

# SUFFERING THE CRISIS?

## The impact of the economic recession on self-reported health of Italians

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# INTRODUCTION & BACKGROUND



# Main aim

To shed light on the **evolution of self-perceived health** (SRH) over the years of the last **economic crisis in Italy** and foster the study of how the **effects** are **heterogeneous** across social groups

# General context

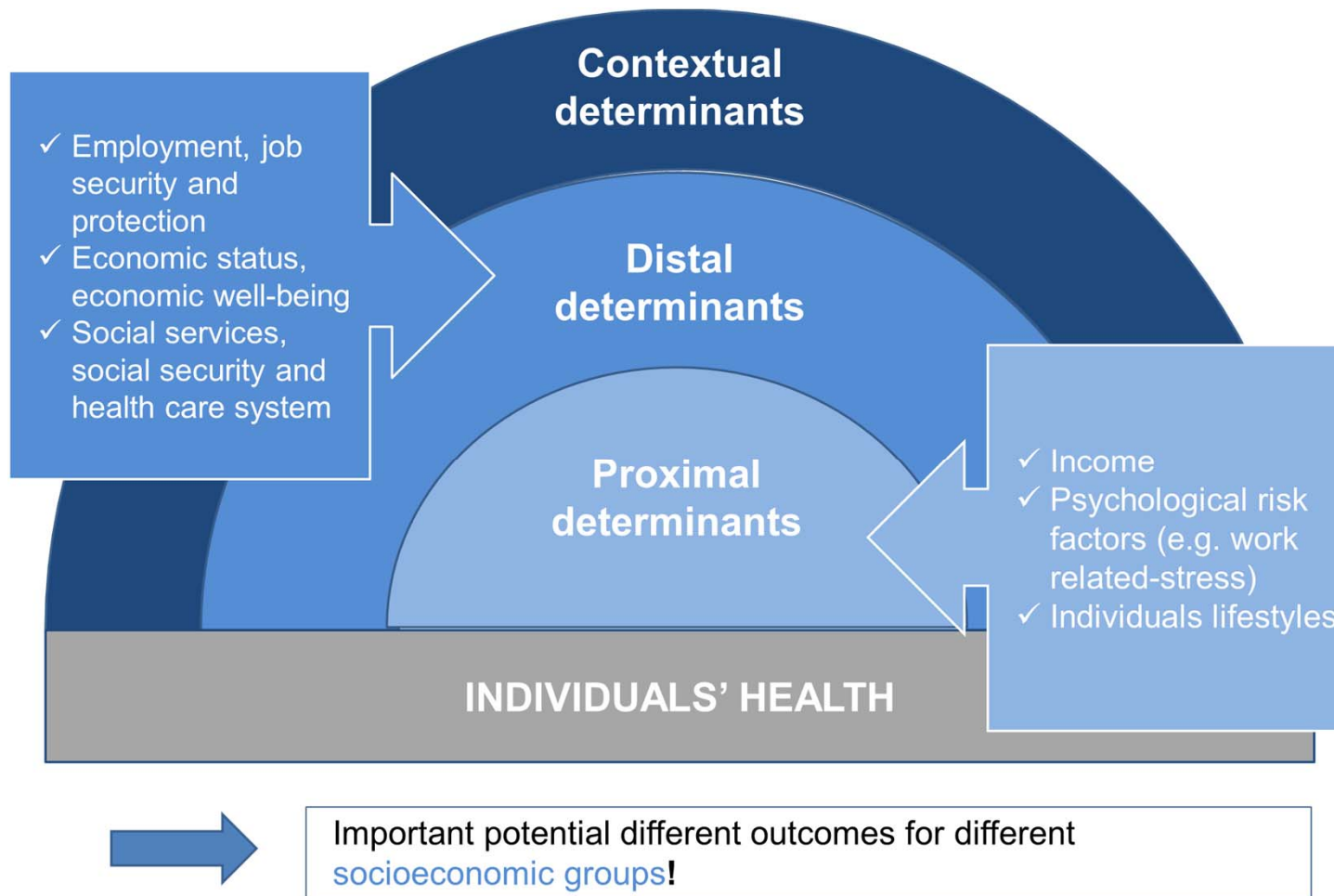
In 2008 the economic crisis hit the Italian real economy inflicting enduring social distress (*ISTAT, Eurostat*)

- The worsened economic conditions, a decrease in social (work), economic (income) and service resources (austerity measures since 2010), have raised major concerns that the economic crisis may have a negative impact on health and on health inequalities.
- Italy can be even more vulnerable because of (a) the size of its public debt, (b) its resistance to economic innovations and (c) the fragility of its social welfare system (Cislaghi 2013, Costa et al. 2012)

# Research questions

- I. Has the last economic crisis substantially affected the self-perceived health of Italian people?
- II. If so, how is the economic downturn associated with health outcomes?
- III. Are occurring correlations equals by socioeconomic status?

# Health determinants in the time of crisis



# What we learn from previous crisis?

## (1) Long run effect



- + General **positive impact** of economic booms on individual's health and healthiness if the positive outcomes are equally distributed

The last 150 years of Italian history document how increased prosperity, better working and living conditions lead to an **increase in life expectancy** and **health enhancement** (Costa & Vecchi 2011)

# What we learn from previous crisis?

## (2) Short run effect



Contradictory results and surprising paradoxes:

- + Improvement of environmental pressure factors leads to beneficial health effects
- + Unhealthy behaviors could be discouraged by lower economic resources
- However, income reduction and unemployment might increase mental health problems related to stress and uncertainty, as well as decrease healthy habits



# Socioeconomic differences

The economic downturns tend to have a greater impact on the most disadvantaged groups of the population (*Marmot 2010, Mackenbach 2006*):

- + Most disadvantaged groups are traditionally more likely to adopt unhealthy behaviours, the positive short-run mechanisms could have a major impact to reduce social inequalities
- Higher financial and employment insecurity increase the risk of mental health related problems
- Budget cuts on public expenditure of the health care sector (specialist care and drug prescription), together with the increase of co-payement have had a higher impact on the most vulnerable socioeconomic individuals



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# DATA & METHOD



# Data & methods

## SOURCE

AVQ  
Italian National Survey on Daily Activities

## YEARS

2007

25,546 *i*

2008

25,862 *i*

2009

26,105 *i*

2010

26,467 *i*

2011

25,921 *i*

2012

24,871 *i*

2013

24,591 *i*

2014

23,844 *i*

2015

23,756 *i*

## FINAL SAMPLE

Cross sectional sample:  
226,963 individuals aged 25 to 64, 51% women

## METHOD

### LOGISTIC REGRESSION MODELS

- Women 25+, Men 25+
- Women 25+, Men 25+ by education level
- Standard errors allow for intra-group correlation

# Data & methods (2)

## ➤ OUTCOME VARIABLE: SELF-RATED HEALTH

Question:

*“How is your health in general?”*

Very good / good / fair / bad / very bad

*GOOD = 0*

*POOR = 1*

- ✓ outcome normally related to economic trends (*Costa et al. 2012*)
  - ✓ reliable measure of objective health (*Martikainen et al. 1999*)
  - ✓ good predictor of mortality and morbidities in individuals (*Pietz and Petersen 2007*)
- data specification: category ‘fair’ is translated into the italian *discretamente* (2007/08) – *né bene né male* (2009/15), a modality with a positive connotation

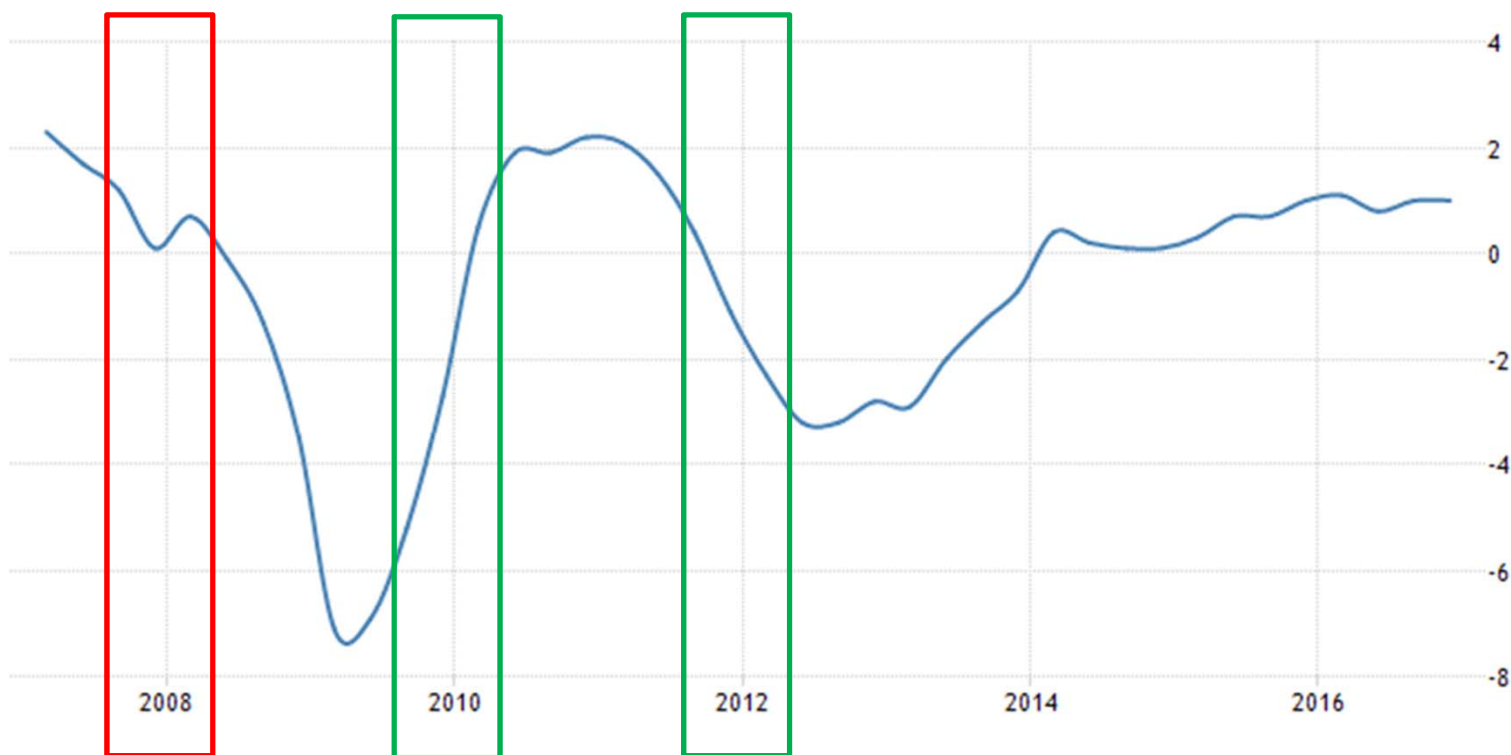
# Data & methods (3)

## ➤ MAIN EXPLANATORY VARIABLE: YEAR TREND VARIABLE

- ✓ *Demographic controls*: age groups (25-44,45-54,55-59,60-64), marital status and family size
- ✓ *Objective socioeconomic conditions*: education level, employment status, area of residence, dwelling tenure status and n. of rooms
- ✓ *Subjective socioeconomic states*: absolute and relative household income judgment
- ✓ *Health status*: serious chronic diseases and multiple not-severe chronic diseases

# Reference year 2007

**Figure 1. GDP Annual Percentage Growth Rate  
Italy, 2007-2016**



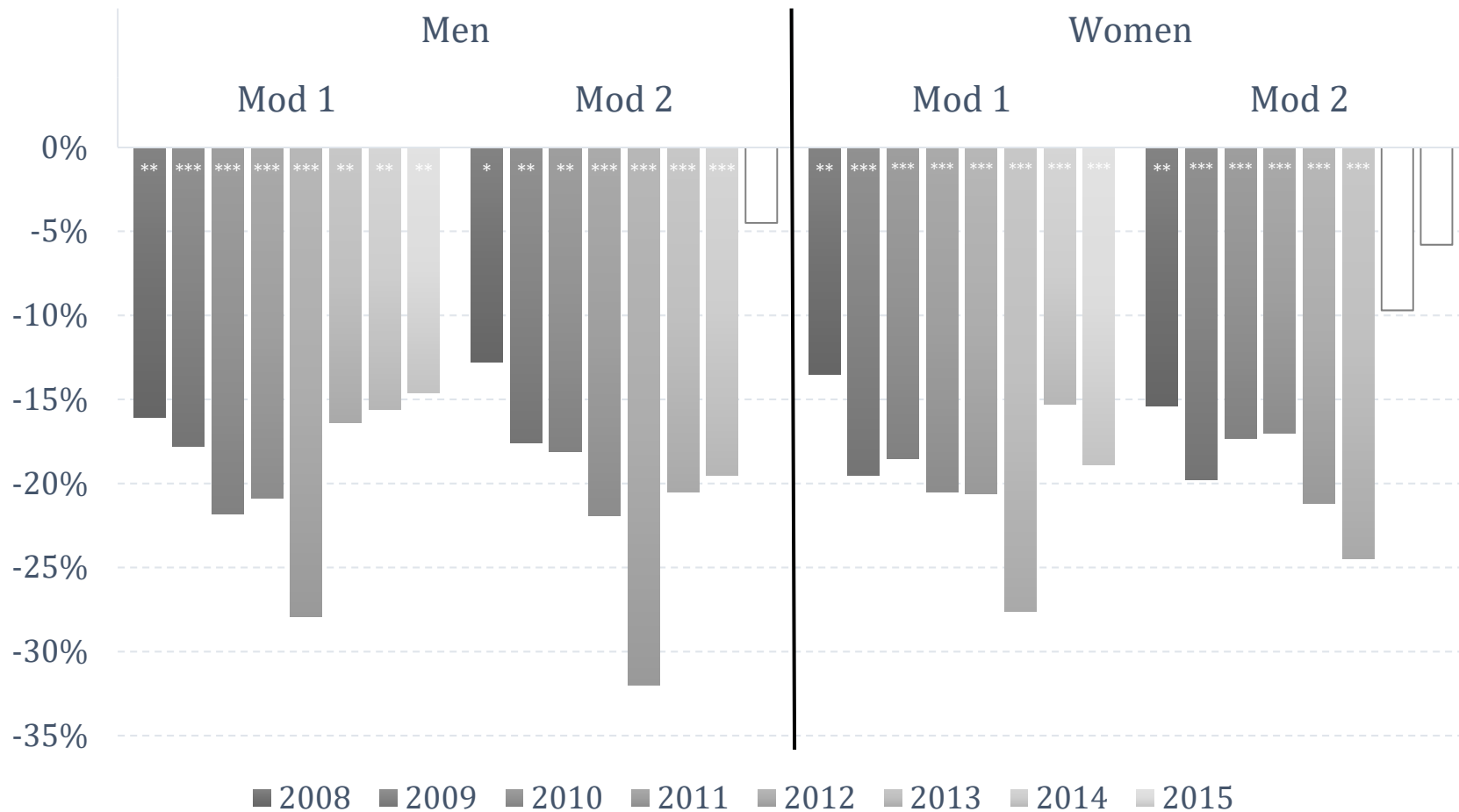


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# RESULTS



# Overall models



Reporting odds ratio in % (ref. year = 2007)

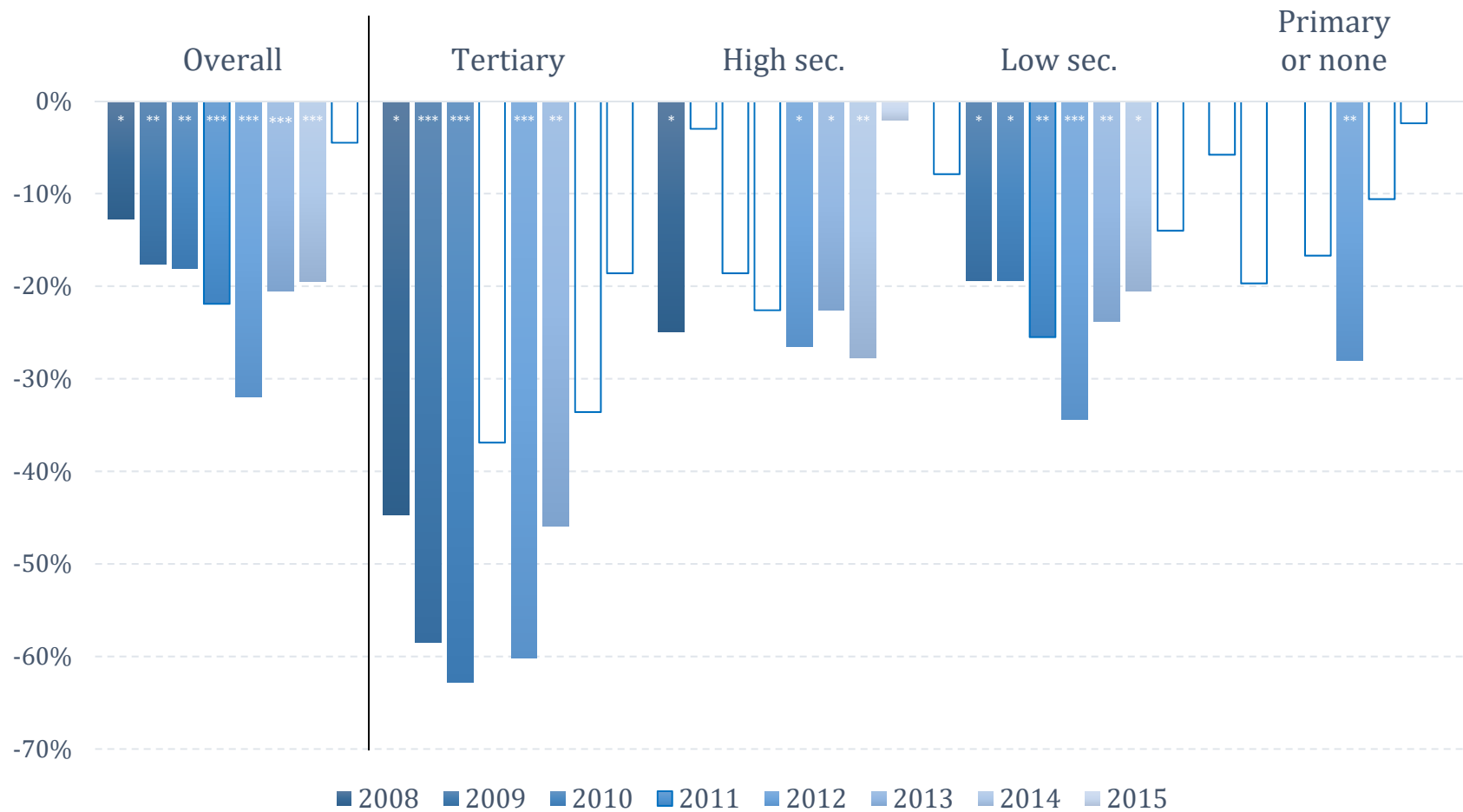
Sig. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , shaded if not significant

Mod 2 includes all control variables (demographics, socioeconomic and health status)



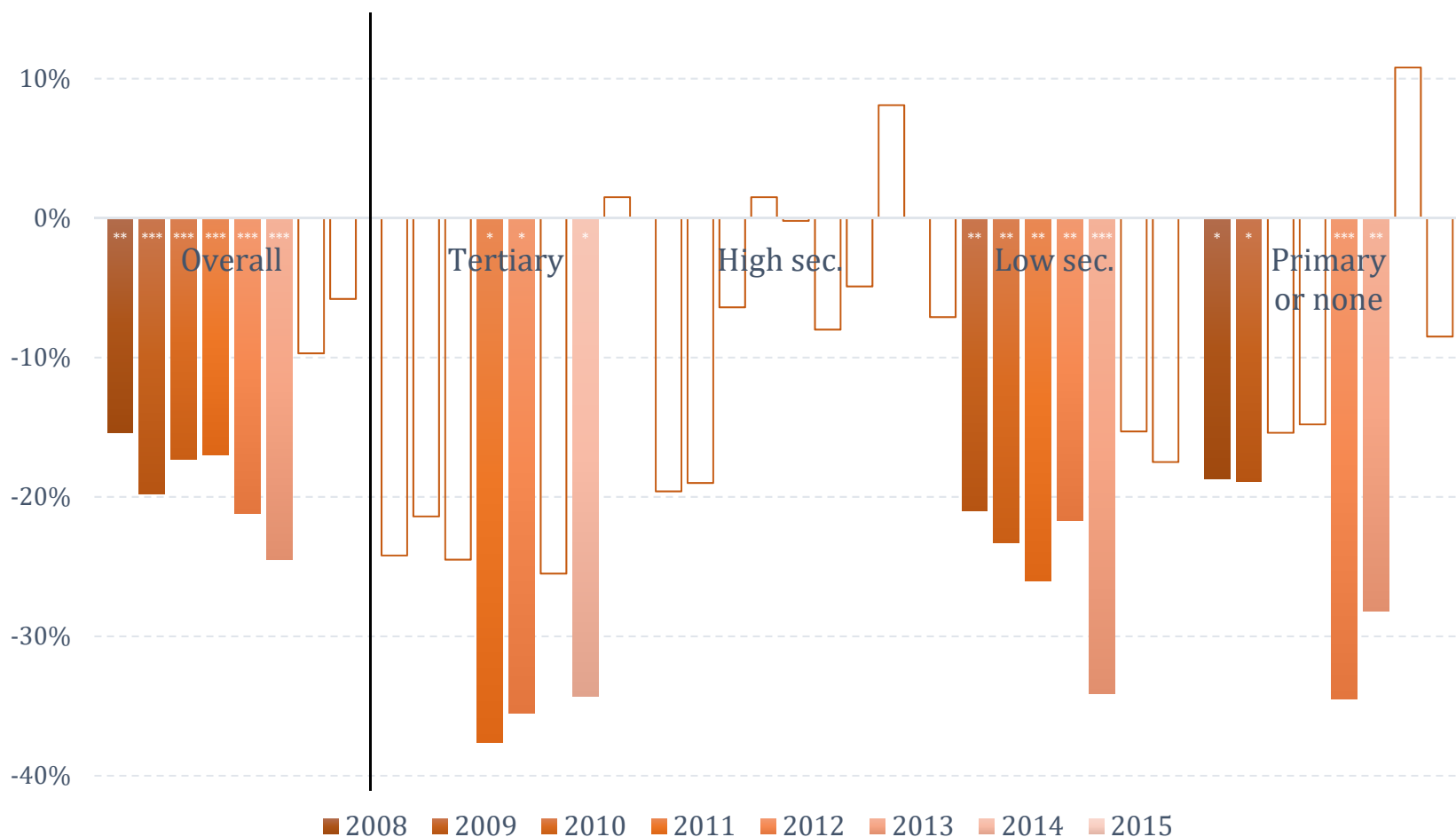
# Men

## by education level



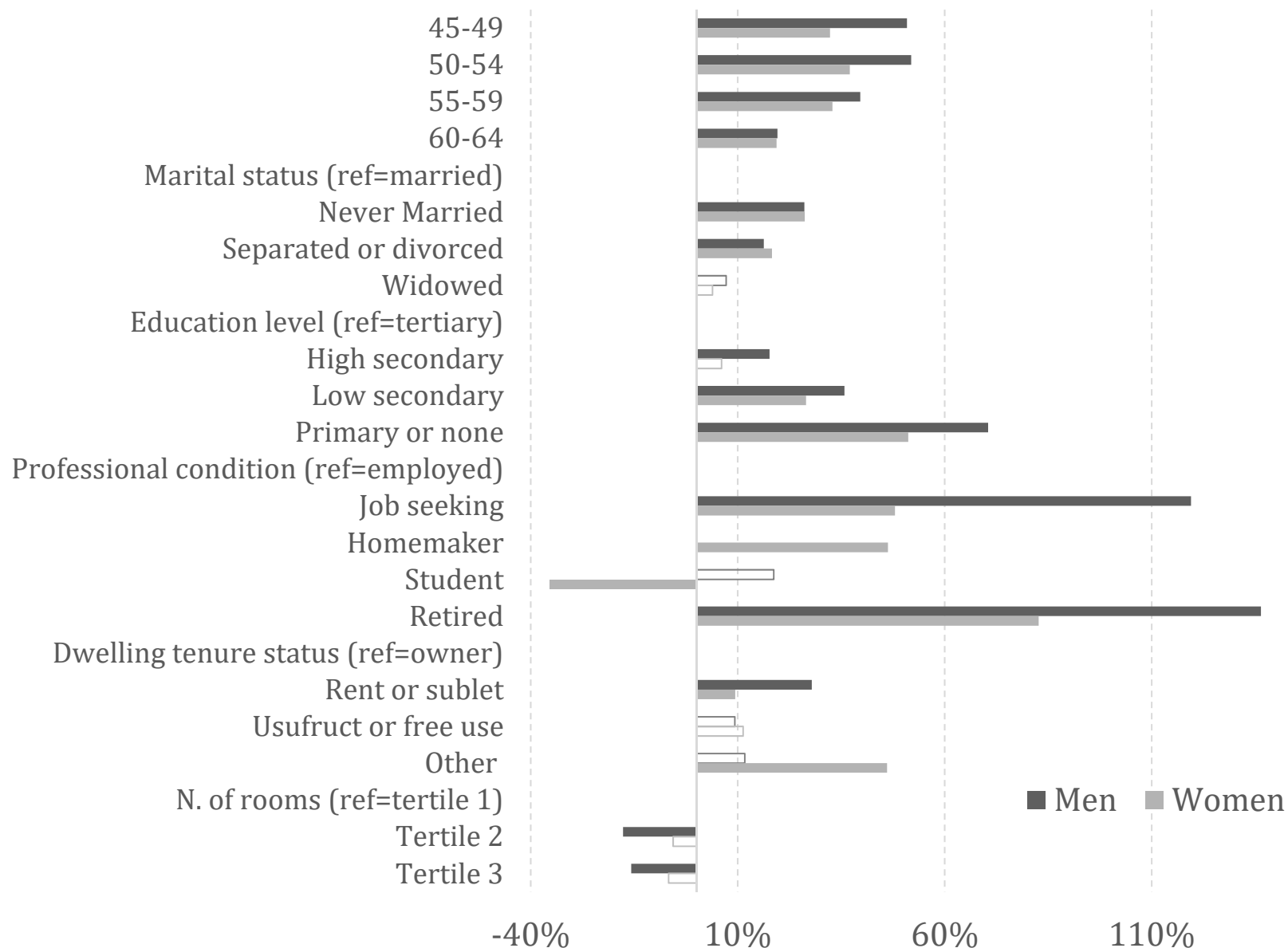
Reporting odds ratio in % (ref. year = 2007), all controls included  
 Sig. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , shaded if not significant

# Women by education level



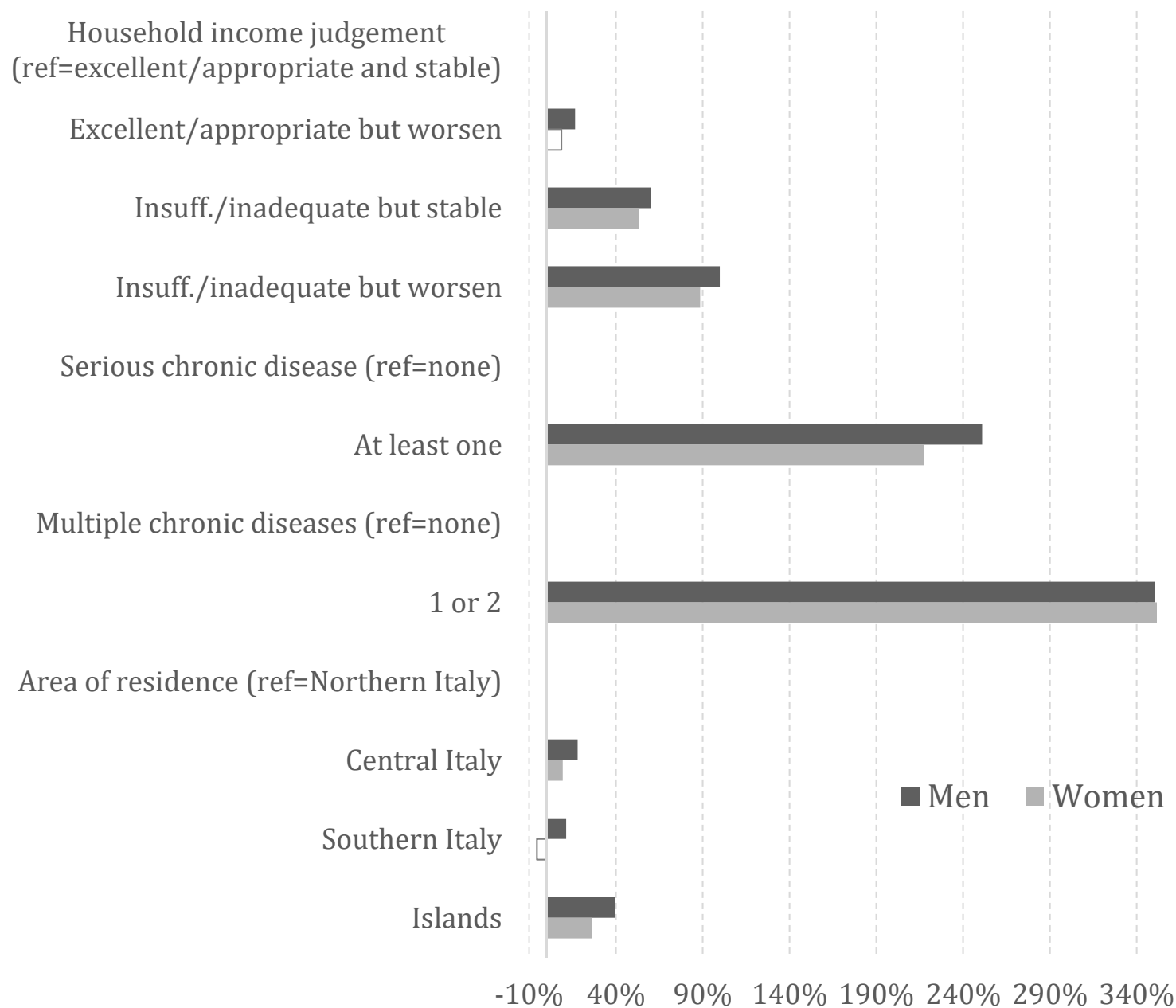
Reporting odds ratio in % (ref. year = 2007), all controls included  
 Sig. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1, shaded if not significant

# Control variables



Reporting odds ratio in % (ref. year = 2007), full models - all controls included  
 Sig. at least =  $p < 0.1$ , shaded if not significant

# Control variables (2)



Reporting odds ratio in % (ref. year = 2007), full models - all controls included

Sig. at least =  $p < 0.1$ , shaded if not significant



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# TRENTINO ALTO-ADIGE

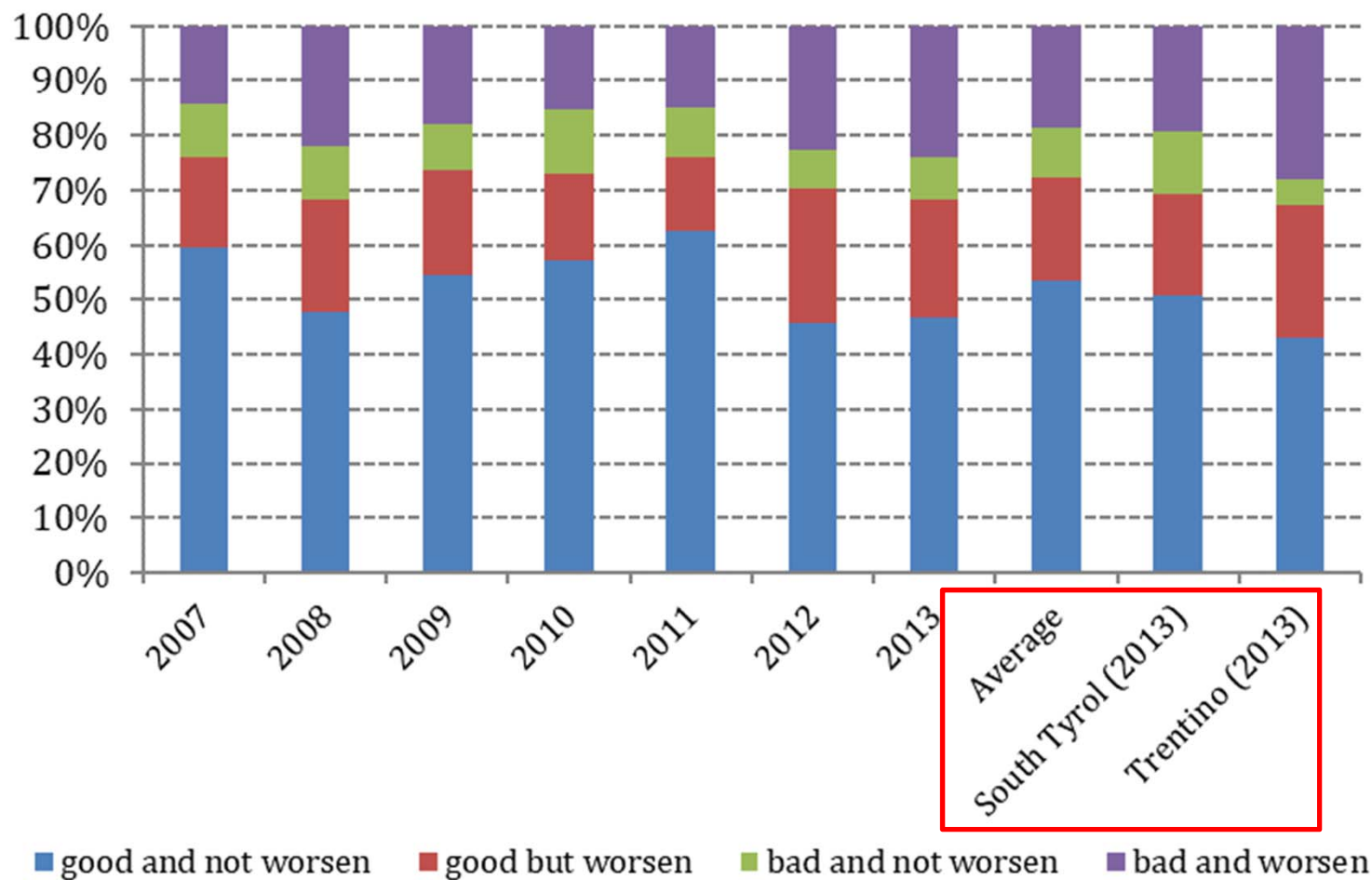


## The TAA data in AVQ survey

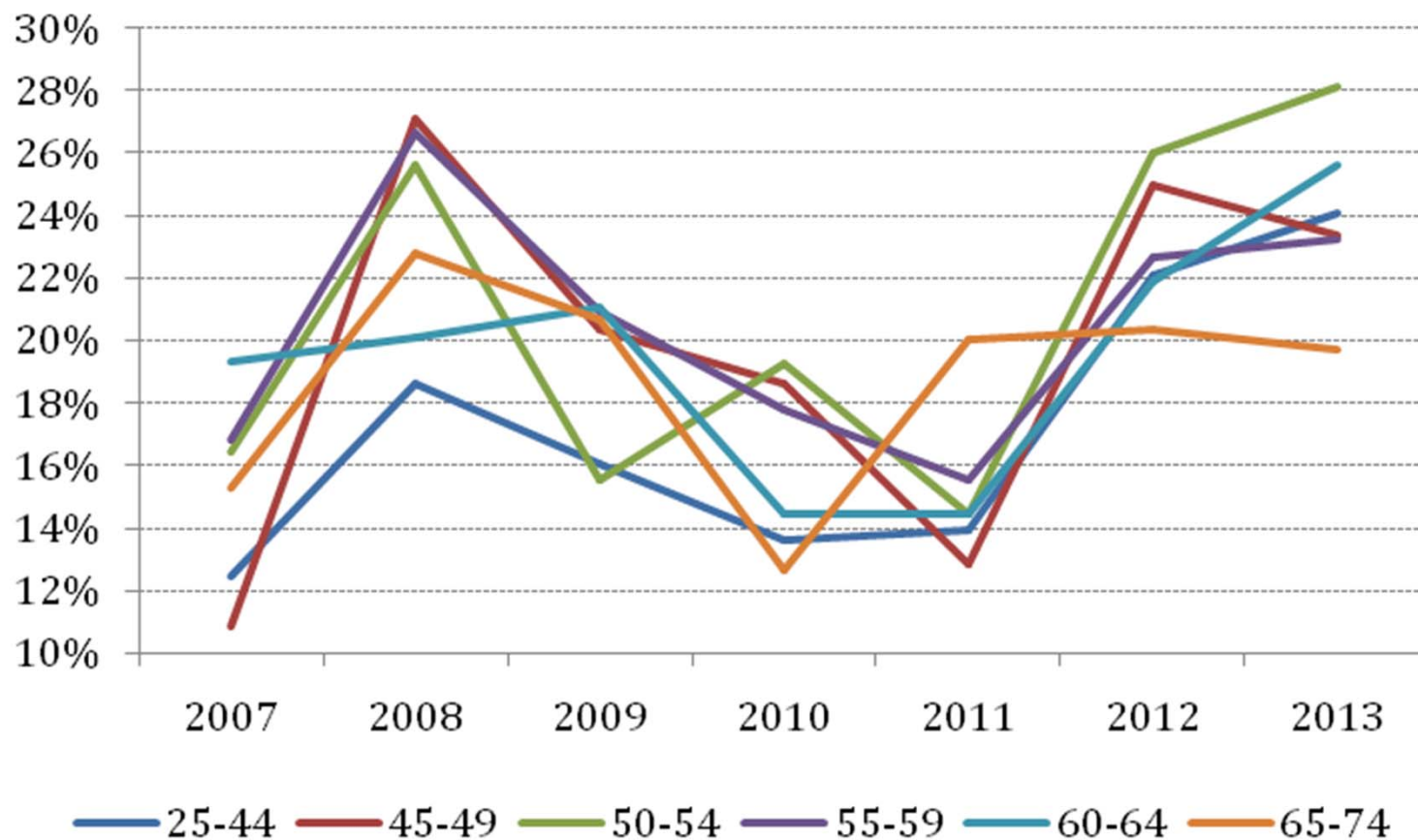
Anno	Obs.	Famiglie	% Donne
2007	1,674	1,674	50.53
2008	1,735	1,735	50.07
2009	1,697	1,697	50.03
2010	1,841	1,841	50.25
2011	1,722	1,722	50.24
2012	1,835	1,835	50.14
2013	1,734	1,734	50.44
<b>Totale</b>	<b>12,238</b>		<b>50.24</b>

\* Since 2013 separated data on South Tyrol are available

## Families economic conditions over time (period average 2007-13, weighted)

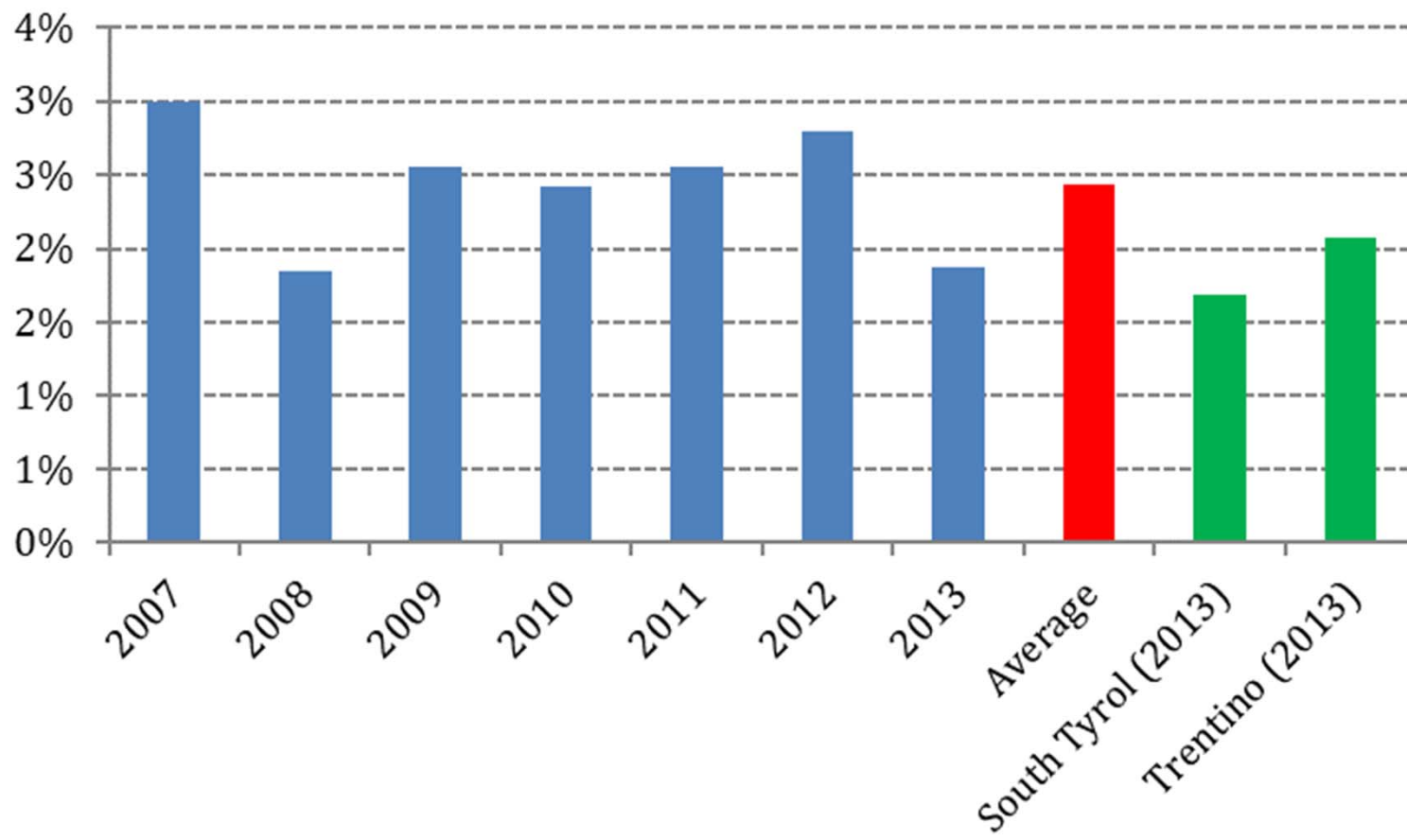


## Individuals reporting bad economic conditions, time trends by age groups (% , weighted)



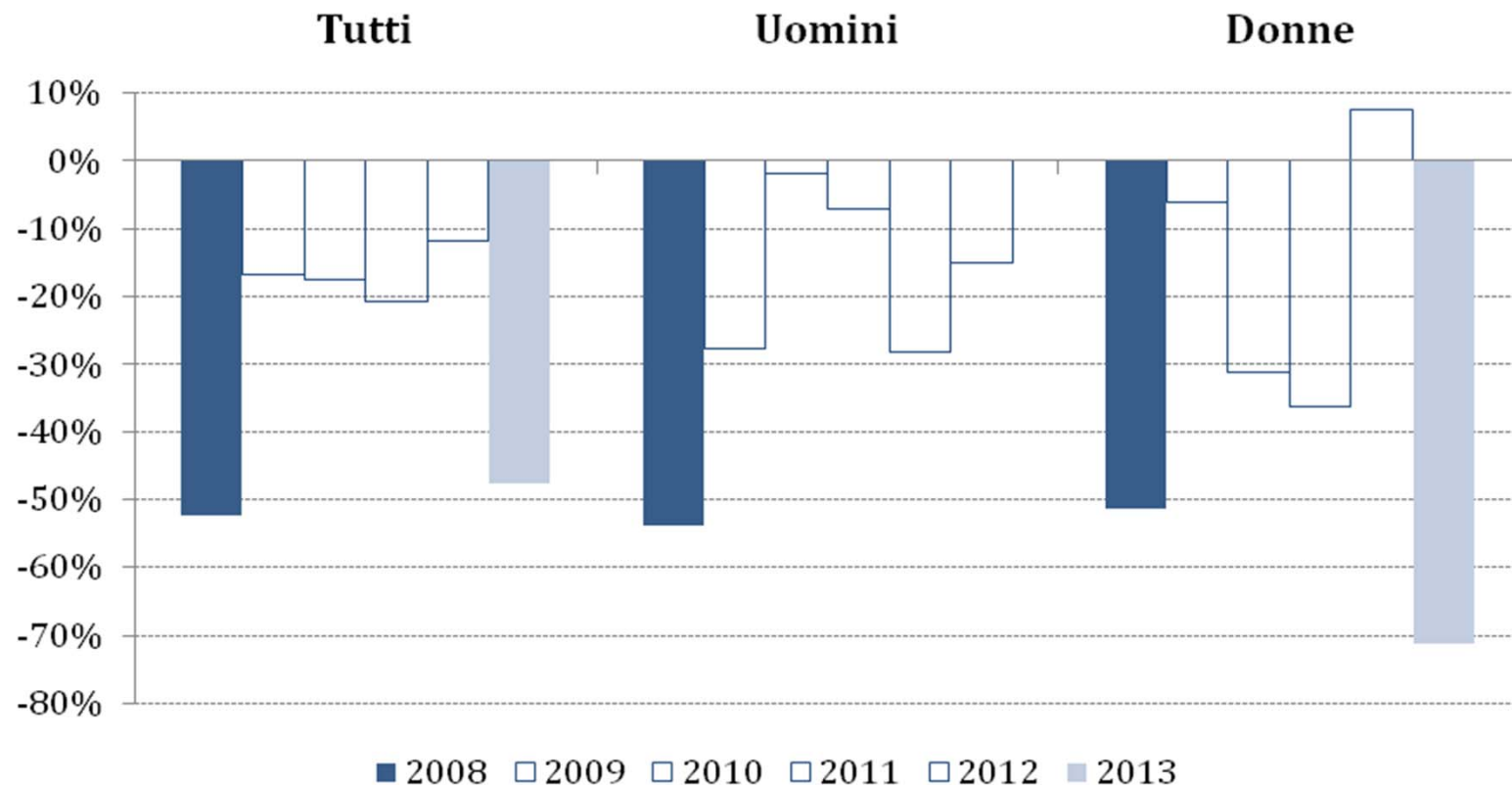


## Bad SRH over time (weighted data)



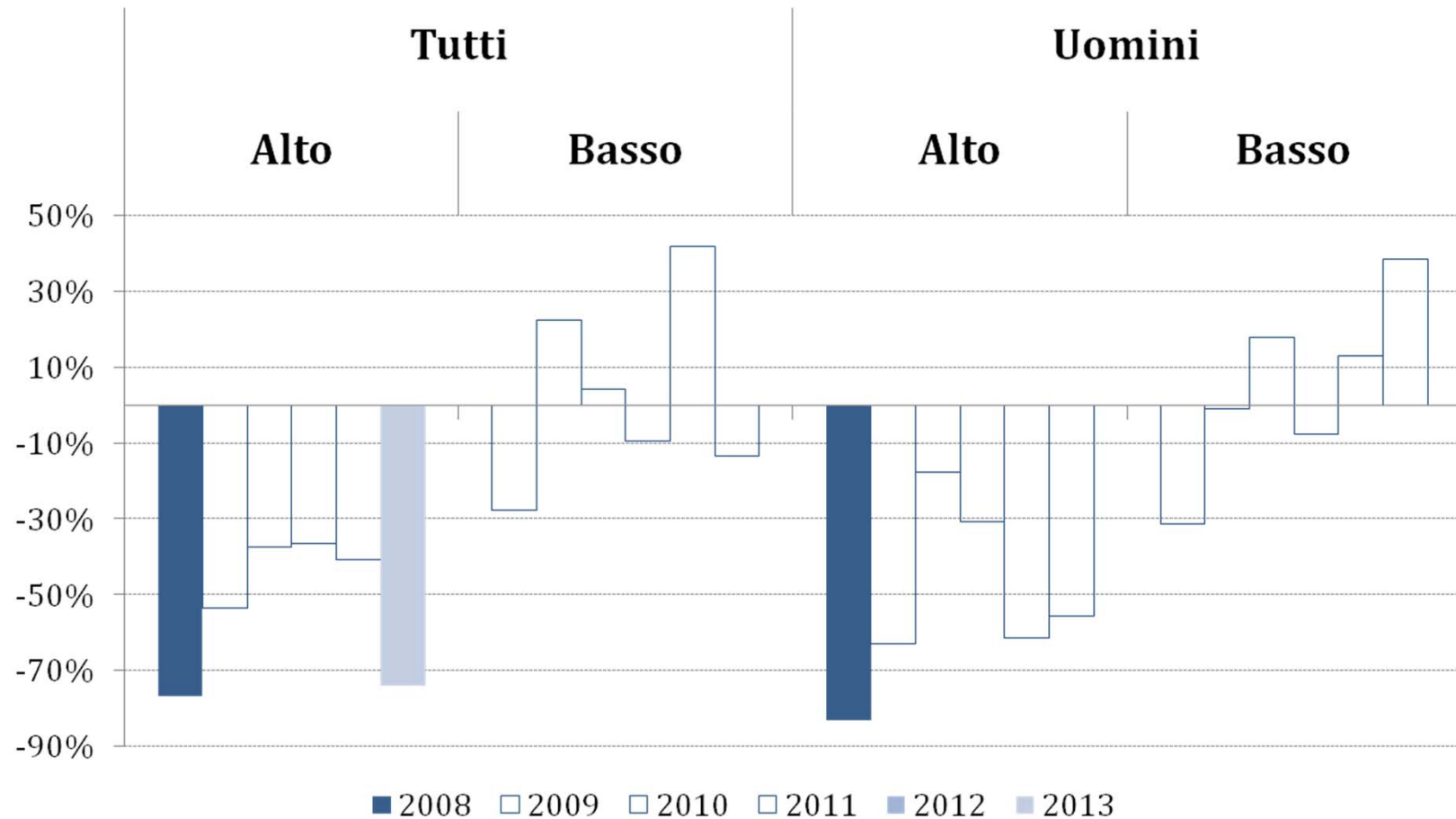
# RESULTS (1):

## Year of observation and SRH (bad/very bad)



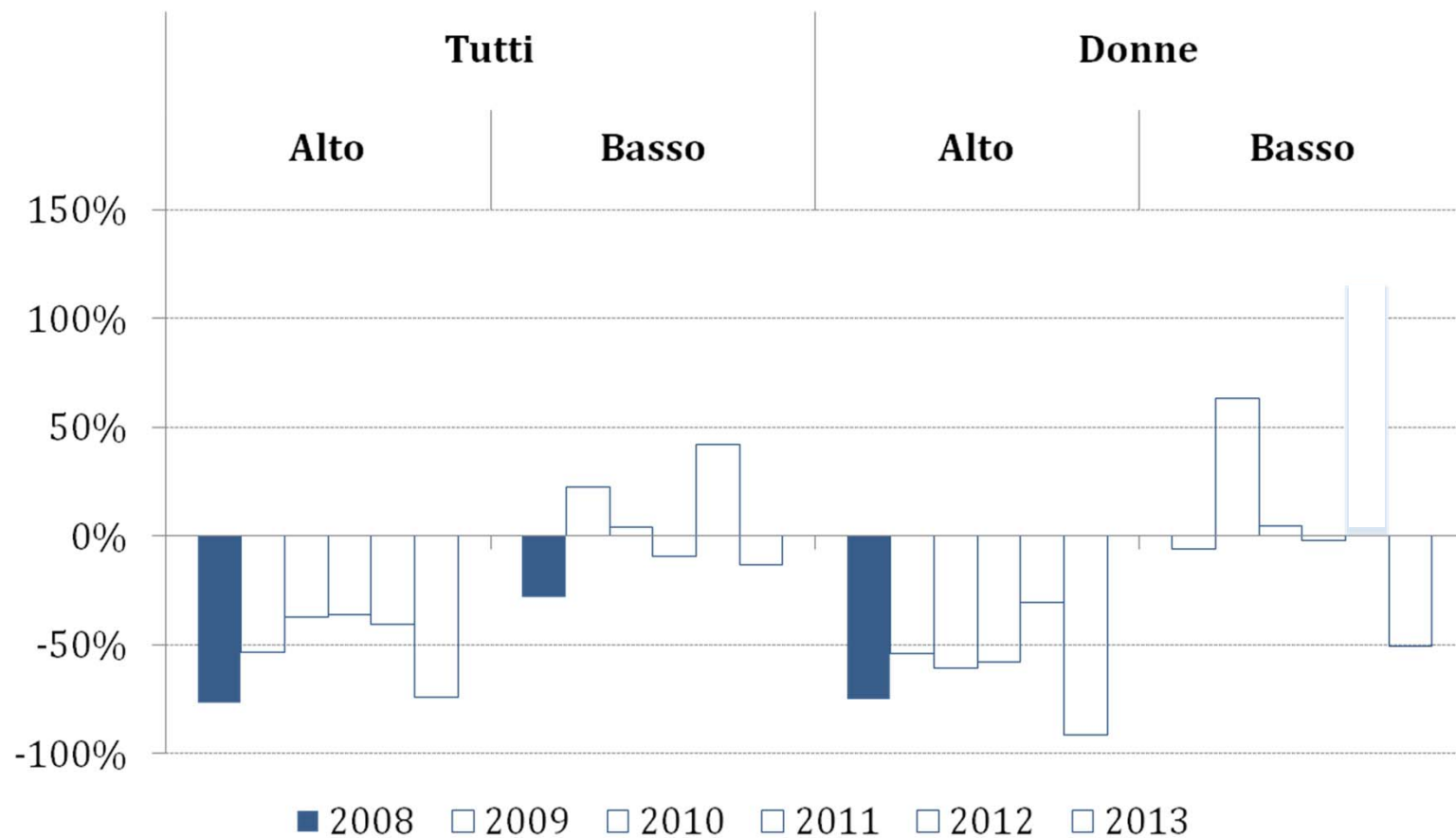
Reporting odds ratio in % (ref. year = 2007) Sig. > \*  $p < 0.1$ , shaded if not significant

## RESULTS (2) MEN: Education level



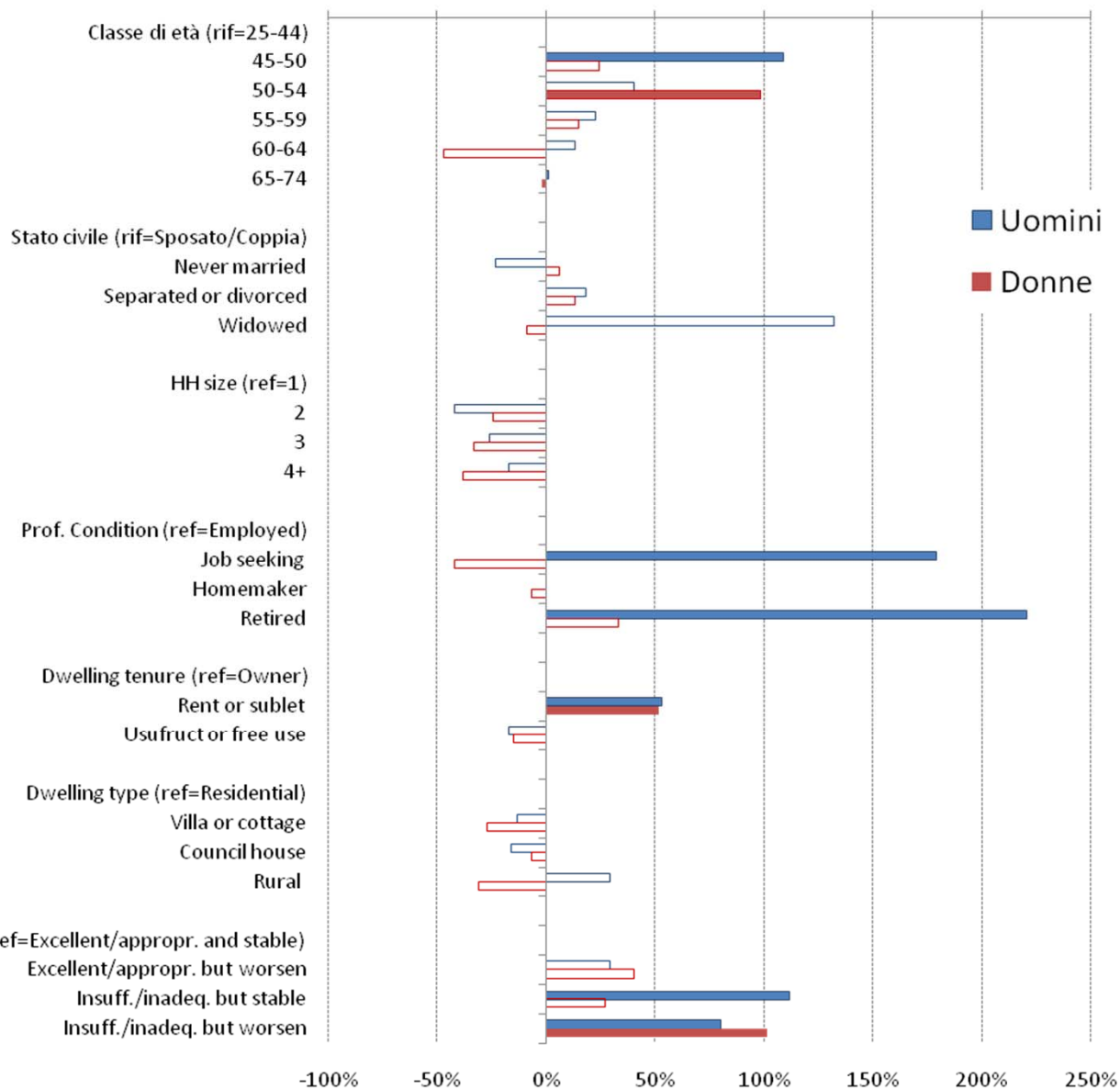
Reporting odds ratio in % (ref. year = 2007) Sig. > \*  $p < 0.1$ , shaded if not significant

## RESULTS (3) WOMEN: Education level



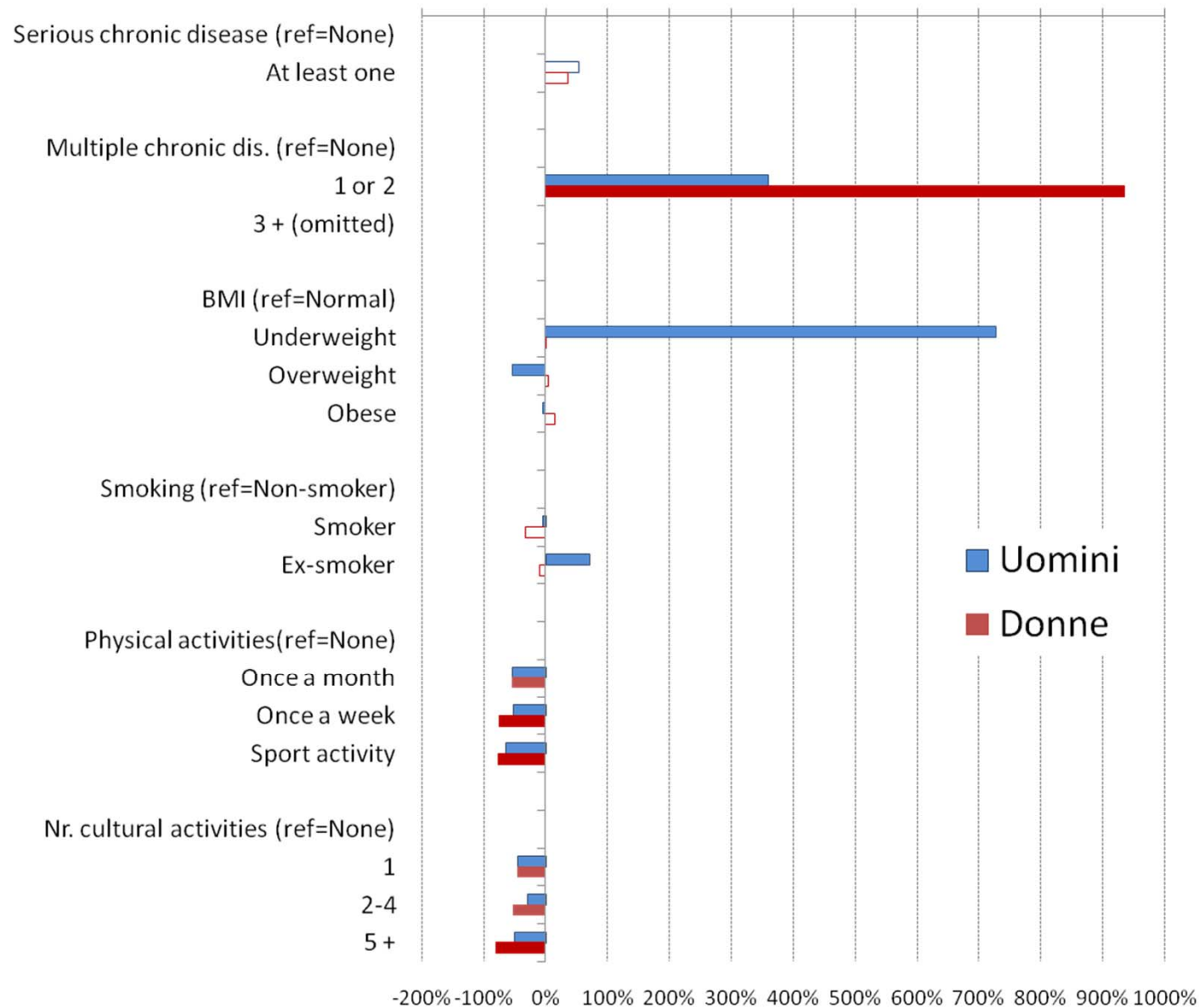
Reporting odds ratio in % (ref. year = 2007) Sig. > \*  $p < 0.1$ , shaded if not significant

## RESULTS (4): control variables



Livello di significatività =  $p \leq 0.1$   
 se non specificato  
 (trasparenza)

## RESULTS (5): control variables



Livello di significatività = p  
 ≤0.1 se non specificato  
 (trasparenza)



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# SUMMARY & CONCLUSION



# Summarizing...

- The self-rated health of individuals does not seem to have worsened over the years of the economic crisis in Italy, on the contrary, a **modest protective effect** emerges → i.e. no worsening conditions
- General trends hide relevant variations across education levels
  - different **gender effects**: the higher the level of education the higher the protective effect for men, no clear trend for women
- Taking into account the survey years, the **economic conditions** are the main determinants of health inequalities



# First conclusions & discussion

- The improvement in subjective health observed in recent decades in Italy is not hindered by recent economic conditions
  - More data on individuals' lifestyles and habits could highlight specific underlying mechanisms (e.g. tobacco use), as well as data on mortality and cause of death (e.g. work-related and traffic accidents)
- While average SRH status improved after 2007, the protective association is heterogeneous across socioeconomic groups (i.e. education level)
- Since the economic context deteriorated rapidly in Italy between 2008 and 2015, we expect that the study captures much of the relevant short term health responses to the economic downturn

# First conclusions & discussion (2)

- However, general changes in health status and health behaviours may become evident in the **long term** and not be captured over a short term period
- **Robustness test** have considered (1) a wide range of health-related behaviours that can mediate the relation 'education→health', (2) media exposure level and (3) healthy individual sub-sample models;
- However, **the study is limited** by (1) the use of cross-sectional data and (2) the lack of information on duration and exposure (e.g. to unemployment) to measure possible mechanism of adaptation
  - Probabilistic match?



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# THANK YOU

