

POSTPONING MATERNITY IN IRELAND

Policy Implications

¹*Cathal O'Donoghue*^a, David
Meredith^a

and Eamon O'Shea^b

^a *Teagasc Rural Economy Research Centre,*

^b *National University of Ireland, Galway*



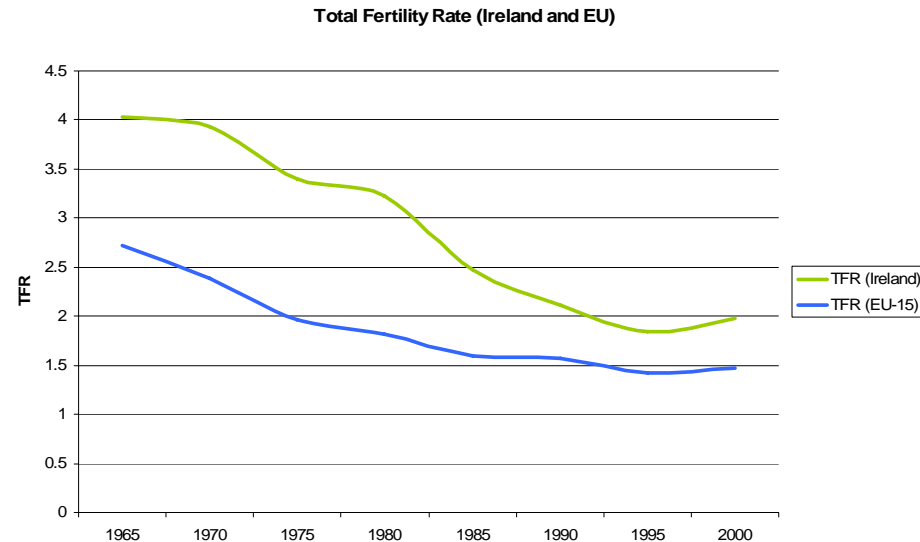
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Outline

- Fertility trends in Ireland
- Factors influencing fertility in Ireland
- Economic Theory and Fertility
- Data, Methods, Results & Assessment
- Research Conclusions
- Policy Implications

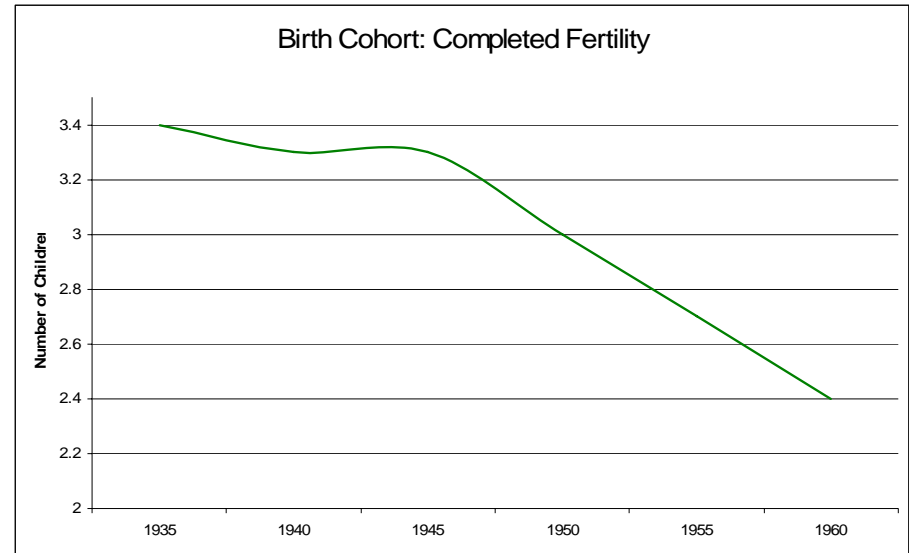
Fertility trends in the Republic of Ireland

- Decline in the total fertility rate
- Decline in completed fertility
- Restructuring of birth-cohort fertility patterns
- Changing age-specific fertility patterns



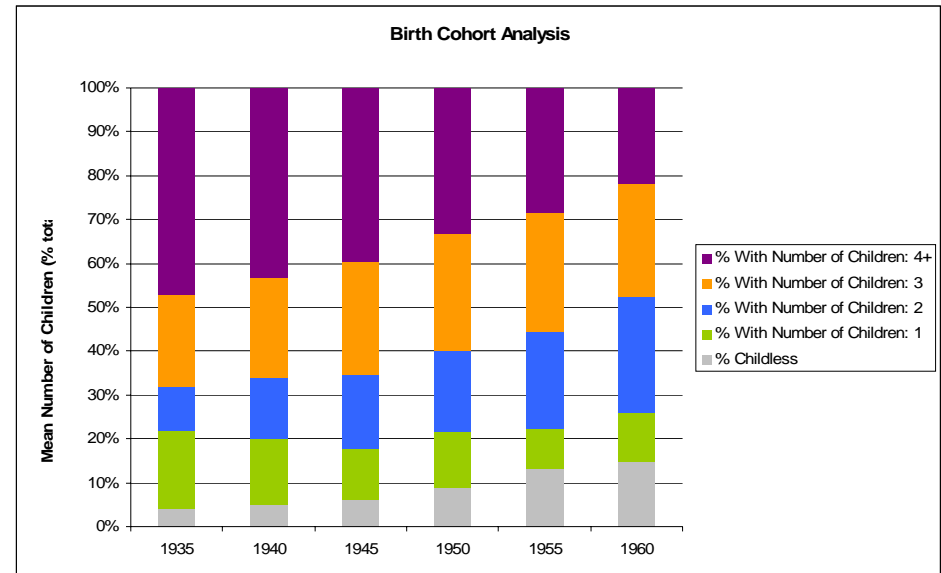
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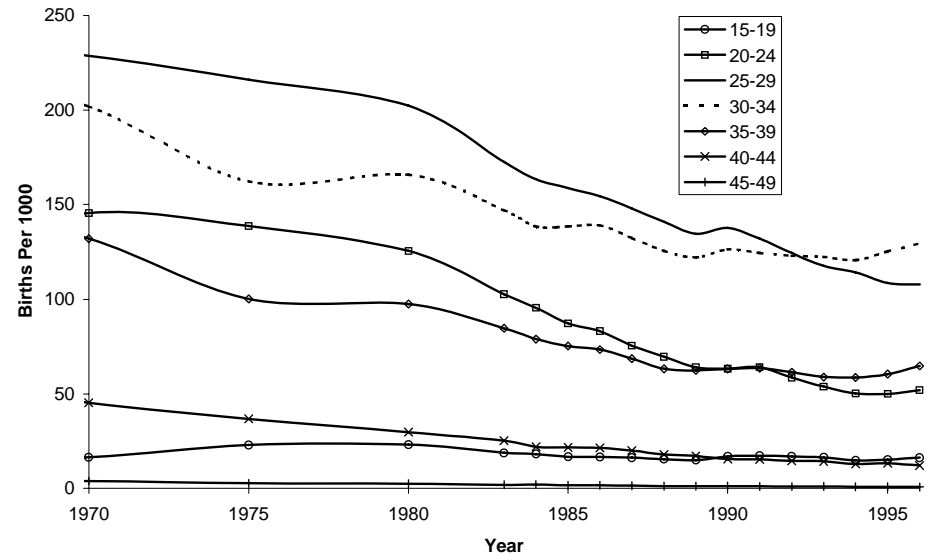
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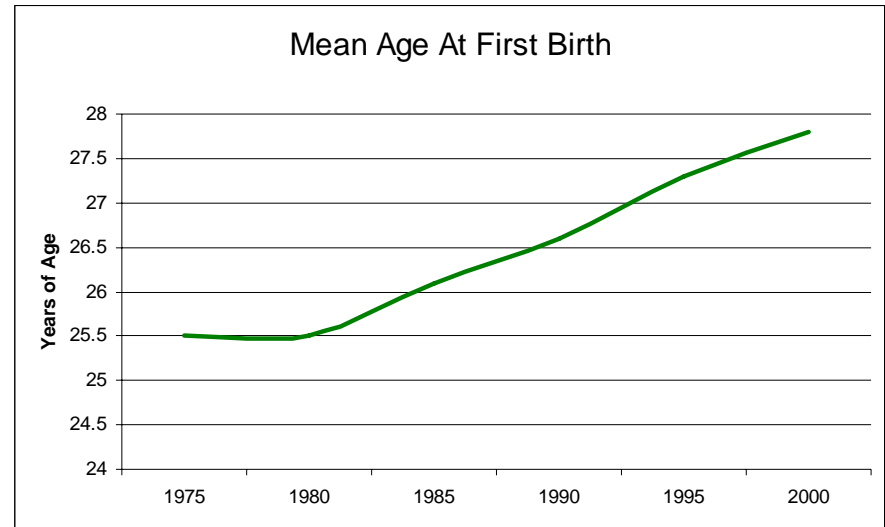
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Factors Influencing Fertility in Ireland

- Limited Pronatal Policies
 - Maternity leave
 - Child benefit payments
- Liberalisation of regulations governing the availability and sale of contraceptives
- Increasing education levels
- Changing economic environment
- Changing social norms
- Biology

Postponement of Fertility and Economic Theory

- Hotz et al., 1997
 - Consumption-smoothing
 - Women's career planning motives
- Gustafsson, 2001 supports this conceptualisation
- Research Question
 - To what extent will higher education attainment / career planning result in postponement of maternity
- Method
 - Incorporate a declining marginal return to experience to provide a human capital/career planning explanation for this postponement into Walker's (1995) model of fertility.

Education and Fertility

- Social / cultural norms
 - Being in full-time education is generally incompatible with having children, for financial and lifestyle reasons.
- Economic
 - Highly educated women may try to fit maternity into a period when absence from the labour force will have the least effect on their career.
 - Highly educated women are more likely to invest in career development (skills + knowledge acquisition) on completion of education resulting in relatively rapid growth in earnings.
 - The opportunity cost of being absent from the labour force for even a relatively short period at this stage of a woman's career could be significant.

Data

- 1994 Living In Ireland Survey (ECHIP)
 - Contains cross sectional information on employment and demographic characteristics
 - 1994 Lil Wave contained additional retrospective information on fertility, partnership formation, parental history and employment status.

Methods

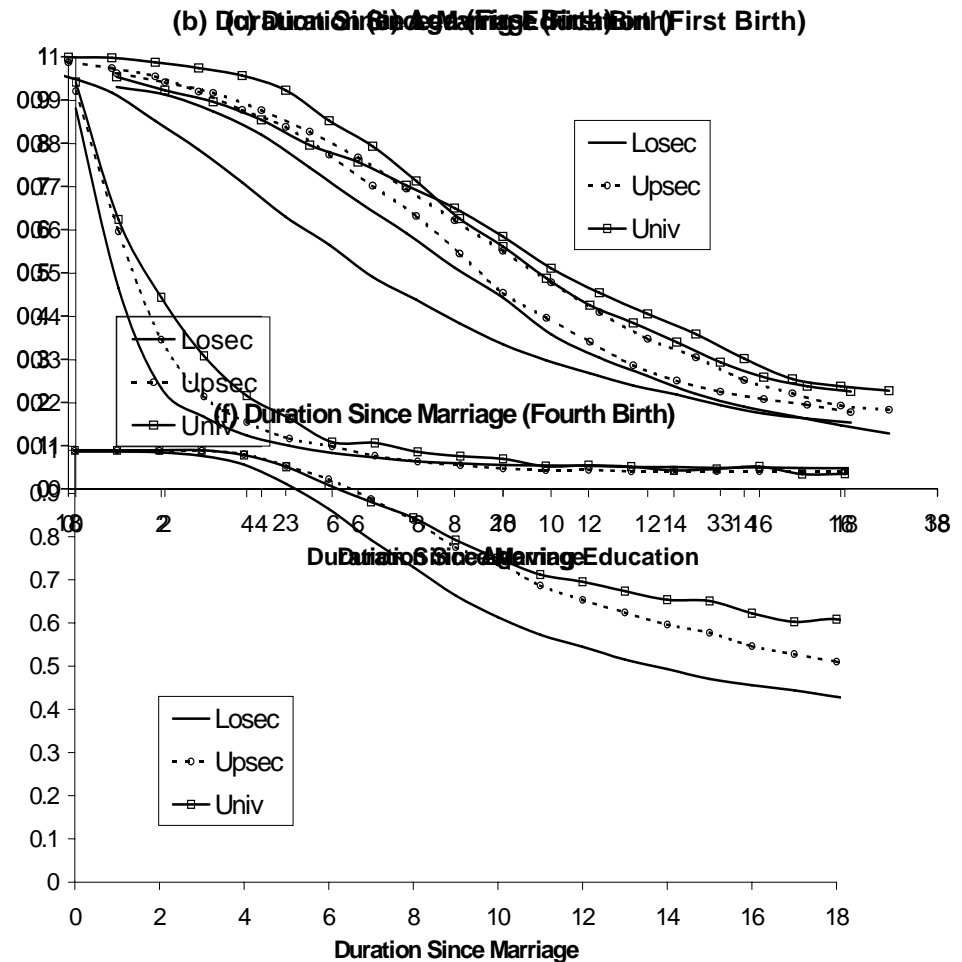
- A panel dataset covering 1970 – 1994 was created
 - Focus on married women as the proportion of births to unmarried women in the sample was small
 - Panel contains:
 - 58,938 observations for 3,235 married women
 - A subset of this data identifies the histories of 3,043 married women (38,803 observations)
 - A further subset of this data contains 31,027 observations for 2,237 married women for whom we can also identify their spouse's history.

Methodology

- Adopt and adapt Walker's (1995) model of fertility
- Cox Proportional Hazards Model (Survival Analysis)
 - Earnings Model
 - Opportunity Cost Estimate

Results

- Higher educated married women are less likely to have a child.
- Differences between groups declines when duration since education to first birth is considered.
- Taking duration since marriage:
 - the proportion of those with first births after 10 years of marriage is similar across education levels
 - the majority of first births occur in the first two to three years of marriage
 - Additional births follow a similar pattern although they tend to occur later



Research Conclusions

- The career planning hypothesis holds.
 - Being in education and higher potential earnings had the effect of delaying births
- There is evidence that higher male unemployment rates resulted in delayed births
- Income effect from male employment leads to earlier births
- Change in timing of marriage, taking into consideration economic variables, accounts for the upward trend in the duration to first birth

Policy Implications

- Fertility is not necessarily the issue (yet?)
- Rationale for Policy interventions
 - Unrealised fertility
 - Higher lifetime monetary and non monetary costs
 - E.g. health costs of delayed fertility (particularly for those availing of assistive techniques)
- Policy Areas
 - Timing of marriage
 - Male and female labour market conditions
 - Quality of life
 - Research required to quantify the costs of maternity postponement and assess whether families can be incentivised to have children at an earlier age.

Walker Model of Fertility

$$\begin{aligned}
 \pi_t = & \underbrace{\sum_{k=t}^T m_k^{k-t} \delta_k}_A + \underbrace{\sum_{k=t}^T h_k c_k^{k-t} \delta_k}_B - \underbrace{\sum_{k=t}^T \phi^{k-t} \delta_k \sum_{l=0}^M c_t^l b_{t-l}}_C + \underbrace{\sum_{k=t}^T \phi^{k-t} w_k \delta_k}_D \\
 & + \underbrace{\sum_{k=t+1}^T \left(\left(\mu_1 - \mu_4 + 2\mu_2 \left(\sum_{j=1}^{k-1} h_j \right) \right)^{k-t-1} \sum_{l=0}^{k-t-1} \phi^l \right) h_k w_k \delta_k}_E
 \end{aligned}$$

- A: Direct expenditure for the child at different ages until aged M.
- B: Direct childcare expenditure for the hours worked by the mother for each of the dependent years.
- C: The reduction in non-parental childcare expenditure for other children due to having more than one child.
- D: The cost of parental childcare for the child.
- E: The foregone human capital due to rearing the child.

Results

- Survival Analysis
 - the average probability of not having a child of a particular birth order at particular ages
 - Functions estimated over all years of data
 - Results are reported for:
 - Different education levels
 - Three different time-scales
 - Age
 - Duration since completion of education
 - Duration since marriage

Duration Variable	Age – All Women		Age – Married Women		Duration Since Leaving Education		Duration Since Marriage	
	Coef	p-value	Coef	p-value	Coef	p-value	Coef	p-value
In Education	0.541	0.00	1.100	0.73			1.139	0.65
Female Wage	0.972	0.00	0.955	0.00	0.981	0.00	0.986	0.00
Husbands Potential Earnings			1.007	0.11	1.018	0.00	1.003	0.43
Male Unemployment Rate			0.654	0.29	0.518	0.09	0.973	0.95
Years 1970-1974 (Base)	1.000		1.000		1.000		1.000	
Years 1975-1979	0.568	0.00	0.279	0.00	0.469	0.00	0.981	0.84
Years 1980-1984	0.328	0.00	0.088	0.00	0.261	0.00	0.792	0.05
Years 1985-1989	0.197	0.00	0.027	0.00	0.136	0.00	0.818	0.15
Years 1990-1994	0.123	0.00	0.009	0.00	0.074	0.00	0.696	0.03
No. of obs.	18595		5555		5401		4238	
Log likelihood	-11931		-8849		-8820		-8764	
LR Chi2	496		871		426		83	

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