

Erasmus
School of
Economics

On Work, Health and Happiness of Old People

Magical Mystery of Age

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NETSPAR matchmaking event

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Research Agenda

On Work, Health and Happiness of Old People

- 1 Age, Health & Happiness
- 2 Old Age Pension & Health
- 3 Labor Market Dynamics of Old Workers

Comment element = effects of age

Hence subtitle “Magical Mystery of Age”

I. Age, health & happiness

What do we know?

- Health declines with age
- Relationship between age & happiness not clear
- Discussion about whether there is a U-shape relationship
- Happiness may go down shortly before death
- Events in family life (marriage, divorce) affect happiness
- Financial situation
- Labor market
 - ▶ Transition to unemployment – negative effect on health
 - ▶ Part-time work makes some people happy

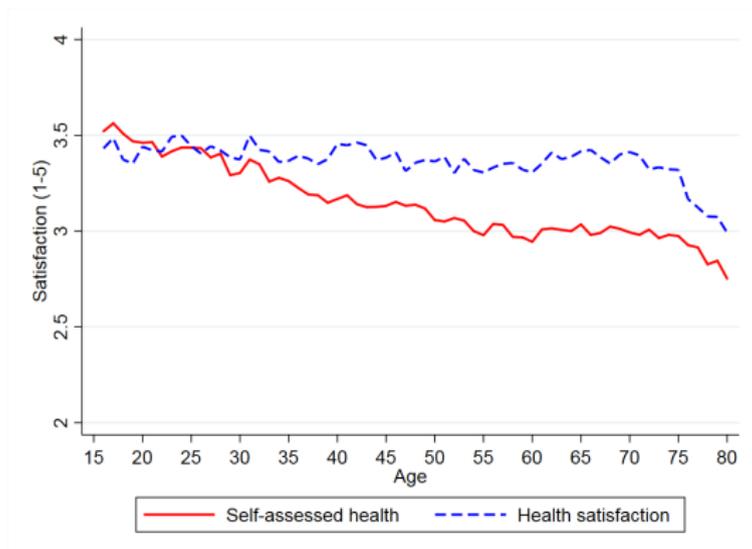
Next pages: estimates based on LISS-panel data

Satisfaction about Finance & Friends – corrected for individual FE



Financial satisfaction: How satisfied are you with your financial situation? (0-10)
Satisfaction about friends: How satisfied are you with your social contacts? (0-10)

Satisfaction about Health – corrected for individual FE



Self-assessed health: How would you describe your health, generally speaking? (1-5) **Health satisfaction:** To what extent did your physical health or emotional problems hinder your social contacts? (1-5 re-scaled 4-0)

Happiness - corrected for individual fixed effects



Life satisfaction: On the whole, how happy would you say you are? (0-10)

Ladder of life: If you imagine a 'ladder of life' where the first step represents the worst possible life and the top of the ladder represents the best possible life for you. On which step of the ladder would you say you personally feel you stand at this time? (0-10)

Happiness: Do you feel happy (never-seldom-sometimes-often-mostly-continuously; 0-10)

Parameter Estimates – Individual Fixed Effects

	Life satisfaction		Ladder of life		Happiness	
Age & calendar year trend	-0.22	**	-0.21	**	-0.24	**
Married	0.03		0.06		0.28	**
Kid(s)	-0.06	*	-0.04		-0.10	
Unemployed	-0.05		-0.03		-0.20	**
Retired	-0.04		-0.09	**	-0.40	
Satisfaction finance	0.08	**	0.22	**	0.06	**
Satisfaction friends	0.09	**	0.03	**	0.12	**
Subjective health	0.06	**	0.06	**	0.40	**
Health satisfaction	0.08	**	0.05	**	0.48	**

Identification problem: with individual FE age & calendar time are perfectly correlated.

Happiness - After correcting for characteristics & other satisfaction indicators



I. Age, health & happiness

What would we like to know?

- Disentangling age, cohort and calendar time effects
- Whether age really has an independent effect on happiness
- Happiness interpretation differs between young and old individuals – to what extent are there differences at higher ages – say 50+?
- Decline of happiness because expectations are more realistic: difference between expected happiness & realized happiness gets smaller as individuals grow older
- **Reverse causality:** effect of happiness on health & mortality
- Distinguish between life expectancy overall, in good (mental) health

II. Old Age Pension & health

What do we know?

- Retiring affects health (& happiness)
- Various health indicators including subjective health, mental health & mortality
- Direction of the effects not clear – same data different methods
- Some studies find health improves
- Other studies find health deteriorates
- Constraint versus choice?
 - ① Constraint: mandatory retirement – health deteriorates
 - ② Choice: voluntary retirement (postponing) – health improves

Age Old Age Pension Going Up

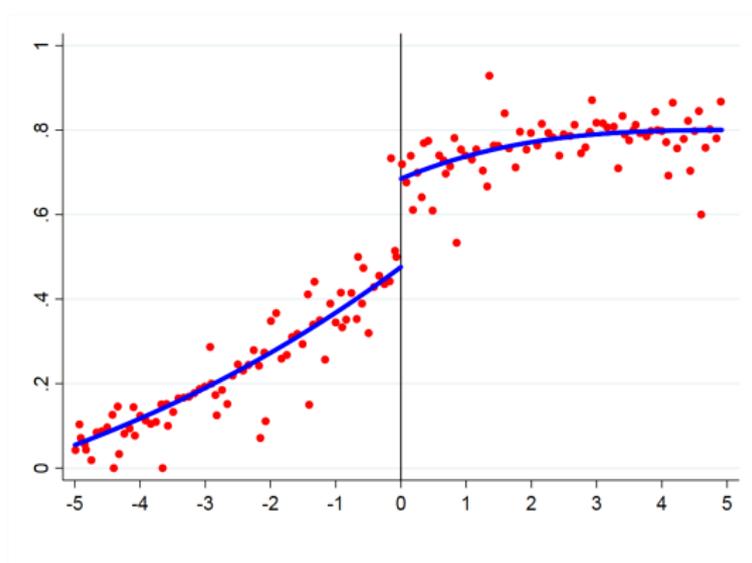
Born from	up to	Pension age		Pension date	
		Year	Month	from	up to
	1 Jan 1948	65	0	1 Jan 2013	
1 Jan 1948	1 Dec 1948	65	1	1 Feb 2013	1 Jan 2014
1 Dec 1948	1 Nov 1949	65	2	1 Feb 2014	1 Jan 2015
1 Nov 1949	1 Oct 1950	65	3	1 Feb 2015	1 Jan 2016
1 Oct 1950	1 Jul 1951	65	6	1 Apr 2016	1 Jan 2017
1 Jul 1951	1 Apr 1952	65	9	1 Apr 2017	1 Jan 2018
1 Apr 1952	1 Jan 1953	66	0	1 Apr 2017	1 Jan 2019
1 Jan 1953	1 Sep 1953	66	4	1 May 2019	1 Jan 2020
1 Sep 1953	1 May 1954	66	8	1 May 2020	1 Jan 2021
1 May 1954	1 Jan 1955	67	0	1 May 2021	1 Jan 2022
1 Jan 1955	1 Oct 1955	67	3	1 Apr 2022	1 Jan 2023

Other Old Age Pension Rule Changes

- Up to 1 January 2012 the pension benefits were received from the first day of the month in which someone reached the pension age. From 1 January 2012 onward the benefit is received from the actual pension age.
- Up to 1 January 2015 couples in which one person reached the old-age pension age while the other person was younger could get a means-tested benefit until that other person would reach the old-age pension age.

Next pages: Preliminary analysis based on LISS-panel data

Regression Discontinuity – Age of Old Age Pensions



- Months before and after age of old age pension
- Vertical scale: retired when interviewed in June
- Retirement jumps up with 20%-point
- Health seems to improve after retirement

II. Old age pension & health

What would we like to know?

- Heterogeneity of the effect of retiring on health
 - ▶ By educational attainment:
 - ★ Low educated – **constraint**
 - ★ High educated – **choice**
 - ▶ Cross-partner effects
- Do post-retirement jobs affect health?
- Is there a transition that avoids negative health effects
- Role of flexible old age pensions

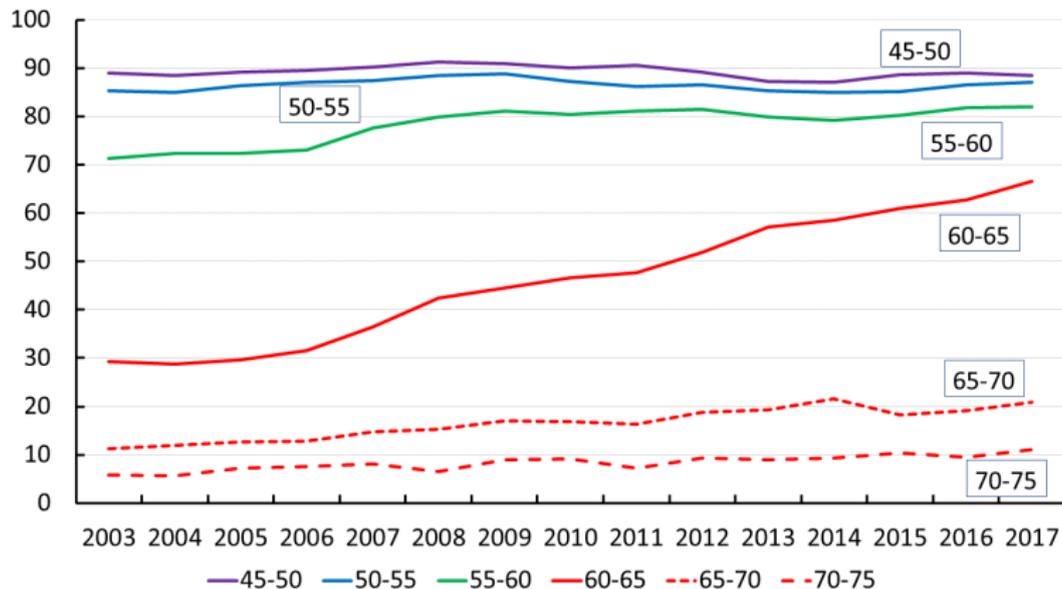
III. Labor Market Dynamics of Old Workers

What do we know?

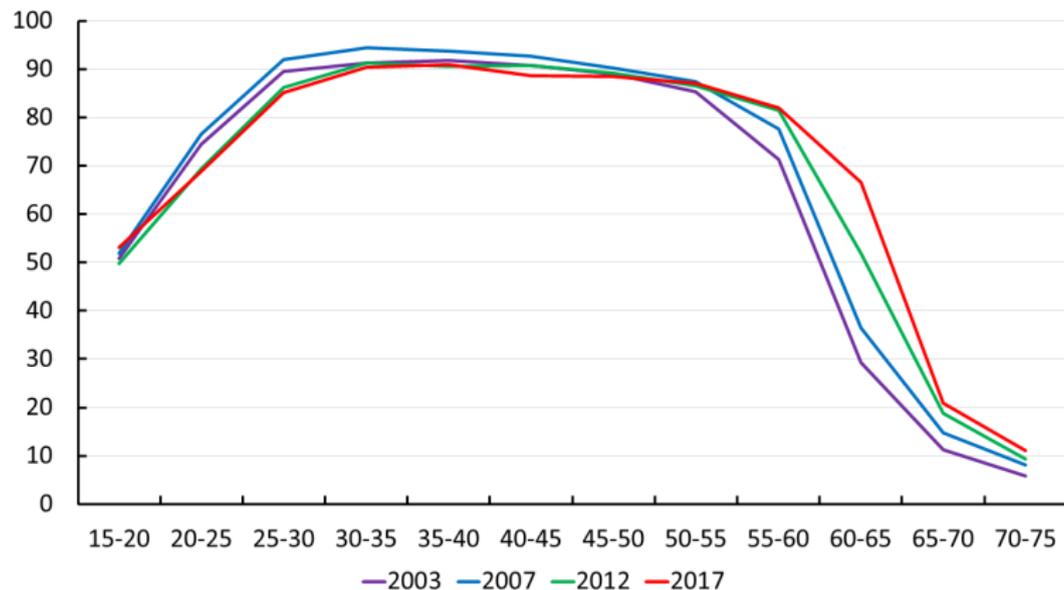
- Unemployment rate = product of inflow into unemployment and duration of unemployment
- Old workers are not very likely to lose their job
- Once they lose their job they stay long-term unemployed
- Employment rates of old workers increased a lot over recent decades
- Unemployment rates of old workers have increased relative to unemployment rates of prime age workers
- (Mis)perception on the relationship between age and productivity
- Active labor market policies for old workers not very effective

Next pages: graphs based on Statistics Netherlands data (only for men)

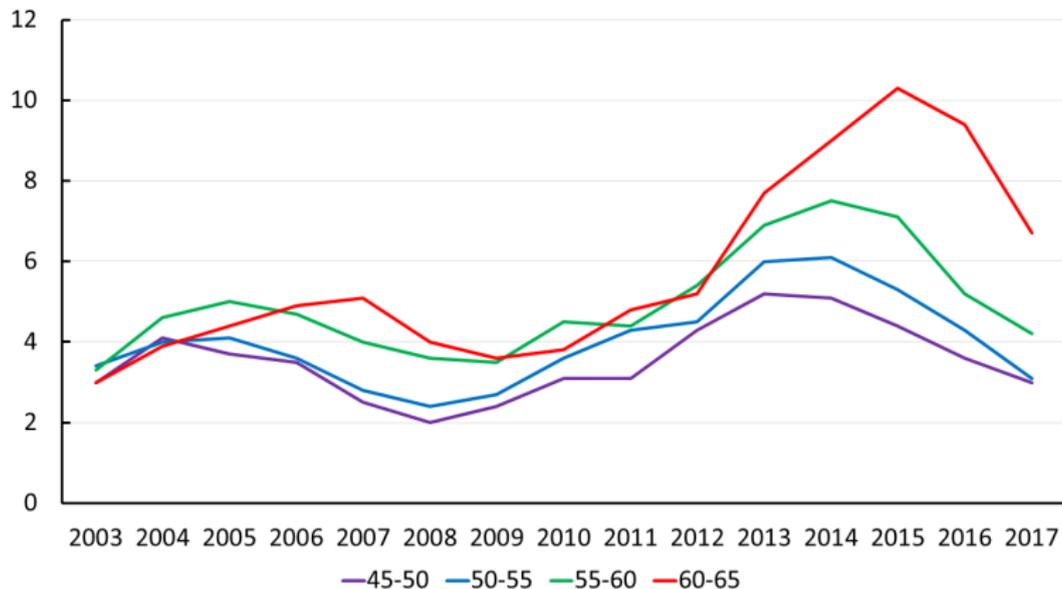
Employment rates old male workers (% of population)



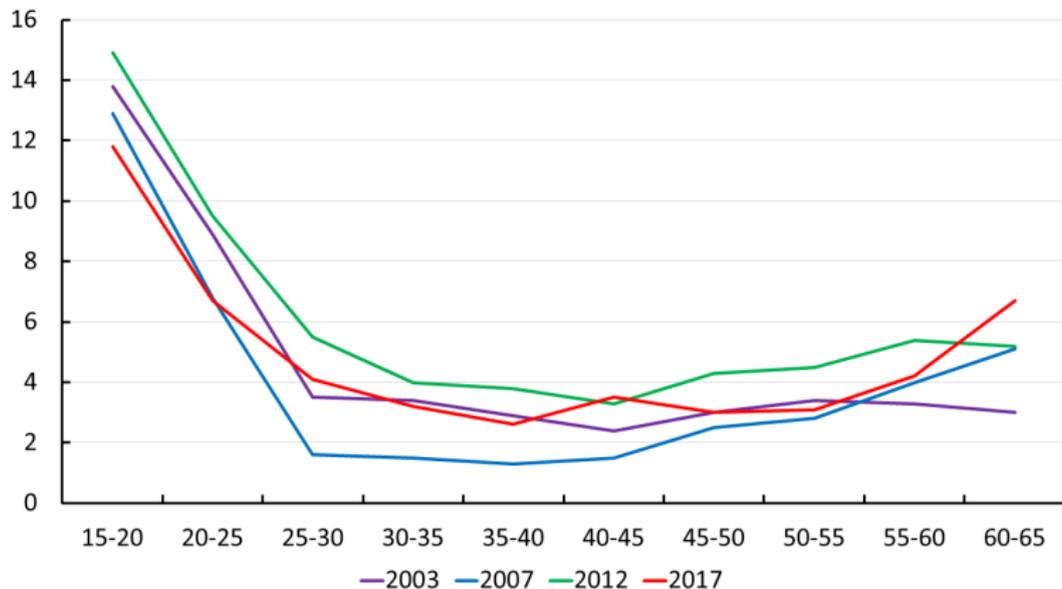
Employment rates old male workers (% of population)



Unemployment rates old male workers (% of labor force)



Unemployment rates old male workers (% of labor force)



III. Labor market dynamics of old workers

What would we like to know?

- Is the recent drop in unemployment of old workers a return to pre-crisis situation or a temporary phenomenon?
- Cohort effects? Do younger generations of old workers have a different labor market behavior?

Research Agenda **Magical Mystery of Age**

- ① Age, Health & Happiness
 - ▶ Flexible specification of age, calendar year & birth cohort
 - ▶ Simple individual FE estimates – identify shocks to health, financial situation, family, happiness
- ② Old Age Pension & Health
 - ▶ Regression-Discontinuity Design based on slowly increasing age of old age pension
- ③ Labor Market Dynamics of Old Workers
 - ▶ Multivariate transition rate analysis
 - ▶ Transitions between employment, unemployment and non-participation

Common element = Age – What does age represent?

- Health, skills, experience, reflection on life
- Accept that it is a mystery what it represents & work from there

- 1.3 Uncertainty in future survival probabilities
 - Life expectancy and health expectancy
 - Longevity and labor force participation
- 3.1 The labor market and older age groups
 - Determinants of retirement and labor supply of older workers
 - How does health affect employability and retirement?
 - Are older workers productive enough and attractive for employers?