

The impact of the COVID-19 crisis on gender equality in Finland - results from SISU microsimulation model

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The impact of the COVID-19 crisis on gender equality in Finland

However, the COVID-19 crisis affected women and men differently:

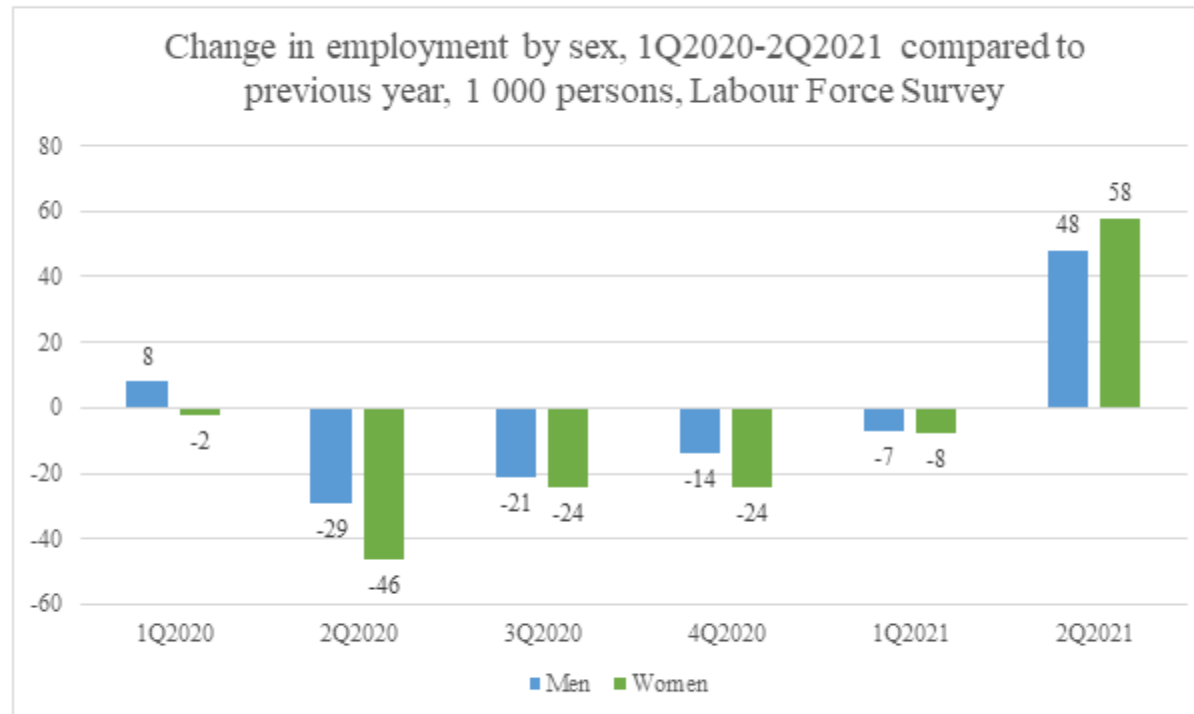
- Unemployment: Different regions and industries affected
- Telecommuting, childcare
- The impact of the COVID-19 crisis on gender equality in Finland ([link](#))
 - **Good practice:** European Commission's report "*2021 report on gender equality in the EU*" ([link](#))
 - Work package 3: Gender impacts of economic policy
 - Distributional impact of the crisis
 - Working paper coming soon (Jokelainen et al. The gendered impacts of the Covid-19 crisis in Finland and the effectiveness of the policy responses)

Simulating Covid-19 unemployment shock

- Sisu microsimulation model with 1/2020 policy and 2018 data
- Administrative register data on earnings and benefits
- Poverty threshold and poverty rate - **absolute poverty** and **relative poverty**
- Decomposition of the effect of benefits, taxes and social insurance contributions by income decile, gender and age group
 - Who benefited the most from temporary Covid-19 benefits?

Background: Gendered Covid19 unemployment shock in Finland

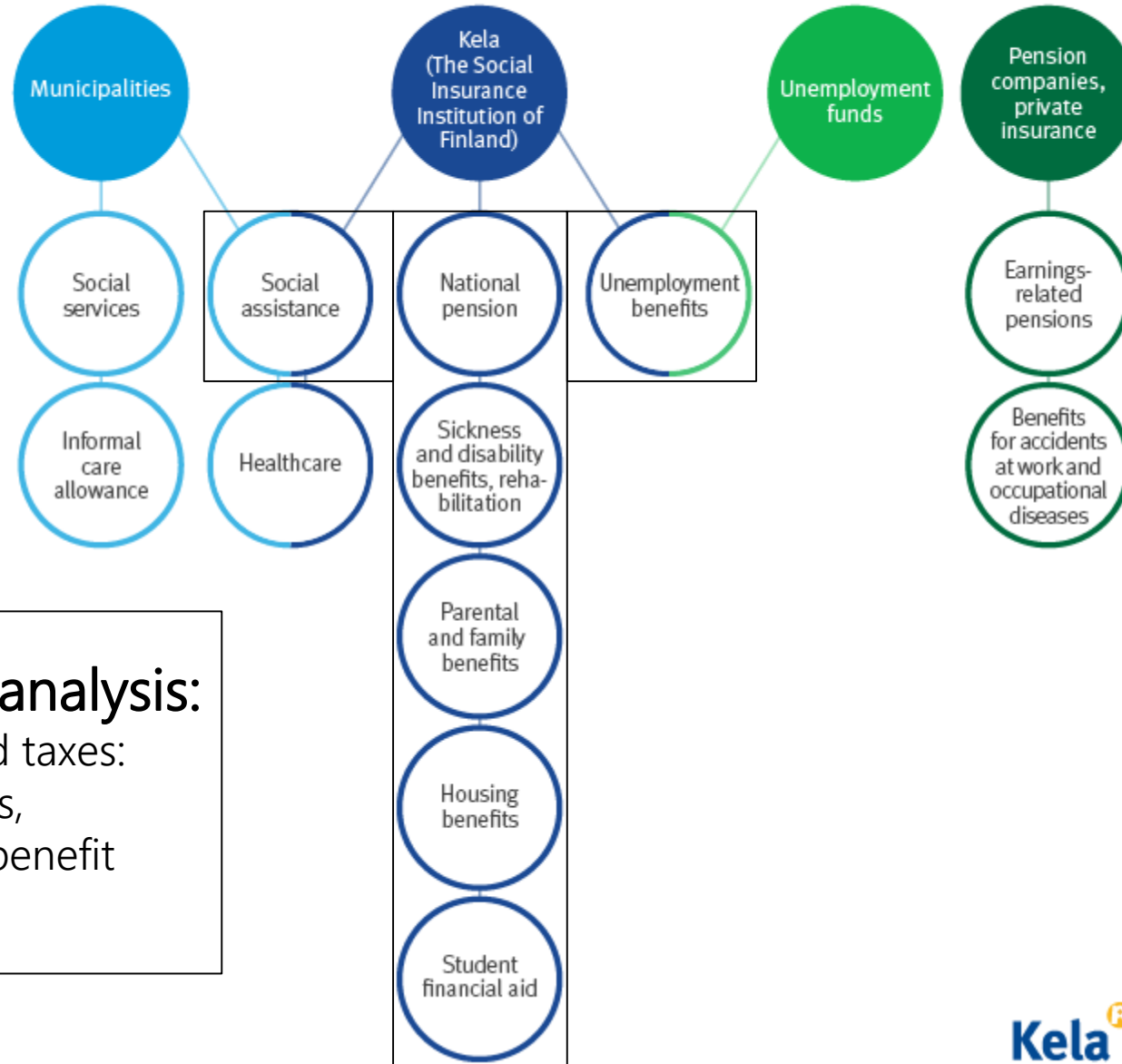
Figure 1. Change in employment by sex, 15 to 74 years, 1Q2020-2Q2021 compared to previous year, 1 000 persons



Source: Labour Force Survey, Statistics Finland

Social security in Finland

○ Based on residence ○ Based on employment



Microsimulation analysis:

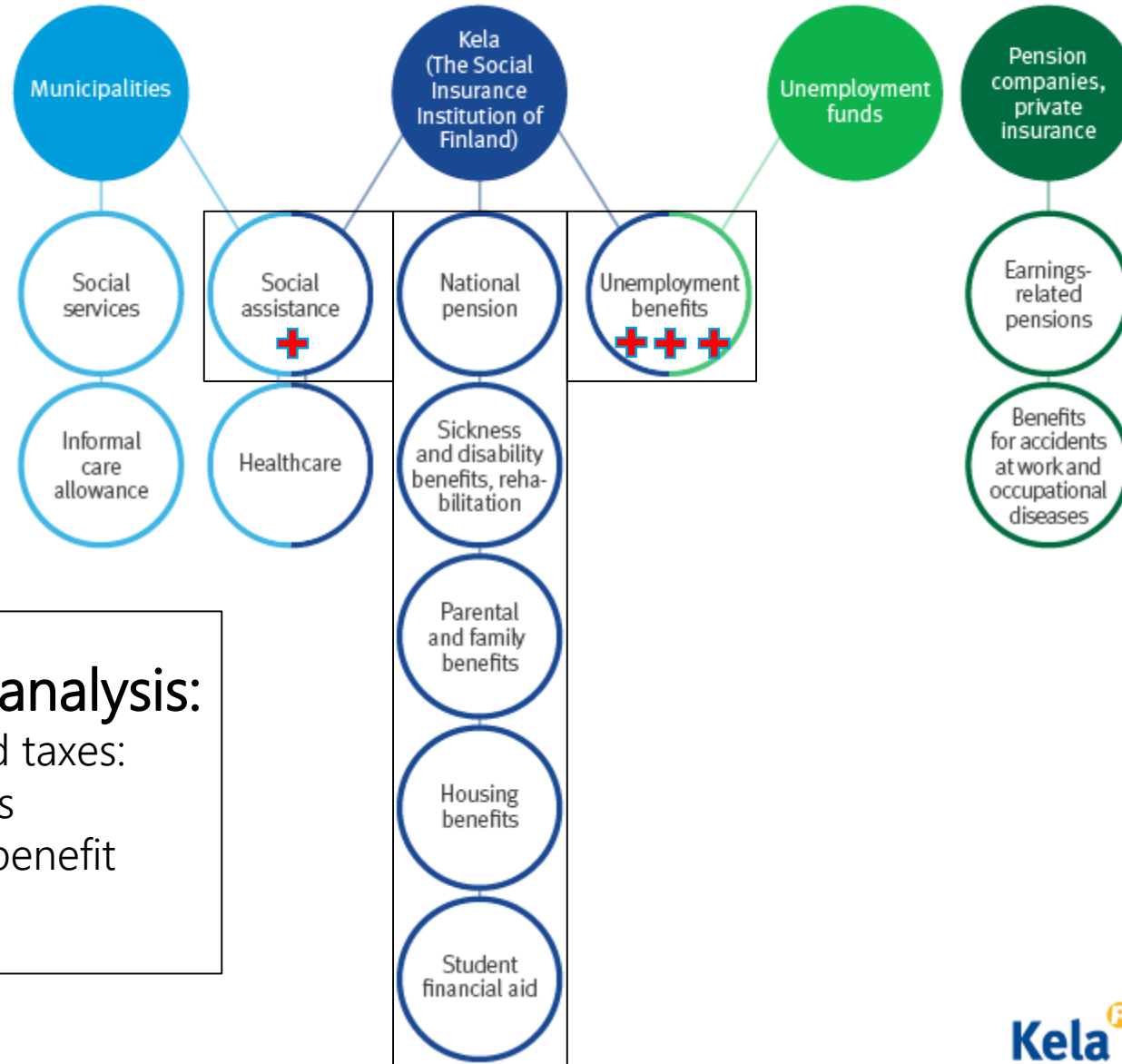
Simulated benefits and taxes:
1/2020 before the crisis,
information from tax-benefit
registers

URL:

 <https://www.kela.fi/web/en/social-security-in-finland>

Social security in Finland

○ Based on residence ○ Based on employment



Microsimulation analysis:

Simulated benefits and taxes:
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Relative poverty based on 50 % of median income

- Modified OECD equivalence scale
- Baseline median household net income is hold fixed
- Note that replacement rate of several benefits is between 50 to 60 % of equivalized household income → would produce much higher poverty rates
- We compare results to absolute poverty measure based on reference budgets

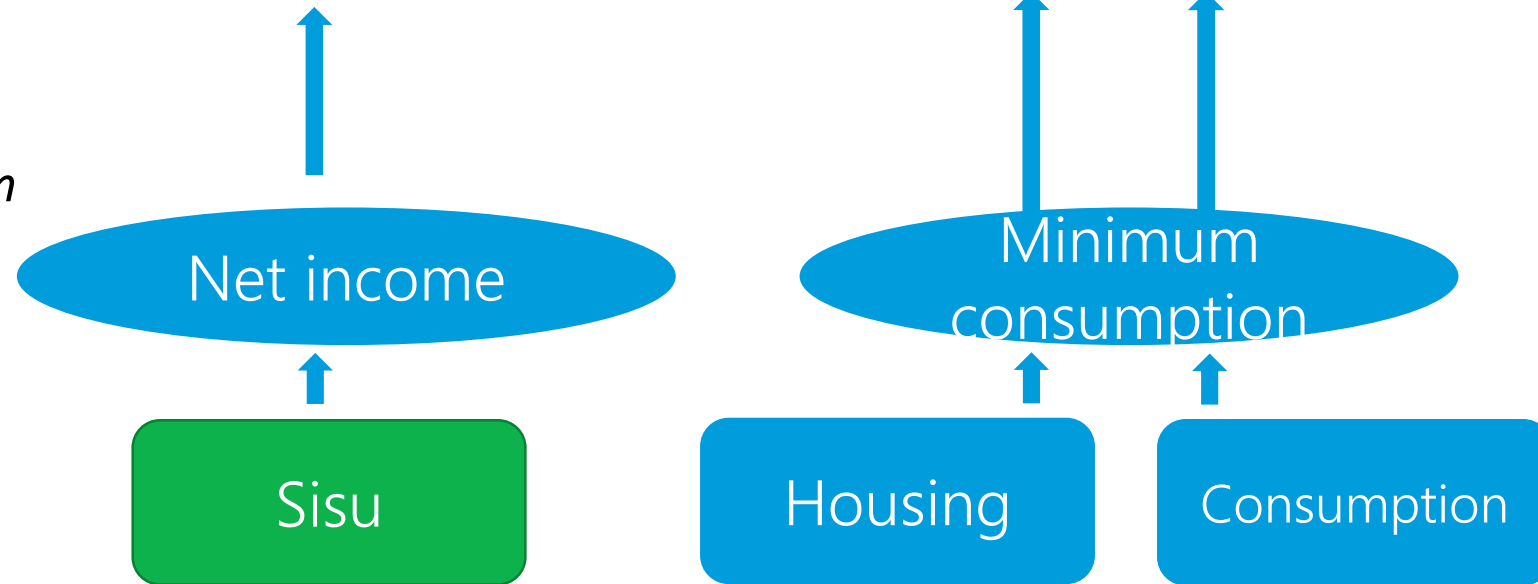
Absolute poverty based on reference budgets

- If household net income is less than sufficient consumption and housing costs then the household is defined at **absolute poverty** (vrt. Lehtinen ym. 2011; Goedemé ym. 2015; Penne ym. 2016)
 - We use up-to-date reference budgets for different households (Lehtinen & Aalto 2018)
 - Housing costs, number and age of household members
 - Tervola et al. (2019) uses similar method and combines cost of services (such as health care), household net income and reference budgets
 - Covid-19 crisis caused some of the households to change consumption patterns: overall, monthly changes are small or cancel out
-

Stress-testing Finnish welfare state with Sisu

- We follow similar methodology to Brewer & Tasseva (2020)
- Absolute poverty $S = \text{Net income } Y < \text{Minimum consumption } C$

$$S_i^1 = Y_i(w_i, X_i) - C(X_i) = Y_i(w_i, X_i) - H_i - E(X_i)$$



A sample of individuals from the tax and benefit registers*

For example:

Earned income, Capital income

Social security benefits

Taxes, Social insurance contributions

Three cases

- Baseline in 1/2020 before the crisis (1)
- Covid-19 crisis, decrease in earned income for self-employed and unemployemen shock for employee household (2)
- Covid-19 crisis, decresed income, unemployemen shock and Covid-19 benefits(3)

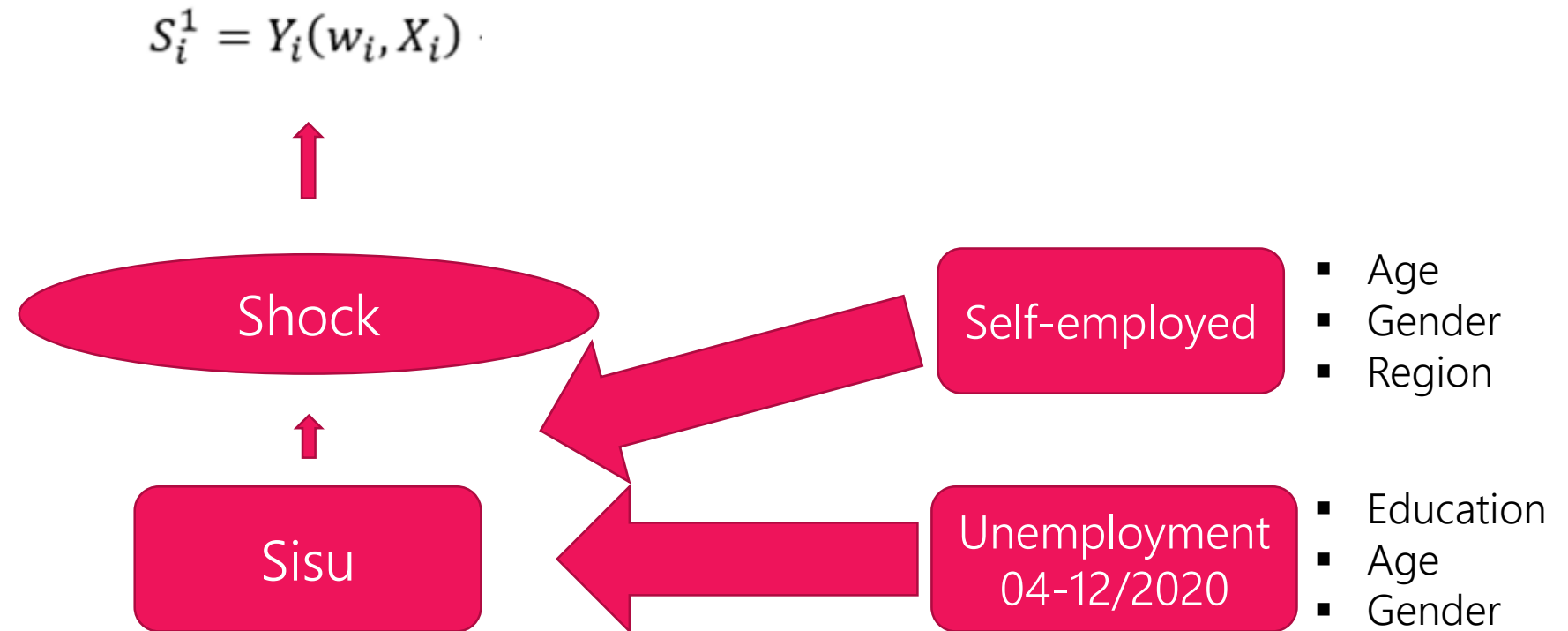
- (2) – (1) Effect of Covid-19 unemployment shock
- (3) – (2) Effetc of temporary Covid-19 benefits
 - Analysis by age group, gender and household type

Temporary Covid-19 benefits (3)

- Temporary unemployment benefit for self-employed
- Social assistance top-off (75 €/month for four months)
- Basic unemployment benefit and earnings-related unemployment benefit
 - Work requirement reduced from 26 weeks to 13 weeks (Earnings disregard increased from 300 to 500 €/m)
- For a more detailed description see EUROMOD CR Finland 2020 or 2021

Covid-19 benefits

- Components: Labour income, earned income from self-employment, housing benefits, unemployment benefit, taxes and SIC



Relative poverty, absolute poverty and Gini

Tempy Covid-19 had minor effect on poverty rate and Gini – Absolute poverty

	Baseline (1)	Covid-19 Crisis (2)	Covid-19 Crisis and Policy (3)	Difference (2) - (1)	Difference (3) - (2)
Poverty rate					
Households	7.17 %	7.83 %	7.61 %	0.66	-0.23
Person	5.45 %	6.00 %	5.85 %	0.55	-0.14
Children	4.97 %	5.50 %	5.49 %	0.54	-0.01
Women	4.98 %	5.44 %	5.30 %	0.46	-0.14
Men	6.18 %	6.82 %	6.62 %	0.64	-0.21
Gini	28.07	28.22	28.14	0.15	-0.08

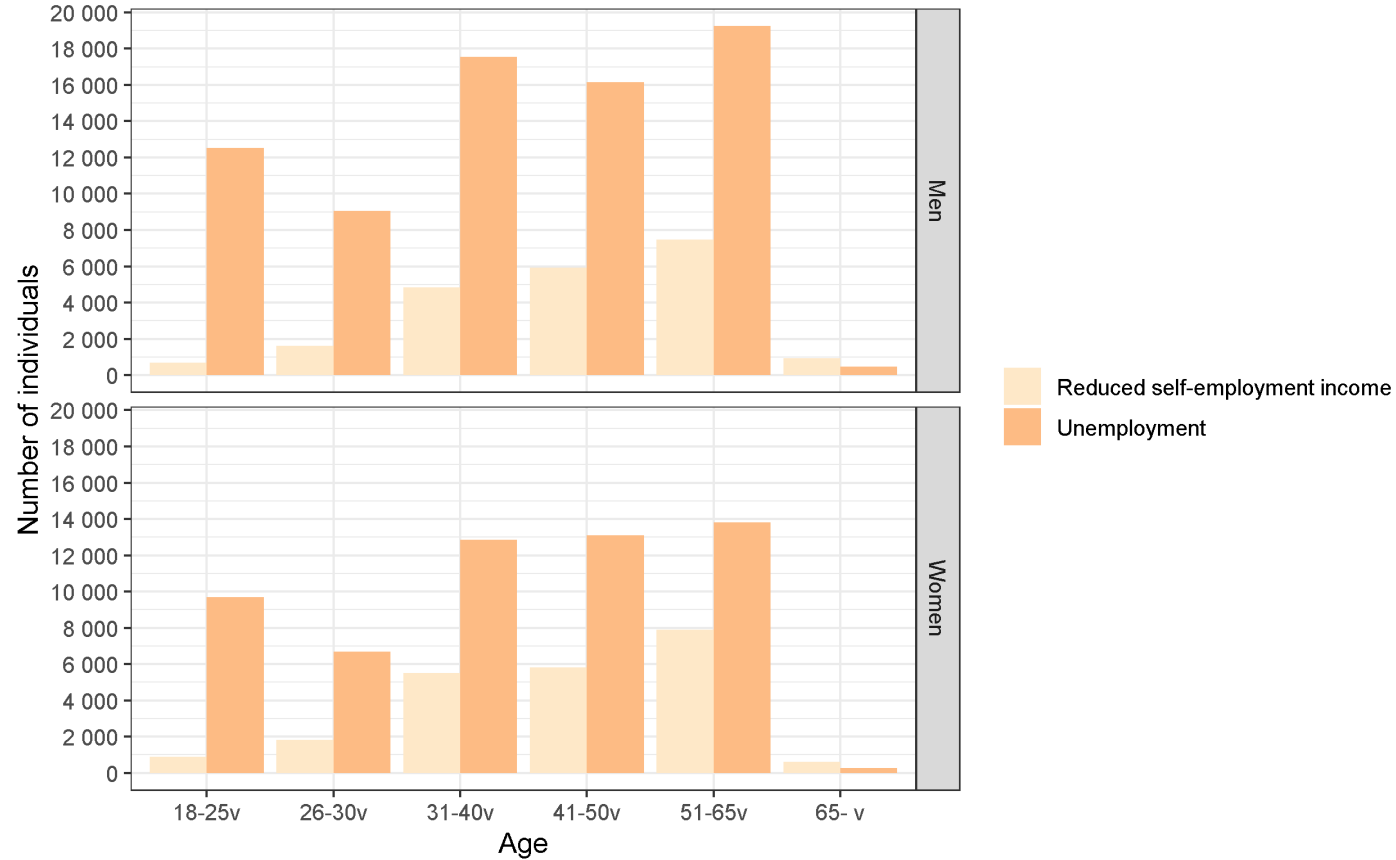
Relative poverty (below 50% of median HH income)

	Baseline (1)	Covid-19 Crisis (2)	Covid-19 Crisis and Policy (3)	Difference (2) - (1)	Difference (3) - (2)
Poverty rate					
Households	--	--	--	--	--
Person	6.24 %	6.72 %	6.54 %	0.48	-0.18
Children	5.41 %	6.10 %	5.76 %	0.69	-0.34
Women	5.66 %	6.10 %	5.92 %	0.44	-0.18
Men	6.82 %	7.36 %	7.17 %	0.54	-0.19

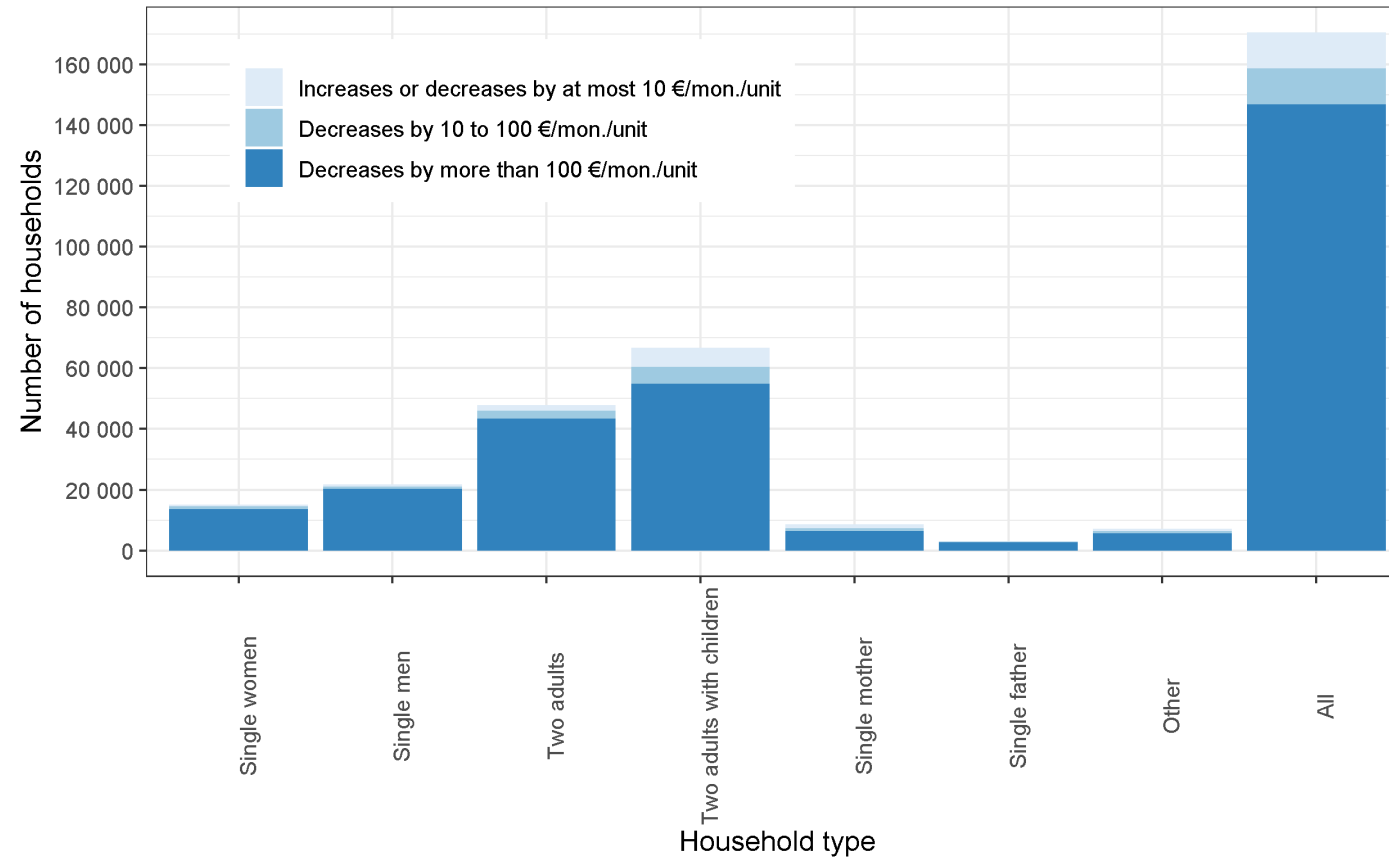
Poverty threshold fixed at baseline

Decomposition of the Covid-19 benefits

Individuals affected by the simulated Covid-19 shock



Households lose over 100 eur/mon./consumption unit*



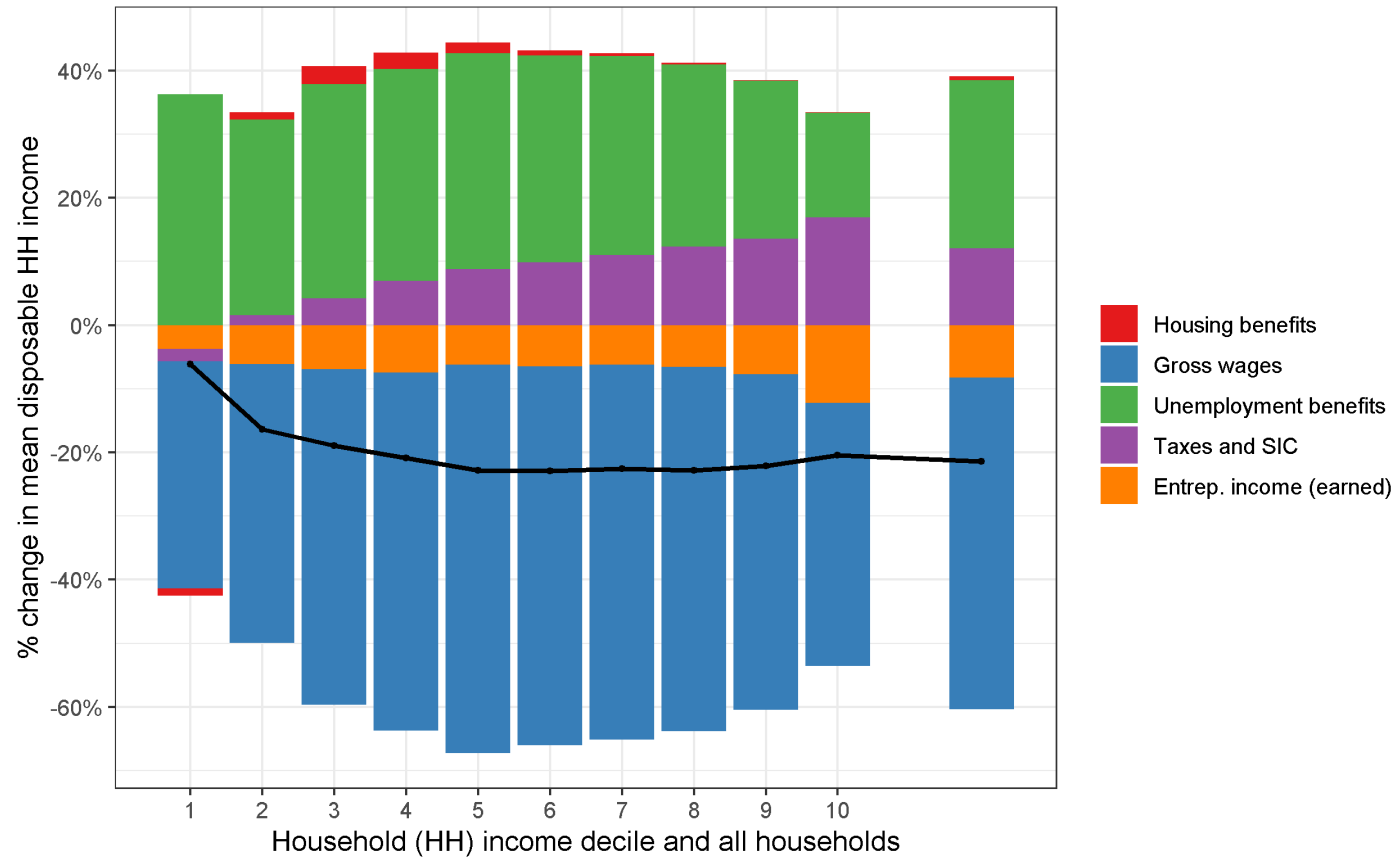
Households that have lost labour income
or earned income from self-employment

Decomposition by income and benefits

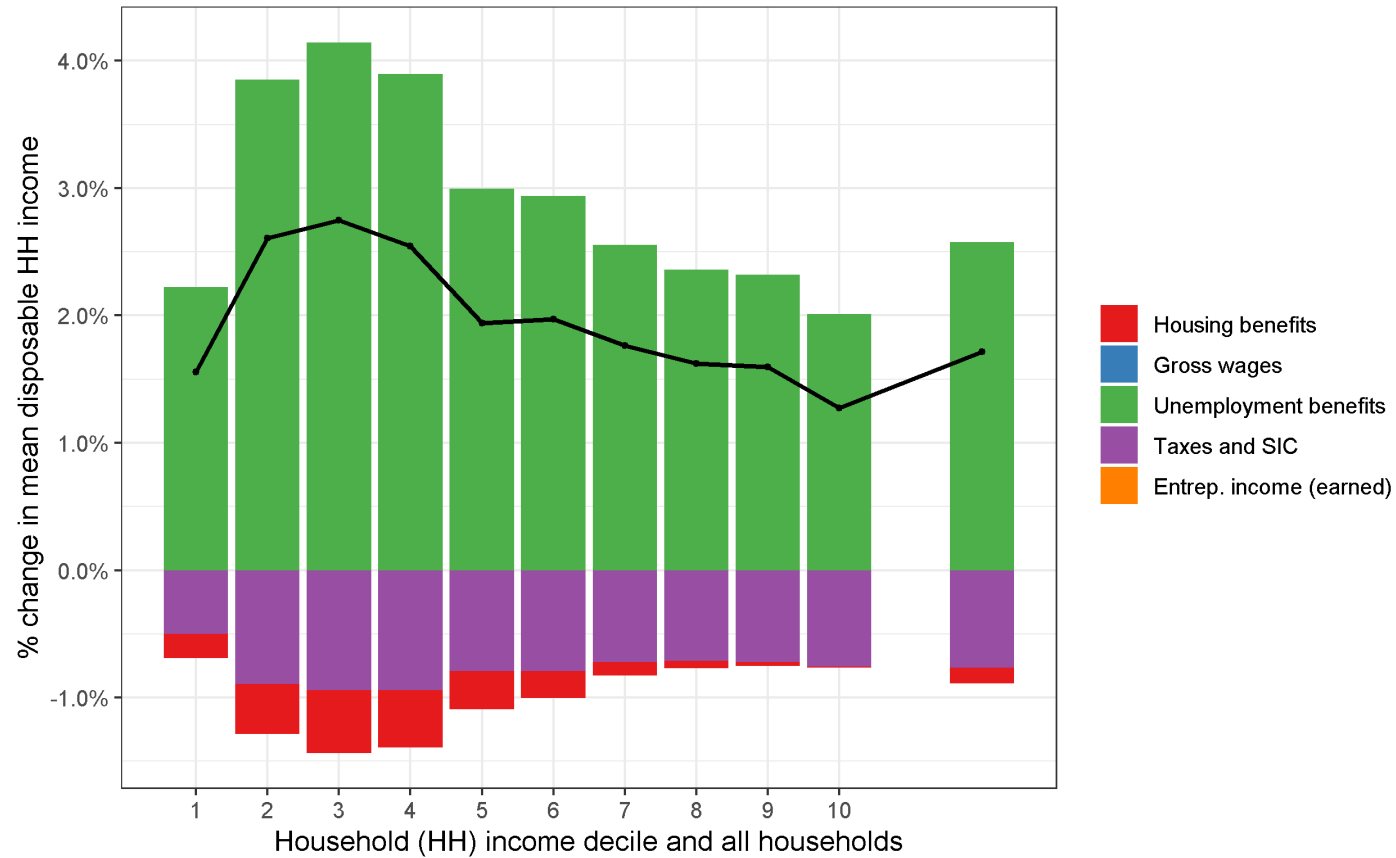
Three cases

- Baseline in 1/2020 before the crisis (1)
- Covid-19 crisis, decrease in earned income for self-employed and unemployement shock for employee household (2)
- Covid-19 crisis, decreased income, unemployement shock and Covid-19 benefits(3)
- (3) – (2) The effect of temporary Covid-19 benefits
- Similarly to Brewer & Tasseva (2020) we divide by net income

(3) – (1) Covid-19 crisis and temporary policy measures: net income decreases by avg. 21 %



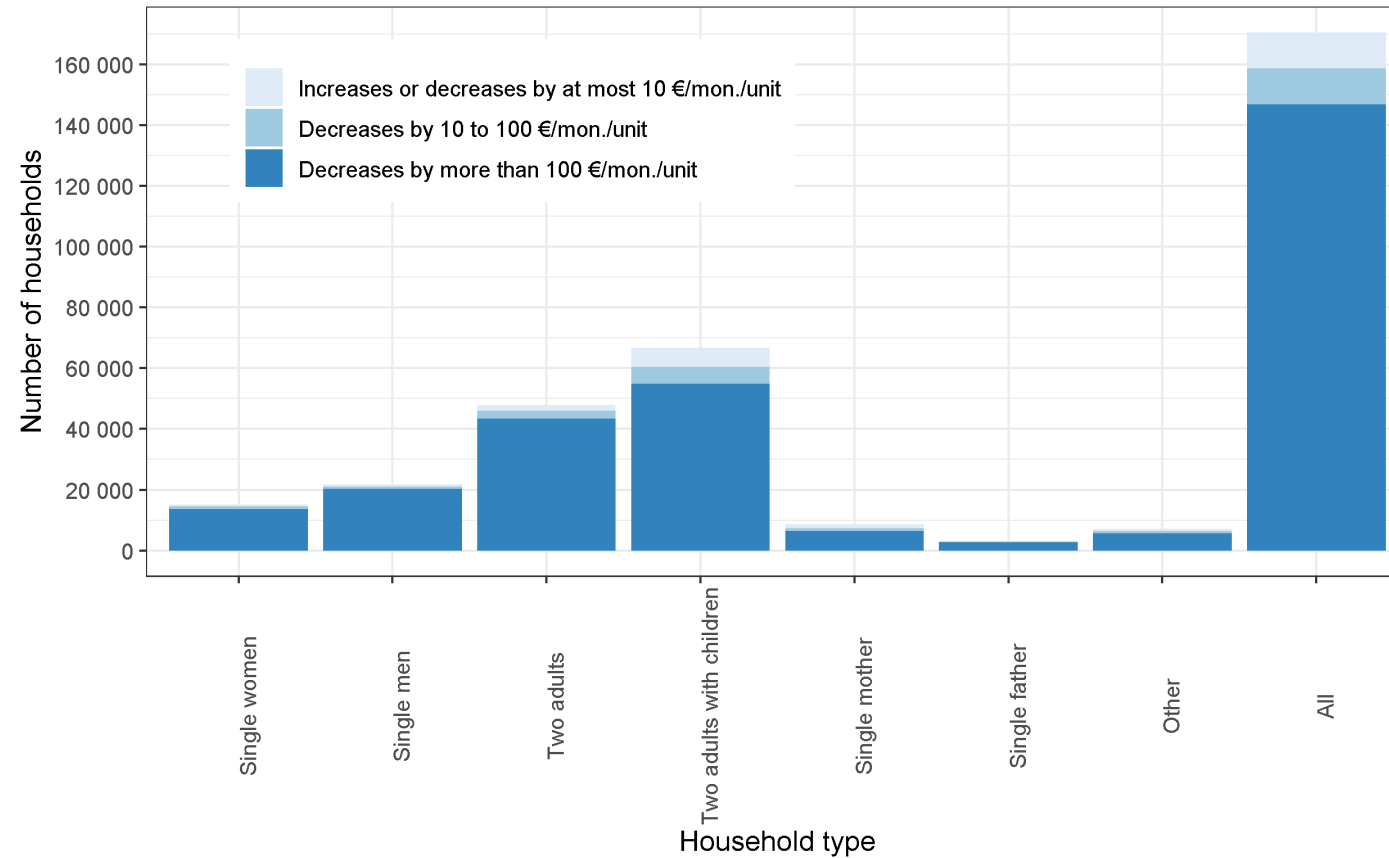
(3) – (2): Temporary Covid-19 benefits and net income



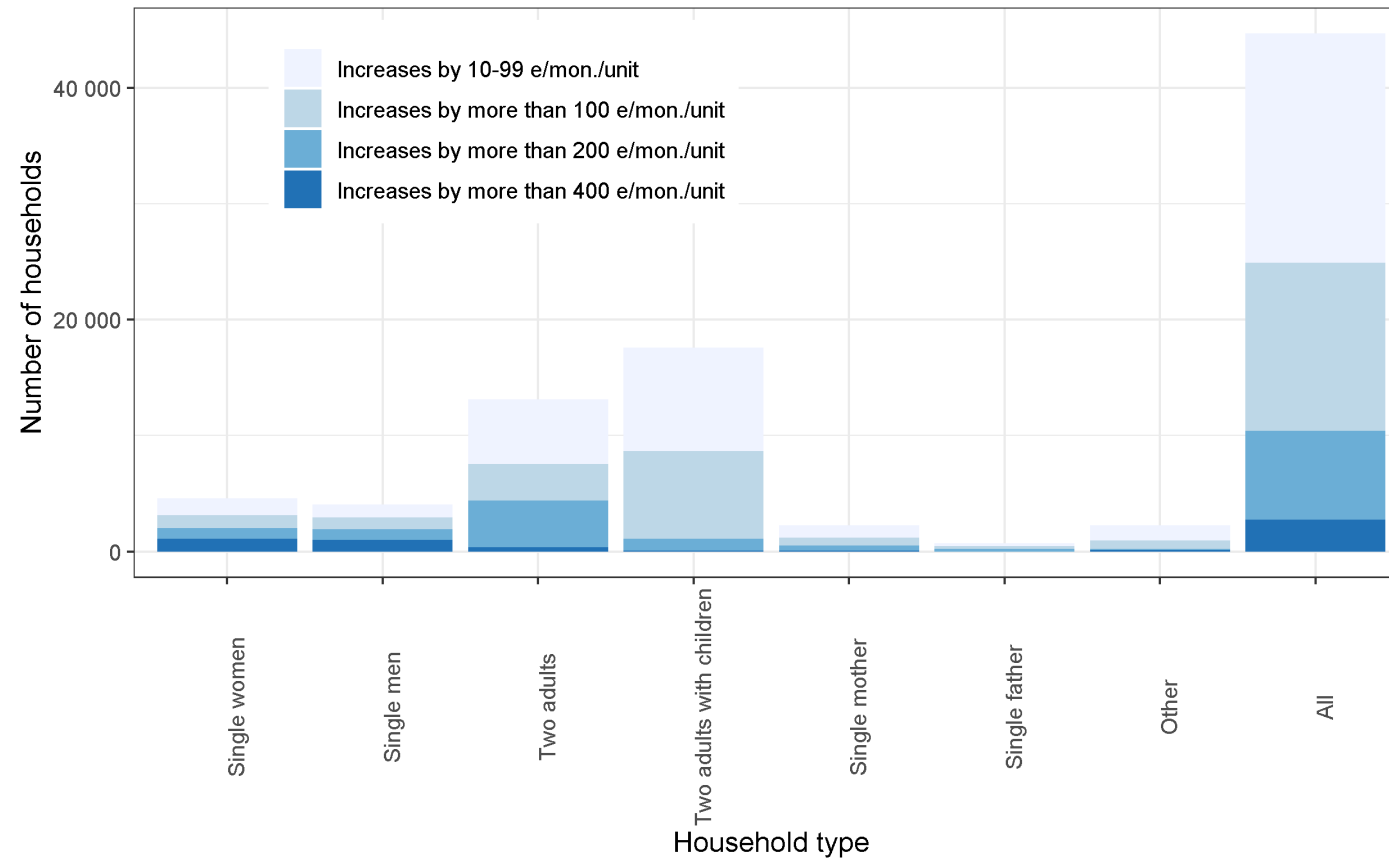
Who benefited most from temporary Covid-19 benefits?



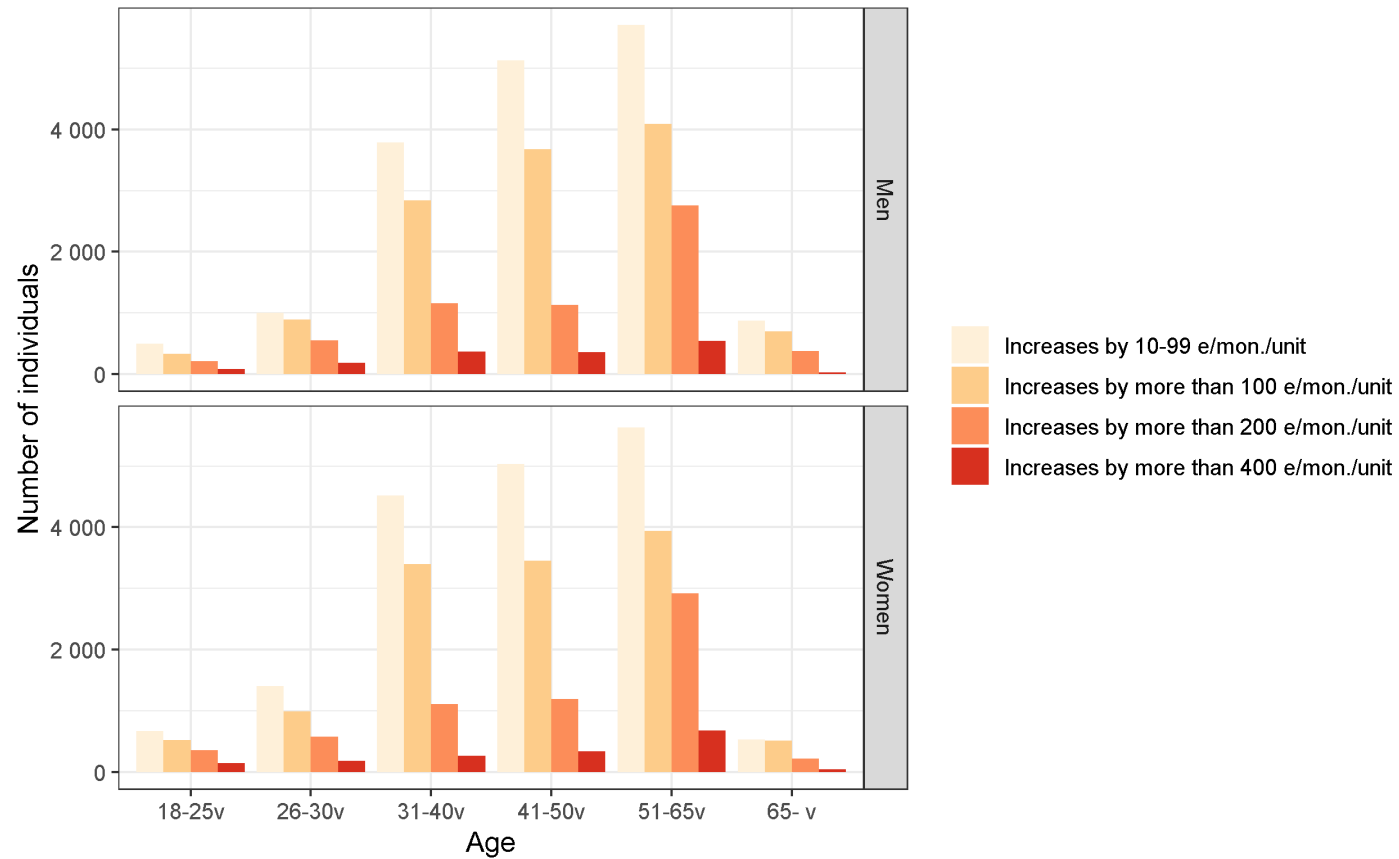
Covid-19 unemployment shock affected over 160 000 households in the simulation



(3) – (2): Households that benefited at least 10 €/mon./consumption unit from the temporary Covid-19 benefits



(3) – (2) by gender and age group



Conclusion

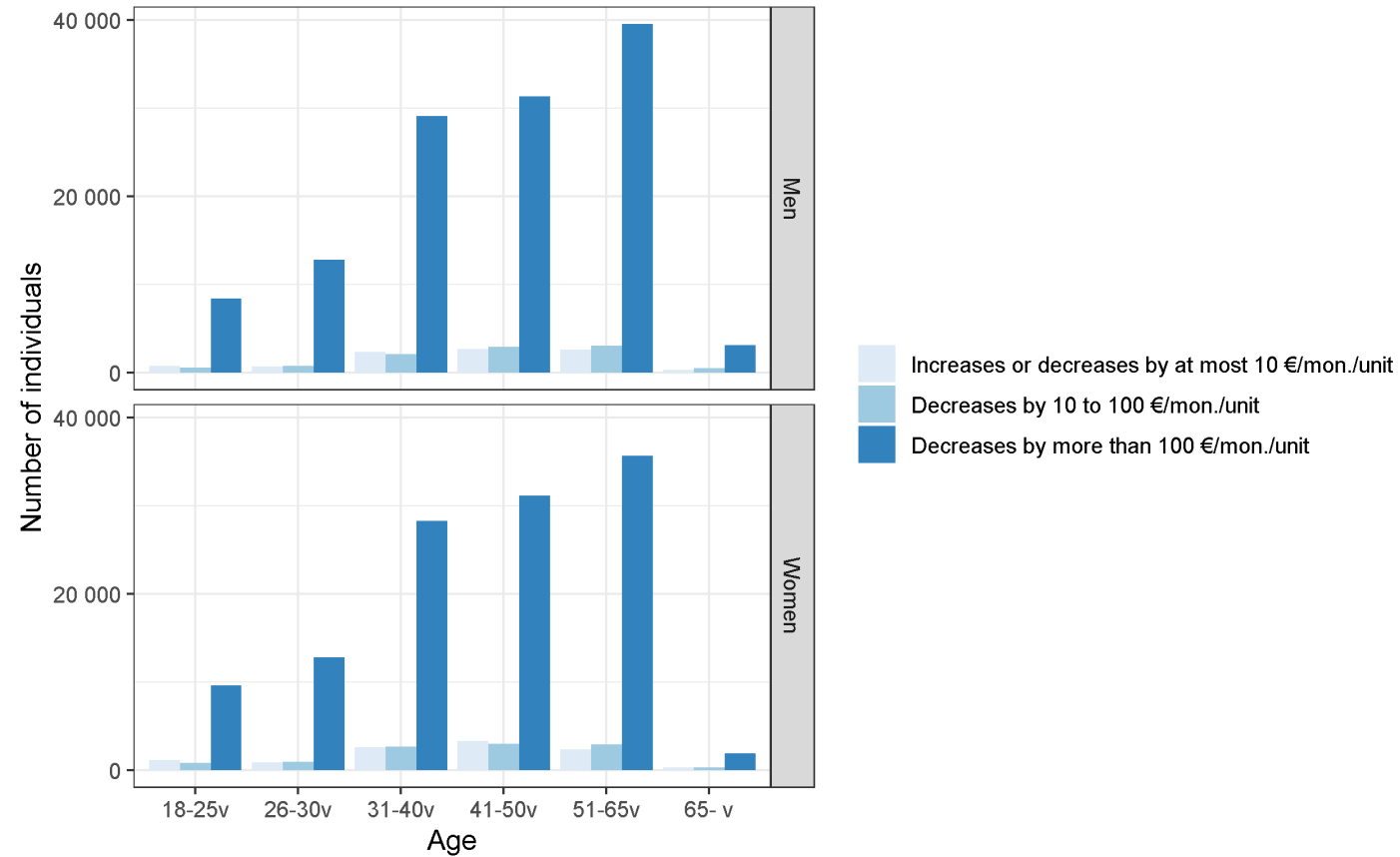
- **Automatic stabilized** buffered most of the impact of Covid-19 unemployment shock (earnings-related unemployment benefits)
- Temporary Covid-19 benefits affected self-employed, but had only a minor effect on unemployed and social assistance recipients
 - 40 000 self-employed and new unemployed benefited from the temporary benefits
- Net income of men decreased more than women's: on average, men have higher labour income
- Similarly, under 30 year olds lost on average less as percentage of net income than mid-career households – however, larger number of young

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Additional results



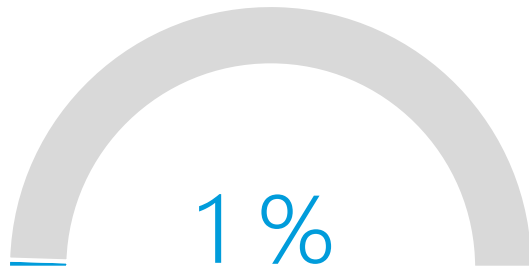
(3) – (1) by gender and age group



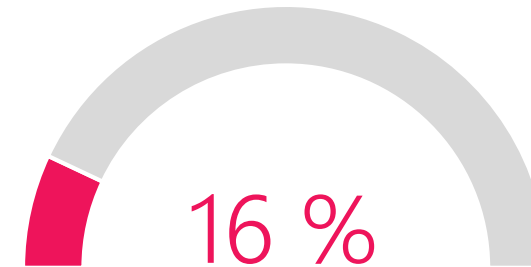
Introduction: Stress-testing the Finnish welfare state

In-work poverty is uncommon.

In-work poverty (1,1 %).



Poverty risk, if highest earning household member becomes unemployed (15,9 %).



Before the Covid-19 crisis Finland had 1.3 million employee households (out of 2.7 million households)

Previous results and coming soon

- Results from Stress testing Finnish Welfare state
 - Sosiaaliturvan stressitesti ([working paper](#), in Finnish, 18.4.2021)
 - Kaikkien palkansaajakotitalouksien stressitesti ([blog](#), in Finnish, 12.6.2020)
 - Koronakriisin työttömyys ja tuloshokki ([blog](#), in Finnish, 29.6.2020)
 - Sosiaaliturva ja lapsiköyhyys koronakriisissä ([blog](#), in Finnish, 22.6.2021)
- Working paper coming in October (Jokelainen et al. The gendered impacts of the Covid-19 crisis in Finland and the effectiveness of the policy responses)