Research seminar
Pension information and retirement behaviour

Chair Susan Kuivalainen

Finnish Centre for Pensions
ELÄKETURVAKESKUS

Pension Information and Retirement Behaviour

22 March 2018 at 1:30 p.m. – 4:00 p.m.

The seminar presents recent and on-going research from Finland and Norway on people's pension knowledge. The seminar shows how information campaigns influence knowledge, attitudes and retirement plans. It also outlines how the potential impact of information gains persist over time.

- **Olli Kangas** (Kela): Information and Legitimacy: Attitudes on the Finnish 2017 Pension Reform
- **Henning Finseraas**: (ISF) The Short and Long run Effects of Information about the Pension System
- **Sanna Tenhunen** & **Satu Nivalainen** (Finnish Centre for Pensions): Retirement Plans and Knowledge of the Incentives in Pension System among 54-62-year-old Finns
- Commentator: **Reija Hyvärinen** (Keva)

Information and Legitimacy: Attitudes on the Fairness of the Finnish 2017 Pension Reform

Ilpo Airio,
Sanna Tenhunen,
Karoliina Koskenvuo,
Susan Kuivalainen
and Olli Kangas

ACADEMY OF FINLAND

Finnish Centre for Pensions, March 22, 2018

strategicRESEARCH

The presentation is based on a Finnish publication

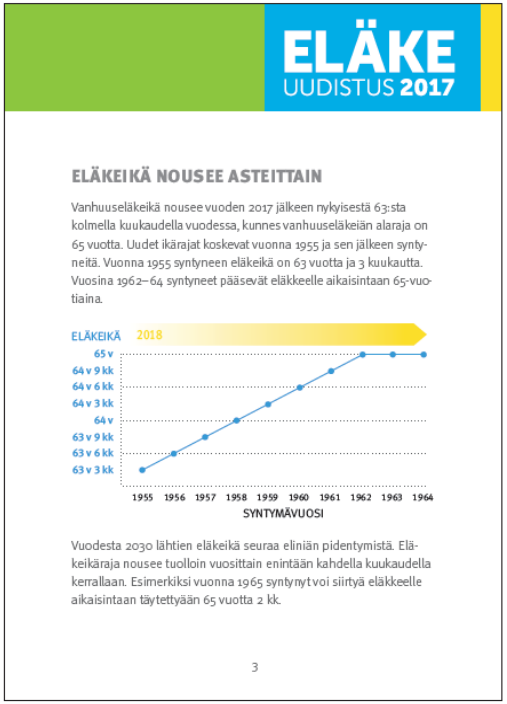
The aim of the study

- is to experimentally analyze the impact of information given by public authorities
- more specifically, we analyze to what extent, if any, additional information given on the 2017 Finnish pension reform affects people's:
  - knowledge on the characteristics of the pension system;
  - their plans concerning their own retirement;
  - opinions on sustainability of the pension system and;
  - the legitimacy of the reform

Data

- An experimental design where
  - the treatment group of 1,000 Finns 25 to 60 years of age got treatment (= an information letter, next slide)
  - an identical control group of 1,000 respondents did not
- In November 2015 a telephone interview enterprise *Taloustutkimus Oy* interviewed the treatment group and the control group
  - the very same questionnaire.
- Questionnaire contained questions on the 2017 Finnish pension reform.

Information letter sent



Knowledge

- **The ‘objective’ knowledge consists following four questions: What:**
  - is the impact of postponing retirement?
  - will happen with the pension ages when the life expectancy increases?
  - will happen with the accrual rate?
  - will happen with the adequacy of the pensions when the life expectancy increases?
- Thus, the additive indicator of the (objective)‘knowledge' varies:
  - from 0 (all four answers were wrong)
  - to 4 (all the answers were correct).

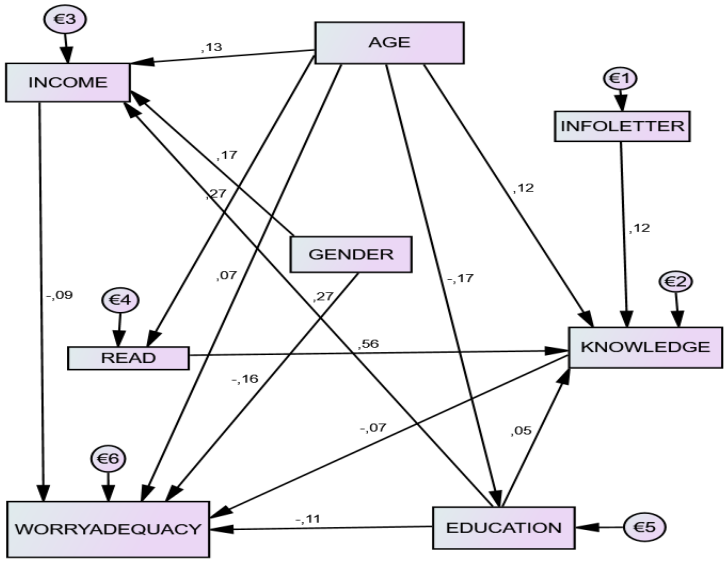
Worries concerning the pension system and perceptions of legitimacy

- Changes in pension systems may increase the **public's worries about their future**
  - continuous scale where
  - 0 = “not at all worried”
  - 10 = “very worried”
- We asked about worries about:
  - **adequacy** of the pensions:
    - will the future pension be sufficient to guarantee a decent standard of living? (scale 7-10; 51%)
  - the **increasing pension age** (55%)
  - the **sustainability** of the system (60%).

Fairness: “Overall, do you regard the pension reform 2017 as fair”

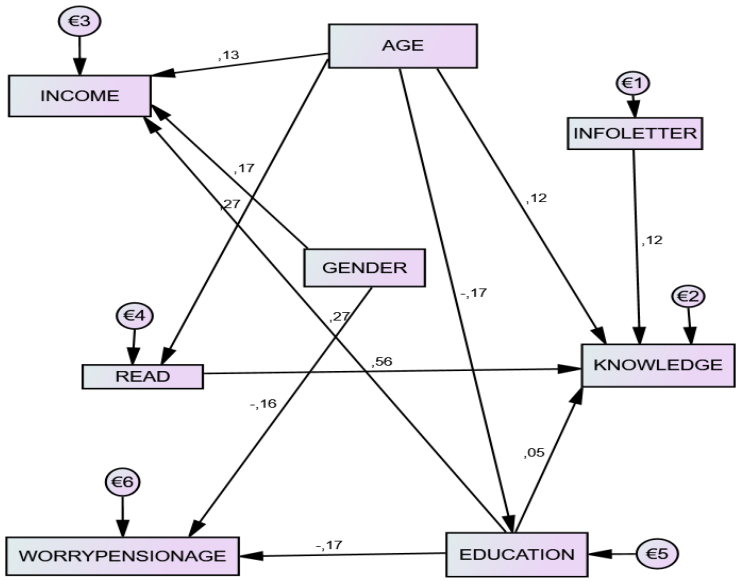
* scale 0 = not at all fair; 10 = totally fair

Worries about the adequacy of the pensions after the 2017 reform



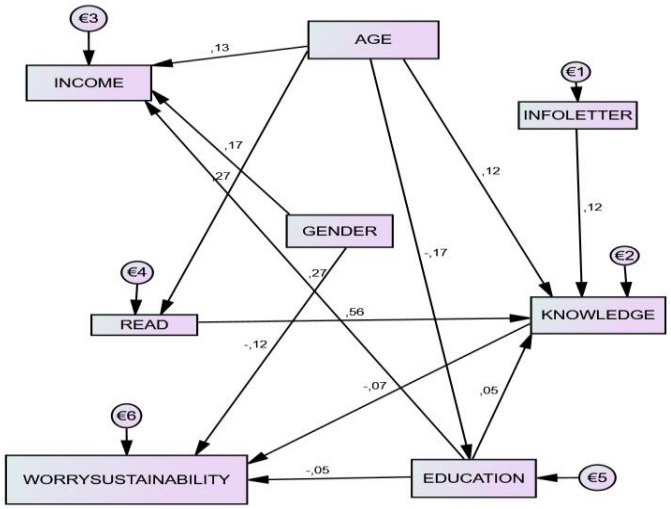
- Age increases worries of the adequacy of pensions (total effect .05)
  - Direct positive effect (.07); Indirect effects: Negative effects via read & knowledge (.27*.56*-.07=-.01); positive effects via education and knowledge (-.17*.05*-.07 = .001); and negative effects via knowledge (.12*-.07=-.01). Total effect = .05 (.07-.01+.001-.01)
- Income decreases worries
- Infoletter has indirect negative effect; no direct effect
- Men less worried than women
  - -.16 + .17*-.09 = -.11
- Education diminishes worries
- -.11 + .05*-.07=-.11
- Model fit RMSEA =.054; LO90=.043; HI 90 = .063

Worried about the increasing pension age



- Infoletter and knowledge do not have association to worries about increasing pension age
- Neither is there association between income and worries
- Men are less worried than women
- Education dampens worries
- There is an indirect positive associating from age via education to increasing worries
- The model fit is satisfactory:
  - RMSEA = .049; LO90=.039 and HI90=.059.

Worries about the sustainability of the pension system



- Males less worried
- Age has indirect effects via read and knowledge (-.01) and via knowledge (-.01) and via education and knowledge (.001) Total effect is -.02. Age slightly decreases worries about the sustainability
- Knowledge decreases worries
- Income does not have significant association
- Model fit ok
  - RMSEA = .054; LO90 = .041 and HI90 = .061.

Determinants of fairness

Variable	Beta	st.error	sig	Beta	st.error	sig	Beta	st.error	sig
Constant	5.333	.071	.000	2.875	.348	.000	4.897	.408	.000
Letter	.358	.104	.001	.360	.103	.000	.263	.098	.007
Gender				.222	.104	.034	.088	.097	.366
Age				-.001	.005	.005	-.006	.005	.181
Health				.613	.056	.000	.357	.055	.000
Worries									
Adequacy							-.056	.053	.289
Pension age							-.559	.048	.000
Sustainability							.067	.054	.213
Knowledge							.108	.054	.035
adj R sq		.011			.143			.283	

Information matters

- **Adequacy:** Info letter increases knowledge which in turn decreases worries about adequacy, income and education decreases worries, males less worried, the older the more worried
- **Increases in pension age:** men and highly-educated less worried about pension age (no impact from info letter)
- **Sustainability:** info letter increases knowledge which in turn decreases worries about adequacy, men and highly-educated less worried

- Information increases the acceptance / perception of fairness of the reform
  - Even when all relevant back ground factors are controlled for
- Information letter important even though it is not read: *recognition*

The Short and Long run Effects of Information about the Pension System

Henning Finseraas
Institute for Social Research, Oslo

Background

My talk is structured around two published papers

- Finseraas and Jakobsson (2014) Does information on the pension system affect knowledge and retirement plans? Evidence from a survey experiment *Journal of Pension Economics and Finance*.

- Finseraas, Jakobsson, and Svensson (2015) Do knowledge gains from public information campaigns persist over time? Results from a survey experiment on the Norwegian pension reform *Journal of Pension Economics and Finance*.

Background

A structural pension reform was implemented in 2011

- Pension rights placed in a notional account which are adjusted annually by wage growth
- Upon retirement, the annual pension is (largely) determined by expected number of years as a pensioner
- Flexible retirement age, beginning at 62

Background

Strong incentives to postpone retirement

- Subsidy of Early Retirement Scheme removed for private sector
- Annual pension reduced if retirement is not postponed as a response to the increase in life expectancy
- Pension depends on work history throughout life

Background

The changes in incentives lead us to expect a positive effect on labour supply

More flexibility makes it easier to retire at younger age

But effects are conditional on knowledge about the reform

Knowledge about pension

Studies typically find that knowledge about the pension system is limited

Knowledge tends to have a socio-economic gradient

Ignorance might be costly when decisions are “privatized”

The experiment

The Norwegian Labour and Welfare Service made an information brochure about the reform to reduce the costs of becoming informed

- Describes the reform and the new pension system
- Provides examples of e.g. how the pension depends on life expectancy and retirement age
- Links to a pension calculator and phone numbers

The experiment

Does the brochure improve knowledge about the reform?

Does increased knowledge change retirement plans?

The experiment

Survey to 3000 individuals between 40 and 67 years of age (YouGov panel)

50% randomized to receive the brochure six days before the survey (treatment group)

70% response rate in the treatment group, 83% in the control group

Dependent variables

Knowledge

- Higher pension if retiring later
- Lower pension if life expectancy of her cohort increases
- Pension is unaffected by the unemployment rate of her cohort

Retirement plans

- Will combine work and pension
- Has decided the age of retirement
- Planned retirement age

Results

	Higher if retire later	Lower if life exp. increases	Pension unaffected by unemp.	Will combine	Decided when to retire	Planned age of retirement
Treatment	0.10***	0.07***	0.05**	-0.03	0.01	0.07
	(0.019)	(0.021)	(0.021)	(0.021)	(0.021)	(0.188)
Constant	0.65***	0.52***	0.48***	0.50***	0.53***	64.60***
	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)	(0.128)
Observations	2274	2274	2274	2274	2274	1045

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Results after matching

	Higher if retire later	Lower if life exp. increases	Pension unaffected by unemp.	Will combine	Decided when to retire	Planned age of retirement
Treatment	0.14***	0.10***	0.05*	-0.01	-0.001	0.15
	(0.028)	(0.031)	(0.031)	(0.031)	(0.031)	(0.253)
Constant	0.64***	0.50***	0.48***	0.51***	0.57***	64.77***
	(0.019)	(0.022)	(0.022)	(0.022)	(0.021)	(0.175)
Observations	1040	1040	1040	1040	1040	492

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Results after matching

	Higher if retire later	Lower if life exp. increases	Pension unaffected by unemp.	Will combine	Decided when to retire	Planned age of retirement
Read	0.18***	0.12***	0.07*	-0.02	-0.001	0.182
	(0.035)	(0.039)	(0.039)	(0.039)	(0.039)	(0.306)
Constant	0.64***	0.50***	0.48***	0.51***	0.57***	64.77***
	(0.019)	(0.022)	(0.022)	(0.022)	(0.021)	(0.175)
Observations	1040	1040	1040	1040	1040	492

Instrument: Treatment group indicator
Cragg-Donald Wald F statistic (first-stage): 2043 and 1179 (planned age).
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Follow-up survey

Are the knowledge effects persistent or short-lived?

Follow-up survey five months after the first survey

662 respondents from the treatment group, 736 from the control group

Results follow-up

Table 3. *Intention to treat estimates: short- and long-term effects, marginal effects from probit regression*

	Easier		Retire later		Life expectancy		Unaffected unemployment	
	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2
Treatment	0.08***	−0.02	0.10***	0.04	0.03	0.03	0.07**	−0.00
	(0.027)	(0.026)	(0.025)	(0.026)	(0.028)	(0.027)	(0.028)	(0.028)
Pseudo-R^2	0.02	0.01	0.09	0.06	0.03	0.04	0.08	0.09
Observations	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398

Conclusion

The brochure increases knowledge in the short-run, but the effects are gone five months later

This type of information unlikely to reduce knowledge inequalities

Providing personalized information more powerful?

Pension knowledge, impact of economic incentives and retirement intentions

Satu Nivalainen & Sanna Tenhunen

22.3.2018

Finnish Centre for Pensions
ELÄKETURVAKESKUS

Background

- Incentives matter
  - economic incentives affect retirement timing (e.g. Brinch et al. 2014)
  - people do react to the incentives in pension system, but only if they know about them (e.g. Chan & Stevens 2008)
  - the effect exists, but magnitude may remain low (e.g. Uusitalo & Nivalainen 2013)

Background

- Incentives matter

- Do people know about incentives in pension system?
  - Gaps in knowledge of pension issues (e.g. Boeri & Tabellini, 2012)
  - Key characteristics of pension system well known in Finland (Tenhunen & Kuivalainen, *forthcoming*)

Background

- Incentives matter

- Do people know about incentives in pension system?

- Pension reform 2017 changed e.g. retirement age and effect of advancing or postponing retirement on the amount of pension
  - Are people aware of new rules?
  - Do incentives still matter?

Aim of the study

- Twofold:
  1. To study

Pension knowledge → effectivness of economic incentives

  2. To study

Economic incentives → retirement intentions

Outline of this presentation

- Introduction of data
- Measures of pension knowledge
- Views on the effectiveness of economic incentives
  - and how (if at all) pension knowledge is related to them
- Retirement intentions w.r.t. own pension age
  - and how (if at all) economic incentives are related to them
- Conclusions

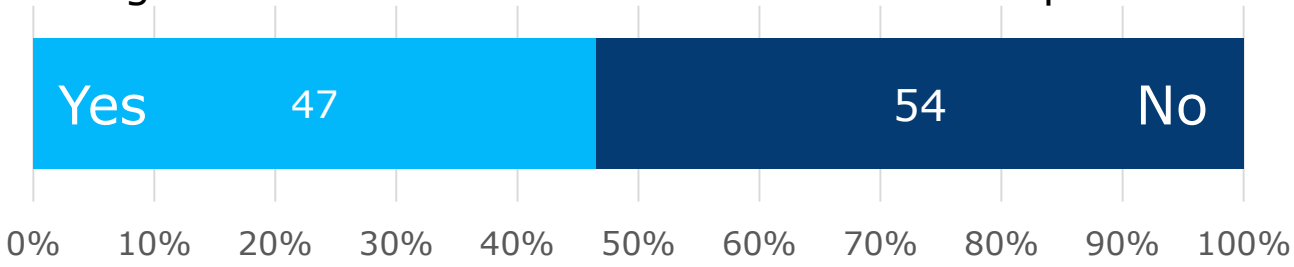
Data

- Collected by postal survey in 2016
- Questionnaire included info boxes on the reform
- Respondents
  - N: 2 179 (response rate 56%)
  - Finns
  - aged 54-62 years
  - non-retired

Pension knowledge

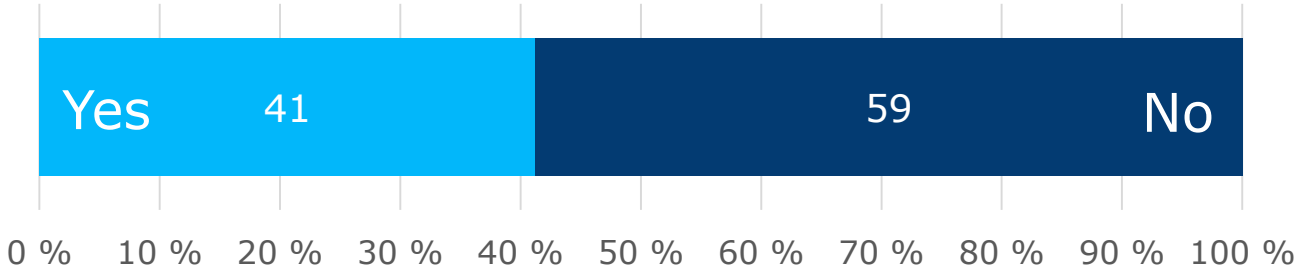
Pension knowledge

- Measured by three factors
  - Has given an estimate of the amount of future pension



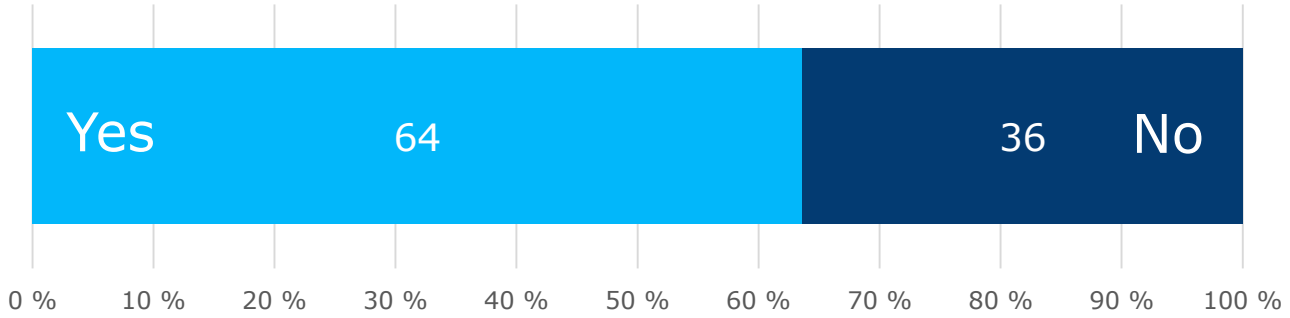
Pension knowledge

- Measured by three factors
  - Has given an estimate of the amount of future pension (47%)
  - Knows the effect of life-expectancy coefficient



Pension knowledge

- Measured by three factors
  - Has given an estimate of the amount of future pension (47%)
  - Knows the effect of life-expectancy coefficient (41%)
  - Has good knowledge on how continuing at work affects the amount of accrued pension



Pension knowledge

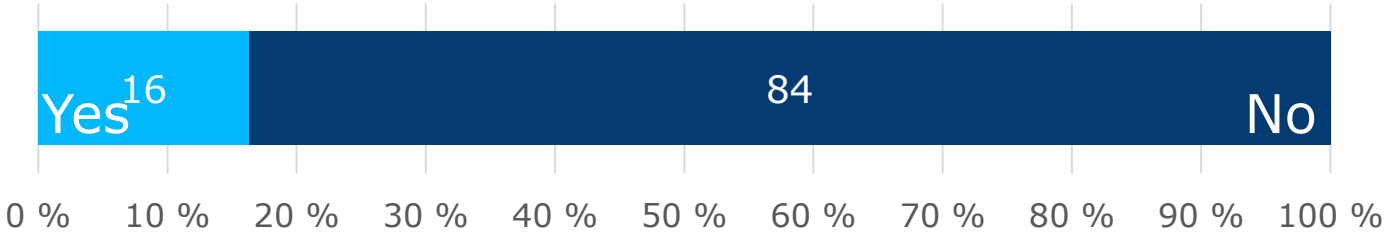
- In general, better knowledge among respondents of
  - Older age (60-62)
  - Higher education (tertiary)
  - Higher pensionable income
  - Entrepreneurs and upper white-collar workers

- Three measures of knowledge,
  - only weakly correlated
    - » a fifth of respondents knew all three points, another fifth knew none of them
  - Using all three gives a fuller picture of knowledge

Economic incentives

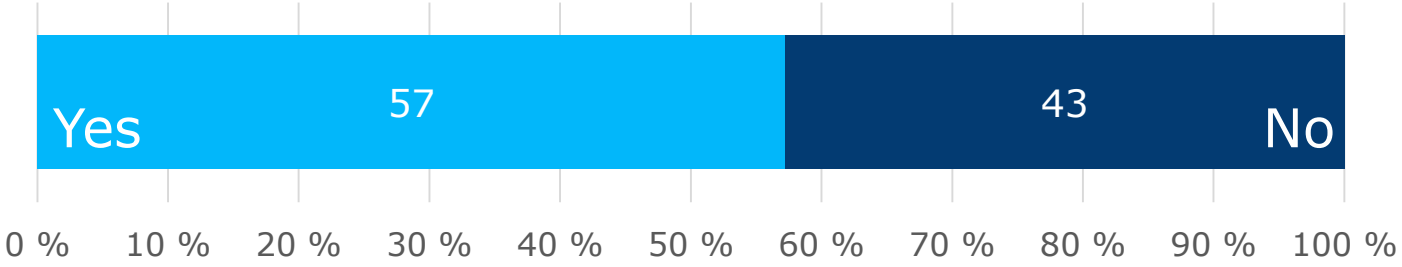
The effect of economic incentives

- Measured by three factors
  - A person intends to postpone retirement due to life-expectancy coefficient and delayed retirement benefit



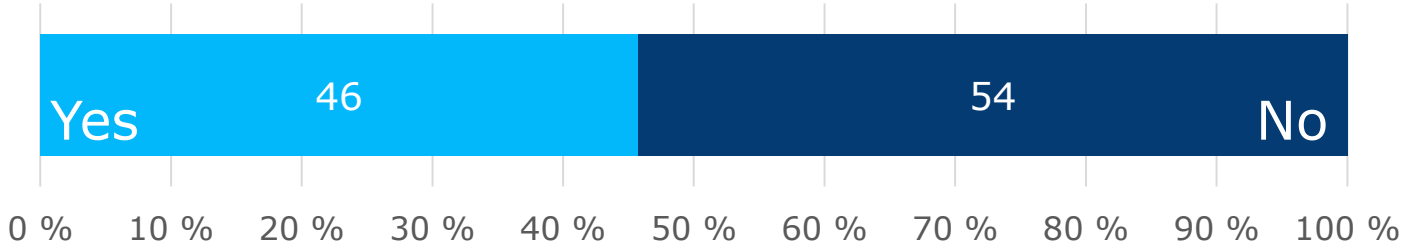
The effect of economic incentives

- Measured by three factors:
  - A person intends to postpone retirement due to life-expectancy coefficient and delayed retirement benefit (16%)
  - Delayed retirement benefit encourages to postpone retirement



The effect of economic incentives

- Measured by three factors:
  - A person intends to postpone retirement due to life-expectancy coefficient and delayed retirement benefit 16%
  - Delayed retirement benefit encourages to postpone retirement 57%
  - Early retirement deduction encourages to postpone retirement

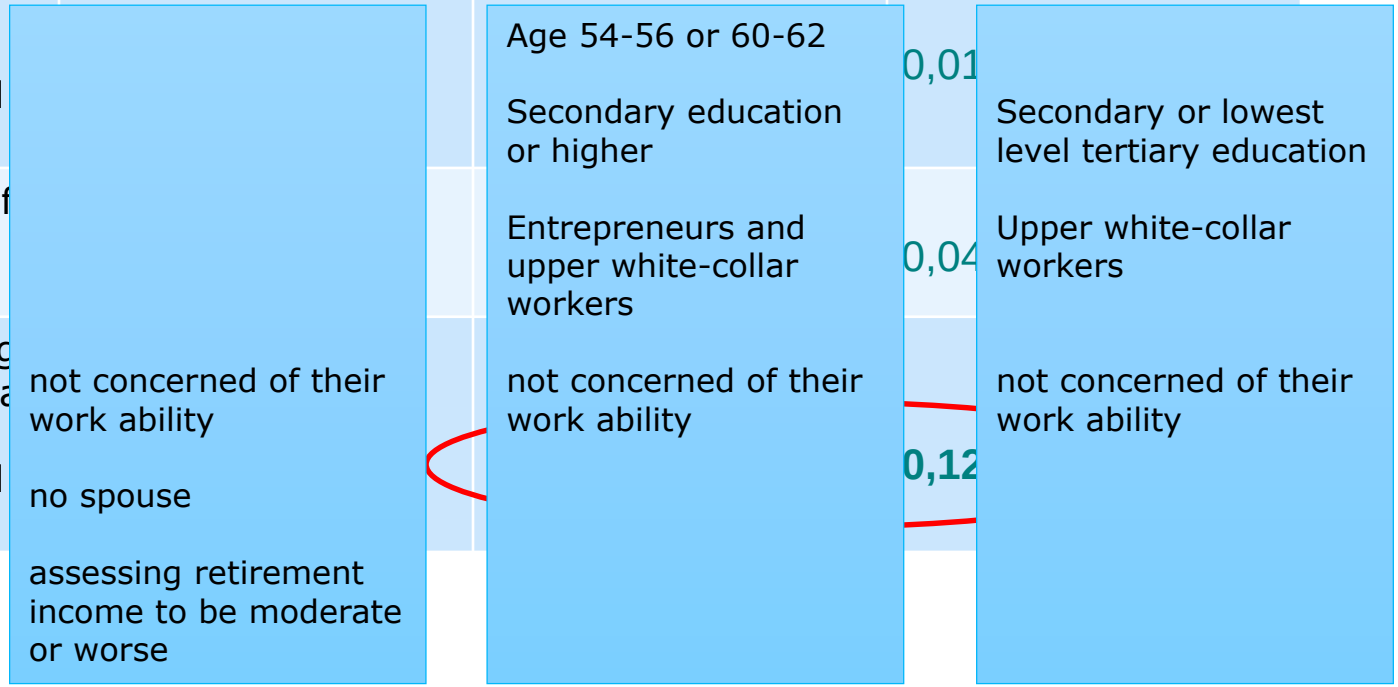


The impact of pension knowledge on the effeciveness of economic incentives

- To find out if there is an impact, we modelled each three claims on the effectiveness of economic incentives
  - Controlling for
    - » demographics
    - » working sector (public/others)
    - » views on health and economic situation at retirement
    - » and the three measures of knowledge
  - Logit model, presenting marginal effects

The impact of pension knowledge on the effeciveness of economic incentives

	Intends to postpone retirement due to life-expectancy coefficient and delayed retirement benefit	Delayed retirement benefit encourages to postpone retirement	Early retirement deduction encourages to postpone retirement
Has given an estimate of the amount of accrued pension			
Knows the effect of life-expectancy coefficient			
Has good knowledg of how continuing a work affects the amount of accrued pension			



Retirement intentions

Retirement intentions

- Based on the *difference* between
  - self-assessed age of retirement and
  - the lower limit of each person's old-age retirement age

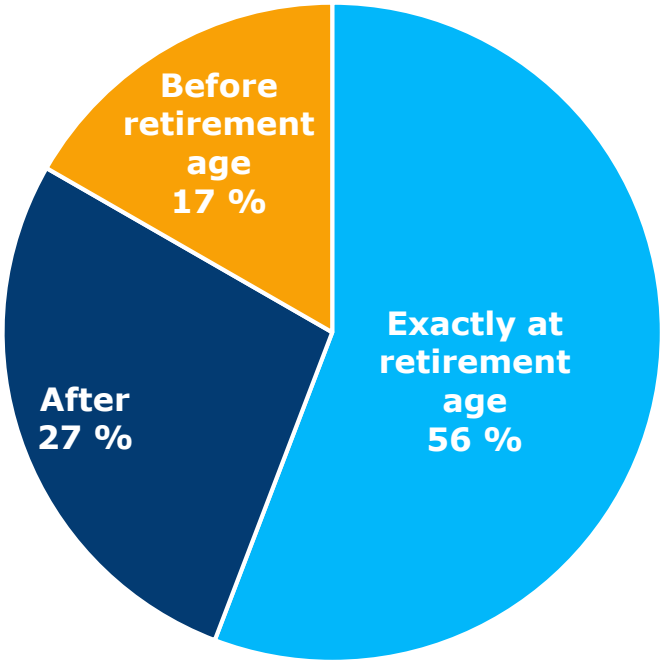
- Lower limit of old-age retirement age is defined by
  - retirement age of each birth cohort

Year of birth	1954	1955	1956	1957	1958	1959	1960	1961	1962
Retirement age	63 y	63 y 3m	63 y 6 m	63 y 9 m	64 y	64 y 3 m	64 y 6 m	64 y 9 m	65 y

  - or by person's public sector personal retirement age (or other supplementary pension with a different retirement age)

Retirement intentions

- Retirement intentions w.r.t. person's own retirement age



The effect of economic incentives on retirement intentions

- To find out if there is an impact, we modelled intentions to retire before/exactly at/after own retirement age
  - Controlling for
    - » demographics
    - » working sector (public/others)
    - » views on health and economic situation at retirement
    - » and the three measures of incentives
  - Multinomial logit model, presenting marginal effects

The effect of economic incentives on retirement intentions

	Intends to retire		
	Before his own old-age retirement age	**Exactly at his own old-age retirement age**	**After his own old-age retirement age**
Intends to postpone retirement due to life-expectancy coefficient and delayed retirement benefit	**-0,062****	**-0,183*****	**0,245**
Delayed retirement benefit encourages to postpone retirement	-	0,049	**0,065**
Early retirement deduction encourages to postpone retirement	-	,046	-0,02

public sector workers

those concerned of their work ability

assessing retirement income to be moderate or better

Age 60-62

Entrepreneurs, upper and lower white-collar workers

public sector workers

those *not* concerned of their work ability

no spouse

assessing retirement income to be rather poor or poor

Conclusions

- Pension knowledge
  - Considerable variation, others know, while some don't
  - Relation to effectiveness of incentives
    - » Knowing the effect of postponement on pension level emphasizes the view that later retirement is motivated by
      - delayed retirement benefit
      - early retirement deduction
    - » Two other measures of pension knowledge did not affect

Conclusions

- Retirement intentions
  - There are both advancers and postponers, although majority plans retirement at the earliest eligibility age

- The effect of economic incentives on intented retirement age
  - Intention to postpone increases
    - » when the person intends to postpone retirement due to life-expectancy coefficient and delayed retirement benefit
    - » When delayed retirement benefit are seen as an effective incentive
  - Views on the early retirement benefit did not matter

Thank you for your attention

Research available at:

https://www.etk.fi/julkaisu/elaketietous-taloudellisten-kannustimien-vaikuttavuus-ja-elakeaikeet/

For further information:

Satu.Nivalainen@etk.fi

Sanna.Tenhunen@etk.fi