

# The effect of social transfers and social capital on subjective wellbeing of elderly—are there cross-country differences?\*

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XXX TODO ADD TO EBIB AS KEYWORD PAPER-CODE-NAME AND TAG WITH EBIB KEYWORDS

Recent CITE Rubia livability find spatial patterns in wellbeing across Europe with north west being most satisfied and south east least. Fuentes et al. (2017) find that the relationship between binge drinking and SWB is moderated by region. In present study we want to find out how the relationship of volunteering, social transfers and SWB vary across countries.

There have been many studies on cross-country differences in SWB (eg mine about eur and cite ruut) and about diff in volunteering (haski the one from oecd that Leszek emailed in dec2017 in word some writep), but no study on the varying effect of volunteering and pensions on swb across countries. we build on <blind for peer review> just extend across countries

Duda and Oczkowska (2016) review several studies using SHARE and finding similar pattern: North is happier than South.

Welfare helps general population (Radcliff 2001, Pacek and Radcliff 2008a,b, Radcliff 2013, Okulicz-Kozaryn et al. 2014) and so it does help elderly in Europe (Motel-Klingebiel et al. 2009, Niedzwiedz et al. 2014). Importantly, welfare was found not to crowd out the helping among people (Motel-Klingebiel et al. 2005). In fact there is evidence to the contrary, the more welfare (and civil liberties), the more volunteering (Hank 2010). There is however evidence, that familism (Banfield 1967), or Southern informal high level of relations and engagement within family networks tend to crowd out the formal forms of engagement such as volunteering (Kohli et al. 2009, Pichler and Wallace 2007). Being from Poland, we expect that similar mechanism may be at work in Eastern Europe.

We know that volunteering varies by country (e.g., Hank and Erlinghagen 2009). This study will focus on testing whether there is a varying effect from volunteering on SWB by country.

This study continues a line of research focusing on cross-country comparisons (Hank and Erlinghagen 2005, 2009). We focus on subjective wellbeing as a consequence of volunteering; that is we are not interested here in antecedents of volunteering neither in other consequences.

Note, however, the goal of the present study is not to investigate what predicts or affects volunteering cross nationally as in Hank and Erlinghagen (2005, 2009), but to examine the subsequent link, the link between volunteering and wellbeing cross-nationally.

have bar charts or tables or key vars for each country, like in my earlier cross=area paper s like one with mari or my earlier stuff for SIR

heck just redo overall paper broken down by country and again, have country in rows and effects as 95 perc CI—there is some stata command for that

build on livability paper with rubia :)

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I thank XXX. All mistakes are mine.

Finally, we would like to test a proposition that effects differ across countries. Perhaps, there are two clusters, North-Western and South-Eastern:

$H_3$  : Social transfers will have higher payoff in happiness in South-Eastern Europe; Volunteering will generate more happiness in North-Western Europe.

Finally, we expect large cross-national differences: what works in one country may not work in another. Population aging in Europe is a fact, and governments already grapple with spending pressures and budget deficits. What is the best way to care about our seniors and ensure decent levels of wellbeing? We hope to produce new knowledge in this area.

## 1 Literature

Choi's environmental factors and structural factors such as region, urbanicity, religion, life styles and social roles affect volunteering (Hank and Erlinghagen 2009, cited in). We are interested in finding whether similar factors can also affect the relationship between volunteering and wellbeing.

Haski09 found rel between vol and swb strongest in countries with least of it—not surprising—like educ in us—states with fewest ppl taking sat like tx highest score; in general these who go first those with greatest inclination, so unfortunately increasing vol may have diminishing marginal returns

refer to and compare to visualizations—pretty cool by Morten Wahrendorf: <http://www.wahrendorf.de/lifecourses/chrono.html> [http://www.wahrendorf.de/lifecourses/map\\_1.html](http://www.wahrendorf.de/lifecourses/map_1.html)

Haski (2009) as the main reference. A list of empirical papers on volunteerism among elderly (Erlinghagen and Hank, 2006; Wahrendorf and Siegfried, ?) Main findings in Haski (2009) positive relation between volunteering and physical and psychological well-being. volunteering rates differ among countries in the way known from earlier studies - the highest rates in Northern Europe and the lowest rates in Southern Europe volunteering influences perceived health and life satisfaction differently in different countries puzzle : no clear relation between impact of volunteering on health and quality of life and extend of volunteering (Italy compared with the Netherlands) in the wave 1 of SHARE Research question (robustness check) – Is it possible to find association between extend of volunteering and health and quality of life using different data (SHARE wave 6 instead of SHARE wave 1) Extensions in our paper Wave 6 instead of wave 1 New formulation of question on volunteering (12 months instead of 4 weeks) New countries (Eastern Europe) New measure of association between popularity of volunteering and its relation to subjective health and life satisfaction (Kendall's tau-b instead of Pearson's correlation) New measure for life satisfaction (casp instead of 4 point Likert scale) Summary of results

## 2 Data

Using the most recent wave 6—the advantage that the very wide country coverage: 18 countries!

— cs iso count — ————— 1. — Austria AUT 3,073 — 2. — Belgium BEL 5,466 — 3. — Croatia HRV 2,386 — 4. — Czech Republic CZE 4,568 — 5. — Denmark DNK 3,591 — ————— 6. — Estonia EST 5,111 — 7. — France FRA 3,720 — 8. — Germany DEU 4,231 — 9. — Greece GRC 4,680 — 10. — Israel ISR 1,781 — ————— 11. — Italy ITA 4,908 — 12. — Luxembourg LUX 1,461 — 13. — Poland POL 1,719 — 14. — Portugal PRT 1,472 — 15. — Slovenia SVN 4,007 — ————— 16. — Spain ESP 4,962 — 17. — Sweden SWE 3,771 — 18. — Switzerland CHE 2,722 — +—————+

mostly copied from the other one

Here we take the perspective as in Hank (2010) and look at three dimensions of social capital (and 'productive aging')

- volunteering: done voluntary or charity work
- informal helping: provided help to family, friends or neighbors
- caring: cared for a sick or disabled adult

TODO: note the differenceL now volunteering in past XXX, earlier it was in past XXX as in Haski-Leventhal (2009)

### 3 Results

graphs: guess have a bar charts: volunteering and especially informal helping like ghto—again as per ersa the idea is that there is cultur: in south east more familism! yes ! do talk about familism!!

have bar chart replicating tab2 and tab4 from hank05—disuss variaton in informal help!

We also have ghto variable—the advantage—available for many cases (from imputed dataset), but not really asmuch volunteering as rather helping and assisting as opposed to voluntary taking part in community life; furthermore it may point to unhappiness, at least unhappiness around as helping is probably often induced by unhappiness of people who need help.

CASP and life satisfaction correlate at .6, and while in general countries high on one and hogh on the other one and low on one and on teh other one, there are some notable differences shown in figure ??.

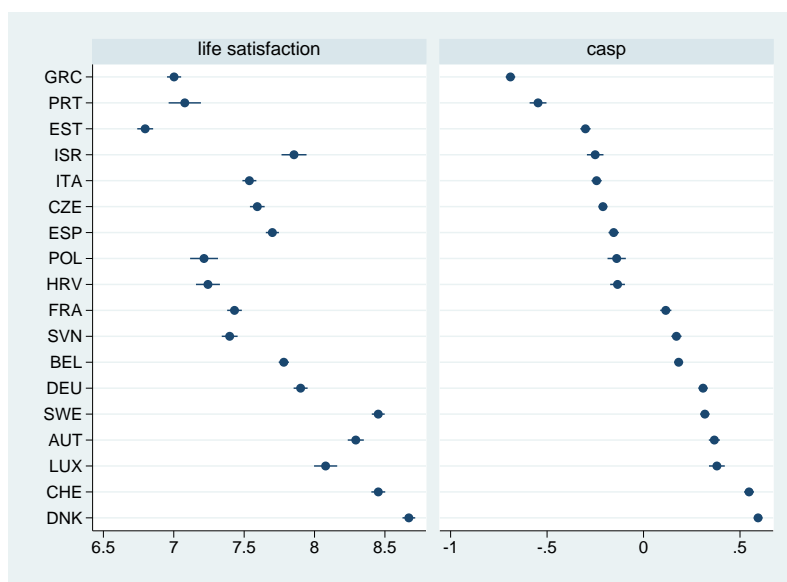


Figure 1: woo

So we also fins as in Haski-Leventhal (2009) that highest volunteering is in Northern countries and lowest in Southern and effect differs by country

volunteeringh and frq of volunteering are closely related in fig ??

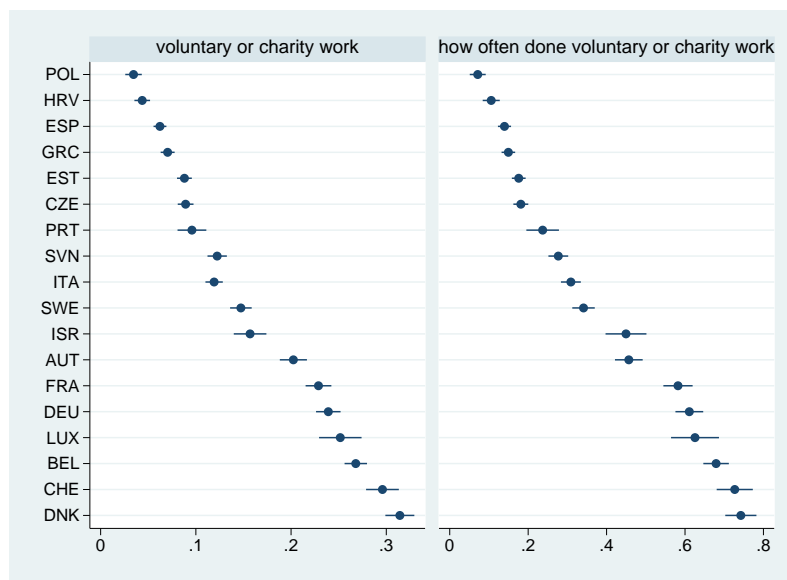


Figure 2

in fig ?? so largest effect in south-interesting! guess the poorer the more vol matters! same as in 1st paper !

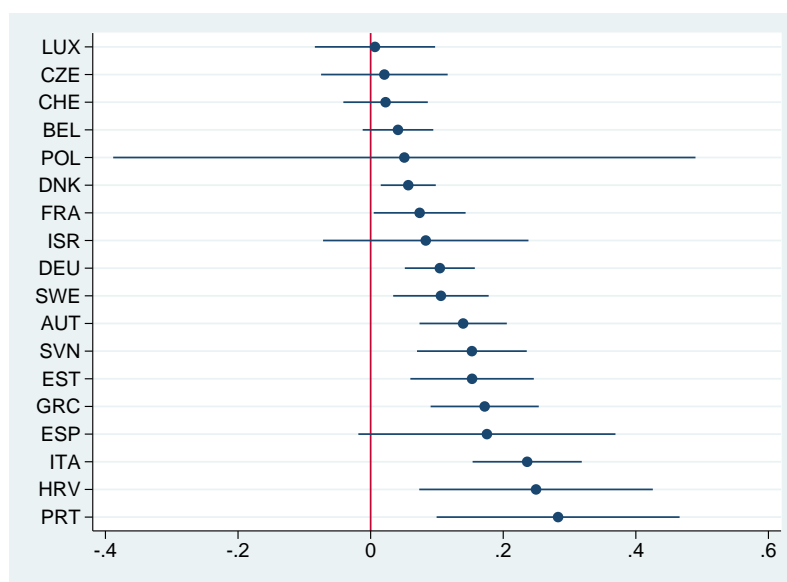


Figure 3: woo

## 4 Discussion

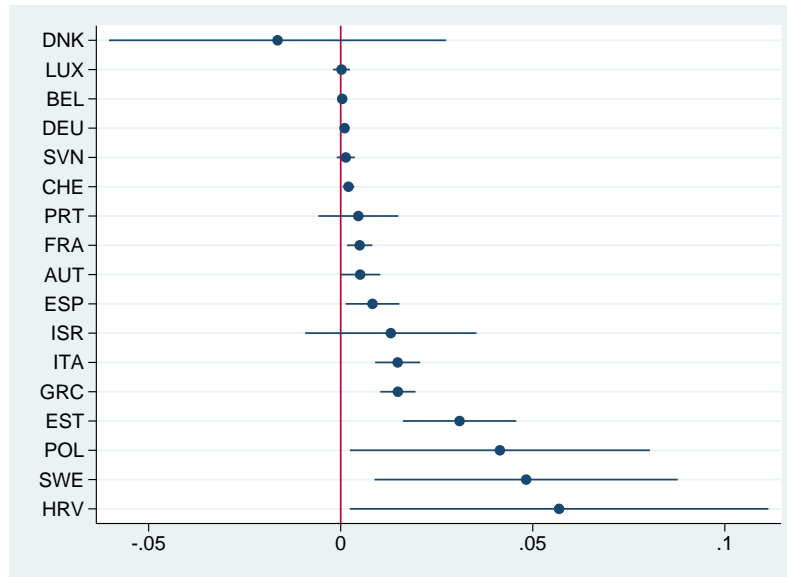
TODO add from ERSA as per culture etc etc

Volunteering is related to SWB. And many European countries have very low rates of volunteering. So what are the practical implications? Volunteering could be induced—there are many ways to activate this yet unused potential of idle elderly (e.g., Atkinson 2006, Henkin and Zapf 2006, Butler and Eckart 2007, Butts 2013, Howgate 2008, Zedlewski and Butrica 2007). And there is a role for institutions of higher education to promote civic engagement and community development in general, not only among the elderly. See, for instance, initiatives at Rutgers-Camden <http://www.camden.rutgers.edu/civic-engagement>. Such initiatives could be copied by institutions of higher education in European countries with low engagement, such as Poland.

TODO: have separate som-r.tex as opposed to having it below; and in paper say see supplementary material as opposed to see appendix!

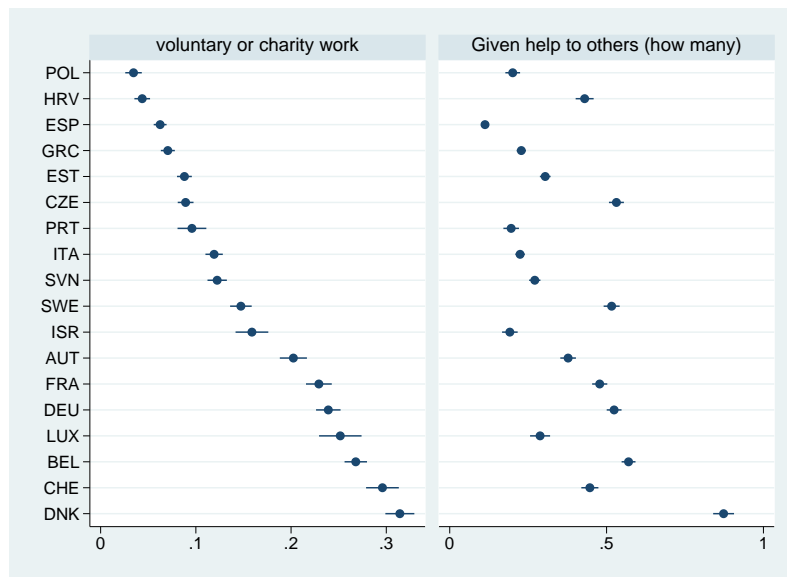
# ONLINE APPENDIX

the poorer the country, the more the pension matter in fig ??



**Figure 4:** note: dropped CZE—it has some weird stange big value!

some positive relationship between volunteering and helping others in ??, but even more irregularities; and it is not clearly so that volunteering rises from south to north; and even less clear or opposite that ghto rises from north to south



**Figure 5**

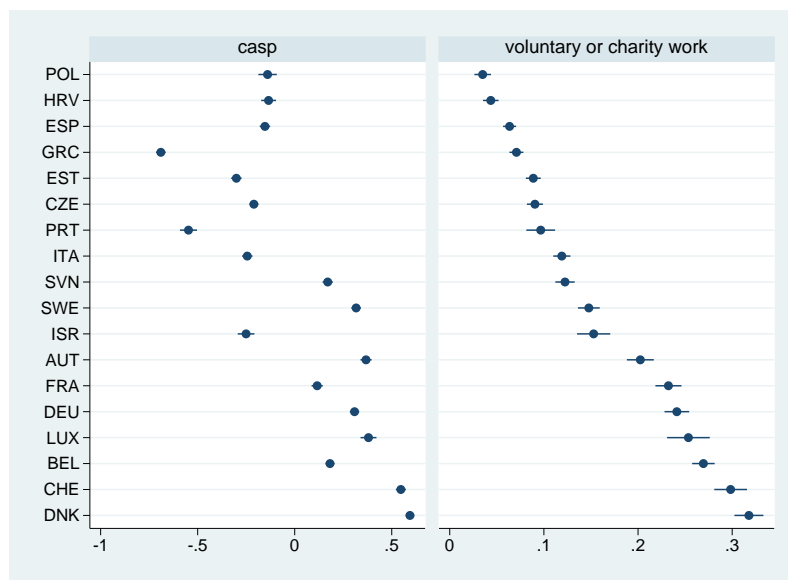


Figure 6

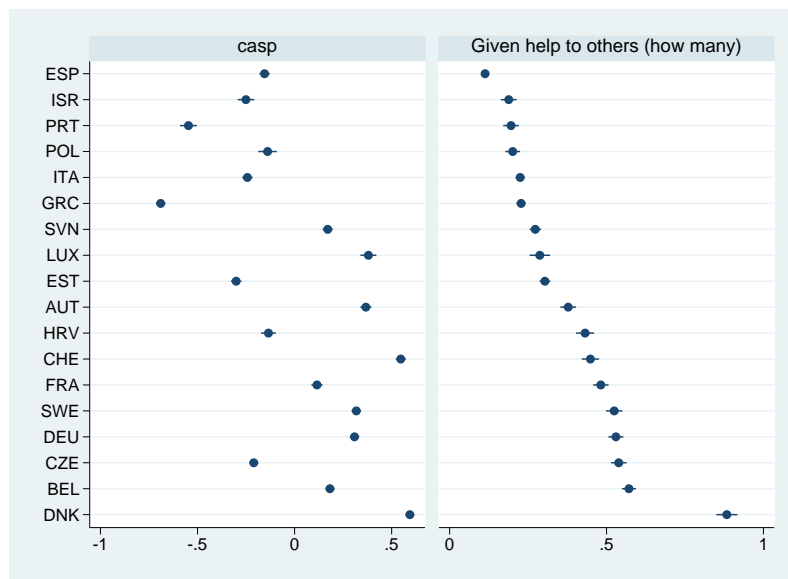


Figure 7

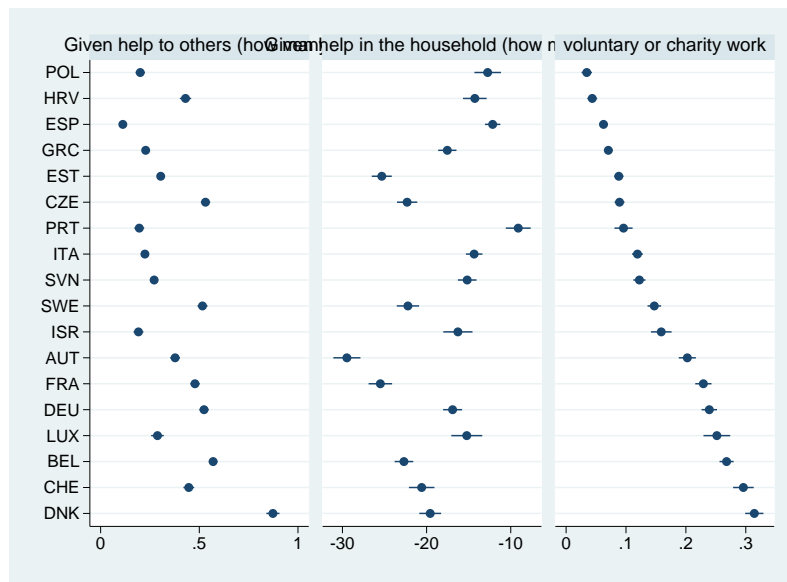


Figure 8

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5 initial outline by one of the authors (Im)

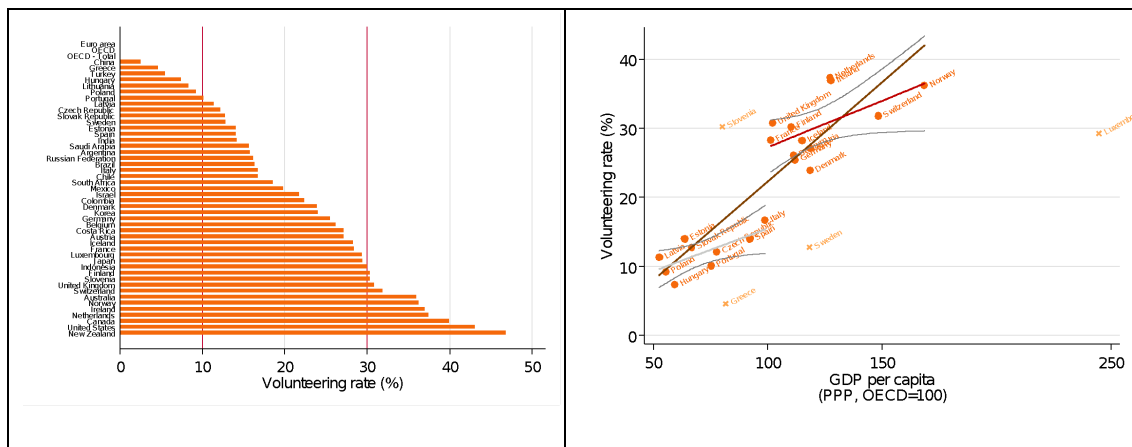


## Introduction

1. Haski (2009) as the main reference. A list of empirical papers on volunteerism among elderly (Erlinghagen and Hank, 2006; Wahlendorf and Siegfried, ?)
2. Main findings in Haski (2009)
  - a. positive relation between volunteering and physical and psychological well-being.
  - b. volunteering rates differ among countries in the way known from earlier studies - the highest rates in Northern Europe and the lowest rates in Southern Europe
  - c. volunteering influences perceived health and life satisfaction differently in different countries
  - d. puzzle : no clear relation between impact of volunteering on health and quality of life and extend of volunteering (Italy compared with the Netherlands) in the wave 1 of SHARE
3. Research question (robustness check) – Is it possible to find association between extend of volunteering and health and quality of life using different data (SHARE wave 6 instead of SHARE wave 1)
4. Extensions in our paper
  - a. Wave 6 instead of wave 1
  - b. New formulation of question on volunteering (12 months instead of 4 weeks)
  - c. New countries (Eastern Europe)
  - d. New measure of association between popularity of volunteering and its relation to subjective health and life satisfaction (Kendall's tau-b instead of Pearson's correlation)
  - e. New measure for life satisfaction (casp instead of 4 point Likert scale)
5. Summary of results ...

## II. Volunteering among elderly – what do we currently know ?

1. “Society at Glance 2016” (OECD) – differences in rates
  - a. Very large dispersion of the rates – from 2.4% in China to 46.8% in New Zealand.
  - b. The rates are higher in high developed countries
  - c. significant estimates in unrestricted regression of volunteering rates on GDP per capita in PPP terms for European countries
  - d. Two groups of countries in Europe – in both positive relation can be found but restricted relations are weaker than the unrestricted (pooled European countries)
  - e. Groups as in other analysis – Western and Northern Europe vs. Southern and Eastern Europe



Note. **Volunteering rate is measured as ... (Gallup Data)** GDP per capita an average value for 2006-2012. Partial effect of GDP per capita on volunteering rate is 0.28 with p-value less than 0.1% in the unrestricted model. In the lower group the effect is 0.13 and in the upper 0.12. Both effects are statistical significant on 5% level.

Source. **OECD database (more)**

Fig. 1 Volunteering rates among people 50+ and its relation to economic development in Europe

2. “Society at Glance 2016” (OECD) – differences in rates conditional on age (structural differences)
  - a. Differences in age (or cohort) structures
  - b. Volunteering among elderly less popular in CEE – inverted U shaped structure or increasing rates in age in WE vs. decreasing rates in age in CEE
  - c. Young population in CEE more like young population in WE, but old population in CEE is very different to old population in WE
  - d. Does history matters ? Is it age (health) or cohort (history) effect ?

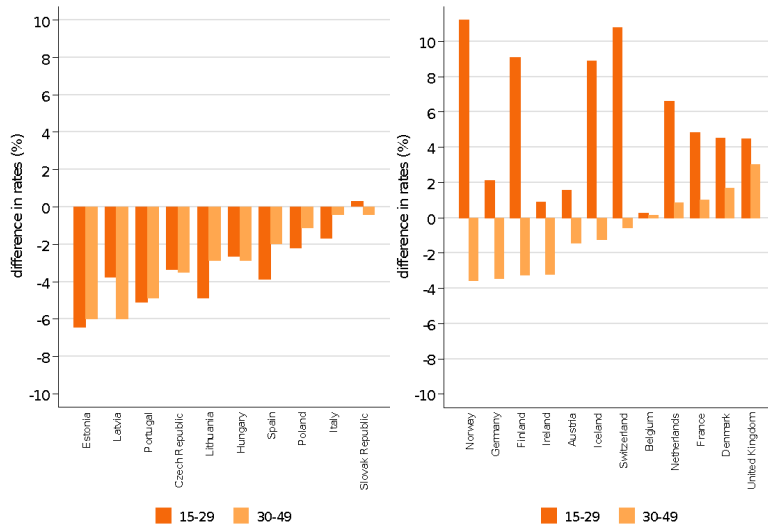


Fig. 2 Volunteering rates among 50+ in relation to volunteering among young (15-29) and mid-age people (30-49)

Note. The difference is defined as the rate for the group of 50+ minus the rate for another group.

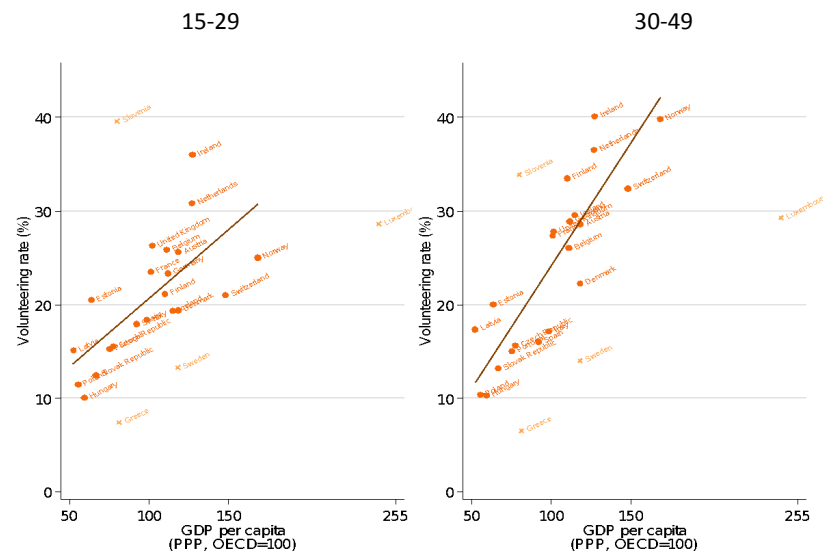


Fig. 3 Volunteering rates among “15-29” and “30-49”

Source. [OECD database \(more\)](#)

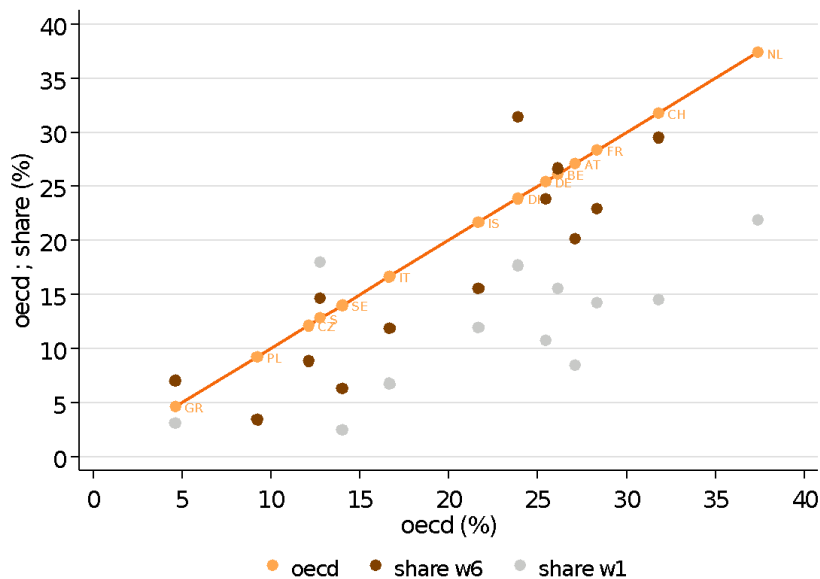
### 3. Research question (hypothesis)

- The rates differs among European countries
- What are possible associations between popularity of volunteering and health and quality of life ? Should we expect stronger associations in countries with high rates or a just opposite case should be expected ? – I DO NOT HAVE LIT

- c. Problem of possible double causation or bilateral relationships between volunteering and subjective health and quality of life
- d. **Our goal – descriptive – to identify an association between X (the volunteering rate) and ‘correlation’ between the rate and Y (health or QoL)**
- e. Importance of these associations (?) – necessary for presenting motivation for the paper. -> any policy oriented implications ?

### III. Data, variables and methods

1. SHARE survey
2. Wave 6 vs. Wave 1
  - a. New formulation of the source question used for volunteering identification [4 weeks replaced by 12 months]
  - b. New countries
3. How the rates were calculated in Haski (2009) ? How they are different to reported in the OECD report and what is the relation between the OECD rates and the rates from Wave 6
4. SHARE wave 6 rates are different to the OECD rates but ordering is sustain

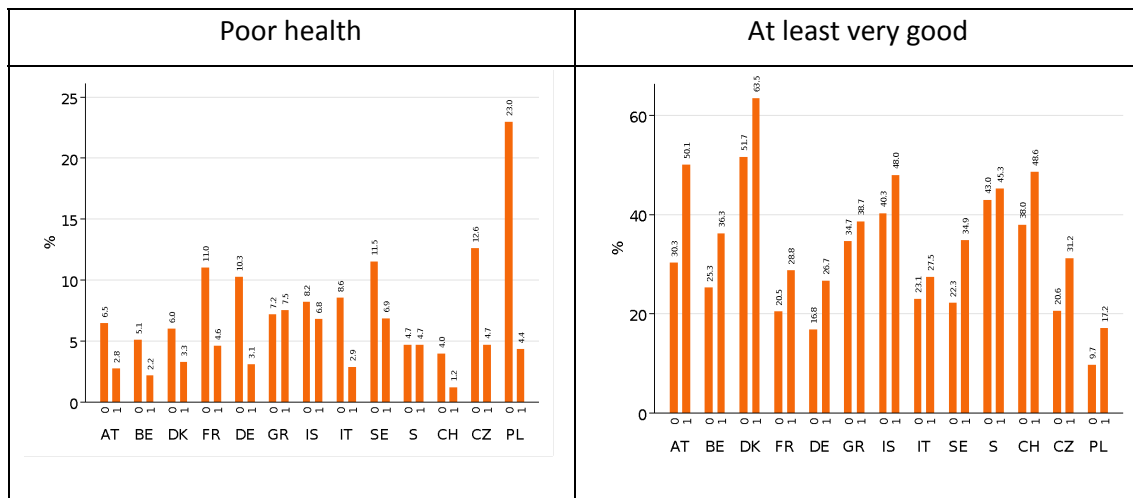


5. Subjective health variable –
  - a) formulation and cumulative distributions for W6

country H	poor	fair	good	Very good	Excellent
CH	3.2	<b>18.0</b>	59.0	89.0	100.0
DK	5.2	<b>22.3</b>	44.7	79.2	100.0
<b>S</b>	4.7	<b>24.8</b>	56.7	83.2	100.0
BE	4.3	<b>25.3</b>	71.7	92.5	100.0
IS	8.0	<b>28.6</b>	58.6	89.3	100.0
GR	7.2	<b>30.6</b>	65.1	93.1	100.0
AT	5.7	<b>31.7</b>	65.7	91.5	100.0
FR	9.6	<b>34.8</b>	77.6	93.6	100.0
SE	11.3	<b>38.6</b>	77.0	92.2	100.0

IT	7.9	<b>40.3</b>	76.4	93.5	100.0
CZ	12.0	<b>40.5</b>	78.5	95.3	100.0
DE	8.7	<b>40.9</b>	80.9	95.1	100.0
PL	22.1	<b>51.7</b>	89.9	98.0	100.0
	9.9	<b>38.1</b>	76.8	93.5	100.0

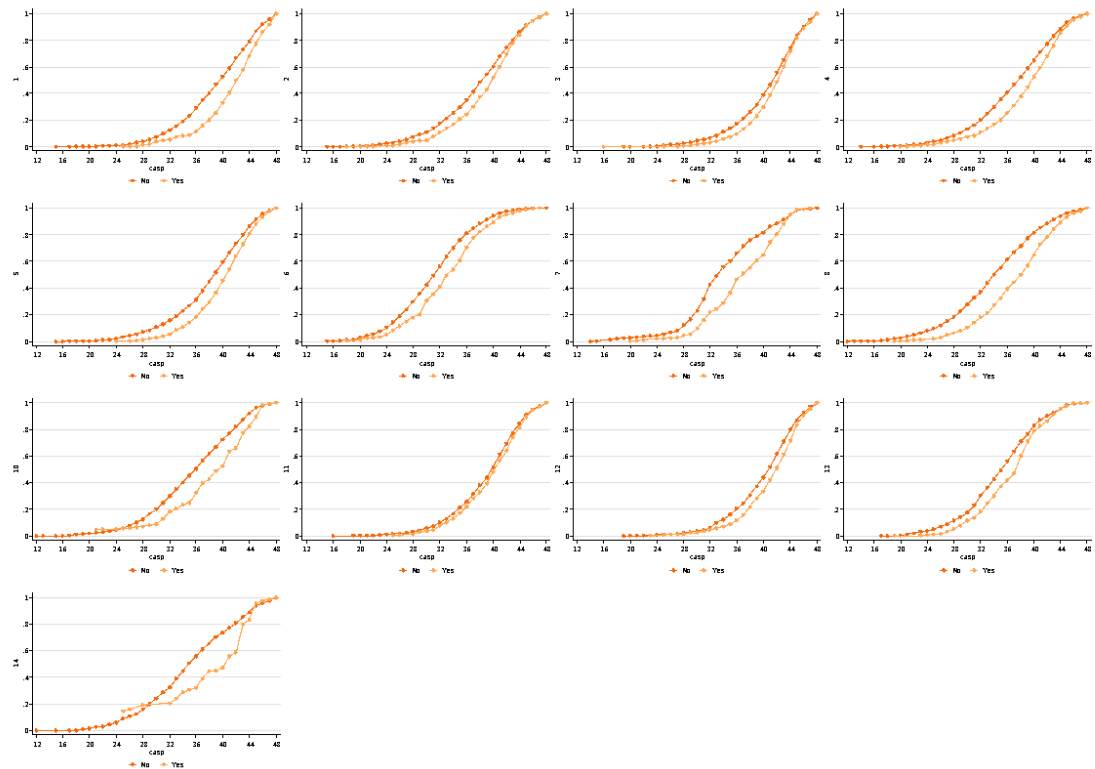
a) ... and volunteering



- ⇒ Participation in volunteering associated with less frequent declaration of poor health
- ⇒ Participation in volunteering associated with more frequent declaration of at least good health

## 6. CASP – quality of life amongst elderly

- a. Description of CASP
- b. CDF distributions



- c. It is like FSD (first order stochastic dominance) what means that welfare (wellbeing) of those volunteering is higher than those non-volunteering for each welfare function having casp as an argument of the welfare function.

## 7. Kendall tau-b as measurement tool for investigating association between popularity of volunteering and health and QoL

### 1. Definition

## IV. Results

1. Values for each country
  - a. Volunteering-subjective health
  - b. Volunteering- QoL (casp)
2. Significance tests for differences in volunteering-health associations as measured by tau-b (p-values)

	AT	FR	BE	CH	DE	DK	CZ	IT	SE	PL	IS	GR	S
Rate	20.1%	22.9%	26.6%	29.5%	23.9%	31.4%	8.9%	11.8%	14.7%	3.4%	15.5%	7.0%	6.3%
Tau-b	16.2%	12.5%	12.3%	12.1%	11.2%	9.9%	8.5%	8.2%	8.1%	7.3%	4.0%	2.1%	1.7%
AT													
FR	7.9%												
BE	4.5%	90.4%											
CH	7.1%	84.5%	92.0%										
DE	1.5%	49.7%	53.9%	67.5%									
DK	0.3%	20.2%	20.8%	33.0%	52.8%								
CZ	0.0%	4.1%	3.6%	9.8%	16.8%	49.0%							
IT	0.0%	2.2%	1.7%	6.4%	10.8%	38.0%	86.4%						
SE	0.0%	1.7%	1.3%	5.3%	9.0%	34.1%	81.1%	94.6%					
PL	0.0%	2.9%	2.7%	6.1%	10.1%	28.3%	60.1%	68.8%	72.3%				
IS	0.0%	0.1%	0.1%	0.3%	0.5%	2.5%	7.6%	9.1%	9.8%	25.8%			
GR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	2.7%	44.6%		
S	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	2.2%	38.3%	86.4%	

- ⇒ Only partial ordering but 5 groups may be identified
1. France, Belgium, Switzerland, Germany, Denmark
  2. Germany, Denmark, Czech Rep., Italy
  3. Denmark, Czech Rep., Italy, Spain, Poland
  4. Poland, Israel [get rid of ?]
  5. Israel, Greece, Sweden.
- ⇒ For example: Austria, France, Belgium, Switzerland, are different to Czech Rep., Italy, Spain, Poland
- ⇒ Germany and Denmark are between



- ⇒ Denmark, Czech Rep., Italy, Spain are different Israel, Greece, Sweden, with Poland being between
- ⇒ There are signs of a relation between economic development and association between volunteering and health

### 3. Significance tests for differences in volunteering-QoL associations as measured by tau-b

	IS	AT	IT	FR	DE	SE	BE	PL	CH	GR	DK	CZ	S
Rate	15.5%	20.1%	11.8%	22.9%	23.9%	14.7%	26.6%	3.4%	29.5%	7.0%	31.4%	8.9%	6.3%
Tau-b	15.4%	14.1%	14.4%	12.3%	10.9%	10.3%	10.1%	9.0%	8.6%	8.2%	6.4%	5.3%	3.3%
IS	58.4%												
IT	64.1%	87.9%											
FR	19.0%	36.2%	23.7%										
DE	5.0%	8.9%	3.6%	43.4%									
SE	2.1%	3.4%	0.9%	24.0%	71.1%								
BE	1.8%	2.6%	0.6%	20.3%	63.6%	91.4%							
PL	1.5%	2.5%	1.0%	13.6%	38.0%	53.8%	59.3%						
CH	0.6%	0.9%	0.3%	6.7%	23.8%	36.2%	41.0%	84.3%					
GR	0.2%	0.1%	0.0%	2.2%	11.7%	20.1%	24.1%	71.4%	87.5%				
DK	0.0%	0.0%	0.0%	0.2%	1.5%	2.7%	3.5%	24.6%	30.9%	31.6%			
CZ	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.3%	8.5%	10.5%	8.7%	54.6%		
S	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	1.2%	0.6%	10.9%	28.1%	

- ⇒ Different ordering than for health
- ⇒ ...

### 4. How associations are related to volunteering rates ?

Subjective health	Quality of life (CASP)
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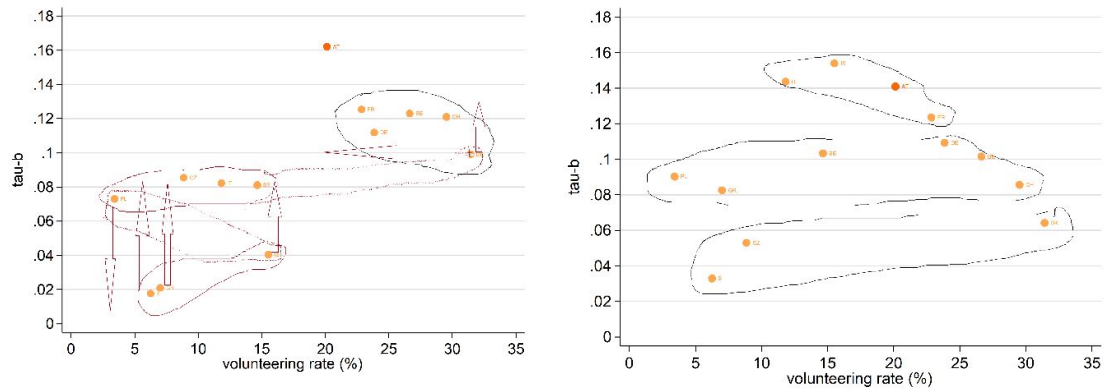


Fig. X ...

- ⇒ “switching model” for health or Denmark as outlier. In both cases a rather linear association showing that more volunteers means higher “correlation” between volunteering and better subjective health
- ⇒ More “non-linear” association for quality of life with the maximum around 15% (Denmark)

## **Discussion and conclusion**

- ⇒ Any idea how these results fit to the literature and how associations between subjective health and volunteering (more linear) and QoL and volunteering may be explained ?