

The highest fertility in Europe – for how long?

*The analysis of fertility change in Albania based on
Individual Data*

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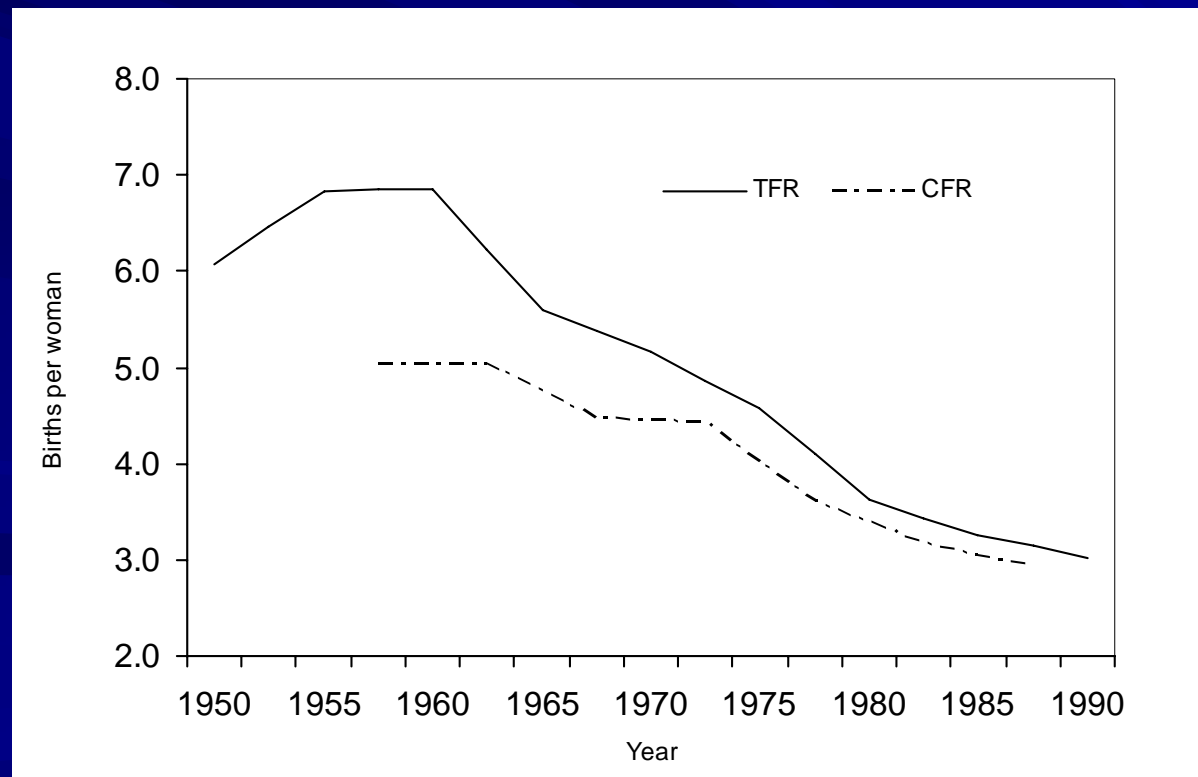
Postponement of childbearing in Europe, Vienna, 1-3 December 2005

- *Part 1.* The stage of dramatic reduction of fertility in communist Albania: 1950-90 (*Falkingam, J. and Gjonça, A. 2001*)
- *Part 2.* The period of social and economic transition: 1990 to date
- *Part 3.* Are there signs of “postponement” at present and will there be any in the future

What happened to fertility prior to the collapse of communism: 1950-1990?

■ Dramatic reduction of fertility

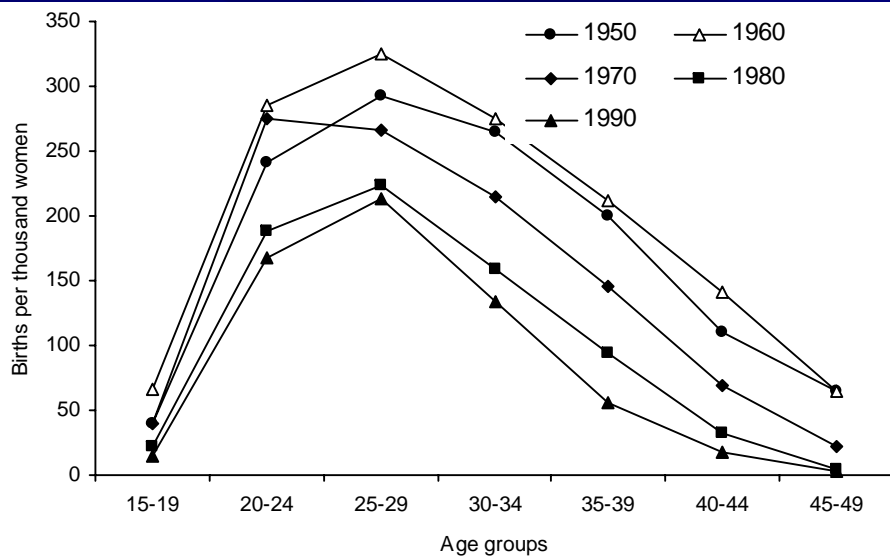
Total fertility rate and cohort fertility rate in Albania 1950-1990



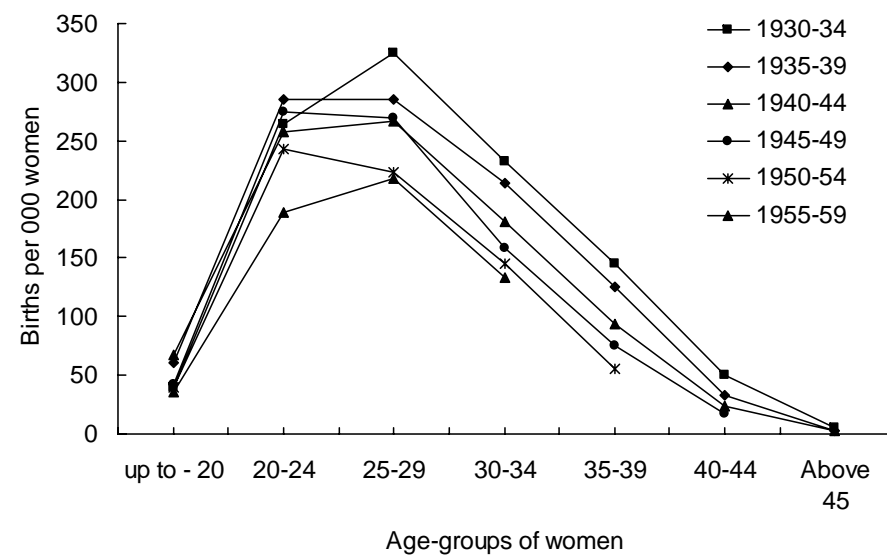
What happened to fertility prior to the collapse of communism: 1950-1990?

■ Reduction came from all ages and all cohorts

Age specific period fertility rates, Albania

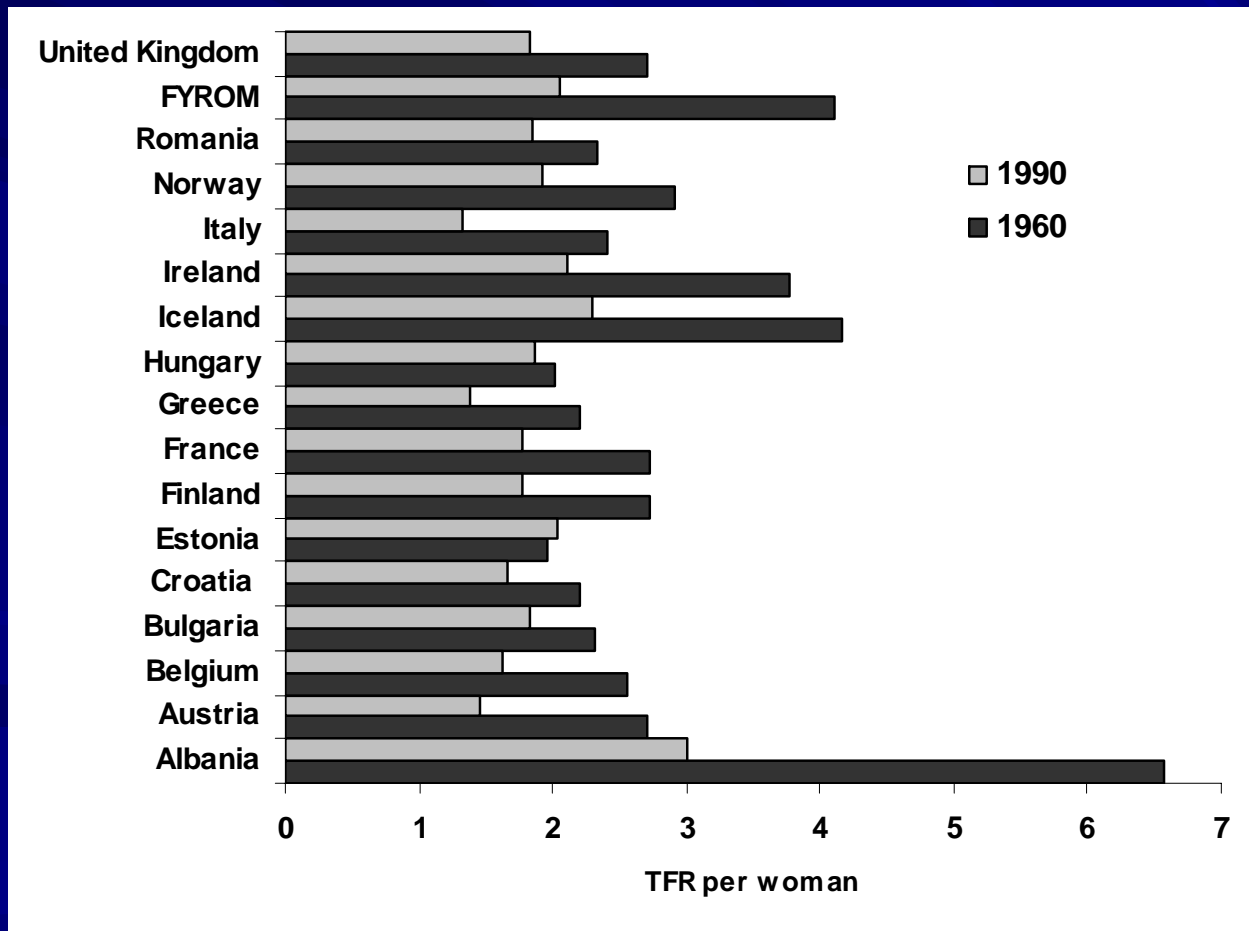


Age specific cohort fertility rates, Albania



What happened to fertility prior to the collapse of communism: 1950-1990?

- But in 1990 still very high compared to the European levels



Why did this change happen? – the explanatory pattern.

■ *Pro-natalist policies: kept fertility high*

1. No contraception available
2. Abortion was illegal
3. Strong financial incentives for mothers
4. 'Cost' of childbearing small in former communist countries

Why did this change happen? – the explanatory pattern.

- Cultural and traditional values: kept fertility high
 1. Patriarchal society – marriage universal (no childbearing outside marriage)
 2. Patriarchal society – male dominated society
 3. Patriarchal society - extended family was the norm

Why did this change happen? – the explanatory pattern.

■ Social and economic policies: worked in opposite by reducing fertility

1. Universal education (particularly females – female illiteracy rate changed from 90% in 1950 to less than 5% in 1990)
2. Full female employment (females contributed 47% of the employed labour force in 1990)
3. Exclusive policy in reducing infant mortality (indirect effect – IMR came down from 143/1000 in 1950 to 40/1000 in 1990)

Why did this change happen? – the explanatory pattern.

Result:

Social and economic policies were much stronger determinants in determining the level of fertility as they brought fertility to the level of 3 children per woman from 7.

However, no individual data existed before 1990, all analyses based on aggregate data

The period of social and economic transition: 1990 to present

i. Data Description

- Individual data (Living Standard and Measurement Survey)
- LSMS - A multidimensional panel survey to capture poverty
- Fertility histories were asked and built (Wave 1 used is 2002)
- 3600 Households = 16,521 individuals, with 5926 females over the age of 15 answering the fertility histories question.
- Unfortunately the date of marriage or entrance into cohabitating union was not recorded.
- What information collected:
 - Income/ Consumption
 - Health status/ health utilisation etc.
 - Education level
 - Fertility/migration/reproductive health
 - Employment/Activity
 - Etc.

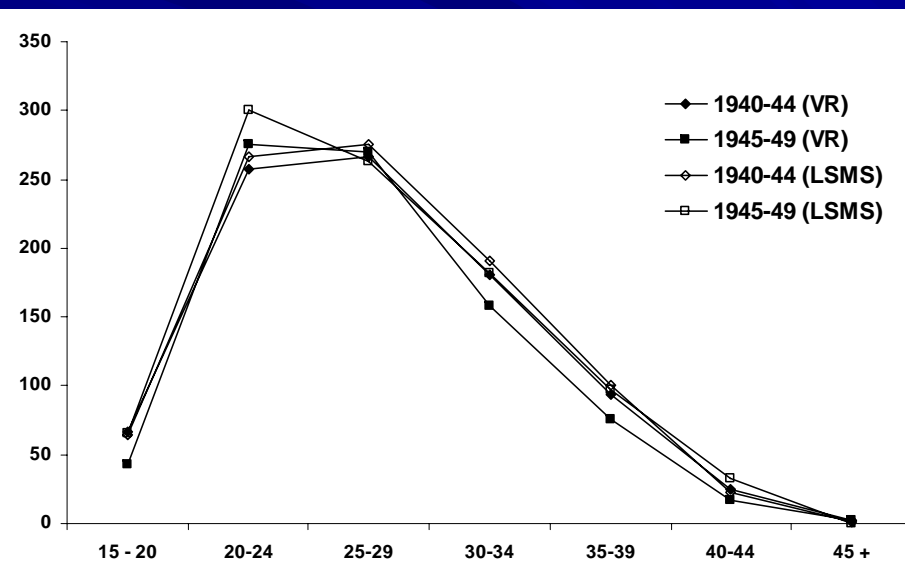
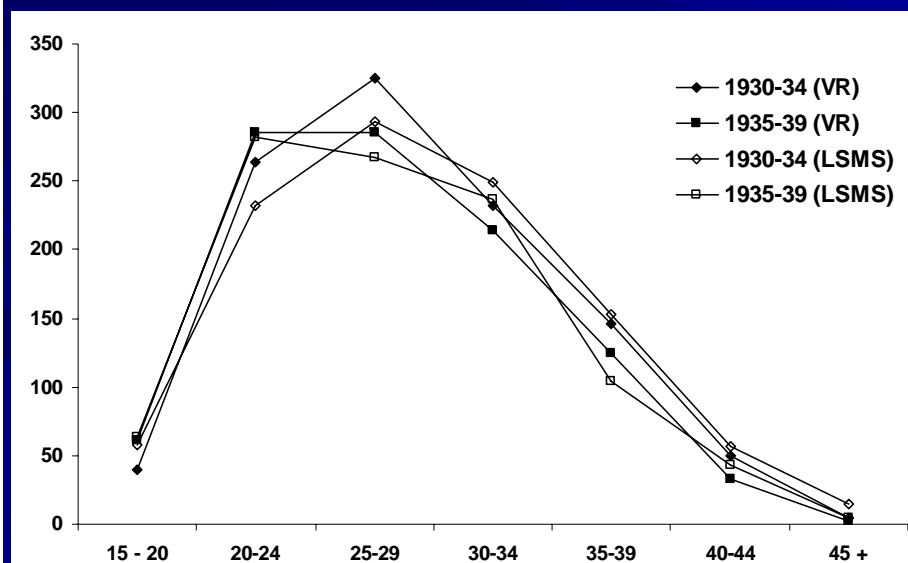
The period of social and economic transition: 1990 to present

(i) Checking the accuracy of fertility data from vital statistics

Cohort fertility rates from both vital registration and LSMS

Cohorts	1930-34	1935-39	1940-44	1945-49	1950-54	1955-59	1960-64
CFR-VS	5.03	5.03	4.46	4.43	3.60	3.17	2.92
CFR-LSMS	5.28	5.01	4.61	4.71	4.09	3.64	3.27

Selected age specific cohort fertility rates



The period of social and economic transition: 1990 to present

i. Methodology

■ Kaplan-Meier Estimates

- Non-parametric

■ Cox Regression

- Semi-parametric.

The period of social and economic transition: 1990 to present

- i. *Economic and social collapse - expected to bring fertility further down*
- Increased unemployment – females more affected than males, increased proportion of housewives (*28.4% for women and 18.8 for males*),
 - Increased income inequality – increased poverty – affecting particular areas of the country (*1/4 of the Albanian population lives below the poverty line*)
 - Education still high – a positive change: increased proportion of women at the university level (*females 42% of university places*)

The period of social and economic transition: 1990 to present

- ii. *A move from “traditional” to more “modern” values – expected to bring fertility further down*
 - Increased cohabitation
 - A move from extended to nuclear families
 - There is an openness of the society towards taboo issues such as “divorce”, “cohabitation”, “childbearing outside marriage”, use of contraception etc.

The period of social and economic transition: 1990 to present

iii. *Rapid demographic changes - expected to bring fertility further down*

- A large emigration (25% of the population) mainly male dominated.
- Improvements of IMR
- Changes in marriage pattern – increased cohabitation and divorce
- Changes in Rural-Urban populations (from 64:36 to 50:50)

The period of social and economic transition: 1990 to present

Thus, there is *a setting for fertility reduction*:

- Increased availability of contraception
- Increased knowledge of contraception
- Abortion is legal since 1991

**The period of social and economic transition:
1990 to present - What do the data tell us?**

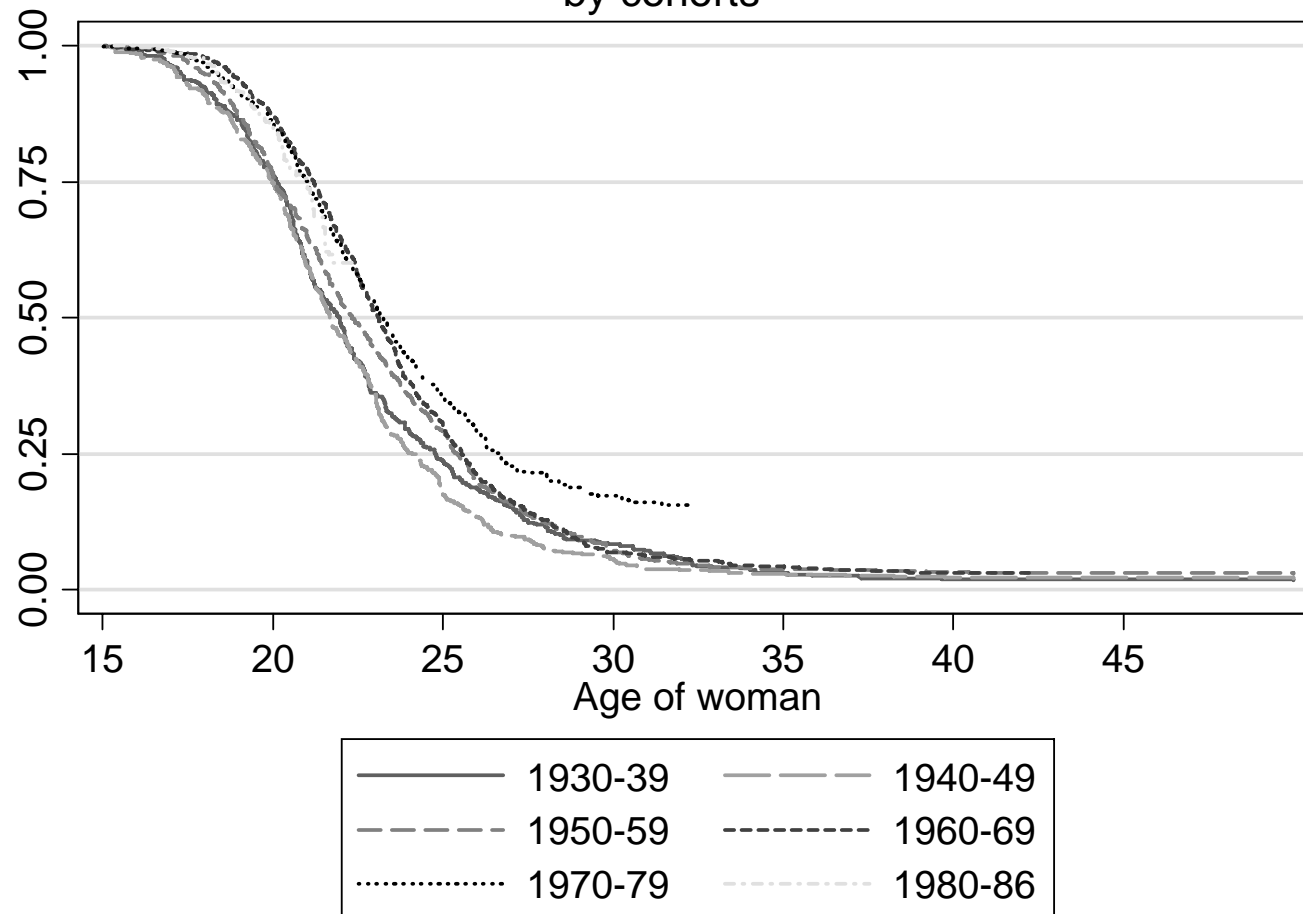
Continues reduction of fertility during the 1990s.

Period fertility rates 1980-1990 and 2000

Age-Groups	1980	1990	2000
15-19	21.9	15.4	16.5
20-24	188.7	167.1	130.7
25-29	223.2	213.6	158.6
30-34	158.5	133.3	91.1
35-39	93.6	55.7	32.9
40-44	32.8	17.4	6.9
45-49	4.7	2.7	0.6
TFR	3.62	3.03	2.19

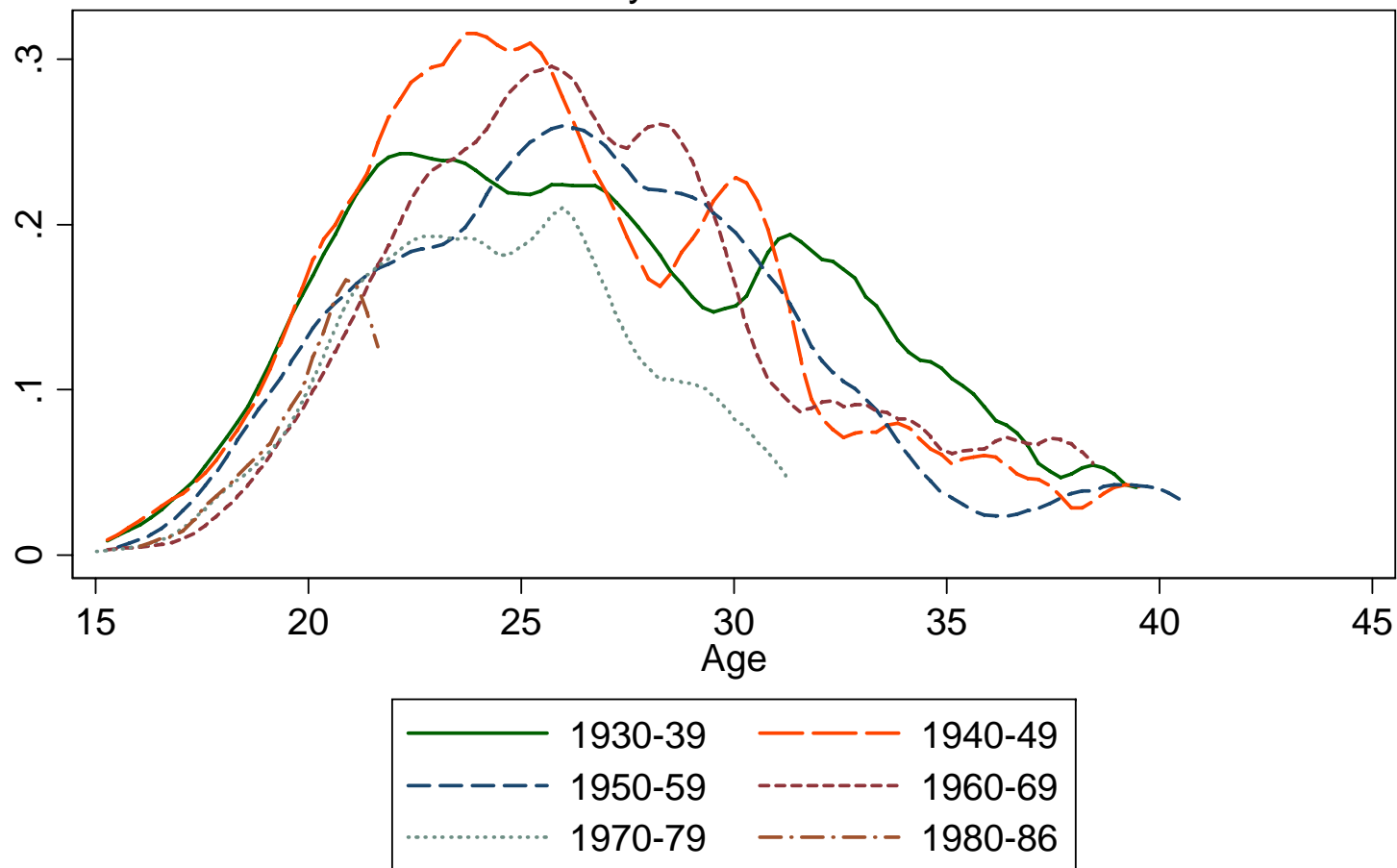
**The period of social and economic transition:
1990 to present - What do the data tell us?**

Kaplan Meier estimate of 1st birth
by cohorts



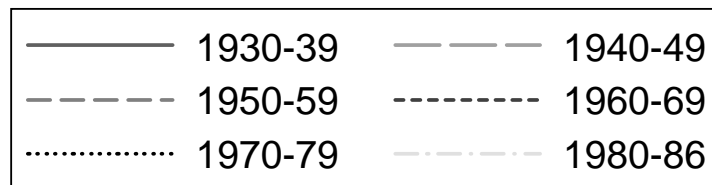
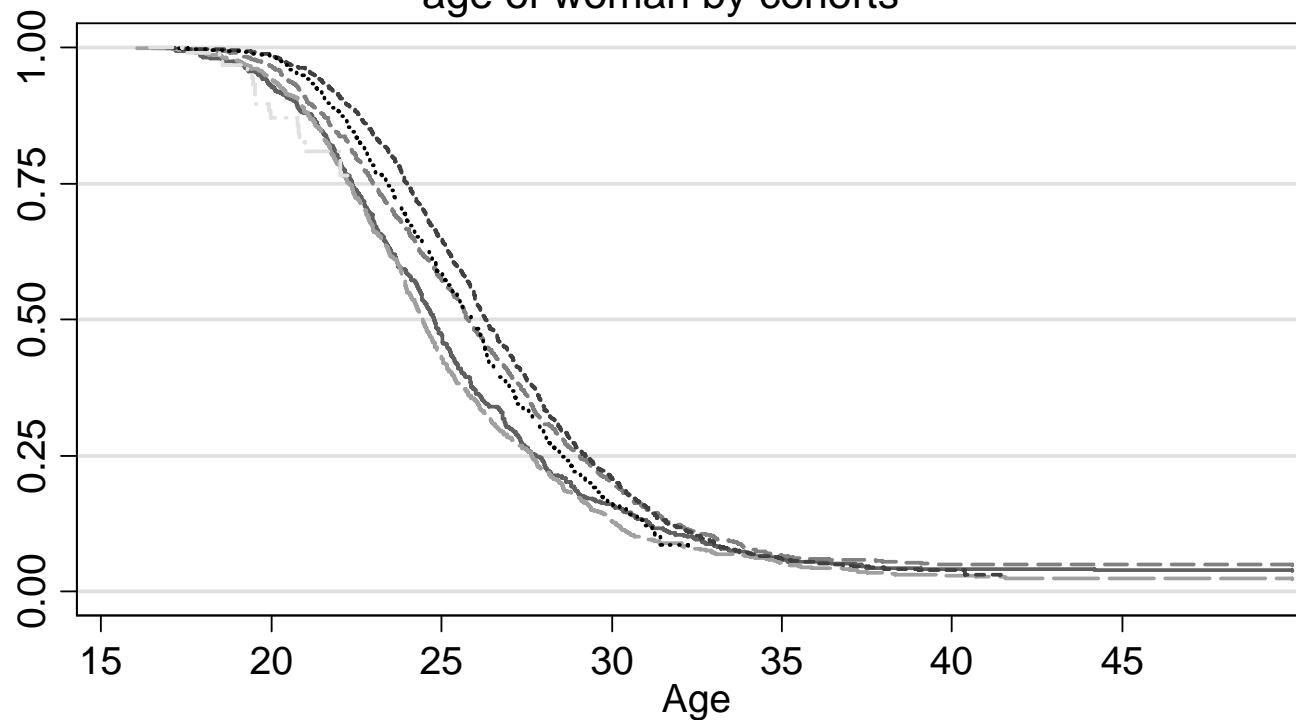
**The period of social and economic transition:
1990 to present - What do the data tell us?**

Kaplan Meier hazard of 1st birth
by cohorts



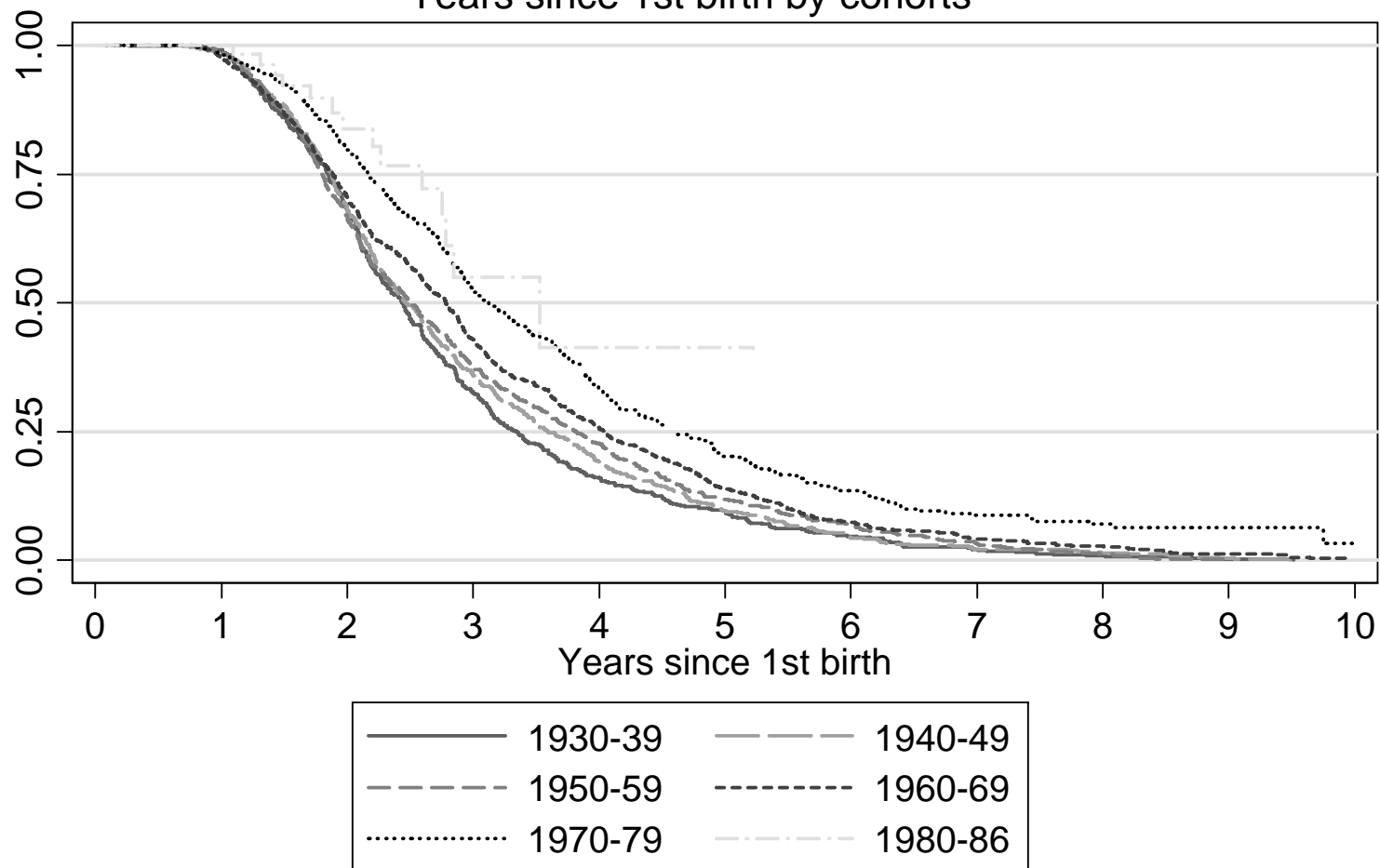
The period of social and economic transition:
1990 to present - What do the data tell us?

Kaplan Meier estimate of 2nd birth
age of woman by cohorts



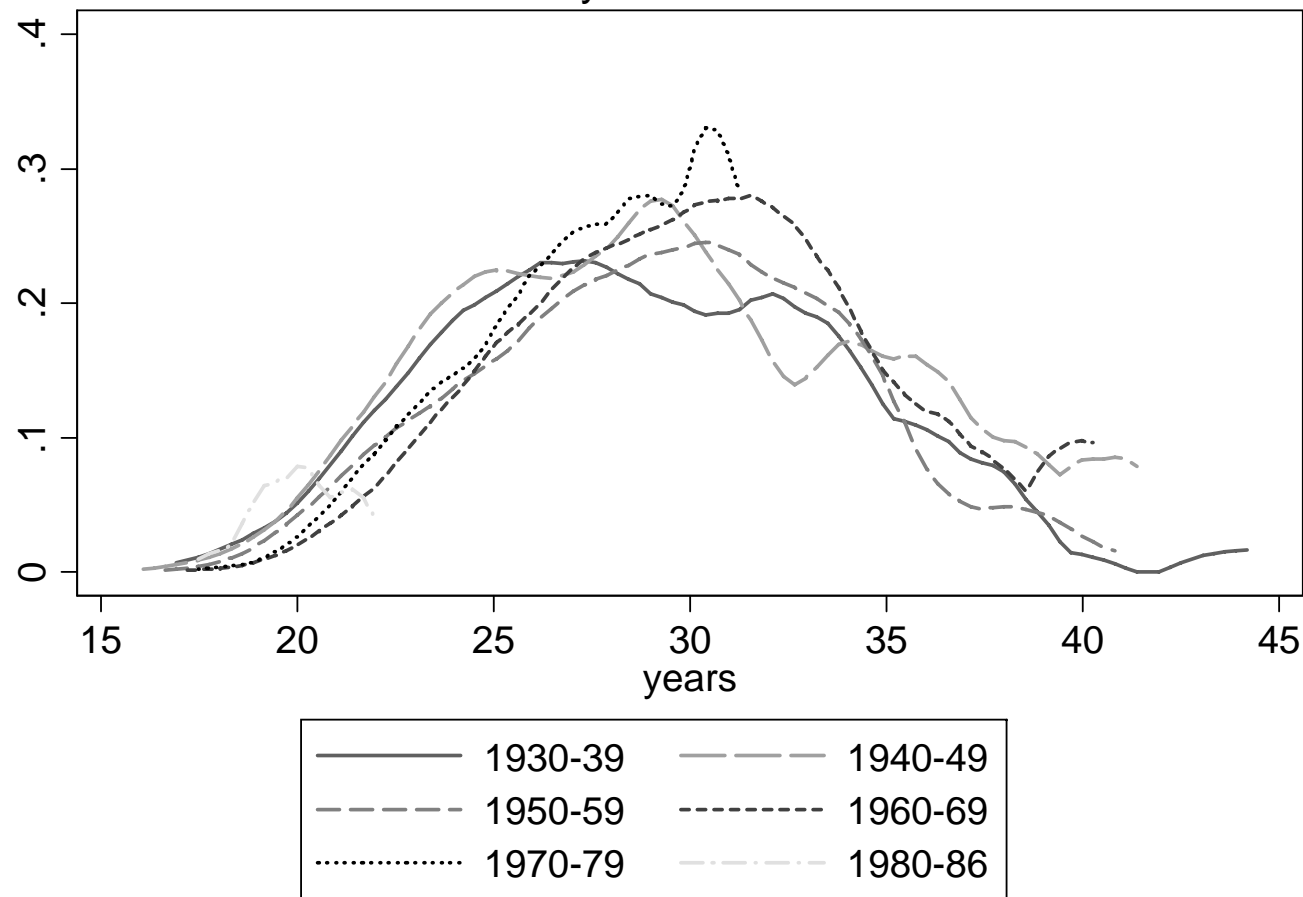
The period of social and economic transition:
1990 to present - What do the data tell us?

Kaplan Meier estimate of 2nd birth
Years since 1st birth by cohorts



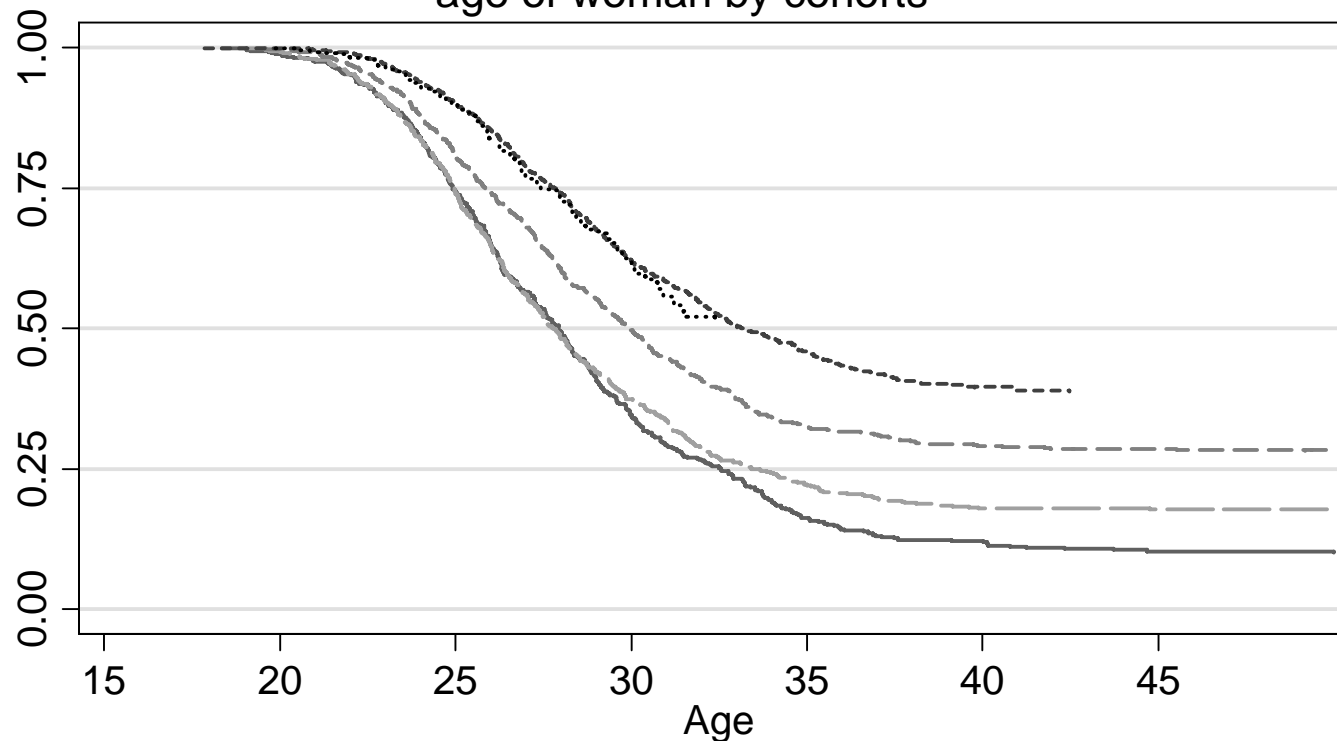
The period of social and economic transition:
1990 to present - What do the data tell us?

Kaplan Meier hazard of SECOND birth
by cohorts



**The period of social and economic transition:
1990 to present - What do the data tell us?**

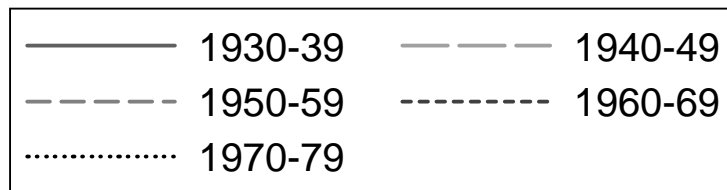
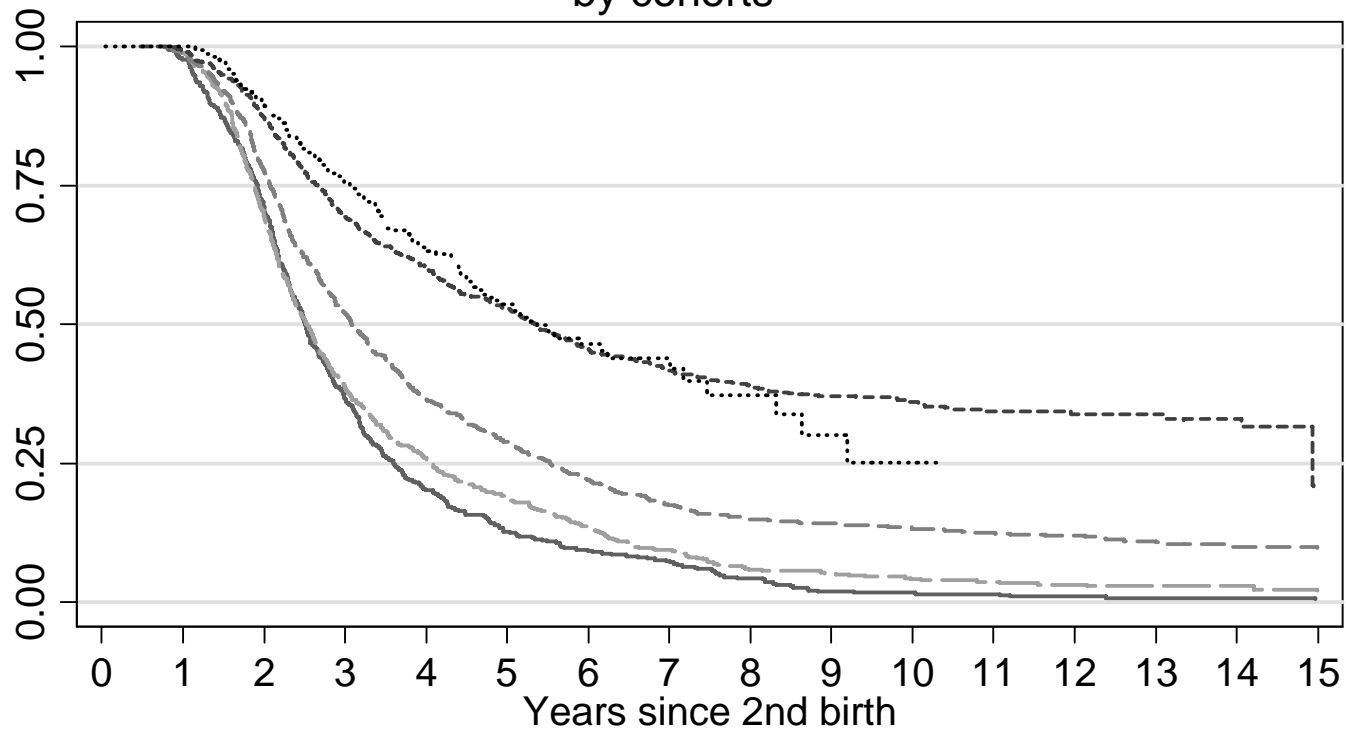
Kaplan Meier estimate of 3rd birth
age of woman by cohorts



—	1930-39	- - - -	1940-49
- - - -	1950-59	- . - . - .	1960-69
.....	1970-79		

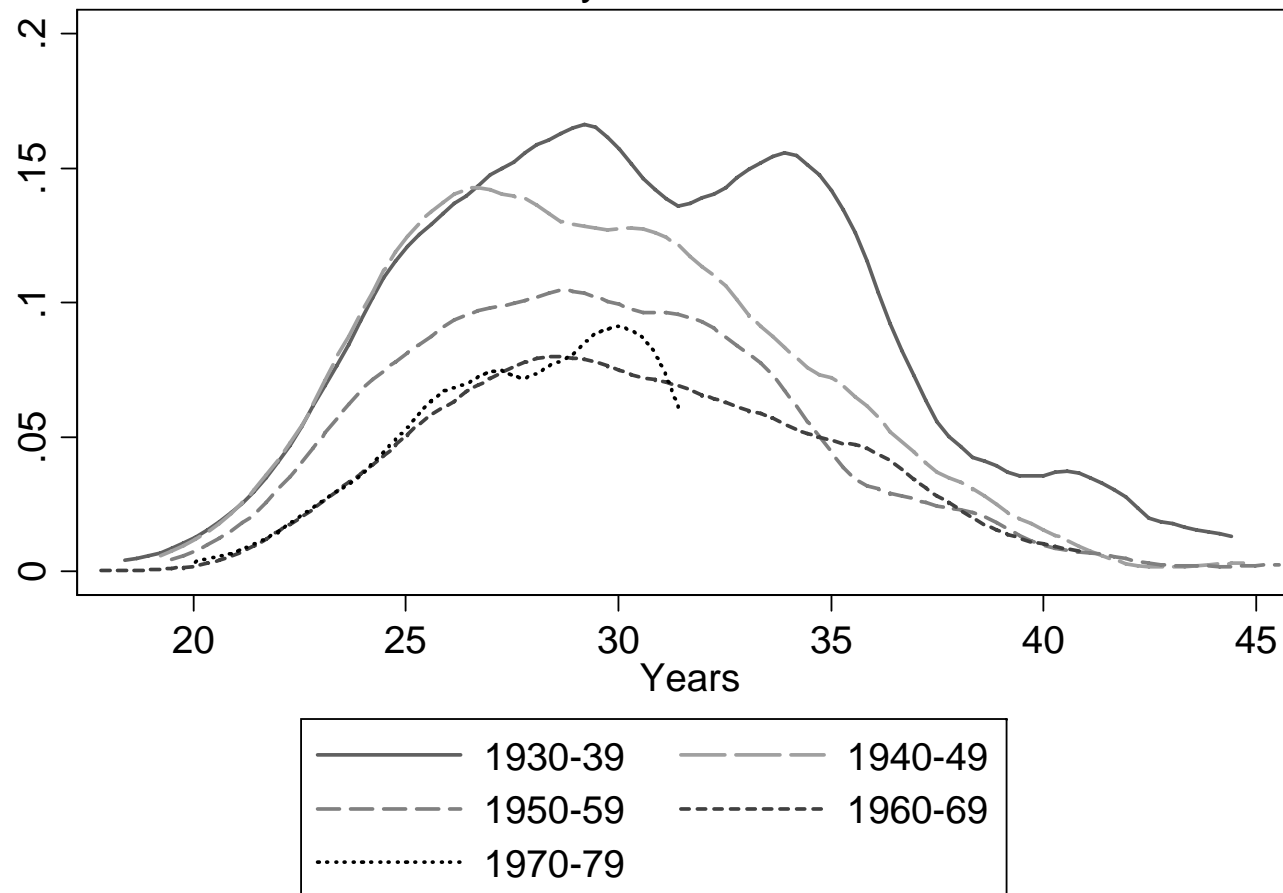
The period of social and economic transition:
1990 to present - What do the data tell us?

Kaplan Meier estimate of 3rd birth
by cohorts



**The period of social and economic transition:
1990 to present - What do the data tell us?**

Kaplan Meier hazard of THIRD birth
by cohorts



The period of social and economic transition: 1990 to present - What do the data tell us?

- For the 1st birth: the younger cohorts behave differently from the old ones - showing a delay in entrance into first birth, e.g. most evident with the 1970-1979 cohort as expected.
- The story is similar for the 2nd and 3rd birth, but the effect is much stronger
- The effect is much stronger for the 3rd birth than the previous two showing a control of fertility
- It looks certain that the reduction in the 2nd and 3rd birth has contributed to recent fertility reduction?

The period of social and economic transition: 1990 to present - What can explain the change?

	1st Birth	2nd Birth	3rd Birth
<i>Reference: Cohort 1930 - 1939</i>			
Cohort 1940-49	1.363***	1.139**	0.957
Cohort 1950 - 59	1.144**	1.171**	0.880*
Cohort 1960 - 69	0.985	1.115	0.788**
Cohort 1970 - 79	0.693***	0.794**	0.660***
Cohort 1980 - 86	0.654***	0.491**	
<i>Reference: Period before 1990</i>			
Period 1990 - 1993	1.361***	1.053	0.798**
Period 1993 - 1996	1.420***	0.932	0.573***
Period 1996 - 1999	1.397***	1.101	0.623***
Period 1999 - 2002	1.108***	0.976	0.692***
<i>Reference: Urban</i>			
Rural	1.058	1.073*	1.391***
<i>Reference: Tirana</i>			
Coastal	1.159***	1.312***	1.397***
Central	1.215***	1.156**	1.244***
Mountains	1.174***	1.461***	1.919***
<i>Reference: Muslim</i>			
Orthodox	0.953	0.919	0.711***
Catholic	0.905	1.037	1.290***
Other religions	1.066	1.074	1.008
<i>Reference: Less than 5 yrs</i>			
Education (yrs) 5 - 8	1.210**	1.002	0.804**
Education (yrs) 9 - 11	1.052	0.956	0.751***
Education (yrs) 12 - 15	0.677***	0.780***	0.461***
Education (yrs) 16 plus	0.428***	0.660***	0.289***
Age at risk of 2nd and 3rd birth	N/A	0.965***	0.921***

Note:

* 10% ** 5% *** 1%.

The period of social and economic transition: 1990 to present - What can explain the change?

- HRs show that the effects of cohort, education, region and place of residence, of 1st birth compared to 2nd birth or 3rd birth are less significant.
- Younger cohorts have smaller HR as one would expect for all 1st, 2nd and 3rd birth.
- The difference comes to the period effect - Surprisingly the HRs are much higher compared to 'prior to 1990' for the 1st birth. This might be due to:
 1. In 1990 maternity leave increased from 6 months to 1 year.
 2. Large redundancy happened in the first years of 1990 affecting mostly women. It is still traditional society and having one child is still 'norm'
 3. During the 1990s there is clear evidence that women are moving from full employment to increased proportions of housewives (*45% of females aged 15 years and over*).

The period of social and economic transition: 1990 to present - What can explain the change?

- R/U and regional HRs show the expected results with the risk of earlier entrance into 1st, 2nd and 3rd birth being higher among the rural and less developed regions.
- Religion not important – Difficult to find any effect in a country where first it was abandoned for 30 years, and second a population which has changed religion a few times in the last 300 years.
- Education – comes as the strongest explanatory variable in Albania supporting previous work.
- When looking at 2nd and 3rd birth it is clear that the 1990s compared to previous period show a much stronger effect with smaller HR.
- Similar to KM estimates, it is probably the reduction of 3rd birth and to some extent in the 2nd one that might have contributed to the reduced fertility in the 1990s

The period of social and economic transition: 1990 to present

- *Shall we talk of postponement in Albanian case?*
- *Will Albanians reduce or postpone their fertility?*



The pre-requisites for further reduction are there:

- Already there are signs of postponement of 2nd birth.
- and 3rd birth has gone down dramatically.
- There is evidence that the attitudes are changing and the move from “traditional family values” to more “modern ones” is happening

The period of social and economic transition:
1990 to present

Is there any sign of postponement?

Cohort	Mean age at 1 st birth
1930-39	21.93
1940-49	21.67
1950-59	22.33
1960-69	23.10
1970-79	23.23

Cohort & Region	Mean age at 1 st birth
1970-79 Coastal	23.18
1970-79 Central	23.00
1970-79 Mountain	23.86
1970-79 Tirana	24.47

The period of social and economic transition:
1990 to present

Concluding note:

It seems that "traditionalism" or "norms" persist for the onset of family formation, whereas perhaps "modernity" and economic constraints impacts the number of children one has in Albania (i.e. effects for 2nd and 3rd births).