Three decades of widowhood lifespan in Finland and its inequalities

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Background

Some of the **main demographic changes** of the **last decades**

- **Increases in life expectancy**
- Rapid **population ageing**
- **Evolving trends** in **marriage** and **partnership dynamics** (divorce, cohabitation, repartnering)

Background

These have **altered** the **timing** and **experience** of **life-course events:**

for example, the **likelihood of specific partnership transitions** and the **time spent within different partnership states**

- **Mortality** and **partnership changes** have also **extended** into **older ages**

  BUT in that life stage **most partnership end with the death of the partner**

- Together with **population ageing**

Increasing number of individuals

exposed to widowhood

Background - relevance

Striking relevance of **widowhood**, being one of the most **disrupting life event**, with grief **affecting** a **wide range** of **domains**

- increased **mortality,** decline in (**physical** and **mental**) **health** and **acceleration of biological ageing**
- **social support**, **loss** of **social resources**
- **loss** of **material resources**, **economic wellbeing** and overall **wealth**

Background - complexity

Widowhood as a result of complex interplays

The **probability** for a **woman** to **outsurvive** her **partner** (or vice versa) and its **change over time depends on:**

- Their **life expectancy differences**
- Their **age differences**
- How **highly concentrated** their **lifespan distribution** is

Background - inequalities

Inequalities in **mortality** and **partnership dynamics**

gender and social differences

in widowhood

Objectives

Despite **many** individuals are **exposed** to **widowhood**, the **striking relevance** of this **life event**, and the **well-documented dynamics** in its contributing factors

We still lacks a comprehensive understanding of the "demography of widowhood" – risk, timing, duration, trends, and inequalities

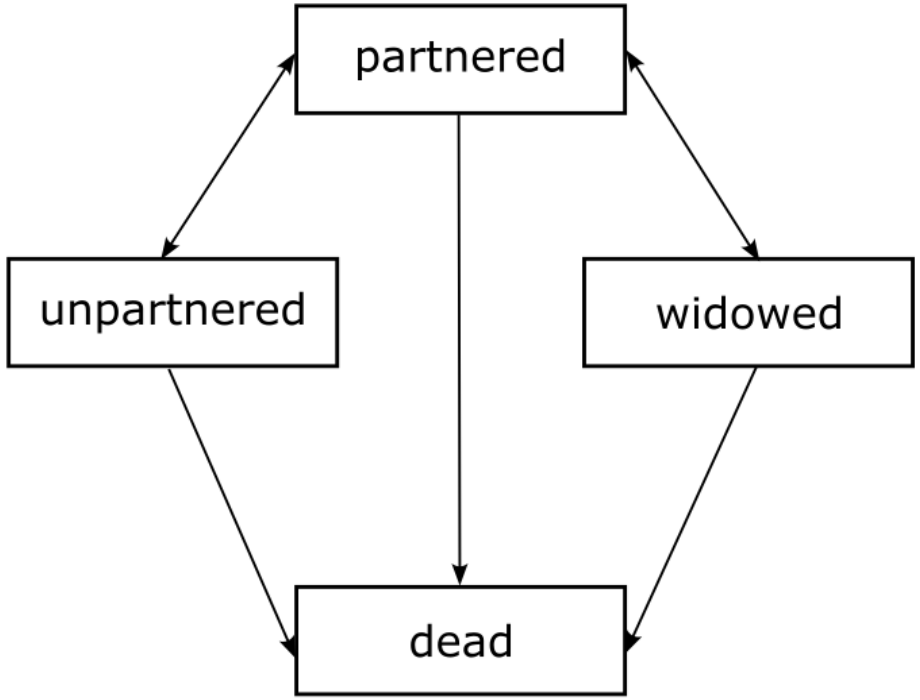
Trends in **widowhood lifespan** at **older ages**

over the **last decades** in **Finland** and its

gender and **educational** differences

Data and methods

65+ residing in **Finland** over the last 30 years (**1987 to 2019**) from **Statistics Finland population register**;



At each **age** and **year individuals are classified as:**

Discrete-time event history models (**transition probabilities**)

Period incidence-based multistate lifetables (**metrics of interest**)

Metrics of widowhood

- **Lifetime risk**
- **Mean age** at **widowhood**
- **Widowhood expectancy**
- **Variation** in the **years spent widowed**

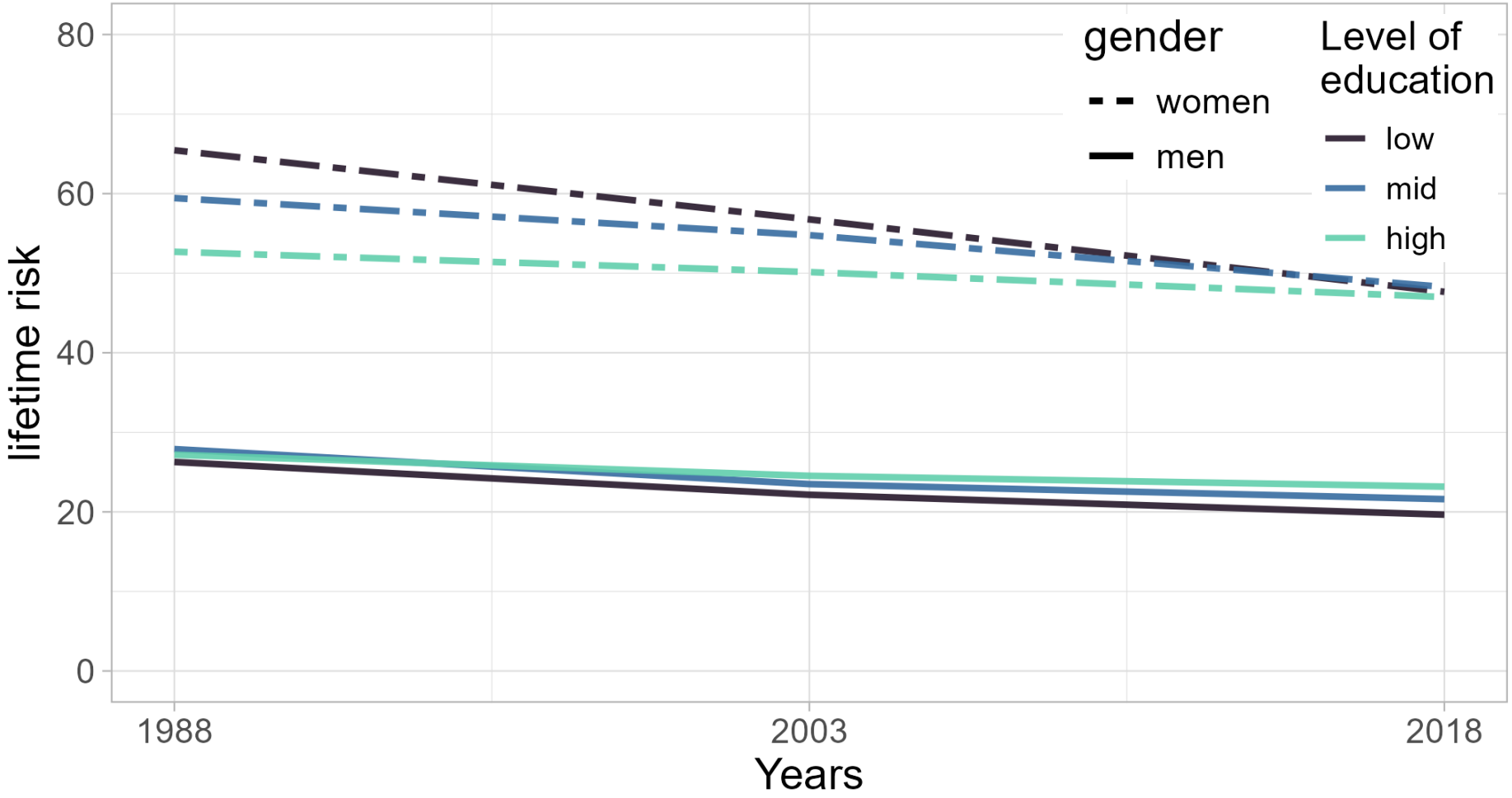
Software to compute them:

R dtms (Dudel & Li 2024) &

STATA dtms (Schneider 2023)

↳ **“Complete” picture of the demography of widowhood** ↲

Results: lifetime risk



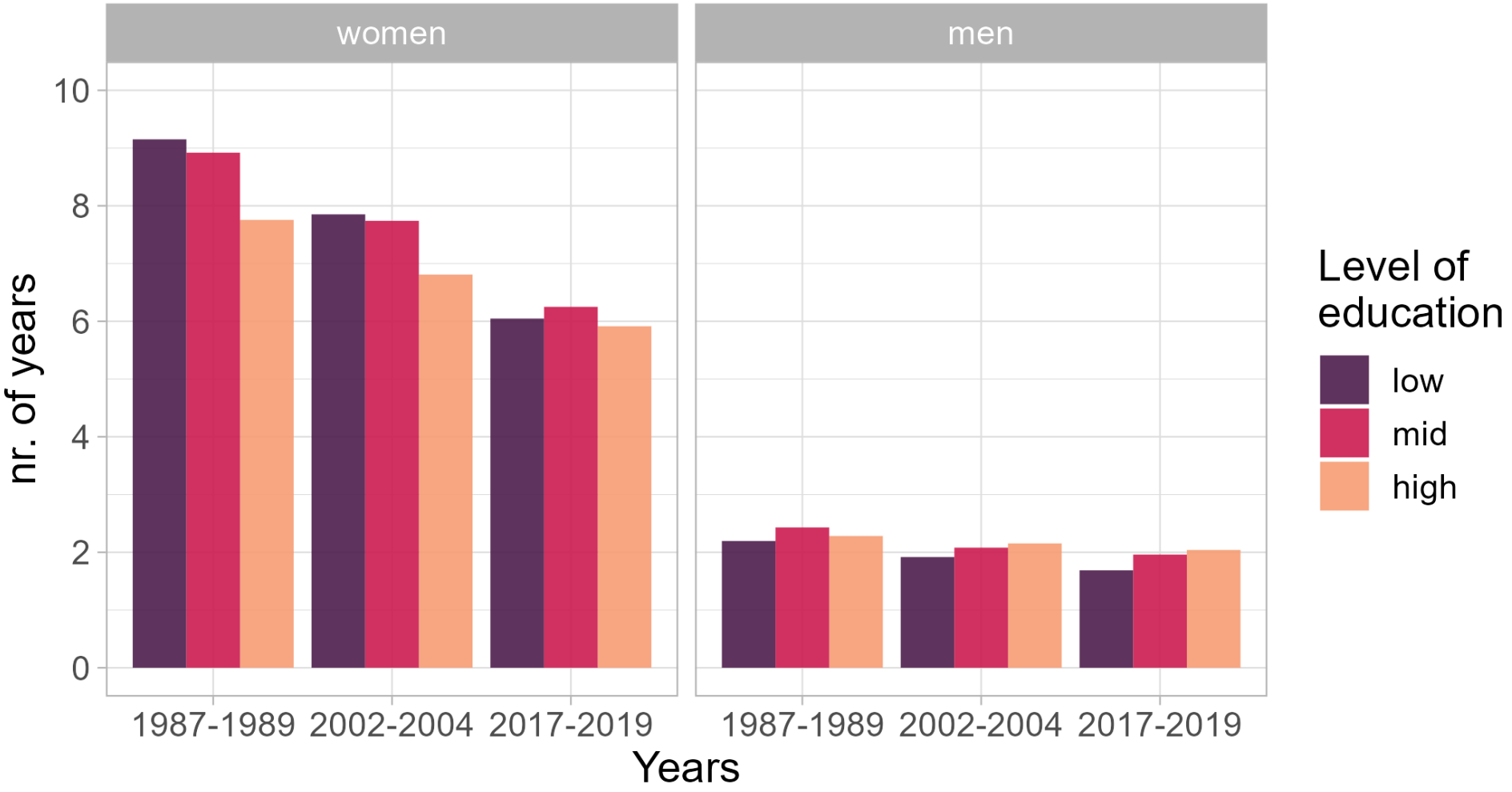
Lifetime risk of **widowhood** for **women** and **men** at **age 65+** by **level** of **education** and **year**

Results: mean age at widowhood

	1988	2003	2018
education		**Women**	
low	69.2	72.6	75.2
mid	70.0	73.8	76.5
high	71.5	75.1	78.2
		Men	
low	73.0	75.4	77.3
mid	74.0	76.3	78.4
high	75.4	77.8	80.0

Mean age at **widowhood** for **women** and **men** at **age 65+** by **level** of **education** and **year**

Results: widowhood expectancy



Life expectancy at **age 65** in the state of **widowhood** for Finnish **women** and **men**, by level of **education**, and **year**

Results: variation in years spent widowed

	1988	2003	2018
Education		**Women**	
low	9.62	9.53	8.73
mid	9.43	9.69	8.90
high	9.87	9.26	8.68
		Men	
low	5.08	4.85	4.58
mid	5.39	5.07	5.00
high	5.15	5.12	5.03

Standard deviation of the **distribution** of the **time spent** in **widowhood** by **gender**, **education**, and **year**

Summary of results

- **Less likely** for individuals to **experience widowhood** (declining lifetime risk)
- **Widowed at older ages** (higher mean age at widowhood)
- **Constant** (men) or **declining** (women) **expectancy in widowhood**
- **Women** have **higher risk, expectancy,** and **lower mean age** at **widowhood**
- **Low-educated** have around **2.5 year lower mean age** at **widowhood** for **both gender** and **highest risks** and **expectancy** for **women**

Discussion and conclusions

- Importance of **widowhood** estimate in overall **population** (**“burden”**) and in **subgroups**; shape societal structures and support systems - state and the families
- **Intersect** and **exacerbate social inequalities;** contributing factor to **social frailty**
- **Current older population** may experience **reduced exposure** (age std) to the **challenges of widowhood** and this also affect the **caregiving burden**
- **“Formal” demographic analysis** for **understanding widowhood** given its complexity in relation to the **key demographic dynamics**

Further steps

Demographic decomposition of **changes** of **widowhood expectancy** (over **time/cohorts**, by **gender, education**) are attributable to

Contributions given by changes in

- **transition probabilities**
- **initial partnership composition** (prevalence, age 65)
- **age** and **educational** differences between partners
- **educational expansion**

Thank you for your attention!

Any feedback, suggestion, question,
are very much welcome!

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Backup slides

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Metrics of widowhood - explanation

- **Distribution** of the **time spent widowed**: the probability distribution of the number of years an individual is likely to spend in widowhood
- **Lifetime risk**: the (cumulated) probability of ever experiencing widowhood - complement of the proportion of 0 years spent in widowhood from the distribution of time spent in widowhood
- **Widowhood expectancy**: the mean of the distribution of time spent in widowhood
- **Variation in years spent widowed**: the standard deviation of the distribution of time spent in widowhood

The **methodological approach** to **obtain** such **indicators** is explained

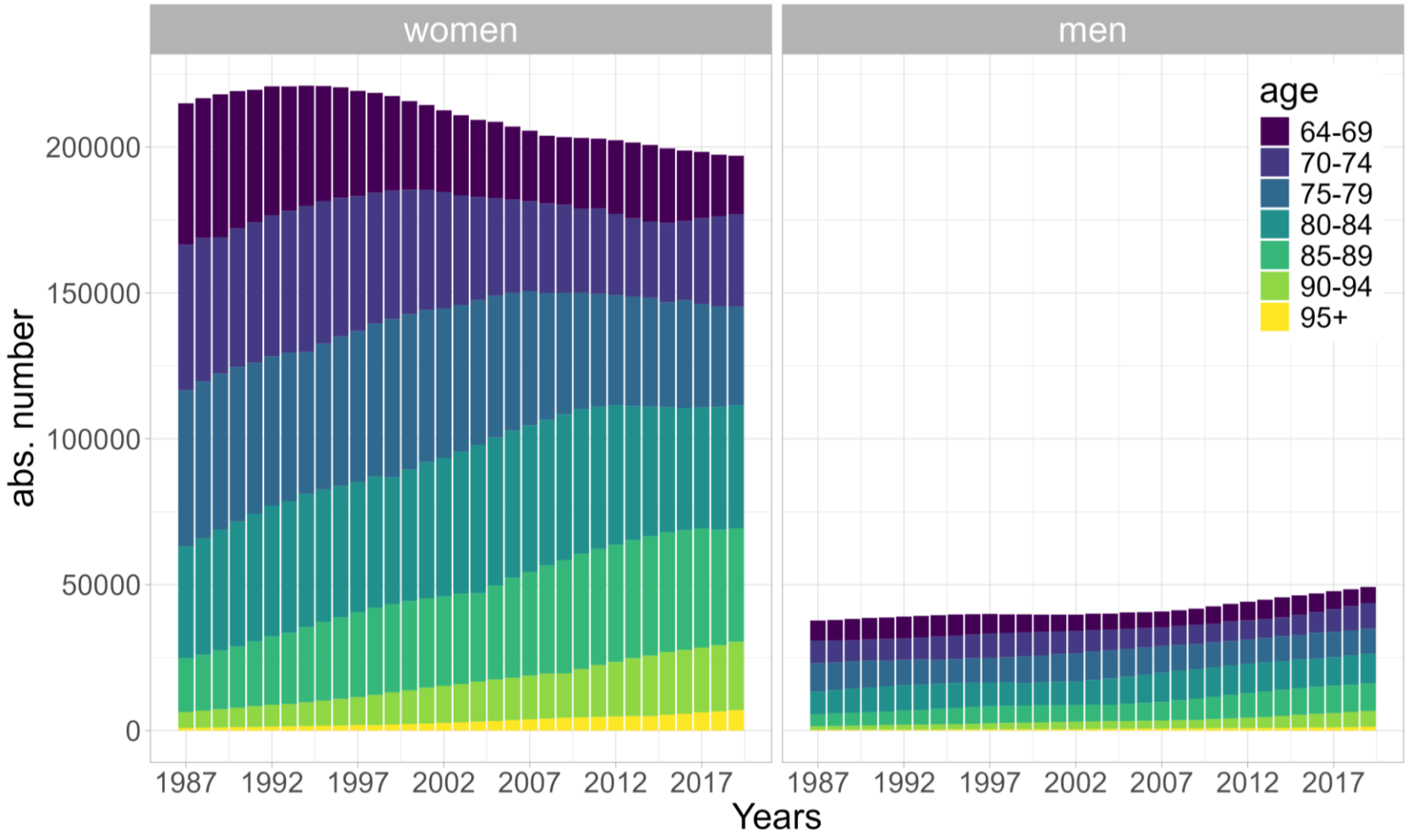
in detail by **Kemeny and Snell (1983)** & **Dudel (2021)**

Softwares to compute them:

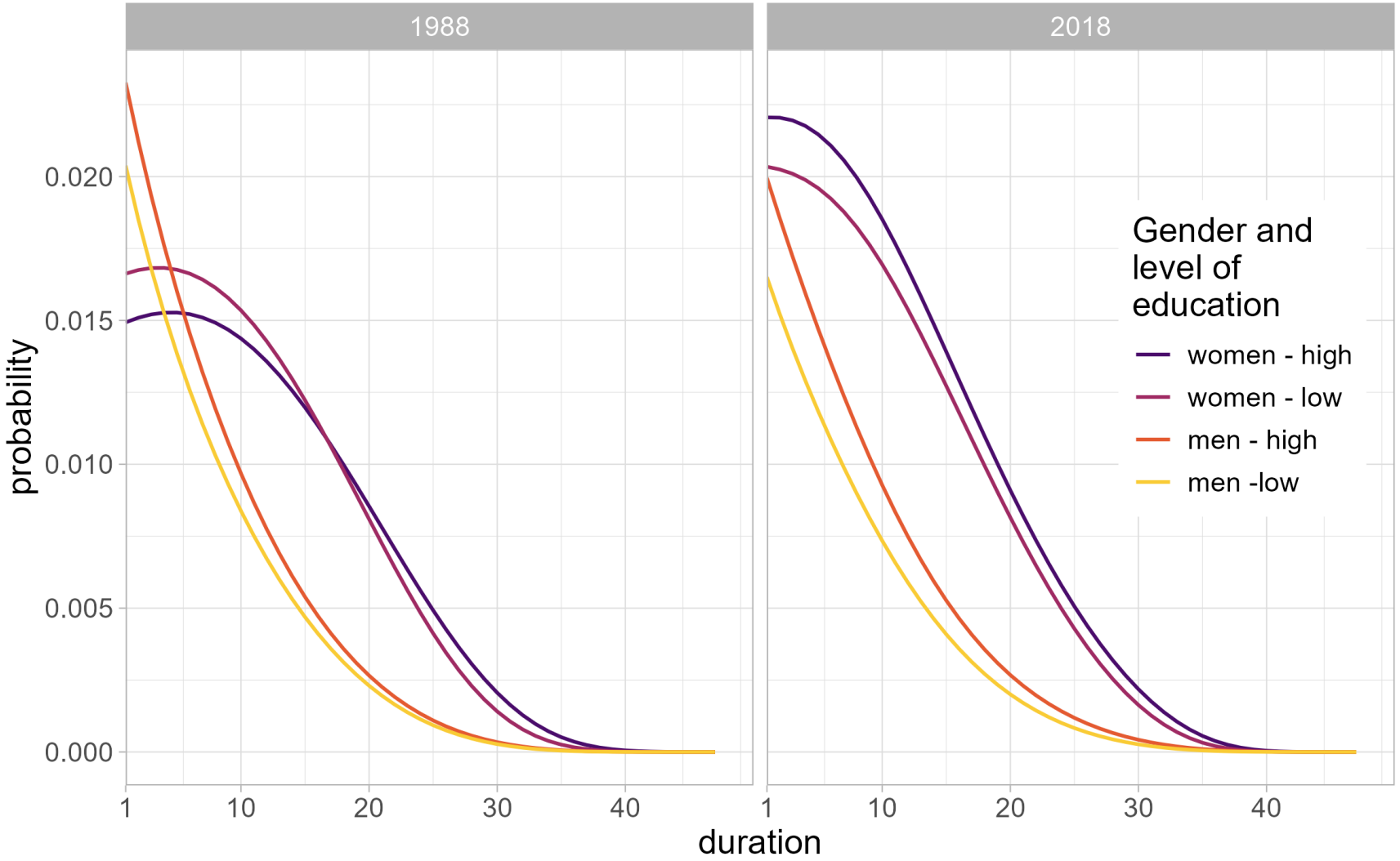
in **R dtms (Dudel & Li 2024) & in STATA dtms (Schneider 2023).**

Descriptive results

Absolute numbers of widowed
by **gender** and **age** classes in **Finland** from **1987 to 2019** (Tabulated)



Results: distribution



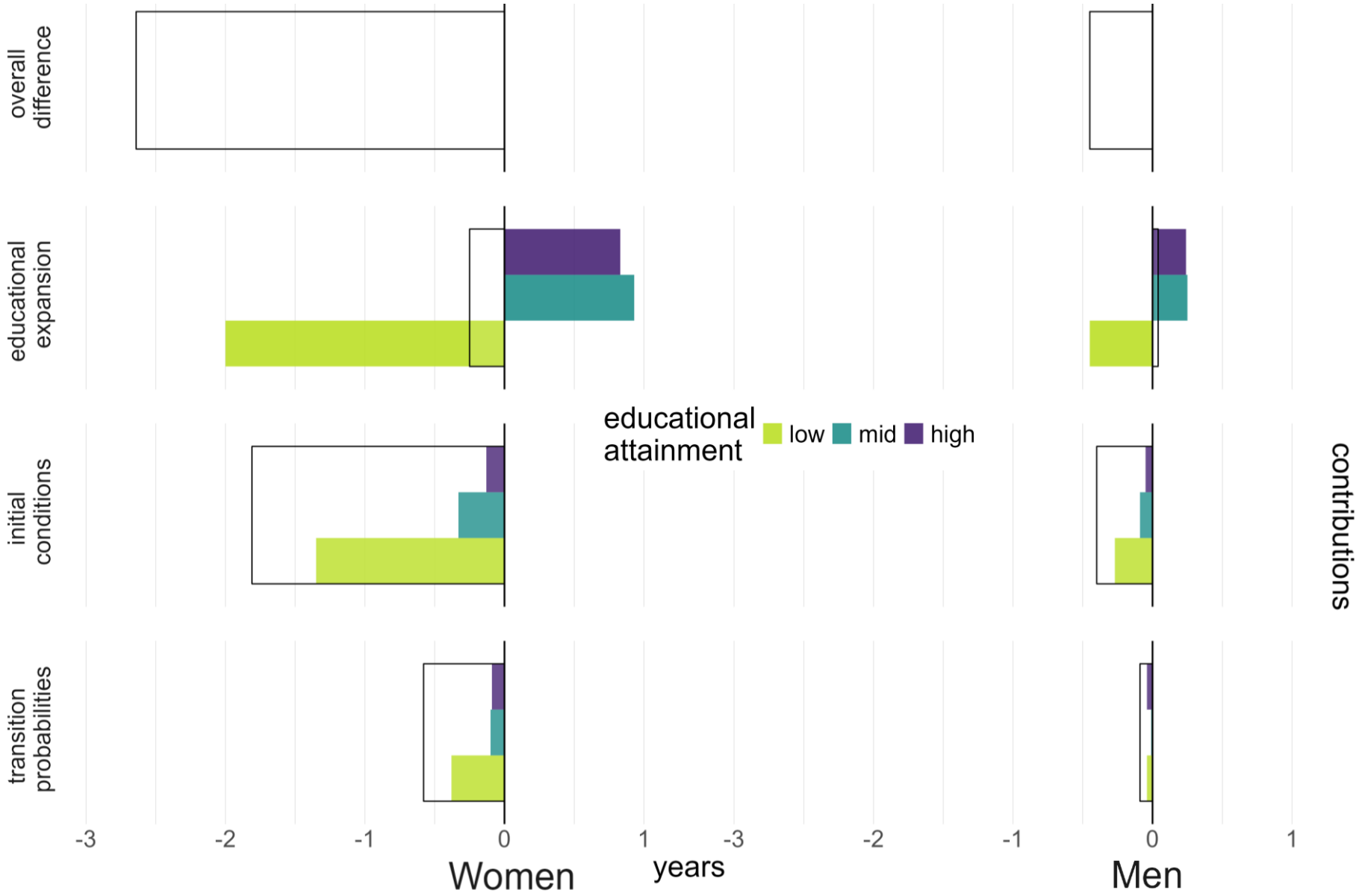
Distributions of the **time spent widowed** for **women** and **men** at **age 65+** by level of **education** and **year (1988-2018)**

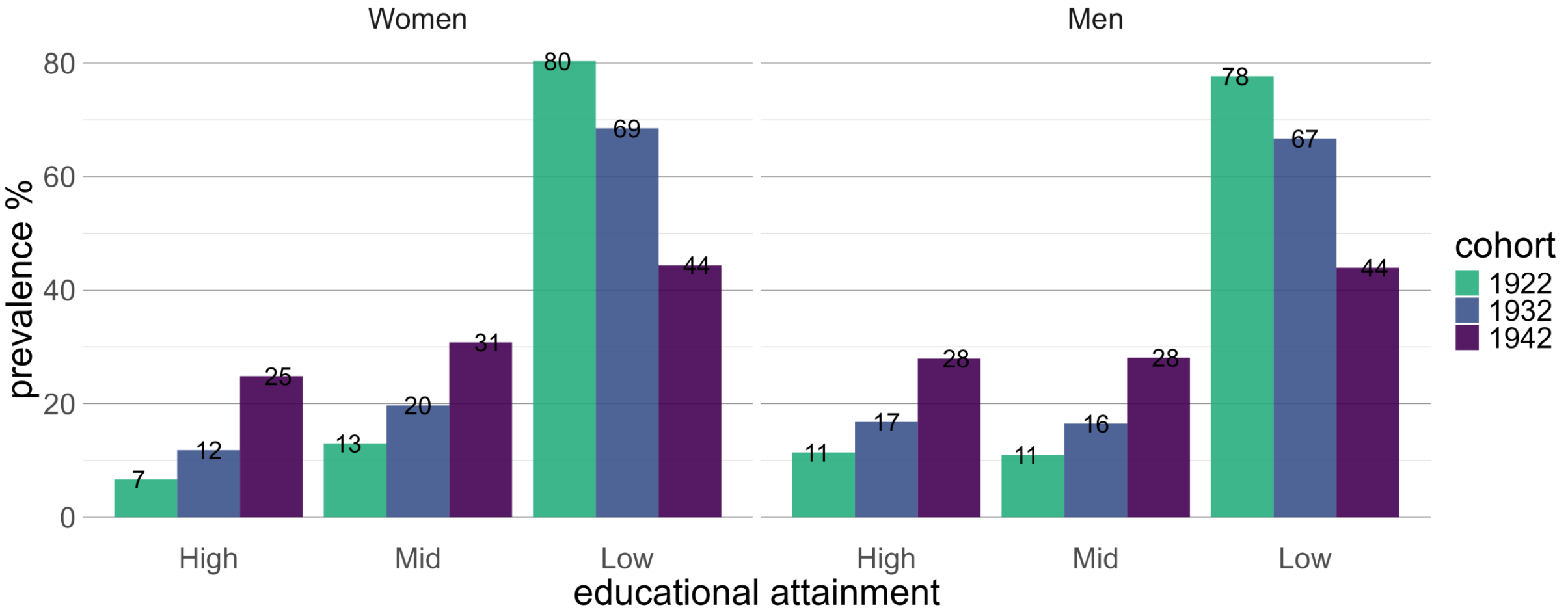
Note: in the plot, the probability for zero-time instances is not included

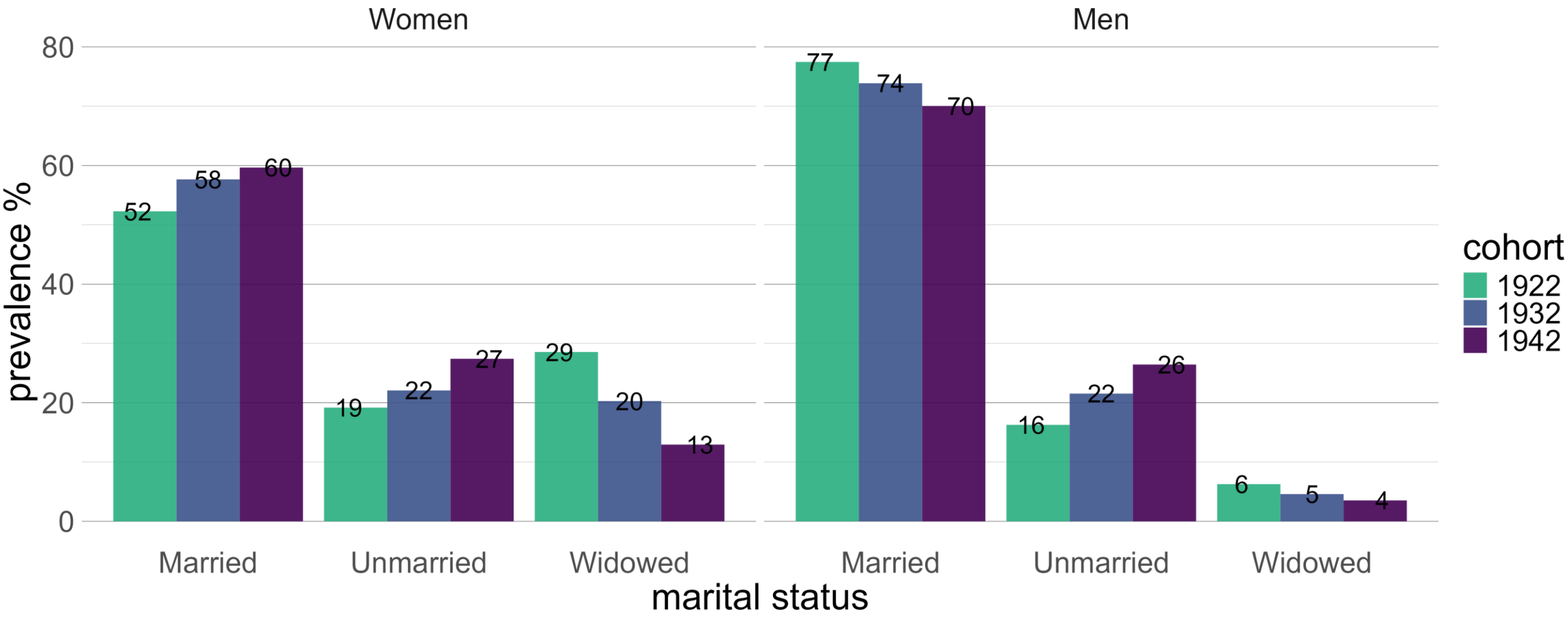
Decomposition: preliminary results

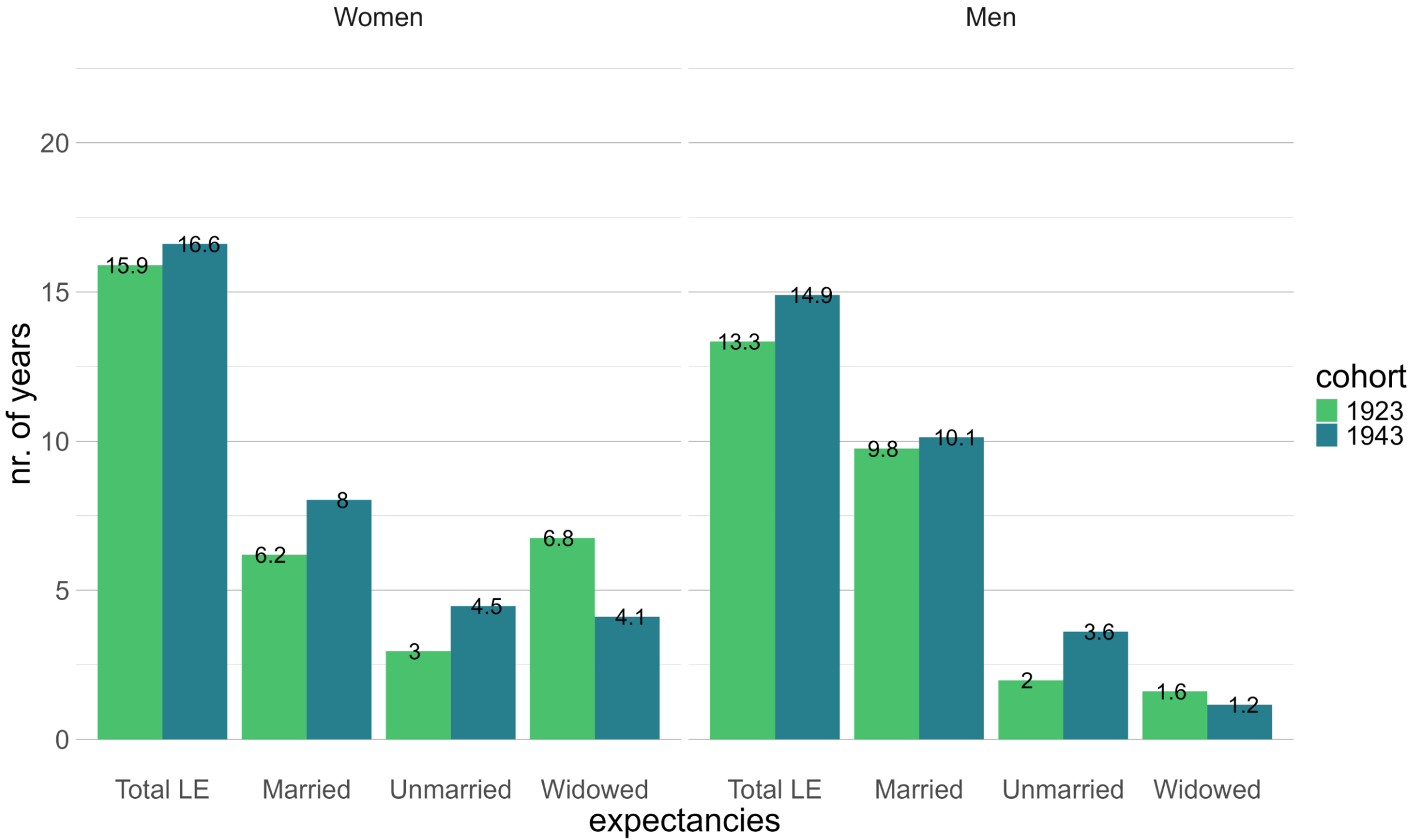
Do **educational expansion** and **variations** in the **composition** of **marital status** drive **changes** in **cohort widowhood expectancy**?

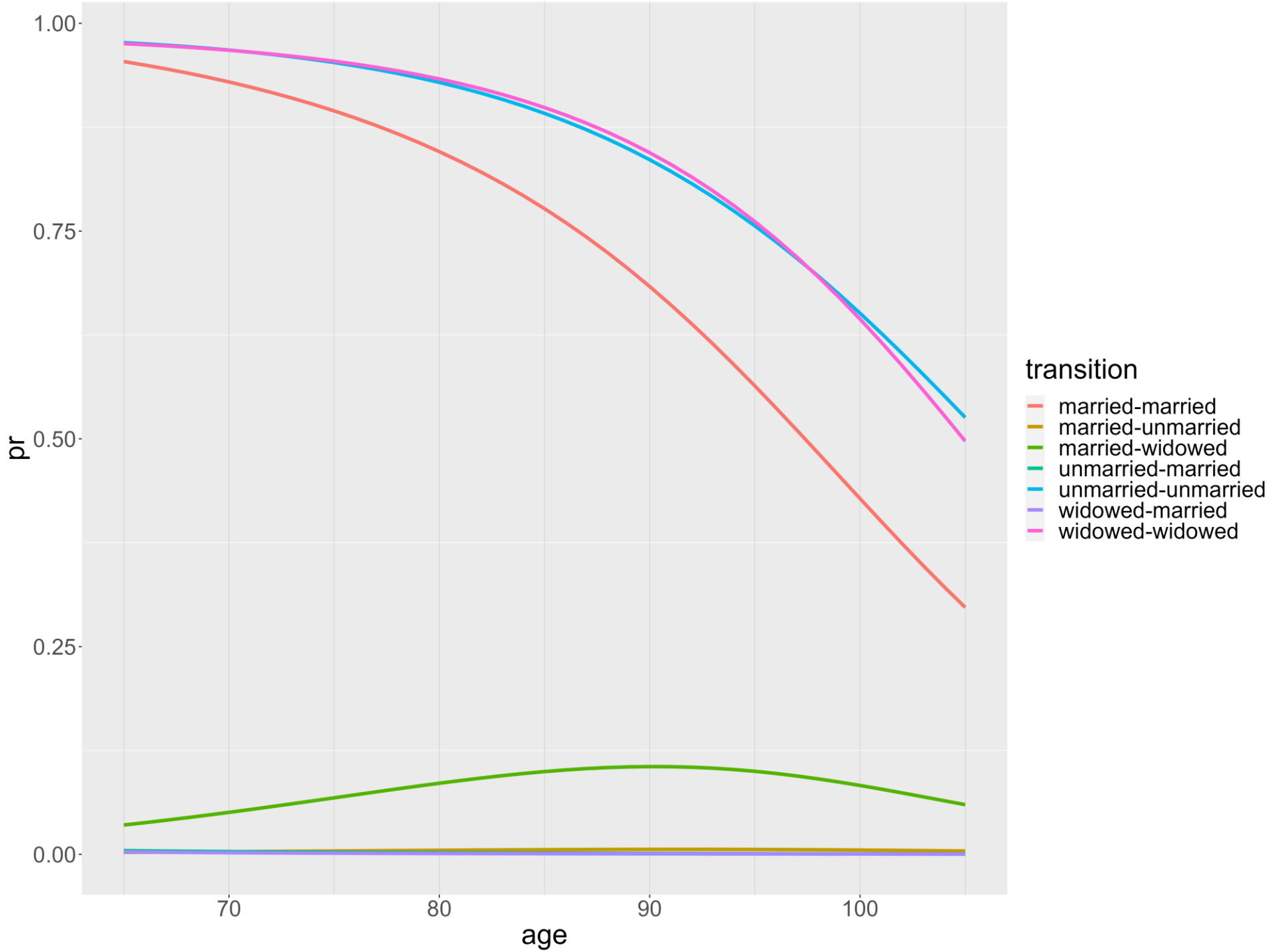
Finland
cohorts of 1922 & 1942
ages 65-85




Women
Men
prevalence %
0
20
40
60
80
7
12
25
13
20
31
80
69
44
11
17
28
11
16
28
78
67
44
High
Mid
Low
High
Mid
Low
educational attainment
cohort
1922
1932
1942


Women
Men
80
60
40
20
0
prevalence %
52
58
60
19
22
27
29
20
13
77
74
70
16
22
26
6
5
4
Married
Unmarried
Widowed
Married
Unmarried
Widowed
marital status
cohort
1922
1932
1942





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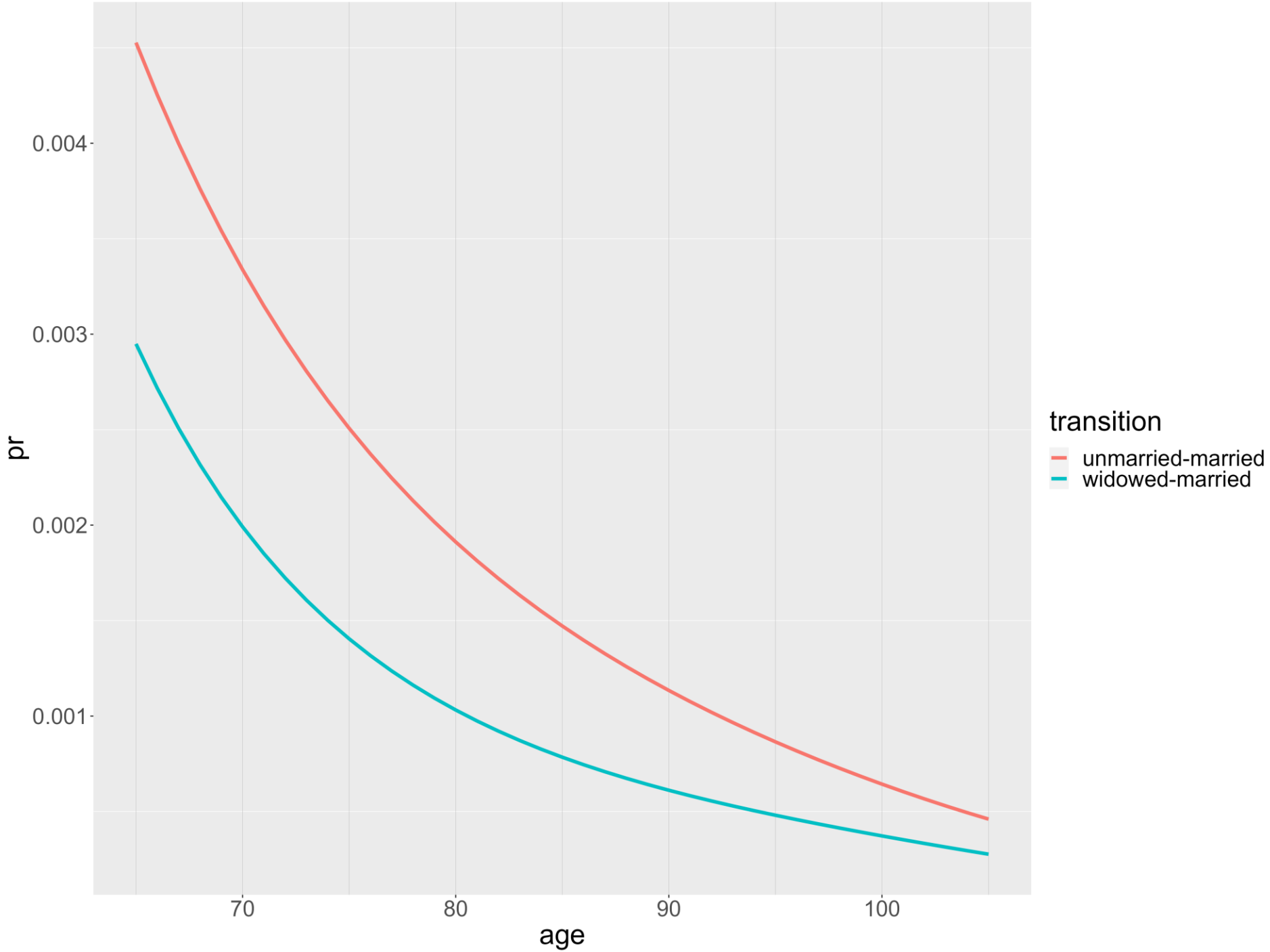
0.004
0.003
0.002
0.001
pr
70
80
90
100
age
transition
unmarried-married
widowed-married

Summary of results

- Higher widowhood expectancy for women but decreasing; men lower expectancy and relatively stable; lower-educated women have more years as widows compared to highly educated (opposite but less pronounced for men); educational inequalities widening for men and narrowing for women over time
- Variability in years spent widowed has decreased over time for both genders, with women consistently showing higher variability

Summary of results

- Mean age at widowhood is increasing over time across gender and educational groups (faster for women than men); men higher mean age at widowhood compared to women; gender gap in mean age at widowhood has been decreasing over time, but the educational gap ha widened
- Women's lifetime risk of widowhood decreased substantially over time; educational inequalities are more pronounced for women, with lower-educated women experiencing higher lifetime risks