-0,006 (0,004)	0,001 (0,004)	-0,028 ^{***} (0,006)
_cons	0,305 ^{***} (0,026)	0,614 ^{***} (0,029)	0,101 [*] (0,041)
<i>N</i>	72843	37446	35397
adj. <i>R</i> ²	0,1035	0,0596	0,1260

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: country dummies not shown

Working 0 unemployed, homemaker
 1 full-time, part-time, self-employed

Results 5

Effects on Employment Status

	All	Male	Female
caregiver	-0,129** (0,044)	-0,143 (0,074)	-0,128* (0,050)
age	0,015*** (0,001)	0,013*** (0,001)	0,017*** (0,002)
age2	-0,000*** (0,000)	-0,000*** (0,000)	-0,000*** (0,000)
male	0,023*** (0,002)		
married	0,059*** (0,003)	0,065*** (0,003)	0,053*** (0,004)
education	0,020*** (0,001)	0,016*** (0,001)	0,025*** (0,002)
children	-0,003* (0,001)	-0,000 (0,001)	-0,006** (0,002)
number siblings	-0,005*** (0,001)	-0,007*** (0,001)	-0,003* (0,001)
youngchild	-0,004 (0,003)	-0,004 (0,003)	-0,005 (0,004)
_cons	0,549*** (0,022)	0,623*** (0,028)	0,484*** (0,034)
<i>N</i>	68066	37092	30974
adj. R^2	0,0516	0,0539	0,0508

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

note: country dummies not shown

Working 0 unemployed
 1 full-time, part-time, self-employed

Results 6

Working	0	unemployed, retired
	1	full-time, part-time, self-employed



Elderly care

D. Casado-Marín, P. García-Gómez, A. López-Nicolás Informal care and labour force participation among middle-aged women in Spain SERIEs: Journal of the Spanish Economic Association, 2 (2011), pp. 1–29 → no contemporaneous effect

E. Pavalko, J. Artis Women's caregiving and paid work: causal relationships in late midlife. Journal of Gerontology, 52B (1997), pp. S170–S179 → Reduce hours

R. Johnson, A. LoSasso The impact of elder care on women's labor supply at midlife. Inquiry, 43 (2006), pp. 195–210

→ Reduce

Crespo, L., Mira, P., 2010. Caregiving to elderly parents and employment status of European mature women. CEMFI Working Paper No. 1007. → increases retirement odds

K. Bolin, B. Lindgren, P. Lundborg Your next of kin or your own career? Caring and working among the 50+ of Europe. Journal of Health Economics, 27 (2008), pp. 718–738 → foregone labor-market opportunities



others

S.L. Ettner The opportunity costs of elder care. The Journal of Human Resources, 31 (1996), pp. 189–205 → decreases in hours; U.S. market

F. Carmichael, S. Charles The labour market costs of community care. Journal of Health Economics, 17 (1998), pp. 747–765 → work fewer hours; Great Britain

Andrew Leigh, Informal care and labor market participation, Labour Economics, Volume 17, Issue 1, January 2010, Pages 140-149; → very small negative or no effects; Australia

Next

Who cares? A natural experiment on the employment effects of informal care.

reform 2008

addressed at those that are receiving informal care

includes counseling for dependents and their relatives