



Different cohorts & different periods means different fertility?

The impact of education in portuguese cohort fertility.



Aim of study

- Contribute to the fertility research by exploring in the last three decades the period and cohort dynamic of Southern European fertility, with special attention to the particular case of Portugal.
- To investigate and explain the transitions to motherhood providing new insights between cohort fertility and educational attainment.

Motivation

In **1984 Lídia was born in Portugal**, and in that year born in Portugal on **average 1.9 children per woman**, Portugal was still two years far from the European Economic Community (EEC – the European Union of today), 18 years far from the EURO, and in the European context Portugal was still one of the poorest countries.

Motivation

In **1984 Lídia was born in Portugal**, and in that year born in Portugal on **average 1.9 children per woman**, Portugal was still two years far from the European Economic Community (EEC – the European Union of today), 18 years far from the EURO, and in the European context Portugal was still one of the poorest countries.

Lídia's mother, the youngest of 7 siblings, **was born in 1965**, ten years before the end of the dictatorial regime and **when TFR was 3.2**. **She belong to a cohort of women with low educational attainment**, in fact her mother's educational level is less than the complete secondary school and **with the age of 15 she was already at the labour market**.

Motivation

In **1984 Lídia was born in Portugal**, and in that year born in Portugal on **average 1.9 children per woman**, Portugal was still two years far from the European Economic Community (EEC – the European Union of today), 18 years far from the EURO, and in the European context Portugal was still one of the poorest countries.

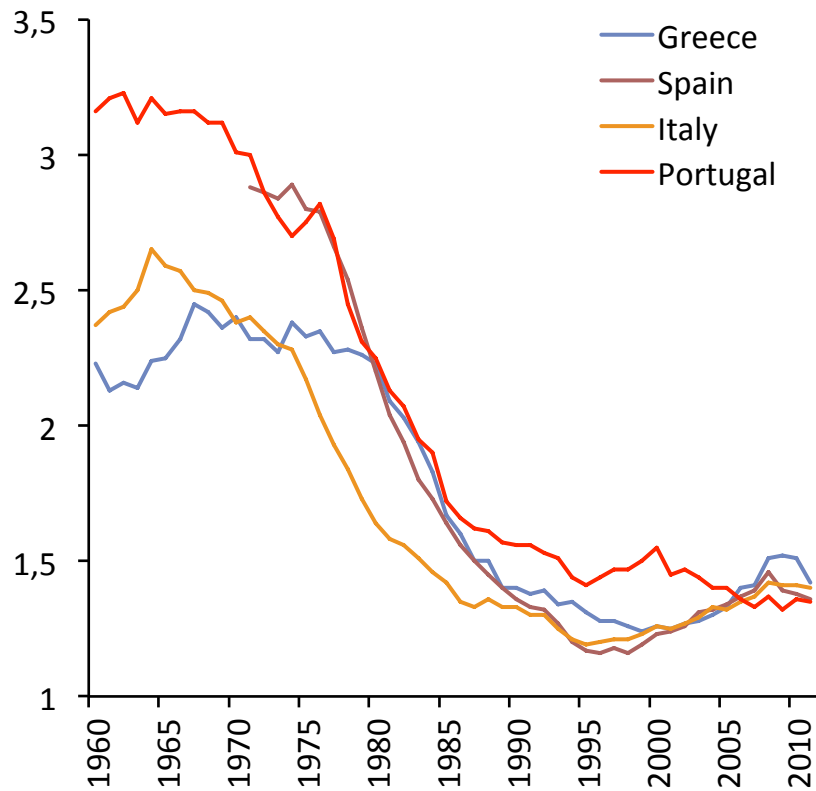
Lídia's mother, the youngest of 7 siblings, **was born in 1965**, ten years before the end of the dictatorial regime and **when TFR was 3.2**. **She belong to a cohort of women with low educational attainment**, in fact her mother's educational level is less than the complete secondary school and **with the age of 15 she was already at the labour market**.

In 1989 when Lídia arrived to school were in her classroom 25 students. From that group only 5 of them, including her, had and remain today (2013) without any siblings. Also **from these 25 students in the classroom and born in the cohort of 1984, 10 have a university degree but only 3 have today at least one child**.

What have changed between cohorts?

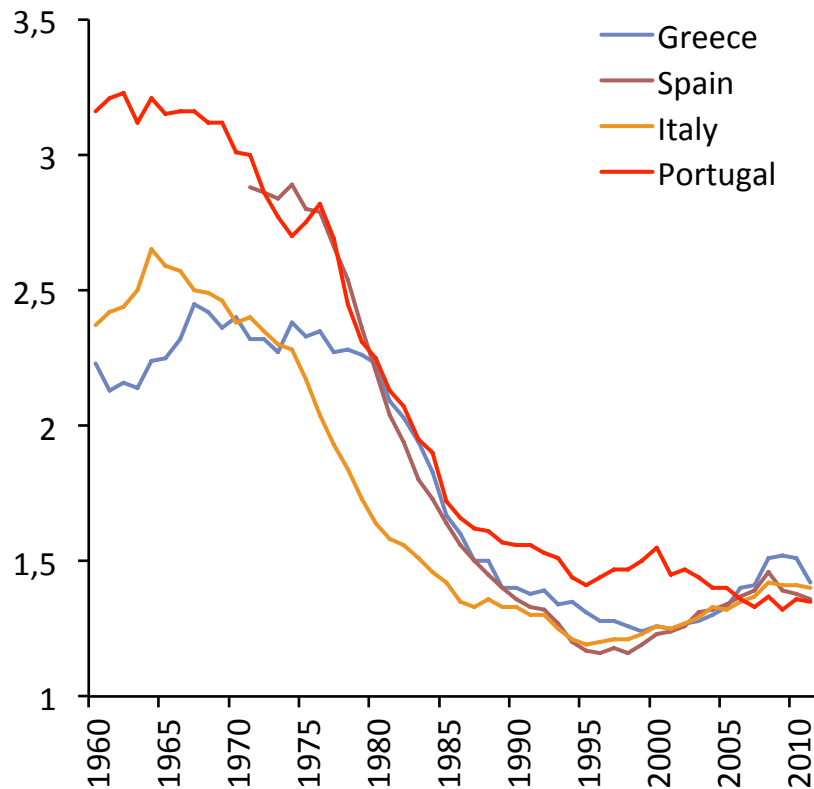
Evolution of TFR & MAC in the Southern Europe between 1960 and 2011

TFR between 1960 and 2011

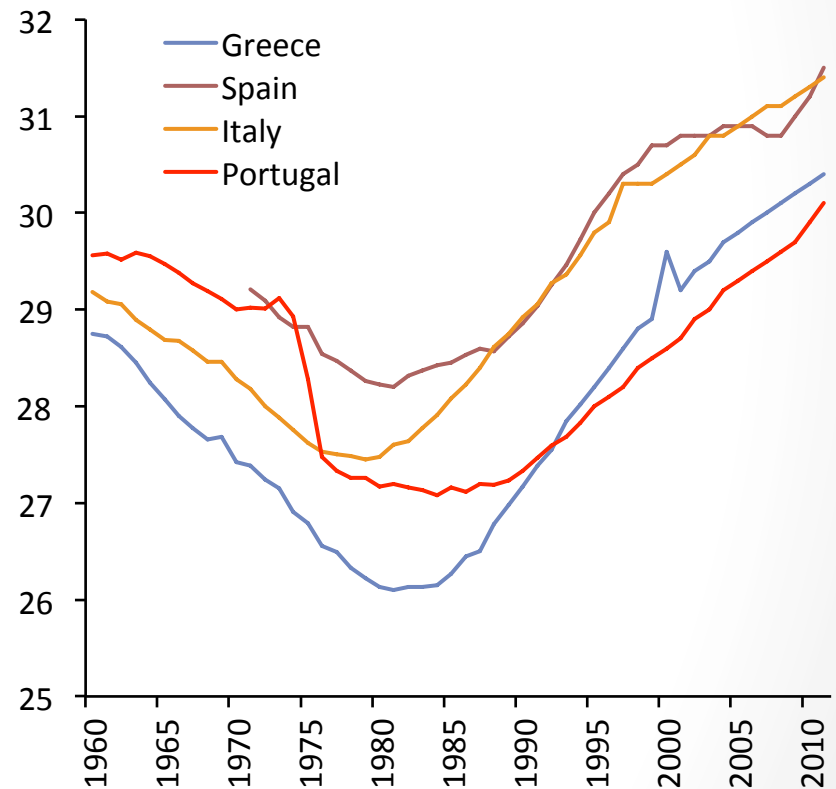


Evolution of TFR & MAC in the Southern Europe between 1960 and 2011

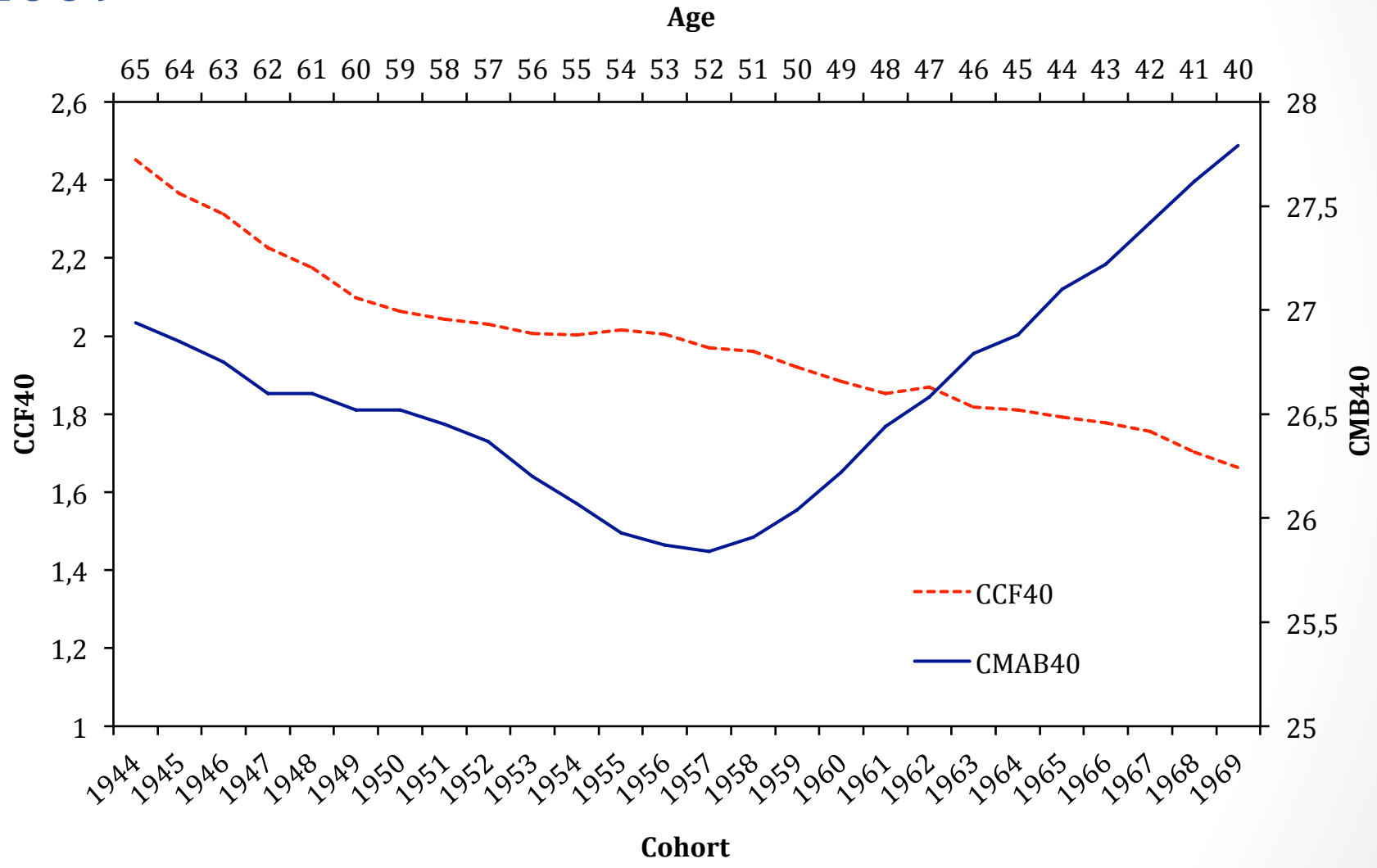
TFR between 1960 and 2011



MAC between 1960 and 2011

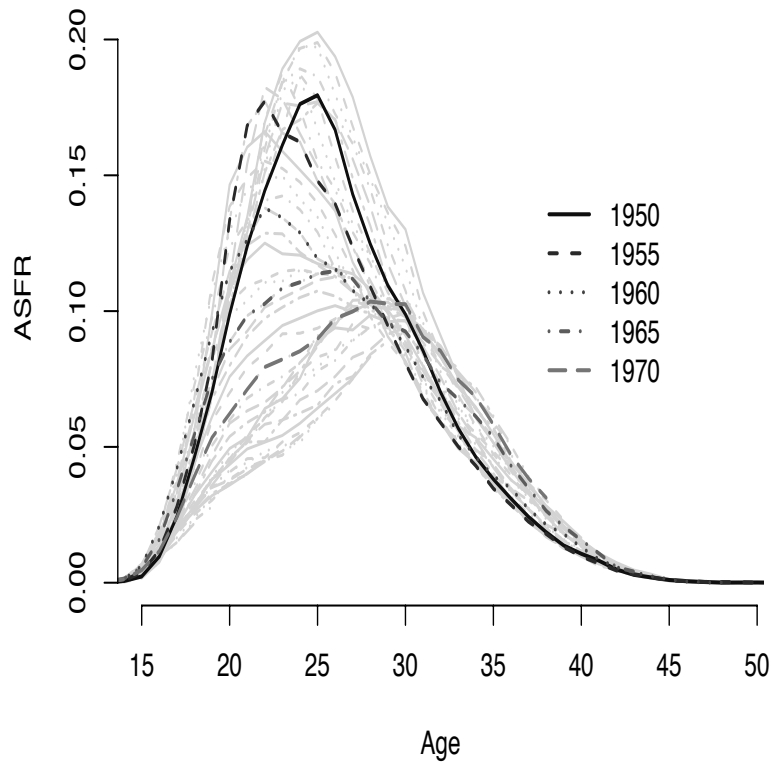


Evolution of CCF40 and CCMAB40 between 1944 and 1969 – women between ages 65 and 40 in 2009

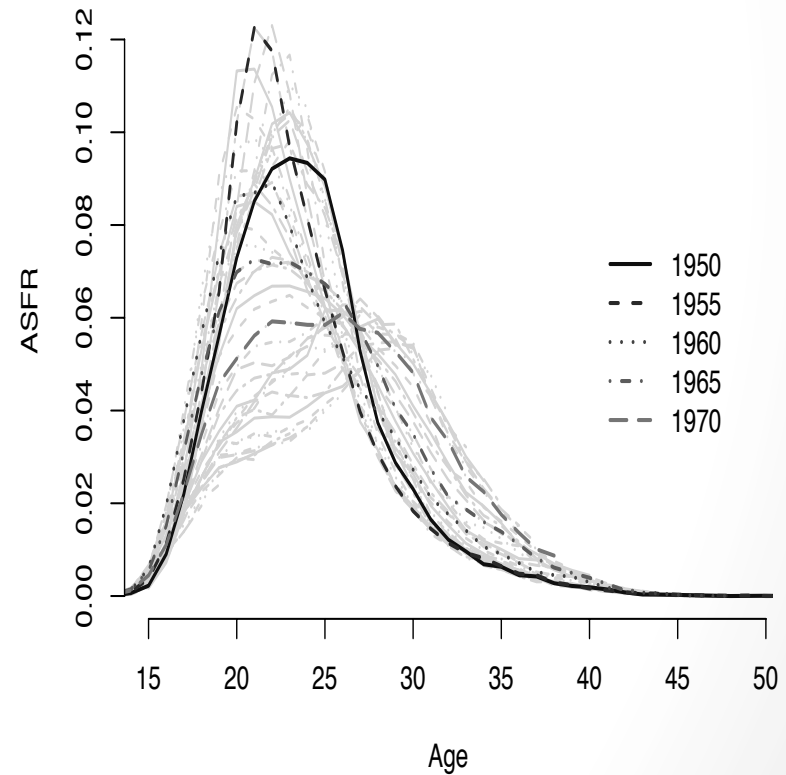


Evolution of CASFR, for Portugal, between 1944 and 1990

- Cohort Age Specific Fertility Rates



- Cohort Age Specific Fertility Rates for 1^o birth



We know that in Portugal,

- Period fertility is in decline, as well as the period mean age at childbearing,
 - The total MAC and the MAC at first birth are similar, as result of fertility decline and postponement.
- Cohort fertility is also in decline and women are postponing the births regardless of their birth cohort.

We know that in Portugal,

- Period fertility is in decline, as well as the period mean age at childbearing,
 - The total MAC and the MAC at first birth are similar, as result of fertility decline and postponement.
- Cohort fertility is also in decline and women are postponing the births regardless of their birth cohort.

And we also know that,

- Fertility postponement and decline are intimately related to rise of education levels.

We know that in Portugal,

- Period fertility is in decline, as well as the period mean age at childbearing,
 - The total MAC and the MAC at first birth are similar, as result of fertility decline and postponement.
- Cohort fertility is also in decline and women are postponing the births regardless of their birth cohort.

And we also know that,

- Fertility postponement and decline are intimately related to rise of education levels.

And in the cohort, what was the impact of education in fertility levels and postponement?

Education in Portugal – some facts (1)

- Portugal is an attention-grabbing case for analysis, with a high percentage of working women as a distinctive and long-established feature of the Portuguese society.

Education in Portugal – some facts (1)

- Portugal is an attention-grabbing case for analysis, with a high percentage of working women as a distinctive and long-established feature of the Portuguese society.
- However the general educational levels of the population are considerably lower than in most European countries.

Education in Portugal – some facts (1)

- Portugal is an attention-grabbing case for analysis, with a high percentage of working women as a distinctive and long-established feature of the Portuguese society.
- However the general educational levels of the population are considerably lower than in most European countries.
- In part, the persistence of low levels of educational provision in Portugal can be seen in the legacy of the past.

Education in Portugal – some facts (2)

- In 1950, around 46% of the Portuguese population aged 15 years and over were unschooled.

Education in Portugal – some facts (2)

- In 1950, around 46% of the Portuguese population aged 15 years and over were unschooled.
- Only 20% completed primary education.

Education in Portugal – some facts (2)

- In 1950, around 46% of the Portuguese population aged 15 years and over were unschooled.
- Only 20% completed primary education.
- Some progress was made and by the late 1960s, universal primary schooling was finally attained, some decades after the European core.

Education in Portugal – some facts (2)

- In 1950, around 46% of the Portuguese population aged 15 years and over were unschooled.
- Only 20% completed primary education.
- Some progress was made and by the late 1960s, universal primary schooling was finally attained, some decades after the European core.
- Even so, by the end of the *Estado Novo* (1974), one third of all the Portuguese were illiterate, one third of those aged 15 or older had full primary education, 3 percent had completed secondary education and a residual 0.6 percent had undergone university education.

Sample description

- 5% sample from IPUMS;
- Available to 1981, 1991 and 2001;
- Restricted the sample to women from birth cohorts 1950 and 1960 -> women aged 41 in 1991 and 2001.

Sample description

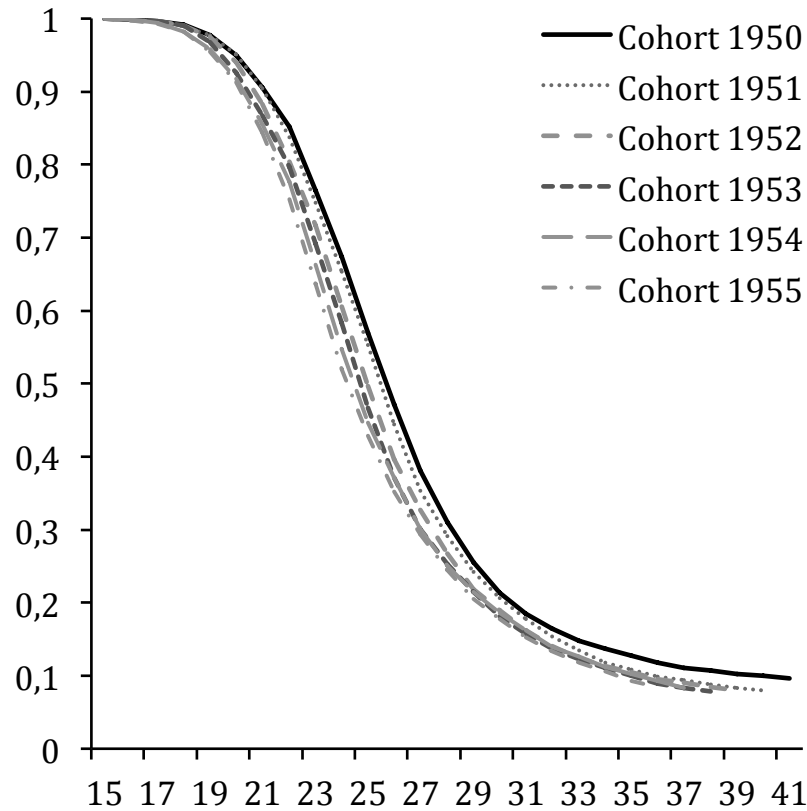
- 5% sample from IPUMS;
- Available to 1981, 1991 and 2001;
- Restricted the sample to women from birth cohorts 1950 and 1960 -> women aged 41 in 1991 and 2001.

	1950 Cohort		1960 Cohort	
	N	%	N	%
Less than primary	2105	70	1463	43
Primary	394	13	1081	32
Upper Secondary	329	11	468	14
University Completed	173	6	403	12
Total	3001	100	3415	100

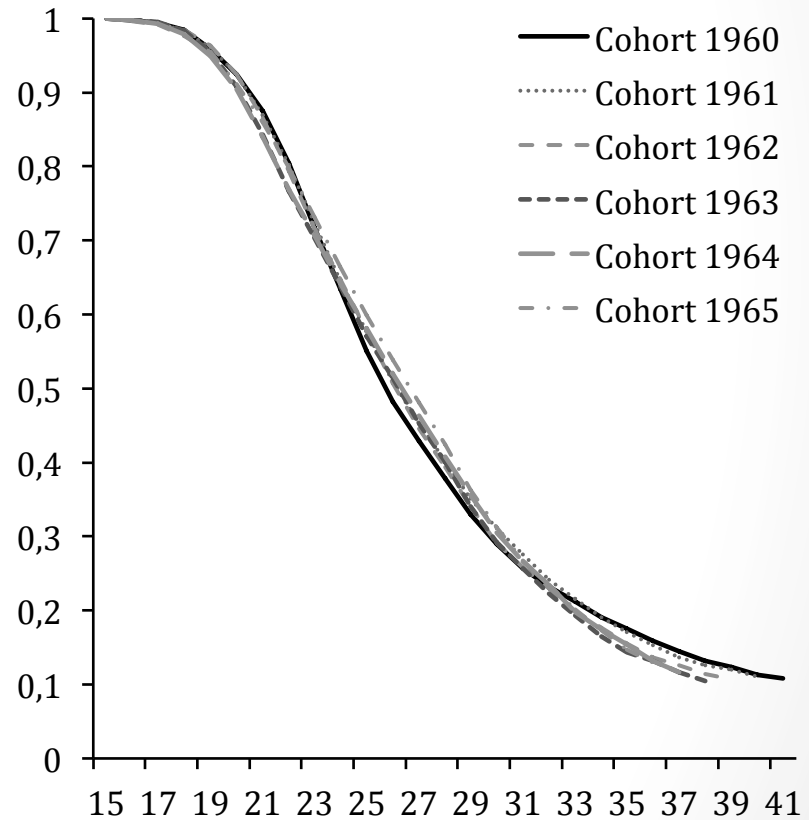
Transition to motherhood for women aged 36-41 in 1991 and 2001

Transition to motherhood for women aged 36-41 in 1991 and 2001

Women between age 36-41 in 1991



Women between age 36-41 in 2001

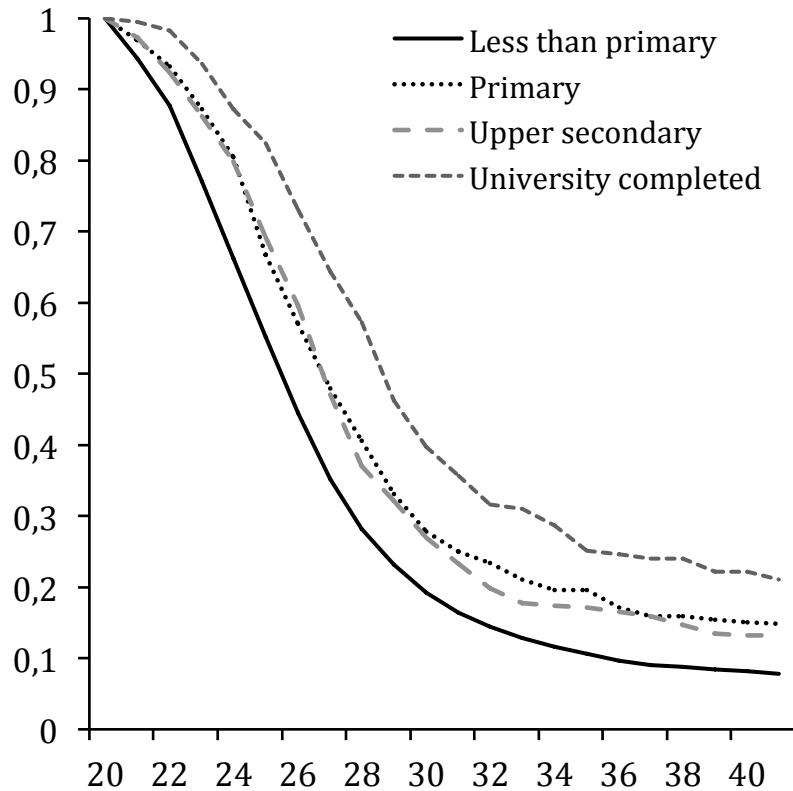


Mean age at 1^o birth by educational level, for women aged 41 in 1991 and 2001

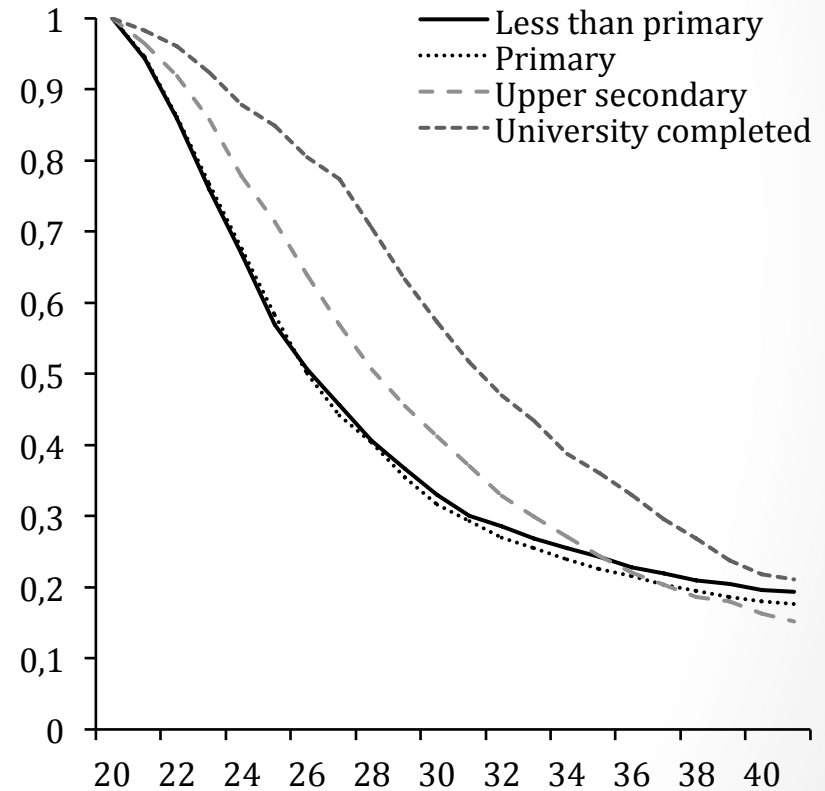
	1950 Cohort	1960 Cohort
Less than primary	25	25
Primary	26	28
Upper Secondary	26	28
University Completed	27	30

Transition to motherhood by educational levels for women aged 41 in 1991 and 2001

Women aged 41 in 1991
(cohort 1950)



Women aged 41 in 2001
(cohort 1960)



Final remarks

- The descriptive and comparative analysis conducted in this paper reveals, between period and cohort fertility in Portugal, that it was possible to identify a continuous decline of fertility and as well a postponement.
- From the reconstructed information cohorts, and between the cohorts of 1950 and 1960, it was possible to identify differences in the fertility patterns.
- The cohort of 1950 was a cohort of extremely young mothers and unschooled (70 percent).
- At the same time in the cohort of 1960 it was already possible to observe an increase in the mean age at childbearing, in what concerns educational level that situation could also be observed.

Final remarks

- This was a preliminary version of results,
 - So suggestions are needed.
- The same reconstruction have been carried out to:
 - Austria,
 - Greece,
 - Hungary,
 - Spain.

References

- Almeida, A.N. De, André, I.M. & Lalanda, P.,** (2002), Novos padrões e outros cenários para a fecundidade em Portugal. *Análise Social*, XXXVII, pp.371–409.
- Almeida, A.N. De & Vieira, M.M.,** (2012), From University to Diversity: The Making of Portuguese Higher Education. In G. Neave & A. Amaral, eds. *Higher Education in Portugal 1974–2009: A Nation, a Generation*. Dordrecht: Springer Netherlands. Available at:
- Amaral, L.,** (2003), How a Country Catches-Up: Economic Growth in Portugal in the Postwar Period (1950-1973).
- Bettio, F. & Villa, P.,** (1998), A Mediterranean perspective on the breakdown of the relationship between participation and fertility. *Cambridge Journal of Economics*, (October 1993), pp.137–171.
- Caldwell, J.,** (1980), Mass education as a determinant of the timing of fertility decline. *Population and development review*, 6(2), pp.225–255.
- Cunha, V.,** (2004). A fecundidade das famílias portuguesas. In *Famílias no Portugal Contemporâneo*. pp. 1–73.
- Esping-Andersen, G.,**(1999), *Social foundations of postindustrial economies*. Oxford: Oxford University Press.
- Frejka, T.,** (2010). Cohort overlays of evolving childbearing patterns: How postponement and recuperation are reflected in period fertility trends., in MPIDR Working paper 2010-026.
- Goldstein, J. R., Sobotka T., Jasilioniene A.**(2009). The end of lowest-low fertility?“, in *Population and Development Review* 35(4): 663-700.
- Kohler, H., Billari F., Ortega J.** (2005), Low and Lowest-Low Fertility in Europe: Causes, Implications and Policy options, in F. R. Harris (Ed.), *The Baby Bust: Who will do the Work? Who Will Pay the Taxes?* Lanham, MD: Rowman & Littlefield Publishers, 48-109.
- Kohler, H.P. & Ortega, J.A.,** (2002). Tempo-Adjusted Period Parity Progression Measures, Fertility Postponement and Completed Cohort Fertility. *Demographic Research*, 6, pp.91–144.
- Lee, R., Mason, A.,** (2010). Fertility, Human capital, and economic growth over the demographic transition, in *European Journal of population*, 26.
- Mendes, M. & Rego, C.,** (2006). Baixa fecundidade nos países do Sul da Europa: a importância das desigualdades na educação e na participação no mercado de trabalho, ao nível regional.
- Neave, G. & Amaral, A.,** (2012), Introduction. On Exceptionalism: The Nation, a Generation and Higher Education, Portugal 1974–2009. In G. Neave & A. Amaral, eds. *Higher Education in Portugal 1974-2009*. Dordrecht: Springer Netherlands, pp. 1–46.
- Oliveira, I.T. De,** (2009), Fertility Differentials and Educational Attainment in Portugal: A Non-Linear Relationship. *Canadian Studies in Population*, 36(3-4), pp.347–362.
- Pereira, Á.S. & Lains, P.,** (2012), From an Agrarian Society to a Knowledge Economy? The Rising Importance of Education to the Portuguese Economy, 1950–2009. In G. Neave & A. Amaral, eds. *Higher Education in Portugal 1974–2009: A Nation, a Generation*
- Potancoková, M., Vano, B., Pilinska V., Jurcová, D.** (2008), Slovakia : Fertility between tradition and modernity, in *Demographic Research*, 19: 973-1018.
- Rydell, I.,** (2002), Demographic patterns from the 1960s in France, Italy, Spain and Portugal, at seminar of Institute for Futures Studies.
- Sobotka T.,** (2004), Is lowest-low fertility in Europe explained by the postponement of childbearing?, in *Population and Development Review*, 30: 195-220.
- Tavora, I.,** (2012), The southern European social model: familialism and the high rates of female employment in Portugal. *Journal of European Social Policy*, 22(1), pp.63–76
- Tesching, K.,** (2012), Education and fertility: dynamic interrelations between women’s educational level, educational field and fertility in Sweden. Stockholm: Stockholm University (Stockholm University Demographic Unit).