



저출산·고령사회 대응
국제비교 공동연구 (II)

■ 연구보고서 2014-22-3

Policy Responses to Rapidly
Population Aging (II)

**저출산·고령사회 대응
국제비교 공동연구 (II)**

Korea Institute for Health and Social Affairs
East West Center

© 2014
Korea Institute for Health and Social Affairs

All rights reserved. No Part of this book may
be reproduced in any form without permission
in writing from the publisher

Korea Institute for Health and Social Affairs
Sejong National Research Complex, 370,
Sicheong-daero, Sejong-si, 339-007, Korea
<http://www.kihasa.re.kr>
ISBN: 978-89-6827-178-6 93330

Contents

Chapter 1

Family policies in low fertility countries 1

(Vinod MISHRA, Chief, Policy Section, United Nations Population Division)

Chapter 2

Aging Italy: low fertility and societal rigidities 31

(Maria Letizia TANTURRI, Assistant Professor in Demography, Department of Statistical Sciences, University of Padova)

Chapter 3

The policy context of fertility in Spain:
towards a gender-egalitarian model? 53

(Pau BAIZAN MUNOZ, Research Professor, Department of Political and Social Sciences, ICREA and Pompeu Fabra University)

Chapter 4

Population Aging in the UK: A Matter of Perspective 97

(Wendy SIGLE-RUSHTON, Professor, London School of Economics and Political Science Gender Institute)

Chapter 5

Fertility decline and lasting low fertility in a continuously changing (policy) environment: a Hungarian case study 141

(Zsolt SPÉDER, Director, Hungarian Demographic Research Institute)

Chapter 6

Population Aging, Below-replacement Fertility and Population Policies since 1990 in Taiwan 199

(Melin LEE, Associate Professor, Department of Social Work, Asia University)

(Yu-Hsuan LIN, Senior Specialist, Health Promotion Administration,

Ministry of Health and Welfare)

Chapter 7

Low fertility in Austria and the Czech Republic: Gradual policy adjustments 261

(Tomáš SOBOKA, Wittgenstein Centre, International Institute for

Applied Systems Analysis, IISA)

Chapter 8

The relatively high fertility in Norway: a result of affluence, liberal values, gender-equality ideas, and the welfare state 353

(Øystein KRAVDAL, Professor, Department of Economics, University of Oslo)

Chapter 9

Canadian Fertility Trends and Policies: A story of provincial variation 423

(Sarah BRAUNER-OTTO, Assistant Professor, Department of Sociology, McGill University)

Chapter 10

The influence of family policies on fertility in France: lessons from the past and prospects for the future 457

(Olivier THÉVENON, National Institute for Demographic Studies)

Chapter 11

Value of Women's Work at Home and Intergenerational Resource Allocation in South Korea 503

(Namhui HWANG, Fellow, Korea Institute for Health and Social Welfares)

(Sang-Hyup LEE, Professor, Department of Economics, University of Hawaii at Manoa)

Chapter 12

Governmental support for families and obstacles to fertility 543

(Anne GAUTHIER, Senior Researcher, Netherlands Interdisciplinary Demographic Institute)

List of Tables

〈Table 5-1〉 Distribution of women aged 40-44(aged 20-24 at t-20 time) at a given time by number of children	154
〈Table 5-2〉 Recommended status for women with small children (children under the age of 10), 1973, different groups of female respondents	169
〈Table 6-1〉 Age-specific and Total Fertility: 1980-2010	205
〈Table 6-2〉 Changes in Proportions of Women Currently Married in Taiwan	207
〈Table 6-3〉 Pregnancy outcomes and Wastage Rates: 2012 Taiwan Survey	210
〈Table 6-4〉 Major Caregiver of Children under age 3 for Married Women Aged 15-49	217
〈Table 6-5〉 The Main Reasons for Remained Unmarried among 35-44 Ages	220
〈Table 6-6〉 Attitudes towards Marriage and Cohabitation among Taiwanese Women	231
〈Table 6-7〉 Pro-natal and Ageing Policies since 2008 in Taiwan	237
〈Table 6-8〉 Living arrangements of elderly aged 65+ in Taiwan	244
〈Table 7-1〉 Period total fertility rate (TFR) in Vienna, Prague, and two districts surrounding Prague as compared with the national level (selected years)	291
〈Table 7-2〉 Mean intended family size (MIFS) and intended parity distribution among women aged 25-29 in Austria and the Czech Republic; different surveys, 1994-2012	302

〈Table 7-3〉 Parental leave variants and leave benefits associated with them, Austria, 2014	320
〈Table 7-4〉 Average enrollment of children in early childhood care at ages 0-2 and 3-5; Austria and the Czech Republic, 1989-2013	323
〈Table 9-1〉 Parental Leave in Canada and Quebec as of 2006	443
〈Table 11-1〉 Methods of Estimation of NTTA	521
〈Table 11-2〉 Aggregate NTTA(Unit: Billion won)	522
〈Table 11-3〉 Per Capita NTTA(Unit: Ten thousand won)	523
〈Table 11-4〉 Per capita NTTA by Gender	528
〈Table 12-1〉 Obstacles to fertility and difficulties facing families in European countries	564
〈Table 12-2〉 Reasons why couples do not realize their ideal number of children in Japan in 2005 and 2010 (percent mentioning each item)	567
〈Table 12-3〉 Policy preferences	570
〈Table 12-4〉 : Perceived policy impact of policies on fertility decisions	574

List of Figures

[Figure 3-1] Period TFR and birth-cohort completed fertility Spain 1900-2013	62
[Figure 3-2] TFR by nationality	63
[Figure 3-3] Activity, Employment and Unemployment Rates Age 25-49, Spain, 1986-2013	77
[Figure 3-4] Percentage of Children Enroled in Schools by Age Spain 1991-2012	81
[Figure 5-1] Evolution of Total Fertility Rate (TFR) in Hungary 1910-2013 ..	148
[Figure 5-2-a] Mean age of the mother at first birth and at all births 1970-2013	150
[Figure 5-2-b] Mean duration between the 1st and 2nd child, 1970-2013	150
[Figure 5-3] The age-specific rate 1960, 1975, 1990, 2005, 2013	152
[Figure 5-4] Total Rertility Rate and Completed Total Fertility Rate, 1950-1995	153
[Figure 5-5] Births per thousand childless women and those with one child 1970-2013	157
[Figure 5-6] The ratio of non-marital childbearing in all live births, 1970-2013	159
[Figure 5-7-a] Non-marital age specific fertility rate 1990	159
[Figure 5-7-b] Non-marital age specific fertility rate 2013	159
[Figure 5-8] Total fertility rate, adjusted total fertility rate, and mean age of childbearing women in Hungary, between 1989-2012	162
[Figure 5-9] TFR and the employment rate of women aged 15-54, 1930-1990	168

[Figure 5-10] Changes in the number of participants in higher education (full-time and part-time) 1991-2012	183
[Figure 5-11] Changes in the real value of family allowance between 1990-2012	188
[Figure 6-1] Demographic Transition in Taiwan	202
[Figure 6-2] Total Fertility Decline in Taiwan	203
[Figure 6-3] Trend of Singulate Mean Age Marriage in Taiwan	206
[Figure 6-4] Trend of Ideal No. of Children and Live Births: 1765-2012	211
[Figure 6-5] College Enrollment Rates in Taiwan : 1980-2012	213
[Figure 6-6] Female Labor Force Participation Rate in Taiwan	214
[Figure 6-7] Age pattern of Female Labor Force Participation in Taiwan	216
[Figure 6-8] Percentage of Elderly Population in Taiwan: 1960-2060.	239
[Figure 6-9] Dependency Ratios in Taiwan: 1960-2060	241
[Figure 7-1] Natural population increase(live births-deaths) and net migration balance in Austria and the Czech Republic, 1960-2013	270
[Figure 7-2] Population pyramids: sex and age structure of the population of Austria and the Czech Republic, 2013	272
[Figure 7-3] Completed cohort fertility rate in Austria, the Czech Republic and selected European countries; women born 1890-1975	276
[Figure 7-4] Cohort parity distribution of women in Austria and the Czech Republic born in 1900-1975	278
[Figure 7-5] Parity progression ratios to second and third births. Women in Austria and the Czech Republic born in 1900-1975	279
[Figure 7-6] Period Total Fertility Rate (TFR) in Austria(1951-2013) and the Czech Republic (1945-2913)	283
[Figure 7-7] Mean age at first birth and first marriage, women in Austria and the Czech Republic, 1950-2013	283

[Figure 7-8] Age-specific fertility rates in 1985 and 2013 among women aged 15-45, Austria and the Czech Republic	285
[Figure 7-9] Conditional period probabilities of having a first birth below age 25 and after age 30; women in Austria and the Czech Republic, 1985-2011	286
[Figure 7-10] Period total fertility rate (TFR) and tempo-adjusted index of period fertility (TFRp*) in Austria and the Czech Republic, 1980-2012	287
[Figure 7-11] Relative changes in age-specific fertility rates in Austria and the Czech Republic four years into the economic recession (2004-8) and four years since the onset of the recession (2008-12), In %	290
[Figure 7-12] Completed family size and childlessness by the highest achieved level of education among women in Austria (cohorts 1956-60) and the Czech Republic (cohorts 1956-60 and 1966-70)	294
[Figure 7-13] Period total fertility rate (TFR) by country of birth or citizenship and the share of births to foreign-born women; Austria 1985-2013	297
[Figure 7-14] Total induced abortion rate and the share of women of reproductive age (15-49) using contraceptive pill (in %), Czech Republic 1985-2013	300
[Figure 7-15] Period total first marriage rate (TFMR) and the share of non-marital births in Austria and the Czech Republic, 1975-2012	305
[Figure 7-16] Employment among couple families by age of youngest child, 2011	325

[Figure 8-1] Total fertility rate in Norway 1975–2013	358
[Figure 8-2] Period effects on parity-specific birth rates, when age and time since last birth are controlled for.	361
[Figure 9-1] Total fertility rate for Canada 1926–2011	426
[Figure 9-2] Population Pyramids for Canada	428
[Figure 9-3] TFRs for Canadian Provinces 1981–2011	430
[Figure 9-4] TFRs for Four Largest Canadian Provinces 1981–2011	431
[Figure 10-1] Public spending on families	462
[Figure 10-2] Childcare supply in France (1995–2010)	472
[Figure 10-3] Percentage of women by total number of children	475
[Figure 10-4] Policy support for a second and third child and associated fertility trends	482
[Figure 10-5] Ageing population in France	488
[Figure 11-1] Per Capita Consumption of NTA and NTTA	525
[Figure 11-2] Per Capita LCD of NTA and NTTA	526
[Figure 11-3] Per Capita Net Private Transfer of NTA and NTTA	527
[Figure 11-4] Per Capita Consumption by Gender, NTTA	529
[Figure 11-5] Per Capita Production by Gender, NTTA	530
[Figure 11-6] Per Capita Production by Type, Male, NTTA	531
[Figure 11-7] Per Capita Production by Type, Female, NTTA	531
[Figure 11-8] Per Capita LCD by Gender, NTTA	532
[Figure 11-9] Per Capita Net Private Transfer, Male, NTTA	533
[Figure 11-10] Per Capita Net Private Transfer, Male, NTTA	533
[Figure 12-1] Trends in fertility and social expenditures for families in selected countries, 1980–2009	548
a) Average values for OECD countries	548

b) Social expenditures for families in selected countries (as a percentage of GDP)	549
[Figure 12-2] Trends in financial support for families in selected OECD countries	555
a) Governmental expenditures on family allowance programs, 1980-2009 (as a percentage of GDP)	555
b) Index of financial support for families, 2000-2013	555
[Figure 12-3] Trends in governmental support for working parents	558
a) Governmental expenditures on maternity and parental leave, 1980-2009 (as a percentage of GDP)	558
b) Maternity and parental leave arrangements, 1960-2010	559
[Figure 12-4] Trends in governmental support for childcare in selected countries	561
a) Governmental expenditures on childcare and preschool education, 1998-2009 (as a percentage of GDP)	561
b) Enrolment rate of children under 3 years of age in formal childcare and pre-school in selected countries, 1995-2011	561



Chapter 1

Family policies in low fertility countries

Vinod MISHRA

Chief, Policy Section,

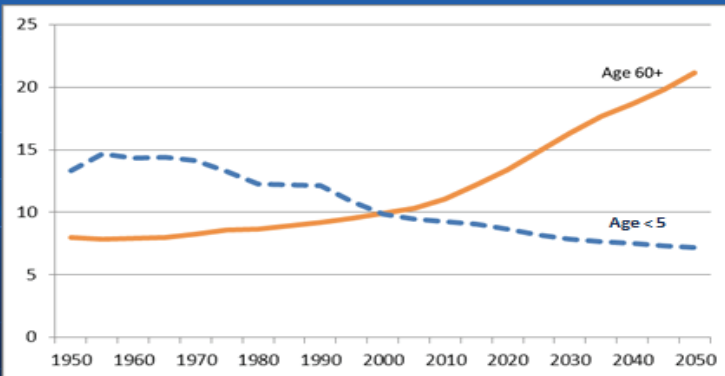
United Nations Population Division



1

Family policies in low fertility countries

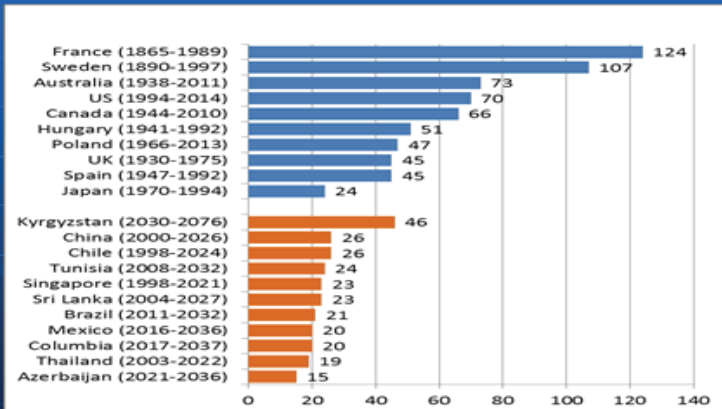
Young children and older persons as a percentage of global population



Source: United Nations (2013) World Population Prospects: 2012 Revision

Rapid speed of population ageing

Number of years for population age 65+ to increase from 7% to 14%



Source: United Nations (2013) World Population Prospects: 2012 Revision

This presentation

- An overview of “family-friendly” policies in low fertility countries
- A descriptive look at the associations between fertility levels and trends, fertility policy intentions, and selected indicators of family policies

[Work in progress; preliminary results]

Low fertility countries

- 79 countries with low fertility
 - 76 countries with below replacement fertility (TFR <2.1) in 2010–2015
 - 3 countries had TFR <2.1 in the past, but >2.1
- **TFR <1.50: 24 countries**
- **TFR 1.50–1.89: 31 countries**
- **TFR 1.90+: 24 countries**
- **Excluded:**
 - small countries with <90,000 population (*no TFR data*)
 - Territories and areas (*not considered States*)

Data

- **World Population Policies Database, 2013 revision**
- **World Population Prospects, 2012 revision**
- **ICPD beyond 2014 Global Survey, 2012**
- **The World Bank: Women, Business and the Law Database**
- **ILO: Social Security Expenditure Database**

Data on fertility policy

The World Population Policies Database

- **Global database on Government views and policies on population-related issues**
- **Available since 1976; updated every two years**
- **Information gathered from the UN Inquiry, Government legal and policy documents, other sources**
- **Includes information on Government views and policy intentions on the level of fertility**

**Government policy to influence the level of fertility:
Lower, Maintain, No intervention, Raise**

<http://esa.un.org/poppolicy>

Analysis

Examine selected family policies by four criteria:

1. Fertility level in 2010–2015: TFR <1.50; 1.50–1.89; 1.90+
2. Duration since TFR first reached below 2.1 (before 1975; 1975–1995; after 1995) or (before 1995; after 1995)
3. Fertility policy intention in 2013: Raise; Not raise (lower, maintain, or low intervention)
4. Increase in the level of fertility (change in TFR since the lowest level): No increase, Small increase (<0.25), Noticeable increase (≥ 0.25)

Family policy indicators – 1

Gender equality in jobs

- Does the law mandate non-discrimination based on gender in hiring?
- Is it illegal for an employer to ask about family status during a job interview?
- Can non-pregnant and non-nursing women do the same jobs as men?
- Does the law mandate equal remuneration for men and women for work of equal value?

Family policy indicators – 2

Maternity and childcare benefits

- Does the law mandate paid or unpaid maternity leave, paternity leave, and parental leave?
- Does the law penalize or prevent the dismissal of pregnant women?
- Does the law guarantee that the employers give an equivalent position to the women when they return from maternity leave?
- Does the law require employers to provide break time for nursing mothers?
- Does the law require employers to provide flexible work arrangements or access to part-time work to employees with minor children?

Family policy indicators – 3

Programme measures

- Concrete measures taken by the Government in the past five years to facilitate compatibility between labour force participation and parental responsibilities
- Concrete measures taken by the Government in the past five years to ensure good quality early childhood care and education for working families, including extended day programs
- Level of priority for the Government to promote policies that encourage “involved fatherhood” including for care work (low, somewhat low, somewhat high, high)
- Promulgated and/or enforced national laws to ensure daycare centres and facilities for breastfeeding mothers – public sector and private sector

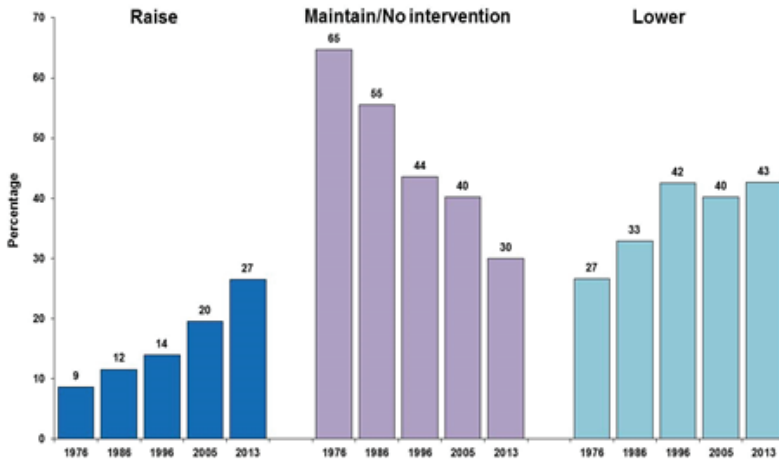
Family policy indicators – 4

Public expenditure on social welfare of families and children

- Public expenditure on family allowances as percentage of GDP
- Public social protection expenditure on benefits for children as percentage of GDP

Other indicators to be added

Government policies to influence the level of fertility, 1976-2013



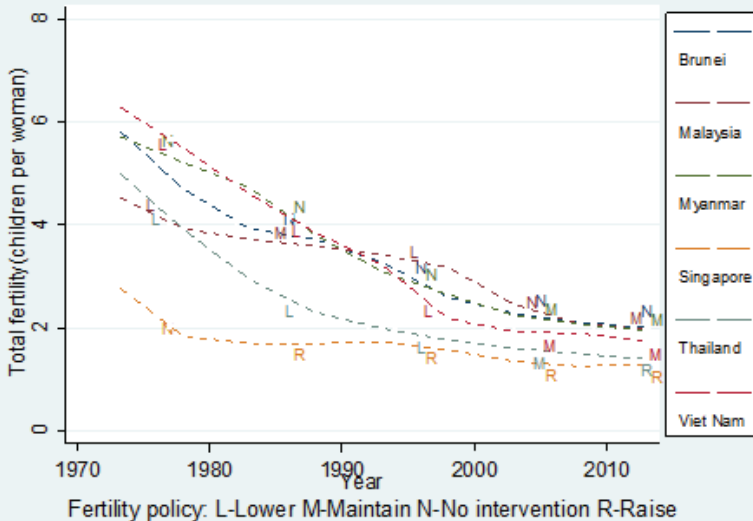
Source: United Nations (2013) World Population Policies Database

Number of countries with policies to raise fertility has doubled since the mid-1990s

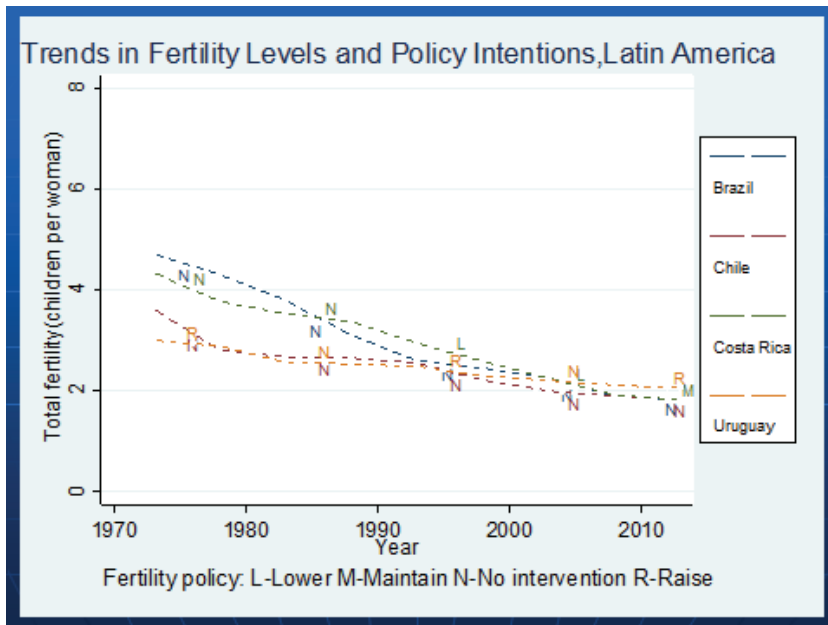
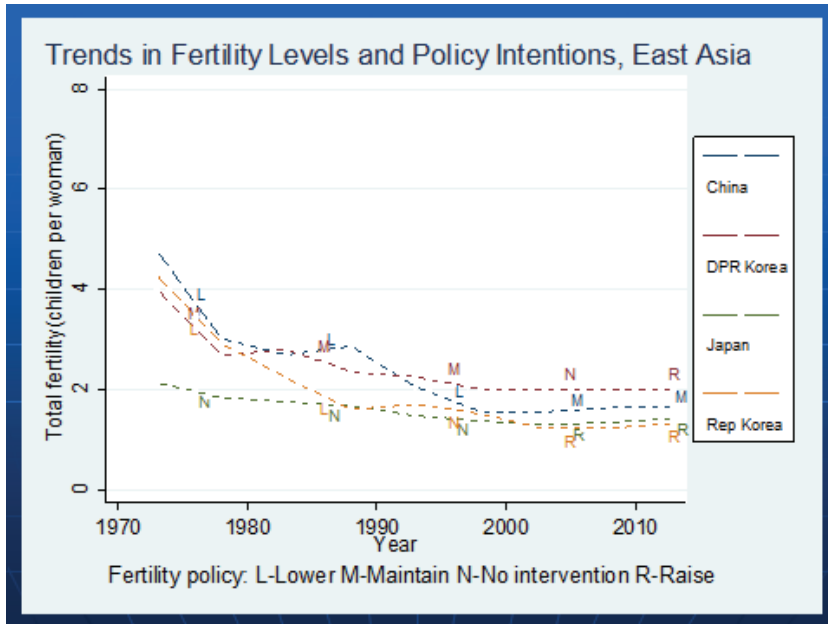
	1996	2013
World	27	54
Developed Regions	16	34
Developing Regions	11	20

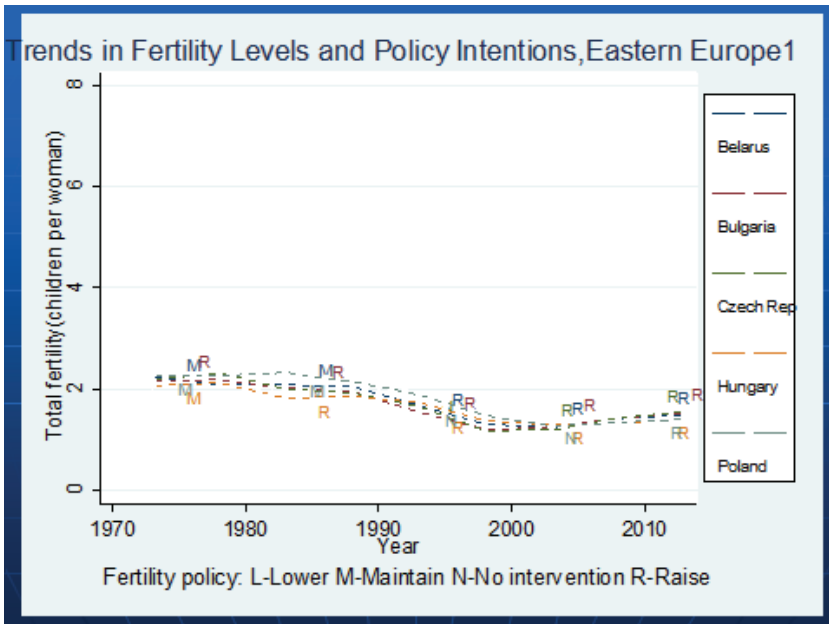
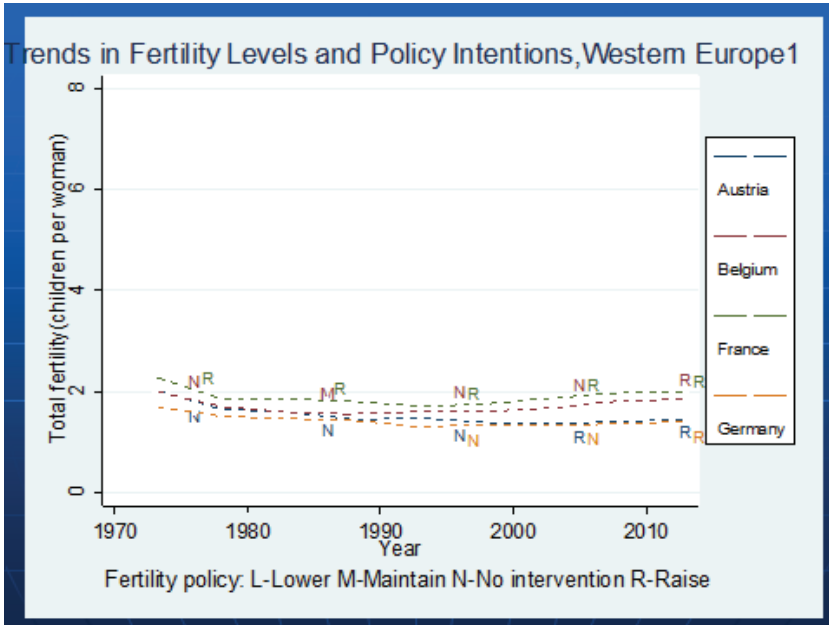
- Among all 197 countries in 2013, 54 countries (32 in Europe, 15 in Asia, 3 LAC, 3 Oceania, 1 Africa) had policies to raise fertility
- Among the 79 countries with low fertility, 47 had policies to raise fertility in 2013

Trends in Fertility Levels and Policy Intentions, Southeast Asia

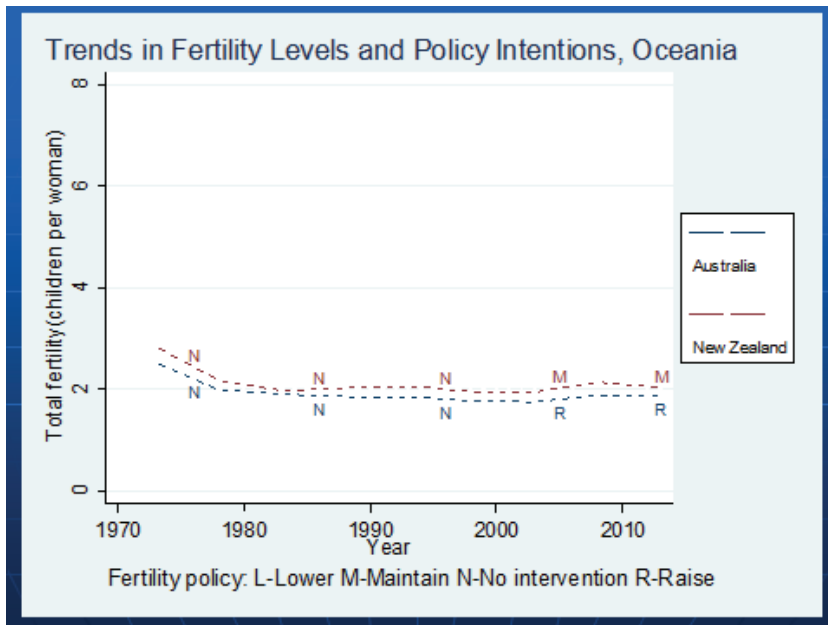
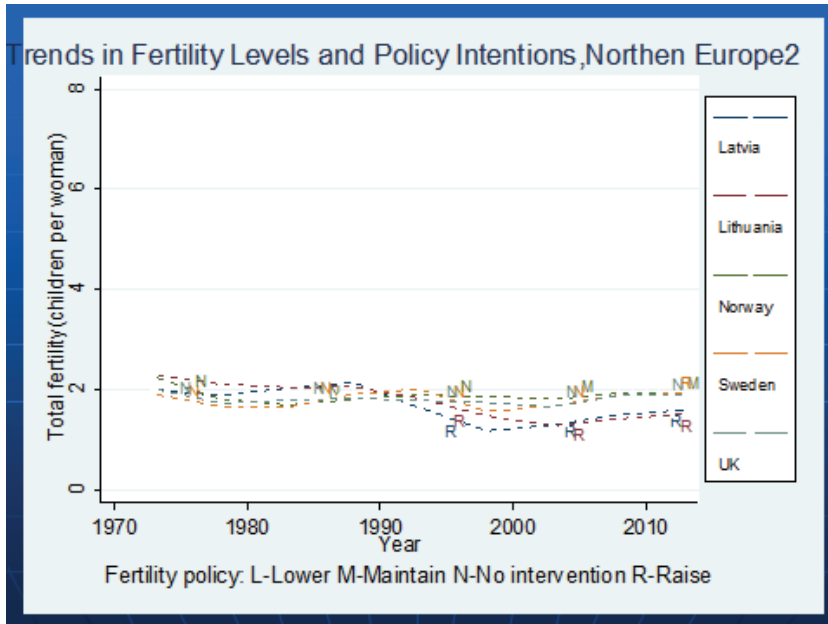


10 Policy Responses to Rapidly Population Aging (II)

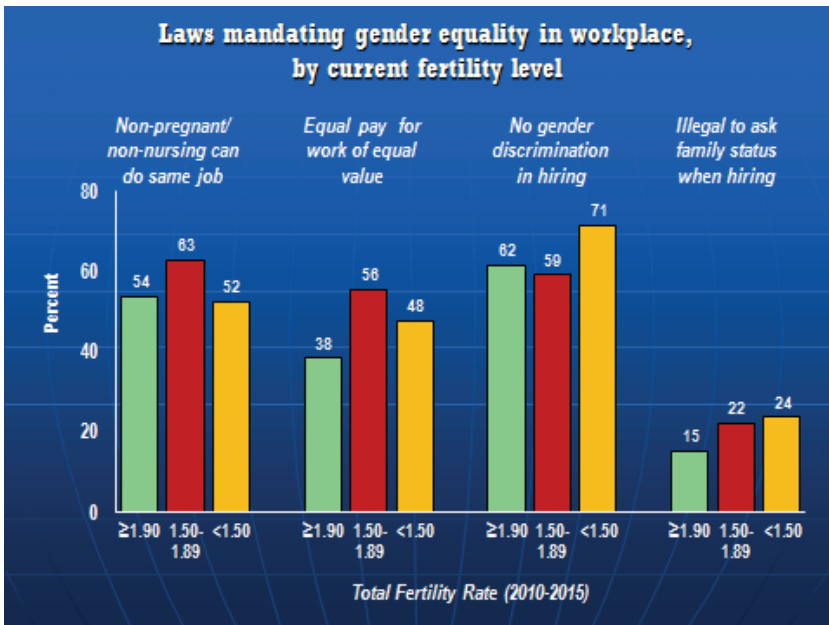




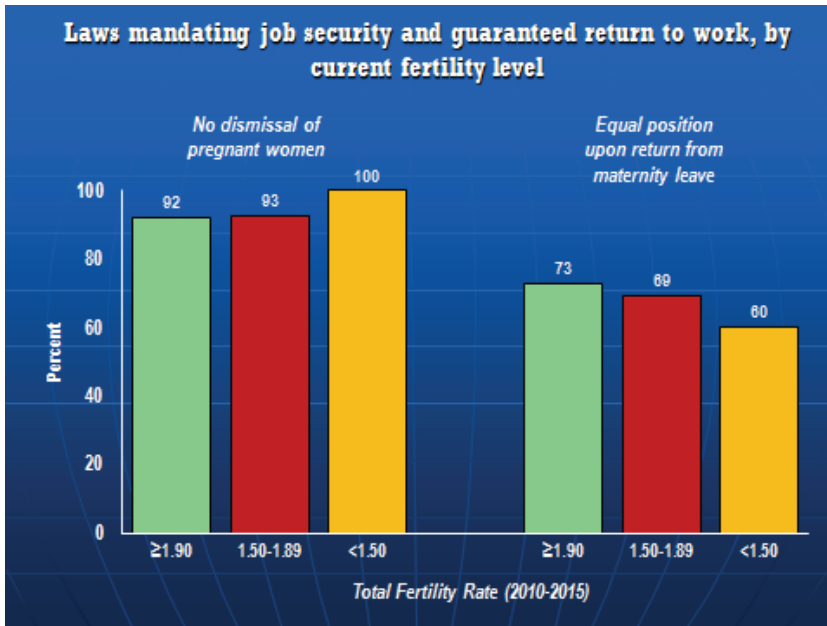
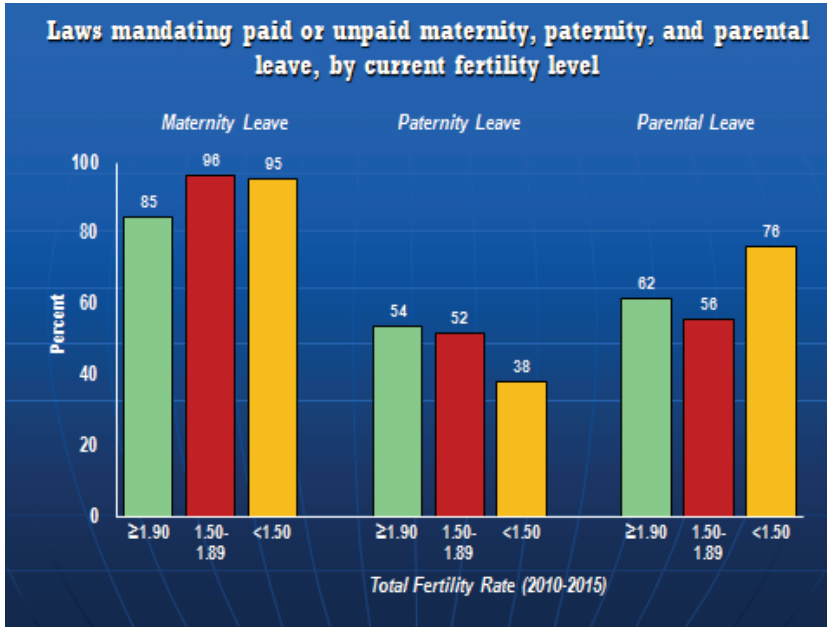
12 Policy Responses to Rapidly Population Aging (II)

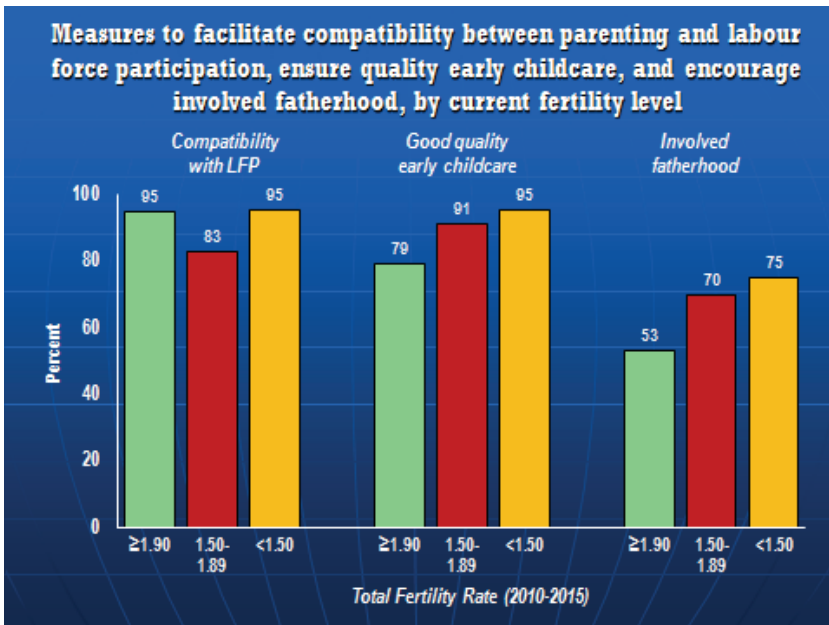
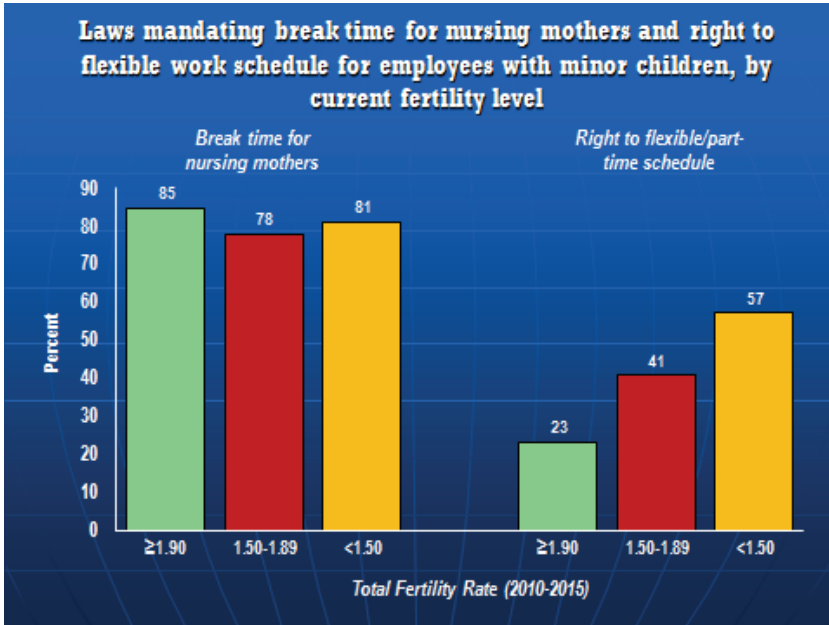


Family policies by current level of fertility

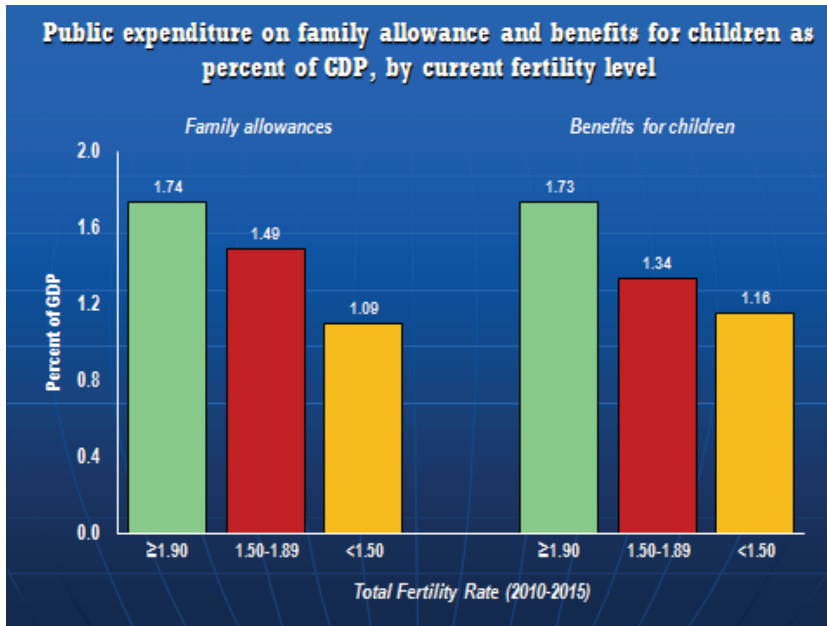
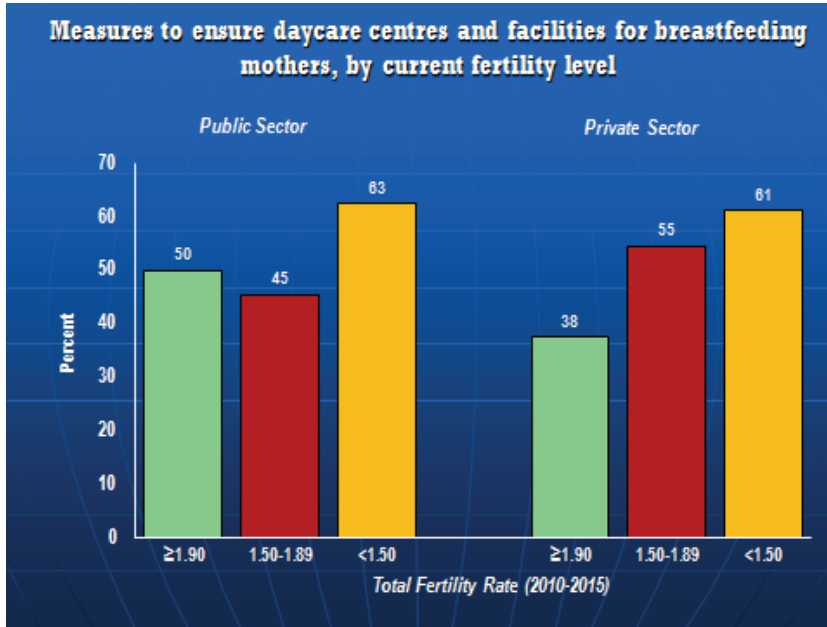


14 Policy Responses to Rapidly Population Aging (II)



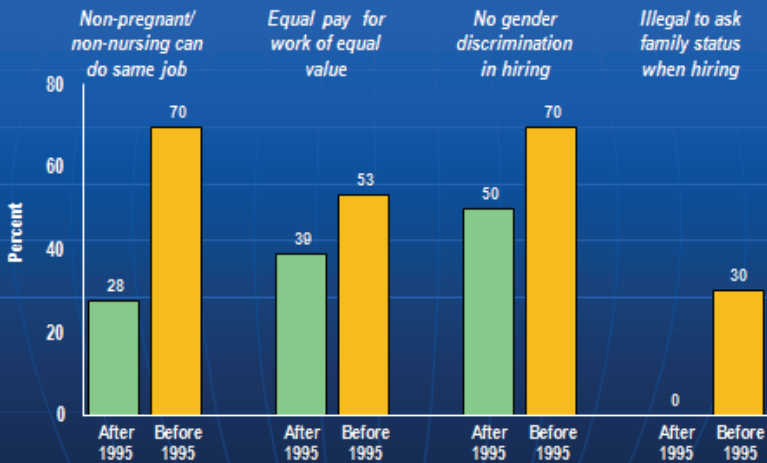


16 Policy Responses to Rapidly Population Aging (II)



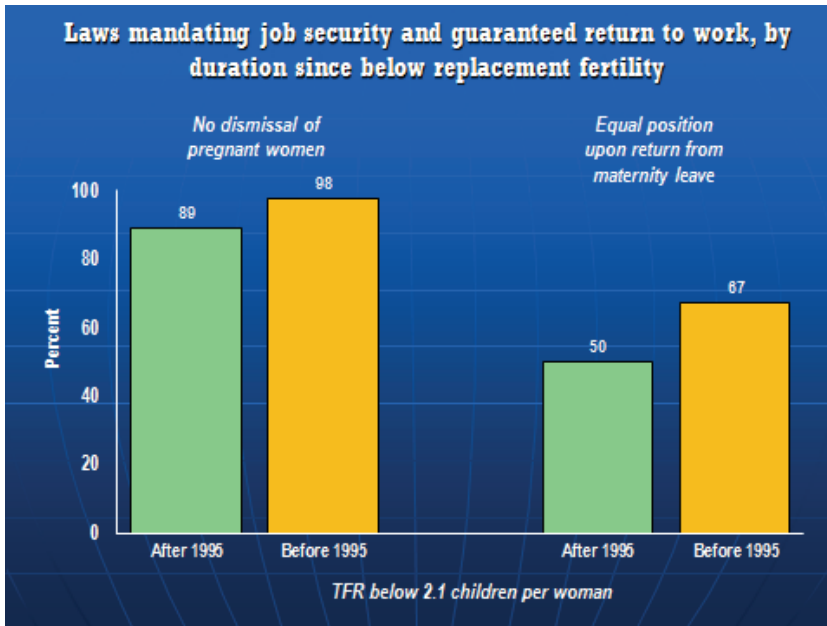
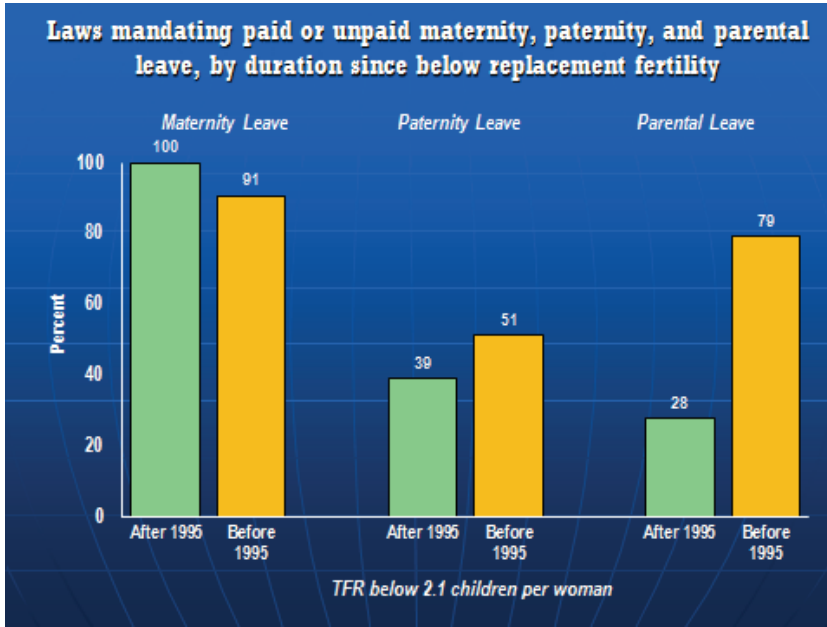
Family policies by duration since reaching below replacement fertility

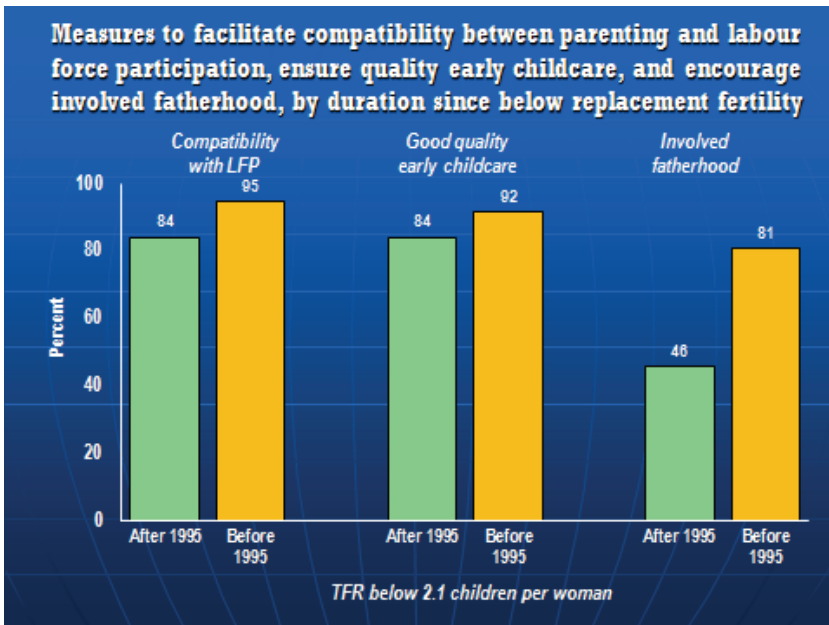
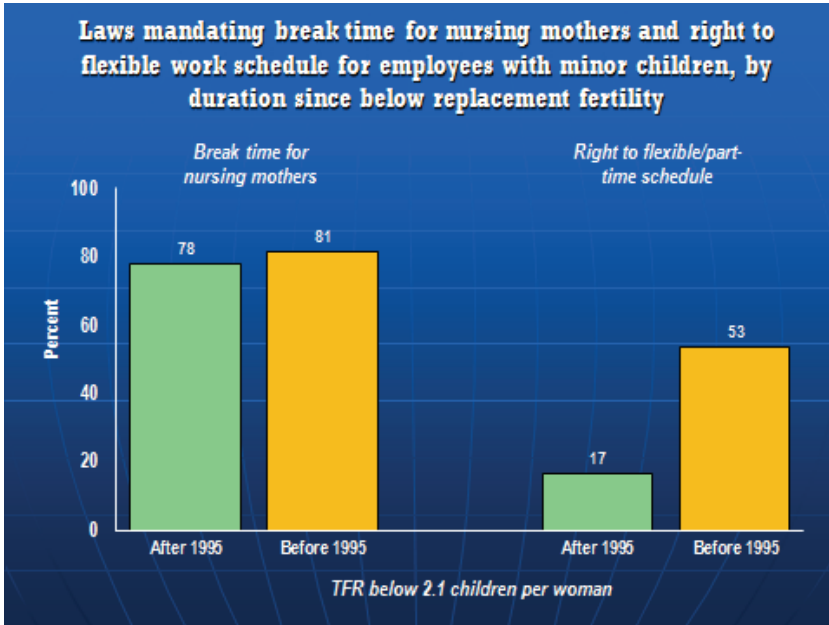
Laws mandating gender equality in workplace, by duration since below replacement fertility



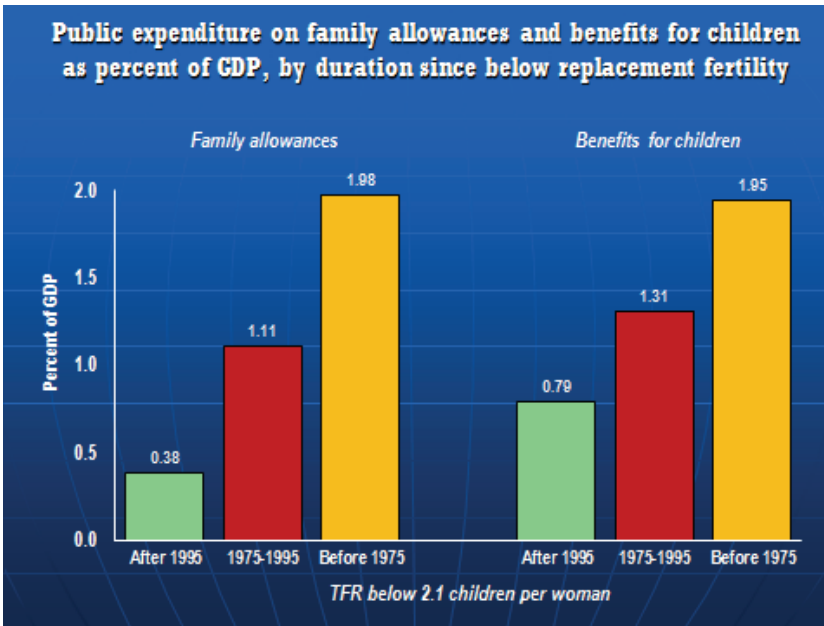
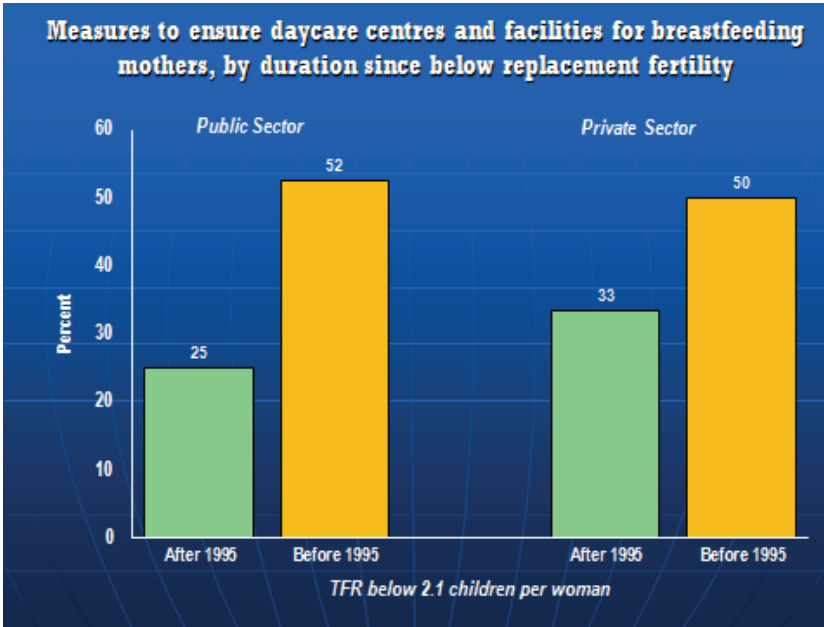
TFR below 2.1 children per woman

18 Policy Responses to Rapidly Population Aging (II)



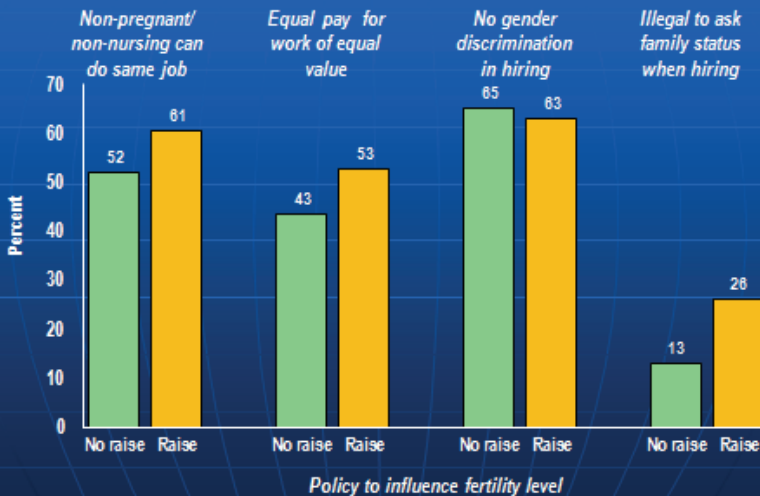


20 Policy Responses to Rapidly Population Aging (II)

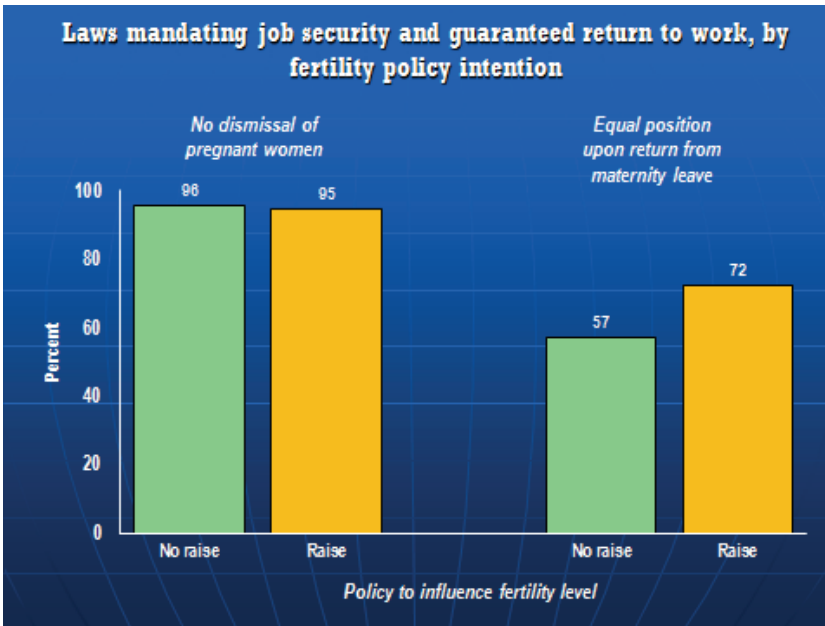
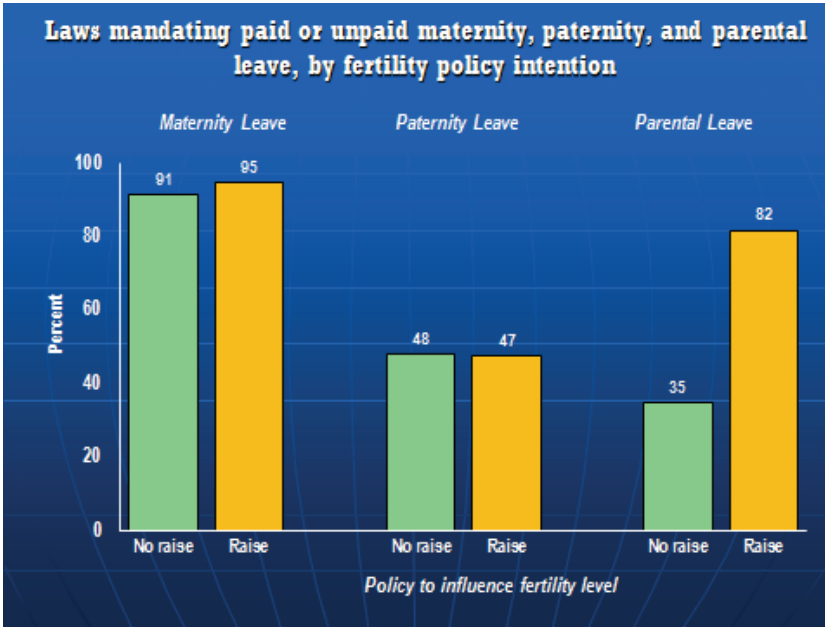


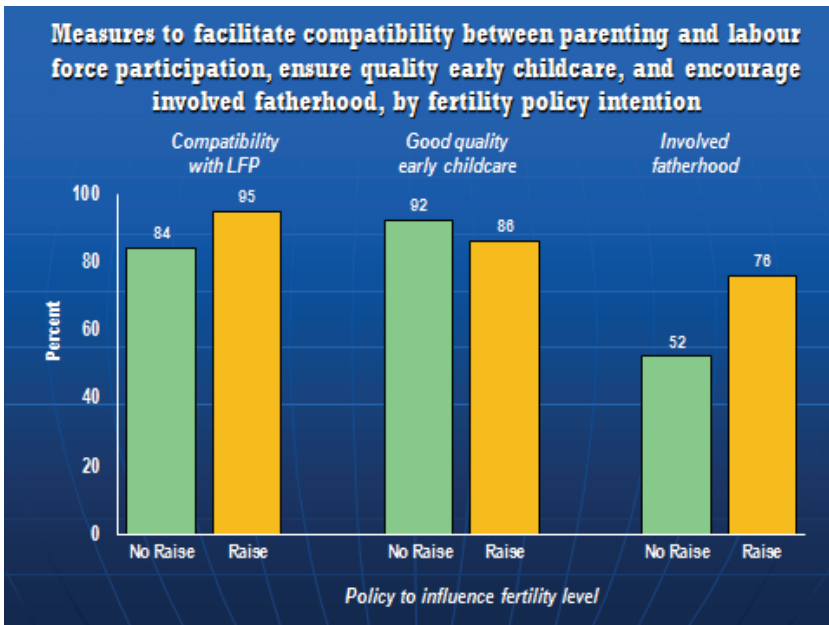
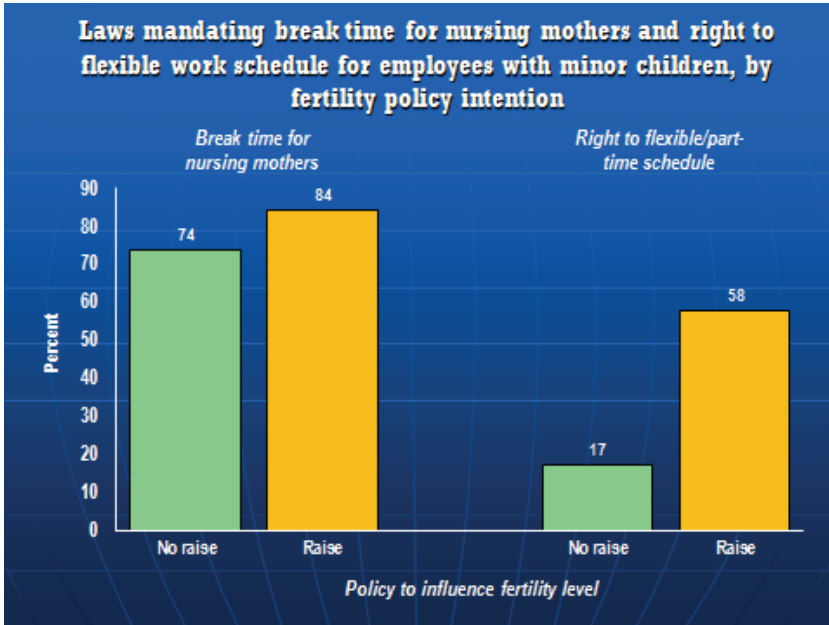
Family policies by Government intention to raise fertility

Laws mandating gender equality in workplace, by fertility policy intention

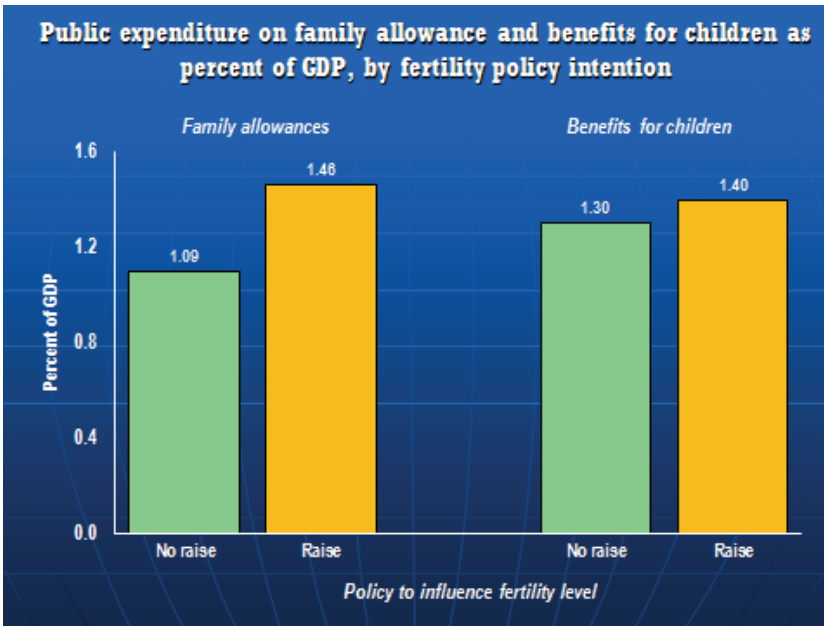
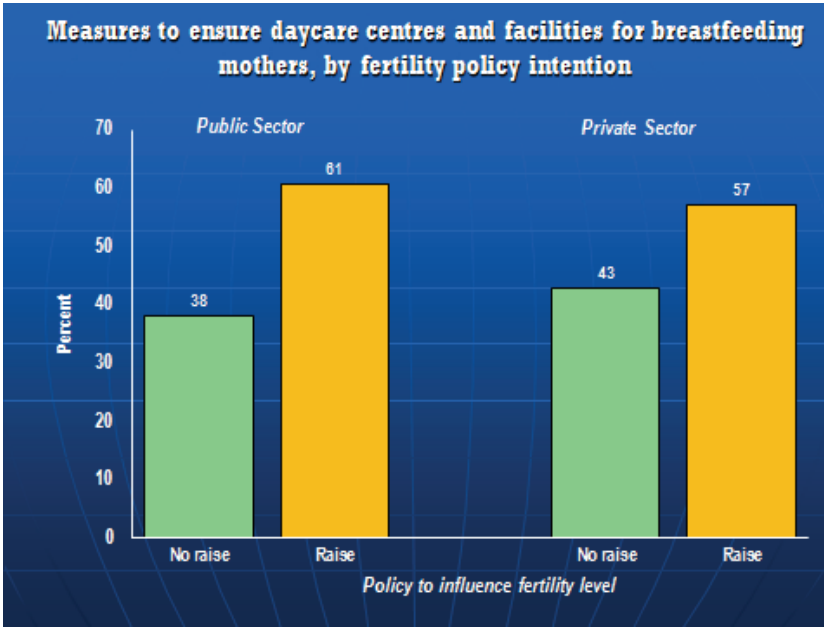


22 Policy Responses to Rapidly Population Aging (II)

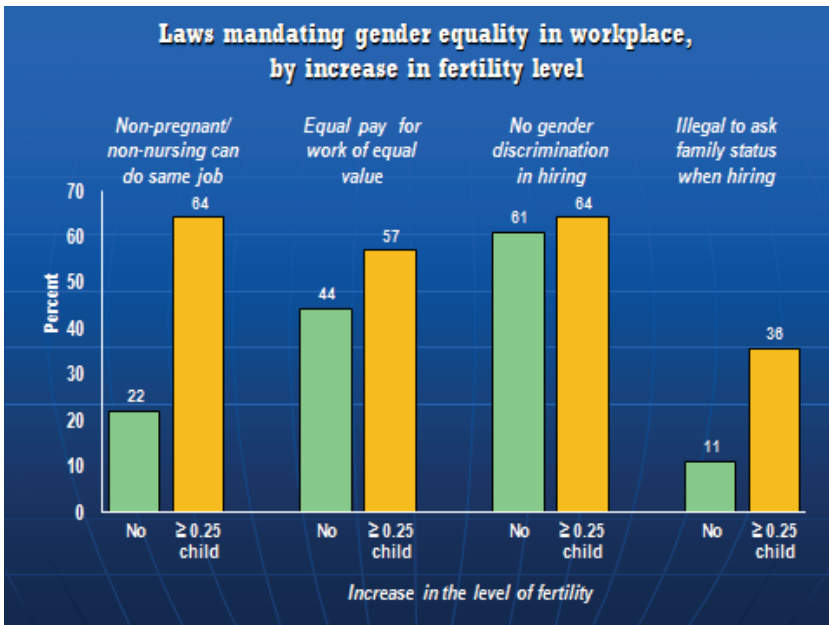




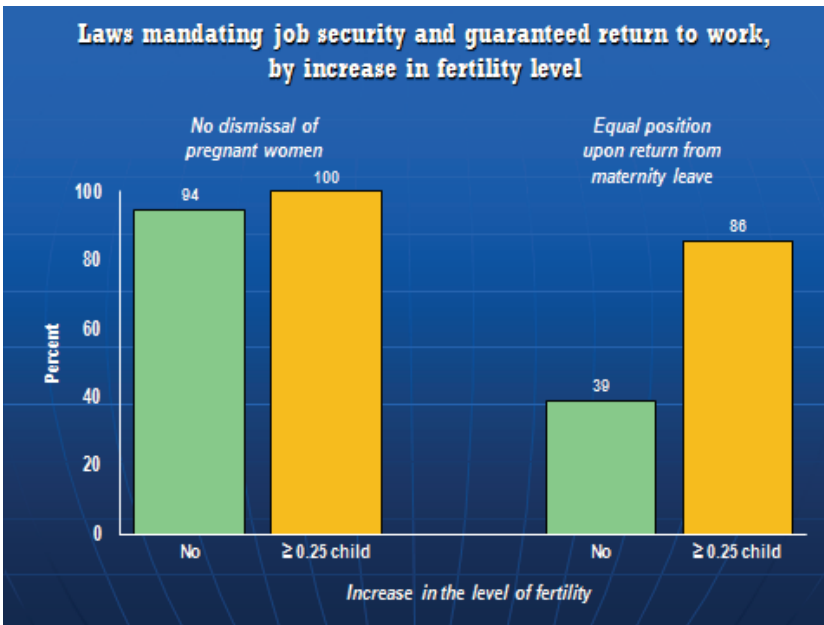
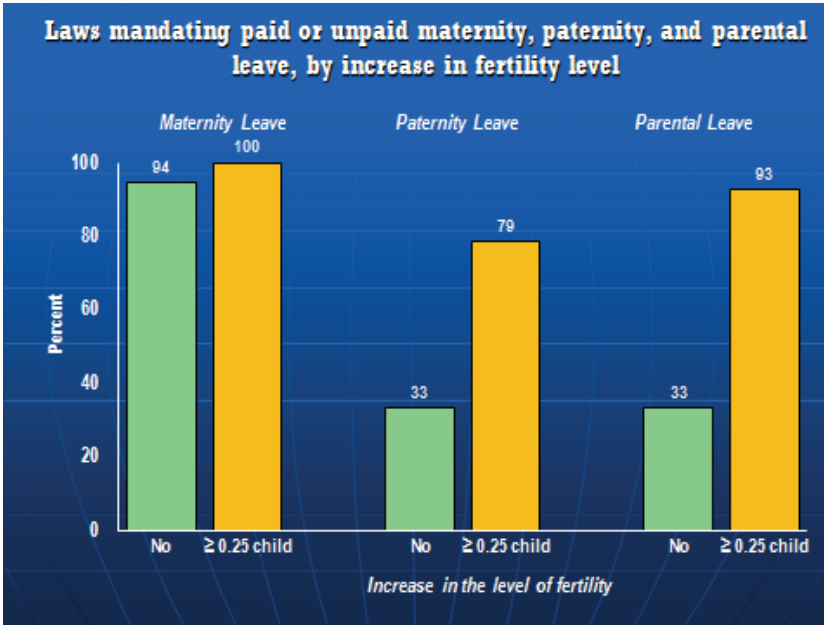
24 Policy Responses to Rapidly Polulation Aging (II)

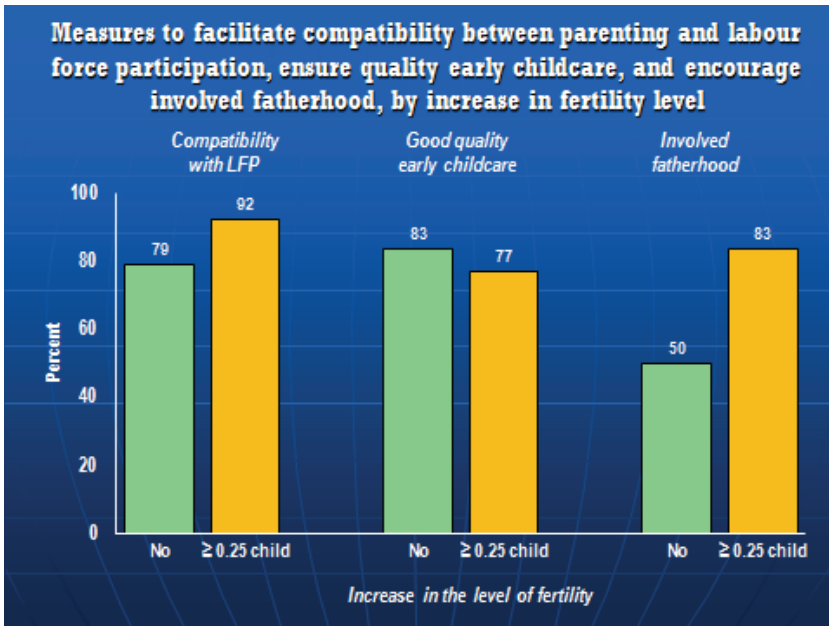
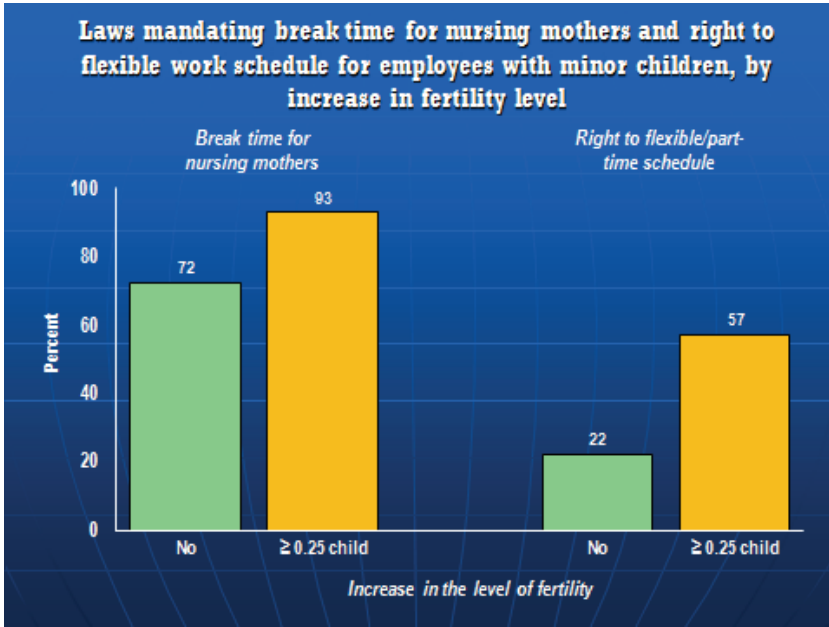


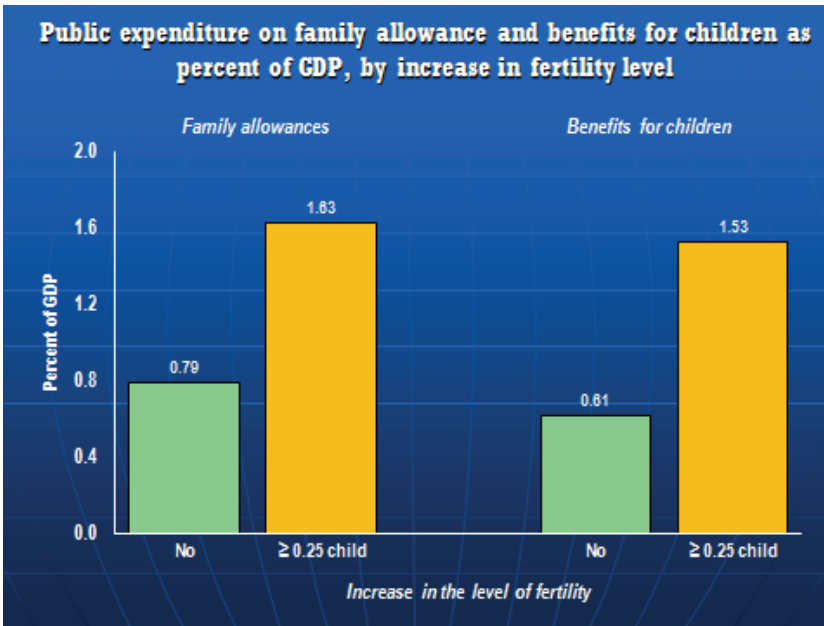
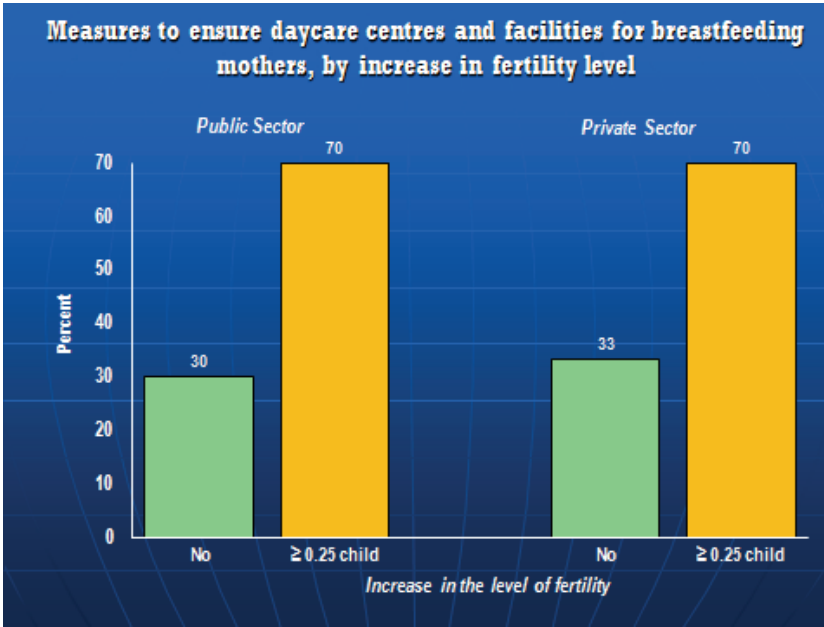
Family policies by increase in the level of fertility



26 Policy Responses to Rapidly Population Aging (II)







Key points...

- As fertility levels have declined, the number of countries attempting to raise fertility has grown
- Government policy intentions to influence fertility are not always in line with the level or trend in fertility
- The current level of fertility does not correlate well with family-friendly policies adopted by the countries, except for some of the programme measures implemented in recent years
- Family-friendly policies are more common in countries where low fertility levels have persisted for longer durations
- Family-friendly policies are more common in countries where Governments have expressed a desire to raise the level of fertility, but the association is rather weak for some policies
- Family-friendly policies are more common in low fertility countries that have seen a noticeable upswing in fertility than in those where fertility has continued to decline

Next steps

- **Examine additional family policy indicators:**
 - Duration of mandated maternity leave
 - Amount of maternity leave benefits (%paid)
 - Measures to end discrimination against working women, including pregnant working women
 - Total public social expenditure as a percentage of GDP
 - Others?
- **More in-depth analysis of the timing and strength of family policies in selected countries with different experiences in reverting the course of fertility**

Acknowledgements

**Julia Ferre
Mun Sim Lai (Nicole)**

United Nations Population Division



Chapter 2

Aging Italy: low fertility and societal rigidities

Maria Letizia TANTURRI

Assistant Professor in Demography,

Department of Statistical Sciences,

University of Padova



2

Aging Italy: low fertility << and societal rigidities

Outline

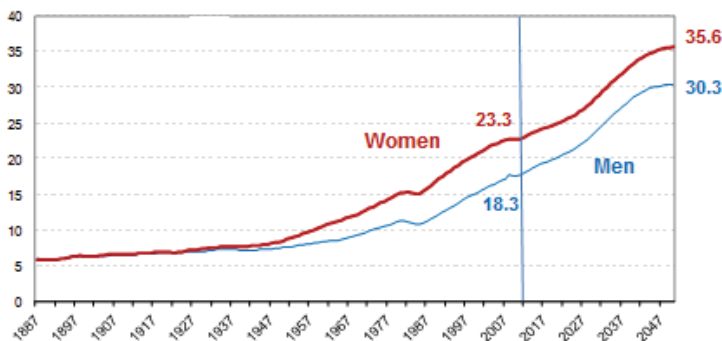


- Aging process in Italy
- Italian fertility decline with a focus on the changes occurred in the last decade
- Societal rigidities and the resistance to change
- The scarcity and inconsistencies of policies

Aging Italy: an unprecedented phenomenon



Proportion of men and women, 65 and over (1887-2050)



Source: Egidi 2014

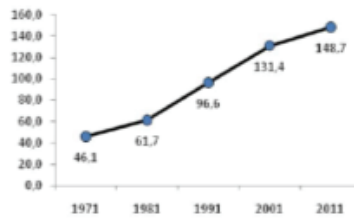
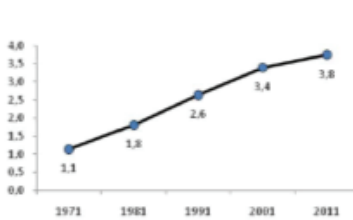
Many old, fewer young



The average population age = 44.2
The average age of the elector = 51/53

The dependency ratio = 54.7
Old age dependency ratio = 33

4 over-65 per child under-6 154 over-65 per 100 under-16

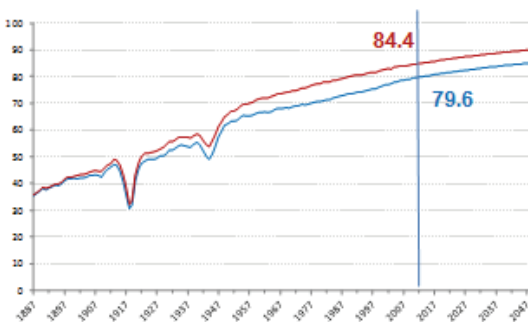


4

The longevity revolution



Life expectancy at birth (1887-2050)

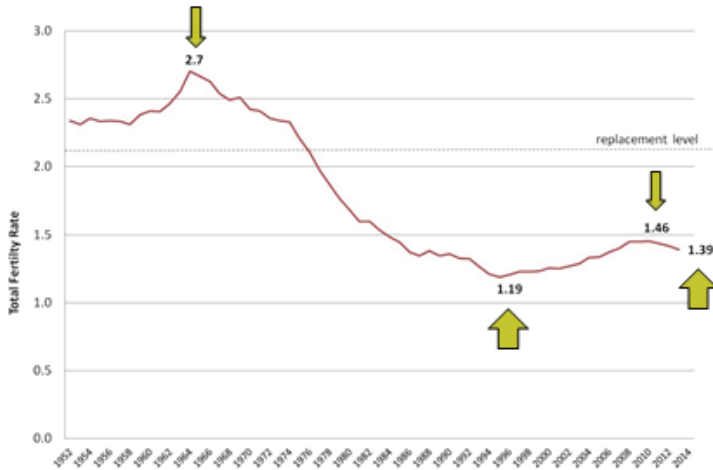


The probability of surviving

	men	women
1887		
at 65 years old	0.29	0.39
at 75 years old	0.25	0.35
at 85 years old	0.05	0.05
2011		
at 65 years old	0.65	0.65
at 75 years old	0.72	0.65
at 85 years old	0.40	0.39
2050		
at 65 years old	0.94	0.97
at 75 years old	0.65	0.62
at 85 years old	0.61	0.72

Source: Egidi 2014

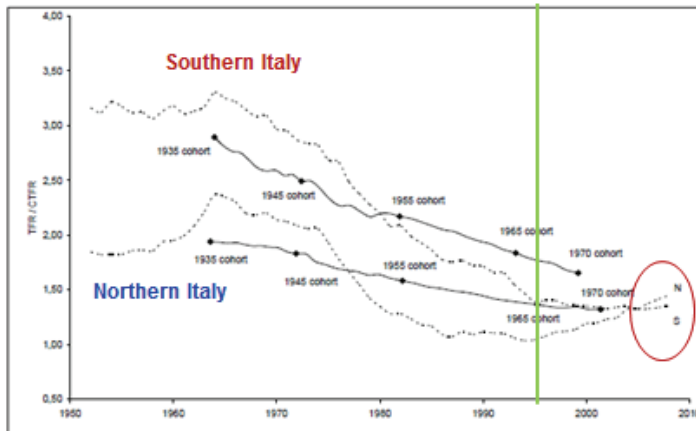
Italian fertility decline: lowest low once again?



Decline at different speed in the North and the South

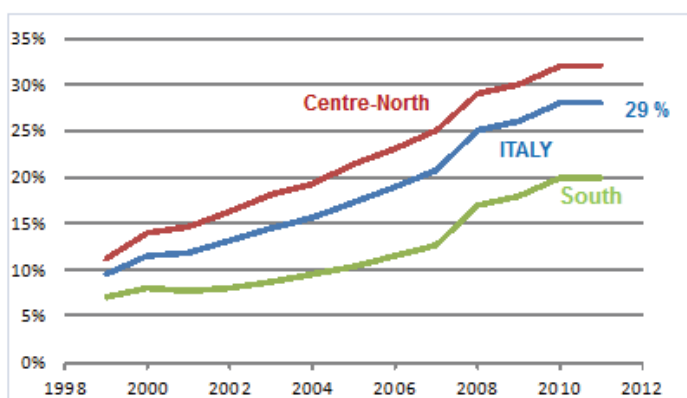


TFR and CCF (lagged by mean age at childbearing) in Northern and Southern Italy



Source: Caltebbano et al., 2009, Demographic research

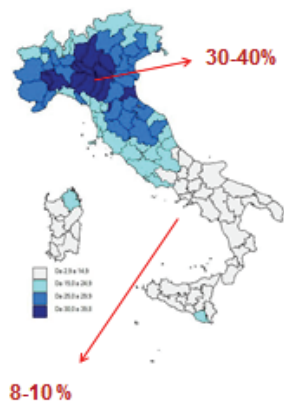
The increase of out-of-wedlock births



The increasing contribution of foreign people to Italian fertility



ITALY	1999	2012
Born at least by one foreign parents	6%	20.1%
of whom: born by both foreign parents	4%	15%



The postponement transition

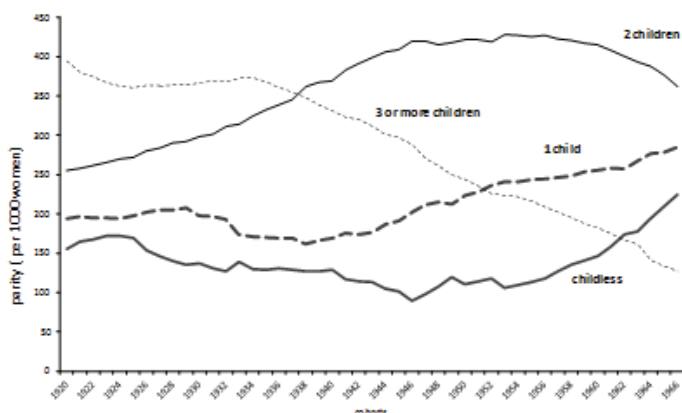


- The age at first birth:
 - **31** (only Italian women, excluding foreigners)
 - **+ 2** years in the last decade

New born by mothers age:	All resident population	Only among the Italian
Less than 25	11%	8.5%
Over 30	67%	
of whom over 40:	7%	8%

Duplicated in a decade!

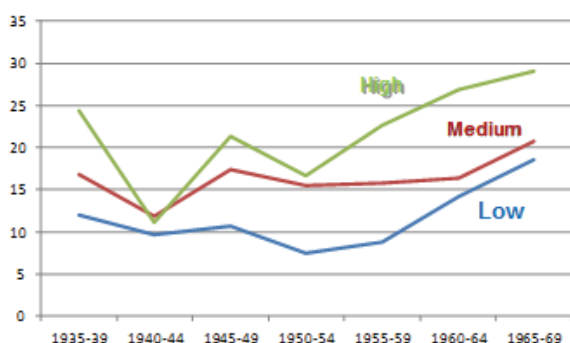
Low parity is now prevailing



The increase of permanent childlessness among women



Proportion of childless women per cohort at 40-44 by education level

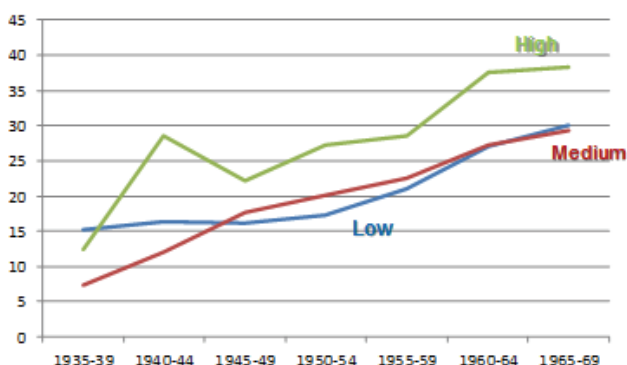


Source: own elaboration on Multipurpose survey "Family and Social Actors" (2009 and 2003)

The increase of permanent childlessness among men

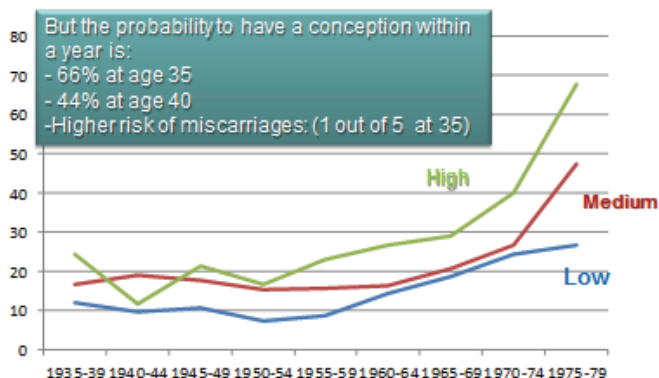


Proportion of childless men per cohort at 40-44 by education level



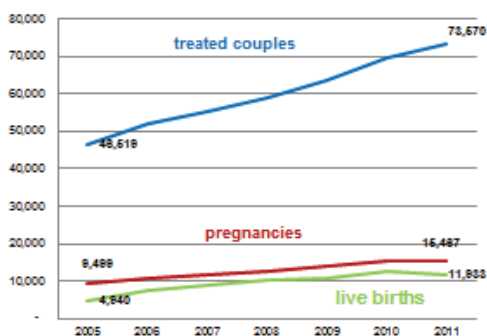
Source: own elaboration on Multipurpose survey "Family and Social Actors" (2009 and 2003)

Childlessness at 30-34 is also increasing dramatically



Source: own elaboration on Multipurpose survey "Family and Social Actors" (2009 and 2003)

The diffusion of Assisted Reproductive Techniques



- # of couples: + 58% in 7 years
- in 2011, around 12,000 live births, **2.2% of total births**
- Register data exclude Italian couples who undertake cross-border reproductive care (e.g. about **4 thousands** in 2011)

Source: Italian Register of ART

Societal rigidities



- The young people issue
- The hypertrophic family
- A non-responsive market

No country for... young men



- “Never-ending” transition to adulthood:
 - 44.6% of the young (25-35) still leave with their parents
- Lost generations:
 - One young (15-29) out of four is NEET
 - Especially in the South (one third)
 - Especially women (27%)
 - Huge unemployment rate among the young (17-24) = 35.3%
 - The highest level ever registered since 1977

No country for... young men (2)

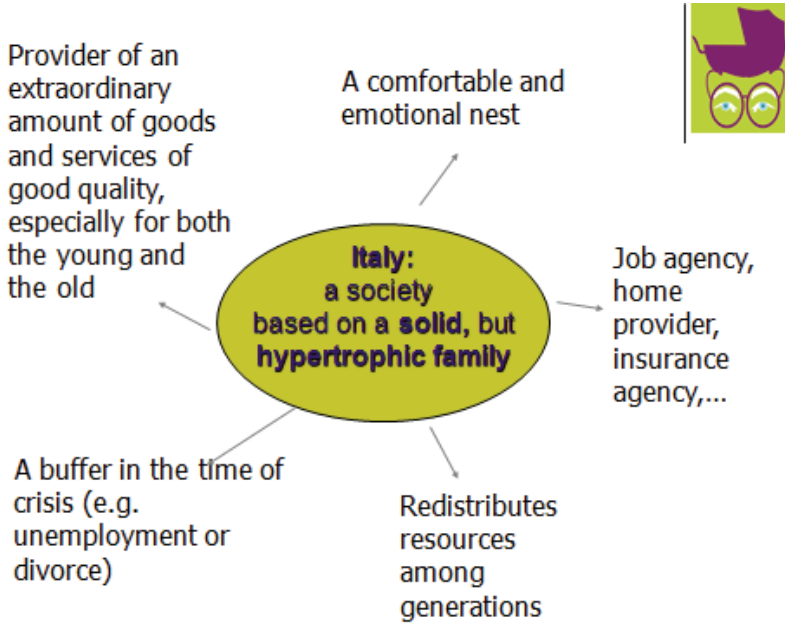


- Precarious lives:
 - Most of the young work with atypical-contract
 - excluded by the protected labor market!
 - Housing and economic uncertainties.
 - no mortgage,
 - no unemployment benefit,
 - no guaranteed minimum wage
- Less money:
 - The entry salary of Italian young people are lower than the average wage (compared to other European countries)

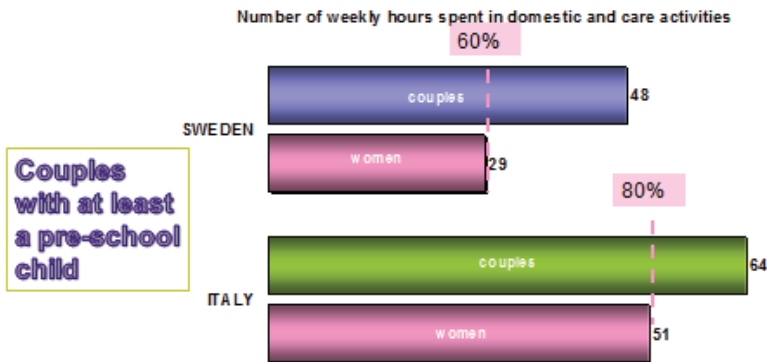
The hypertrophic family



- A family-centered society supported by:
 - Gender inequality
 - Traditional attitudes and values
 - A familistic welfare system

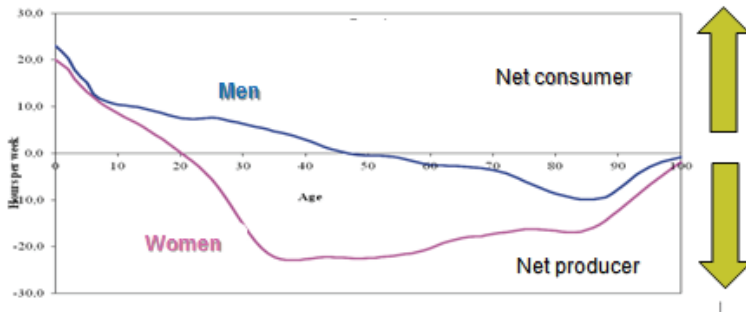


The Italian family is particularly time-intensive



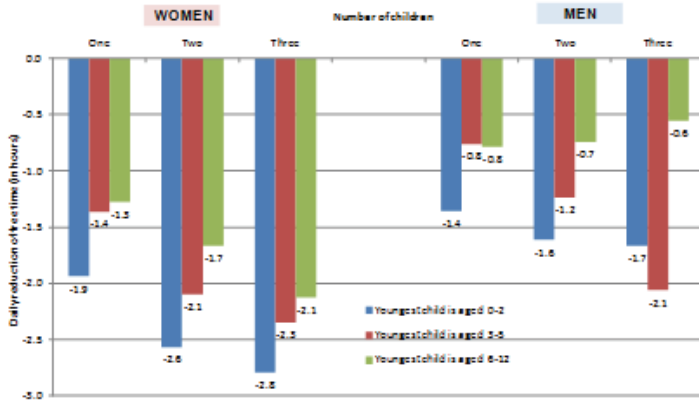
!! When children grow up Italian women dedicate a **double amount** of time than their Swedish peers: 40 hours per week!

Women take the burden and men play the free-riders



Fonte: Zannella(2012), Neodemos

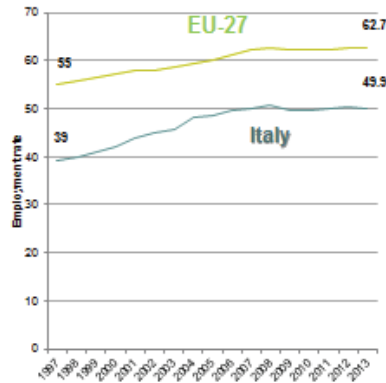
Children squeeze personal and leisure time differently



Will the system be sustainable for the future?



- Will the “old fashioned” Italian family survive to “modern women”?
 - more educated and
 - more and more eager to enter the labour market



Work and children reconciliation: still so difficult?



2011	Employment rate MOTHERS	
	with children under 15	with 3 children
Italy	55	38.6
Sweden	80	77

- More than **21%** of the mothers working before getting pregnant, leave the work or are fired (20 months after the birth)
 - 50% if they have “atypical” contracts
 - 40% with fixed-term contract
 - 40% if they become mothers before 25
 - 32% if less educated

40% of working mothers declare to have reconciliation problems

The labour market features



- high rates of self-employment,
- high shares of people employed in small firms
- a high degree of employment protection for the male breadwinner
- a high degree of informal flexibility, mainly through the underground economy
- Dual system of protection: employee vs atypical workers, self employed,

Strong family values



- In Italy families are expected to support their own members with only limited help from the state.
 - family responsibilities and obligations extend beyond the nuclear family
 - Strong belief that “families do it better”
 - a mistrustful attitudes towards the institutions

E.g. Three quarters of the Italian think that a pre-school child suffers to some extent if his/her mother works (versus 41% of the French).

Which policies for which family



- **The familistic welfare system is mirrored on:**
 - low share of social expenditure related to family and children (1.58% of GDP)
 - Emphasis on family needs in the political debate, but the discussion is often purely ideological, on the definition of family

Children Allowances



- **No universal children allowance, but means-tested**
 - (-) limited to the low income dependent employees
 - (-) disincentive especially low skilled women to enter the official labour market (black labour is preferred)

Parental leave



- Law: 8 March 2000
- Both fathers and mother can take parental leave:
 - for a total period of 36 weeks,
 - at 30 percent of previous earnings
 - an additional month is given if the father takes at least three months of paternal leave.

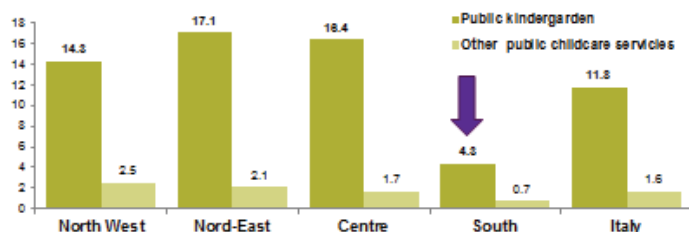
In practice, the take-up rates of :

- eligible mothers was 75 percent and
- of eligible fathers only 7 percent

Limited childcare facilities



- limited supply of public childcare for children younger than three, in terms of
 - availability and
 - the number of hours supplied on a day-to-day basis



Paternity leave



- Law 22 December 2012:
- Only one day for the dependent employees
- Up two more days, but if the mother reduce her leave
- 15 days before has to be notified to the employer.

Will the system be sustainable in the future?



- A growing demand for care and assistance for the elderly
- The family continues to follow traditional models, but women have contrasting aspirations
- Active aging policies can threaten the system of intergenerational transfers within the family



Who can substitute women?

- WELFARE (constrained by the debt)
- The MARKET (e.g. foreign carer)
- MEN

New urgent demand for policies (1)



- For reducing unintended childlessness

- Tempo policies?
- Public support to reduce uncertainty for the young (Minimum wage, protection of precarious workers, ...)?
- Subsidize ART?
- Increase awareness of the “biological limits” of fertility among young people

New urgent demand for policies (2)



- For increasing second births:

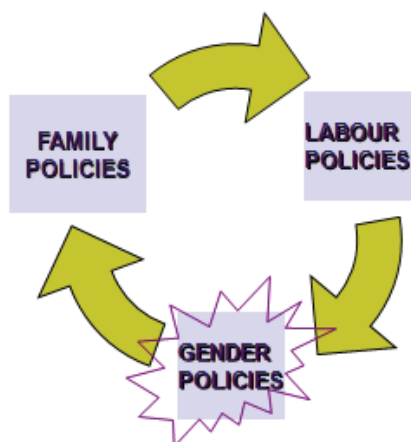
- Tempo policies
- Reconciliation policies
- Gender policy to promote the role of fathers

New urgent demand for policies (2)



- For sustaining fertility in the South
 - Reducing unemployment among young people
 - Supporting women's employment?
 - Increase the supply of child-care facilities

Gender policies are not an optional



- Without an explicit attention to gender issues, all the measures encouraging reconciliation turn to be a boomerang for women



DISCRIMINATION



- Policies should be:
 - **Clearly targeted**
 - **Consistent**
 - **Imaginative**

- Paternity leave (*use it or lose it*):
 - Es. Scandinavia
- Increasing remuneration of parental leave:
 - E.g . Germany (67% of previous income)
- Flexible time schedule for both mothers and fathers when they have young children
 - E.g. in the Netherlands
- Educate men to be “fathers” as fatherhood is not an optional!





Chapter 3

The policy context of fertility in Spain: towards a gender-egalitarian model?

Pau BAIZAN MUNOZ

Research Professor,

Department of Political and Social Sciences,

ICREA and Pompeu Fabra University



3

The policy context of fertility in Spain: towards a gender-egalitarian model? <<

1. Introduction

The attainment by Spain of “lowest-low” fertility levels in the early 1990s surprised many demographers, as did the massive immigration rates and the high divorce rates recorded in the mid 2000s, which both reached the highest levels in Europe at that time. These situations illustrate the profound and rapid transformations experienced by Spanish society that, although shared to a large extent with other advanced societies, also show several peculiarities. Here I will sketch the main trends in fertility and ageing during the last few decades, along with an overview of some of the most significant family and gender policies. Support for childrearing from a variety of institutions is examined, including the labor market and state, as well as from extended families and male partners. Based on existing theories of fertility, it is assumed that contextual conditions that lessen the costs of childrearing for parents and reduce gender inequalities will be associated with higher levels of fertility (McDonald 2000; Diprete et al. 2003; Rindfuss et al. 2003). Existing evidence on Spain from previous studies is summarized.

In order to evaluate the role of particular policies it is useful

to adopt a welfare regime perspective¹⁾. Together with other Southern European countries, Spanish welfare model is often characterized as been a particular version of the “conservative” regime, in which families retain a maximum of welfare responsibilities (Esping-Andersen 1999). Paradoxically, in this model, active family policies are underdeveloped with respect to other conservative welfare states, such as Germany or France. The low levels of state provision and its conspicuous gaps go hand in hand with a major role of kinship relationships (Ferrera 1996; Moreno 2006; Naldini 2003). These characteristics are rooted on long standing cultural ideas prevalent in society, in particular the wide prevalence of strong family ties (Reher 1998; Dalla Zuanna 2001). Exchanges of care and financial support across generations are generally high, including an increasingly delayed co-residence of young adults with their parents and a declining, but still important, role of grandparents in the care of children.

Spanish welfare and gender regime has also been characterized as been dominated by the male bread-winner/female housewife model. Indeed, up to the 1970s this family model was explicitly supported by the state, and the Catholic church remained a central influence in policy making (Nash 1991). Yet, the prevalence of this family model has progressively been

1) “A welfare regime can be defined as the combined, interdependent way in which welfare is produced and allocated between state, market, and family” (Esping-Andersen 1999: 35).

reduced. Crucial in this respect has been the rapid expansion of the educational system, which has especially benefitted to women, leading cohorts born since the 1970s to clearly surpass men in educational attainment. The increase in labor market participation of women has been constant since the 1980s, and dual earner households have become the norm. At the same time, men's roles have only marginally modified. As we will see in more detail below, welfare state adaptation to these new gender roles has been slow and partial.

Parallel changes in family values and behavior, in line with "reflexive modernization" (Giddens 1991), have pushed towards modifications in many of the laws affecting the family. A decisive milestone in that direction was the democratic constitution of 1978, that introduced the principles of gender equality and the expansion of social rights, that were developed in several laws issued subsequently. Some examples include the introduction of individual taxation (1979), a new divorce law (1981), as well as laws liberalizing abortion (1985) and the use of contraceptives (1978). The main aims of social policies related to the consolidation and universalization of the welfare state in the areas of education, health and pension system.

A second wave of rapid and extensive policy change took place during the period 2004-11, when the Socialist party was in government. A set of laws reflected changes in the values in the population, such as the ones facilitating divorce and shared

custody of children by divorced parents, same-sex marriages, and a new law on abortion, which received wide population support. Another set of policies were directed towards the promotion of gender equality, primarily through the enhancement of women's integration into the labor market, and to a lesser extent the increase of young people's autonomy. These included a law instituting a new public universal scheme for dependent people in need of care, provisions for the expansion of child care, affirmative action measures favoring gender equality in the labor market and in politics, and a cash-benefit for housing directed to young people. Although the actual substantive impact of these policies has been uneven, they mark a path deviation in the principles and aims of the Spanish government. The care of children and frail elderly was no longer seen as a family matter only, but an issue requiring government economic support and involvement. Similarly, young people support was no longer seen as exclusively a family responsibility. Labor market and economic growth policies have been at the center of public debates, triggered by high rates of female and youth unemployment, and stimulated by European Union directives and recommendations²⁾. By contrast, despite the persistence of very low fertility for more than two-decades, the support for rising children has been largely absent

2) Pension system reform has also been a recurring political debate, again stimulated by EU policies.

from public discussions and fertility increase has not been a prominent issue in government policy.

In the next pages, I will review in some more detail trends in policies and in fertility, making some links between them. I will argue that the trends since the 1980s involving the generalization of the dual earner household norm and the weakening of familialism, together with the more recent policy reorientation, amount to a significant departure from the previous welfare regime.

2. Fertility trends

Spanish total fertility rate has remained below 1.5 children per woman since 1988, and has fluctuated around very low levels since then (Figure 1). Just as the post war baby boom took place with almost two decades of delay with respect to most other European countries, also the contemporary fertility decline arrived relatively late. Between 1958 and 1975 fertility hovered slightly above 2.8, but shortly after started a fast decline, reaching a minimum of 1.15 in 1998. As in many other developed countries the first years after 2000 brought a modest recovery of the TFR, reaching 1.46 children per women in 2008 (Myrskylä, Kohler and Billari 2009). This trend has been truncated with the “great recession”, leading to a level of 1.27 in 2013 which, considering the depth of the economic crises, may

be viewed as a small decline.

The above changes in fertility levels, measured with the TFR, are greatly influenced by a significant postponement of births in the life course. Women's mean age at first birth reached its minimum level in 1980 (25.0), in parallel with declining ages at marriage³). However, it jumped to 29 years in 2000, depressing cross sectional fertility. The subsequent slow down in the pace of fertility postponement has contributed to the partial recovery of TFR, although this process has not disappeared, as shown by the recorded age in 2013 (30.3 years). The large immigration wave experienced in 2000-07, no doubt is part of the explanation of both, the slowdown in the postponement in the timing of fertility and the partial recovery of fertility levels. As can be seen in figure 2, migrants show higher levels of fertility than natives. The processes of migration and family formation appear to be closely interrelated, resulting in fertility peaks around migration time or shortly after (Gonzalez-Ferrer 2007; Bledsoe et al. 2007). Given the relatively small proportion of migrants in the population, that went from 1.6 per cent in 1998 to 12.2 per cent in 2010, their overall contribution in increasing the TFR is only about 0.082 children (Castro-Martín and Rosero-Bixby 2011). However, birth statistics for 2011 indicate that nearly one out of four newborns in Spain (23.1%) had at

3) Around 1980 were recorded both the lowest age at marriage (23.3) and at first birth for the whole XXth century (Cabré 1989).

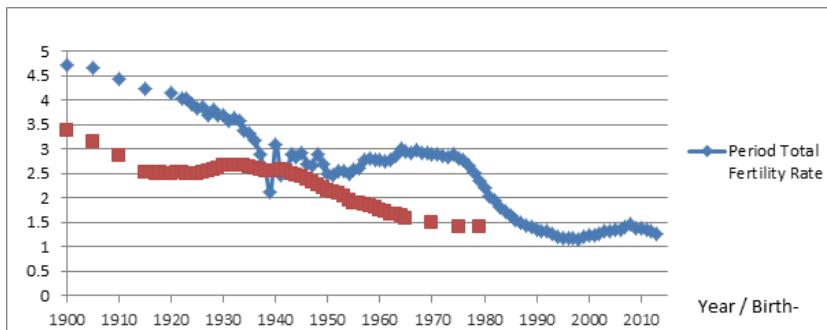
least one foreign-born parent. The timing of immigrant's fertility is substantially younger than that of natives, particularly for Latin American and African origins, which account for more than a half of all immigrants during this period. Conversely, the increasing importance of immigration from Eastern Europe (basically Romania and Bulgaria), seem to be related to lower and later fertility among immigrants.

Figure 1 depicts the trends in completed birth-cohort fertility, providing a complementary perspective to the one given by the TFR. Lifetime family size has been declining almost continuously from the cohorts born at the beginning of the XXth century, from 3.4 children for women born in 1900 to 1.6 for women born in 1965. Projections for the 1975 birth cohort foresee a continuation of this trend, reaching 1.4 children per women (Myrskylä, Goldstein and Cheng 2012). An almost monotonic reduction of parity 3 or more births across birth-cohorts is the main factor behind the family size reduction (Instituto Nacional de Estadística 2014; Castro-Martin and Martin-Garcia 2013). The 1965 cohort has almost achieved this process, since only 12.5% of women born in 1965 had three or more children compared to 60.7% of women born in 1940. Births have been increasingly concentrated in parities 1 and 2: about 28 per cent women born in 1965 ended up with one child and 46 per cent with two. Definitive childlessness has risen for recent birth cohorts (13 per cent for the 1965 birth cohort), which is a com-

paratively small proportion⁴).

The family context of childbearing has been substantially altered in the last few decades. The percentage of births to non-married women was 39 in 2012, a sharp increase from the figures from 1980 (4 per cent) and 1995 (11 per cent). Most of this increase is attributable to childbearing in cohabiting families, that accounted for 23% of all births in 2011. By the age of 35, 39% of women born in the 1970s had entered their first conjugal union through cohabitation, compared with 17% of women born in the 1960s and 6% of women born in the 1950s (Domínguez-Folgueras and Castro-Martín, 2013).

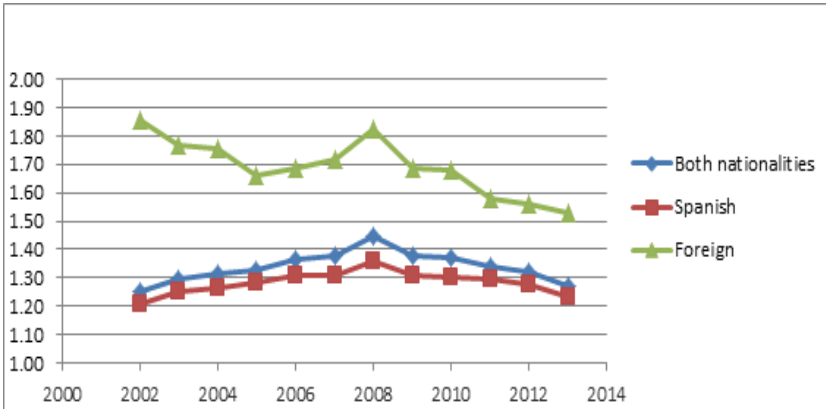
[Figure 3-1] Period TFR and birth-cohort completed fertility Spain 1900–2013



Source: Institut National d'Etudes Démographiques 2014, Database on developed countries (<http://www.ined.fr>) and Myrskylä et al 2012.

⁴ Figures of definitive childlessness are likely to be underestimated, possibly for as much as 5 per cent of total births. According to Devolder et al. (2008), official register data misclassifies multiple births and unknown order births, resulting in a wrong attribution of births by order. Demographic data included in this chapter comes from the website of the National Institute of Statistics (Instituto Nacional de Estadística 2014), unless stated otherwise.

[Figure 3-2] TFR by nationality



Source: Instituto Nacional de Estadística (2014).

3. Population ageing

In Spain, as in other European countries, fertility and mortality rates have been falling for more than a century. In 1900, the proportion of the population aged 65 year and over was 5.2 and 17.4 in 2012, while the population under 15 was 33.2 per cent and 15.2 per cent, respectively. However, the suddenness and depth of the fertility decline experienced since the end of the 1970s has led to an age structure with relatively few children and young people, but also relatively few elderly individuals⁵). The members of the baby boom birth cohorts, born in the 1960s and the 1970s, will reach retirement age starting in

⁵) Cohorts born in the 1930s and 1940s are relatively small in size due to low fertility and high infant mortality.

2025, while, at the same time the younger generations will be relatively depleted because of the past 30 years of low fertility. This situation creates the potential for an important future increase in the proportion of elderly population, which is likely to be a one-time phenomenon, as subsequent birth-cohorts have much lower numbers.

The process of ageing is fuelled by a combination of a very low fertility since the mid 1980s and one of the highest life expectancies in the World (80.0 for men and 85.6 for women in 2013). A third factor has added to this picture in the period comprised between the late 1990s and 2007: a net immigration of more than six million individuals. By 2012 the proportion of foreign born population reached 14.2. This change in migration is directly related to the fast increase in the number of employed individuals, from 13 million in 1997 to more than 20 million in 2007, that could only be partially supplied by native population (Oliver 2008). Immigration has significantly rejuvenated the age structure of the country, as most of them are young adults or their children. Furthermore, family reunification and family formation has proceeded relatively fast (González-Ferrer 2011). However, the bulk of the immigrants have added to the already large numbers of the Spanish baby boomers, potentially aggravating the over-aging momentum expected in the years 2025-50. During the economic recession years net migration has become negative, reaching about

250.000 net out-migrants in 2013.

The most recent projections of the National Institute of Statistics extrapolate current demographic trends into the future (Instituto Nacional de Estadística 2012). Consistently with previous trends, in these projections life expectancy is assumed to increase to 87 years for men and 91 years for women in 2051. Fertility is assumed to slowly increase to 1.56 in 2051. Net migration is assumed to be negative during until 2031 (a yearly average of -130.000 in 2012-2021, and -50.000 in the period 2022-31), and positive afterwards. As a result of these assumptions the total population would decline from 46.8 million in 2012 to 41.6 in 2051. The number of deaths would become higher than births in 2018, and the proportion of individuals aged 65 and over would reach 37 per cent in 2051.

Of course, the above assumptions may be considered as unrealistic. In particular, several arguments can be provided questioning that a negative net migration rate will persist in the future: current trends are based on a period of deep economic crises; given the existing age structure, future entrants in the labor market are unlikely to meet labor demand, if economic growth is positive and sustained; furthermore, the existence of a large community of recent immigrants, with network links with their countries of origin, should stimulate the persistence of positive net migration flows.

Among the several other existing projections, it can be men-

tioned the one made by the Wittgenstein Centre for Population and Global Human Capital in 2012. This projection assumes that life expectancy at birth will increase up to 87.0 years for males and to 93.2 for females in 2050. Based on expert views, it is assumed that total fertility rates will increase to 1.7 children per women in 2050. Following previous projections from Eurostat, net migration is assumed to be moderately positive, reaching 209000 immigrants in 2050. According to this projection, total population would increase to 56 million (43.5 with zero net migration during the period of projection) and an estimated proportion of population aged 65 and over of 30.7 in 2050. Therefore, immigration can be an important contribution in slowing down population aging.

4. Delayed transition to adulthood

The historical gap in educational attainment of the population with respect to more economically advanced European countries has been reduced, albeit not completely eliminated. This can be illustrated by the increase across birth-cohorts in the median ages at leaving the educational system, that were 14 for women and 15 for men for the cohorts born during the 1950s, which respectively become 20 and 19 for the cohorts born two decades later (Baizan et al 2002). The educational attainment of the population shows an important polarization,

which largely reflects parental education and social class differentials (Salido 2007). In 2010, among individuals aged 25-34, the tertiary educated were 45 per cent of women and 34 per cent of men, while individuals with lower secondary or less accounted for 30 per cent of women and 41 per cent of men (OECD 2013). These figures also show a substantial gender gap, which is likely to be the result of increasing returns to education to women relative to men, and the removal to barriers to careers⁶⁾. Women's overtaking in educational attainment has important implications for labor market outcomes, nuptiality and gender relations (van Bavel 2012).

The expansion of the educational system has been one of the main achievements of the Spanish welfare state, together with the public health system, which both provide universal access and are mostly paid through general taxation. The expenditure in educational institutions as a percentage of GDP was 5.6, of which 88 per cent was public spending, including subsidies⁷⁾ (OECD2013). This implies a substantial public contribution to the cost of children. The expansion of the educational system has been politically induced, in order to increase economic productivity⁸⁾. But it also has been driven by the population's

6) Gender educational differentials is a complex phenomenon, in which the educational systems, families and non-cognitive abilities of children interact (Eurydice, European Commission 2010; Pekkarinen 2012).

7) The OECD average spending in education was 6.3 per cent of GDP, of which public spending accounted for 86 per cent, with important variations by country. Data refer to 2009.

social mobility aspirations, in a highly competitive labor market. Since tuition fees are relatively low or nonexistent, the main cost of secondary and higher education for households is children's foregone labor market earnings (which anyway are low due to low wages for the young and chronic high unemployment). While the general investments in children's quality have increased, the related costs have only partially fallen on parents, reducing possible trade-offs with quantity.

The Spanish educational system has been characterized as being highly standardized (with little and un consequential ranking between institutions) and weakly stratified into different tracks (Iannelli and Soro-Bonmatí 2000). Moreover, the general character of its educational contents and credentials offer relatively weak ties to the labor market, lengthening the school-to-work transition. Although the barriers to entry are low, in practice few individuals re-enter to the system, especially after starting a family (Martin-Garcia and Baizan 2006).

Increasing educational enrollment and attainment has been one of the main drivers of the postponement of family formation (Castro-Martin 1992; Baizan 2001; Gonzalez and Jurado-Guerrero 2006). More years spent in education directly delay such transitions as entering the labor force, leaving pa-

8) The expansion was particularly focused on general secondary education and university education, rather than on vocational training. This results in a mismatch between qualifications and labor market demand. Another peculiarity of the system is that educational institutions are located close to residence places, so that students live in the parental home.

rental home and forming a partnership. For women, the effects of a higher education attainment on labor market participation also involve a postponement and reduction of nuptiality and fertility. However this effect seems to decrease across birth-cohorts, and now postponement is pretty much across-the-board. In 2010, the mean age at first birth among college educated women was 32.9, among those with upper secondary education 30.8, and for those with lower secondary education 28.2 (Castro-Martín and Martín-García 2013). Moreover, it has been shown that the field of education is more important for fertility timing than the level of education (Martín-García and Baizan 2006).

Age at labor market integration has been hugely delayed across birth-cohorts. Thus, for males born in the 1950s median age at first job was 16 and 17 for women, while for the cohorts born in the 1970s it had increased by five years (Baizan et al 2002). But these figures do not convey the tremendous deterioration of the labor market situation experienced by the youth in the last few decades. The response of the government to the intensified international competition and the lack of competitiveness of the Spanish economy in the 1980s consisted in a partial deregulation of the labor market⁹⁾. Characteristically,

9) Between the late 1970s and the mid 1990s the last stage of the sectoral shift between employment in agriculture and in industry overlapped with a deep industrial crises, resulting in high unemployment (Marimon and Zilibotti 1998). Furthermore, the timing of the opening to the international markets in connection with the accession to the European Community in 1986

the liberalization of temporary contracts focused in new entrants in the labor market, i.e. young people and women (and later, immigrants), keeping untouched the job guarantees enjoyed by middle aged “male breadwinners” (Polavieja 2003). In a few years after the introduction of the new policy in 1984 the proportion of temporary contracts jumped to one third of total employment. Unemployment rates consistently among the highest in Europe remained, as the typical integration of individuals in the labor market involves a long sequence of unemployment and temporary employment periods. Both, relative real wages of youth as well as the overall weight of wages in the economy show a declining long term trend (Economic and Social Council of Spain 2013). Subsequent reforms of the labor market have not fundamentally changed this model, although the increase in precarity has been significantly extended among middle aged individuals, in a pattern more related to socio-economic status and less to life course stage.

A number of studies have analyzed the effects that uncertainty in employment and income have on family and household formation (Ahn and Mira 2001; De la Rica and Iza 2005; Baizan 2001, 2007; Adsera 2011). For instance, in a study was found that during the 1990s and early 2000s, women unemployed or with a temporary contract show a 40 per cent re-

unfortunately coincided with the arrival to the labor market of the baby boom cohorts.

duction in their first birth probabilities with respect to women in stable employment, accounting for the endogeneity of employment and fertility. The depressing effect is not as strong for second and higher order births, especially for the unemployed. However, all birth orders are strongly affected when the situation of both members of a couple is unstable. All these effects are particularly strong for the low educated (Baizan 2007).

The economic restructuring that started in the 1980s also included a deregulation of the housing market. Public subsidies focused on the owners of dwellings (through the tax system), while rental social housing became less than 2 per cent of the total. As rented housing became economically unattractive, its share progressively declined to less than 10 per cent of total housing (Inurrieta 2007). Purchasing a house is a large investment that usually involves a lengthy period of saving, with the result of delaying household formation and making it less flexible (Holdsworth and Irazoqui-Solda 2002).

The response of families to the above changes has been the one to be expected from a familistic system. Extended parental support to young people in the form of housing and board, but also social and economic capital to help continuing education and finding a job, provides the base for adult life, including family formation. This also means delaying all transitions. For instance, young unemployed can wait to find the "right" job, avoiding low status jobs, and keeping high unemployment rate

s¹⁰). Family formation is delayed, as the departure from parental home is generally coincident in time with marriage or entering cohabitation¹¹) (Baizan2001). Of course, parental ability to provide support is socially differentiated, maintaining intergenerational social differentials.

This way of household formation makes unlikely both young adult poverty (unless parents are also poor) and family formation at young ages (teenage births are virtually inexistent, except for some immigrant groups). Until recently, it also meant few unmarried cohabitation, but this has changed (Dominguez-Folgueras and Castro-Martín 2013). Parents are still involved in helping new couples to settle, e.g. by helping with housing costs, or finding a job, but seem to be highly tolerant with respect to cohabitation. Both the young and the parental generation tend to view cohabitation as equivalent to marriage¹²). This living arrangement is generally quite stable, has been increasingly associated to a relatively high fertility,

10) Substantial employment shortages appeared in the late 1990s, in spite of unemployment rates above 15 percent. Many new job vacancies were filled by immigrants, which also favored wage moderation and the expansion of care-related jobs and domestic service.

11) For instance, for the cohorts born in the 1960s 75 per cent of women and 61 per cent of men left parental home for the first time and started their first married or unmarried cohabitation simultaneously (i.e. the same month).

12) Unmarried cohabitation usually takes place at a relatively high age, and often starts simultaneously with the departure from parental home. Therefore, in these respects it is quite similar to marriage. Living alone or independently from parents during young adulthood is much less common in Spain than in most European countries, a situation that does not facilitate entering cohabitation.

and is not any longer characteristic of highly educated couples (Creighton et al 2013). As noted above, in recent years births to single women have increased rapidly in connection with the diffusion of cohabitation.

5. The transition to a dual-earner model

Despite unfavorable policies and the cyclical deep economic crises of the last three decades, the increase in women's labor market participation has been constant, reaching 69 per cent in 2013 for the age group 15-64 (Eurostat 2014). However, most women under 25 are students, and cohorts born before the 1960s have a much weaker attachment to the labor market. When we focus on the main childbearing and childrearing ages, i.e. 25-49, women's labor force participation rates are nearly universal: 84 per cent (Figure 3). Data however show that the current economic crisis has had a devastating effect on female employment in Spain, involving the substitution of employment under fix-term contracts by unemployment.

The changes amount to a generalization to women of the traditional male model of work and welfare (Gershuny 2000; Lewis 2002). This has also meant the generalization to women of the employment-based welfare entitlements, including rights to unemployment benefits, retirement pensions, child benefits, and maternity leave. Employment is crucial for getting access

to individually based social rights (as opposed to family based), given the absence of universal income support measures and the extreme weakness of means tested policies (including child benefits –see below).

The increase in women’s activity in Spain is strongly explained by the sharp increase in women’s education level, although educational differentials in labor market participation are quickly disappearing (Leon and Migliavacca 2013). The entrance of women into the labor market is likely to have been indirectly stimulated by the erosion of the “family wage” and by flexibilization mechanisms. The relatively high levels of horizontal and vertical segregation by gender in the labor market show that high participation rates involves trade-offs with equality (Bettio and Verashchagina 2009).

Women’s labor market integration has taken place under the same conditions as men, due to the lack of adaptation of the labor market to accommodate care needs. The standard work week is relatively long for both men and women: full-time employed men work on average 42.7 hours, and the figure for women is 40.4¹³). Long standard work weeks have been shown to be a barrier to the involvement of fathers in childcare and housework (Hook 2010; Baizan et al 2014), and does not facili-

13) The 40 hour work week limit was legally introduced in the early 1980s, but in the one hand this average limit is often not respected, as employers often require longer working hours from their employees; and in the other hand, many sector agreements stipulate 37.5 hours week (most notably including public sector employees).

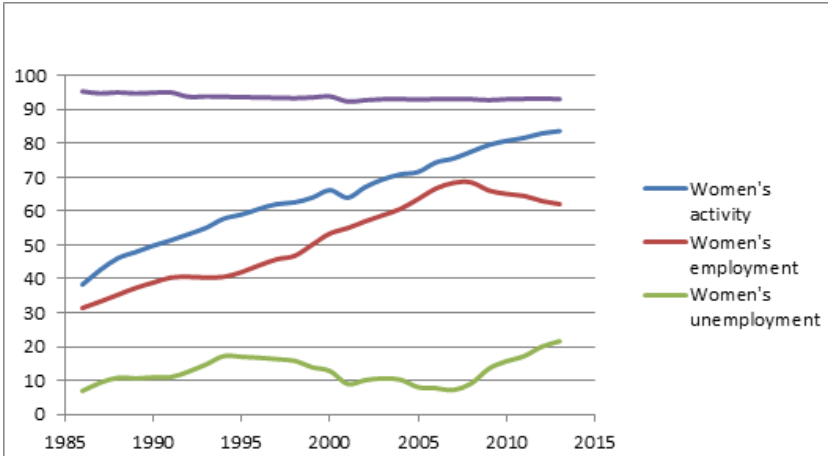
tate women's participation on a full-time basis (Rubery, Smith, and Fagan 1998). As noted above, women's labor force participation rates are similar to those found in Germany or in Britain, but unlike those countries much less part-time employment is available. In 2013 about 25 per cent of employed women had a part-time job (this figure has sharply increased in recent years in connection with the economic crises and labor market reforms). Little part-time job availability means that women often have to choose between full-time or not working (Del Boca 2003). Moreover, in most cases, part-time is associated with precarious labor market situations, low status jobs with family unfriendly timetables, and with employer's needs rather than work-family conciliation reasons.

The difficulties in making compatible employment and care needs are exacerbated by the chronic high unemployment rate, that strongly reduces the probability of re-entry after a period out of the labor market. Moreover, interruptions are heavily penalized in a system in which access to jobs work through a queue logic, and where seniority mechanisms are important, reducing the probabilities of getting a job with a similar status or pay after re-entry. As a result, women postpone having children until they have a stable job situation. Incentives to postpone childbearing are thus not restricted to individuals with career jobs or to the highly educated, although they may have additional incentives to postpone, based on career planning or

consumption smoothing motives (Gustafsson 2001).

The increase in gender equality in employment has not been matched by an equivalent increase in gender equality at home, although some changes in that direction have occurred. The results of the time use surveys of 2002 and 2009 are illustrative in that respect (García-Roman and Ajenjo-Cosp 2012). They show that for couples under the age of 60 there is some gender convergence in the number of average daily hours (Monday to Thursday) devoted to employment: women worked 6:49 hours in 2002 and 6:42 in 2009, while men devoted to their jobs 8:46 and 8:26 hours respectively. The equivalent figures for domestic work (excluding care) were: 5:30 and 4:42 for women, while men devoted 2:37 and 2:54 hours respectively. The relative role of women as main providers of care seems to be eroding, as they devoted 2:13 hours in 2002 and 2:28 in 2009. In the same period men increased their dedication to family care from 1:19 to 1:44 hours. There are some signs that a higher father involvement in childcare may exert a positive effect on fertility also in the Spanish case (Brodmann et al 2007; Cook 2009).

[Figure 3-3] Activity, Employment and Unemployment Rates Age 25-49, Spain, 1986-2013



Source: Eurostat 2014.

6. The expansion of formal childcare

The formal childcare system has expanded with a significant time lag with respect to the increase in women's labor force participation. The enrollment rate in schools for children 3 to 5 has become practically universal by the late 1990s, when started to substantially increase school enrolment for children under 3. The percentage of children under 3 enrolled in educational centers was 31 in 2011-12 (Figure 4). However, this last figure takes into account officially recognized educational centers only. When all care centers are considered the percentage jumps to 44. Furthermore, not center based regular care services (paid or unpaid) account for 16 percent of children

(Ministry of Education 2012; National Institute of Statistics 2012). This last figure may include some of the children enrolled in education and care centers, so the percentages should not be added. However, the average number of weekly hours in educational and care centers is 26, and those cared by childminders is 24 hours, suggesting that most of childminders operate in a full time basis.

The Ministry of Education provides detailed data on enrollments by age: 10 per cent of children under one, 32 per cent of one year olds, and 50 per cent of 2 year olds attend educational centers. About a half of children were enrolled in public institutions, while non public centers involved a variety of providers, including non for profit institutions. Prices in the public sector are moderate: about 200-350 euros per month and child, including lunch and care outside school hours¹⁴). Usually public centers have several regulations that stipulate preferential access and a lower price for some categories of families, such as low income or one parent families. The range of prices in the private sector is much wider, although it should also be taken into account that non public centers may also be subsidized, depending on regional policies.

Substantial geographical differentials exists in the availability

14) Women's median gross wage was 1400 euros per month (men's: 1790 euros), according to the national Structure of Earning Survey of 2011 (Encuesta de Estructura Salarial, National Institute of Statistics 2014). The minimum monthly wage set by national legislation for a full-time job was 645 euros in 2013.

of early education and care for children under 3, as the result of the diversity of policies adopted by regional and local governments. However, a rapid expansion of educational facilities took place since 2008, when the Ministry of Education adopted a new law called *Educa3*. This program especially expanded the number of slots in some of the regions that previously more blatantly had lagged behind (Andalucia and Castilla la Mancha¹⁵), but not in others (Canary Islands, Extremadura).

All these data suggests that formal care is widely available (albeit the demand is far from being fully met, and waiting lists are long¹⁶), being a crucial way of allowing compatibility of childrearing with paid work. The increase in formal childcare availability since the mid 1990s has stimulated labor force participation of women (Baizan and Gonzalez 2007). The consistent increase of female labor force participation suggests that without childcare expansion fertility rates would have dropped to much lower levels, and is likely to explain part of the increase in fertility experienced in the early 2000s. A study using regional fixed effects methods shows a significant and positive effect of day care availability on both, first and higher order births (Baizan 2009). However, important gaps in formal

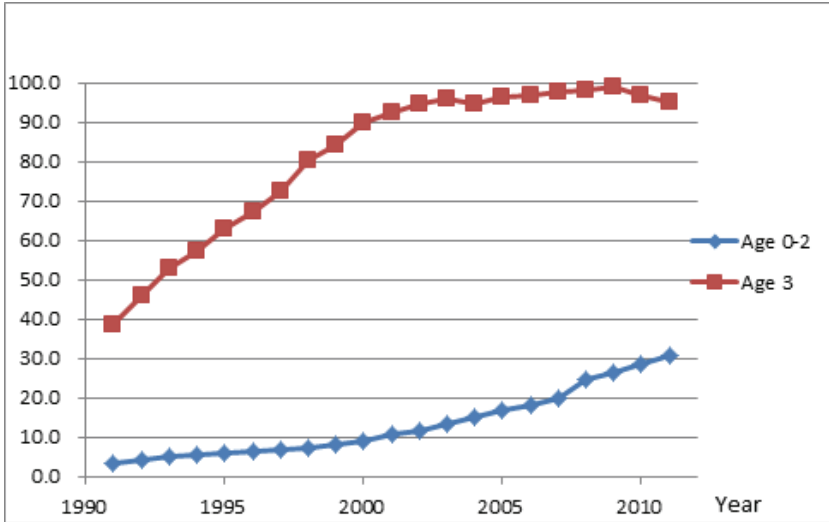
15) The region of Andalucia increased its enrollment rate from 6 to 24 percent between 2007 and 2008.

16) In the last few years, in connection with economic crises, price increases and lower women's employment seem to have shortened waiting lists in many cities (El Pais 2014).

childcare for children under three persist. These are especially serious in the case of children under one, since maternity/paternity leave from employment is very short (see below). Children of low educated mothers attend less often formal childcare (Sarasa 2011). Although center based care is usually full time (about eight hours per day, including lunch time), it may not suffice to match parental working times, especially in the public childcare sector. As a result, grandmothers still have an important role in care (Fernandez-Cordon and Tobio-Soler 2005). The fact that the demand for formal childcare is much higher than the availability means that parents must enroll children well in advance (just after the birth of the child) to secure a place, with little flexibility to adapt to changes in parents' employment situation or geographical mobility.

The educational content of most of the formal care system for children under 6 should be emphasized. As a number of studies have shown, early education is key in later educational attainment, in leveling social class inequalities, and in the acquisition of cognitive and non cognitive skills (European Commission 2014; Heckman 2006). It is therefore crucial in rising new cohorts with a higher potential for economic productivity. The adaptation to an ageing society not only involves a sustainable fertility level, but also an increase in the economic performance of the future active population.

[Figure 3-4] Percentage of Children Enroled in Schools by Age Spain 1991-2012



Source: Ministry of Education 2014.

7. Short maternity/paternity leave

Mothers are entitled to a leave from employment of 16 weeks since 1989, with 100 per cent compensation of previous wage, up to a relatively high ceiling¹⁷). In addition, a parental leave of up to three years was established in 1980. However, since parental leave is unpaid, only about 3% of those eligible mothers and 0.1% of men make use of it, making parental leave of little practical relevance (Lapuerta et al. 2011). In order to claim

¹⁷ Self-employed mothers had the right to an allowance from 2006, and full equality with respect to dependent workers has not been achieved until 2014.

leave rights, it is necessary to comply with a minimum amount of contributions into Social Security, which are normally set at 180 days for the seven years immediately before the beginning of both leaves, or in the absence of this, 360 days during the parent's entire working life (Ministerio de Empleo Seguridad Social 2014). As a consequence, in practice the leave system excludes many women with an insufficient record of contributions, most notably many unemployed women, and women working in the underground economy. Women with fixed-term contract often avoid taking maternity leave (i.e. having a child), as this may lead to non-renewal of the contract, even in the public sector. Benefit level is closely related to previous earnings history, creating additional incentives to postpone child-bearing until a stable position is attained.

A father leave of two weeks was introduced in 2007, in addition to the two days previously existing. This time off from work can be taken simultaneously or after the end of the mother's leave. Father's leave was planned to be extended to four weeks in 2013, but for budgetary restrictions this extension has been delayed.

Overall, there is relatively little economic and normative support to the familialization of child care in the form of maternity or parental leave, with respect to most "conservative" countries and to social-democratic countries. Although leave provisions are gendered, their effective short duration implies few neg-

ative consequences for the women's labor market trajectory and income. Moreover, there seems to be no coordination with formal childcare policies, resulting in the care gap mentioned above during most of the child's first year of life (leave legislation is established by the Ministry of Labor, while childcare mostly depend from the education ministries of regions and from municipalities).

8. Child allowances and tax deductions

Spain has had during the last few decades comparatively low levels of public expenditure on family benefits and tax brakes towards families. In 2009, after several increases in both of them, the former amounted to 0.67 per cent of GDP, and the later 0.25 per cent (OECD 2013b). During the dictatorship period (1939-1977) the government provided a substantial package of "traditional" family support, alongside a pronatalistic rhetoric (Iglesias de Ussel and Meil 2001). This policy consisted in monthly payments for workers' dependents, birth grants and special benefits for dependent women, granted through the social security system. Lack of political support to these measures led to their practical disappearance during the 1970s, as these benefits were not updated with inflation (Bianculli et al 2013).

Apart from small tax family deductions, the most relevant policy introduced in the late 1970s was the introduction of individual taxation for married couples, that effectively elimi-

nated incentives for gender role specialization. This tax system implies that two-earner households find it advantageous to file separately, while one-earner households benefit from joint filing.

More recently, there have been several attempts to increase direct economic support to parenthood. However, the amounts involved have been generally modest, implying relatively small effects in terms of fertility and female employment (des)incentives. In 1999 the government introduced some tax deductions for households with children, that were substantially increased (from 300 to 1200 euros per year) in 2003 for children under the age of three. In addition, a new tax credit of 1200 euros per year was introduced for mothers with children under the age of three, conditional on employment¹⁸). A careful study of the effects of the 2003 reforms found that they significantly increased both fertility (by almost 5%) and the employment rate of mothers with children under three (by 2%). These effects were more pronounced among less educated women (Azmat and Gonzalez 2010).

In 2007 was introduced a “baby bonus” of 2500 euros paid at the birth of each child. Using regression discontinuity-type design it has been shown that this benefit caused a sharp increase in births in 2008 (Gonzalez 2013). This study also found that families who received the benefit did not increase their overall

18) The fiscal reform of 2015 foresees further increases in family deductions.

expenditure or their consumption of directly child-related goods and services. Instead, eligible mothers stayed out of the labor force significantly longer after giving birth, which in turn led to their children spending less time in formal child care and more time with their mother during their first year of life. This benefit was eliminated in 2010 for budgetary reasons and because it had not political consensus.

9. Conclusions

Fertility levels have remained very low since the mid 1980s, implying a future rapid ageing of the population. However, this stagnation of fertility levels during this period hides substantial changes in the welfare model, involving shifts in the share of the cost of children between social institutions, coupled with a clear departure from the previous familistic and gender inequalitarian model. In the previous pages I have identified the main characteristics of the emerging model of welfare, several of which are unique with respect to most European countries. At the same time, some of its traits are still not well settled, as the processes that make-up the new model are still unfolding and several policy measures are very recent. This may include some of the important welfare gaps identified above. The path deviation in the model of welfare has not resulted up to now into removing Spain from the list of countries with very low fertility,

but may well lead to changes in the future levels and social profile of fertility.

Perhaps the most consistent structural trend has been the rapid increase in women's labor force participation, which has generalized the dual full-time worker model of household. One of consequences of this process has been that labor market conditions have become increasingly relevant for fertility, as most women of childbearing ages are in the labor market. Deregulation of the labor market and persistent high unemployment create incentives to postpone and reduce fertility. The still limited availability of part time work and difficulties to access the labor market create additional disincentives for fertility. Since long lasting insecurity and precariousness tend to concentrate on the life courses of the low educated, family formation patterns are increasingly linked to educational and occupational status. Divorce and cohabitation have already changed to a pattern were the highest rates are inversely related to educational status, and fertility is likely to follow.

Increased gender equality in labor market participation has not been matched by a similar increase in men's unpaid work, although time use data seems to point to some movement in that direction. This fits the "lagged adaptation" scenario postulated by Gershuny (2000), common to many advanced countries. These processes have been fueled by the remarkable overtaking in women's education with respect to men.

Similarly, policies favoring early childhood education and care (via public or market provision) have been key. Overall, the role of households and women as providers of care and other services has declined, although grandmothers still play a role in filling the remaining care gaps in children's early childhood, especially during the first year of life.

Given the familistic roots of the Spanish welfare state, it is in a way surprising that policies have systematically avoided to provide support to the familialization of care. Leave policies have remained ungenerous in economic terms, as have the system of family benefits and tax allowances. The limited availability and the characteristics of part-time jobs do not facilitate either childcare at home. These policies have resulted in the generalization couples with two full-time jobs. An unintended effect of these policies, given the weakness of the general income support system, has being the high rates of child poverty, which consistently rank among the highest in the Europe.

References

- Adsera, A. (2011). The interplay of employment uncertainty and education in explaining second births in Europe. *Demographic Research*, 25(16), 513-544.
- Ahn, N. and Mira, P. (2001). Job bust, baby bust? Evidence from Spain. *Journal of Population Economics*, 14(3), 505-521.
- Azmat G. and González, L. (2010). Targeting fertility and female participation through the income tax. *Labour Economics*, 17 (2010), 487-502.
- Baizan, P. (2001). Transitions to adulthood in Spain. In Corijn M. and Klijzing E. (Eds.), *Transitions to Adulthood in Europe*, series European Studies of Population (Vol. 10, pp. 279-312). Dordrecht: Kluwer Academic Publishers.
- Baizan, P., Michielin, F. and Billari, F.C., (2002). Political Economy and Life Course Patterns: The Heterogeneity of the Occupational, Family and Household Trajectories of Young Spaniards. *Demographic Research*, 6 (8), 191-240.
- Baizan, P. (2009). Regional child care availability and fertility decisions in Spain. *Demographic Research*, 21(27), 803-842.
- Baizan, P. (2007). The impact of labour market status on second and higher-order births. A comparative analysis based on the European Community Household Panel. In Gøsta Esping-Andersen (ed), *Family Formation and Family Dilemmas in Contemporary Europe* (pp. 93-127). Madrid: Fundación BBVA.
- Baizan, P. and González, M.J., (2007). ¿Las escuelas infantiles son la solución? El efecto de la disponibilidad de escuelas infantiles (0-3 años) en el comportamiento laboral femenino. In V.

- Navarro (ed.), *La Situación Social en España* (vol. 2, pp. 411-444). Madrid: Biblioteca Nueva.
- Baizan, P., Domínguez, M. and González, M.J. (2014). Couple Bargaining or Socio-Economic Status? Why Some Parents Devote More Time to their Children than Others. *European Societies* 16(1), 3-27.
- Bettio, F. and Verashchagina, A. (2009). Gender segregation in the labour market. Root causes, implications and policy responses in the EU. Luxembourg: European Commission, Publications Office of the European Union.
- Bianculli, A., Jenne, N. and Jordana, J. (2013). From Dismantling by Default to Arena Shifting? Child Benefits Policy in Spain. In Michael W. Bauer, Andrew Jordan, Christoffer Green-Pedersen, and Adrienne Héritier. *Dismantling Public Policy: Preferences, Strategies, and Effects*. Oxford Scholarship Online. Oxford: Oxford University Press.
- Bledsoe, C., Houle, R. and Sow, P. (2007). High fertility Gambians in low-fertility Spain: the dynamics of child accumulation across transnational space". *Demographic Research* 16(12), 375-412.
- Brodmann, S, Esping-Andersen, G. and Guell, M. (2007). When fertility is bargained. Second births in Denmark and Spain. *European Sociological Review*, 23 (5). 599-613.
- Cabré, A. (1989). *La reproducció de les generacions catalanes, 1856-1960*. PhD thesis. Universitat Autònoma de Barcelona.
- Castro-Martín, T. (1992). Delayed Childbearing in Contemporary Spain: Trends and Differentials. *European Journal of Population*, 1992(8), 217-246.
- Castro-Martín, T. and Martin-Garcia, T. (2013). The fertility gap in

- Spain: Late parenthood, few children and unfulfilled reproductive desires. In Esping-Andersen, G. The fertility gap in Europe: Singularities of the Spanish case. Social Studies Collection (36, pp. 45-81). Barcelona: La Caixa.
- Castro-Martín, T. and Rosero-Bixby, L. (2011). Maternidades y fronteras. La fecundidad de las mujeres inmigrantes en España. *Revista Internacional de Sociología* 69(1), 105-137.
- Cooke, L. P. (2009). Gender equity and fertility in Italy and Spain. *Journal of Social Policy*, 38, 123-40.
- Creighton, M., Esping-Andersen, G., Rutigliano, R. and van Damme, M. (2013). Is fertility influenced by couple instability?. In Esping-Andersen, G. The fertility gap in Europe: Singularities of the Spanish case. Social Studies Collection 36 (pp. 102-120). Barcelona: La Caixa.
- Dalla Zuanna, G. (2001). The banquet of Aeolus: A familistic interpretation of Italy's lowest low fertility. *Demographic Research* 4(5), 133-162.
- De la Rica, S. and Iza, A. (2005). Career planning in Spain: do fixed-term contracts delay marriage and parenthood?. *Review of Economics of the Household*, 3, 49-73.
- Del Boca, D. (2003). The effect of child care and part-time opportunities on participation and fertility. *Journal of Population Economics*, 15, 549-73
- Devolder, D. Merino, M. and Treviño, R. (2008). The use of population censuses to correct the distribution of births by order of the vital registration system. Application to Spanish data in the 1975-2005 period. *Papers de Demografia* 335. Centre d'Estudis Demogràfics, Universitat Autònoma de Barcelona.

- DiPrete, T. A., Morgan, S. P., Engelhardt, H., & Pacalova, H. (2003). Do cross-national differences in the costs of children generate cross-national differences in fertility rates? *Population Research and Policy Review*, 22, 439-477.
- Domínguez-Folgueras, M. and Castro-Martín, T. (2013). Cohabitation in Spain: No longer a marginal path to family formation. *Journal of Marriage and Family* (forthcoming).
- Economic and Social Council of Spain, Consejo Económico y Social (2013). *Distribución de la Renta en España: Desigualdad, cambios estructurales y ciclos. Informe 3/2013*. Madrid: Consejo Económico y Social.
- El País (2014). *Desiguales desde la guardería*, 12 July, Madrid. (www.elpais.es).
- Esping-Andersen, G. (1999). *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.
- Eurostat (2014). *Statistics. Labor Market*. European Commission. Luxembourg: Eurostat.
http://epp.eurostat.ec.europa.eu/portal/page/portal/labour_market/.
- European Commission (2014). *Key Data on Early Childhood Education and Care in Europe*. Eurydice and Eurostat Report. Luxembourg: Publications Office of the European Union.
- Eurydice, European Commission (2010). *Gender Differences in Educational Outcomes: Study on the Measures Taken and the Current Situation in Europe*. Brussels: Education, Audiovisual and Culture Executive Agency. (<http://www.eurydice.org>).
- Fernández Cordón, J. A. and Tobío Soler, C. (2005). *Conciliar las responsabilidades familiares y laborales: políticas y prácticas sociales*. Madrid: Fundación Alternativas. Documento de trabajo

79/2005.

- Ferrera, M. (1996). The Southern Model of Welfare in Social Europe. *Journal of European Social Policy* 6 (1), 17-37.
- García-Román, J. and Ajenjo-Cosp, M. (2012). Cambios en el uso del tiempo de las parejas ¿estamos en el camino hacia una mayor igualdad?. Centre d'Estudis Demogràfics, Universitat Autònoma de Barcelona. *Papers de Demografia* 408.
- Gershuny, J. (2000). *Changing Times: Work and Leisure in Postindustrial Society*. Oxford: Oxford University Press.
- Giddens, A. (1991). *Modernity and self-identity*. Cambridge: Polity Press.
- González, L. (2013). The Effects of a Universal Child Benefit on Conceptions, Abortions, and Early Maternal Labor Supply. *American Economic Journal: Economic Policy* 5(3).
- González, M.J. and Jurado-Guerrero, T. (2006). Remaining childless in affluent economies: A comparison of France, West Germany, Italy and Spain, 1994-2001. *European Journal of Population*, 22(4), 317-352.
- Gonzalez-Ferrer, A. (2011). Spousal Reunification among Recent Immigrants in Spain: Links with Undocumented Migration and the Labour Market. In A. Kraler, E. Kofman, M. Kohli, and C. Schmoll, (eds.). *Gender, Generations and the Family in International Migration*. (pp. 193-218). Amsterdam: Amsterdam University Press.
- Gustafsson, S. (2001). Optimal age at motherhood. Theoretical and empirical considerations on postponement of maternity in Europe. *Journal of Population Economics*, 14(2), 225-247.
- Heckman, J.J. (2006). *Skill Formation and the Economics of Investing*

- in Disadvantaged Children. *Science*, 312, 1900-1902.
- Holdsworth, C. and Irazoqui-Solda, M. (2002). First housing moves in Spain: An analysis of leaving home and first housing acquisition. *European Journal of Population*, 18(1), 1-19.
- Hook, J. L. (2010). Gender Inequality in the Welfare State: Sex Segregation in Housework, 1965-2003. *American Journal of Sociology*, 115(5), 1480-1523.
- Iannelli, C. and Soro-Bonmatí, A. (2000). The transition from school-to-work in Southern Europe: the cases of Italy and Spain, paper prepared for the CATEWE project.
- Iglesias de Ussel, J. and Meil, G. (2001). *La política familiar en España*. Barcelona: Ariel.
- Institut National d'Etudes Démographiques (2014). Database on developed countries (<http://www.ined.fr>).
- Instituto Nacional de Estadística. (2012). *Proyecciones de población 2012* (www.ine.es).
- Instituto Nacional de Estadística. (2014). *Inebase* (www.ine.es).
- Inurrieta, A. (2007). Mercado de vivienda en alquiler en España: más vivienda social y más mercado profesional. Laboratorio de Alternativas. Documento de Trabajo 113/2007. Madrid: Fundación Alternativas.
- Lapuerta, I., Baizan, P. and González, M.J., (2011). Individual and Institutional Constraints: An Analysis of Parental Leave Use and Duration in Spain. *Population Research and Policy Review*, 30, 185-210.
- León, M. and Migliavacca, M. (2013). Italy and Spain: Still the Case of Familistic Welfare Models?. *Population Review*, 52(1).
- Lewis, J. (2002). Gender and welfare state change. *European Societies*,

4:4, 331-357.

- Marimon, Ramon & Zilibotti, Fabrizio, (1998). "Actual' versus 'virtual' employment in Europe. Is Spain different?, *European Economic Review*, 42(1), 123-153, January.
- Martín-García, T. and Baizan, P., (2006). The impact of the type of education and educational enrolment on first birth. *European Sociological Review*, 22(3), 259-275.
- McDonald, P. (2000). Gender equity, social institutions and the future of fertility. *Journal of Population Research*, 17 (1), 1-15.
- Ministerio de Empleo y Seguridad Social (2014). Normas sobre paternidad y maternidad. (www.seg-social.es/).
- Ministry of Education (2012). Estadística de las Enseñanzas no universitarias. Curso 2011-2012. Estadística y Estudios. Madrid: Ministerio de Educación, Cultura y Deporte.
- Moreno, L. (2006). The Model of Social Protection in Southern Europe: Enduring Characteristics. *Revue Française des Affaires Sociales* 5, 73-95.
- Myrskylä, M., Goldstein, J.R. and Cheng, Y. A. (2012). New cohort fertility forecasts for the developed world. Rostock, Max Planck Institute for Demographic Research, MPIDR Working Paper WP-2012-014.
- Myrskylä, M., Kohler, H.-P. and Billari, F.C. (2009). Advances in development reverse fertility declines. *Nature*, 460(7256): 741-743.
- Naldini, M. (2003). *The Family in the Mediterranean Welfare States*. London/Portland: Frank Cass.
- National Institute of Statistics, Instituto Nacional de Estadística (2012). Encuesta de Condiciones de Vida. Año 2012. INE (tabla D1.5).

- National Institute of Statistics, Instituto Nacional de Estadística (2014). Encuesta Anual de Estructura Salarial 2011. Madrid: INE (www.ine.es).
- Nash, M. (1991), Pronatalism and motherhood in Franco's Spain. In G. Bock and P. Thane (Eds.): *Maternity and Gender Policies: Women and Rise of the European Welfare State* (pp. 160-177). London, Routledge.
- OECD (2013a). *Education at a Glance 2013*. Paris: OECD.
- OECD (2013b). *Families and Children* (www.oecd.org/social/family). Paris: OECD.
- Oliver, J. (2008). Inmigración y mercado de trabajo en 2007: el último impulso de la década prodigiosa. In E. Aja, J. Arango and J. Oliver (eds.). *La inmigración en la encrucijada*. (pp. 16-35). Barcelona: Edicions Bellaterra.
- Polavieja, J. G., (2003). *Estables y precarios. Desregulación laboral y estratificación social en España*. Madrid: Centro de Investigaciones Sociológicas.
- Pekkarinen, T. (2012). *Gender Differences in Education*. Institute for the Study of Labor (IZA), Discussion Paper, 6390.
- Reher, D. (1998) Family ties in Western Europe: persistent contrasts. *Population and Development Review*, 24(2), 203-234.
- Rindfuss, R., Guzzo, K., & Morgan, S. P. (2003). The changing institutional context of low fertility. *Population Research and Policy Review*, 22(5-6), 411-438.
- Rubery, Jill, Mark Smith, and Colette Fagan. 1998. *National Working-Time Regimes and Equal Opportunities*. *Feminist Economics* 4, 71-101.

- Salido, O. (2007). El Informe PISA y los retos de la educación en España. Documento de Trabajo 192 . Madrid: Fundación Alternativas.
- Sarasa, S. (2011). Deferred Effects of Nursery School on Adolescents' School Performance in Spain. Deparment of Political and Social Sciences, Universitat Pompeu Fabra. DemoSoc Working Paper 2011-40 (<http://sociodemo.upf.edu/>).
- Van Bavel, J. (2012). The reversal of gender inequality in education, union formation and fertility in Europe. *Vienna Yearbook of Population Research*, 10, 127-154.



Chapter 4

Population Aging in the UK: A Matter of Perspective

Wendy SIGLE-RUSHTON

Professor,

London School of Economics and Political Science

Gender Institute



4

Population Aging in the UK: << A Matter of Perspective

1. Introduction

In 1985 the UK had one of the oldest populations in Europe. With 15 percent of its population aged 65 and older, it ranked second only to Sweden (with 17 percent) amongst the countries that now comprise the EU-27 (Office for National Statistics [ONS] 2012). The previous two decades were marked by a good deal of (largely unanticipated) demographic fluctuation. A baby boom in the 1960s was followed in the next decade by a substantial fall in the number of births. Between 1964 and 1969, the average annual number of births stood at 961,230. By the second half of the 1970s, this had fallen to an average of just 690,321 births per year. In 1976, the number of deaths exceeded the number of births for the first time in the 20th century. Numbers of recorded births only started to recover in the early 1980s, in part because the 1960s baby boom cohorts were entering their reproductive years. Over this same period, the total fertility rate (TFR) fell from nearly three to a low of 1.69 (in 1977), eventually stabilizing at around 1.8 in the early 1980s.

Twenty-five years later, depending on how you look at it, the UK did not appear to be quite so old. The percentage of the population aged 65 and older was, in 2010, slightly below the EU-27 average. The UK population had continued to age, but the pace of change was slow compared to most of the rest of Europe. The share of the elderly population had increased by only about 1.3 percentage points compared to an EU-27 average of 4.6 percentage points. Some countries, such as Germany, Italy and Lithuania, recorded increases of more than 6 percentage points. Moreover the UK looked relatively well placed to support a larger elderly population. Between 1985 and 2010, the old age dependency ratio increased from 22.9 to 24.6 in the UK while the EU-27 average climbed from 19.2 to 26.1¹⁹).

The UK's fall from the top to the middle of the European rankings was facilitated by a combination of near replacement fertility and positive net immigration. Over the entire period from 1985 until 2010, the TFR averaged 1.75. As in 1985, though, the decades leading up to 2010 were marked by demographic fluctuations. The number of births fell throughout the 1990s, and in the early years of the 21st century, they reached levels not seen since the 1970s. Between 1985 and 1990 the TFR increased slightly from 1.79 to 1.83, after which it fell year on

19) <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsdde510>

year reaching a low of 1.63 in 2001. From that point, though, both indicators rebounded rapidly. In 2007, the TFR reached 1.87. In subsequent years (at least until 2013²⁰), it has consistently exceeded 1.9. Along with Sweden, France, and Ireland, the UK ranks as one of the highest fertility countries in the European Union.

In addition to rising fertility, the UK has recorded positive net immigration from 1994 with marked increases after 2001 and then again after 2004. Immigration has had an immediate and discernible impact on the size and structure of the UK population. Until the late 1990s, natural increase was, by far, the predominant driver of population growth. Since then immigration has made a substantial direct contribution to UK population growth, and between 2012 and 2013, just over half of the population growth (of 0.63%) was due to natural increase (ONS 2014). Because migration tends to select young, working age adults, net migration has had a moderating effect on population aging by increasing the relative size of the population below age 65. The migration of young adults also has an immediate impact on some indicators like the old age dependency ratio. Moreover, many of the young migrants will have gone on to have children after they arrived in the UK. Although

20) According to provision estimates from the Office of National Statistics the provisional TFR for 2013 was 1.83.

<http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/pop/september-2014/index.html>

post-2001 immigration is not entirely responsible for the upward trend in fertility over the same period, it does appear to have made some contribution (Zumpe, Dorman, and Jefferies 2012).

While recent trends have reduced the pace of change and the potential impact of population aging, they have also brought, particularly in the last decade, fairly rapid population growth. The 7 percent increase recorded in the 2011 census was the largest decennial growth in the UK population since 1961. This means that about half of the population growth since 1964 took place in the last decade. According to the 2011 census, the UK population was 500,000 higher than suggested in the 2010 population projections (ONS 2013).

Projections indicate that, by 2035, the old age dependency ratio in the UK will increase to 37.9 (EC 2012, pg 299, Tables A.11 and A.12)²¹). This is due, in part, to the large 1960s 'baby boom' cohorts, now in their 40s and 50s, that will cross the age 65 threshold. While an increase in the elderly population to 23 percent (EC 2012, pg 299, Table A.12) is not insubstantial, it represents a modest pace of change relative to what has been projected for many other EU countries. By 2035 only 4 of the EU-27 countries are projected to have a smaller share of older people in their populations (ONS 2012). If recent projections are accurate, the UK could have, in the course of 50 years,

21)http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-2_en.pdf(pg299).

gone from being one of the oldest to one of the youngest European countries.

Whether this demographic future materializes depends, of course, on whether the projections are based on an accurate depiction of future trends. To this end, the Office for National Statistics [ONS], has often sought advice from an expert advisory panel when setting its assumptions. As the largest component of population change, the accuracy of fertility assumptions is particularly important. The 2010-based projections assume that completed family size will fall gradually from 1.98 for women born in 1960 and stabilize at around 1.84 for cohorts born from 2005 onwards²²). Is this realistic or likely? As Hobcraft (1996) notes, “the grossest errors [in national population projections and forecasts] have resulted from failures (or perhaps just inability?) to anticipate turning points in fertility trends (487). Even if we put these “grossest errors” to one side, with few exceptions, long-term fertility assumptions have tended to exceed actual fertility rates (Shaw 2007). The 1985-based population projections assumed that the TFR would climb steadily over the next 15 years and stabilize in 2002-3 at around 2.01. Although these projections were the first to assume long-term fertility at below replacement level, the long-term assumption overestimated actual fertility rates

22) The more recent 2012 projections assume slightly lower short-term rates and which stabilize at 1.89.
http://www.ons.gov.uk/ons/dcp171778_334975.pdf

even during recent years when rates were at their highest. It is therefore pertinent to seek to explain and understand the past trends.

From a cross-national policy perspective, the UK provides a potentially instructive case study. Population issues, low fertility in particular, are not considered to be a major policy concern or an appropriate target for Government intervention. With its liberal market economy and residual approach to welfare, relatively high fertility has been sustained without a good deal of expenditure or policy effort. For those who want to argue that the "highest-low" fertility achieved in countries like France and Sweden can be attributed to their generous family policies, similarly high fertility (almost always based on the TFR) in the UK, and indeed in the rest of the Anglosphere, must be explained (Sigle-Rushton 2009; 2014). With that goal in mind, the following section provides a brief and overview of political and institutional developments which have conditioned the framing and response to population issues and fertility. I then discuss how UK fertility rates have been sustained at moderately high levels following the fertility declines in the 1970s. I first consider the two decades from 1981 to 2000 – a period dominated by Conservative governments -- and then focus on explanations for the increased fertility that was observed in more recent years.

2. British Population Policy

Although data limitations mean it is impossible to document precisely, it is clear that British fertility began to fall in the 1870s and reached extremely low levels in the 1930s. Concerns about depopulation entered the political arena and, thanks to the efforts of campaigners like Enid Charles (whose population forecasts were, in hindsight, as naïve as they were spectacular), the public consciousness (Hobcraft 1996). This was a rare historical moment. It is worth mentioning, I think, because it is one of the few times that the issue of low fertility attracted the attention the policymakers. Their response was cautious and restrained, but it left an important intellectual legacy. The 1938 Population (Statistics) Act established a valuable information base and the Royal Commission on Population was established in 1944 to provide expert advice. These developments, along with the founding of the Population Investigation Committee in 1936, established demography as scientific and academic discipline in a political context that appeared ambivalent, if not entirely unconcerned, about the issue of population growth for most of the 20th century (Simons 1973). It was a community of demographic scholars who, armed with new and better data, devoted much time and energy to the (very important) issues measurement and description and less attention to modelling or predicting fertility behavior. In later years, some openly

questioned the feasibility, or even appropriateness, of attempting to forecast (Hobcraft, 1996).

Population issues next entered the political arena in the early 1970s, this time in response to the rapid population growth of the 1960s. A 1973 report by the Government appointed Population Panel concluded that Britain would do better in future with a stationary rather than an increasing population (Population Panel, p. 6). The report stopped short of recommending a comprehensive and coherent population policy, although its authors advocated for a programme of family planning services to be provided through the National Health Service so that unwanted births could be averted. The 1974 NHS Reorganisation Act incorporated this recommendation, and from 1 April of that year, family planning advice and supplies were provided free of charge and irrespective of age or marital status. This was the last of a series of reforms extending back to 1967 that liberalized access to family planning information and services and included, from 1968, access to abortion. For the first five years, however, abortion services were limited and rates of use were low (Department of Health 2007). A number of authors have suggested that a substantial share of the fertility decline that occurred in the early 1970s can be attributed to these legislative changes, which increased access to and use of the contraceptive pill, and the reduction of unwanted pregnancies (Murphy 1993; Hobcraft

1996). Pre-marital conceptions, which had increased throughout the 1960s, fell back to 1950s levels by the late 1970s, particularly for women under the age of 20. To the extent that contraception averted mistimed rather than eventually unwanted births, some of the period decline would be due to this tempo effect. This is perhaps why the Population Panel felt confident enough to suggest that completed family size would not fall below replacement "in the foreseeable future", in the same year that the TFR crossed that threshold.

The persistently low fertility rates of the 1970s did not elicit much political debate or response. In the decades that followed, the UK Government remained reluctant to intervene directly to influence fertility, save efforts since the 1990s to reduce rates of teenaged motherhood (Department for Education and Skills 2006). The official UK policy, first presented at the 1984 UN Conference on Population Mexico, and reiterated at the 1994 UN Conference on Population and Development in Cairo conference, has been to adapt to low fertility rather than attempt to alter it:

The United Kingdom government does not pursue a population policy in the sense of actively trying to influence the overall size of the population, its age-structure, or the components of change except in the field of immigration. Nor has it expressed a view about the size of population, or the age-structure, that would be desirable for the United Kingdom. Its primary concern is for the wellbeing of the population, although it continually monitors demographic trends and developments. The current level of births has not been the cause of general anxiety. The prevailing view is that decisions about fertility and childbearing are for people themselves to make, but that it is proper for government to provide individuals with the information and the means necessary to make their decisions effective. To this end, the government provides assistance with

family planning as part of the National Health Service. The 'ageing' of the population does raise social and economic issues. However, it is believed that these will prove manageable; and also, to a degree, that society will adapt. The Government takes population matters into account in formulating economic and social policy. Many aspects of economic and social policy will, of course, influence population change.' (Office for National Statistics 1993).

As migration rates increased in recent years, accelerated rates of population growth again became a topic of political debate. But the Government has attempted to treat migration and population growth as distinct issues. Speaking to the House Liaison Committee in 2006, then Prime Minister Tony Blair reaffirmed that the UK had a migration policy but no policy on population growth²³). David Cameron (2007) has been more willing to frame immigration as an issue of 'unsustainable' population growth (see also Conservative Manifesto 2010). But as far as fertility is concerned, his administration has maintained the long-running non-interventionist stance.

Policymakers have shown little enthusiasm for policies that would seek to influence fertility levels or birth rates. To understand how UK policies and institutions have supported moderately high levels in the UK over the past thirty-five years requires an exploration of indirect effects and inadvertent consequences.

23) <http://www.publications.parliament.uk/pa/cm200506/cmsselect/cmliaisn/709/6070407.htm>

3. 1981 to 2000: Relative stability

When examined in isolation, the last two decades of the 20th century were a period of stability followed by substantial fertility decline in the UK. Between 1981 and 1990, the TFR fluctuated between 1.77 and 1.83, and then fell steadily to a level of 1.64 at the end of the period. However, compared to the trends of the previous two decades, and situated in the context of Europe where nearly all countries reached record lows and some with TFRs below 1.5 (Kohler et al 2006), the picture that emerges is one of stability. The TFR remained below 1.7 for only a few years at the turn of the century, and by 2002 the UK TFR had more or less recovered, climbing from the middle to the high end of the EU rankings.

Efforts to explain why some countries have sustained moderately high fertility have tended to focus on the Scandinavian countries and France and to policy changes which encouraged (or responded to demands for) modifications to earlier gender settlements that the policy regimes in other European countries continued to support. In the formative years of welfare state development, virtually all capitalist economies negotiated the demand for social reproduction (which would divert resources from capital accumulation) and secured its provision by providing some form of institutional support for heterosexual marriage and a male breadwinner/female carer arrangement.

Although, the housewife ideal was often unattainable in many poorer families and women have always engaged in economic activities to support their families, the assumption that the wife (ideally) would be (entirely) economically dependent on her husband can be seen in the policy logics that guided the early development of all modern welfare states (Lewis 1992). As women increasingly wanted to enter and remain in the labour market, they confronted institutions that were incompatible with the responsibilities of social reproduction. When women had the means (with unprecedented access to contraception) and the incentive to postpone (or even forego) childbearing, fertility declined. Whether or not the underlying motivation was a demographic one, those countries that found new ways of supporting social reproduction and, in particular, those that made work and motherhood more compatible, were often countries that averted rapid and deep fertility decline.

This logically coherent and compelling argument, however, fails to account for trends observed in the UK (and the rest of the moderately high fertility countries of the Anglosphere). While the Scandinavian countries were developing and promoting policies that would provide new sources of social reproduction through the development of Government subsidised (child) care services or facilitate a (modest) renegotiation of the gender contract, the UK remained implacable in its opposition to policy intervention and institutional change. At least until

1997, a strong liberal welfare tradition giving primacy to the market set the UK apart from much of the rest of Europe. Successive conservative governments actively opposed the development of work-family reconciliation policies at both the national- and EU-level. Between 1979 and 1997, UK Conservative governments effectively stymied efforts to extend EU control on social policy measures (Hoskyns 1996; Duncan 2002). Although observers have noted that a predictable UK opposition allowed politicians from other countries to pay lip service to policies that they would otherwise oppose and provided a politically expedient excuse for restraint (Lange 1992), it is clear that UK opposition had important implications for child care policies and for Pregnant Workers Directive (PWD) and the Parental Leave Directive (PLD), particularly before the Social Protocol of the Maastricht Treaty of 1992 changed the procedures. Efforts to develop EU-level child care policies were consistently blocked by the UK and, in the end, relegated to soft law measures which are not binding (Duncan 2002). The PWD, which came into force in 1992, was finally put forward as a health and safety measure to avoid the UK veto. The PLD, first put forward (and vetoed by the UK) in 1983, took more than a decade to make it onto the statute books and only then with a UK opt-out until 1997 when the new Labour government signed the Social Chapter (Fusulier 2011). Parental leave legislation which conformed the minimum requirements set out in the Directive (an

unpaid individual entitlement of 13 weeks for each parent), was not introduced until December 1999.

The transposition of the PWD has a limited impact on UK policy in the 1990s, in part because of successful efforts by the Thatcher government to neutralize its content. Strict eligibility conditions in previous legislation were relaxed (McRae 1991), and an entitlement to 14 weeks of maternity leave was extended to all mothers. Women who met certain eligibility requirements relating to their work history and National Insurance contributions were entitled to a longer period of leave. A substantial share of mothers failed to meet these requirements however. Maternity pay remained limited in terms of generosity and duration. Some employers offered extended leave or more generous compensation, but this was mostly confined to the public sector or particular occupational groups (O'Connor et al., 1999). Throughout most of this period, state involvement in the provision of child care policy was restricted to a discretionary role for local authorities in the provision of pre-school education (Butler, Lugton and Rutter 2014). However there were some minor developments in the 1990s. The first tax reliefs for childcare costs were introduced in 1994. The Nursery Education and Grant Maintained Schools Act 1996 laid the groundwork for the expansion of early education in later years, but it was only in 1998 that a newly elected Labour government published a strategy paper *Meeting the Childcare Challenge*

(Department for Education and Employment, 1998). A system of family allowances, first introduced in 1946, which provided a universal, flat-rate cash transfer to families with children, was slightly amended in 1991 to provide a higher benefit for the first child. As numerous scholars have noted, the 1980s and 1990s was a period when families were left to (some would say “trusted to”) make their own arrangements for the care of children (OECD 2005), and given previous gender settlements, the default option was maternal care. Mothers could enter the labour market if they could figure out how to manage their care responsibilities. Against this backdrop, it perhaps makes sense that, for many years, the United Kingdom was unique (along with the Netherlands) in Europe for providing low levels of income support to poor lone mothers so that they could remain at home and care for their children full-time (Millar 1996).

To understand how fertility might have been sustained throughout this period of limited family policy effort, it is important to consider the wider institutional context. Here there is much that distinguishes the UK from its European partners. The Varieties of Capitalism literature²⁴ has described the UK as conforming more closely to the Liberal Market Economy (LME) than to the Co-ordinated Market Economy (CME) that is more typical throughout Europe (Hall and Soskice 2001). Compared

24) A number of authors have criticised this simplistic dichotomy, but for the purposes of the discussion that follows, this stylised framework has some heuristic value.

to more co-ordinated economies, labour markets in LMEs are more competitive, unregulated, and fluid. With low levels of regulation, LMEs encourage the development of general, transferrable skills and high rates of turnover, but within a highly segmented labour market. Those who can compete at the top end of the occupational hierarchy can expect great rewards which grow over time, but those who are less competitive participate in a secondary market with few protections and low wages. Amongst the most highly skilled workforce, the competitive work environment can foster a culture of long working hours. Lower skilled workers enjoy few job protections and firm-specific investments tend to be limited. With few opportunities for progression, their wage trajectories tend to flat. A marked reluctance to adopt measures that would interfere with labour markets or raise the costs of doing business implies a "liberal" (Esping-Andersen 1990) or residual welfare regime with targeted and minimal social safety nets. When (largely unrestrained) market forces push low wages near minimum living standards, incentives to participate can erode, however. In the context of traditional gender arrangements and low levels of labour market regulation, the expansion of part-time work opportunities for women and at the low end of wage distribution, could be used by employers to resist upward pressure on wages (Hurstfield 1978). In more co-ordinated economies, strong labour market regulations and a more powerful union presence

could more effectively restrain these developments (although sometimes this might mean excluding women/mothers altogether).

In earlier work, I have argued that these distinctive aspects of the UK's political economy created incentives for a moderately high but relatively disadvantaged fertility profile (Sigle-Rushton 2008; 2009). In the absence of adequate child care support, most mothers would have to withdraw from employment, at least temporarily, when they had a child. If they wanted to return to work, many would struggle to work full-time. Although there were part-time jobs opportunities, these tended to be concentrated where they had always been: at the lower end of the occupational hierarchy and wage distribution, which, prior to April 1999, had no floor in the form of a national minimum wage. As a consequence, for women on moderate to high incomes, the transition to parenthood could carry substantial costs, particularly over the longer-term. A withdrawal from the high end of the labour market and a return to a part-time position would likely require a substantial occupational downgrade which could be difficult to reverse. Faced with the prospect of long-term effects on their occupational attainment and life-time earnings, those women with the most to lose had a strong incentive to postpone. The longer women postponed, the more they and their partners might come to depend on two incomes, particularly in the face of rapid increases in house

prices throughout the 1980s and from the mid-1990s. Contrary to the logic of the “independence hypothesis”, an increased reliance on two incomes in early adulthood may have had a stabilizing effect on the relationships of dual earner couples, but the resulting shocks to living standards may have militated against any protective effects associated with the transition to parenthood (e.g. Chan and Halpin 2003).

In contrast, lower skilled, more disadvantaged women were already at the bottom of the wage distribution, and so a period of inactivity followed by adjustments to their hours would have little impact on their earnings in the shorter- or longer-term. Incentives to postpone, even to qualify for maternity benefits, were weak: the existence of low-level means tested benefits offered a viable alternative. Over the longer-term their wages were unlikely to grow steeply even if they had remained continuously employed. Rising housing costs meant home ownership was increasingly out of reach for those on low incomes. However the allocation of the increasingly limited number of public housing units prioritized families with children (Lupton et al 2009). Those who were married to or cohabiting with men at the bottom of the wage distribution could count on means-tested financial support in the event of a breakdown which, again, because of the poor wages at the bottom of the distribution (increasingly poor with the decline of better paid manufacturing jobs), would provide some insurance against re-

lationship breakdown. In the UK policy setting, we might therefore expect to see a socially polarized fertility profile with more postponement, smaller families, and higher levels of childlessness amongst the most qualified and highest skilled.

Empirical evidence relevant to this period is largely consistent with these predicted labour market and demographic patterns. In an analysis using data collected from a number of European countries between 1999 and 2001, Jane Waldfogel and I found that compared to other countries, the gap in earnings between mothers and childless women, sometimes termed the “motherhood gap” in the UK is high, and does not narrow appreciably as children get older (Sigle-Rushton and Waldfogel 2007). High period and cohort total fertility rates have been achieved with relatively high variations in completed family size some of highest incidences of childlessness (Coleman 1996; Shkolnikov, Andreev, Houle and Vaupel 2007), particularly amongst the highly educated (Berrington, Stone, and Beaujouan 2014). The persistence of early childbearing is reflected in a ‘hump’ in the fertility schedule at young ages, which is typical to the countries of the Anglosphere, and suggests a bifurcated fertility regime (Chandola, Coleman and Hiorns 2002). Similar to what Ellwood and Jencks (2004) found in their analysis of US data, lower educated women appear to have continued to have children at (the same) younger ages, while those who obtained high levels of education started to delay their first birth

(Berrington et al 2014). Conditional on having had a first birth, the transition to the second is more rapid for the highly educated (Rendall and Smallwood 2003). Nonetheless, the completed family size of highly educated women, particularly those in the more highly competitive managerial positions (Ekert-Jaffe et al. 2002), was low relative to other women.

Cross-national comparisons suggest that the moderately high fertility in the UK during this period is different from what has been achieved in the CME countries of Europe with similar fertility levels (Ekert-Jaffe et al. 2002; Rendall et al 2005). Importantly, the costs of sustaining moderately high fertility may have fallen disproportionately on those groups with the lowest levels of resources, exacerbating income inequality and contributing to the high child poverty rates observed in the UK (Sigle-Rushton 2008).

4. The period since 2001

In 2001, the TFR in the UK reached 1.63, its lowest since the 1970s. This marked the end of the period of decline that began nearly a decade before. Rather than stabilize at this low level, the trend almost immediately reversed. Between 2001 and 2008 the TFR climbed to 1.96, and, despite the financial crisis in 2007, it remained above 1.90 at least until 2012. This is not an exceptional pattern. Similar trends and levels were observed in

other moderately high fertility countries. Nonetheless, as the discussion of previous decades has suggested, a similarity of aggregate indicators and trends does not necessarily imply a similarity of explanations. An assessment UK policy trajectories which takes into account the distinctiveness of its initial conditions – a more socially polarized fertility profile and the wider institutional context – may provide some information on the way the policy context supports fertility (Sigle-Rushton 2014).

The election of the Labour Government in 1997 marked the beginning of a period of rapid and extensive policy change. At the EU level, the reversal of the opt-outs of the Social Charter and the Social Chapter meant that a new body of EU legislative provisions, such as the Parental Leave Directive, would apply to UK law. An ambitious anti-poverty programme was implemented with a focus on employment as the best route out of poverty. New policies targeted worklessness and the earnings of low paid workers. High rates of child poverty were a key priority, with ambitious targets to halve (by 2010) and then eradicate it (by 2020). Child care issues were reframed as an obstacle to labour market participation and “family friendly” policies became a new feature of British social policy (Daguerre and Taylor-Gooby, 2004; O’Connor et al., 1999).

Although fertility rates increased for all women over 20, some of the most prominent changes involved women in their thirties and forties. In 2004, the fertility rate at age 30–34 surpassed the

fertility rate at age 25–29 for the first time. Since then it has remained the most fertile age group. Between 2001 and 2011, fertility rates for the age groups 35 and older showed the steepest increases, and in 2012, the average age at first birth was over 30 for the first time. Put alongside evidence (from England and Wales) which suggests that almost all of the initial increase in the TFR can be attributed to first and second order births and it appears that recent trends involve women who, in the 1980s and 1990s, postponed the transition to parenthood (Jefferies 2008). If during that period, the women with the strongest incentive to postpone were those with the highest skills and earnings, it makes sense to ask whether the changing policy context was a contributing factor. It is not easy to provide a definitive answer to this question. Data from the British Household Panel Survey (BHPS) collected during the 1990s shows that most childless women – the most highly qualified in particular -- still wanted and intended to have children (Tavares 2010, Table 6), and so it is possible that some of the underlying explanation is simply biological imperative. Many of the older women might have had children anyhow. There is also evidence of increasing fertility among women in their 20s but to-date it is not clear how much of the recent increase is due to the behaviour of highly qualified women that, in previous decades, would have felt more compelled to postpone childbearing. We can, however, ask whether that is a plausible

possibility. A critical assessment of the policy context can provide some suggestive evidence.

To search for policy changes that could have contributed to recent fertility trends, we might start first with to the rapid development of family policy that took place during this period. Because these developments marked a deviation from what had been an institutionally coherent model, it is especially important to consider how the new policy agenda responded to and interacted with the wider institutional setting, the labour market in particular (Tunberger and Sigle-Rushton 2013). Despite what was in many ways an ambitious programme of reform, the government was anxious to avoid interfering in the operation of labour market or to address inequality by targeting the high end of the distribution (Sigle-Rushton 2008). In a 2004 television interview, Prime Minister Tony Blair was asked whether he thought “an individual could earn too much money”. His response provides a good summary of the New Labour Government’s policy approach:

...Do you mean that we should cap someone's income? Not really, no. Why? What is the point? You can spend ages trying to stop the highest paid earners earning the money but in an international market like today, you probably would drive them abroad. What does that matter? Surely the important thing is to level up those people that don't have opportunity in our society²⁵).

25) <http://news.bbc.co.uk/1/hi/events/newsnight/1372220.stm>, accessed 20 September 2014.

The rights surrounding child care leave were extended over this period, but the focus has been almost exclusively on maternity leave. Although by 2007 all mothers were entitled to 52 weeks of leave, the right to return to the same job is only extended to the first 26 weeks. Moreover, rights for fathers to take child care leave have remained far more limited. Since 2003, they have been entitled to two weeks Ordinary Paternity Leave (as it is now called) which is compensated at a flat rate. Throughout the period, parental leave, which included unpaid individual entitlements for men, remained minimal (Lewis and Campbell 2007). Some scholars have suggested that this approach - which was unique in Europe -- was a direct response to pressure from employers who continued to see women as secondary workers. From April 2011, qualifying mothers could choose to return to work and transfer up to 26 weeks of their leave entitlement (which is compensated at the same flat rate as additional maternity leave and ordinary paternity leave: £128.15 per week when it was first introduced) to their (qualifying) partner. Although the measure provided some opportunity for men to take leave, it clearly reflected and continued to reinforce gendered divisions of labour. A recent analysis has demonstrated that less than 1 percent of fathers make use of APL or that they are cutting back on work to participate more in child care (Trade Union Congress [TUC] 2013). Indeed fathers continue to work longer hours than other men, and

planned reforms are unlikely to do much to address this issue. From 2015, fathers can take up to 50 weeks of the leave. Although it has been renamed “shared leave”, mothers still must trigger men’s entitlement by returning to work.

Many European countries provide a right to work part-time during the parental leave period and after it ends. The UK has not adopted a similar approach, although there have been some efforts aimed at improving the conditions of part-time work and encouraging its expansion at higher occupational grades. Since April 2003 parents of young children have had the “Right to Request” more flexible working conditions, including shorter hours²⁶). Employers can refuse the request for a number of business reasons and opportunities for legal redress are limited, however. Thus far, the new policies and entitlements do not appear to have had much impact on the career prospects and earnings of higher earners. Data from the period before and after the right to request was implemented showed that most mothers still changed their employer when they changed their hours (Smeaton and Marsh 2006). A recent review of the impact of the policy concluded: “...as far as one of the objectives of the Right to Request has been to increase the ability of working mothers to continue at the same level of responsibility, and with the same employer, albeit at reduced

26) This right to request was subsequently extended to those with caring responsibilities and, in 2014, to all workers.

hours, the impact of the Right to Request does not appear to have been substantial” (Hegewisch, 2009: 22).

Although it was criticised for focusing too much on children over 3 (Rake 2001), there was a substantial increase in the number of new childcare places made available since the publication of the National Child Care Strategy in 1998. This was followed, in 2004, by a ten year strategy which attempted to establish a coherent unifying policy framework. The Childcare Act 2006 placed a duty on local authorities to ensure that working parents have sufficient access to childcare. The new legislation did much to address issues of supply, but the regulated mixed market approach has been criticized for doing more to address access than affordability. From 2004, all three and four-year olds were guaranteed 12.5 hours a week of early education for 33 weeks per year (Rake 2001). Since 2006, the entitlement was extended to 15 hours per week and 38 weeks per year. For many working parents, this early education offer is the only form of child care assistance they receive. The gap between the entitlement and the hours of child care that working parents require can be difficult to afford or negotiate logistically and it may create incentives for one parent, usually the mother, to shift towards short part-time hours. The potential for this policy to ease pressures to postpone, particularly amongst those at younger ages, may therefore be limited.

The introduction of a new set of family friendly policies

marked an important ideological change in the UK political economy. The care of children was no longer seen as “private” matter, but an issue that required government support and involvement. Nonetheless, because the new policies were designed to accommodate rather than transform the segmented and gendered labour market, the potential for the new policies to ease pressures to postpone was likely limited by the wider institutional setting. Women in their 30s who had previously postponed and whose incomes allowed them access to sufficient and high quality child care may have found it easier to negotiate short leaves and to return to the same pre-parent-hood working conditions, adopting what Fraser (1997) describes as the universal breadwinner model. Those who wanted to adapt their working conditions during the first years of parenthood would have the right to request flexible work, but in a culture of long working hours such requests may be refused or difficult to achieve in practice. What is half-time work when all of your colleagues work well in excess of a typical working week? Younger women with high levels of education and skills would still have strong incentives to postpone, reinforced by continued house price increases and the introduction of tuition fees for higher education from 1999 which meant that many students entered the labour market with substantial debts.

Another, potentially important policy set of policies aimed to reduce child poverty and the number of workless households.

Reforms of the income tax system and increases in both means-tested (Income Support) and universal child benefits supplemented the incomes of the poorest families by as much as 10 percent. The Working Families Tax Credit, a refundable tax credit for low income working families, was one of the largest and most significant of these policy initiatives. As the benefit was calculated at the household level, there were concerns that it might encourage and reinforce a male breadwinner arrangement in two parent households (Brewer and Shephard 2004). Evidence suggests those concerns may have been well founded. A number of analyses of the impact of the policy found a significant increase in the employment activity of lone mothers, but little overall effect on the employment activity of women in couples (Brewer, Ratcliffe and Smith, 2012). Brewer and colleagues (2012) argue that the same income taper which created disincentives for second earning could also have reduced the opportunity costs of childbearing. To the extent that the low educated already faced weak incentives to postpone and had low rates of childlessness (Rendall and Smallwood 2003), it is unlikely that changes in their fertility behaviour contributed much to recent trends, which as discussed above were largely driven by late and low order births (Jefferies 2008). However, these policies take on more relevance when viewed through a transnational lens.

A consideration of recent trends in period fertility would be

incomplete without some mention of the UK's migration policy. When the EU enlarged in 2004, almost all of the old member states put in place transition measures to temporarily restrict in-migration of workers from the A8 member countries²⁷). Only the UK, Ireland and Sweden, provided immediate and open access to their labour markets. As a consequence, annual net migration which had been increasing since the early 1990s, accelerated substantially. There was a net migration of 180,000 A8 citizens to the UK between 2004 and 2006, accounting for 13 percent of the total long-term immigration. Amongst the A8 countries, the largest number of immigrants came from Poland, and by 2010 they formed the largest group of non-UK nationals (ONS 2011). The new arrivals had an immediate impact on the size and age structure of the UK population: in 2006, about 10 percent of UK population was born outside the UK (Dunnell 2007). Historically, the TFR of women born outside of the UK has been higher than the TFR of women born in the UK, and so an increase in the foreign born population would, all else equal, be expected to increase period fertility. However, migrants from the A8 were coming from countries with low fertility and many were migrating for economic reasons. It was not at all clear whether they would, like some earlier migrants to

27) The A8 countries are the 8 low income (per capita incomes of about 40 per cent of the EU average), Eastern European countries (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia) that, along with Malta and Cyprus, joined the EU in 2004.

the UK, have substantially higher fertility preferences. While it was easy to document their contribution to the number of births, in the absence of a population register, it was difficult to construct good measures of their numbers and fertility rates prior to the 2011 census. A recent report, based on census data, shows that the TFR of Polish born women is higher than that of UK born women. At the same time, it is lower than the TFR of other foreign born women in the UK. The impact of recent migration has, therefore, been to increase period fertility but to close the gap between women born outside and within the UK (Dorman, 2014).

From a comparative policy perspective, it might be useful to consider why migrants from the A8 countries have higher fertility than women who remain in their countries of origin. It could simply be that women who intend to migrate postpone childbearing until after they move (Toulemon 2004), and so represent a tempo effect. It is also possible that migrants consider not just wage differentials but also the opportunities that the economic and social setting provides for the organization of family life when they make decisions about where to locate and eventually settle. In this regard, membership of the EU community can reduce information costs as well as the costs of movement. As Fahey and Smith (2004) have noted: "Europeans seem to have an uncanny grasp of where their societies stand in the international (or at least European) hierarchy of eco-

conomic development" (78-79). A qualitative study that compared the subsequent childbearing intentions of Polish born parents in London and Krakow found that parents in Krakow often cited the costs of children as an important constraint, and often compared the Polish context to other, more favourable, policy settings as they justified their intentions. Amongst the migrants to London, parents who had previously worked in high status jobs in Poland said they were willing to accept a loss of status and occupationally downgrade in order to raise their families in the UK. They cited better state support for children and greater opportunities for mothers to spend time with children (through part-time work or temporary periods of withdrawal) as reasons both to remain and to have additional children (Marczak 2012). While it is not likely that policy changes brought in to address child poverty since 2001 had much impact on the fertility rates of low educated UK born women, they may have contributed to higher fertility by making the UK a more attractive place for some international migrants whose family preferences were closely aligned with the (uniquely) gendered incentive structures of those new family policies and which were not well supported by the family policy packages offered in their countries of origin.

The financial crisis of 2007 and the first years of "Con-Lib" coalition government of 2010 brought in a number of austerity measures. Previous developments in "family friendly" policies

were not reversed, and instead, the generosity of the welfare and benefit system was targeted. While the previous government had made work pay by improving its conditions and rewards, the current approach is to substantially reduce decommodification in the benefits system. Given previous patterns and behaviours, such measures will probably do more to reverse gains in child poverty than substantially reduce fertility, at least among UK born women. The changes might, however, impact fertility by shaping the decisions either to migrate or to remain and build families in the UK. This is an important area for future research.

5. Conclusion

Like most wealthy countries, the UK population is ageing and will continue to age for the next several decades. However recent and projected rates of change in the share of the elderly population are slow relative to much of the rest of the EU-27 countries (ONS 2012). Although since 1998 net migration has had an important moderating impact on population change, the UK's relatively benign demographic profile has a lot to do with its relatively high fertility rates (ONS 2014; Coleman 2007). For those of us that might hypothesize a relationships between (the generosity of) family policy and fertility behaviour, the "highest-low" fertility in the UK might be seen as something of

a “policy puzzle” (Sigle-Rushton 2009). Population issues, low fertility in particular, are not a key policy concern. Moreover, relatively high fertility was sustained – at least historically – with an extremely minimal family policy package. In earlier work, I have argued that the UK’s unique institutional setting created incentives for a moderately high but relatively disadvantaged fertility profile (Sigle-Rushton 2008; 2009). In this paper, I build on previous work and consider how the institutional legacy of previous decades has shaped subsequent fertility trends and perhaps moderated the impact of new policy initiatives that, since the turn of the century, represent deviations from type. The discussion has a wider relevance, because it raises a number of theoretical and practical issues that are pertinent to the way we design cross-national studies and make use of the evidence.

Theoretical developments in the study of welfare states (Esping-Andersen 1990) and, more recently, in comparative capitalisms (Hall and Soskice 2001) represented a significant departure from earlier work which either conceptualized national variations as different stages of the same developmental trajectory or presumed institutional variations would cease to matter as national states converged towards the same equilibrium model. These contributions stressed the importance of path dependencies and institutional complementarities which meant that a variety of distinct and stable institutional models

was not just possible but, indeed, likely. Throughout the 1980s and the 1990s, the UK provided a stable and coherent institutional setting which supported a particular (and, in the European context, substantially different) profile of moderately high fertility, and with a combination of policies that might not be immediately identified as family policies, particularly in international comparisons. Appealing to the UK case, and applying a proof-by-counter example sort of logic, we might be tempted to conclude that the hypothesized relationship between generous policy and fertility can be rejected when, in fact, such policies may well have been effective where they developed as part of a coherent model.

For similar reasons, variations in ideological and institutional legacies can complicate efforts to identify and share "best practice". The impact of a single policy intervention or policy reform (as when Germany adopted radical changes to its parental leave system) can be amplified or muted depending on the extent to which it resonates and interacts with the wider context.

This consideration becomes increasingly relevant in the UK in the past decade or so. Since the late 1990s, the UK has developed a more generous package of family policies, often, at least at first, in (a minimalist) response to EU Directives that were developed according to what was seen as best practice in other (often Nordic) policy settings. Taken at face value, these innovations should have reduced the costs of childbearing and

childrearing. However, they were inserted into its wider social and institutional setting which evolved alongside a residual welfare state with high levels of inequality. When policies are introduced that deviate from previous paths, policy logics and approaches, the wider context may constrain and shape their impact in potentially complex and unintended ways (Tunberger and Sigle-Rushton 2013). Empirical analyses that do not take these complexities into account may under-estimate the role and importance of the institutional and policy setting.

References

- Berrington, A. 2004 Perpetual postponers? Women's, men's and couple's fertility intentions and subsequent fertility behaviour, *Population Trends* 117: 9-19
- Berrington, A., J. Stone and E Beaujouan 2014. Educational Differences in Tempo and Quantum of Childbearing in Britain: A Study of Cohorts Born 1940-1969. Paper presented at the 2014 Annual Meeting of the British Society for Population Studies, 7-9 September 2014, Winchester UK.
- Brewer, M, Ratcliffe, A and Smith, S 2012, 'Does welfare reform affect fertility? Evidence from the UK'. *Journal of Population Economics*, vol 25., pp. 245-266.
- Brewer, M. and Shephard, A. 2004. *Has Labour Made Work Pay?* York: Joseph Rowntree Foundation.
- Butler, A. with Lugton, D. and Rutter, J. 2014. *Where Next for Childcare? Learning from the Last Ten Years of Childcare Policy*. London: Family and Childcare Trust.
- Cameron D., "The Challenges of a Growing Population," speech given on 29 October 2007.
<http://conservativehome.blogs.com/torydiary/files/population.pdf>.
- Chan, T.W. and B. Halpin. 2003. Union Dissolution in the United Kingdom. *International Journal of Sociology*, 32(4): 76-93.
- Chandola, T., D. A. Coleman, and R.W. Hiorns. 2002. Distinctive features of age-specific fertility profiles in the in the English speaking world, *Population Studies* 56, 2: 181-200.
- Coleman, D. A. 1996. New patterns and trends in European fertility: international and subnational comparisons, in D. A. Coleman

- (Ed.), *Europe's Population in the 1990s*. Oxford: Oxford University Press, pp: 1-61.
- Coleman, D. A. 2007 'The Road to Low Fertility.' *Ageing Horizons* 7: 7-15.
- Conservative Manifesto. 2010. .London: PureprintGroup.
- Daguerre, A. and Taylor-Gooby, P. 2004. Neglecting Europe: explaining the predominance of American ideas in New Labour's welfare policies since 1997. *Journal of European Social Policy*, 14 (1)
- Department for Education and Employment, 1998. Meeting the childcare challenge, Green Paper, London: The Stationery Office
- Department for Education and Skills. 2006. Teenage Pregnancy: Accelerating the Strategy to 2010. Nottingham: DfES.
- Department of Health [DOH]. 2007. Abortion statistics, England and Wales: 2006.
- www.dh.gov.uk/PublicationsAndStatistics.
- Dorman, O. 2014. Childbearing of UK and non-UK born women living in the UK - 2011 Census data.
- http://www.ons.gov.uk/ons/dcp171766_350433.pdf
- Duncan, S. 2002. 'Policy Discourses on Reconciling Work and Life in the EU', *Social Policy and Society*, 4(1): 305-14.
- Dunnell K. 2007. The Changing Demographic Picture of the UK - National Statistician's Annual Article on the Population. *Population Trends* 130, 9-21.
- Ellwood, D. and Jencks, C. 2004. "The Spread of Single-Parent Families in the United States since 1960." Pp.25-65 in *The Future of the Family*, edited by Daniel P.

- Moynihan, T. Smeeding, and Lee Rainwater. New York: Russell Sage.
- Ekert-Jaffe, O., H. Joshi, K. Lynch, R. Mouglin, and M. Rendall. 2002. Fertility, timing of births and socio-economic status in France and Britain: social policies and occupational polarization, *Population (English edition)* 57(3): 475-507.
- Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*, Princeton, NJ: Princeton University Press.
- Fahey, T. and Smyth, E. 2004. Subjective well-being & objective conditions. In W. Arts & L. Halman (eds.), *European Values at the Turn of the Millennium* (pp. 57-80). Leiden: Koninklijke Brill NV.
- Fraser, N. 1994. After the Family Wage: Gender Equality and the Welfare State. *Political Theory* 22: 591-618
- Fusulier, B. 2011 "The European Directive: Making Supra-National Parental Leave Policy," in *The Politics of Parental Leave Policies : Children, Parenting, Gender and the Labour Market*, ed. Sheila B. Kamerman and Peter Moss (Bristol: The Policy Press), 243-259. (246)
- Hall, P. and D. Soskice 2001. 'An Introduction to Varieties of Capitalism'. In P. Hall, and D. Soskice (eds), *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- Hegewisch, A. 2009. *Equality and Human Rights Commission*, Manchester
- Hobcraft, J. 1996. Fertility in England and Wales: a fifty-year perspective. *Population Studies* 50:485-524.
- Hoskyns, C. (1996a) *Integrating Gender: Women, Law, and Politics in the European Union*. London: Verso.

- Hurstfield, J. (1978) *The Part Time Trap* London: Low Pay Unit.
- Jefferies J (2008), Fertility Assumptions for the 2006-based national population projections , *Population Trends* 131 pp 19-27, spring 2008.
- Lange, P. 1992. "The Politics of the Social Dimension" in A. Sbragia (ed) *Euro-Politics* Washington D.C.: Brookings
- Lewis, J 1992. 'Gender and the development of welfare regimes', *Journal of European Social Policy*, 2, 159-73.
- Lewis, J., and M. Campbell. 2007. UK work/family balance policies and gender equality 1997-2005, *Social Politics* 14(1): 4-30.
- Lupton, R., Tunstall, R., Sigle-Rushton, W. Obolenskaya, P., Sabates, R., Meschi, E., Kneale, D. and Salter, E. 2009. *Growing Up in Social Housing in Britain: A Profile of Four Generations*. TSA and Joseph Rowntree Foundation.
- Marczak, J. 2012. Transnational groups of reference and intentions for the second offspring among Poles living in Poland and the UK. Paper presented at the British Society for Population Studies annual conference, 10-12 September 2012, Nottingham.
- McRae, S. 1991. *Maternity Rights in Britain. The PSI Report on the Experience of Women and Employers*. London: Policy Studies Institute.
- Millar, J. 1996. Mothers, workers, wives: comparing policy approaches to supporting lone mothers, in E. B. Silva (Ed.), *Good Enough Mothering?* London: Routledge, pp: 97-113.
- Murphy M 1993, The contraceptive pill and women's employment as factors in fertility change in Britain 1963-1980: a challenge to the conventional view. *Population Studies* 47: 221-243.
- O'Connor, J. S., A. S. Orloff and S. Shaver (1999), *States, Markets,*

- Families: Gender, Liberalism and Social Policy in Australia, Canada, Great Britain and the United States Cambridge: Cambridge University Press.
- OECD. 2005. *Babies and Bosses: Reconciling Work and Family Life*. Vol. 4: Canada, Finland, Sweden and the United Kingdom Paris: OECD Publications.
- Office for National Statistics . 1993. Editorial, *Population Trends* 72.
- Office for National Statistics . 2011. *Polish people in the UK: Half a million Polish-born residents*. London: Home Office.
- Office for National Statistics . 2012 "Population Ageing in the United Kingdom, its Constituent Countries and the European Union." London, Home Office.
- http://www.ons.gov.uk/ons/dcp171776_258607.pdf
- Office for National Statistics . 2013 "National Population Projections, 2012-Based Statistical Bulletin." London: Home Office.
- Office for National Statistics. 2014 "Annual Mid-year Population Estimates, 2013." London: Home Office.
- Population Panel. 1973. Report. Cmnd. 5258 London, HMSO.
- Rake, K. 2001. Gender and new labour's social policies, *Journal of Social Policy* 30(2): 209-231.
- Rendall, M., and S. Smallwood. 2003. Higher qualifications, first birth timing, and further childbearing in England and Wales, *Population Trends* 111: 18-26.
- Rendall, M., Couer, C., Lappegard, T., Robert-Bobe, I., Ronsen, M., & Smallwood, S. 2005. First births by age and education in Britain, France and Norway. *Population Trends*, 121, 27
- Shaw C (2007) Fifty Years of United Kingdom national population projections: how accurate have they been? *Population Trends*

128: 8-23.

- Shkolnikov, V. M., E. M. Andreev, R. Houle, and J. W. Vaupel. 2007. The concentration of reproduction in cohorts of women in Europe and the United States, *Population and Development Review* 33(1): 67-100.
- Sigle-Rushton, W. 2008. England and Wales: Stable Fertility and Pronounced Social Status Differences. *Demographic Research*, 19, p. 459-502.
- Sigle-Rushton, W. 2009. "Fertility in England and Wales: A Policy Puzzle?" *Demografie* 51(4): 258-265.
- Sigle-Rushton, W. 2014. Fertility and family policy: An international perspective. Paper presented at the meeting of the European Association for Population Studies, Budapest, Hungary.
- Sigle-Rushton, W. and Waldfogel, J 2007. "Motherhood and Women's Earnings in Anglo-American, Continental European, and Nordic Countries." *Feminist Economics* 13(2): 55-91.
- Simons, J 1973. The development of population policy in Britain. *International Journal of Health Services* 3(4):855-62
- Smeaton, D. and Marsh, A. (2006) *Maternity and Paternity Rights and Benefits: Survey of Parents*. Department of Trade and Industry Employment Relations Research Series No. 50. London: DTI.
- Tavares, L. 2010 *Who delays childbearing? The relationship between fertility, education and personality traits*. ISER Working Paper Series, 2010-17.
- https://www.iser.essex.ac.uk/files/iser_working_papers/2010-17.pdf [Accessed 20 September 2014].
- Toulemon L. 2004. Fertility among immigrant women: new data, a new approach. *Population & Societies* 400

- Trades Union Congress [TUC] (2013) 'Just one in 172 fathers taking Additional Pater nity Leave', press release, 16 June 2013. <http://www.tuc.org.uk/workplace-issues/justone-172-fathers-taking-additional-paternity-leave> [Accessed 20 September 2014].
- Tunberger, P. and Sigle-Rushton, W. 2013. "Public Policy and Families." In *Blackwell Companion to the Sociology of Families*, 2nd Edition (Eds. M. Richards, J. Scott, and J. Treas), New York: Blackwell
- Zumpe, J., Dorman, O. and Jefferies, J. 2012. *Childbearing Among UK Born and Non-UK Born Women Living in the UK* http://www.ons.gov.uk/ons/dcp171766_283876.pdf



Chapter 5

Fertility decline and lasting low fertility in a continuously changing(policy) environment: a Hungarian case study

Zsolt SPÉDER

Director,

Hungarian Demographic Research Institute



5

Fertility decline and lasting low fertility in a continuously changing (policy) environment: a Hungarian case study <<

1. Introduction, background, antecedents

(Hungarian fertility in the demographic transition) The long-term development of fertility in Hungary was followed by classic transition, but with some specifics according to Demény's research (Demény 1997). The decline in fertility began early despite the country's relative economic backwardness, and was simultaneous with Western Europe. On the other hand, the conscious marital birth control before the emergence of modern birth control means could be observed already in the 18th century, and then in the 19th century (Andorka 1987). So the reduction of the number of children started and realized on the parents' wish, without any state intervention. We cannot claim, however, that the end of demographic transition, the evolution and stabilization of modern fertility behavior would be free from government interventions. In the mid-60s, when demographic transition should have been completed, a brief period of state intervention, marked by signs of coercion, was already behind us (1952-54), and population policy measures were in the making, which would later constitute the key element of the new reproductive order.

(Two changes of regime and the revolution of 1956) Two vi-

tally important changes of regime took place in Hungary in the past sixty years. One was the socio-economic and political transformation following the Second World War and lasting until the mid-1960s, which established and reinforced the communist social system. The development of communist system was full of social tensions which led to the uprising against the communist (Soviet) system in 1956. The demographic consequence of the 1956 revolution was that about 200 thousand people emigrated from Hungary within a couple of weeks (Tóth 1996), and its long-term political consequence was that a redistributive economic system was created with an eye on consumption goals, in which market mechanisms were also involved. The existence of 'the happiest barrack,' as Hungary was described in the communist system, was made possible by the revolution of 1956 and the subsequent market- and consumption-friendly economic policy. The other profound transition was the change of regime - 'retransition' -, to modern capitalism started in 1989/1990 and, regarding its demographic effects, still lasting today, which can basically be characterized by the restoration of parliamentary democracy and the 're-creation' of market economy. Thus over a short period, in a historical perspective, the previously established socio-economic and political system changed twice in the life of a generation, thereby radically transforming the life and life conditions of the members of society and families.

(Discourse on population) The public awareness of low fertility and especially of the only child phenomenon appeared early, already in the first half of the 20th century (1930s) in the Hungarian public life (Andorka 1975). The worried intelligentsia (priests, writers, local politicians) considered modernization, individualization and selfishness as causes of this phenomenon. A generation later, at the time of first fertility low in the 60s, the dilemma of 'car or baby' shifted interpretation, and consumption (and selfishness too) became responsible for the emergence of low fertility. After this, the discourse reflecting on fertility status has been continuously present in the Hungarian public. For our subject, the logic of reasoning is less important than showing that the public awareness on population issues and worries about the survival of Hungarian population, which urged politics (and social policy) to continuously take a stance.

(Religiosity, values) In Hungary the majority of population (60%) are Roman Catholics but there is a significant share of Calvinists (15%) and Evangelics (5%). The proportion of non-religious and those not practicing their religion continuously increased during the 20th century. In terms of religiosity, Hungary stands between strongly secularized Czech Republic and religious Poland, comparing communist countries. Regarding international value surveys (World Value Survey, ISSP), the Hungarian population's attitude and belief

about family relations are very similar to other communist countries (with the exception of East Germany and perhaps the Czech Republic), while Hungarians have more traditional ideas in a European comparison (Artsetal. 2004., Inglehart, Baker 2010).

(The outline of the study) Firstly, we present the evolution of fertility and the characteristics of fertility behavior after the Second World War, by describing different fertility indicators. Then, divided into two periods – the period of communism and the period of transition to capitalism – we analyze the socio-structural factors underlying fertility trends, and how social policy reacted by interventions to fertility depths. Finally, we interpret the role of the above interventions in the evolution of fertility.

2. Fertility trends after the Second World War

Evolution of TFR, Hungary in international perspective

When we want to describe the decades following the Second World War in a single move, we are faced with the declining trend of total fertility rate and its permanent, intensive fluctuation (cf. Figure 1). This fundamental duality, including significant changes in fertility and development of subsequent highs and lows, is connected, on the one hand, to profound

transformation(s) of institutions and social structure, which twice created radically new circumstances for the decisions of everyday people, including childbearing decisions. On the other hand, it is the consequence of those social policy objectives which attempted to change and influence the declining trend by "external" means, mostly stimulating but sometimes prohibitive measures (abortion ban).

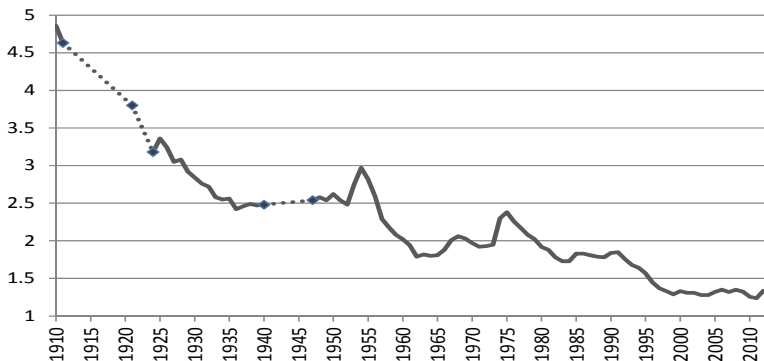
With the evolution of population policy (the beginnings), it has to be noted that post-war 'baby boom' in Hungary was negligible²⁸⁾, and Hungary was the first country in Europe where total fertility rate declined below the replacement level already in the early 1960s (cf. Table A1). TFR hit bottom in 1962 at 1.79. In the same period, neighboring socialist countries were also characterized by low TFR; it stood at 2.11 in Czechoslovakia, 2.34 in Romania, 2.32 in Bulgaria, and it was significantly higher only in Poland at 2.98. At the same time, West European countries exhibited higher values. TFR was 2.70 in neighboring Austria, 2.20 in Sweden in North, and 3.14 in Portugal in southern Europe. So at this time, low TFR was typical of socialist countries, and it was lowest in Hungary. The (first) noticeable increase of TFR only started off following the first general population policy intervention in 1967, aiming to

28) The fertility rise between 1952-54 was the consequence of adopting coercive measures (abortion ban) to react to low fertility level, following a Soviet pattern. The social intolerability of coercive measures soon became manifest, and their cancellation was followed by fertility decline with a renewed dynamic.

raise the low fertility level (see later).

Finally, as a result of continuous social policy interventions using an increasing variety of means, a fertility regime evolved which had a certain degree of stability between 1967 and 1994. Marriage was nearly universal, first childbearing concentrated on the early stage of life course (early 20's), and while the share of multiple children families declined, with the decrease of the childless and the spreading of two-child family model, completed fertility did not decrease, and it even increased to some extent among those born at the end of the 1950s. Undoubtedly, however, in order to achieve this reproductive regime, a continuously expanding “active population policy” was needed, as termed by Andorka in 1987, which led to the evolution of a reproductive regime called “Socialist greenhouse” in Sobotka 2003.

[Figure 5-1] Evolution of Total Fertility Rate (TFR) in Hungary 1910-2013



Source: HCSO Historical Statistical Trends (1992), and vital statistics

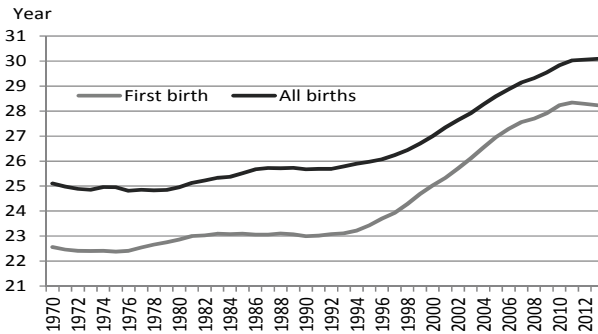
Timing of childbearing: the mean age of childbearing women and age-specific fertility

Becoming a parent early was typical of Hungarian society throughout the 20th century. The decline in fertility correlated with mothers becoming younger, since the proportion of higher-order children was constantly decreasing. Becoming a parent concentrated on the early 20's, and around four fifth became a parent before turning 25, followed by the birth of second child in 2-3 years. The most typical age for childbearing was between 21-23 both in 1960 and in 1975, and by 1990 it only increased by one year (Figure 2a).

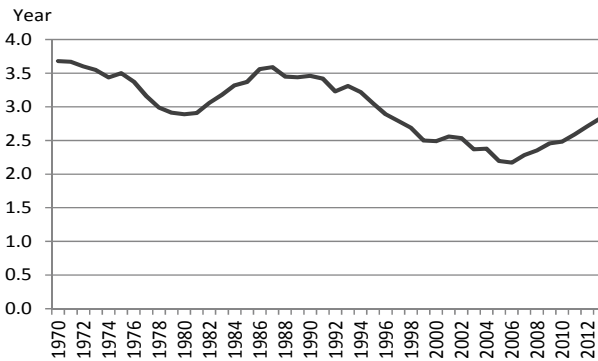
Although there appears some decline in the timing of childbearing during the 80s, a steady increase in mean age of first birth was experienced since the mid-1990s. The increase in the timing lasted for one and a half decades: between 1995 and 2010, the mean age of becoming a parent increased by almost five years from 23.4 to 28.2. Today it seems that the trend to become a parent at a later age stopped a few years ago in 2010, and the postponement period finished. The same can be said of mean age of all births. In the twenty years between 1970 and 1990, the mean age of childbearing women rose by barely more than 1 year, whereas it increased by almost 4 years between 1995 and 2010. Thus for all births, the increase is somewhat lower than in the case of becoming a parent, which is basically

the consequence of the shrinking interval between the births of two children, especially for higher-order children²⁹⁾.

[Figure 5-2-a] Mean age of the mother at first birth and at all births 1970–2013



[Figure 5-2-b] Mean duration between the 1st and 2nd child, 1970–2013



Source: HCSO 2006, and HSCO vital statistics, own calculation

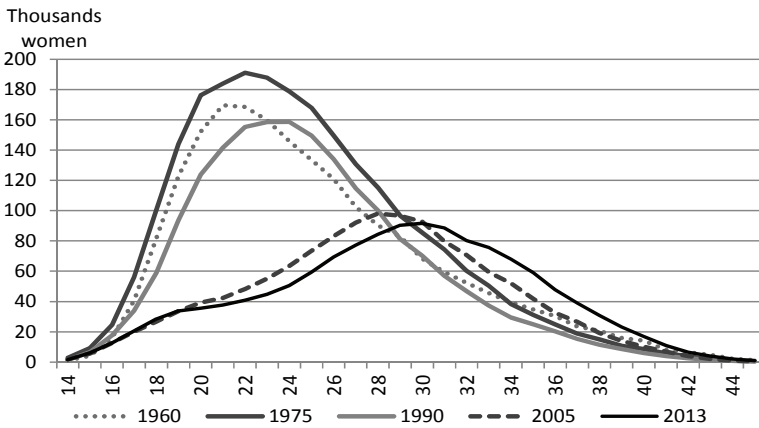
29) In the past one and a half decades, the time interval between the births of the first and second child dropped from 3.4 years to 2.2 years, for the first and third child, it went down from 6.5 years to 3.6 years, and it decreased between the first and fourth child from the previous 8 years to 4.3 years.

The comparison of age-specific fertility rates helps refine the age characteristics of fertility behavior (cf. Figure 3). Despite the strong variation in period fertility from 1949 to 1989, the age-specific profile of fertility barely changed in the socialist era until 1990. It means when fertility suddenly rose or dropped, it became manifest across nearly all childbearing ages. Due to becoming a mother at a young age, the shape of the curve exhibited a left-sided asymmetry, since for decades women tended to bear a child most frequently in their early 20's. The important rise in fertility in the mid-1970s did not change this picture. Although the first signs of change appeared already in the age-specific fertility rate of 1990, the profile of the curve radically changed later, increasingly resembling normal distribution. Another characteristic of the changes in the last decades is clearly visible: the standard deviation of childbearing age increased, and the curve became flatter. To a lesser extent, it was the result of de-standardization of the timing of becoming a parent, and, to a greater extent, of the increasing variance of realized number of children.

As to the timing of childbearing, we can claim that while fertility after the second world war fluctuated and declined, respectively, along with the decrease of childbearing age and its concentration at a young age, fertility decreased since the mid-90s with mothers becoming increasingly older. On the

other hand, we can observe the standardization of childbearing age until the 90s, and then indications of de-standardization.

[Figure 5-3] The age-specific rate 1960, 1975, 1990, 2005, 2013

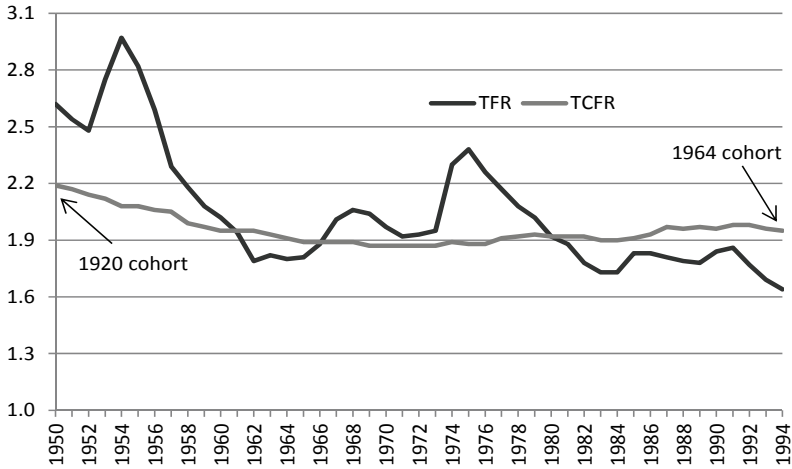


Source: HCSO 2006, and HSCO vital statistics, own calculation

Family size, completed fertility and birth rates by parity

Despite the high instability of TFR, the fertility behavior of those in the fertile age in the socialist era was characterized by far greater stability than expected on cohort level. The decline in Completed Total Fertility Rate (CTFR) stopped among those born in the war period, and stagnated at 1.87, and it began to increase, if only slightly, among those born thereafter. It rose to 1.98 among those born in 1961-62, and drew near to replacement level.

[Figure 5-4] Total Fertility Rate and Completed Total Fertility Rate, 1950-1995



We can draw a more specific picture of this process if we examine the distribution by family size of cohorts (age groups) with nearly completed fertility at different times. The second half of 20th century, the period of socialism, can clearly be described as the prevalence of two-child family pattern. Nearly completed fertility, the fertility of those aged 40-44, oscillated around 2 over a half century (between 1970-2000) while the rate of those bearing two children rose from one-third (34.9%) to over fifty percent (52.1% in 1995) across the female population aged 40-44 (Table 1). The rate slightly declined later but it still stood at 47.5% in 2005 in female population approaching the end of their fertile life course. The rate of every other family sizes decreased. It is well known that the ratio of large families (3+ children) continuously decreased in the 20th century;

far less known, however, is that substantially less people remained childless, and the rate of those with one child considerably dropped. It is therefore reasonable to refer to universalization of the two-child family model. Finally, we should remark that at the turning points of TFR fluctuations there shows hardly any difference 20 years later in the completed number of children of those aged 20-24 whose fertility is of key importance. The fertility behavior of these cohorts fits in the basic homogenization and standardization trend. The evolution of completed total fertility rate and homogenization trends by family size allow us to consider the period between 1967-1995 as a stable fertility regime.

<Table 5-1> Distribution of women aged 40-44(aged 20-24 at t-20 time) at a given time by number of children

Number of children	Aged 40-44 at the given time				
	1970	1980	1990	2000	2005
	aged 20-24 at the given time				
	1950	1960	1970	1980	1985
	actual				
No child	12.8	10.2	8.5	7.8	8.5
1	24.2	28.2	22.0	20.0	21.3
2	34.9	41.9	50.5	51.1	47.5
3	15.6	12.2	13.7	15.0	16.2
4	6.4	3.8	3.1	3.6	4.0
5+	6.0	3.7	2.1	2.3	2.6
Total	100	100	100	100	100
(Average number of children)	(2.034)	(1.873)	(1.897)	(1.959)	(1.959)

Source: HCSO (2006)

The general trend appears to falter at the time of the millennium, since in 2005 the rate of those with two children decreased among women aged 40-44 (47.5%), while the rate of childbearing women with three children and one child, respectively, increased. due to postponement after the change of regime, and considering the changing fertility behavior, what expectations can we have of the future family size? To answer this question we can rely on the study of birth probabilities related to parity defined by the given year.

It meets our expectations, and fits in with the process of postponement (see later too), that childbearing propensity of the childless clearly declined after the change of regime (cf. Figure 5). The decrease was particularly strong between 1992-1998. In later years, live birth rate remained around 4 percent. As the increase in the age of becoming a parent clearly came to a halt in 2011, preceded by a slow-down (Figure 2.a.), our expectation was that live birth rate would rise. So far we have been unable to report it. Rather, by comparing census data and vital statistics, our estimation is that childlessness stands at 19.1 percent in 2013 among those born in 1975, i.e., aged 38³⁰). Based on last year's pace of decrease of childlessness, and considering that fertility of childless women declines after turning 38³¹), we assume that the rate of childless in the above gen-

30) Our thanks go to Dávid Kelemen for providing the data.

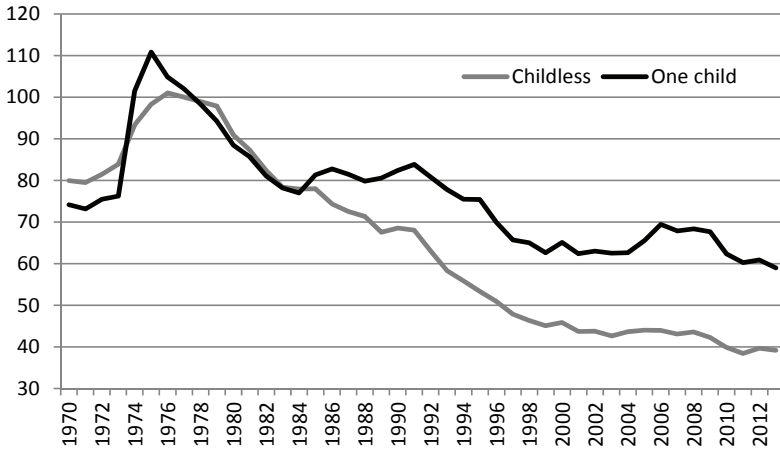
31) We calculated with an annual decline of 10%.

eration will be around 17–18 percent. This rate, compared with the 8.5 percent rate of childlessness of those born in 1963, makes it obvious that due to the transformation, there will be significant changes to the number of children beside timing.

If only postponement of becoming a parent would characterize the transformation of fertility behavior after the change of regime, childbearing propensity (live birth rate) of those with one child (parity1) should not change. However until 1995, this rate decreased slightly, but later significantly (cf. Figure 5). While there were 80.8 childbirths per thousand women with one child in 1992, there were 63.0 in 2002, and 60.9 in 2012. The childbearing propensity of those with two and three children, respectively, did not change considerably over the given period (Figure not shown).

All in all, not only the de-standardization of timing increases around the millennium but presumably the distribution of population by family type will also change, and we can witness the rise of heterogeneity.

[Figure 5-5] Births per thousand childless women and those with one child 1970-2013



Source: own calculation, HSCO vital statistics

Children born outside marriage

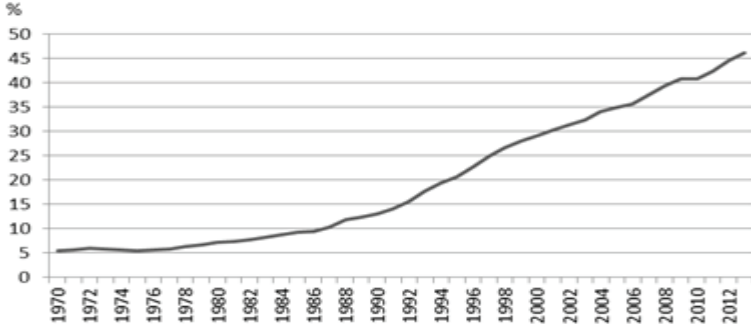
Non-marital childbearing had long been insignificant in Hungarian fertility. In Hungary lying on the edge of Hajnal-line, early childbearing was generally accompanied by an even earlier marriage. Until the 80s of the last century the proportion of non-marital births never exceeded 10 percent, and it remained around 5 percent in the 60s and 70s. In the case of unexpected or “undue” pregnancy, couples preferred marriage to non-marital childbearing³²⁾. The rate of births outside marriage first rose above 10 percent at the end of 1980s, it was already 20 percent in mid-1990s, over 30 percent after the millennium,

32) In the mid-1970s, 22-25 percent of the brides were already pregnant when they said “I do.”

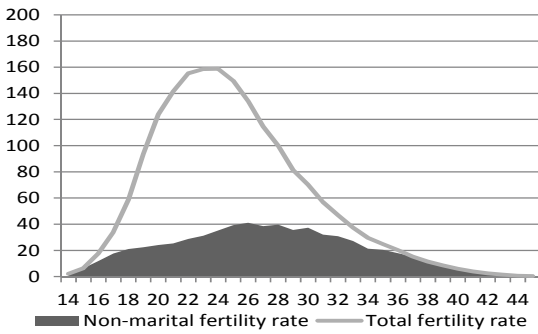
and 45 percent in 2013 (Figure 6). So the increase accelerated after the change of regime.

Meanwhile, the age profile of non-marital births also changed. In 1990 and before, childbearing outside marriage was typical of older people. These births predominantly occurred in cohabiting relationships after breakup of marriage (Carlson, Klinger 1986). Regarding children born outside marriage at a younger age, the rate of single mothers was significant. Today, although non-marital childbearing is typical of every generation, it is concentrated on younger and older ages of all childbearing (Figure 7b). The greater part of children born out of wedlock at a young age are born in cohabitation, and these partnerships often turn to marriage, but today we can still find young single mother woman. Among those around their 30's and with their second childbearing in cohabitation, the rate of those marrying later is lower, they consider cohabitation as an alternative to marriage. Finally, breaking up marriage, separating, forming a new partnership, and childbearing with the new partner is still typical. This behavior is the main source of the new and increasing trend of mosaic families.

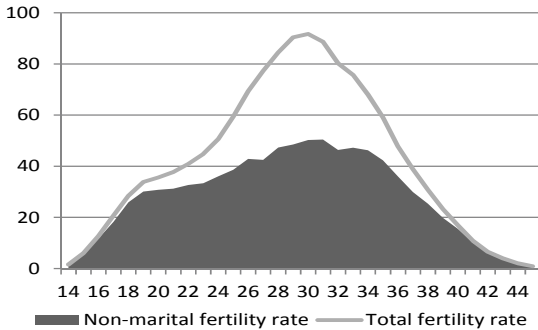
[Figure 5-6] The ratio of non-marital childbearing in all live births, 1970-2013



[Figure 5-7-a] Non-marital age specific fertility rate 1990



[Figure 5-7-b] Non-marital age specific fertility rate 2013



In an in-depth analysis elsewhere, we showed which factors contribute to a person's decision on non-marital childbearing (Spéder, 2005). With the spreading of non-marital births, the connection of these births to specific social groups weakens, although these childbirths can still be associated with well-defined characteristics. Regarding social factors and based on our multivariate analyses, non-marital childbearing tends to occur among those with lower education level, the non-religious, as well as members of Roma ethnicity. We arrive at the same outcome when comparing childbearing within cohabitation with marital fertility. The spreading of non-marital births in Hungary does not follow 'fashion' – going from top to bottom – but is 'leaking upwards.'

To what extent postponement of the last decades accounts for fertility decline?

Demographers are well aware that total fertility rate is distorted in the postponement period. There is number of indicators to filter out distortion resulting from the change of timing; here we will present the evolution of simple-to-calculate, adjusted Total Fertility Rate developed by Bongaarts-Feeney, (Bongaarts, Feeney 1998)³³). Thereby we wish to highlight the

33) After publishing the article, a debate started about the formula's validity and distortion, and the authors modified it in a later study, and this new

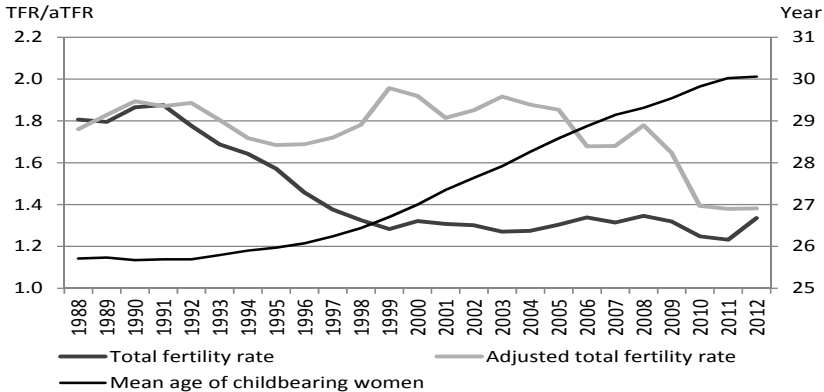
role of postponement in fertility decline which has strengthened since the mid-90s. In other words, whether quantum decrease plays a part in fertility change, or postponement is solely responsible for the decrease of Hungarian TFR as well as its stagnation at a low level³⁴).

Based on aTFR, the following periods should be distinguished (Figure 8): adjusted TFR dropped from 1.89 to 1.69 between 1992 and 1996, so fertility decline in this period cannot be traced back to postponement, i.e., it was a fertility decline due to quantum effect. (It cannot be excluded that this quantitative decline developed after the change of regime due to a shock and/or euphoria (Zapf, Mau 1993). So fertility decreased while postponement was not 'yet' present.) Then between 1997 and 2004, in the period when childbearing was characterized by large-scale postponement, a certain 'quantitative increase' could be experienced in fertility relations. In other words, postponement should have caused a greater decline in total fertility rate compared to actual decrease. In the third period between 2005 and 2010, we can see a significant drop in the level of fertility without postponement effect (aTFR) from 1.85 below 1.38.

adjusted TFR shows less fluctuation; however, the original BF-formula is still accepted due to its easy calculability.

34) Adjusted total fertility rate (aTFR) gives information about how the average number of children (TFR) would have evolved if postponement had not occurred, or more precisely, if fertility changes had only and exclusively been caused by postponement of childbearing to a later period.

[Figure 5-8] Total fertility rate, adjusted total fertility rate, and mean age of childbearing women in Hungary, between 1989-2012



The parity check of TFR and aTFR reveals that childbearing propensity of childless declined the most from the second half of the first decade of the new millennium, i.e., the decline in aTFR was basically due to postponement of birth of first child. The analysis and comparison of TFR and aTFR by birth order reveal that postponement and quantum effects are typically present around the birth of the first child and becoming a parent (not shown). Regarding first child, we can claim that postponement is almost exclusively responsible for the decline of becoming a parent until 2004. However, in the second half of the decade, period TFR of first childbirth should have increased, had only postponement took effect. However, the decrease of TFR without postponement effect clearly indicates that the chances of becoming a parent changed, i.e., lowered.

In summary, we can claim that there was no significant quantitative change in the first two thirds of the surveyed period; in the last stage, however, the quantitative component of fertility changed for the lower. In other words, if only postponement mechanism 'had been at work,' TFR should have increased after 2004, similarly to many other post-communist countries. The failure to increase is presumably due to decline in propensity for fertility.

Summary, periodization, questions

In this section, we gave an overview of the main features of fertility development in Hungary following the second world war. We argued that a declining fertility trend and periodic fluctuation were typical at the same time. We highlighted that fertility remained at a low level in every communist country in European comparison, but Hungary was the first where fertility declined below replacement level. Regarding the entire Communist era, typical features were standardization of the timing of childbearing (total and early marriage and childbearing), and homogenization by number of children, the spreading of two-child family model. Following the change of regime, profound changes took effect. Childbearing was postponed to a later age, non-marital childbearing (within cohabitation) became common, and there were signs that the dis-

tribution of population by number of children would become more heterogeneous. Childlessness will certainly rise, and the proportion of those with one child will very likely to increase, while the probability of bearing three or more children will barely change. As the result of transformation, the dominant 'two-child' family model will be less common.

We already indicated, if only marginally, that government interventions and various measures of family policy could have played a major role in the development of the above trends. Now we wish to find out what processes generated those social situations – low fertility levels – which the interventions by family policy reacted to. Furthermore, how these measures of family policy can be described, and whether any of their effectiveness can be determined.

It appears obvious and reasonable to divide the period following the second world war into two separate periods: a Communist reproductive period (until 1989/1990) and a transition period thereafter³⁵). Taking into account population policy, however, another type of periodization has justification too, connecting the end of communist reproductive regime to the 1994 election defeat of the first freely elected Hungarian government. After this in 1995, the two-decade-long adversity of the institutional system of population policy commenced.

35) Although we occasionally make remarks on the end of transition period, it is untimely to discuss the features of the new fertility regime.

Therefore periodization in our paper is connected to this dividing line of population policy, recognizing the profound changes in the social circumstances of childbearing in the period between 1990–1994.

3. Adoption of population policy measures, evolution, consolidation (and dissolution) of the modern (communist) fertility regime

Over the half century between 1949–1994, a number of government measures were adopted which, after assessing the given demographic situation of the country, aimed at influencing the current population processes. Family allowance was introduced already before the second world war, but the group of recipients was continuously expanded during the period, and there were constant efforts to preserve and increase its real value. Population policy programs aimed to develop the system of maternity and parental leave and benefit, the complex system of housing benefits, the price subsidy scheme to facilitate children's consumption. Moreover, a number of measures were adopted whose goal was not immediately motivated by population policy but they were relevant for population policy (e.g. developing nursery schools, kindergartens). Although policy instruments generally included supportive, stimulating, assisting measures but there were also restrictive and prohibitive

regulations.

A fundamental conflict: the conflict of extensive expansion of female employment, childbearing and job taking

(Constraints of female employment) With the development of state socialist system (late 1940s) an extensive and forced industrialization started which involved heavy demand for workforce. The human resource for this were the men and women working in the primary sector (agriculture), and women in the household sector previously doing housework. Although in the period of economic growth after the war the principal basis of growth comprised the above sectors in Western Europe too, the expansion of female employment still had its communist features. One feature was that the expansion of female employment was largely determined by coercion. The basic strategy of communist economic system was to keep wages low, which resulted in that a single (male) wage was insufficient to provide for family subsistence. Another feature was that although a share of women took a job in the local labor market, in the service sector, there was a significant proportion of women who got a job far from their place of residence, in new industrial towns and industrial workplaces. Low wages, lack of kindergarten places, and employment distant from parents and relatives, made childbearing and reconciliation of childbearing

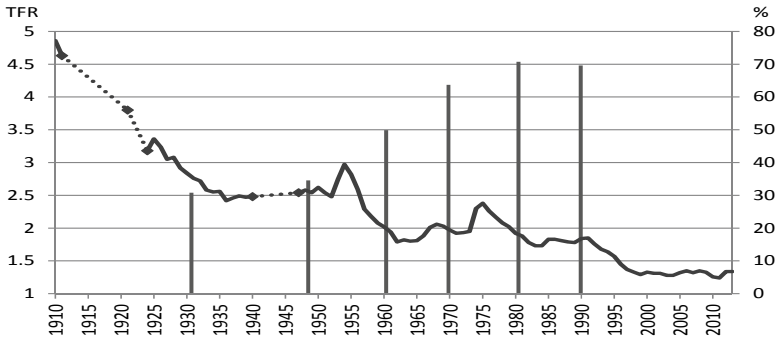
and employment very difficult for working women.

So the expansion of female employment is not typical of Hungary because it characterized industrialization in every communist country. Consequently, female employment in previously communist countries in the 50s and 60s is higher than in West European countries. As we know, there is a strong negative relationship between the macro indicators of female employment and fertility over this period (Andorka 1987), so it is by no accident that the forced expansion of female employment mentioned above was associated with drastic decline in fertility.

Regarding Hungary, the employment of women aged 15–54 slightly exceeds the 1930 level (34.6%) in 1949; ten years later in 1960, however, 49.9 percent of women aged 15–54 were employed full time. Finally in 1970, 63.7 percent of the above cohorts were active earners.

Based on the above, we can confirm that the conflict between childbearing and employment, and the objective to reconcile them, was in the limelight of population policy making in two periods, in 1967 and also in 1985, and the key objective of the adopted interventions was to reconcile conflicts between work and childbearing. The ideological goal related to capacity expansion of nursery schools also served to reconcile this conflict, but its pace lagged behind the demands.

[Figure 5-9] TFR and the employment rate of women aged 15-54, 1930-1990



Source: HCSO Historical Statistical Trends

(Women's opinion about the reconciliation of family and work in the communist time) Public opinion polls inform about the problem of balancing family roles and expectations at workplace. In a 1973 public opinion poll, the majority of women (63.2%) agreed that 'if an employed woman has children under 10, she should stay at home;' however, a significant minority (36.8%) said 'an employed woman, if possible, should carry on working even if she has small children' (Pongrácz, S.Molnár, 1976). The detailed explanations reveal that staying at home is justified by traditional role interpretation (33.7%) and running the family (26.7%), while carrying on employed work is backed by contribution of woman's earning to subsistence (19.2%), and higher prestige of employed work over household work (11.9%). (cf. Table 2)

Of course women's opinions were not homogenous. The majority of leader and professional women opted for woman's

employment (64.2%); most of them (31.3%) due to higher prestige of employment, but another significant part (22.4%) mentioned financial reasons. The opinion of all women with small children is not different from that of total female population, from which we conclude that the above opinions 'surrounded' child-bearing and working women in the form of stable public opinion.

(Table 5-2) Recommended status for women with small children (children under the age of 10), 1973, different groups of female respondents

	All 18-55 year old women	Women with children under 10	Manager, professional women	Subordinate female white-collars, office workers
Stay at home				
...to establish a good family atmosphere	26.7	24.9	22.4	24.7
...a man's job is to support the family, a woman's job is to raise children, keep the family together	33.7	33.6	10.4	26.1
...other reason	2.8	3.7	3.0	1.3
At home, total	63.2	62.2	35.8	55.1
Work for pay...				
... the country needs the work of women	2.0	1.5	4.5	2.1
... the family needs the earnings of the woman	19.2	23.4	22.4	14.0
...managing the household cannot satisfy a woman	11.9	10.7	31.3	23.9
...it is the only way to ensure equal rights for women	3.3	1.9	4.5	4.5
other reason	0.4	0.3	1.5	0.4
Work, total	36.8	37.8	64.2	44.9
Total	100.0	100.0	100.0	100.0

Source: Pongráczné, S. Molnár, 1976: 186-189

1965-1994: The period of active family policy: dates and measures

1946: Family allowance to lower childrearing costs

Family allowance aiming to lower childrearing costs has been the most significant cash family benefit program in terms of both its endurance and fiscal expenses. Recipients are entitled to family allowance per child on a monthly basis receiving a lump-sum until a predefined age of the child (currently 18 years). The program was introduced in 1938; from 1946 it was granted only to employees at the public sector and for every child until their age of 6. Of cooperative farmers, those with three children became entitled from 1953, those with two children from 1966. However, between 1953 and 1959, only state employees having two or more children were entitled to the benefit. The rules of entitlement to family allowance frequently changed, but the changes generally tended toward expansion³⁶⁾ (Jarvis, Micklewright, 1994). The rate of family allowance was related to wages, therefore its real value continuously changed. Its average value per child in 1960 was 5.2 percent of average earning, 10.4 percent in 1975, 21.2 percent in 1990, and 7.8 percent in 2003 (Gábos, 2005:173). Its significance for family policy is underlined by the fact that in the early 60s it comprised nearly all cash family benefits, but was also dominant at

36) While family allowance was granted to barely more than half of children in 1950, starting from the 80s, the overwhelming majority (more than nine-tenths) of children receive it.

the time of the change of regime (1990), making up three-fifths of the expenditures.

1953: coercive measures

In February 1953 the healthcare department adopted measures using particularly pronatalist but aggressive (restrictive and prohibitive) means. Reporting and registering of pregnancies were made obligatory, conditions of induced abortions became stringent, sales of and access to contraceptives were controlled. Violation of rules was strictly sanctioned, hundreds of people were prosecuted within weeks, resulting in severe verdicts after an expedite procedure. The rigorous conditions on induced abortion lasted only for three years and were cancelled in 1956³⁷).

1967: financially supported (long) maternal leave

The goal of financially supported maternal leave is to facilitate the reconciliation of family and work, to make child-bearing possible for employed women. This institution, although frequently adjusted over the years, still exists. The regu-

37) Such type of measures were adopted in other socialist countries too. The longest duration of coercive measures were in effect in Romania from 1967 until 1990.

lation stipulated that employed mothers were allowed to go on maternal leave lasting for 2.5 years (later 3 years) following childbirth, and during this period they received a flat rate financial support. On its adoption, the monthly amount of child-care fee made up almost 40 percent of the mean female earning, in 2006 it was 26 percent of the mean monthly female net earnings. Once maternal leave expired, the employer was obliged to take back and reemploy the mother.

1973: adoption of a complex population program

The objective of the complex population policy program was to ensure lasting replacement, and move toward a stationary type of population status to counter the declining age composition. The program comprised a number of essentially supportive measures for child-rearing families. One feature was increase of the real value of existing care (family allowance, childcare fee). A new element was the assistance with family formation by introducing special housing benefits. Families with three or more children were thereby provided low-rent public housing³⁸⁾ within relatively short time, and other newly married couples were granted interest-free housing loan. Additionally, government provided a significant

38) A significant government-backed housing program was run from the early 70s until the mid-80s.

amount of non-refundable housing grants in return of a promised number of children. Certain restrictive measures affecting the permission for induced abortions were also adopted³⁹⁾.

1985: Earning-related maternal support: wage compensated parental leave

In the early 1980s fertility again declined below replacement level (cf. Figure 1), and unfavorable mortality conditions caused life expectancy to decrease, resulting in population decline for the first time in Europe (still ongoing). The population policy concept adopted in late 1984 aimed to moderate the population decline process, halt it in longer run and then achieve population increase on the basis of favorable population structure. The most significant measure was the adoption of a new type of benefit, the wage compensated parental leave and adjusted to its level. Mothers employed before childbirth received 75 percent of their average earnings prior to birth until their child turned 2, and 65 percent in case of shorter employment. This measure, if only latently, recognized the opportunity cost of childbearing.

1988: tax relief for those with multiple children

39) The new rules on the conditions of abortion were rather liberal, since only 1% of applications were rejected after restriction.

Hungary adopted personal income tax in 1988. In order to reduce their financial burdens, those having a large family (3+ children) and taxable income were entitled to tax relief.

1990: family allowance becomes universal

Imminent unemployment projected the risk of losing family allowance tied to employment, and further deterioration of the financial status of deprived families with children. One of the last measures by the communist government was to make family allowance universal.

In-kind benefits

Nursery school and kindergarten care continuously expanded although it lagged behind growth demands for female employment. In 1960 7.4 percent of those aged 0-2 went to nursery school, 9.5 percent in 1970, 14.8 percent in 1980, and 11.7 percent at the time of the change of regime. As the majority (four-fifths) of nursery school children are two years old, 35-50 percent of those aged 2 went to nursery school in the 80s. Kindergarten involvement among children aged 3-5 was understandably much higher. 57.7 percent of children went to kindergarten in 1970, 79.8 percent in 1980, and 87.1 percent in 1990. Their rate has since increased, and today more than nine-tenths of children go to kindergarten.

Price subsidies

Communist economic system relied on overall price control which could be used to substantially influence the living standards of certain social groups (Kornai 1992). Using this principle, consumer goods of children (children's clothing, shoes, baby food, etc.) were heavily subsidized, so that they were made available at a price lower than their production costs.

1990-1994: family benefits in the first period of transition

The first freely elected government (1990-1994), which was committedly conservative, considered population a strategic goal: they not only preserved but also further expanded the institutional system preceding the change of regime. One of their first measures was to significantly increase the amount of family allowance, and make childcare fee universal, which was previously tied to employed status. The entitlement to tax relief for children was extended in 1992 to those with one child and two children, respectively. As a declaration of conservative family model, childcare support was introduced in 1993, which could count as the institutionalization of 'full-time maternity.' Entitled to this benefit are parents, step-parents or guardians who rear three or more minor children in their own household. The benefit is granted from the youngest child's third completed year until their eighth completed year.

About the fertility effects of population policy measures in the communist era

Hungarian population policy from the mid-60s to 1994 was characterized by the expansion and variety of the types of care, and a number of measures were adopted which intended to create more favorable circumstances for childbearing, as well as to reduce childbearing costs. Furthermore, certain measures could indirectly influence childbearing behavior. Some claim that these measures only had a temporary effect, they were not able to counterbalance the lasting decline of fertility, therefore they basically proved unsuccessful. We agree with those who claim that the continuous expansion of measures was part of the reproductive regime of communist Hungary (Andorka 1987). We are inclined to assume that without these measures the decreasing period of fertility would not have been followed by subsequent TFR increases, and cohort fertility would obviously have declined to a far lower level. It is, however, difficult to assess the extent of effects due to the above measures. We know of three analyses which take account of the effects of above measures.

Andorka analyzed the evolution of fertility by processing census data, using the traditional differential demographic approach, by cohorts and education level (Andorka, 1987, p. 287ff, Andorka 1996). It enabled him to filter out compositional

effects by education level, to detect fertility changes by education level. He noticed that there was a typical decline in childbearing propensity of married women until 1970 by education background; but after that this trend came to a halt between 1970 and 1980. Moreover, between 1970 and 1980, there was an increase of fertility, if only minor, in two dominant cohorts of key importance for cohort fertility. (cf. Table A2). Over this period, the number of children per hundred married women rose by 13 children among those aged 25–29, and by 4 children among those aged 30–34, and the increase in certain education categories was even stronger. There was a remarkable increase among women with higher level of education, having a high school diploma or higher education degree. Among those aged 25–29 having secondary education, the number of children per hundred women increased by 29, and by 26 among those aged 30–34. Andorka claimed that this increase can be attributed to population policy measures adopted in 1973 (increase of the real value of childcare fee, introduction of housing benefit). This increase by education level, if only at a slower pace, continued between 1980 and 1990, which we attribute to the result of childcare benefit adopted in 1985. We have to remember that rising education level among women was continuous over the entire period, i.e., the increasing rate of women with lower childbearing propensity related to population. Completed (cohort) fertility stabilized and somewhat increased so that in-

crease in the fertility of women with higher education level was able to counterbalance the effects of fertility decline resulting from the increased rate of female groups with lower fertility.

Gábos clearly demonstrated the effect of cash family benefits on fertility in his econometric analyses (Gábos, 2005, Gábos, Gál, 2004). His dependent variable was annual change of total fertility rate (TFR), and explanatory variables included change of per capita cash family benefits from the previous period. His integrated models clearly reveal that cash family benefits had a short- and long-term effect on TFR change of subsequent years. Taking into consideration parity, the strongest effect was on one- and two-child families. Based on his analyses he argues that “a 10 percent increase in the yearly change (from $t-1$ year to t year) of the real value of per capita family benefits per child aged 0–14 will result in about 2.5 percent increase in the change of total fertility rate from t year to $t+1$ year” (op.cit. 172). He assumes that the effect in Hungary is stronger than what is seen in West European countries, i.e., the fertile population in Hungary ‘reacted’ more flexibly to changes in the real value of cash family benefits (Gábos 2005).

Kapitány uses a simulation approach to estimate the effect of measures adopted in 1985 (earning-related parental support) on childbearing of fertile cohorts (Kapitány 2008). Based on fertility data of periods before the adoption of measures (1980–1984) and after their cancelation (1997–2000), he gave an

estimation of fertility trends without measures, and interpreted the difference between estimated and actual fertility as the fertility effect triggered by the measure. He estimated that measures increased the number of children per hundred women by about 9 percent, and the total number of children born by 5 percent. The measures mainly influenced fertility of women born between 1960 and 1970, and within that group the largest effect was on those born in 1967, aged 18 at the time of measure. Although other family policy programs also changed in the surveyed period (family allowance e.g. was significantly increased in 1990), his analyses suggest the difference between actual and estimated number of children was principally due to family benefit.

4. The change of regime and zig-zag family policy

A multitude of analyses⁴⁰⁾ discuss fertility changes associated with rapid and profound social changes started suddenly in 1989/90 and covering all areas of life, the transition from communism to capitalism ('retransition'). It is impossible to provide an overview of these analyses in this study. Therefore we only mention a few general circumstances which are important for

⁴⁰⁾ To select but a few, we have to mention two books on this subject matter and some key studies. These are: Books: Józwick, Kotowska 2003, a Hoem, J.M., eds. 2008, *Childbearing Trends and Policies in Europe*, Demographic Research, Special collection, Vol. 19. Studies: Frejka 2008, Sobotka 2008, Billingsley 2010, Spéder, Kapitány 2014.

the interpretation of family policy, and also indicate the fundamental changes affecting partnerships, and then present some features and effectiveness of changes to family policy.

The change of regime: from communism 'back' to capitalism

(The change of economic system) Although a number of market mechanisms worked in the Hungarian economy, we know well, as János Kornai described in detail in many of his works, that the difference between redistributive economy based on state ownership and economy based on private ownership is not gradual but of qualitative one (Kornai 1992). Economic transition in reality means that the operation, organization and resource allocation of economy and the behavior of each actor undergo a fundamental change⁴¹). The same social actors were thrown into totally new circumstances over a short time. In other words, the circumstances of everyday people's life change, thus also the circumstances of childbearing. Regarding childbearing, we assume that the change of living standards, conditions of consumption and labor market are particularly significant. The establishment of free market relations, rising energy prices and the elimination of price subsidies keeping

41) Of course not everything changes at once, and our current argument is that the dividing line in family policy emerges in a second stage of the change of regime.

children's consumer goods at low price levels, and as a consequence the *direct costs of childbearing increased* relatively fast. Costs rose also due to the fact that nursery schools, kindergartens operated by employers, vacationing for children, and other social services provided by employers were eliminated. Even more significant is the emergence of *economic and labor market uncertainty*. This uncertainty has dual origins. On the one hand, it results from the uncertainty of transition, since free market reevaluates every previous activity, and on the other hand, from the adaptation to global market exposure. Opening up a closed market involves far more unpredictable circumstances than increasing exposure of economic actors to globalization, already working under market conditions.

(Labor market) Labor market is particularly significant because it symbolically and actually transmitted economic dynamism - in fact transformation recession - to everyday man⁴²).

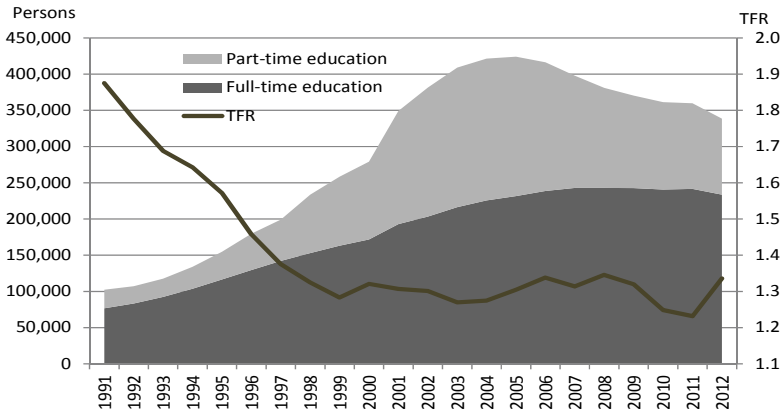
Within a year, unemployment rose from nothing to 10 percent in 1992, and taking early retirement also into account, the number of available workplaces decreased by 20 percent from one year to the other. The transition simultaneously brought about quantitative and qualitative changes on the labor market too. It was an almost impossible task for employees to defend

42) This set of problems was earlier analyzed in detail. We provided there a detailed discussion of the related theoretical approaches, and our data shown in this section are also derived from that research (cf. Spéder, 2002).

and hold their positions against the shrinking work supply, or get a new job. At the same time, the power relations controlling labor conditions were rearranged, whose direct implication was that employees became more defenseless at their workplaces. So after the change of regime it was much more difficult to reconcile family and work in market economy than in the redistributive shortage economy of the 1980s based on state ownership.

(Expansion of education) To handle shrinking labor market and to address modern economic and social challenges, social policy started the intense expansion of available higher education places. With the development of market system, the labor market value of higher education degree was upgraded. The expansion of involvement in higher education and the incompatibility of student and parent roles (Blossfeld, Huinink 1990) gave a clear boost to postponement process, since participation in higher education makes it impossible to generally maintain the overall practice of early childbearing.

[Figure 5–10] Changes in the number of participants in higher education (full-time and part-time) 1991–2012



The change of family formation

Partnerships underwent radical changes, but these changes originate in the communist period. Cohabitation became widespread, the popularity of marriage declined, the timing of partnerships and marriage in the life course changed, and the stability of partnerships underwent a change as well. (cf. Bukodi 2004; Carlson, Klinger 1987, Csernák 1992, Spéder, 2005). Non-married cohabitation In Hungary began to spread already in communism, but the typical form of the spreading of cohabitation was formation of new relationships after divorce (Carlson, Klinger 1987). Cohabitation as first partnership appears already in the 80s in Hungary, but it became widespread following the change of regime (Spéder 2005, Hoem et al.

2009). Today it has become common that young people start their first partnership in cohabitation. A major part of people who form their first partnership as cohabitation convert their partnership to marriage, while the inclination to conversion slightly decreased in time. Similarly to the USA (and in contrast to Swedish survey results), cohabitation as first form of partnership did not spread among those with a higher education degree but among manual laborers (Cherlin 1992; Spéder 2005., Perelli-Harris et al.2010).

If we compare childbearing propensity of those starting with cohabitation to that of married, we can claim that those living in cohabitation as first partnership have less chance to become parents in the given time interval. To put it simple, the changing fertility status of total population and the decline in the number of children are heavily influenced by the fact that much more people start their partnership in cohabitation at the turn of the millennium than under communism.

The second period of family policy: the zig-zag family policy

The previously described general features of the change of regime provide sufficient justification that social scientists and demographers should expect the postponement of childbearing and temporary decline of TFR in the post-Communist countries undergoing societal transition. According theorists of the sec-

and demographic transition childbearing behavior changed because of values (Lesthaeghe, Surkyn 2004, Sobotka et al. 2003). We cannot deal with this issue now as it was addressed elsewhere (Spéder, Kapitány 2014), here we are concerned with describing the social policy changes influencing fertility after the change of regime, and their effect on fertility.

Previously, we positioned the family policy of the first freely elected Hungarian government in the period of continuously expanding family policy started in 1967. This freely elected government made substantial efforts, against high inflation, to maintain the real value of cash family benefits, and also launched a number of new, extending programs. After the second free elections (1994), however, since 1995, family policy became a major battlefield of Hungarian political system. What else can be the reason for the fundamental and substantial changes in family policy that occurred every time following four changes of government between 1994–2012? (In other words, this was the end of the tacit consensus which lasted until 1994.)

Of course, curtailing of social policy expenditures was expected since experts considered the welfare expenses of former Communist countries excessive compared to GDP, and labeled the system of communist countries, including the Hungarian system, a ‘premature welfare state.’

1995: The 'Bokros austerity package': a clear shift from contribution-based family supports to poverty elimination

The second democratically elected Socialist-oriented government deemed that social expenditures had to be cut in order to maintain the balance of budget finances. However, the decision about which social groups should be disadvantaged by cuts was a matter of political value orientation. The 'Bokros austerity package' adopted in 1995 radically changed the system of family policy. It converted the previously and basically contribution- and employment-based benefits to income-tested benefits. The universal family allowance was no exception to it. After the intervention, only those were entitled to this and the childcare fee granted until the child's third year whose per capita income was below a predefined amount. The earning-related childcare benefit granted until the child's second year was eliminated, and a one-year-long, earnings-related maternity leave was introduced. (Thereby practically reducing the duration.) Finally, tax relief related to childrearing was also canceled.

1999: Family support act

The second conservative government (1998-2012) practically restored the family benefit system of the first conservative government. It canceled income testing, and even made the previously employment-based, flat-rate parental benefit

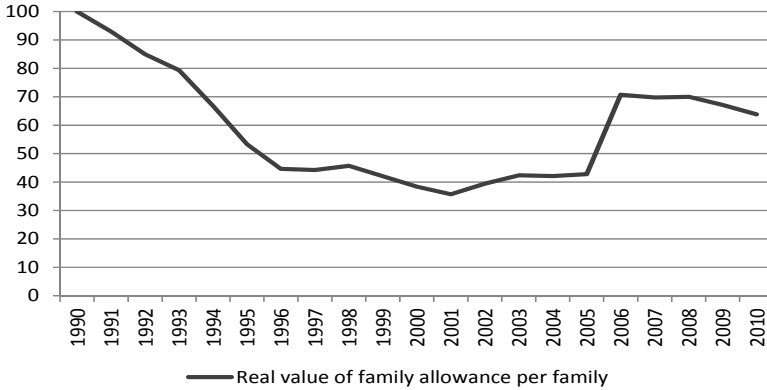
universal. The earnings-related 'compensating' parental benefit was made available again. Of course, eligibility was linked to previous employment of the mother. Newly adopted was a tax relief scheme related to the number of children, which was far more generous than previous ones.

2002. Elimination of child-related tax-relief and continuous debate on universality vs. income testing

Family benefits were continuously debated under the Socialist government between 2002-2010, but fundamental changes affected the area of tax reliefs. General entitlement to tax reliefs was constrained, only those rearing 3 or more children as well as earning less than a specific income were entitled to them. That these changes were not motivated by fiscal scarcity but political interests, is shown by the adoption of a highly expensive 13th-month pension from 2002 on. Although debated, family allowance finally remained universal and was doubled in 2006 (cf. Figure 11). During the government's last period in 2009, due to the global economic crisis and as a result of unwanted restrictions, the Socialist government reduced the term of the universal, flat-rate parental leave from three to two years⁴³).

43) To complete the picture, 13th month pension was cancelled.

[Figure 5-11] Changes in the real value of family allowance between 1990–2012



2010. Reintroduction of tax relief

As expected, the new conservative government (2010 -) restored tax reliefs for families previously so important to them and increased parental leave to three years.

Evaluation of family policy

It is difficult to evaluate the role of Hungarian family policy in fertility transition. Hungarian family policy is relatively generous if we examine the rate of cash expenditures related to GDP. But we still belong to the more generous in Europe if we also consider in-kind public expenditures on children (cf. table). A study on Central and East European family policy and its dynamism also concludes that Hungarian family benefits, com-

pared to the post-communist countries joining the EU in 2004⁴⁴), were the broadest and most consistent between 1990 and 2000 (Szelewa, Polakowski 2008). How can it be explained, then, that fertility in Hungary is lowest in European comparison in the second decade of the new millennium?

A possible explanation is that family policy only had a delaying or no role at all in the period of post-communist fertility transition, during a rapid postponement transition. The other explanation is that the zig-zag nature of family policy created the perception in those involved that stability of family benefits could not be trusted in the long run. However, predictability is most needed in times when market dynamism and economic dynamism intensify. I agree with authors Neyer and Andersson (2008) who argue that the effect of family policy largely depends on how those involved see and perceive it. Although we are inclined toward the latter explanation, we cannot put up more arguments for it now.

However, we have two empirical studies on the effect of family policy following the change of regime. On the one hand, it is Gábos's analysis already addressed, which demonstrated the effect of family benefits on fertility over the period between 1950-2006, therefore his arguments are valid for the period after the change of regime. A restrictive factor is that Gábos ar-

44) These are: Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Slovenia

gues that causal mechanism before 1990 was stronger, and he was not able to perform a separate time-series analysis of the period after 1990 (Gábos 2005). Finally, our earlier studies showed that measures between 1995 and 1998 (cancellation of earning-based benefits, conversion of universal family benefits to income-tested ones) had two types of consequence for fertility (Aassve, et. al., 2006). On the one hand, childbearing propensity of those with higher education level decreased substantially - was halved - over the 1995-1998 period compared to those with lower education level (differentiating affect). In the subsequent period when earning-based benefits were restored, the difference between the childbearing propensity of the two education level groups disappeared. This is in accordance with our expectations, since cancellation of earning-based benefits and making the remaining flat-rate benefits income-tested adversely affected those with secondary and higher education, while assisted those having very low level of education. On the other hand, we detected a period effect. One explanation is that the reduction of family benefits negatively influenced childbearing propensity, another explanation is that the period effect is the consequence of acceleration of postponement.

References

- Aassve, A., Billari, F.C., Spéder, Zs. 2006. Societal transition, policy changes and family formation: Evidences from Hungary. *Journal of European Population*, No. 2. p 127-152.
- Andorka, R. 1975. Az ormánsági születéskorlátozás története. [The history of contraceptive use in Ormánság] *Valóság*, Vol. 18. No. 6., p. 45-61.
- Andorka, R., 1987. *Gyermekszám a fejlett országokban.* [Fertility in advanced societies, extended Hungarian publication] Budapest:Gondolat
- Andorka, R.,Vukovich, Gy. 1985. The Impact of Population Policy on Fertility in Hungary. In: *International Population Conference, Florence, 1985.* Vol. 3. Liége: International Union for Scientific Study of Population: 403-412.
- Andorka, R. 1996. Demographic Changes and Their Main Characteristics from 1960 to our days. in: Tóth, P.P., Valkovics, E., eds. *Demography of Contemporary Hungarian Society.* Atlantic Research and Publication, Highland Lakes
- Arts, W., Geliessen, J. & Luijckx, R. 2004. Shall the twain ever meet? Differences and changes in socio-economic justice norms and beliefs in Eastern and Western Europe at the turn of the Millennium. In J. Hagenaars & L. Halman (Eds.): *The Cultural Diversity of European Unity* (pp. 185-216). Brill European Values Study.
- Billingsley, S. 2010. The Post-Communist Fertility Puzzle. *Population Research and Policy Review*, 29(2), 193-231.

- Blossfeld, H-P., Huinink, J. 1990. Human capital investment or norms of role transition? How women's schooling and career affect the process of family formation. *American Journal of Sociology*, 97, 143-168.
- Bongaarts, J., Feeney, G. 1998. On the quantum and tempo of fertility. *Population and Development Review* vol. 24(2), pages, 707-726
- Bukodi, E. 2004. Ki, mikor, kivel (nem) házasodik? [Who, when, whom do (not) marry?] Budapest: Andorka Rudolf Társadalomtudományi Társaság -Századvég Kiadó.
- Carlson, E., Klinger, A., 1987: Patterns in Life: Unmarried Couples in Hungary. *European Journal of Population*, 3, 85-59.
- Cherlin, A. 1992. Marriage, divorce, marriage. Cambridge: Harvard University Press.
- Csernák J. 1992. Élettársi kapcsolatban élő nők néhány társadalmi, demográfiai jellemzője Magyarországon. [Selected social and demographic characteristics of women living in cohabitation] In: Csernák, J. - Pongrácz, T. - S. Molnár, Élettársi kapcsolatok Magyarországon. Budapest, KSH, NKI Kutatási Jelentések, 46., 15-58.
- Demény, P., 1997. A huszadik század Magyarországnak népesedése a nemzetközi összehasonlítások tükrében [The 20th century population development of Hungary in international comparison]. In Kovacsics, szerk. Magyarország történeti demográfiája [The demographic history of Hungary], Budapest, KSH and MTA, p.379-390.
- Frejka, T. 1980. Fertility Trends and Policies: Czechoslovakia in the 1970s. *Population and Development Review* Vol. 6, No. 1, 65-93.

- Frejka, T. 2008. Determinants of family formation and childbearing during the societal transition in Central and Eastern Europe. *Demographic Research*, Volume 19, Article 7, 139-170.
- Gábos, A., 2005. A magyar családtámogatási rendszer termékenységi hatásai. [Fertility consequences of the Hungarian family support system] Budapest: Corvinus Egyetem, PHD értekezés, p. 190.
- Gál, R. I., Gábos, A, 2004. Az intergenerációs közjavak termékenységi hatásai: magyarországi eredmények. [Fertility output of the intergenerational public goods: Hungarian results] In: Kolosi, Tóth, Vukovich, szerk. Társadalmi Riport 2004. Budapest: TÁRKI, p. 165-175.
- Home, J., Kostova, D., Jasilioniene, A. Mureşan, C., 2009. Traces of the Second Demographic Transition in Four Selected Countries in Central and Eastern Europe: Union Formation as a Demographic Manifestation. *European Journal of Population*, 25(3): 239-255
- Ignits, Gy., Kapitány, B. 2006. A családtámogatások alakulása: célok és eszközök. [Trends of family support schemes: aims and means] *Demográfia* Vol. XLIX. No. 4. 383-401.
- Inglehart, R. & Baker, W. E. 2000. Modernization, Cultural Change, and Persistence of Traditional Values. *American Sociological Review*, 65(1), 19-51.
- Kapitány B. 2008. A gyed-hatás [The gyed-effect] *Demográfia* Vol. XLIX. No. 4. 383-401
- Kornai, J. 1992. *The Socialist System: The Political Economy of Communism*. Oxford University Press
- KSH, 1960. A nők helyzete régen és most. [The situation of Women in the Past and in the Present] Budapest, Központi Statisztikai

- Hivatal, p. 58.
- KSH, 1972. Magyarország munkaerőhelyzete 1960 és 1970 között [Labor resources in Hungary between 1960 and 1970] Budapest, Központi Statisztikai Hivatal, p. 118.
- KSH, 2006. Termékenységi adattár 1990-2005. [Fertility data 1990-2005] Budapest, Központi Statisztikai Hivatal
- Lesthaeghe, R. 1996. The Second Demographic Transition in Western Countries: An Interpretation. In: Mason - Jensen (szerk.), Gender and Family. Change in Industrialised Countries, Oxford, Clarendon Press, 17-62.
- Lesthaeghe, R., Surkyn, J., 2004. When History Moves on: The Foundations and Diffusion of a Second Demographic Transition. Conference draft. www.vub.ac/SOCO, 34.
- Macura, M. Y.-Mochizuki, S.-Garcia, J. L. 2000. Europe's fertility and partnership: selected developments during the last ten years. Paper presented at the FFS Flagship Conference.
- Neyer, G. and Andersson, G. 2008. "Consequences of family policies on childbearing behaviour: Effects or artifacts?" *Population and Development Review*, 34 (4): 699-724.
- Perelli-Harris, B., Sigle-Rushton, W., Kreyenfeld, M., Lappegard, T., Keizer, R., Berghammer, C., 2010. The educational gradient of childbearing within cohabitation in Europe. , 36, (4), 775-801
- Pongrácz, T., S. Molnár, E., 1976. Népesedési kérdésekkel kapcsolatos közvéleménykutatás. [Public opinion research on population issues] KSH Népeségtudományi Kutató Intézet Közleményei, 43. szám. P.199.
- Sobotka, T., 2004. Postponement of Childbearing and Low Fertility in Europe. Amsterdam: dup

- Sobotka, T., 2008. The diverse faces of the Second Demographic Transition in Europe. *Demographic Research*, Volume 19, Article 7, 171-224.
- Sobotka, T., Zeman, K. & Kantorová, V., 2003. Demographic shifts in the Czech Republic after 1998: A second demographic transition view. *European Journal of Population*, 19(3). 249-277.
- Spéder, Zs., 2005. The Rise of Cohabitation as first union and some neglected factors of recent demographic developments in Hungary. *Demografia English Edition*, p. 77-103.
- Spéder, Zs.- Elekes, Zs. - Harcsa, I.- Róbert, P., 2002. The Outlines of the transformation in Hungary. In: Adamski, Manochin, Zapf (eds.): *Structural Change and Modernization in Post-Socialist Societies*. Hamburg: Kraemer, P. 79-153
- Spéder, Zs. & Kapitány, B., 2014. How are Time-Dependent Childbearing Intentions Realized? Realization, Postponement, Abandonment, Bringing Forward. *European Journal of Population*, 25(4), 503-523.
- Szelewa, D. & Polakowski, M. P. , 2008. Who cares? Changing patterns of childcare in Central Eastern Europe, *Journal of European Social Policy*, Vol. 18. May, 115-131.
- Tárkányi Á., 2001. A családdal kapcsolatos jogszabályok Magyarországon 1980-1998. [Lows related to families] NKI Kutatási jelentések 67.
- Tóth, P.P., 1996. International Migration and Hungary. p. 139-169. in. Tóth, P.P., Valkovics, E., eds. *Demography of Contemporary Hungarian Society*. Atlantic Research and Publication, Highland Lakes
- Zap, W., Mau, S., 1993. Eine demographische Revolution in

Ostdeutschland? Dramatischer Rückgang der Geburten,
Eheschließungen und Scheidungen. In: Informationsdienst
Soziale Indikatoren (ISI) 10, Juli, 1-5

Appendices

(Table 1) Total fertility Rate in selected Western European and Communist countries, 1960, 1985, 2010

Countries	Years		
	1960	1985	2010
Communist countries			
Poland	2.98	2.32	1.38
Czechoslovakia (Czech R.)	2.11	1.96	1.49
Hungary	2.02	1.85	1.25
Romania	2.34	2.31	1.38
Bulgaria	2.32	1.98	1.49
Western countries			
Sweden	2.20	1.74	1.98
France	2.73	1.81	2.03
Austria	2.70	1.47	1.44
Portugal	3.16	1.72	1.36

Source: European Council, EUROSTAT

(Table 2) Number of live births per 100 married women by selected age and education level groups, 1960–1990

Age of married woman	Completed education of married woman	1960	1970	1980	1990
		25-29years			
	Uncompleted primary (6-7 years)	171	183	238	276
	Completed primary (8 years)	148	147	178	-
	Completed secondary	111	108	137	141
	University or college degree	94	93	112	115
	Total	161	145	158	157
30-34years					
	Uncompleted primary (6-7 years)	211	205	258	294
	Completed primary (8 years)	174	174	200	-
	Completed secondary	150	139	165	174
	University or college degree	135	133	159	166
	Total	200	184	188	191

Source: Andorka, 1987: p.326. KSH, 2006: p. 65-67.





Chapter 6

Population Aging, Below-replacement Fertility and Population Policies since 1990 in Taiwan

Melin LEE, Associate Professor,
Department of Social Work, Asia University

Yu-Hsuan LIN, Senior Specialist,
Health Promotion Administration,
Ministry of Health and Welfare



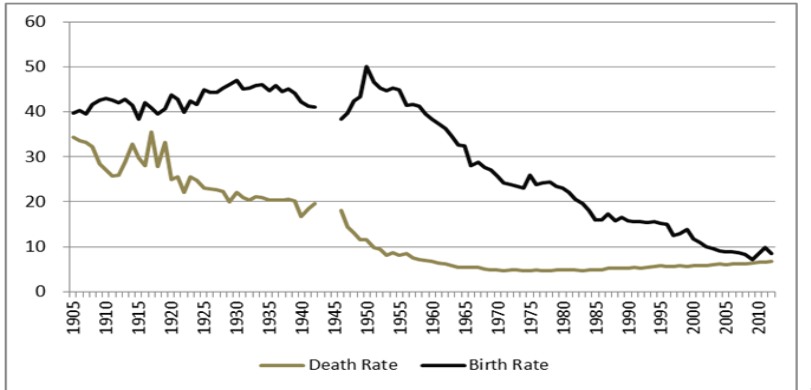
6

Population Aging, Below-replacement Fertility and Population Policies since 1990 in Taiwan <<

1. Introduction

Taiwan experienced and completed demographic transition during the twentieth century. Figure 1 shows the decline of its crude birth rates and crude death rates during the twentieth century and until present. The death rate started a trend of steady decline in the 1920s (Barclay 1954, Chen, 1979, Wang & Chen 1986). Since then, the enlarging gap between birth rates and death rates brought about accelerated population growth. After World War II, the birth rate approached its peak of over 40 per thousand in the 1950s before showing a continuing decline until present. The government initiated a nationwide family planning program in 1965 intended to control the number of births. As a backing force of the family planning movement, the first version of the country's Guideline for Population Policy, aiming at lowering birth rate, was promulgated in 1969.

[Figure 6-1] Demographic Transition in Taiwan



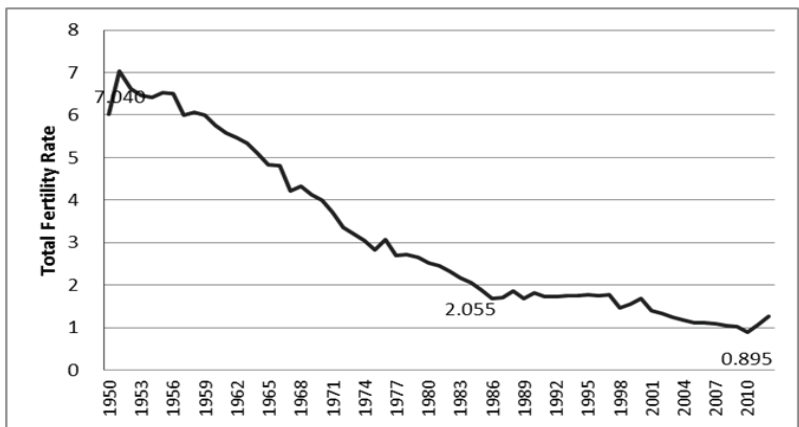
Under this policy, the birth rate declined to about 20 per thousand in the early 1980s. Population growth, however, remained high in the 1980s due to the extremely low death rate at the time, which was around 4 deaths per thousand. Growth was also a result of the large number of women in reproductive ages. Concerned by the apparently growing pressure of population growth, government announced yet another stronger wave of family planning programs in 1983. Ironically, in the next year of 1984, total fertility rate (TFR) showed a below-replacement level of 2.05. In 1984, the natural increase in population still held a moderate rate of 14.84 per thousand.

2. Demography of Low Fertility in Taiwan

2.1 Unexpected Fertility Decline in Taiwan

Fertility transition occurred in Taiwan during the latter half of the twentieth century. Total fertility reached a peak of 7.04 in 1951, then declined to 4.0 in 1970, and fell to below-replacement level in 1984. Since then TFR stagnated around 1.75, moderately below replacement level, for about a decade between 1986 and 1997. In 2003, official TFR value published by the government showed an even lower rate of 1.23, which enlisted Taiwan as one of the lowest-low fertility, defined as a TFR of 1.3 or less, countries in the world (Kohler et al. 2002). In the 2000s, lowest-low fertility started to spread in Eastern Asian advanced countries; Taiwan recorded an even lower fertility rate among Japan, Korea, and China. Taiwan's TFR was 0.895 in 2010; supposedly the lowest recorded value for a country with rural areas comprising over half of the country.

[Figure 6-2] Total Fertility Decline in Taiwan



2.2 Delayed Childbearing

Age pattern of childbearing shows the decline of fertility after 1980 consisted of the dramatic shrinkage of those under the age of 30 and significant delay of childbearing until ages 35 to 39 among Taiwanese women. Table 1 shows that the share of fertility for women aged 30 and above increased from 18 percent in 1980, to 24 percent in 1990, to 35 percent in 2000, to 54 percent in 2010, and to 59 percent in 2013. The mean age of childbearing increased from 25.4 in 1980, to 27.0 in 1990, to 28.2 in 2000, to 31.6 in 2010, and to 32.6 in 2013.

Age-specific fertility indicates the prime ages of childbearing, i.e. TFR for ages 25-29 has decreased from 200 per thousand in 1980 to 132 in 2000 and even dramatically to 55 in 2010. For the first two decades it decreased 34 percent, and decrease even accelerated in half the time during the last decade with a magnitude of almost 60 percent. The prime childbearing age at present has shifted to ages 30-34 and fertility among women aged 35-44 has shown a reversal trend since 1990. In an era of ultra-low fertility, the astrological concerns sensitively reveal their effects on fertility in specific years in Taiwan. The rather spectacular drop in 2010 was due to the inauspicious Tiger year, while the grand jump in 2012 was due to the favorable Dragon year in the zodiac cycle of Chinese calendar.

〈Table 6-1〉 Age-specific and Total Fertility: 1980-2010

Ages	15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR	30+'s Share in TFR
1980	33	180	200	69	16	4	1	2.52	18
1990	17	100	159	68	15	2	0	1.80	24
2000	14	72	132	90	24	3	0	1.68	35
2010	4	23	55	65	28	4	0	0.90	54
2011	4	23	66	81	34	5	0	1.06	56
2012	4	26	79	97	42	6	0	1.27	57
2013	4	22	62	80	39	6	0	1.07	59

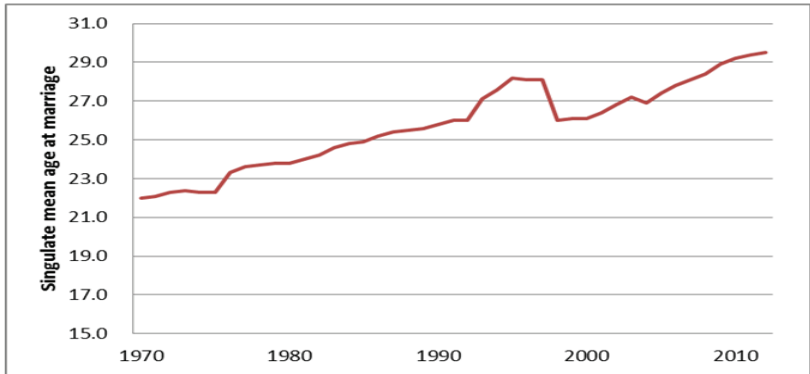
Source: Taiwan Demographic Fact Book for respective years.

2.3 Nuptiality Decline

Marriage pattern in Taiwan used to be characterized as early and universal as compared to western countries (Hajnal 1965). Nuptiality decline, however as fertility decline, has undergone tremendous change for the past decades. In Taiwan, nuptiality decline has profoundly affected fertility post demographic transition.

Singulate mean age at marriage was 20-21 in 1960, then increased from 22.1 to 23.8 between 1970 and 1980, and from 25.8 in 1990 to 29.2 in 2010. Postponement of marriage timing is about 8 years in half century since 1960s, and about 6 years only since the 1980s. As Figure 3 presents the delay of marriage timing.

[Figure 6-3] Trend of Singulate Mean Age Marriage in Taiwan



Nuptiality decline is also demonstrated in divorce trend. Crude divorce rate was 0.76 per thousand in 1980, and has since increased to 2.51 in 2010 by more than three times. Both delay of marriage and increase of divorce alter the marital constitution of the population; particularly for women of child-bearing ages. The proportions of women currently married at ages 15-19 and 20-24 declined sharply between 1980 and 2010, from 5.0 percent to 0.4 percent and from 39.9 percent to 5.1 percent respectively. For ages 25-29, the proportions decreased from 78.9 percent to 26.9. And for ages 30-34, the current group with highest fertility, the proportions show a 38 percent decrease from 90.0 to 55.5. The decrease in proportion of women ages 35 and older that are currently married are also significant, although effects on fertility decline might not be as comparable to the tremendous effect of fertility on prime ages (Table2).

(Table 6-2) Changes in Proportions of Women Currently Married in Taiwan

Ages	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1980	5.0	39.9	78.9	90.0	92.8	92.3	90.1
1990	2.5	25.5	66.9	83.7	86.7	87.4	87.4
2000	1.6	15.1	49.7	73.6	80.1	81.2	80.8
2010	0.4	5.1	26.9	55.5	67.8	71.5	73.2
2013	0.4	4.4	23.8	52.6	64.8	68.1	70.2

Sources: Taiwan Demographic Fact Book for respective years.

2.4 Decomposition of fertility decline

Both nuptiality and marital fertility have contributed to the recent fertility in Taiwan. Several demographers applied decomposition technique to discern the relative effect between nuptiality and marital fertility decline. Chang (2005) targeted crude birth-rate (CBR), indicating that during 1965-80, about two-thirds of CBR decline was a result of the decrease in marital fertility, and the other one-third to nuptiality change. In contrast, the effect of nuptiality exceeded marital fertility and accounted for almost all of the fertility decline after 1980.

Chen and Yang (2005) targeted TFR, indicating that before 1986, both nuptiality and marital fertility affected TFR as the older women ceased to produce children. Then after 1986, nuptiality and marital fertility operated in opposite directions. Nuptiality declined significantly due to continued expansion into higher education and labor participation for young women, while marital fertility was actually increasing. The increase in marital fertility was a result of conscious decisions among

younger adults; those who chose to marry have an intentional purpose of childbearing. Chen and Young (2005) thus concluded that childbearing has become a functional cause of marriage among young women. Marriage seems to be initiated by women already being pregnant among cohabitating couples. The 1998 KAP survey evidenced that the percentage of premarital pregnancy among married women for ages 20-24 was 54.5%, 34.4% for ages 25-29, 30.1% for ages 30-34, and 22.6% for ages 35-39 (Lin et al. 2002)

Another decomposition conducted by Louh (2007) targeted fertility of women ages 20-29 and presented another similar result. Louh found that among women aged 20-24, the percentage of married women continue to decline during 1965-2005 and marital fertility decreased first during 1975-85 but reversed its trend later during 1985-95 and 1995-2005. For the most recent years, 1995-2005, the effect from nuptiality decline went beyond that of fertility decline. Total fertility rate would be even lower if lacking the compensation from increased marital fertility. For the 25-29 age group, Louh concluded that nuptiality decline contributed a major percentage of about 70% for fertility decline..

2.5 Extramarital Fertility

Nuptiality decline exercises forceful effect on fertility decline

in Taiwan. Additionally it is not mitigated by an increase in extramarital births post demographic transition, unlike Northern/Western Europe where it contributes 20% or more to maintain a moderately low fertility (Suzuki 2005). Extramarital births encounter strong social pressure as it is seen as disgraceful and prohibits cohabited couples or single persons from childbearing. Therefore, nuptiality decline affects fertility in a direct way and with full force in Taiwan. During 1998 to 2010, percentage of extramarital births fluctuated around 3.6 to 4.2 percent. However, such figures were comparatively higher than the roughly 1.0 percent evidenced one decade earlier. The very small percentage of extramarital births suggests that nuptiality decline alone has had an important and direct impact on fertility.

2.6 Proximate Determinants

Since marriage does not explain fertility decline in its entirety, there should be proximate determinants that also brought about a significant drop in marital fertility (Bongaarts 1978). In Taiwan, the percentage of married women who have ever practiced contraception among ages 22-39 was 82% in 1980, 93% in 1985, 95% in 1992, and 90% in 1998. Among the women in each survey, the percentage actually practicing contraception at the time was 70% in 1980, 78% in 1985, 81% in

1992, and 75% in 1998 (Lin et al. 2002); hence Taiwan had reached a perfect contraceptive society since 1980 and TFR remains low. However, a recent decline in contraceptive practices among ages 22-39 should in theory correspond to TFR increase and yet TFR continues to decline. Even though the trend of induced abortion is unknown, it is possible that abortion contributed in part to the recent fertility decline. A 2012 survey of the pregnancy histories of married women showed that an average of 25.77% out of total average 2.15 pregnancies was wasted and resulted in only 1.54 live births. Looking at Table 3, the proportion of induced abortion to pregnancy among ages 20-24 (38.6%) is significantly higher than the average (17.2%). Of course, some suspect that the decline could also be attributed to either lack of sexual intercourse or increase in sterility as a result of the increased stress of modern lifestyles.

〈Table 6-3〉 Pregnancy outcomes and Wastage Rates: 2012 Taiwan Survey

Ages	Pregnancy	Live Birth	Still Birth	Miscarriage	Induced Abortion	Pregnancy Wastage (%)	Sample Size
20-24	1.81	0.96	0.00	0.04	0.70	40.92	21
25-29	1.73	1.45	0.00	0.13	0.32	26.96	169
30-34	2.00	2.02	0.02	0.13	0.32	24.09	453
35-39	2.48	2.44	0.01	0.21	0.41	25.92	588
Total	2.15	1.54	0.01	0.16	0.37	25.77	1333

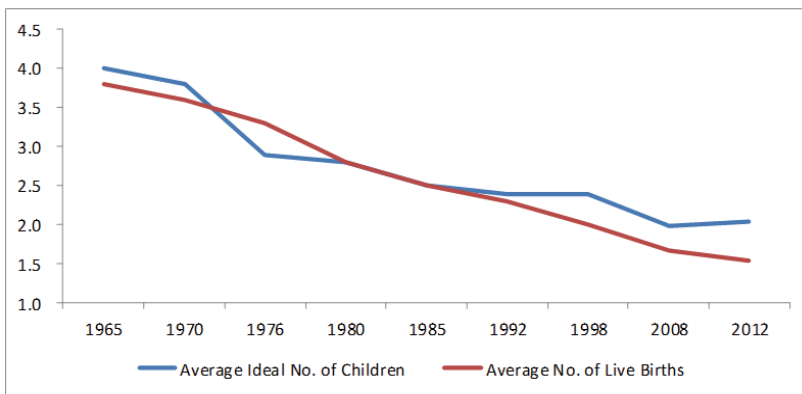
Sources: Health Promotion Administration, Ministry of Health and Welfare, Taiwan (2014 forthcoming).

3. Socioeconomic Determinants

3.1 Demands for Children

Figure 3 shows the changes in the ideal number of children and average number of live births among married women aged 22-39 from 1965 to 2012. Although the demand of children has been declining, very low fertility could not be attribute to the result of very low demand of children in Taiwan. The demand for children has been declining slowly but was still high as 2.04 in 2012. Thus the very low level fertility level should be explained in terms of the obstacles to fulfilling that demands.

[Figure 6-4] Trend of Ideal No. of Children and Live Births: 1965-2012

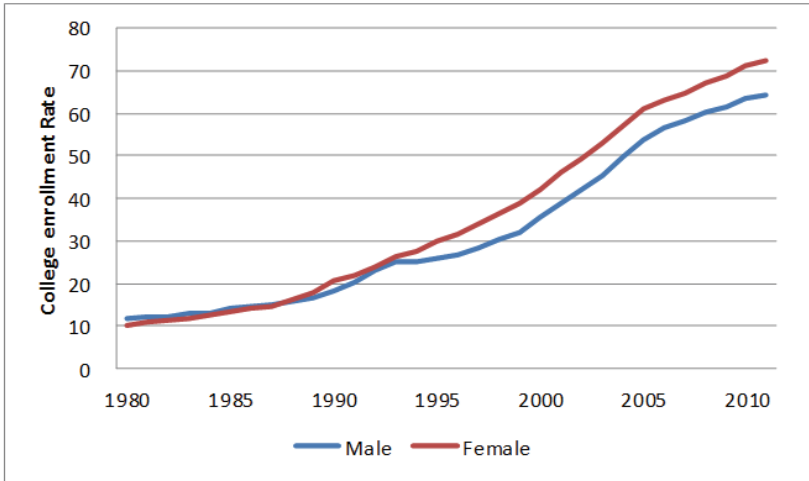


3.2 Direct Cost of Children

In the world of rapid industrialization and technological innovation, parents are more interested in the quality, rather than quantity, of children. Educational cost of children continues to be on the rise (Becker 1991). The rising educational cost of children is thought to be a crucial factor for fertility decline along with industrialization and post-industrialization.

College enrollment rate demonstrates the trend of rising cost of children. Figure 4 shows the trend of net college enrollment rate in Taiwan since 1980 for males and females. The net rate represents high-school graduate cohort enrollment; 11.86% for males and 10.25% for females in 1980. In 2012, the rate is 66.02% for males and 74.11% for females (Ministry of Education 2014). Behind the impressive rise in enrollment between 1980 and 2012 was a universal expectation for higher education. College enrollment is the most minimal and common criteria amongst people of Taiwan. Higher education expansion attracted both tremendous private and public investment during this period. Given the higher proportion of private schools, the educational cost of children is quite a burden that Taiwanese parents have to bear.

[Figure 6-5] College Enrollment Rates in Taiwan : 1980-2012

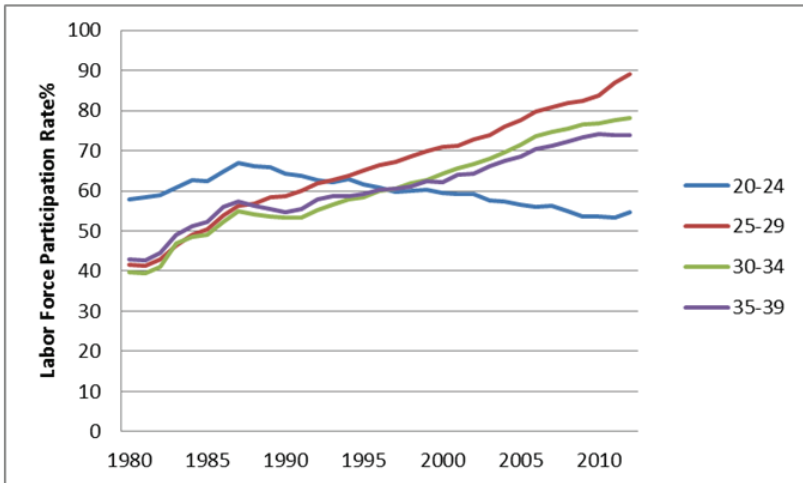


3.3 Female Labor Force Participation

Economic development during the five previous decades increased in the number of occupational opportunities for women. Women have increased the time they spend on market activities. According to Becker (1991), the main cause of family change since the latter half of the twentieth century has been the increase in economic power of women. The impact of women's participation in labor force on fertility spread in many aspects of life. Not only has there been an increase in the opportunity cost of children as more women are employed outside of the home, the declining return from the gender-based division of labor has reduced the benefits of marriage and promoted an increase in the divorce rate.

From 1980 to 2012, female labor force participation among the major reproductive age group of women has substantially increased in Taiwan. Figure 5 indicates the growth has been greatest for ages 25-29; growth more than double from 41.57% to 89.22%. Women aged 30-34 and 35-39 also saw impressive increase from 39.71% and 42.97% , to 78.08% and 74.0% respectively (Statistical Bureau 2014). For ages 20-24, their change in labor force participation, first increased then decreased to the recent 54.73%, mainly owing to the increased enrollment into higher education.

[Figure 6-6] Female Labor Force Participation Rate in Taiwan



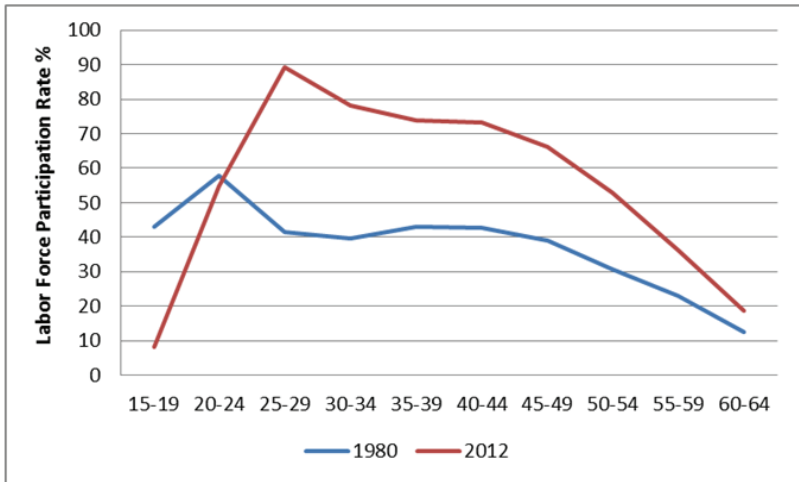
The effect of female labor force participation on fertility can be directly attributed to an incompatibility between work and childcare. This role conflict results in women leaving the labor

market after marriage or for childbearing. Women would resume employment after their children are older. In many places such behavioral practices could be verified in an M-shaped curve in the age pattern of female labor force participation. Usually the M-shape curve implies that there is a low compatibility between work and family for women. Social factors that cause the low compatibility could be the persistence of gender roles, men's low level of participation in childcare, the characteristics of the labor market, and the underdevelopment of family friendly policy (Li & Yang 2004).

Figure 6 shows the age pattern of female labor force participation in Taiwan. The 1980 curve presents a somewhat M-shape, however, the recent pattern in 2012 shows a monotonous decline for women older than the mid-twenties. This implies that the rapid increase in higher education attainment among women has had a positive impact on female labor force participation. However lacking an M-shape in age pattern doesn't infer the opposite that the incompatibility between work and housework is less of a problem for Taiwanese women. Rather it might instead suggest that some women forfeit marriage and childbearing in order to stay in the labor market, or else give up work and the expectation of reentry. Which is the story needs further investigation based on micro-level evidences. How employed women manage to care for their pre-school children might provide some related

information.

[Figure 6-7] Age pattern of Female Labor Force Participation in Taiwan



3.4 Childcare

According to a series of Women's Marriage, Fertility and Employment Surveys in Taiwan, most children under the age of three are cared for by their own parents, primarily their mothers. Table 4 shows this proportion was as high as 82.75% in 1980. Although this proportion has kept declining for the past 30 years, in 2013, over half (51.82%) are still cared for by their own parents. Relatives are usually the second option in childcare; in this case, relatives refer to the child's grandparents. Grandparents' role in childcare has become increasingly important. This proportion has increased from

14.64% in 1980 to 38.08% in 2013. Parents and grandparents share 90% of the care work of children under three years of age.

There is only 9.07% of children are cared for by babysitters in 2013, which include babysitting s at the child’s home or at a family nursery or babysitter’s home. Most parents who choose to entrust care to non-relatives are doing so at the babysitter’s home for financial reasons, as it is less expensive than having a babysitter care for the baby at home. Without a doubt, the enrollment rate of young children under 3 years old in daycare centers is very low in Taiwan. While the enrollment in such facilities has increased recently, the enrollment rate has never exceeded 1%.

(Table 6-4) Major Caregiver of Children under age 3 for Married Women Aged 15-49

Year	Total	Child's parents	Relatives	Babysitters	Foreign servants	Childcare centers
1980	100.00	82.75	14.64	2.41	-	0.20
1990	100.00	69.72	24.15	5.94	-	0.19
2000	100.00	67.78	23.90	7.72	0.20	0.40
2010	100.00	54.90	34.74	9.37	0.30	0.70
2013	100.00	51.82	38.08	9.07	0.27	0.76

Source: Women’s Marriage, Fertility and Employment Surveys in respective years, DGBAS, Taiwan.

Suzuki (2013) compared the correlation between early childhood services and total fertility of Japan and Korea among

OECD countries in 2013. He argues that weak parental-child ties in North/Western European countries lead to much more development of non-parental childcare activities and also high rate of utilization of early childhood care services; thus improving the compatibility between work and family. Therefore these countries avoid lowest-low fertility even with post-modern economic and social changes. The comparatively low enrollment rate in non-parental early childhood care services for Japan is 28.3% and for Korea is 37.7% in 2010.

Compared to Japan and Korea, not to mention North/Western European countries, non-parental early childhood care services seem underdeveloped in Taiwan. This is probably a result of strong family ties, which not only encourages maternal care for children, but also relies on relatives to help accommodate the incompatibility problem between work and childcare for the parents.

3.5 Gender Equity and Fertility

In the process of industrialization and modernization, there has been significant progress in women's status. The progress can be seen from the following aspects: considerable increase in the number of female college students, prevalent female labor force participation, increase in number of female professional or technical workers with high income and prestige,

the shrinking of gender wage differentials, improvements in legal protection of gender equality in employment, and improvements in legal protection from family violence. Women's status as measured by GEM (Gender Empowerment Measure) indicator, which was developed by the United Nations Development Programme (UNDP), scored 0.707 for Taiwan in 2005 (DGBAS 2008). To compare with other Asian countries, Singapore scored 0.761, Japan 0.557 and South Korea 0.510. Thus we see a relative higher status of women in Taiwan, particularly in public life.

However growth of the role of women in the public sphere has brought about less merit for marital life and helped to augment women's reluctance to marry. Survey of Social Development Trends in Taiwan gives more insight into the circumstances of the single women (DGBAS 2002). In response to the main reasons for remaining unmarried, much higher proportions of females expressed that they were "satisfied with present condition" or "afraid of unhappy marriage" than males. Table 5 shows 22.1% of unmarried women versus 8.1% of unmarried men attribute their reason of not marrying to be "satisfied with present condition". And another 12.4% of unmarried women attribute the reason to being "afraid of unhappy marriage" compared to men's 2.4%. The change in women's status increases the difficulties in combining employment, housework and childcare, and as a result, might also

lower the attraction of marriage for women.

〈Table 6-5〉 The Main Reasons for Remained Unmarried among 35-44 Ages

Gender	Sample Size	Economic reason	Have not met ideal mate	Satisfied with present condition	Afraid of unhappy marriage	Other reasons
Male	186	38.9	41.6	8.1	2.7	8.6
Female	144	6.2	48.3	22.1	12.4	11.0
Total	330	24.6	44.6	14.2	7.0	9.6

Sources: Survey of Social Development Trends, DGBAS, 2002.

Among married women, dual-earner families prevail as women have become more educated and engaged in full-time jobs. The proportion of working couples has exceeded over half among married women of ages 25-34 in 2006. However gender division of labor between men and women has not yet become more equitable. Time-use survey shows employed women work 7.9 hours and men work 8.4 hours on average per day. Survey results also indicate the average time that men, aged 15 years and above, spent on family matters was 0.5 hour per day compared to women's 2.4 hours per day. Working mothers find it particularly difficult to find balance between work and their assigned family duties (DGBAS 2008).

According to McDonald (2000), it is the combination of low gender equality within the family and high gender equality outside of the family that creates low fertility. Disparity between women's social and familial status lead to postponement of marriage and contributes to women's celibacy; thereby affect-

ing women's childbearing behavior, particularly among those that are highly educated and independently capable women residing in urban areas. Unlike their counterparts in some Western societies, educated and working women in Taiwan stay single longer and rarely dare to cohabit and have extramarital births. Unlike the fertility resurgence experienced in some Western countries during 1995-2000, the missing contribution of fertility from educated single women, as well as from extramarital births, was not possible in Taiwan. Other Asian countries, such as Korea and Japan, have similar circumstances and effects (Suzuki 2005). Atoh et al. (2004) attributes the common low incidences of cohabitation and extramarital births in Japan, Korea, Taiwan and Singapore to the persistence of the patriarchal family system and cultural heritage of Confucianism, in which fertility activities of unmarried women are inhibited.

4. Policy Development of Low Fertility

4.1 Countering an Anti-natal Climate

Taiwan experienced its first demographic transition in the 1980s and reached a below-replacement fertility level in 1984 with a TFR of 2.05 and a net reproduction rate of 0.9. During the decades of fertility change, government introduced family planning programs aiming at reduction of birth rate to ease

rapid population increase in 1964. The value of low fertility was advocated through various IEC (information, education and communication) programs. Family planning workers were employed in health stations of each township to make home visits to give health education and to also deliver affordable contraceptive service. But in fact, fertility had already started to decline for around ten years before program intervention and so there were opinions that these programs had no additional effect. Nevertheless, as noted by Easterlin (1978) and Sun & Chang (1989), the two major mechanisms of family planning program intervention have resulted in great reduction of both objective and subjective costs of birth control. Contraceptive use became universal among reproductive-age women across rural and urban areas, as well as across educational levels. Changes in contraceptive behavior and family attitudes were evident from the beginning of the programs in 1965 and continue to the present according to periodical KAP surveys. In 1987, in an international assessment of birth control program among 95 developing countries, World Watch Institute even ranked Taiwan's achievement at the top.

When Taiwan's fertility dropped below replacement in the mid-1980s, the ageing of population caught demographers' attention and called for a modification of the birth control policy (Tu & Chen 1989). Demographic researchers shifted their paradigm to the mechanism and consequences of population

ageing. An official assignment of re-assessing national population goals was launched in 1988, resulting in the revision of policy goal from reducing population growth to maintaining a reasonable growth of population, as stressed in the 1992 Guideline for population policy.

The 1992 moderate revision of population policy reflected an academic concern, but did not induce social reform. Birth control climate with anti-natal emphasis still prevailed in the general public. Evidences associated with successful family planning and economic progress, both at individual family and societal levels, justify the belief in anti-natal birth control. Besides, it was not until 1997, 13 years after TFR reached below replacement level, that fertility turned to a new phase of accelerating decline. Between 1984 and 1996, TFR remained stagnant at around 1.8 to 2.0, though under but not far from the replacement rate and even higher than many Western low fertility countries then.

Demographic decomposition research found that the major component of fertility decline for sub-replacement was the postponement of marriage. The policy of maintaining reasonable growth then was revised to emphasize measures encouraging marriages in an effort to offset the negative effect of nuptiality on fertility. However, late marriage is just one of the many behavioral syndromes of substantial changes in marriage and childbearing as postulated by the second demographic

transition (van de Kaa 1987). Other elements of second demographic transition, such as cohabitation, lone parenthood, and low fertility, have already taken place in Taiwan and in other advanced East Asian countries with only the exception of the increase in extramarital births (Lesthaeghe 2010). The policy failed due to focusing on a single aspect of second demographic transition.

Issues of population ageing gradually gained public attention in the mid-1990s, particularly in 1993 when the proportion of the elderly exceeded 7%, a percentage that the United Nations uses for labelling a country as an ageing country. And in 1997, the already below-replacement, but had since 1984 been stagnant fertility rate also resumed its decline. Recognition of low fertility and population ageing problems sparked social discussions of both an universal pension system as well as a pro-natal policy; however, the pro-natal proposal met more challenges than the proposal for a universal pension plan.

The call for modification of the population policy began in the late 1990s, but confronted oppositions from the feminist and environmentalist groups. Life experiences derived from rapid industrialization on a highly populous island have led its people to identify overpopulation as a persistently serious social problem. Depopulation, to some extent, has even been thought of as a favorable relief from the long accumulated pressure of over-exploitation of resources and destruction of

environment caused by overpopulation. Any intention to boost fertility implies an increase in the population from the perspective of the environmentalist group and would exacerbate the current living environment even further.

The feminist group was not happy with the pro-natal policy. Critics from the feminist group argued the false issue of a population problem by over stating the economic consequences of an ageing labor force regardless of gender perspective. Discussions organized by active feminist scholars forcefully contended that pro-natal policy is discrimination against gender equality (FWRPD 2000). Population policies, either anti-natal or pro-natal, were viewed by feminists as using women's bodies to fulfill government's objectives and represented the deprivation of women's autonomy and subjectivity; and ultimately seen as a humiliation of women as a collective. The thinking is that once population policy sets any quantitative goal for fertility, or sets a target number of births, it then implies that women will have to shoulder a certain amount of childbearing tasks. Hence, under patriarchy, a female's reproductive function is being used to reach a state's goal (FWRPD, 2003, 2006). With support from similar international stances (Mitchell 2000, Martin & Mitchell 2000), pro-natal policy represented a minority voice and progressed slowly in the late 1990s and early 2000s.

4.2 Towards a Pro-natal Policy

The already below-replacement, but stagnant, fertility level resumed its decline in 1997. TFR dropped even further to a new record low each year in the new 21st century. It was 1.40 in 2001, 1.34 in 2002, 1.23 in 2003, 1.18 in 2004, and 1.12 in 2005. TFR later reached 0.895 in 2010, supposedly the lowest recorded value in history for a country with a significantly large portion of rural area. The decreasing trend eventually led to more decisive actions by the Ministry of Interior for the formulation of new population policies (Hsieh 2004).

In 2005, Taiwan's government had planned to publish a Population White Paper that would include pro-natal policy measures. However, the feminist and ecologist groups protested the policy transition from birth control to pro-natal policies, emphasizing Taiwan's overpopulation again. As a result, both groups were actively involved in and agreed upon the Outline of Population Policy formulated in June 2006. The Outline included principles of improvements in reproductive health, in social environments of childcare and education, in safety nets and in environmental protection. The 2006 Outline did not include conventional ideas of quantitative measures of population, but stressed a harmonious prospect of ecological equilibrium and justice social conditions in favor of childcare by both parents as a way to relieve women from traditional fam-

ily burdens and aid women's participation in the labor force. Policies that imply women's subordinate status for their reproductive function to the state's patriarchal power underwent dispute. For instance, child allowance, one of the most direct measures in terms of population policies and commonly practiced among OECD countries, transfers cash directly to families with young dependent children, but was rejected for its critical implications as family wage in respect to Marxist perspective. From a Marxist perspective, in families receiving a family wage, women should not argue an equal status in the labor force as they are already earning a "family wage". Other measures, such as the proposal for institution of pre-abortion counseling to reinforce pro-life considerations, were fiercely disproved with regard to women's autonomy.

The Population White Paper was finally published in March 2008. The white paper consists of three distinct parts: child policy, elderly policy and immigration policy to meet the three major population challenges in Taiwan since the mid-1980s. In the first part, the white paper addressed the sub-replacement fertility and countermeasures to halt its further decline, mitigate population's ageing potential, and ease depopulation in the future. The second part of white paper addressed the ageing society and measures to meet the needs and life quality for tremendous near-four-times increase of the elderly population in coming decades. In the third part, the paper addressed the

abrupt start of international migration and measures to manage its potential problems, such as multicultural adaptation, social security, and also the most sensitive, political issues regarding the relationship with mainland China. While amendments were made to The White Paper in 2012 and 2013; it still kept its original framework of strategies. The amendments mostly updated the trend of population change and set more specific measures and performance indicators. The Ministry of Interior also set up regular follow-up operating procedures in order to track the policy implementation of the relevant authorities (Lee et.al. 2007, Ministry of Interior 2008, 2013)..

As the first version of The White Paper came about from concerns of the trend towards fewer children and also to compromise with the feminist group, it never addressed a specific goal for the fertility level to reach, but instead only stated a policy direction in terms of countering the trend of fertility decline. In the latter revision of 2013, the government proclaimed to having increased the willingness of people to have children to an average of 180,000 per annum over a decade.

The countermeasures to the trend towards few children put forward in The White Paper are structured in seven strategies: (1) Improving marriage opportunities and rebuilding family values; (2) Improving the reproductive care system; (3) Constructing an affordable, quality, and assessable early childhood education system; (4) Provision of economic support for

parenting families; (5) Building a family-friendly work environment; (6) Implementing maternity and parental leave allowance; and lastly, (7) Improving child protection system. In sum, the slogan “happy to marry, willing to have children, and able to raise them” was constructed as the fundamental concept in the fertility aspect of population policy.

4.3 Current Fertility and Family Policies

Taiwan’s inception of pro-natal policy resembles much of the experiences in many advanced countries (McIntosh 1981, Chamie 1994, McNicoll 2001, Sleenbos 2003, Va de Kaa 2006, McDonald 2006). Since below-replacement fertility is a natural response to post-industrial socioeconomic changes, thus high similarities of policy measures might be found across countries with below-replacement level TFR values. However, the degree of fertility decline may depend upon the magnitude of socioeconomic changes and the response of family systems within each society. Policies reflect the intervention of government on the family system, and their effectiveness need to be evaluated and interpreted based on each cultural and political contexts.

Rebuilding Family Value

As demographic analysis indicated the important role that nuptiality decline played in the decline of fertility rate into be-

low-replacement level, the general public also noticed and worried about the prevalent situation of not marrying and of marriage dissolution in society today. Taiwanese families system is based on the Confucian family system, and in a Confucian family, filial piety is an absolute obligation. And so traditionally, family ties are strong and marriage institution is robust. But under the circumstances of nuptiality and fertility decline, government and the older people, representing more traditional generation, expressed more anxiety than the younger generation. When below-replacement fertility emerged in Northern/Western Europe in the 1980s, the second demographic transition theory interpreted the trend as a sign of a value-change from familism to individualism, along with an increase in cohabitation, extramarital births, divorce, female labor force participation, and living alone. According to this theory, decrease in marriage rate represents a weakening of family ties, not merely a change in numbers, but a change in behavior. As such, there were doubts about the effectiveness of creating a policy aimed at only increasing marriage rate, since the problem is not only one of numbers, but also of a changing value system. As a matter of fact, the Taiwan Fertility and Family Survey in 2012 shows Taiwanese attitudes toward the primacy of getting married in one's life has been declining. The proportion that disagree or strongly disagree with a statement as "getting married is better than keeping single in one's life" is over half (52.06%) among women of 20-49 ages. The attitudinal differ-

entials presented in Table 6 also indicate that younger ages and higher educated women tend to deviate from the traditional value of marriage. Besides that cohabitation is getting a more acceptable practice for these women. More than 60% disagree with a statement as “unless getting married, a man and a woman should not cohabit together”. However, extramarital births in Taiwan have not been significant, which is seen as a result of a robust marriage institution, working to hinder the fertility of cohabited couples. Under such normative circumstances, increasing marriage rate is seen, from a policy maker’s point of view, a necessary condition to boost fertility.

(Table 6-6) Attitudes towards Marriage and Cohabitation among Taiwanese Women

	"Getting Married is Better than Keeping Single in Whole Life"				"Unless Getting Married, A Man and A Women Should Not Cohabitate"			
	Strongly Agree	Agree	Disagree	Strongly Disagree	Strongly Agree	Agree	Disagree	Strongly Disagree
Age								
20-24	8.26	34.25	47.31	10.17	6.59	20.37	59.04	13.99
25-29	12.30	36.28	42.71	8.71	8.33	18.48	57.46	15.73
30-34	11.64	35.39	43.47	9.49	7.64	20.19	59.03	13.14
35-39	14.85	33.85	44.80	6.50	11.34	25.51	53.24	9.91
40-44	15.50	29.51	47.78	7.21	17.47	25.98	49.30	7.26
45-49	19.04	36.31	40.06	4.59	23.58	29.40	41.59	5.42
Education								
Primary	32.02	36.44	30.02	1.52	28.35	29.61	37.08	4.96
J. High	26.23	33.61	36.25	3.91	19.80	29.02	45.86	5.32
S. High	18.61	36.22	40.75	4.42	15.60	25.39	50.03	8.99
College	9.20	34.19	47.01	9.59	9.25	21.56	56.69	12.50
Graduate	4.71	27.82	52.50	14.98	8.66	18.20	56.87	16.27
Total	13.60	34.33	44.27	7.79	12.40	23.25	53.38	10.97

Source: 2012 Taiwan Fertility and Family Survey, Health Promotion Bureau, Ministry of Health.

Specific measures to improve marriage opportunity include deliberating current military service regulations to allow early demobilization for family reasons, allowing draftees the choice of substitute service types, military placement in nearby divisions if draftees have registered household with small children or whose spouse is more than six months pregnant, and creating compatibility between post-graduate level education and marriage and childbirth. The White Paper also proposes the fundamental measure to “respect marriage, family, and parenting values” in schools of all levels by improving education on gender, housekeeping and home economics. The paper stated that traditional gender roles should be disregarded, and family life education should be gender-neutral so that both boys and girls can learn to do domestic work.

Improving Childcare Services

In the course of industrialization, the family lost its position as the unit of economic production. Since then, various functions that were once assigned solely to the family have been shared by the public and market sectors. But because child-rearing is considered one of the most basic functions of the family, government has tended to be slow to intervene in this area than in developing obligatory primary, and later secondary education. The current childcare practice in Taiwan is characterized as relying heavily on family and market provi-

sions (Fong 1997, Wu 2006, Wong 2007). As Table 4 in the previous section shows, the enrollment rate of young children under age 3 in daycare centers is very low in Taiwan. Parents and relatives undertake nearly ninety percent of early childhood care work.

Public investment in early childhood care has been limited in Taiwan until pro-natal policies were discussed. Pressured by the feminist group, constructing an affordable, quality, and assessable early childhood care and education system has been regarded as top priority among other measures. In order to expand early childhood care and education services, the Early Childhood Education and Care Act was passed in 2010, then modifying The Protection of Children and Youths Welfare and Rights Act in 2011. These two acts allow regulation of government expenditure and management of service types for daycare and early pre-school education, for children ages 3-6 and nursery care of ages 0-2. There has been some progress in assistance family of child care after the enactment of these two laws. The government has promised to provide free preschool tuition nationwide for five year-old children since 2011. Management regulations for nanny registration were newly added in 2014, in order to raise the quality control of live-in nanny services. Encouraged by public-private partnership, numbers of non-profit kindergartens, daycare centers, and after school care services, have been increasing since 2012.

Council of Labor Affairs were assigned jobs in assisting implementation of these measures, including pre-service training of childcare personnel (nannies) through its vocational training centers system, and yearly inspections of the working conditions in private kindergartens and daycare centers.

Economic support for parenting families

The cost of raising children is steadily increasing. Industrialization and technological innovation cause parents to value children's quality over quantity and rising educational cost of children is thought to be a crucial factor for fertility decline. Taiwan's government used to put more effort into the development of education for children after age 6. The compulsory years of education were extended to 9 years in 1967 and to 12 years in 2014. As such, parents have assumed responsibility for the cost of preschool education; and so public nursery schools and kindergartens kept reducing their provision of enrollment and personnel, thus allowing private institutions to boom and market forces gradually played a major role in the rising cost of preschool education. Social surveys have indicated that many people attributed the cost of preschool education as the most important reason for not having children or having more children.

A proposal of providing child allowance for families with dependent children under age 6 or 3 written in the 2008 White Paper was withheld due to protests from feminist groups and

also from the lack of support from the Ministry of Finance. However, prompted by individual minor actions by some municipalities to provide child birth benefits, a program called “Parenting Benefits for Children under 2 Years of Age” was phased in during 2012. At first the benefit was only granted to single earner families with consolidated income tax rate under 20% to help with the lack of second income due to child caring. Later, the benefits were extended to low-income families as well. Since dual income families were excluded in beginning, this had caused many people to claim the program is unfair towards employed mothers (as mothers tend to be primary caregiver in families). Others also argue the possible effect of discouraging females from labor force participation. As a result, the program was further amended to provide subsidy to families that uses licensed nannies or relatives who have completed childcare training to accommodate working mothers.

In 2012, there was also an amendment to the “Income Tax Act” to include a special tax deduction for parents of children that are of preschool age. Taxpayers with children under 5 years of age can receive tax deductions of NT\$25,000 (about 10% of annual minimum wage) per year with a means test. Those taxpayers paying annual consolidated income tax at a rate of over 20% or with basic income of over NT\$6 million are not eligible for deductions.

Maternity leave and parental leave allowance

The writing of the 2008 White Paper found that there existed unequal maternal benefits for different occupational women. The Bureau of Labor Insurance provided fewer benefits for private enterprise employees as compared to government employees, teachers, and military personnel. Since then, maternal leave benefit has been raised to a standard of 3 months' salary even for employees of private enterprises as such revision has been stipulated in labor employment insurance.

As for parental leave, the "Gender Equality Employment Act" legislated in 2002 stipulated eligibility of a maximum of two years' unpaid parental leave before a child is 3 years of age. However, applications for parental leave had been minimal since its legislation. Majority of applicants have been female employees serving in government jobs and female teachers working in public schools. The seemingly unwelcome parental leave policy can be explained from personal and corporate standpoints. From a personal standpoint, income interruption during parental leave would affect family finances and additionally, there is a less supportive environment for those working in private sectors to ask for parental leave. From a corporate standpoint, employers tend to be sensitive about the production cost resulting from parental leaves and are not willing to suspend a position for an employee asking for parental leave.

Amendment to the “Employment Insurance Act” in 2008 allowed 6 months’ subsidy of 60% of salary for parental leave, thus increasing the number of workers utilizing parental leave benefits. Nonetheless, statistics show that people tend to take advantage of a paid 6 months leave more than unpaid leaves.

Table 6 summaries the major implementations of pro-natal policy measures after the publication of White Paper of Population Policy in 2008.

〈Table 6-7〉 Pro-natal and Ageing Policies since 2008 in Taiwan

Year	Policy measures
2007	National Pension Act approved
2008	Population Policy White Paper approved National Pension Act enacted
2009	Employment Insurance provided six-months basic salaries for parental leave. Labor insurance started to provide annuity instead of lump sum payment.
2010	Early Childhood Education and Care Act approved Free preschool tuition national wide for five-year-old children.
2011	Amendment to The Protection of Children and Youths Welfare and Rights Act. National Pension Act includes childbirth benefit.
2012	Income Tax Reform raising tax relief for children under age 5 Providing parenting benefits for non-employed parents (mothers) with children 0-2 ages. Set up public-private partnership non-profit nanny centers.
2013	Providing child care subsidy for employed mothers with children 0-2 ages.
2014	Amendment to Population Policy White Paper Amendment (2nd version) Enact registration system for home-based nanny services.

5. Population Aging in Taiwan

Population aging begins as soon as fertility starts to decline. By September 1993, Taiwan's elderly accounted for more than 7% of the population, which signaled the beginning of its “aging society” phase. By the end of 2013, the nation's aging population had reached 11.53%, numbering about 2.7 million people.

5.1 Percentage of the Elderly and Median Ages

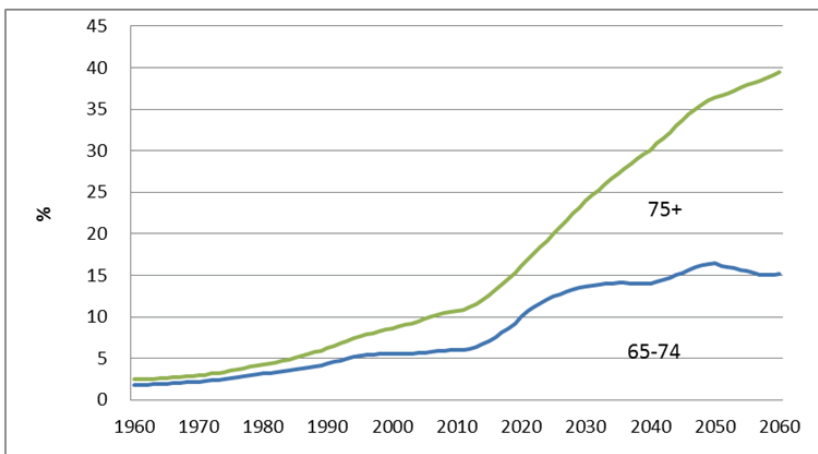
Based on Taiwanese household registration data, as well as the medium fertility variant in the projection by CEPD (2012), the percentage of the elderly, defined as aged 65 and over, was as low as 2.48% in 1960 and accelerated its increase since the 1980s. The percentage increased to 7% in 1993 then rose sharply as fertility dropped below replacement level. It exceeded 10% in 2006 and is expected to reach 20% in 2025, then 30% in 2040, and to nearly 40% in 2060.

The medium fertility variant in the projection assume the total fertility rate increased slightly from a level of 1.05 in recent year to 1.30 in 2030, then keep the level of 1.30 until 2060.

Within the elderly population, the rise in the percentage will mainly take place for ages of 75 and over after 2025. Since the baby boomers born after 1950 will cross the boundary of 75 in

2025, there will remain little momentum for the population aged 65-74. The proportion of those aged 75 and above will increase from 5.0% in 2012 to 7.5% in 2025 and then to 10.25% in 2030. The proportion of those aged 75 and above will exceed those aged 65-74 after 2037. In 2060, the percentage of those aged 75 and above will be 24.28%, compared to 15.16% for aged 65-74.

[Figure 6-8] Percentage of Elderly Population in Taiwan: 1960-2060.

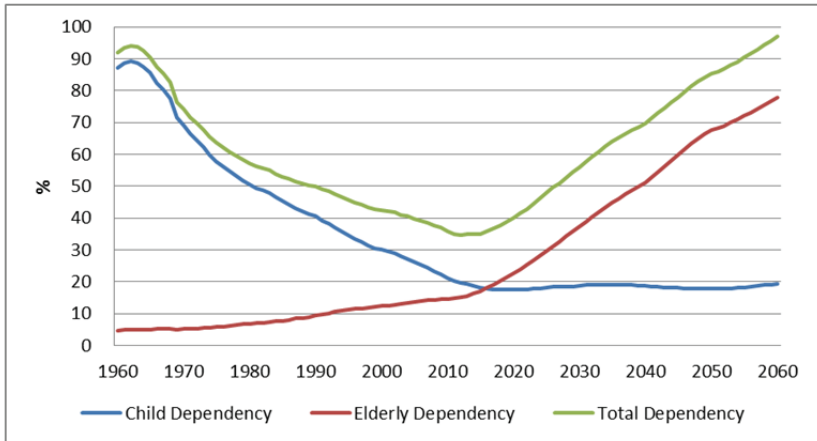


Median age of population in Taiwan is currently 38.9 years old (2013). It was only 17.6 in 1960, 19.3 in 1970, 23.1 in 1980, 27.5 in 1990, 32.1 in 2000, 37.4 in 2010. According to the medium fertility variant of CEPD's (2012) projection, the median ages will reach 42.7 in 2020, 48.0 in 2030, 52.3 in 2040, 55.6 in 2050, and 57.4 in 2060.

5.2 Dependency Ratios

Figure 8 shows the elderly dependency ratio, defined as the ratio of the elderly to the working-age population, and the child dependency ratio, defined as the ratio of children to the working-age population. The sum of these two ratios is the total dependency ratio. Population aging begins as soon as fertility starts to decline. In the process of population ageing, however, because the percentage of working-age population grows more quickly than that of the elderly population, the total dependency ratio declined for several decades since the 1960s. This decrease of total dependency ratio is referred to as a “demographic bonus”, which denotes the net decrease in consumers relative to net producers (Mason 2001). Such change is supposed to promote economic development by increasing savings and investments. While Taiwan enjoyed a demographic bonus since the 1960s, it has ended in recently around the mid-2010s. In the future the rapid aging of the population will initiate the increase of the total dependency ratio. According to the medium fertility variant of CEPD’s (2012) projection, Taiwan’s elderly dependency ratio of 35.8 % in 2010 will reach 56.1 % in 2030 and 77.7 % in 2060. Taiwan is currently transitioning from a “demographic bonus” to a “demographic onus” situation in which the dependency ratio will grow continuously in the future.

[Figure 6-9] Dependency Ratios in Taiwan: 1960-2060



6. Policies of Population Aging

6.1 Introduction

Based on CEPD's population projections for 2012-2060 (medium variant), the proportion of ages 65 and over will exceed 14% by 2018 when Taiwan will become an "aged society". By 2025, it will reach 20% taking Taiwan into a so-called "super-aged society". Moreover, by 2016, the country's aging population will exceed its population of children, and the dependency ratio of the old will continue to rise, from 15.03% in 2012 to 29.6% in 2025. By 2060, there will be an average of one elderly person dependent on every 1.29 young people.

In addition to the long term sub-replacement fertility level over the past three decades, there has also been an important

change in household structure in Taiwan with a rapid increase in the number of single or two person households. Among them, a significant portion consists of the elderly living alone or only with the elderly's spouse, affecting the traditional mutual support and care relationship between generations. The elderly are having less family resources giving them appropriate care.

Faced with the acceleration of population aging, the Population Policy White Paper addressed the goal of allowing senior citizens to enjoy health, safety, vitality, dignity and independence in older ages and became the focal concern of the elderly-portion of the population policy. In order to achieve that goal, the measures are structured into five strategic domains: (1) Enhancing family and community care and health systems; (2) Safeguarding economic security for the elderly and promoting the re-use of human resources;(3) Providing elderly-friendly transport and residential environments; (4) Promoting social participation and leisure activities for the elderly; and (5) Providing older people with a lifelong learning environment.

6.2 Living Arrangements of the Elderly

Table 7 shows the changes in living arrangements among the elderly in Taiwan. Percentage of the elderly living with their

children declined from 70.2% in 1986 to 61.1% in 2005, but this proportion reversed and increased to 68.5% in 2009. During the same period from 1986 to 2005, percentage of elderly living alone did not show a steady trend, but eventually showed a decrease to 9.2% in 2009. Percentage of elderly living with their spouses rose from 14.0% in 1986 to 22.2% in 2005, but drew back to 18.8% in 2009.

Stem families remain the dominant family type in Taiwan and the propensity for the elderly to live with their children is still higher in Taiwan than in Western developed countries. According to Iacovou (2000), the percentage living with their children was less than 20% in Northern/Protestant Europe and between 20% and 40% in Southern/Catholic Europe. The high prevalence of co-residency with their children allows the elderly to play an important role in childcare for young parents. As Table 4 indicates, the role of relatives in childcare has become increasingly important in recent years in Taiwan. Parents and grandparents share of 90% of the care work of children under three years of age. By helping to take care of children in their early years for their daughters or daughters-in-law, working mothers also benefit from not experiencing interruption from labor force participation. Hence, stem family households still remain prevalent, having not been ousted by industrialization and urbanization in Taiwan. Living with children for the elderly is not only an observance of traditional

or filial practice out of obligation of the children in Taiwan. In many cases, it does serve as a practical living arrangement for intergenerational reciprocity of different life courses. Healthy and non-authoritarian mothers-in-law, even aged in late 60s or early 70s, can help with meal preparations for the younger generation's family, mostly likely the double-earners.

〈Table 6-8〉 Living arrangements of elderly aged 65+ in Taiwan

	Alone	Couple Only	with Child	Other Private Household	Institutional Households
1986	11.6	14.0	70.2	3.0	0.8
1991	14.5	18.7	62.9	2.4	1.2
1996	12.3	20.6	64.3	1.4	1.4
2005	13.7	22.2	61.1	0.8	2.3
2009	9.2	18.8	68.5	0.8	2.8

Source: Ministry of Interior (1986,1991,1996,2005,2009) The Elderly's Living Conditions Survey Reports.

6.3 Long-term Care for the Elderly

In the accelerating trend of population ageing, increasing needs of long-term care for the frail elderly became a pending problem. According to a national survey (Ministry of Interior 2009), the most worrisome problem for the elderly was their own health (34%), second was the illness of spouses and themselves (18%), and third are financial problems (16%). The government initiated a "Ten Years Plan of Long Term Care" policy

in 2008 (Executive Yuan 2007), which emphasized the value of allowing the elderly to “age in place” in long term care (LTC) systems. And so family and community care became the major service models for future development of LTC systems. Institutional care was granted as the last kind of LTC for public investment. In Taiwanese culture, families seldom choose institutional care, as indicated by serial surveys of the elderly which found the percentage of elderly living in institutional households increased only slightly from 0.8% in 1986 to 2.8% in 2009. Unless the elderly person is in severely disabled condition, old folk homes or nursing homes would not normally be considered by the family.

However, such practices inflict great burden and stress for family care givers. The primary family caregiver of the elderly is still now the able-bodied spouse, unemployed daughters-in-law, or unmarried adult daughters. Needs for LTC increased as the elderly aged further and became more disabled. According to national survey on the needs of LTC in 2010, the average rate of disability for ages 65 and above is 15.0% (MOH 2011). Age differentials in disability prevalence are 7.3% for ages 65-74, 20.4% for ages 75-84, and 48.6% for ages 85 and above (Li et.al. 2013). The needs of LTC also rose with the increase in elderly population size and the ageing population structure. And for many families, the care burden of LTC could not wait for the policy implementation, which possibly would

bring about enough community services to relieve their burden of care. So many families turned their need to hiring foreign care workers to serve in the home of the elderly. In a 2011 survey, among those disabled who needed care, only 22.6% had ever used formal care services and the rest were taken care of by families or foreign care workers, the latter contributing 25.9% to the total care work for the disabled (MOH 2012). Numbers of foreign care workers increase every year, from around 20,000 in 1997 to more than 190,000 in 2011; almost ten times in growth.

The implementation of Ten Year Plan of Long Term Care policy has been slow since its publication in 2008, because of economic recession and political disturbance. Escalation of financial deficit prevented government from increasing investment in LTC resources. The worsen situation even forced government to change its original financing scheme from tax revenue into devising it as a compulsory social insurance system (Li et. al. 2013). According to the original time scheme, the Long Term Care Services Act was supposed to be approved in 2013; and in 2014, another Long Term Care Insurance Act will be legislated.. The draft of the Long Term Care Services Act, however is still in dispute among various social groups as of mid-2014.

6.4 Pension and Retirement

Pension reform has become a global issue since the 1990s, particularly in advanced industrial countries. Pressure of population ageing is an important cause behind the reform, besides other economic and financial circumstantial reasons. Taiwan, as a historically behind country, compared to Western welfare states in terms of economic and demographic development, caught up with the pension reform problem almost simultaneously. Population ageing leads to the relative increase of pensioners to tax payers or premium contributors. At the same time, the average years of the beneficiaries were increasing. The double impacts from population ageing and from lengthening of life expectancy, distorted already retirement and pension system in many slow economic growth countries. Thus pension reform is not only a problem with respect to the elderly's economic security and government's public financing, but also a highly political issue.

The Population Policy White Paper also addressed the goal of safeguarding economic security for the elderly. In 2007, the National Pension Act was approved in Taiwan and has been enacted since 2008. Accordingly, National Pension Insurance (NPI) was set up and aimed to provide a basic annuity for those citizens not yet being included in any existing retirement payment or old-age benefit programs. Every citizen aged 25 to 65,

who do not already have military personnel, government employee, teacher, laborer, or farmer insurance, are insured under NPI. Those insured by NPI consists of the unemployed, housewives, disabled, and people in lower-income brackets. The government proclaims that with the establishment of NPI, in addition to various other occupational retirement and old-age benefits, has allowed for a universal security system for the elderly (Ministry of Interior 2011).

On October 9, 2012, the media quoted an actuarial report indicating that labor insurance fund will dissolve in 2027, four years earlier than the expected year of 2031. The report flamed people's long existed anxiety about dissolution of the labor insurance fund and discontent about the inequity among different occupational retirement and old-age benefit systems.

Government employees, public school teachers, and military persons receive the best old-age benefits compared to other occupational categories. Their income substitute rate could be as high as over 80%, while the rate summed up is about 50% to 70% for labors besides a ceiling regulation of upper income for labor insured. National Pension Insurance provides the insured, who contribute a premium for 40 years from age 25 to 65, a level of benefits around one-fourth of the average wage of labors. Thus, the distinctively superior benefits for government employees, public school teachers and military persons have become critical targets. Controversy regarding the pension sys-

tem involves not only the benefit discrepancy between occupational categories, but also a vast problem of financial crisis in every scheme of retirement and pension. Rapid increase of retirees in the near future adds to the expiry of funding. The first problematic pension fund was the military person's pension fund. Its annual balance has already become deficit since 2011 and cumulative balance shall become deficit in 2019. The next problematic will be public school teacher's pension fund; annual deficit in 2014 and cumulative deficit in 2027. Then will be labor's pension fund, annual deficit in 2017 and cumulative deficit in 2027. The government employee's pension fund will follow then, but only three years before planned; annual deficit in 2020 and cumulative deficit in 2031. While the newly born national pension fund can survive longer, its annual and cumulative balance will become deficit in 2032 and 2046 respectively (Lin 2014).

Pension reform is currently an emergent task in Taiwan. Measures of reform include postponement of retirement age, lowering the distinctive benefit level of government employees and public school teachers, modifying financing and benefit scheme from a defined benefit to defined contribution (Kuan 2013, Hsueh 2013, Chen, 2013). These measures, however, has been being highly political issues await non-easy social consensus.

7. Concluding Remarks

Taiwan experienced and completed demographic transition during the twentieth century. In the decades of fertility change, government introduced family planning programs aiming at reduction of birth rate to ease rapid population increase in 1964. Taiwan completed fertility transition in the 1980s and reached a below-replacement fertility level in 1984 with a TFR of 2.05 and a net reproduction rate of 0.9.

Population aging begins as soon as fertility starts to decline. When Taiwan's fertility dropped below replacement in the mid-1980s, the ageing of population caught demographers' attention and called for a modification of the birth control policy. An official assignment of re-assessing national population goals resulted in the revision of policy goal from reducing population growth to maintaining a reasonable growth in 1992. The moderate revision of population policy goal reflected an academic concern, but did not induce social reform.

It was not until 1997 that fertility turned to a new phase of accelerating decline. Decomposition research found that the major component of fertility decline for sub-replacement was the postponement of marriage. The role of nuptiality in fertility decline had become a focus of attention by demographers as well as by policy makers.

Issues of population ageing gradually gained public attention

in the mid-1990s, particularly in 1993 when the proportion of the elderly exceeded 7% which signaled the beginning of an “aging society” phase. Also population projections indicated the proportion of elderly will exceed 14% by 2018 when Taiwan will become an “aged society”, and by 2025, it will reach 20% taking Taiwan into a so-called “super-aged society”. Recognition of low fertility and population ageing problems sparked social discussions of modification of the population policy to a pro-natal nature but confronted oppositions from the feminist and environmentalist groups in 1990s..

The decreasing trend eventually led to more decisive actions by the government for the formulation of new population policies. The Population White Paper was finally published in March 2008. The white paper consists of three distinct parts: child policy, elderly policy and immigration policy to meet the three major population challenges in Taiwan since the mid-1980s. The Ministry of Interior also set up regular follow-up operating procedures in order to track the policy implementation of the relevant authorities. In the latter revision of 2013, the government proclaimed to having increased the willingness of people to have children to an average of 180,000 per annum over a decade. A slogan “happy to marry, willing to have children, and able to raise them” was constructed as the fundamental concept in the fertility aspect of population policy. Policies reflect the intervention of government in the

family system, and their effectiveness need to be evaluated and interpreted based on particular cultural and political contexts.

While Taiwan enjoyed a demographic bonus since the 1960s, it has ended in recently around the mid-2010s. In the future the rapid aging of the population will initiate the increase of the total dependency ratio. According to the medium fertility variant of projection, Taiwan's elderly dependency ratio of 35.8 % in 2010 will reach 56.1 % in 2030 and 77.7 % in 2060. Taiwan is currently transitioning from a "demographic bonus" to a "demographic onus" situation in which the dependency ratio will grow continuously in the future.

Faced with the acceleration of population aging, the Population Policy White Paper addressed the goal of allowing senior citizens to enjoy health, safety, vitality, dignity and independence in older ages.

In the accelerating trend of population ageing, increasing needs of long-term care for the frail elderly became a pending problem. The government initiated a "Ten Years Plan of Long Term Care" policy in 2008, which emphasized the value of allowing the elderly to "age in place" in long term care (LTC) systems. And so family and community care became the major service models for future development. Institutional care was granted as the last kind of LTC for public investment.

In Taiwanese culture, families seldom choose institutional care Unless the elderly person is in severely disabled condition.

However, such practices inflict great burden and stress for family care givers. The primary family caregiver of the elderly is still now the able-bodied spouse, unemployed daughters-in-law, or unmarried adult daughters. And for many families, the long term care burden could not wait for the policy implementation, which possibly would bring about enough community services to relieve their burden of care. So many families turned their need to hiring foreign care workers to serve in the home of the elderly. Numbers of foreign care workers increase almost ten times from 1997 to 2011.

The implementation of long term care policy has been slow since its publication because of economic recession and political disturbance in recent years. Escalation of financial deficit prevented government from increasing investment in LTC resources. The worsen situation even forced government to change its original financing scheme from tax revenue into devising it as a compulsory social insurance system.

Pension reform has become a global issue since the 1990s in advanced industrial countries. Besides other economic and financial circumstantial reasons, pressure of population ageing is an important cause behind the reform. Taiwan, developed behind them in terms of economic and demographic, caught up with the pension reform problem almost simultaneously with Western countries..

The Population Policy White Paper addressed the goal of

safeguarding economic security for the elderly. National Pension Act has been enacted since 2008 aiming to provide a basic annuity for citizens not yet being included in any existing retirement payment or old-age benefit programs. With the establishment of NPI, the government proclaims that has allowed an universal insurance system for the elderly., in addition to other various occupational retirement and old-age benefits.. However people have long been anxious about dissolution of the labor insurance fund, and discontent about the inequity among different occupational retirement and old-age benefit systems.

Pension reform is currently an emergent task in Taiwan. Measures of reform include postponement of retirement age, lowering the distinctive benefit level of government employees and public school teachers, modifying financing and benefit scheme from a defined benefit to defined contribution. These measures, however, has been being highly political issues await non-easy social consensus.

References

- Atoh, Makoto, Vasantha Kandiah and Serguey Ivanov (2004) 'The Second Demographic Transition in Asia? Comparative Analysis of the Low Fertility Situation in East and South-East Asian Countries,' *The Japanese Journal of Population*, Vol.2, No.1 (March).
- Barclay, George (1954) .*Population and Colonial Development in Taiwan*. Princeton : Princeton University Press.
- Becker, Gary S. (1991) *A Treatise on the Family*, Enlarged Edition. Cambridge: Harvard University Press.
- Bongaarts, John (1978) "A Framework Analyzing the Proximate Determinants of fertility," *Population and Development Review* 4(1):105-132. .
- Bureau of Health Promotion (2011) *Report of the Tenth Family and Fertility Survey*. Department of Health, Taiwan.
- CEPD (2012) *Population Projection of Republic of China: 2012-2060*. Council for Economic Planning and Development. Taipei.
- Chamie Joseph (1994) ."Trends, Variations, and Contradictions in National Policies to Influence Fertility,".20 : 37-50.
- Chang, Ming-Cheng (2005) "Taiwan's Transition from High Fertility to Lowest Low Level," paper presented at International Conference on Lowest Low Fertility and Response: The French Experience and East-Asian Realities. Taipei. October 28 2005.
- Chen, Hsiao-Hsing (1979) *Population Changes and Social Changes in Taiwan*. Taipei: UDN Publications. (in Chinese).
- Chen, Hsiao-hung (2013) "Taiwan's Current Pension Reform: Retrospect and Prospect," *Community Development Journal*

- (Quarterly), No.144:25-33. (in Chinese).
- Chen, Kuan-Cheng (1997) "Population Change and New Area of Demography in Taiwan," in T. S. Sun et al. (eds.) Population Ageing and the Elderly Care Issues.:1-12.
- Chen, K.J. & C.L. Yang (2005) "Nuptiality Effects on Fertility: A Compositional Analysis," paper presented at International Conference on Lowest Low Fertility and Response: The French Experience and East-Asian Realities. Taipei. October 28 2005..
- DGBAs (2002) Survey of Social Development Trends. Republic of China. Taipei.
- DGBAS (2008a) Social Indicators:2007. Republic of China. Taipei.
- DGBAS (2008b) Taiwan's Gender Statistic and Women's Life Situation: International Comparative Study. Republic of China. Taipei.
- Easterlin, Richard A. (1978) "The Economics and Sociology of Fertility: A Synthesis. Pp.57-133 in Charles Tilly (ed.) Historical Studies of Changing fertility. Princeton University Press.
- Executive Yuan (2007) Ten Years Plan of Long Term Care. Republic of China. (in Chinese).
- Fong, Yuen (1997) Childcare Services: An Ecological Perspective Analysis. Taipei: Main Stream Publications. (in Chinese).
- FWRPD (2000). The Policy on Women in Taiwan. Foundation for Women Right Promotion and Development. Taipei.
- FWRPD (2003). Report on Taiwan Women Status. Foundation for Women Right Promotion and Development. Taipei.
- FWRPD (2006). Taiwan Women's Almanac. Foundation for Women Right Promotion and Development. Taipei.
- Hajnal, J. (1965) "European Marriage Patterns in Perspective," In Population in History, eds. D. V. Glass, and D. E. C. Eversley.

Chicago: Aldine Publishing.

Health Promotion Administration (2014 forthcoming.) Report of the 11th Family and Fertility Survey in Taiwan. Ministry of Health and Welfare, Taiwan.

Hsieh, Ai-Lin (2004) .”The Effects of Childbearing, Childrearing, and Immigration on Population Structure in Taiwan,” paper presented at Conference on Consequences of Population Ageing and Social Responses.Taipei. (in Chinese).Hsu, SenY. & C.L. Yang (2004) .Demand and Supply Projections on Elementary School Teachers: 2003-2013. Studies on Education and Research. No.9: 99-118. (in Chinese)

Hsueh, Cherng-tay (2013) “Population Changes and the Pension Reform in Taiwan,” Community Development Journal (Quarterly), No.144:73-92. (in Chinese).

Iacovou, Maria (2000) The Living Arrangements of Elderly Europeans. ISR working paper 2000-2009.

Kohler, H.-P., F. C. Billari, and J. A. Ortega (2002) . The Emergence of Lowest-Low Fertility in Europe During the 1990s. Population and Development Review, 28(4):,641-680.

Kuan, Chung (2013) “The Principles and Strategies of Pension Reform,” Community Development Journal (Quarterly), No.144:8-24. (in Chinese).

Lee, Mei-Lin, H.Y.Wang, Y.H.Chen, L.J.Cheng, J.D.Lue, H.H.Peng,C.H.Cheng, Y.J.Lin, Y.L.Lai, & D.K.Liu (2007) Research Report on Social Policy Planning in Response to Lowest-Low Fertility in Taiwan,’ Ministry of Interior. Taiwan.

Lesthaeghe, Ron. (2010) The Unfolding Story of the Second Demographic Transition. Population and Development Review

36(2):211-251.

- Li, Yu-Chun , L. S. Lin, H. C. Wu, W. H. Cheng, L.Y. Fu (2013) The Planning and Prospect of Long Term Care Insurance in Taiwan. *Community Development Journal* (Quarterly) No.141:1-19.
- Li, Ta-Cheng & Ching-Li Yang (2004) Transitional Patterns of Female Labour Force Participation in Taiwan,” *Journal of Population Studies*(28):109-134.
- Lin, Yu-Hsuan, Yi-Wen Liu & Hui-Sheng Lin (2002) “Changes of Fertility Attitudes and Behavior among Taiwanese Women,” Paper presented in Annual Conference of Taiwan Population Association. Taipei.
- Lin, Wan-I (2013) “The Future of Pension Reform in Taiwan,” *Community Development Journal* (Quarterly), No.144:50-72. (in Chinese).
- Luoh, Ming-Ching (2007) “The Appearance and Reality of Declining Total Fertility Rates in Taiwan,” *Journal of Taiwan Studies*. No.3(December).
- Mason, Andrew (2001) Population and Economic Growth in East Asia. In *Population Changes and Economic Development in East Asia*, ed. Andrew Mason, 1-30. Stanford: Stanford University Press.
- McDonald, P. (2006) Low Fertility and the State: The Efficacy of Policy. *Population and Development Review* 32(3): 485-510.
- Martin & Mitchell B. (2000) .”Intergenerational Caregiving : How Apocalyptic and Dominant Demography Frame the Questions and Shape the Answers,” .in *The Overselling of Population Aging*. Oxford press.
- McIntosh C. A. (1981) .Low Fertility and Liberal Democracy in Western Europe. *Population and Development Review*, 7 (

2) ,181-207.

McNicoll Geoffrey (2001) .Government and Fertility in Transitional and Post-Transitional Societies. *Population and Development Review*, 27:129-59.

Ministry of Education (2014) Education Statistical Indicators. Ministry of Education, Taiwan. (in Chinese)

Ministry of Health (2011) 2010 Survey Report on National Long Term Care Needs. Republic. (in Chinese)

Ministry of Health (2012) The Second Stage Survey Report on National Long Term Care Needs. Republic. (in Chinese)

Ministry of Interior (1986, 1991, 1996, 2005, 2009) The Elderly's Living Condition Survey Report. Republic of China. (in Chinese)

Ministry of Interior (2008) Population Policy White Paper. Republic of China. (in Chinese)

Ministry of Interior (2013) Population Policy White Paper: Fewer Children, Ageing Population, and Immigration. Republic of China..

Mitchell B. A. (2000) The Refilled 'Nest' : Debunking the Myth of Families in Crisis in The Overselling of Population Aging. Oxford press.

Statistical Bureau (2014) National Statistics. Executive Yuan, Taiwan.

Sleebos, Joëlle (2003) .Low fertility rates in OECD countries : Facts and Policy Responses. OECD social, employment and migration working papers.

Suzuki, Toru (2005) "Why is Fertility in Korea Lower Than in Jaoran," *Journal of Population Problems*. 61(4):23-29..

Suzuki, Toru (2013) Low Fertility and Population ageing in Japan and Eastern Asia. Springer Briefs in Population Studies of Japan.

- Tu, Edward & K. J. Chen (1989) "Effects of Population Changes on Social Security System in Taiwan," *Taiwan Sociological Review* No.13:169-90. (in Chinese).
- Sun, Te-hsiung & Ming-Cheng Chang (1989) "Demographic Transition and Fertility Control Policies in Taiwan," Paper presented in 1989 PAA Annual Meeting. March 29-April 1. Baltimore, Maryland.
- Van de Kaa Dirk J.(1987) Europe's Second Demographic Transition. *Population Bulletin* 42(1):1-59.
- Wong, Sue-Yun (2007) "A Study on Public Child Care in Taiwan," in Special Issue of *Employment and Security*, Pp.63-107. Taiwan Think Tank.
- Wang, T.M & W.L Chen (1986) ."The Mortality Trends in Taiwan since Japanese Colonial Period," *Collection of Papers for Conference on Taiwan's Population Change during Twentieth Century.*: 57-78. (in Chinese).
- World Watch Institute (1987) "Access to Birth Control: a world assessment," *Population Briefing Paper No.19* World Watch Institute.
- Wu, Su-Jin (2006) "Current Situation of Childcare in Taiwan," in Y. C. Yeh (ed.) *Childcare Services*. Taipei: Psychology Publications. (in Chinese)



Chapter 7

Low fertility in Austria and the Czech Republic: Gradual policy adjustments

Tomáš SOBOKA, Wittgenstein Centre,
International Institute for Applied Systems
Analysis, IISA)



7

Low fertility in Austria and the Czech Republic: Gradual policy adjustments <<

1. Introduction

Austria and the Czech Republic are two neighboring Central European countries with similar population size (8.5 million in Austria vs. 10.5 million in the Czech Republic) and similar surface area (84 vs. 79 thousand square kilometers). They are positioned in the middle of the European Union country ranking by population size and territory. Until its implosion in 1918, both countries were part of the Austro-Hungarian Empire. Thereafter the shrunken Austria, once the core of the Empire, became a republic administered from its “oversized” post-imperial capital, Vienna. The Czech Lands, an industrial hearth of the Empire, gained independence, forming a common country with Slovakia, Czechoslovakia. The paths of these two countries then took different turns. The major long-lasting cleavage emerged after the World War II, when Czechoslovakia became incorporated into the “socialist bloc” of countries dominated by the Soviet Union, whereas Austria, while formally neutral, became parliamentary democracy and politically leaned towards Western Europe. This division cracked with the fall of Iron

Curtain in 1989. Soon thereafter, in 1993, Czechoslovakia split into two independent parts and the Czech Republic was formed in its current boundary. At present both countries are part of the European Union.

This article provides a comparative analysis of fertility and family transformations and policy responses in Austria and the Czech Republic. Such comparison is partly stimulated by the geographic proximity, shared history and culture of these countries in the past and their gradual economic and social convergence in the last quarter of century. An implicit question addressed throughout this article is whether family and fertility trends and the policy responses to them also grew increasingly similar in the last 25 years. I focus mostly on this period, analyzing changes in fertility, fertility intentions, family, living arrangements, family values and policy trends in these two societies. To give a wider background, I also discuss longer-lasting fertility changes, in particular the historical transformations in cohort fertility, marked by an early emergence of low fertility in both countries. In conclusion, I discuss the likely future trends and outline the wish list for potential future policy actions.

2. Comparing Austria and the Czech Republic: Similarities and Differences, Continuities and Change

Austria and the Czech Republic have similar culture, including the predominant Catholic religious tradition. In the past both countries were multinational, ethnically diverse societies. This feature became less prominent in Austria after 1918, when once important migration streams from the other parts of the Empire ceased and even more so during the World War II, when the sizeable Jewish population was liquidated or forced to leave. But the new inflow of the “guest workers” and migrants from Central and Eastern Europe, Germany, Turkey and other countries since the 1960s has made Austria more diverse again. In contrast, the Czech Republic became ethnically homogenous after the forced deportation of the Jewish population to concentration camps in the early 1940s and the expulsion of the sizeable German population (around 2.6 million people) after the World War II.

The historical social, cultural and demographic ties between Austria and the Czech Republic were severed during the lengthy period of state socialism in Czechoslovakia between the late 1940s and the late 1980s. At that time these two countries often experienced contrasting demographic trends, also in the domains of fertility and family (see also Section 4.2). Population trends in Austria progressed in sync with the trends

in Western and Northern Europe (especially the neighboring Germany and Switzerland), including the experience of the baby boom and a strong endorsement of the traditional family in the 1950s and 1960s. Trends in the Czech Republic have converged with those in eastern European countries and were marked by an almost universal marriage, early transitions to marriage and first birth, and very low childlessness. Women were expected to work, while they took almost all the responsibility for childcare and household duties as well (e.g., Sobotka 2011), whereas in Austria the male breadwinner ideal of the family was strongly entrenched well into the 1980s. Perhaps the main contrast could be drawn with respect to the characteristic family changes associated with the “second demographic transition” (Lesthéghe 1995, 2010). These trends, including the postponement of marriage and childbearing, emerged in Austria since the 1970s, but they were, except for steeply rising divorce rates, largely absent in the Czech Republic until the early 1990s (Sobotka et al. 2003). Also mortality trends between the two countries diverged. Also mortality improvements stalled in the Czech Republic in the 1960s-1980s (see also Section 3). At the same time Czech economy was increasingly lagging behind an ever more prosperous Austria.

The collapse of the authoritarian state-socialist system in Central and Eastern Europe paved the way to the radical changes in family and fertility in the Czech Republic in the

1990s and 2000s (Rabušic 2001; Sobotka et al. 2008; Kanotorová 2004; Klasen and Launov 2006). These changes were mostly an accelerated version of the trends observed earlier in Austria, resembling the fast-paced second demographic transition (Sobotka et al. 2003). The political regime change paved the way to economic liberalization, reforms in social and family policies, as well as many new life choices for younger people. Previously unknown experience of economic uncertainty emerged, as well as new phenomena of unemployment and rising income differences. Housing was privatized. Opportunities for self-realization, travel, leisure, and political activities or pursuing business vastly expanded, as did the enrollment in university education, transforming the lives of young adults (see also Section 4.5). Post-secondary education became perceived as a prerequisite for a future success in life and the share of young people aged 20-24 enrolled in education has tripled from 12 % in 1994 to 37 % in 2012 (own computations based on OECD and Eurostat data). Similar, but more gradual, expansion occurred also in Austria, where the enrollment in education at age 20-24 doubled from 15 % to 29 % in the same period.

In 2004 the Czech Republic joined the European Union and thus completed the transition from its “Communist” past. However, due to the legacy of its long-term economic stagnation in the 1970s and 1980s, its economy still lags well behind

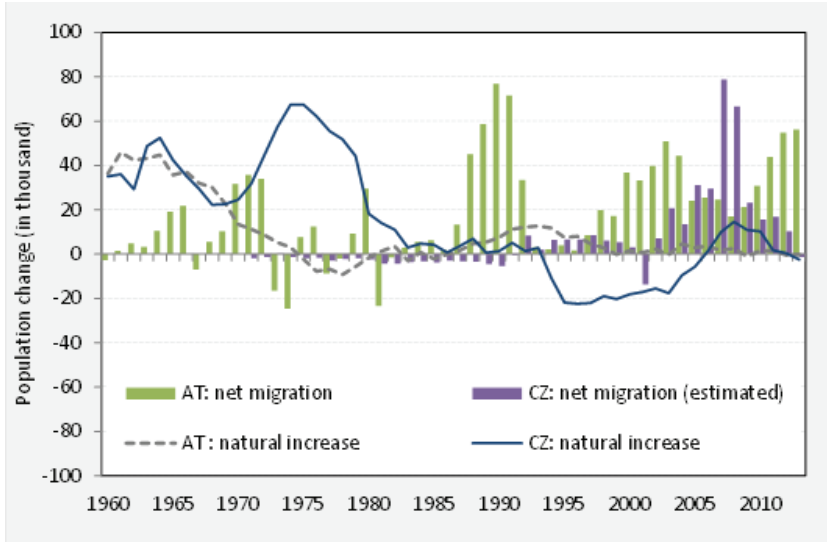
that of Austria, whose living standards are among the highest in the European Union. In 2013 Austria had the second highest GDP per capita in the European Union after Luxembourg, at 130 % of the EU-wide level, whereas the Czech Republic ranked 12th from the bottom, at 81% of the EU level. In addition, Austria has emerged practically unaffected by the recent economic recession (see Section 4.3). These economic differences also play some role in the abilities of governments to expand the existing family-related policies (see Section 7). Another heritage of the past, especially of the state-socialist era with its official anti-religious ideology in the Czech Republic is manifested in the high degree of secularization in the country, which ranks as one of the most secular countries in Europe (Halman and Draulans 2006; Havlíček 2006).

3. Population Change and Aging: Key Trends

In a long-term perspective, populations of Austria and the Czech Republic have experienced only a slow growth over the last century, well below the average growth in most European countries (van Zanden 2014: pp. 42-43). Austrian population increased from 6 million to 8.5 million between 1900 and 2014, whereas the population of the Czech Republic grew only from 9.3 to 10.5 million. Besides low fertility rates and some war losses, the main reason for such a slow growth in the Czech

Republic was the mass deportation of ethnic German population after the World War II, which between 1945 and 1947 swept away almost entire German-speaking population that had numbered over 3 million before the war. Later, population increase was also dented by emigration to Western Europe during the state socialist era. In contrast, Austrian population, which has had natural population increase around zero since the 1970s, experienced considerable immigration. Migration has become an engine of population growth, which amounted to 10 % over the period of 1990–2014 (Figure 1). The cumulated effect of immigration on Austrian population is quite sizeable; in 2013, almost one out of six residents (16 %) were born in another country, one of the highest shares in the European Union (Eurostat 2014c). In the Czech Republic, immigration was less intensive on average, peaking before the onset of the recent economic recession. In contrast with most other countries of Central and Eastern Europe Czech Republic did not experience sizeable emigration. In 2013 almost 4 % of the population were born abroad. However, the most distinct minority is mostly native-born ethnic group of Roma (about 2 % of total population), who are often low educated and constitute most socially disadvantaged and vulnerable population.

[Figure 7-1] Natural population increase(live births–deaths) and net migration balance in Austria and the Czech Republic, 1960–2013



Note: Estimates of net migration in the Czech Republic available since 1971 only. These data for the Czech Republic include inter-censal adjustments (own computations) for unregistered emigration.

Sources: Natural population increase: Eurostat (2014a). Net migration: Austria: Statistics Austria (2014a). Czech Republic: net migration (including population adjustments) published in Eurostat (2014a).

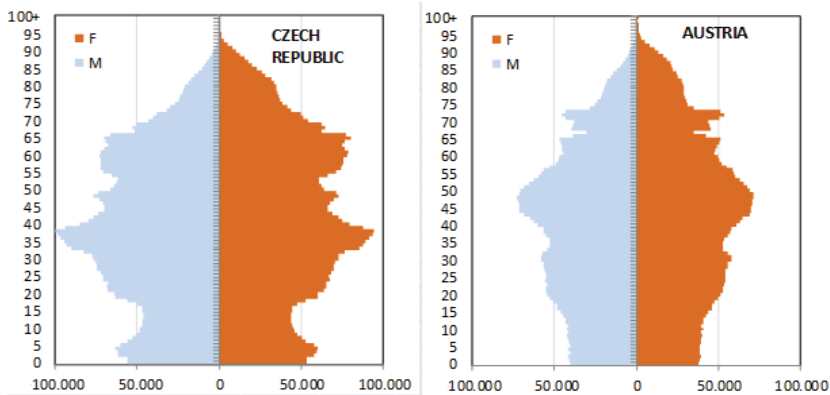
As in other developed countries, populations of Austria and the Czech Republic have aged relatively fast, especially due expanding life expectancy. Austria experienced continuous mortality improvements since the 1950s, with the life expectancy at birth reaching 83.6 years for women and 78.5 years for men in 2013, i.e., by ten years (women) or twelve years (men) above the level reached in 1970. In the Czech Republic life expectancy at birth is currently by about three years below that in

Austria, primarily because of the long period of mortality stagnation during the 1960s-1980s when life expectancy at birth remained particularly low (66-68 years) among men. Since the 1990s fast improvements in health care have quick-started rapid improvements in mortality in the country which continue up to now, with male life expectancy at birth rising by almost eight years since 1990. Diverse indicators of aging show that the Czech population has been converging towards an older age structure of the Austrian population, but remains, on average, slightly younger due to its lower share of the elderly. In 2013, both countries had one fifth of their population below age 20 and the share of people over age 65 will soon reach the same level (in 2013 it was 18 % in Austria and 17 % in the Czech Republic; computations based on Eurostat 2014a).

Population pyramids for both countries (Figure 2) actually do not resemble pyramids but rather some peculiar trees with the widest branches representing baby booms in the distant past. They have some typical features of aged societies, including the relatively narrow basis representing the younger population with the most sizeable age groups being those around age 50 in Austria (resulting from the baby boom of the early- to mid-1960s) and those around age 40 in the Czech Republic (mid-1970s baby boom). Overall, the Austrian “tree” is much smoother, reflecting the stability in fertility and mortality trends of the last decades, whereas the Czech “tree” is partic-

ularly uneven, reflecting especially the turbulent ups and downs in fertility in the country (Section 4.2).

[Figure 7-2] Population pyramids: sex and age structure of the population of Austria and the Czech Republic, 2013



Source: Eurostat (2014a).

4. Fertility Change and Differentials

4.1. Long history of low fertility in Austria and the Czech Republic: A cohort view

Austria and the Czech Republic have a long history of low fertility, alongside with many countries of Central, Western and Northern Europe. Fertility transition in both countries was practically completed among the late-19th century cohorts and completed fertility fell below 1.9 among the Czech women born in the early 20th century and below 1.8 among the Austrian women born around 1900 (Figure 3, data based on census data).

Similarly low fertility levels were reached at the same time in England and Wales, Sweden, and in the neighboring Germany (not shown in the figure), while countries in Southern Europe, as well as those to the East and south-east had considerably higher fertility rates (Festy 1979). For instance, Slovak women born in the early 20th century still had a much larger family size than their Czech and Austrian counterparts (3.3 on average), despite the fact that they were born in the same country (the Austro-Hungarian Empire) and lived most of their lives in a common country with the Czech women. The familiar hosts of factors including industrialization, urbanization, improved education, spreading smaller family norms and parents' desire to ensure success in life for their offspring can be seen as the main factors fuelling the early fertility decline (Fialová, Pavlík, and Vereš 1990; Ehmer 2013; Vobecká 2013). Undoubtedly, the World War I and the Great Depression of the 1930s, also contributed to the historical fertility declines. The period total fertility rates reached a long-term trough during the Depression era, falling to 1.66 in the Czech Republic (CSO 2014a) and to around 1.5 in Austria in the mid-1930s⁴⁵ (see also Frejka and Sardon 2004). These fertility rates are not remarkably low judged by our current standards, but they stand out in being deep below the replacement threshold. Given considerably

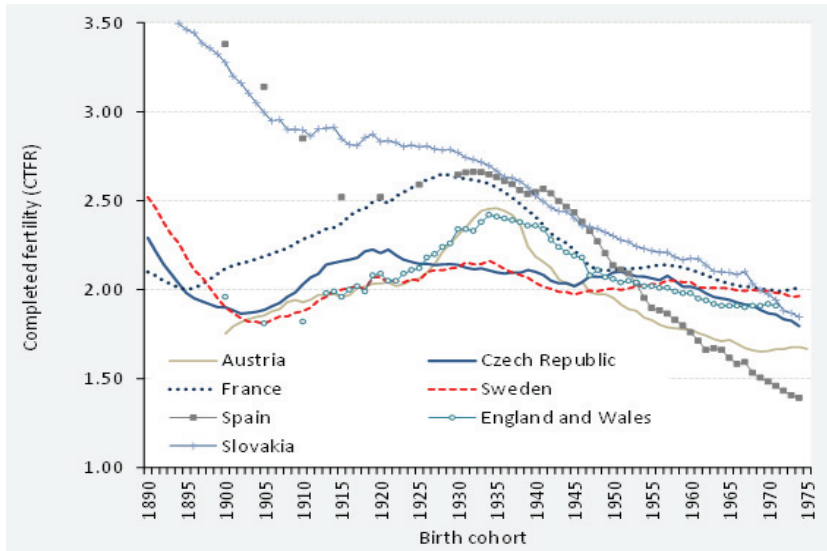
45) Own estimate based on Gross Fertility Rate published by the League of Nations (1943).

higher child and maternal mortality in the past, fertility needed for population replacement was much higher than today; for instance, in France it reached 2.8 children per woman born in 1900 (Sobotka 2008; Sardon 1991). Assuming comparable mortality levels in Austrian and Czech women born in the early 20th century, their fertility was by about 35% below the replacement level, equivalent to a completed fertility of about 1.35 today.

After bottoming out, cohort fertility increased in both countries among the women born after 1905. But the trend diverges in the cohorts born after 1920. Czech women born in 1920-1960, having most of their children during the state-socialist period, show relatively stable fertility rate at 2.0-2.2 marked by relatively small ups and downs, arguably linked to changes in family-related policies (see also Sections 2 and 7). Interestingly, their fertility trend resembles that of Swedish women (Figure 3). In contrast, Austrian cohort fertility depicts a pronounced baby boom typical of most countries of Western and Northern Europe, peaking at a level of 2.36 children per woman in the 1935 cohort. Austrian cohort fertility trajectory closely resembles that for England and Wales (Figure 3). The Austrian cohort baby boom was followed by a continuous decline, which appears to come to the end only among the women born in the 1970s, for whom a stable cohort fertility around 1.65 is projected (see also Geburtenbarometer 2014). Similar stabilization or even a slight upturn in cohort fertility has been

projected for most countries of Central, Northern and Western Europe (Myrskylä, Goldstein and Cheng 2013). In the Czech Republic, cohort fertility shows a gradual decline among the women born after 1955 and it is unlikely to come to an end in the 1970s cohorts. However, Czech women born in the mid-1970s still have larger family size than their Austrian counterparts, and their completed fertility fell just below the 1.8 threshold. Neither Austrian nor Czech fertility level diverges widely from European-wide average: for the EU countries the completed fertility is estimated at 1.70 for the women born in 1972 (VID 2014). The European-wide variation ranges from 1.4 in Spain, which showed the sharpest cohort fertility decline in Europe (Figure 3) to 2.0-2.1 in France, Ireland and several Nordic countries (VID 2014, a few peripheral countries, namely, Albania, Iceland and Kosovo are outliers with yet higher fertility).

[Figure 7-3] Completed cohort fertility rate in Austria, the Czech Republic and selected European countries; women born 1890–1975



Note: Data for the cohorts born between 1968 and 1975 are partly projected (own projection based on combining observed cohort fertility data until 2012 with age-specific trend projection for fertility realized after 2012).

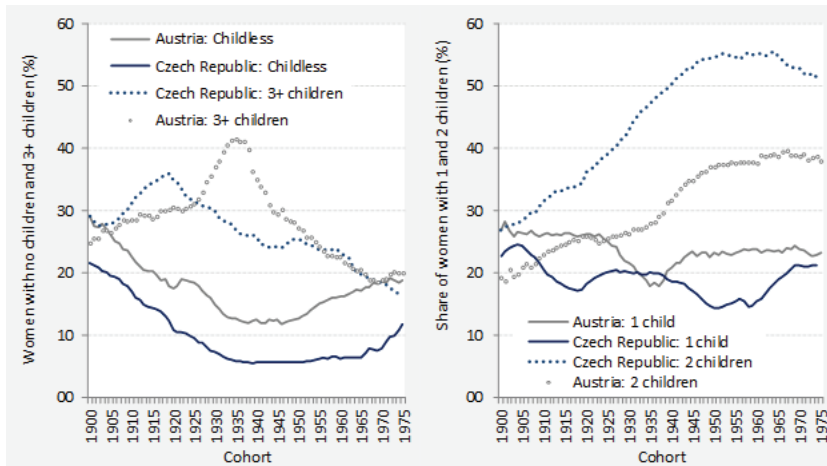
Sources: Austria: Population Censuses 1991 and 2001 combined with vital statistics data for 1984–2012, projected cohort fertility published in *Geburtenbarometer* (2014); Czech Republic and Slovakia: Population Censuses 1950, 1961 and 1980 combined with vital statistics data for 1980–2012; England and Wales: Festy 1979 and ONS 2013; France: Festy 1979; Sweden: Human Fertility Database (2012); Spain: Festy 1979, Council of Europe 2006..

The low cohort fertility in the early 20th century cohorts was marked by high childlessness, which reached close to 30% in Austria and above 20% in the Czech Republic (Figure 4). This pattern was typical of Western European countries, where marriage and family formation usually took place only when the couple had sufficient means to form a new household, resulting

in generally high non-marriage and non-reproduction, especially in harsh times (Ehmer 2013; Hajnal 1965). In both countries cohorts born until the 1960s show a continuous increase in the prevalence of two-child families—particularly pronounced in the Czech Republic—and a fall in childlessness followed by its gradual rebound (only recent in the Czech Republic). Austrian baby boom was driven by a sharp increase in the number of larger families with three or more children. This was followed by a sharp fall in their shares since the late-1930s cohort, later reaching similarly low levels around 20% as in the Czech Republic. The recent differences in family size between the two analyzed countries still reflect the fertility contrasts typical of the East-West European political divides up until 1989. In line with the reproduction pattern prevailing in other European state-socialist countries, women in the Czech Republic reached very low levels of childlessness (around 5–6% only) and non-marriage (Section 6.1) combined with a strong orientation towards a two-child family norm, with well over a half of women born in the 1940s–1960 shaving two children (Figure 4). Only the recent Czech cohorts analyzed here, born after 1965, show a break with this “socialist-era pattern”, depicting a strong increase of childlessness and in the share of one-child families progressing hand in hand with a gradual decline in the share of two-child families, shifting thus closer to fertility patterns of Austrian women (Figure 4).

The strong long-term orientation of Czech couples towards having two children is also illustrated in their higher second birth rates and lower third birth rates in comparison with their Austrian counterparts (Figure 5). Czech women born in the 1960s and the early 70s show particularly low third birth rates, marked by a clear “stopping” pattern at two children: only about a quarter of women with two children eventually had a third one. In Austria, the third birth progression rate remained higher and even showed a minor upturn in the early 1970s cohort, possibly due to larger families among some migrant women (Section 4.6).

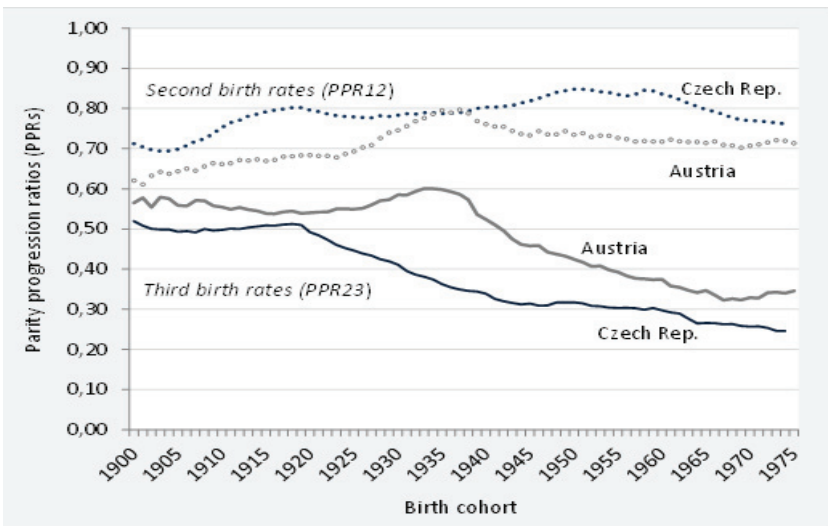
[Figure 7-4] Cohort parity distribution of women in Austria and the Czech Republic born in 1900–1975



Note: Data for the cohorts born between 1968 and 1975 are partly projected (own projection based on combining observed cohort fertility data until 2012 with age-specific trend projection for fertility realized after 2012).

Sources: Austria: Population Censuses 1991 and 2001 combined with vital statistics data for 1984–2012, projected cohort fertility published in *Geburtenbarometer* (2014); Czech Republic: Population Censuses 1950, 1961 and 1980 combined with vital statistics data for 1980–2012; data for the cohorts 1965–74 were reconstructed and partly projected from Eurostat (2014) data.

[Figure 7–5] Parity progression ratios to second and third births. Women in Austria and the Czech Republic born in 1900–1975



Notes and sources: see Figure 4 above.

4.2. Period fertility developments: the interplay of quantum and timing changes

Period fertility rates in Austria and the Czech Republic in the post-WW 2 era differed considerably (Figure 6). The baby boom of the mid-1950s to mid-1960s in Austria contrasted with falling fertility in the Czech Republic and much of the post-baby boom fertility decline in Austria took place at time of tempo-

rary fertility rebound in the Czech Republic in the early 1970s. Finally, the massive slump in fertility in the Czech Republic during the 1990s occurred when Austrian fertility rates broadly stabilized at relatively low levels.

These contrasts partly stem from the allegiance of these countries to two competing political blocs in Europe (Section 2). In Austria, the post-war baby boom took place during the era of economic recovery, expansion of the welfare state, but also at the height of the “traditional family” characterized by a high prevalence of marriage and the wide adherence to the male breadwinner model. Many of these trends were reversed in the late 1960s and the 1970s, when the trend towards later and less common marriage and family formation took place (Figure 7). This also coincided with the gradual increase in the importance of economic activity for women, the spread of the contraceptive pill, introduced in Austria in the early 1960s, and later also liberalization of abortion since 1975 (Prskawetz et al. 2008). Since the mid-1980s Austrian fertility depicts remarkable stability, with the period total fertility rate (TFR) oscillating around 1.4, reaching a low of 1.33 in 2001, followed by a very minor recovery.

In the Czech Republic period TFR fell, with two brief interruptions, from the post-war peak at over 3 to 1.83 in the late 1960s. At that time the country was, alongside East Germany, Romania, Hungary, Latvia, and Estonia, one of the few regions

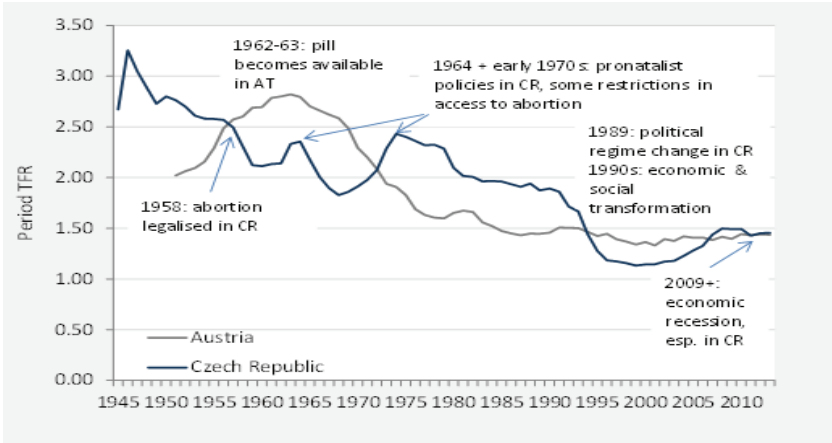
in Europe briefly reaching sub-replacement fertility rates. The main reason for this fertility decline was a massive drive to enroll women in the labor force. Gradual expansion of higher education, insufficient opportunities for parental leave or part-time work, as well as region-wide liberalization of abortion around 1958 also contributed to declining fertility (David 1999; Stloukal 1999). The Communist governments tried responding to the unanticipated fertility declines by a combination of “carrots and sticks” in the form of expanding the support for the families with children as well as the tightening of the access to abortion (Wynnyczuk and Uzel 1999; Sobotka et al 2008; Sobotka 2011; see also Section 7). In the Czech Republic the most concentrated effort in this direction took place in the early- to mid-1970s, when a package of pronatalist policies was introduced soon after the 1968 Soviet invasion put an abrupt end to the short-lived political thaw and economic liberalization that tried to reform the “socialist” political model⁴⁶). A brief upswing in the period TFR followed, peaking slightly above 2.4 in 1974. This short-term baby boom left only a minor imprint on the completed fertility, possibly preventing its decline and contributing to its small uptick in the early 1950s cohorts (Section 4.1 above). After 1974 fertility in the Czech

⁴⁶) These new policies included the prolongation of maternity leave, the introduction of extended childcare leave, a maternity allowance, loans for younger newly-wed couples, and the expansion childcare facilities (Frejka 1980; Wynnyczuk and Uzel 1999; Sobotka et al 2008).

Republic began its gradual but persistent decline, reaching once again the level below 1.9 at the end of the state-socialist era in 1989.

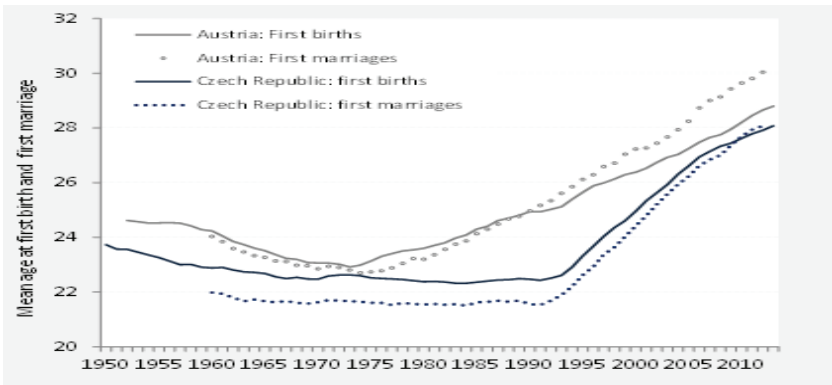
The sweeping economic and social changes in the 1990s led to a massive decline in period total fertility to unprecedented low level of 1.13 in 1999. This decline was largely fuelled by the postponement of family formation (see below). A wide gap emerged between the synthetic indicator of period TFR and the actual family size of the cohorts having children during that period. The mean age at first birth among Czech women shot up from a low level around 22.5 years that had persisted over many decades to over 28 years in 2013, a level typical of the current “Western” pattern of late family formation, also in Austria (Figure 7). However, the shift towards delayed child-bearing in Austria has been considerably more gradual, starting already in the early 1970s. The relatively turbulent times in the Czech Republic of the 1990s were followed by a calmer period of relative economic prosperity and less unpredictable policy turns, resulting in a gradual recovery of the period TFR, reaching 1.50 at the onset of the economic recession in 2008. Thereafter, period total fertility in Austria and the Czech Republic has temporarily converged to almost identical levels around 1.45 (see Section 7.3 below).

[Figure 7-6] Period Total Fertility Rate (TFR) in Austria(1951–2013) and the Czech Republic (1945–2013)



Source: Austria: own computations from the Eurostat database (2014) and Geburtenbarometer (2014). Czech Republic: CSO (2014a).

[Figure 7-7] Mean age at first birth and first marriage, women in Austria and the Czech Republic, 1950–2013



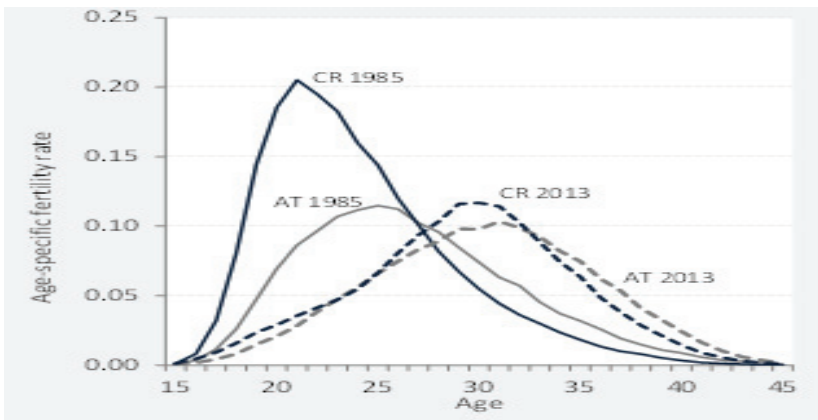
Sources: Mean age at first birth: Austria: Human Fertility Collection (2014) for 1951–1983 (data computed by T. Sobotka and A. Št'astná), own computations and Geburtenbarometer (2014). Czech Republic: CSO (2014a). Mean age at first marriage: Austria: Statistics Austria (2014b), Czech Republic: Council of Europe (2006) for the data until 2004, own computations based on Eurostat (2014).

The “postponement transition” is clearly visible in the shift of age-specific fertility rates, especially in the Czech Republic. In the mid-1980s fertility rates there were strongly concentrated into a narrow age band between 19 and 25 years (Figure 8). By 2013 the age pattern of childbearing grew similar in both countries, with a symmetric shape of fertility schedule and a rather flat peak between ages 28 and 32. In relative terms fertility rates in the Czech Republic slumped by over 80% between ages 18 and 21 from 1990 to 2013, while they increased by a factor of four or more among women aged 40 or older. Mid-1970s cohorts born in the Czech Republic, “caught” in the midst of this massive tempo transition, show a peculiar flat pattern of fertility between their early and late 20s. The likelihood for a Czech woman of having her first child below age 25 fell from over 0.75 in 1990 towards the Austrian level around 0.20 after 2010. In contrast, the probability that a woman childless at age 30 will have a child in the future went up sharply from 0.36 in the early 1990s to over 0.6 in the late 2000s, i.e., above the level reached in Austria (Figure 9). This suggests most of the presumably delayed childbearing is eventually “recuperated” at higher childbearing ages (see also Sobotka et al. 2008 and 2012).

Teenage childbearing, very common until the 1980s in Austria and 1990s in the Czech Republic, became rather unusual, also thanks to the rapid adoption of efficient contraception (Section 4.7). A telling sign of this transformation is a

recent cross-over in older and young fertility in Austria: since 2011 women over age 40 have displayed higher fertility rates than those below age 20. Due to advances in medically assisted reproduction, motherhood has increased even at very late “post-reproductive” ages and the number of multiple births in both countries has more doubled since the early 1990s.

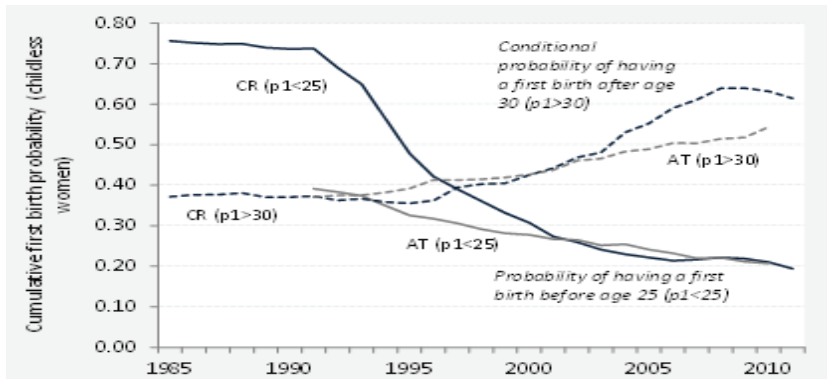
[Figure 7-8] Age-specific fertility rates in 1985 and 2013 among women aged 15–45, Austria and the Czech Republic



Note: Age is measured in completed years for the Czech Republic and as age reached during the year for Austria

Sources: Austria: Geburtenbarometer 2014; Czech Republic: Human Fertility Database (2014) and computations by Kryštof Zeman (VID) from the data provided by the Czech Statistical Office.

[Figure 7–9] Conditional period probabilities of having a first birth below age 25 and after age 30; women in Austria and the Czech Republic, 1985–2011

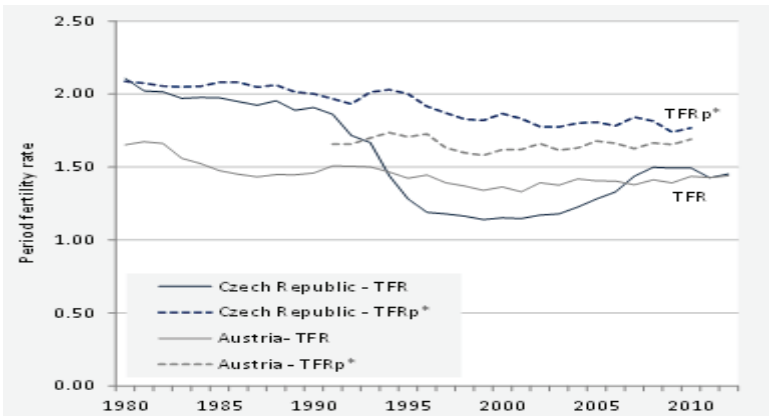


Source: Own computations from the data in Human Fertility Database, accessed 4 August 2014.

To assess the magnitude to which the conventional period total fertility rates were depressed by the shift to a later timing of births, Figure 10 presents tempo-adjusted index of fertility by age and parity, $TFRp^*$, proposed by Bongaarts and Feeney (2006) and Bongaarts and Sobotka (2012). This indicator has been shown to approximate rather closely the completed cohort fertility rates and also to suffer fewer fluctuations than other available tempo adjustment methods (Bongaarts and Sobotka 2012). For Austria, the $TFRp^*$ suggests a stable fertility rate oscillating at 1.6–1.7 in the 1990s and 2000s, by about 0.2 above the ordinary period TFR and, indeed, very close to the completed fertility in the late 1960s and the 1970s cohorts. In the Czech Republic, the $TFRp^*$ tells a very different story of the

post-1990 fertility decline than the conventional TFR. Instead of showing a swift fall followed by a gradual recovery, it shows a gradual decline from 2.0 in 1990 to below 1.8 in 2009-10, following closely the cohort fertility trajectory (see Figure 3). The contrast between the two period fertility indicators can hardly be larger. In effect, when the swift changes in the timing of births are taken into account, period fertility rates in the Czech Republic have consistently stayed above those observed in Austria during the last two decades.

[Figure 7-10] Period total fertility rate (TFR) and tempo-adjusted index of period fertility (TFRp*) in Austria and the Czech Republic, 1980-2012



Note: TFRp* is an index of period fertility controlling for age and parity and adjusted for the changes in the timing of childbearing (see Bongaarts and Feeney 2006 and Bongaarts and Sobotka 2012).

Sources: Human Fertility Database (2014); the TFRp* was computed by Kryštof Zeman (VID).

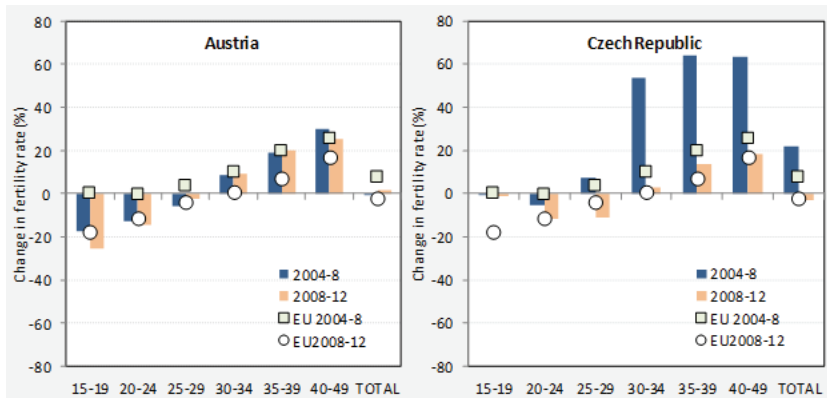
4.3. Fertility during the recent economic recession

The recent “Great Recession” has put a break to the recovery in period fertility rates across Europe that was under way since the early 2000s (Sobotka, Skirbekk and Philipov 2011; Goldstein et al. 2013; Lanzieri 2013). Across the European Union (EU) changes differed widely between countries, with some, especially in Eastern Europe, bucking the trend of stabilizing or declining fertility (Sobotka 2013). Across the European Union, period TFR increased by 8% in the four years prior to the recession, 2004-8, while it declined by 2% in the subsequent two years. This reversal had a strong age gradient: the younger the women’s age, the more intensive decline in fertility; after age 30 fertility rates continued increasing, although less intensively than before the onset of the recession (Figure 11). Austria, which was one of the least recession-affected countries in the EU did not experience a change in fertility trend after 2008, but it witnessed an accelerated decline in teenage fertility, which fell to the lowest level ever reported. If fertility rates of 2013 were to prevail indefinitely, fewer than 4 out of 100 Austrian women would have a child before age 20, down from 25 in 1970. In contrast to Austria, a reversal in fertility trend after 2008 was pronounced in the Czech Republic, except for the teenage women, where no change can be traced. Fertility fell among women in their 20s and a strong fertility rebound at

ages above 30, which was underway since the late 1990s, slowed down considerably (Figure 11).

The observed trend reversals in fertility in Europe and the United States can be explained by rising economic uncertainty—including a sharp increase in youth unemployment—increasing proportion of younger people studying, living with parents as well as those without employment or education, falling or stagnating wages, cuts in government social spending, falling fertility among migrants, and, in many countries, also declining affordability of mortgages (Sobotka, Skirbekk and Philipov 2011, Cherlin et al. 2013). Whereas Austria hardly suffered any symptoms of the economic downturn, Czech Republic encountered a decline in real wages (falling by more than 5% from 2008 to 2013 according to the Czech National Bank 2014), increases in youth unemployment, and cuts in family-related benefits (see Section 7.3 below).

[Figure 7–11] Relative changes in age-specific fertility rates in Austria and the Czech Republic four years into the economic recession (2004–8) and four years since the onset of the recession (2008–12), in %



Sources: Eurostat (2014a), Geburtenbarometer (2014) and data assembled by Kryštof Zeman (VID).

4.4. Fertility rebound in metropolitan areas?

During most of the 20th century larger cities in low-fertility countries had fertility rates deep below those of the other regions. Expensive housing, more crowded conditions, attractive job opportunities, high share of single persons as well as a strong concentration of highly educated population went hand in hand with higher childlessness and lower family size. Vienna is a prime example of this pattern. At the peak of the economic recession of the 1930s, period TFR in the city reached an extreme low level of 0.61 in 1934 (Gisser et al. 1975: 104, Table 39), just at 37% of the already low Austrian fertility (Table 1).

During the post-war period Viennese fertility still remained at an extreme low level, by about 0.9 below that of Austria in absolute terms in the 1950s and most of the 1960s. Later, a gradual convergence with the Austrian level ensued and by the year 2000 the total fertility in Vienna almost equaled that for the whole country. At present period fertility in Vienna is at one of the highest levels since the mid-1970s (Table 1) and cohort fertility is forecasted to increase from a low of 1.42 in the cohorts born in 1965–70 to 1.55 among the women born in 1980 (Geburtenbarometer 2014).

〈Table 7-1〉 Period total fertility rate (TFR) in Vienna, Prague, and two districts surrounding Prague as compared with the national level (selected years)

	Vienna	Austria	Abs. difference	Relative difference (national level = 1.0)
1933–34	0.61	1.65	-1.04	0.37
1951	1.11	2.02	-0.91	0.55
1963	1.89	2.82	-0.93	0.67
1976	1.27	1.69	-0.42	0.75
1985	1.33	1.47	-0.14	0.90
2000	1.34	1.36	-0.02	0.98
2013	1.40	1.44	-0.03	0.98
	Prague	Czech Republic	Abs. difference	Relative difference (national level = 1.0)
1993	1.44	1.67	-0.22	0.87
1999	1.04	1.13	-0.09	0.92
2013	1.36	1.46	-0.09	0.94

	Prague-East district	Czech Republic	Abs. difference	Relative difference (national level = 1.0)
1993	1.57	1.67	-0.09	0.94
1999	1.21	1.13	0.08	1.07
2013	1.70	1.46	0.24	1.16
	Prague-West district	Czech Republic	Abs. difference	Relative difference (national level = 1.0)
1993	1.65	1.67	-0.02	0.99
1999	1.19	1.13	0.06	1.05
2013	1.66	1.46	0.20	1.14

Sources: Austria: Geburtenbarometer (2014), Gisser et al. (1975), League of Nations (1943). Czech Republic: CSO 2011 and 2014b.

Diminishing differences in relative and absolute fertility can also be observed in Prague and interesting cross-overs have been recorded in two suburban districts East (Praha-východ) and West (Praha-západ) of Prague, which have seen considerable construction boom and immigration, especially of younger couples, in the 1990s and 2000s. These two districts now have fertility rates well above those in Prague and belong to the regions with the highest fertility in the country (Table 1).

4.5. Education differentials in fertility

European countries with low fertility often show relatively strong education differentials in family size, characterized by low fertility levels and high childlessness among the women with higher education (e.g., Basten, Sobotka and Zeman 2014). Austria fits this pattern well: women born in the late 1950s

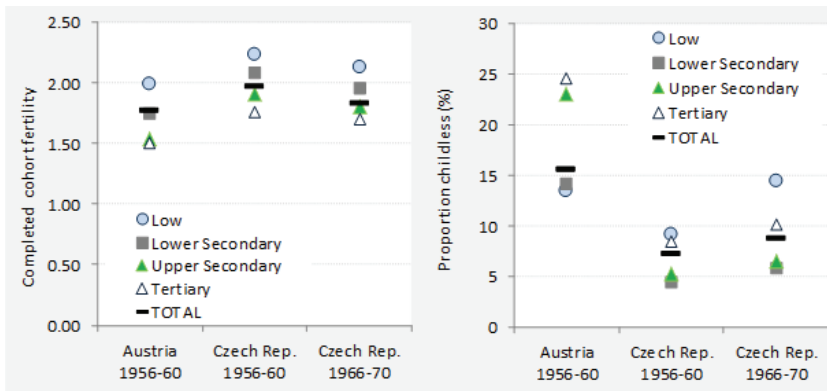
show a negative education-fertility gradient with respect to their completed fertility and positive education gradient in childlessness (Figure 12; see also Prskawetz et al. 2008). Women with upper secondary and tertiary education had a low completed fertility of 1.5 children per woman and almost one out of four remained childless. Highly educated women face difficulties in combining career and family life, which include perceived pressure of their work, limited childcare options for small children and unstable contracts (e.g., Buber, Berghammer and Prskawetz 2011).

In the Czech Republic the education-fertility differential among women is slightly narrower than in Austria. However, in contrast with Austria, this cohort fertility differential is not linked to the differences in childlessness, but to contrasts in family size among women with children: Czech mothers with elementary or incomplete secondary education have, on average, 2.5 children. Many of these low-educated women belong to the Roma minority that forms the most socially disadvantaged and marginalized population group characterized by relatively early childbearing and a high share of women with large families (Sobotka et al. 2008). Childlessness in the Czech Republic does not follow a clear education gradient, as women with low education born in the late 1960s form a distinct group with childlessness close to 15%, almost double the national level (Figure 12). Furthermore, all categories of women except of

the low educated share a strong adherence to a two-child family model, with a majority of them having two children (see also Sobotka et al. 2008).

As both analyzed countries experienced continuous expansion of tertiary education, the observed negative educational gradient in fertility also had a negative compositional effect on aggregate fertility rates, especially in the Czech Republic where tertiary enrollment increased sharply since the mid-1990s (Section 2). As in other European countries, highly educated women also were at the forefront of the shift towards delayed childbearing documented in Section 4.2 and the education expansion has been an important driving force behind it (Kantorová 2004).

[Figure 7-12] Completed family size and childlessness by the highest achieved level of education among women in Austria (cohorts 1956-60) and the Czech Republic (cohorts 1956-60 and 1966-70)



Note: The following education categories are used, based on International Standard Classification of Education (ISCED), 1997 revision. Low education (Primary and lower, incomplete secondary education): Austria: ISCED 0-2A; Czech Republic: ISCED 0-2. Lower Secondary education: Austria: ISCED 3B; Czech Republic: ISCED 3C. Upper Secondary education: Austria: ISCED 3A; Czech Republic: ISCED 3B+4A. Tertiary education: ISCED 5+6.

Sources: Census 2001: data from the Cohort Fertility and Education (CFE) database (2014). Census 2011 for the Czech Republic: data provided by Czech Statistical Office; indicators computed by Kryštof Zeman (Vienna Institute of Demography).

4.6 The influence of migration of fertility in Austria

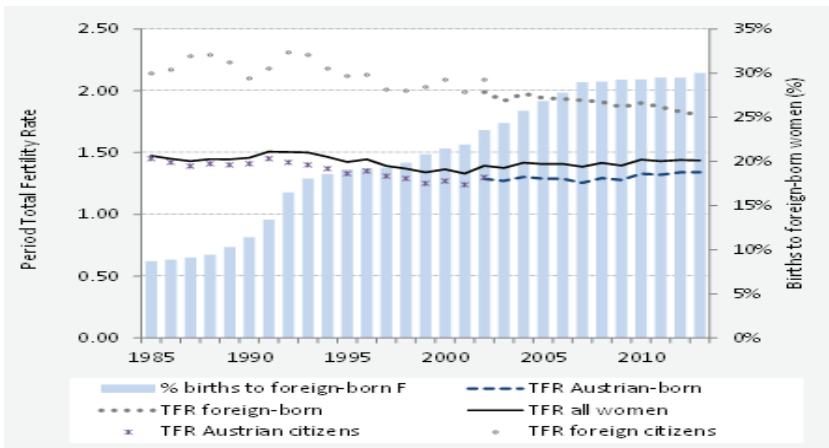
During the last three decades Austria has experienced considerable immigration, mostly from other European countries and Turkey (see Section 3). As most migrants arrive at relatively young ages, they not only boost the labor force size, but also the population of childbearing age. As in many other affluent countries in Europe, migrants in Austria have higher fertility rates on average than the women born in the country and thus have a small positive effect on fertility and account for a rising share of children born in Austria. Recently three out of ten children in Austria were born to mothers who immigrated to the country, up from one out of ten children in 1989 (Figure 13). The period TFR of migrant women has been gradually declining over time, dropping below 2 in the early 2000s and reaching 1.8 in 2013. At the same time, the TFR of the “native” women has oscillated around the low level of 1.3 since the mid-1990s. Despite this gradual convergence, migrants in

Austria “boost” the period TFR of the country by about 0.10 in absolute terms and this net effect on Austrian fertility has been stable since the early 2000s (Sobotka 2008, Geburtenbarometer 2014). Among the major immigrant groups, highest fertility rates were recorded among the women born in Kosovo (TFR of 2.9 in 2013)—in line with its ranking at the top of Europe’s fertility rates (VID 2014)—and Turkey (TFR of 2.2; Geburtenbarometer 2014). The lowest fertility is found among the women from Germany, whose TFR level of 1.4 is similar to that of Austrian women as well as of their country of origin. The migrants’ influence on fertility is strongest in Vienna, which has traditionally served as a magnet for immigration. However, the decline in migrant fertility differential has been more pronounced there, with the period TFR “gap” between migrant and Austrian-born women falling from 0.93 in 2002 to 0.55 in 2013, also in part due to a slight rise in fertility of Austrian-born women (Geburtenbarometer 2014).

In contrast to Austria, migrant women have only a small influence on fertility in the Czech Republic, owing to their smaller number, but also to the absence of a distinct group of higher-fertility migrants. According to the 2011 census, women with foreign citizenship born in the 1960s had lower fertility than women with Czech citizenship (CSO 2013); no statistics is available by country of birth). This applied to all the main countries of citizenship and origin, namely, Slovakia, Ukraine,

Vietnam and Russia. Whereas Czech women born in the late 1960s had 1.89 children on average, those with Russian citizenship had 1.34 and those with Ukrainian citizenship only 1.19 children on average (CSO 2013).

[Figure 7-13] Period total fertility rate (TFR) by country of birth or citizenship and the share of births to foreign-born women; Austria 1985–2013



Sources: Geburtenbarometer 2014; Kytir 2005.

4.7 Contraceptive revolution and fertility in the Czech Republic

A sweeping spread of modern contraception is an important and often neglected aspect of post-communist transformation in fertility behaviour in the Czech Republic. Up until the early 1990s, population had relatively limited knowledge of and ac-

cess to the most effective contraceptive means including the pill and traditional contraceptive methods were widely used. Many pregnancies were unplanned and induced abortion was widespread. The 1993 Reproductive Health Survey reported that only 66 % of pregnancies in the five years into the survey were planned (RHS 1995, Table III.11); this is certainly an underestimate given that induced abortion was underreported by the survey. Among the sexually experienced young adult women, 42 percent reported not using any form of contraception at their first intercourse and 29 percent used withdrawal (RHS 1995, Table VI.4). Among the female population of reproductive age, potential unmet need of family planning was estimated at 31 percent if users of traditional contraceptive methods were also included (RHS 1995, Table IV.15).

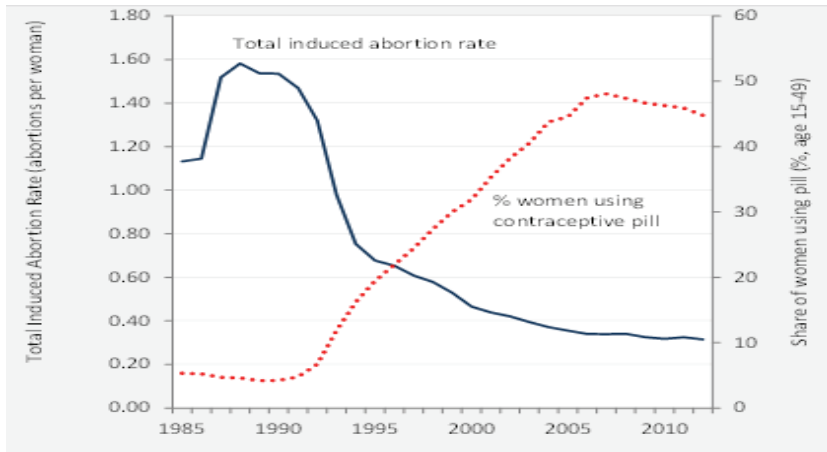
During the 1990s and 2000s the change in contraceptive use and abortion could hardly be more radical and women clearly gained considerable degree of control over their pregnancies. The share of women of reproductive age registered as using the pill rose more than tenfold from a low of 4 % around 1990 to a peak of 48% in 2007, before declining slightly (Figure 14). At the same time, induced abortion rates plummeted, with the indicator of total induced abortion rate diving from a high peak of 1.58 abortion per women (rather close to the level of the period TFR at the time) to a low of 0.31 in 2012, the lowest level observed since the time abortion was legalised in the late 1950s

and also below the level reported in some Western European countries with long-established use of modern contraception, including France and the United Kingdom.

Such a massive change in birth control has undoubtedly affected period fertility trends, contributing to the intensive postponement of childbearing during the last two decades, plummeting teenage fertility rates (Section 4.2) and, arguably, also reducing fertility rates by preventing some of the unplanned pregnancies that would have turned, under previous contraceptive regime, into mistimed or unwanted births.

For Austria, data on induced abortion are not collected. Occasional survey data on contraceptive use suggest more gradual expansion of modern contraception over time, an earlier decline in the use of traditional methods to very low levels, and still a relatively high share of partnered women who do not desire to have a child and at the same time do not use contraception (12 % according to the 2008-9 GGS survey (2009)).

[Figure 7–14] Total induced abortion rate and the share of women of reproductive age (15–49) using contraceptive pill (in %), Czech Republic 1985–2013



Sources: UZIS (2013), CSO (2014a).

5. Intended family size: A strong two-child norm in the Czech Republic

As in any other European country, intended family size among women (and men) in Austria and Czech Republic consistently exceeds the actual family size they achieve by the end of their reproductive span. However, this gap is not particularly pronounced as both countries have intentions close to the low end of the range currently observed in Europe (Beaujouan et al. 2013). This is particularly true for Austria where Microcensus surveys conducted since 1986 repeatedly found sub-replacement fertility intentions (Sobotka 2009). This is also the case of the most recent survey of 2012, where the mean intended fam-

ily size among younger women aged 25-29 was below 1.9. Czech women of the same age showed slightly higher intended family size of 2.04 in a GGS survey of 2004 (Table 2). A majority of younger women in both countries intends to have two children. In line with a high actual share of two-child families this orientation is most pronounced in the Czech Republic, where more than six out of ten younger women share this family size preference. Although on the rise, intended childlessness remains uncommon in the Czech Republic, as also reported in numerous other surveys (Pakosta 2009). Austrian Microcensus survey of 2012 suggests childlessness intentions are considerably more widespread there. This finding contrasts with the previous surveys analyzed in Table 2 and must be interpreted with caution. Surveys for both countries also show a modest negative education gradient in intended family size (Beaujouan et al. 2013; Štastná 2007), partly corresponding to the actual fertility differentials (Section 4.5).

(Table 7-2) Mean intended family size (MIFS) and intended parity distribution among women aged 25–29 in Austria and the Czech Republic; different surveys, 1994–2012

Survey, year of survey	MIFS	Share of women by their intended family size (%)				N
		0	1	2	3+	
Austria, FFS 1996	1.89	4.9	23.3	54.2	17.6	732
Austria, GGS 2008	2.12	4.2	13.5	55.8	26.6	530
Austria, MC 2012	1.87	11.9	12.7	56.6	18.7	653
Czech Republic, FFS 1997	2.13	0.4	11.5	69.0	19.1	245
Czech Republic, GGS 2005	2.04	3.8	14.0	62.8	19.5	400

Notes: The following surveys have been analyzed: FFS = Fertility and Family Survey; GGS = Generation and Gender Survey; MC = Austrian Microcensus, special module on fertility intentions. The distribution of intended family size excludes respondents who did not report their intended family size or were uncertain about it.

Sources: Data computed by Ěva Beaujouan, Vienna Institute of Demography / Wittgenstein Centre.

Panel surveys of short-term fertility intentions in the Generation and Gender Surveys revealed that many women and men who intended having a child within a three-year period did not realize their intentions. Intentions were frequently “postponed” or abandoned, similar to the findings for some other countries of Central and Western Europe including Hungary and Switzerland (Kapitány and Spéder 2012). Older age (especially 35+), having two children, disagreement with a partner, not having a partner, but also being a man scored high among the factors associated with a high probability of not realizing short-term intention to have a(nother) child in both countries (Štastná 2011 for the Czech Republic; diverse con-

tributions in Buber-Ennser, Neuwirth and Testa 2014 for Austria).

6. Family transformations: increasing diversity

Austria can be seen as a typical example of the postponement of key family transitions and a steady erosion of marriage. Czech Republic has experienced similar shifts, but is less typical in that many family changes progressed only stealthily, if at all, during the state socialist era, whereas in the 1990s and the 2000s the country experienced an accelerated family transformation, rapidly catching up with Western Europe (e.g., Sobotka et al. 2003 and 2008). In this section I outline the key contours of changes in family and living arrangements since the 1970s. I also discuss their importance for fertility and position them within the broader context of changes in the value of children, family and gender attitudes.

6.1 The steady erosion of marriage

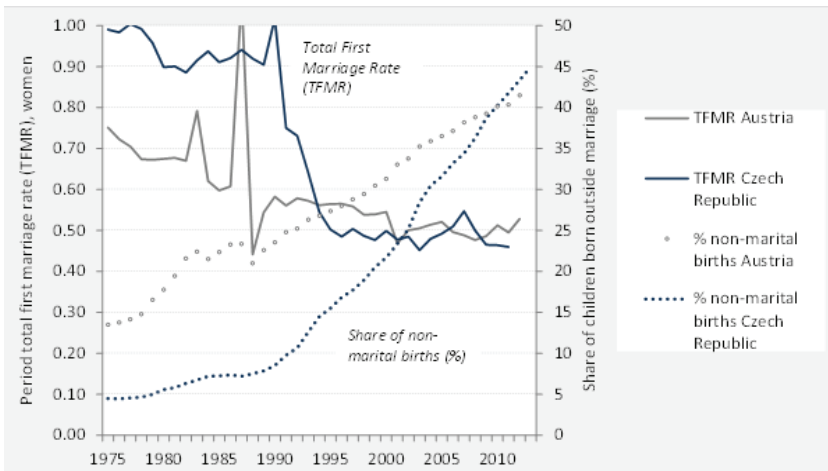
In Austria the decline and the postponement of marriages commenced in the 1970s, hand in hand with fertility decline (Section 4.2). In the Czech Republic marriage rates plummeted in the first half of the 1990s. Since the mid-1990s both countries have had similarly low total first marriage rate (TFMR) of

women at about 0.50 (Figure 15), partly reflecting low marriage rates, and partly the ongoing shift towards delayed marriage. Nuptiality tables for the Czech Republic show a declining probability of first marriage, reaching 59% for women and 51% for men in 2013 (CSO 2014c). In 2012 the mean age at first marriage among women surpassed 30 in Austria and 28 in the Czech Republic, an increase of six years since the early 1990s. The Czech Republic saw an unusually quick shift from the previous pattern of early and almost universal marriage towards the less frequent and delayed marriage. The share of women married at age 30 plummeted from 82% in 1995 to 47% in 2012 (own computation from Eurostat data (2014)) and marriage has become rare below age 22, when around a half of women used to be married during the state socialist era.

In both countries, age at first marriage currently exceeds the age at having first child, an illustration of the reordering of key life events, where childbearing increasingly precedes marriage. The diminishing role of marriage for fertility is also seen in a steady rise in the share of children born outside marriage, reaching 41% in Austria in 2012 and 45% in the Czech Republic in 2013 (Figure 15). In the latter case this represents a sharp break with the previous era, when only 4-8% of births took place outside marriage in the 1970s and 1980s. In Austria as well as the Czech Republic a majority of first births now occur outside marriage. As a result, “shotgun weddings,” once com-

mon especially in the Czech Republic, became much less frequent. A majority of first marriages in the Czech Republic were concluded by an already pregnant bride in the 1980s and early 1990s; by 2013 their share fell to a quarter and it is yet lower in Austria.

[Figure 7-15] Period total first marriage rate (TFMR) and the share of non-marital births in Austria and the Czech Republic, 1975–2012



Sources: Austria: Statistics Austria (2014a), Czech Republic: Council of Europe (2006) and Eurostat (2014).

Marriage has been replaced by a prolonged living with parents, rapid expansion of cohabitation, but also more single living and “LAT” (living-apart-together) partnerships (Kohoutová and Nývlt 2014; Buber-Ennsner, Neuwirth and Testa 2014: Chapters 6 and 7). Living with parents has become more common especially in the Czech Republic (and most other

post-communist countries of Central Eastern Europe) as many more young people enrolled in university education and rental housing became unaffordable for them. According to the Labor Force Survey data for 2013, one half of Czech men and three out of ten Czech women aged 25-29 still lived with their parents, a sharp increase since the 1990s (Kohoutová and Nývlt 2014). These proportions are lower in Austria (four out of ten men and two out of ten women in 2009 (Buber-Ennsner, Neuwirth and Testa 2014: Chapter 4), where fewer people study at a university and affordable social housing is widely available.

Cohabitation has become a dominant form of partnership union among younger people in their twenties (Kohoutová and Nývlt 2014); in fact, marriage without previous experience of cohabitation has become unusual. Palonciová and Štastná (2012) showed that 90% of first partnerships among the young Czechs born in the 1980s started with cohabitation, up from 23% among those born in the second half of the 1950s. Single living has also become considerably more common, especially among men in their late 20s and 30s. Marriage has been further eroded by high divorce rates: the total divorce rate in both countries has reached high levels of 0.4-0.5, although in Austria it has shown a clear trend reversal, peaking in 2007 at 0.50 and declining to 0.40 by 2013 (Statistics Austria 2014b). This means divorce has become a common experience with over 40% of marriages eventually dissolved. Most of the divorc-

ing couples have children below age 18, but the share without children has been increasing over time. In the Czech Republic high divorce rates had signaled the rising fragility of marriage well before the fall of the Iron Curtain, constituting one of the few features of the “second demographic transition” that had progressed earlier there than in Austria.

6.2. Increasingly diverse families with children

The rise of the less traditional living arrangements has also affected families with children. A steady increase in the share of consensual unions with children is observed since the 1990s. Austrian Microcensus (MC) data show a jump in the share of these families on the total number of families with children from 3 % to 14 % between 1990 and 2013 (OIF 2014); comparable data for the Czech Republic indicate an identical share of 14% of cohabiting families with children 2012 (Nývtl and Šustová 2014, based on the Labour Force Survey (LFS) data). Much faster increase in the share of cohabiting unions is found around the time of the birth of first child: 29% of Czech families with one child below age 1 in 2013 were cohabiting unions (Nývtl and Šustová 2014); in Austria a quarter of all families with children below age 3 were formed by cohabiting couples in 2013 (OIF 2014).

More problematic from a policy perspective is the persistent

high share of single parent (mostly single mother) families in both countries, fuelled by a mix of unintended conceptions, voluntary single motherhood, and a high instability of marital and cohabiting unions. Heuveline, Timberlake, and Furstenberg (2003) showed that children born to Austrian women had one of the highest exposures in highly developed countries to experiencing living with one parent before reaching age 15. Cross-sectional LFS and MC data show that 15 % of all families with children in 2012 in the Czech Republic and 14 % in Austria in 2013 were single-parent families (Nývlt and Šustová 2014; OIF 2014). In the Czech Republic, this represents an increase from around 10 % in the mid-1990s. In Austria, relatively high share of single mothers was often found already at the time of childbirth; in the past this might be partly explained by some couples who intentionally kept a separate residence in order to qualify for the higher parental leave payments that were only granted to mothers who lived alone (Prskawetz et al. 2008). In the Czech Republic a crude estimation of the share of single mothers at the time of childbirth can be made from the published statistics on father's registrations, reported since 2007. Among all children born in 2013, 8 % of all children and 9 % of first children did not have any record of the father. Finally, high family instability coupled with relatively high rates of "re-partnering" imply that many children experience not only the dissolution of their parents' union and the subsequent life

in a one-parent family, but later in life their parents form a new union with or without additional children. For Austria, Zartler and Berghammer's (2013) analysis based on survey data shows that one half of divorced or separated mothers with children for a new union within six years after the separation. Overall, 8 % of Austrian children lived in such "patchwork families" (blended families) in 2013 (OIF 2014: Table 41).

Both countries show very strong patterning of family transitions by social status. Women and men with lower education experience more complex and generally unstable family transitions with a frequent experience of single parenthood, highest share of children born outside marriage, highest rate of union dissolution, and an elevated share of blended families. This is in line with the evidence of unstable family transitions in other developed countries, suggesting a persistent "pattern of disadvantage" whereby low-educated parents often have limited resources, face poverty and social exclusion (McLanahan 2004, Perelli-Harris et al. 2010). These disparities are clearly illustrated with the recent (2008-13) statistics for the Czech Republic. Almost eight out of ten children born to women with elementary or incomplete secondary education are born outside marriage and as many as one third of these children do not have any record of their father (CSO 2014c). Moreover, one quarter of families of women with low education are lone-parent families (Nývlt and Šustová 2014). In contrast, about a

quarter of women with university education gives birth outside wedlock, only 2 % of births to these women occur without fathers' registration and 9 % of families of university-educated women are lone-parent families.

6.3. Family instability: a slight negative effect on fertility

Austria and the Czech Republic share a pattern of unstable families and also relatively frequent formation of new unions, including re-marriages. If broken partnerships are rapidly replaced by new relationships—especially when coupled with a strong motivation for childbearing—union instability might be a mildly pronatalist force (Billari 2005). If, however, many divorced and separated do not find a partner for a long period of time, or do not have another child soon after they form a new couple, the net effect on infertility might be negative. On balance, partnership instability appears to have a slight negative effect on fertility, especially for women, which is in line with the contemporary evidence for most European countries: Van Bavel, Jansen, and Wijckmans (2012: 22) show that in 23 countries including Austria “childbearing following divorce does not make up for the ‘lost fertility’”. Buber and Prskawetz (2000) found that one half of Austrian couples for whom the current union is the second one for at least one partner, had a shared child. Recent Census data for the Czech Republic show rela-

tively small differences in completed family size for married (including remarried) and divorced women as well as women living in consensual unions. Among the women born in 1966-1971 (aged 40-44 in 2011), mean number of children was 2.00 for those currently married, 1.87 for the divorced and 1.86 for the cohabiting ones (including divorced).

6.4 Shifting family values and attitudes

To illustrate the ideational background of contemporary fertility and family patterns and preferences described above I sketch out changes in family-related attitudes in the two analyzed countries. In a nutshell three main conclusions can be drawn. First, populations of both countries have widely accepted non-traditional living arrangements, especially unmarried cohabitation, also for raising children. This has potentially a positive effect on fertility, as it broadens the range of available normatively sanctioned options for couples (and single people) about the arrangements they may consider suitable for childbearing. Second, the societal attitude towards having children remains more pronatalist and less open for childlessness in the Czech Republic, whereas voluntary childlessness is rather widely accepted as a lifestyle option in Austria, partly owing to its widespread occurrence there (Section 4.1). Third, both societies show a considerable preference for a prolonged

stay of parents (preferably mothers) at home with children during the child's first three years of life, although over time this view has declined in importance in Austria.

Repeated surveys of attitudes show that the acceptance of unmarried cohabitation, especially among the partners who intend to marry in the future, has become nearly universal. Also the tolerance to other less traditional living arrangements has widened. In the Czech Republic, the strongest shift in the ten years since 2003 has been observed in the approval of parenthood outside marriage: the share of respondents stating that people intending to have children should marry and that for children's upbringing it is important that the parents are married has declined from 50-60 % in 2003 to around 30% in 2011 (CVVM 2014). Chaloupková and Šalamounová (2004: 23, Table 4) shows considerable age differentiation in family attitudes in the ISSP survey of 2002, with a new "norm" of a premarital cohabitation among those planning to marry clearly appearing among young adults, among whom 88% agreed that it is good if people intending to marry live together prior to marriage. Moreover, Czech European Values Study (EVS) surveys of 1991-2008 indicate a steady increase in the share of respondents stating that marriage is an outdated institution, which has become especially common among those below age 30 (around 36 % approval in this age group; Rabušic and Chromková Manea 2012: Table 2). Also an attitude to single pa-

renthood is rather tolerant in Austria as well as the Czech Republic. In 2013 a majority of Czech respondents agreed that a single parent can give as good upbringing to the child as two parents (CVVM 2014), whereas 40 % of Austrian respondents in 2008 approved of women having a child without a stable partner (Hamachers-Zuba, Lehner and Tschipan 2009).

The two analyzed countries are more differentiated in their attitudes towards the importance of having children and their role in individual happiness. The role of parenthood remains highly valued in the Czech Republic, as it does in other post-communist countries of Central and Eastern Europe (Chaloupková and Šalamounová 2004; Merz and Liebroer 2012). Almost nine out of ten of Czech women and men consider having children as a natural part of women's lives (Pakosta 2009). A slight majority of Czech respondents in reproductive age in 2008 agreed that a woman should have children in order to be fulfilled (Rabušic and Chromková Manea 2012: Figure 9), which puts the Czech Republic among the European countries with relatively high valuation of children (Nešporová and Hamplová 2014). In contrast, Austrian respondents embraced this view considerably less often: only 23 % of Austrians aged 18-45 agreed with the statement in 2008-9 and the share of those thinking that men need to have children was yet somewhat lower (GGs 2009, Part 8).

Both societies share a rather negative view of women in em-

ployment during the child's early years. This is particularly paradoxical in the case of the Czech Republic, where the official ideology during state socialist period strongly promoted women's full employment. As in Germany, Austrian working mothers were often seen as "bad mothers" whose children may suffer as a result of their (selfish) career orientation; a term *Rabenmutter* (raven mother) is often used to depict these mothers as neglecting their children (Goldstein and Kreyenfeld 2011)⁴⁷). Between 1990 and 2008 Austrian society has adopted a more positive view of working mothers, but almost two thirds of the EVS respondents in 2008 still thought small children are likely to suffer if their mother works (Hamachers-Zuba, Lehner and Tschipan 2009: Table 11). Peculiar to Austria is a very strong view of children suffering because their fathers concentrate too much on their work, where GGS surveys found 81% agreement with this statement, highest among the countries where the survey has been conducted (Buber-Ennser, Neuwirth and Testa 2014: Chapter 28). In the Czech society a dual view of small children suffering when their mother works and of the importance of women's employment as a source of the second income in the family (and a means to promote women's independence) persists. In the 2002 ISSP survey about a half of

47) An article headline in an Austrian newspaper *Die Presse* summarized the anxious attitude of many women as follows: "Rather staying childless than being a raven mother" (K. Gaulhofer and U. Weiser, December 17, 2012, http://diepresse.com/home/bildung/erziehung/1324991/Kinderwunsch_Lieber-kinderlos-als-Rabenmutter).

both male and female respondents held traditional views about gender roles, including an agreement with the statement that men should work for pay and women should take care of the household. At the same time, a large majority (88%) of both men and women supported the view that both partners should contribute to the household budget (Chaloupková and Šalamounová 2004: 35, Table 4).

7. Family-related policies: key trends

Although many family policy differences persist between Austria and the Czech Republic, both countries share broad policy trends during the last two decades. This is in contrast with the situation prevailing until the late 1980s, when Austria embraced “conservative policies” characterized by rather generous cash support for families with children, extended period of parental leave and only limited public childcare, especially for children below age 3 (e.g., Gauthier 2002, OECD 2003, Prskawetz et al. 2008). At the same time, government policies in the Czech Republic enforced women’s employment, typically on a full-time basis, and supported the pattern of early child-bearing and universal marriage through preferential housing distribution for families with small children, preferential loans for the newlyweds and other policies (Sobotka et al. 2008). Soon after the political regime change in 1989, Czech social

and family policies underwent substantial changes. Unlike in many other countries of Central and Eastern Europe diverse cash benefits were not radically reduced and social policy kept a strong focus on reducing poverty and income inequalities. At the same time, pronatalist incentives have been eliminated, including birth-order specific provision of parental leave and child benefits which favored larger families. Administrative allocation of housing has been abandoned and gradually replaced by private housing market, including rental housing, with only a small portion of “social housing” retained by municipalities (Lux 2009; see also Section 7.3). Overall, the dismantling of the previous pronatalist policy orientation marked the shift towards a relatively *laissez-faire* approach (Kocourková 2002) combined with an adherence to the more conservative family policy model (often labelled as “refamilization”) preferring a prolonged stay of parents (in practice mothers) at home. This was also characterized by an extension of paid parental leave and a collapse of early childcare for children below age 3 (Kocourková 2002, Saxonberg and Szalewa 2007; see below). Only since the early 2000s, following the fall in fertility to the lowest-low levels, did family policies emerge as an important topic for public discussion, including programs of political parties (Sobotka et al. 2008). Despite these massive changes, some earlier features of work and family patterns among Czech women still persist. This legacy includes full-time labor partic-

ipation of the mothers of older children (Section 7.2 below).

In both countries spending on family policies is relatively high, amounting to 2.6 % of the Gross Domestic Product (GDP) in the Czech Republic (just at the average for the higher-income countries that are members of the Organization for Economic Cooperation and Development, OECD) and 3.0 % in Austria. However, both countries show a low spending on public childcare (0.6 % of GDP compared with over 0.9 % for the OECD average) and above average spending on cash benefits for families (Austria) and tax breaks (Czech Republic; OECD 2014a: Table PF1.1). Below I cover main policy areas—especially parental leave policies, childcare provision and mothers' labor market involvement— and summarize other policy trends, including the changes during the recent recession.

The development of family policies has been driven by the perceived needs of families with children (in part expressed in different surveys and opinion polls), by the perceived threats posed to the society and economy by low birth rates as well as ideological considerations of the governing political parties and policy recommendations and directives of the European Union. These include in particular policies stipulating equal treatment of women and men as well as an expansion of early childcare below age 3.

7.1. Towards ever more flexible parental leave

In agreement with the widespread normative support for mothers staying at home with their small children (Section 6.4), parental leave in both countries was developed early on and has expanded over time; it now ranks among the longest paid leaves among the OECD countries. Since 1961 employed mothers in Austria were entitled to paid job-protected leave until the child's first birthday (Prskawetz et al. 2008). In the following decades the leave period was repeatedly expanded and revised reaching maximum duration in 1991-96 and again since 2002, when job protected leave for employed parents lasted 2 years, but leave-related childcare benefits could be drawn for 30 months or 36 months if both parents participated in the leave. Austria was thus one of the first countries in Europe to provide an incentive for the fathers to actively participate in the leave, applying the "take it or lose it" criterion for distributing additional leave period.

In the Czech Republic waves of leave expansions culminated in 1995 when leave benefit was expanded up until the child's fourth birthday, although the job protected leave remained set at three years (Kocourková 2002). In both countries parental leave is preceded by paid employment-protected maternity leave, lasting 16 weeks in Austria (with 100 % income replacement) and 28 weeks in the Czech Republic (69 % of income re-

placement; OECD 2014a: Table PF2.1.B).

By coincidence, a major move towards more leave flexibility was made in both countries since January 2008, when a “multispeed” leave was established. Parents could choose between three options, combining different leave durations and cash payments. Subsequent amendments have made the leave yet more flexible. At present Austrian parents can choose from five leave variants with different durations between 12 and 30 months (or 15 and 36 months if both parents participate in the leave), of which four options are not dependent on previous employment history and provide a flat rate leave payment, whereas the fifth option provides a payment amounting to 80 % of the pre-leave income for the period of 12 (or 15) months (see more details in Table 3). Parents on leave are also allowed to earn extra income during the leave. Czech Republic has gone yet further in allowing more leave flexibility. The total parental allowance is fixed at 220,000 Czech Crowns (CZK) for the entire leave duration (EUR 8,000 as of October 2014), with the maximum monthly payment of 11,500 CZK. This is quite a generous system: Czech Republic now spends more than any other OECD country on financing parental leave (OECD 2014: Chart PF2.1.B). Parents can be economically active during the leave. Both parents can take up the leave (or alternate), but unlike in Austria or Germany no additional leave entitlement (bonus weeks or months) exist for men. Parental allowance is

paid with a flat monthly payment depending on the selected leave duration; parents can decide for any duration ranging from 19 up to 48 months⁴⁸). On average, parents obtain 46.4% of full-time equivalent wage when on parental leave (data for 2013, OECD 2014a, Table PF 2.1.A), which is comparable to some leave options for Austria (Table3).

〈Table 7-3〉 Parental leave variants and leave benefits associated with them, Austria, 2014

Variant	Flat rate payment				Income-depe ndent
	12+2 months	15+3 months	20+4 months	30+6 months	12+2 months
Maximum duration for one parent (months)	12 M	15 M	20 M	30 M	12 M
Pre-leave employment required?	N	N	N	N	Y
Daily payment in EUR (2014)	33	26.6	20.8	14.53	80% of the previous income (max. 66 EUR)
Income replacement: leave payment as a share of median annual net income in 2012, in %					
Women	79.1	63.8	49.9	34.8	(80)
Men	53.8	43.4	33.9	23.7	(80)

Source: Leave variants: Detailed parental leave tabulation prepared by the Austrian Chamber of Labour (Arbeiterkammer); accessed 22 October 2014 at http://media.arbeiterkammer.at/ooe/berufundfamilie/2014_Infoblatt_Kinderbetreuungsgeld_Varianten.pdf. Income replacement: own computations based on the median annual net income in 2012 for women (EUR 15,221) and men (EUR 22,371), published by Statistics Austria.

48) Information provided by the Ministry of Labour and Social Affairs at <http://portal.gov.cz/portal/obcan/situace/183/187/4455.html>, accessed 22 October 2014.

Frequent changes in parental leave regulations in Austria led to the shifts in the spacing of births, which were documented for the 1990s by Prskawetz et al. (2008), Lalive and Zweimüller (2009) and Štastná and Sobotka (2009). Some parents tried to space their second and later births so that they could qualify for an uninterrupted continuation of their parental leave and the related allowance. This effect was most evident for the second births after 1990 when paid leave was extended from the child's first to the second birthday and even the third birthday if parents took only a part-time leave. Subsequently, second birth rates rose sharply at the duration of two years and fell at durations of 4-5 years since the first birth. It is unclear whether these changes had any lasting effect on fertility. An analysis of Lalive and Zweimüller (2009: 1384-85) suggests that a positive effect in the order of 3.0-3.5 % persisted even ten years after the leave change in 1990. However, an analysis of individual birth data by Štastná and Sobotka (2009) found no persistent effects on second and third birth rates ten years since the previous birth among the first cohorts of mothers eligible for the extended leave.

7.2 Expanding childcare provision in Austria and parents' labor market involvement

In the 1970s and 1980s the two compared countries had quite

a different position in childcare provision: due to the strong support for women's employment, public childcare was considerably more extensive in the Czech Republic, with 17 % of children below age 3 and over 80 % of children aged 3-5 in public childcare. Comparative shares for Austria were considerably lower, at around 4 % for children aged 0-2 and around 65 % for children aged 3-5 (own estimates based on Statistics Austria data). The situation reversed in the 1990s and 2000s, when the system of crèches practically collapsed in the Czech Republic due to a combination of funding cuts and more mothers staying on prolonged parental leave. In Austria, a gradual expansion of early childcare took place between 1995 and 2005, accelerating thereafter, with the enrollment reaching 23 % in 2013 (still below the EU average of around 32 %). Also the provision of childcare to children aged 3-5 expanded in Austria whereas it remained flat in the Czech Republic; at present nine out of ten Austrian and eight out of ten Czech children of that age attend kindergarten (Table 4).

In the Czech Republic almost all facilities are open all day. In Austria, where childcare is largely financed by federal regions (with some support from the central government), a large variation in care availability, fees, opening hours and closing days still persist. For instance, a majority of kindergartens in the regions of Styria and Tyrol close at or before 2pm, giving parents only limited options for combining employment and childcare,

whereas most of Viennese kindergartens remain open until 6pm (Baierl and Kaindl 2011: Figure 22). The city of Vienna shows the strongest commitment towards a provision of accessible and free full-day childcare for all children aged 0-5, providing massive subsidies for that purpose. This is also clearly manifested in higher rates of early childcare enrollment (Table 4).

(Table 7-4) Average enrollment of children in early childhood care at ages 0-2 and 3-5; Austria and the Czech Republic, 1989-2013

	Children aged 0-2			Children aged 3-5	
	Czech Republic	Austria	Vienna	Czech Republic	Austria
1989	16.8	81.9	..
1995	..	4.6	16.9	..	70.6
2000	4.4	7.7	24.3	81.6	77.6
2005	7.0	10.2	22.1	79.4	82.7
2010	7.3	17.1	28.1	78.1	90.7
2013	..	23.0	40.3	..	90.8

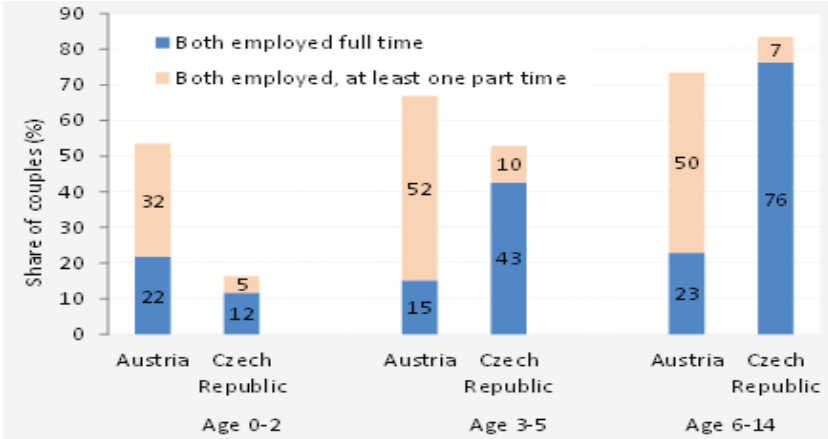
Notes: OECD Family Database provides even lower enrollment rates at age 0-2, amounting to 3-5 % in the Czech Republic in 2003-11 and 14 % in Austria in 2010 (OECD 2014a: online Table PF3.2).

Sources: Austria: Statistics Austria (2014c); Czech Republic: Saxonberg and Szelewa (2007: Table 1) for 1989; UNICEF (2013).

The employment of mothers is closely tied to the availability of extended parental leave, the limited supply of early public childcare (especially in the Czech Republic), the prevailing preferences for home-based childcare (Section 6.4), and, in the Czech Republic, also to the lacking opportunities for part-time employment. The labor market enrollment of mothers and its

trends over time therefore differ considerably between the two countries. In the Czech Republic a sharp contrast exists between mothers of children aged 0-3 who typically stay at home and mothers of older children who are typically in full-time employment; only 9 % of working mothers of children below age 15 worked part-time in 2011-13 (Nývt 2014). Less polarized and more continuous pattern of part-time employment of mothers is typical for Austria: as the youngest child grows up, ever more women return to employment, but they usually do so on a part-time basis (Figure 16). Berghammer (2014) describes this as a “modernized male breadwinner pattern” and shows it has now become common across all educational categories of mothers in Austria, replacing in importance the dual breadwinner model that was more prominent among higher-educated mothers in the 1980s and 1990s.

[Figure 7-16] Employment among couple families by age of youngest child, 2011



Note: the remaining combinations (up to 100 %) are couples where only one person works (full or part-time) and those where both are not in employment. In a vast majority of cases the combination of “both employed, at least one part-time” actually implies that the mother is working part-time and the father is employed full-time.

Source: OECD Family Policy Database (2014a): online Table LMF2.2.A.

7.3 Other important policies and policy trends

Cash benefits

In Austria as well as the Czech Republic cash benefits constitute a prominent part of family policy packages (OECD 2011, Thévenon 2011). In Austria, child allowances are most important. These are monthly payments to parents with dependent children up to age 24, which vary with the age of the child and with the number of children in the family (increasing somewhat for larger families). As of October 2014 they vary from EUR 109.70 for families with one child aged 0-2 up to

EUR 158.90 for dependent children over age 19; this represents roughly 10 % of the net median income per person. In the Czech Republic, child allowances are very low (EUR 18–25 per month) and paid only to the families with low income. Birth grants also lost on importance, following spending cuts during the recent recession (see below). In both countries tax deductions and means-tested social benefits keep poverty rates in couple families and among children below the average for the OECD countries but these transfers are less successful in alleviating poverty in single-parent families with children, especially in the Czech Republic (Thévenon 2011: Appendix Table A5). In 2011 more than a third of these families were poor in the Czech Republic, in particular because a high share of their income was spent on housing costs (Nývlt 2014).

Housing availability and cost

Austria has a long tradition of providing social housing and around one fifth of the population lives in social housing, which is most common in Vienna. Employment status and income are among the important eligibility criteria, but these criteria are partly determined by municipalities. Moreover, rents in most private rental flats are regulated (Reinprecht 2007), making rental housing affordable for most people, and giving young adults an opportunity to establish their own household. Around 70 % of population lives in rental flats and the average

expenditure on housing is 22 % of disposable income, at the OECD average (OECD 2014b). In contrast, only very limited social housing exists at present in the Czech Republic. Most housing is owner occupied, following massive privatization of the 1990s and 2000s (Lux 2009), and housing costs are above the OECD average. Especially younger people moving away from their parents and those planning to have children often face difficult options, choosing between living in a crowded flat, paying too high rent, or living in substandard conditions. Compared to Austria, housing costs overburden is much more common in the Czech Republic not only for those living in rental flats provided for market rent, but also for the tenants in flats with reduced rent (Eurostat 2014b). Low-income families and individuals are eligible for housing allowance (příspěvek na bydlení), which is, however, often used to pay overcharged price for substandard flats.

Men's involvement in childcare

Austrian policy makers made considerable effort to support father's involvement in childcare, in particular by providing several months of additional parental leave that can be claimed only if both parents participate in the leave. This "daddy quota" policy, established in Austria since 1996, is now in place in several other European countries including Germany and Sweden. However, in practice, Austrian fathers still show very low par-

ticipation in the leave: according to a newspaper report from 2012, their share on total leave was only 4.7 %, while 17 % of all fathers took at least some leave, typically of a short duration of several months (Herrnböck 2012). The participation of men in parental leave is yet lower in the Czech Republic. At present, neither Austria nor the Czech Republic provide statutory paternity leave after childbirth.

Assisted reproduction

Both analyzed countries provide subsidized assisted reproduction (AR) to infertile women. For instance, in the Czech Republic, health insurance companies cover most of the costs of 3-4 cycles of AR for women below age 40. Assisted reproduction has a very minor but increasing relevance for fertility rates. Kocourková (2012) estimated that 3.3 % of live births in the Czech Republic were born after an AR treatment; this share has further increased in the subsequent period. In Austria, 2.0 % of live births in 2010 were resulting from AR (ESHRE 2014). The increased ART use has been manifested in a rising share of multiple births: in the Czech Republic the share of multiple deliveries more than doubled from around 0.9 % in the early 1990s to a maximum of 2.1 in 2010 (Kocourková 2012, CSO 2014c).

Family policies are now high on political agenda in both compared countries. This is especially true for Austria, where a

dedicated ministry focuses on families and youth. In 2014 the minister Sophie Karmasin has launched an ambitious policy agenda, with a stated goal of Austria “becoming the most family-friendly country of Europe” by the year 2025.

Cuts in family policies during the economic recession

As Austria was relatively little affected by the economic downturn in 2008-12 (Section 4.3), there were no significant cuts in government spending for families and children. However, several rounds of fiscal consolidation enacted by the Czech government led to reductions of monetary benefits to families with children (OECD 2014c: Table 1.2). Birth allowances, initially provided to parents of each newly-born child, were first reduced in 2008 and in 2011 became means-tested and available only for the parents of first children. Other cuts included reductions in social allowances in 2011-12 and cuts in maternity leave benefits (OECD 2014a and 2014c).

7.4 Policy evolution: Future plans and discussions

Family policies are now high on political agenda in both compared countries. This is especially true for Austria, where a dedicated ministry focuses on families and youth. In 2014 the minister Sophie Karmasin has launched an ambitious policy agenda, with a stated goal of Austria “becoming the most fam-

ily-friendly country of Europe” by the year 2025⁴⁹). This goal should be achieved by a continuous monitoring of progress in ten selected indicators of family-friendliness, which also include the gap between intended family size and fertility, the total number of families with children, government expenditures on families, childcare availability, fathers’ participation in parental leave as well as the evaluation of society’s family friendliness in public opinion polls. Specific policy goals for the near future include dedicated funding for childcare expansion in 2015-18. This aims especially at expanding the childcare availability for children below age 3, meeting the EU-wide goal of 33 % coverage by the year 2018, but also at improving the quality of childcare and improving German competence of children with different mother tongue. Furthermore, a radical revamp of the parental leave system from 2016 is planned as well, similar to the changes introduced earlier in the Czech Republic (Section 7.1 above): different variants of parental leave period and the accompanying payments would be abandoned; instead, parents would be able to draw from a fixed-sum “childcare account” and flexibly chose the duration of leave, corresponding monthly payment, as well as the way they share parental leave between them. Additional support would be provided for the

49) Press release and additional information available at <http://www.bmfj.gv.at/ministerin/Aktuelles/Themen/Familienfreundlichkeitsmonitor.html>.

partners who equally share parental leave.

In the Czech Republic, the family policy agenda falls under the Ministry of Labour and Social Affairs. Perhaps due to much wider policy agenda and other government budget priorities, the policy goals of the current minister, Michaela Marksová, are more modest, but otherwise comparable with those of her Austrian counterpart. The main priorities for the next years include an expansion of birth grants for the second child and broadening the eligibility criteria for these grants, reversing thus partly the previous cuts (Section 7.3 above). Childcare availability for children below age 3 should be expanded, also by the means of cheaper and less conventional solutions, including the supporting for new company-based kindergartens and crèches as well as an establishment of small “children’s groups” (dětské skupiny), essentially a neighborhood-based and rather informal alternative to public childcare. Before becoming a minister, M. Marksová declared support for a stronger involvement of men in childcare, including a possible adoption of extra months of parental leave dedicated to fathers, as currently available in Austria. This proposal, however, met with rather strong resistance, and no specific plans have been proposed.

8. Concluding discussion

A quarter of century after the implosion of state socialism Austria and the Czech Republic, once positioned on the opposite side on the Iron Curtain dividing Europe, grew surprisingly similar in their fertility and family patterns and also main family policy trends. Fertility in both countries is relatively low, but not extremely low when compared with the countries of Southern Europe or East Asia. Also, low fertility is not a new experience to the region: in both countries family size of women born in the 1970s is much closer to the replacement level than was the family size of their grandmothers born in the early 20th century. Czech women retain somewhat larger family size and considerably lower childlessness, possibly due to the persistently strong normative support to parenthood in the country. Both countries have adapted relatively well to the sweeping family changes typical of the era of the second demographic transition and both populations are tolerant of cohabitation and to a certain extent of other less conventional living arrangements.

Family policies have attempted to respond and gradually adapt to the challenges of the ongoing family and fertility shifts through a mixture of monetary benefits, flexible parental leave, and expanded childcare coverage. The policy debates have been relatively pragmatic and generally free of explicit pron-

talism and nationalism typical of contemporary policies in some Eastern European countries including Belarus and Russia and, to a smaller extent, also Hungary. Especially Austria has made a marked progress towards becoming more family-friendly country where parents have a range of options of how to combine their family and work lives. Both countries are becoming neither family heavens nor feminist paradises, but they no longer fit any of the established categorizations of family policies as their policies are based on a pragmatic mixture of different measures aiming to address the needs of families, children and parents. Especially Austria can no longer be seen as a “conservative” welfare state promoting traditional division of domestic tasks and the male breadwinner model of the family. Within Austria, the city of Vienna has adopted particularly well to the transformation in gender relations and family patterns. It regularly ranks among the best cities globally with respect to the quality of life and has also renewed itself demographically (Zeman et al. 2011). It offers the widest coverage of social housing and has by far the best early childcare availability in Austria; as many other cities it has also acted as a magnet for immigration. Not by coincidence, fertility Vienna, extremely low in the past, has converged to that in the rest of the country. It remains to be seen whether other larger cities, with all their amenities, services, public transport, childcare, subsidized housing and wide employment options, could re-

invent themselves and become family-friendly places with higher fertility in the future.

Is the current low fertility a potential threat for these societies? Arguably, current period TFRs are below the levels that can be considered “optimal”, but different tempo-adjusted fertility indicators and completed cohort fertility are in the range of 1.6-1.8, which is a moderate sub-replacement level that should not be a matter of concern and can actually be supportive of higher standards of living in the long run (Lee et al. 2014). Moreover, both countries, but especially Austria, have attracted considerable migration flows, which both “rejuvenate” their populations somewhat, but also boost the observed number of births and, in Austria, have a modest positive impact on fertility. When migration is taken into account, Austrian population has been more than “replacing” itself during the last decades, despite the persistent low fertility in the country (Wilson et al. 2013).

Will fertility rates remain stable in the future? The period total fertility is likely to increase modestly in both countries, as the negative tempo effect eventually vanishes once the shift towards delayed childbearing eventually comes to an end. The period TFR may then rebound to the levels around 1.6-1.7. This expectation is broadly in agreement with the view of selected population experts (Basten et al. 2014), but higher than the main projection scenarios currently produced by national stat-

istical offices. The answer is more difficult for longer-term trends in family size, also because fertility intentions in both countries are at the lower-end of the range typical for the European countries today. However, family size is likely to increase slightly in Austria, where the long-term decline in cohort fertility has come to an end among the women born in the 1970s. A combination of stable economic and policy environment, expanding childcare availability and other institutional adjustments, as well as the continuing immigration from higher-fertility countries may contribute to this slight rebound. The prospects are different in the Czech Republic, where policy adjustments have been more gradual and women and couples still face considerable challenges when deciding about their family plans. It is likely that one child families will become more common there, eroding the prevailing strong orientation towards a two-child family model (Rabušic and Chromková-Manea 2007; Šťastná 2007). As a result, family size in the Czech Republic is likely to decline moderately in the future.

What might be the policy wish-list that would make it easier for prospective parents to realize their fertility plans? Certainly, institutional adjustments are needed much more than additional monetary benefits. In both countries, higher educated women have the lowest fertility rates and face the strongest obstacles in trying to combine their work and family life; in Austria many of them remain involuntarily childless. An ex-

pansion of early childcare for children below age 3 should be a priority. Austria has made considerable progress, but in the Czech Republic the share of small children in public crèches remains marginal, not only because the prevailing norms still strongly favor home-care provided by the mother. Surveys show that the existing demand for affordable early childcare is not satisfied. Also, Czech women have only a slim chance of finding a part-time work when they wish so. Creating opportunities for part-time employment and more flexible work conditions should therefore be high on the government agenda. Addressing the lack of affordable housing for younger people and single parents, especially those living in urban areas, should be another priority for Czech policy-makers. In this area they can actually receive plenty of inspiration from Austria. In both countries, governments should pursue policies that are tailored for changing character of the family. For instance, a wider legal recognition for cohabiting couples, including the partnership registration as currently common in France, might help them to obtain more rights (and some duties) with respect to the management of their shared property and children.

Acknowledgement

Research presented in this paper was partly supported by the European Research Council under the European Union's Seventh Framework Programme (FP7/2007-2013) / ERC Grant agreement n° 284238 (EURREP).

References

- Baierl, A. and M. Kaindl. 2011. *Kinderbetreuung in Österreich. Rechtliche Bestimmungen und die reale Betreuungssituation.*[Childcare in Austria. Legal regulations and actual care conditions]. Vienna: Austrian Institute for Family Studies, Working Paper No. 77.
- Basten, S., T. Sobotka and K. Zeman. 2014. "Future fertility in low-fertility countries." Chapter 3 in W. Lutz, W. P. Butz and S. K.C. (eds.) *World Population and Human Capital in the 21st Century*. Oxford University Press, pp. 39-146.
- Beaujouan, É, T. Sobotka, Z. Brzozowska and K. Neels. 2013. "Education and sex differences in intended family size in Europe, 1990s and 2000s." Paper presented at the conference "Changing Families and Fertility Choices", Oslo, 6-7 June 2013.
- Berghammer, C. 2014. "The return of the male breadwinner model? Educational effects on parents' work arrangements in Austria, 1980-2009." *Work, Employment & Society* 28(4): 611-632.
- Billari, F. C. 2005. "Partnership, childbearing and parenting trends of the 1990s." Chapter 5 in.: M. Macura, A. L. MacDonald, and W. Haug (eds.) *The new demographic regime*. Population

- challenges and policy responses. New York and Geneva: United Nations, pp. 63-89.
- Bongaarts, J. and G. Feeney. 2006. "The quantum and tempo of life cycle events". *Vienna Yearbook of Population Research* 2006: 115-151
- Bongaarts, J. and T. Sobotka. 2012. "A demographic explanation for the recent rise in European fertility." *Population and Development Review* 38(1): 83-120.
- Buber, I. and A. Prskawetz. 2000. Fertility in second unions in Austria. Findings from the Austrian FFS. *Demographic Research*, Vol. 3, Article 2.
- Buber, I., C. Berghammer and A. Prskawetz. 2011. "Doing science, forgoing childbearing? Evidence from a sample of female scientists in Austria." VID Working Papers 01/2011, Vienna: Vienna Institute of Demography.
- Buber-Ennser, I., N. Neuwirth, and M. R. Testa (eds.). 2014. Families in Austria 2009-13. Descriptive findings on partnerships, fertility intentions, childbearing, and childrearing. Vienna: Vienna Institute for Demography / Wittgenstein Centre and Austrian Institute for Family Studies.
- Chaloupková, J. and P. Šalamounová. 2004. Postoje k manželství, rodičovství a k rolím v rodině v České republice a v Evropě. [Attitudes to marriage, parenthood, and family roles in the Czech Republic and in Europe]. *Sociologické Studie* 2004/7, accessed at <http://studie.soc.cas.cz/index.php3?lang=cze&shw=251>.
- Cherlin, A., E. Cumberworth, S. P. Morgan, and C. Wimer. 2013. "The effects of the Great Recession on family structure and fertility."

- The Annals of the AAPSS 650: 214-231.
- CFE Database 2014. Data on completed fertility of women in Austria and the Czech Republic by level of education in the Cohort Fertility and Education Database, accessed 8 October 2014 at www.cfe-database.org.
- Council of Europe. 2006. Recent demographic developments in Europe 2005. Strasbourg: Council of Europe Publishing.
- CSO. 2014a. Annual time series of the key indicators of population and vital statistics in the Czech Republic, 1785-2013, prepared by the Czech Statistical Office, Prague. Available at http://www.czso.cz/csu/redakce.nsf/i/obyvatelstvo_hu
- CSO 2014b. Demographic Yearbook of the Districts of the Czech Republic (2004 – 2013). Prague: Czech Statistical Office.
- CSO 2014c. Vývoj obyvatelstva České republiky 2013. [Population developments in the Czech Republic 2013]. Prague: Czech Statistical Office. Accessed at <http://www.czso.cz/csu/2014edicniplan.nsf/p/130069-14>.
- CSO. 2013. Plodnost žen. SLDB 2011. [Fertility of Women, Census 2011]. Prague: Czech Statistical Office.
- CSO 2011. Porodnost a plodnost 2006-10. [Natality and Fertility 2006-10]. Prague: Czech Statistical Office.
- CVVM. 2014. Postoje českých občanů k manželství a rodině – prosinec 2013. [Attitudes of Czech citizens to marriage and family - December 2013]. Press release ov140120, Prague: The Public Opinion Research Centre. Accessed at <http://cvvm.soc.cas.cz/en/relations-attitudes/attitudes-of-czech-citizens-to-marriage-and-family-december-2013>.
- David, H. P. (ed.). 1999. From abortion to contraception. A resource

to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present. Westport, Connecticut, Greenwood Press.

- Ehmer, J. 2013. Bevölkerungsgeschichte und Historische Demographie 1800 - 2000 [Population history and historical demography 1800-2000]. Enzyklopädie deutscher Geschichte, Vol. 71, München: Oldenbourg (expanded and revised second edition).
- ESHRE. 2014. "Assisted reproductive technology in Europe, 2010: results generated from European registers by ESHRE." [Report prepared by M. S. Kupka et al. on behalf of ESHRE]. *Human Reproduction* 29(10):2099-2113.
- Eurostat. 2014a. Data on live births by age of mother, population by age and marital status, fertility rates by age, net migration, and population balance. Eurostat online statistics database repeatedly accessed in June, August and October 2014 at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
- Eurostat. 2014b. Eurostat housing statistics: online data accessed 22 October 2014 at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Housing_statistics.
- Eurostat. 2014c. Eurostat population statistics: foreign-born and non-national population. Data accessed 24 October 2014 at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/File:Non-national_population_by_group_of_citizenship_and_foreign-born_population_by_country_of_birth,_1_January_2013_YB14_II.png.
- Festy, P. 1979. *La fécondité des pays occidentaux de 1870 à 1970*.

- Travaux et Documents No. 85. Paris: INED - PUF.
- Fialová, L., Z. Pavlík and P. Vereš. 1990. Fertility decline in Czechoslovakia during the last two centuries. *Population Studies*, 44(1), 89-106.
- Frejka, T. 1980. "Fertility trends and policies: Czechoslovakia in the 1970s." *Population and Development Review* 6(1): 65-93.
- Frejka, T. and J. P. Sardon. 2004. "Fertility in Austria: Past, present and the near future." *Vienna Yearbook of Population Research* 2(2004): 35-56.
- Gauthier, A. H. 2002. "Family policies in industrialized countries: Is there convergence?" *Population-E* 57 (3): 447-474.
- Geburtenbarometer. 2014. *Geburtenbarometer: Monitoring of Fertility in Austria and Vienna. Annual report for 2013 and accompanying data by K. Zeman et al.* Published in German at http://www.oeaw.ac.at/vid/barometer/downloads/Geburtenbarometer_Ergebnis_2013.pdf
- GGs 2009. *Familienentwicklung in Österreich. Erste Ergebnisse des „Generations and Gender Survey (GGs) 2008/09.* [Family developments in Austria. First results of the GGs Survey 2008/9]. Vienna: Vienna Institute for Demography and Austrian Institute for Family Studies.
- Gisser, R., J. Grafinger, M. Haller et al. 1975. Die persönliche Situation der Frau. Volume 4 in: *Bericht über die Situation der Frau in Österreich.* Vienna: Bundeskanzleramt
- Goldstein, J.R., M. Kreyenfeld, A. Jasilioniene, and D.D.K. Örsal. 2013. "Fertility reactions to the 'Great Recession' in Europe." *Demographic Research* 29 (4): 85-104.
- Goldstein, J. R. and M. Kreyenfeld. 2011. "Has East Germany

- overtaken West Germany? Recent trends in order-specific fertility." *Population and Development Review* 37(3): 453-472.
- Hajnal, J. 1965. "European marriage patterns in perspective". In: D. V. Glass and D. Eversley (eds.) *Population in history*. London, pp. 101-143.
- Halman, L. and V. Draulans. 2006. "How secular is Europe?" *The British Journal of sociology* 57(2): 263-288.
- Hamachers-Zuba, U., E. Lehner, and C. Tschipan. 2009. "Partnerschaft, Familie und Geschlechterverhältnisse in Österreich" [Partnership, family, and gender relations in Austria]. In: C. Friesl et al. (eds.) *Die Österreicherinnen. Wertewandel 1990-2008*. Vienna: Czernin, pp. 87-141.
- Havlíček, T. 2006. "Church-state relations in Czechia". *GeoJournal* 67(4): 331-340.
- Herrnböck, J. 2012. "Väterkarenz: Streit über Zahlen" [Paternal leave: a fight over the numbers]. *Der Standard*, 20. November 2012. Accessed 21 October 2014 at <http://derstandard.at/1353206775448/Papamonat-Streit-ueber-Zahlen/>.
- Heuveline, P., J. M. Timberlake, and F. F. Furstenberg, Jr. 2003. "Shifting childrearing to single mothers: Results from 17 Western countries". *Population and Development Review* 29 (1): 47-71.
- Human Fertility Collection 2014. Period fertility rates by age and birth order for Austria, 1952-1983, estimated by T. Sobotka and A. Šťastná. Available at www.fertilitydata.org
- Human Fertility Database 2014. Period fertility data for Austria and the Czech Republic accessed in August 2014 at www.humanfertility.org

- Human Fertility Database 2012. Cohort fertility data for Sweden accessed in June 2012 at www.humanfertility.org
- Kantorová, V. 2004. "Education and entry into motherhood: The Czech Republic during the state socialism and the transition period (1970-1997)". *Demographic Research*, Special Collection 3, Article 10: 245-274.
- Kapitány, B. and Z. Spéder. 2012. "Realization, postponement or abandonment of childbearing Intentions in four European countries." *Population-E* 67(4): 599-630.
- Klasen, S. and A. Launov. 2006. "Analysis of the determinants of fertility decline in the Czech Republic". *Journal of Population Economics* 19 (1): 25-54.
- Kocourková, J. 2002. "Leave arrangements and childcare services in Central Europe: policies and practices before and after transition". *Community, Work & Family* 5(3): 301-318.
- Kocourková J and B. Burcin. 2012. "Demografická specifika asistované reprodukce v České republice v evropském kontextu." [Demographic aspects of assisted reproduction in the Czech Republic in a European context]. *Demografie* 54(3):250-263.
- Kohoutová, I. and O. Nývlt. 2014. "Rodina a statistika." [Family and statistics]. Press conference, 9 April 2014, Prague: Czech Statistical Office. Presentation available at [http://www.czso.cz/csu/tz.nsf/i/prezentace_z_tk_rodina_a_statistika/\\$File/csu_tk_rodina_prezentace.pdf](http://www.czso.cz/csu/tz.nsf/i/prezentace_z_tk_rodina_a_statistika/$File/csu_tk_rodina_prezentace.pdf) (accessed 6 October 2014).
- Kytir, J. 2005. "Demographische Strukturen und Trends 2001-2004." [Demographic structure and trends 2001-2004]. *Statistische Nachrichten* 2005(9): 776-789.
- Lalive, Rafael and Josef Zweimüller. 2009. "How does parental leave

- affect fertility and return to work? Evidence from two natural experiments.” *The Quarterly Journal of Economics* 124: 1363-1402
- Lanzieri, Giampaolo. 2013. “Towards a ‘baby recession’ in Europe? Differential fertility trends during the economic crisis”. *Statistics in Focus* 13-2013. Luxembourg: Eurostat.
- League of Nations. 1943. *Statistical Year-Book of the League of Nations 1941-42*. Geneva, League of Nations, Wconomic Intelligence Service. Accessed at <http://digital.library.northwestern.edu/league/stat.html#1941>.
- Lee, R., A. Mason, and members of the NTA network. 2014. “Is low fertility really a problem? Population aging, dependency, and consumption.” *Science* 346(6206): 229-234.
- Lesthaeghe, R. 2010. “The unfolding story of the Second Demographic Transition.” *Population and Development Review* 36(2): 211-251.
- Lesthaeghe, R. 1995. “The second demographic transition in Western countries: An interpretation”. In: K. O. Mason and A.-M. Jensen (eds.) *Gender and family change in industrialized countries*. Oxford, Clarendon Press, pp. 17-62.
- Lux, M. 2009. *Housing policy and housing finance in the Czech Republic during transition: an example of the schism between the still-living past and the need of reform*. Amsterdam: IOS Press and Delft University Press..
- Merz, E. M., and A.C. Liefbroer. The attitude toward voluntary childlessness in Europe: Cultural and institutional explanations.” *Journal of Marriage and Family* 74(3): 587-600.
- McLanahan, S. 2004. “Diverging destinies: How children are faring

under the second demographic transition?" *Demography* 41(4): 607-627.

Myrskylä, M., J. Goldstein, and Y.-H.A. Cheng. 2013. "New cohort fertility forecasts for the developed world: rises, falls, and reversals." *Population and Development Review* 39(1): 31-56.

Nešporová, O. and D. Hamplová. 2014. "Souvislosti mezi rodičovstvím a životní spokojeností v České republice a zemích Evropské unie." [The relationship between parenthood and life satisfaction in the Czech Republic and European Union]. *Demografie* 56(3): 185-202.

Nývlt, O. 2014. "Perspektivy mladé generace při zakládání rodiny." [Perspectives of young adults for family formation]. Press conference, 7 May 2014, Prague: Czech Statistical Office. Presentation available at

[http://www.czso.cz/csu/tz.nsf/i/prezentace_z_tk_perspektivy_mlade_generace_pri_zakladani_rodiny/\\$File/csu_tk_mladi_prezentace.pdf](http://www.czso.cz/csu/tz.nsf/i/prezentace_z_tk_perspektivy_mlade_generace_pri_zakladani_rodiny/$File/csu_tk_mladi_prezentace.pdf) (accessed 6 October 2014).

Nývlt, O. and Š. Šustová. 2014. "Rodinná soužití s dětmi v České republice z pohledu výběrových šetření v domácnostech." [Family arrangements with children in the Czech Republic from the perspective of household surveys]. *Demografie* 56(3): 203-218.

OECD. 2014a. OECD Family Database. Accessed in October 2014 at <http://www.oecd.org/social/soc/oecdfamilydatabase.htm>.

OECD. 2014b. OECD Better Life Index. Housing indicators accessed in October 2014 at <http://www.oecdbetterlifeindex.org/topics/housing/>.

OECD. 2014c. *Society at a Glance 2014. The crisis and its aftermath.*

- OECD Publishing. Available at <http://www.oecd.org/els/societyataglance.htm>.
- OECD. 2011. *Doing Better for Families*. OECD Publishing.
- OECD. 2003. *Babies and bosses. Reconciling work and family life*. Vol. 2: Austria, Ireland and Japan. Paris: Organisation for Economic Co-operation and Development.
- OIF. 2014. *Familien in Zahlen (FiZ)*. Vienna: Austrian Institute for Family Studies. Accessed at http://www.oif.ac.at/publikationen/weitere_publikationen/familien_in_zahlen/
- ONS. 2013. *Cohort Fertility, England and Wales, 2012*. Data released 5 December 2013; London: Office for National Statistics. Accessed 20 August 2014 at <http://www.ons.gov.uk/ons/rel/fertility-analysis/cohort-fertility--england-and-wales/2012/index.html>
- Pakosta, P. 2009. "Proč chceme děti: hodnota dítěte a preferovaný počet dětí v České republice." [Why we want children: The value of children and the preferred number of children in the Czech Republic.] *Sociologický časopis/Czech Sociological Review* 45(5): 899-934.
- Paloncyová, J. and A. Štastná. 2012. "Sňatek a rozchod jako dva možné způsoby ukončení nesezdaného soužití." [Marriage and breakup as two possible paths away from cohabitation]. *Demografie* 54(3): 214-232.
- Perelli-Harris, B., W. Sigle-Rushton, M. Kreyenfeld, T. Lappegård, R. Keizer, and C. Berghammer. 2010. "The educational gradient of childbearing within cohabitation in Europe." *Population and Development Review* 36(4): 775-801.

- Prskawetz, A., T. Sobotka, I. Buber, R. Gisser, and H. Engelhardt. 2008. "Austria: persistent low fertility since the mid-1980s." *Demographic Research, Special collection 7*, 19(12): 293-360.
- Rabušic, L. 2001. "Value change and demographic behaviour in the Czech Republic". *Czech Sociological Review* 9(1): 99-122.
- Rabušic, L., and B. E. Chromková-Manea. 2007. "Jednodětnost v českých rodinách. Kdo jsou ti, kdo mají nebo plánují pouze jedno dítě." [One-child Families in the Czech Republic. Who Are the People Who Have or Plan to Have Just One Child?]. *Sociologický časopis/Czech Sociological Review* 43(4): 699-719.
- Rabušic, L., and B. Chromková-Manea. 2012. "Postoje, hodnoty a demografické chování v České a Slovenské republice v období transformace (1991-2008)." [Attitudes, Values and Demographics Behaviour in the Czech and Slovak Republics in the Period of Transformation (1991-2008).] *Data a výzkum - SDA Info* 6(1): 27-49.
- Reinprecht, C. 2007. "Social housing in Austria". In: C. Whitehead and K. Scanlon (eds.) *Social housing in Europe*. London School of Economics and Political Sciences, pp. 35-43. Available at: vbn.aau.dk/files/13671493/SocialHousingInEurope.pdf
- RHS. 1995. 1993 Czech Republic Reproductive Health Survey. Final report. Czech Statistical Office, Factum, WHO, and Centers for Disease Control and Prevention.
- Sardon, J.-P. 1991. "Generation replacement in Europe since 1900." *Population: An English selection* 3(1990): 15-32.
- Saxonberg, S. and D. Szelewa. 2007. "The continuing legacy of the Communist legacy? The development of family policies in Poland and the Czech Republic." *Social Politics: International*

Studies in Gender, State & Society 14(3): 351-379.

Sobotka, Tomáš. 2013. "Pathways to Low Fertility: European Perspectives", Expert Paper No. 2013/8, United Nations Department of Economic and Social Affairs, Population Division.

http://www.un.org/en/development/desa/population/publications/pdf/expert/2013-8_Sobotka_Expert-Paper.pdf

Sobotka, T. 2011. "Fertility in Central and Eastern Europe after 1989: collapse and gradual recovery." *Historical Social Research* 36(2): 246-296.

Sobotka, T. 2009. "Sub-replacement fertility intentions in Austria." *European Journal of Population* 25(4): 387-412.

Sobotka, T. 2008. "Does persistent low fertility threaten the future of European populations?" In: J. Surkyn et al. (eds.) *Demographic challenges for the 21st Century. A state of art in demography*. Brussels: VUBPRESS, pp. 27-89.

Sobotka, T., K. Zeman, and V. Kantorová 2003. "Demographic shifts in the Czech Republic after 1989: A second demographic transition view". *European Journal of Population* 19 (3): 249-277.

Sobotka, T., V. Skirbekk, and D. Philipov. 2011. "Economic recession and fertility in the developed world." *Population and Development Review* 37(2): 267-306.

Sobotka, T., A. Šťastná, K. Zeman, D. Hamplová, and V. Kantorová. 2008. "Czech Republic: A rapid transformation of fertility and family behaviour." *Demographic Research, Special collection 7*, 19(14): 403-454.

Sobotka, T., K. Zeman, R. Lesthaeghe, T. Frejka, and Karel Neels.

2012. "Postponement and recuperation in cohort fertility: Austria, Germany and Switzerland in a European context." *Comparative Population Studies* 36(2-3, 2011): 417-452.
- Šťastná, A. 2011. "Realisation of childbearing intentions on the Czech Republic." *Demografie* 53 (4): 321-332.
- Šťastná, A. 2007. "Druhé dítě v rodině – preference a hodnotové orientace českých žen." [Second Child in the Family - The Preferences and Values of Czech Women]. *Sociologický časopis/Czech Sociological Review* 43(4): 721-746.
- Šťastná, A. and T. Sobotka. 2009. "Changing parental leave and shifts in second and third-birth rates in Austria." *Vienna Institute of Demography Working Papers* 7/2009.
- Statistics Austria. 2014a. *Wanderungsbilanz Österreichs und der Bundesländer seit 1961. (Migration balance in Austria and Austrian Federal Countries)*. Vienna: Statistics Austria. Accessed 6 August 2014 at http://www.statistik.at/web_de/statistiken/bevoelkerung/wanderungen/index.html
- Statistics Austria. 2014b. *Demographische Indikatoren - erweiterte Zeitreihen ab 1961 für Österreich. [Demographic indicators - expanded time series for Austria from 1961]*. Vienna: Statistics Austria. Accessed 6 August 2014 at http://www.statistik.at/web_de/statistiken/bevoelkerung/demographische_indikatoren/index.html
- Statistics Austria. 2014c. *Childcare statistics* accessed October 22, 2014 at http://www.statistik.at/web_de/statistiken/bildung_und_kultur/formales_bildungswesen/kindertagesheime_kinderbetreuung/index.html.

- Stloukal, L. 1999. "Understanding the 'abortion culture' in Central and Eastern Europe". In: H. P. David (ed.) *From abortion to contraception. A resource to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present*. Greenwood Press, Westport, Connecticut, pp. 23-37.
- Thévenon, O. 2011. "Family policies in OECD Countries: A comparative analysis." *Population and Development Review* 37 (1): 57-87.
- UNICEF. 2013. *TransMonEE 2013 Database*. UNICEF Regional Office for CEE/CIS (released in June 2013). Accessed in August 2013 at <http://www.transmonee.org/>.
- UZIS. 2013. *Potratty 2012 [Abortions 2012]*. Prague: Institute of Health Information and Statistics of the Czech Republic.
- Van Bavel, J., M. Jansen, and B. Wijckmans, B. 2012. "Has divorce become a pro-natal force in Europe at the turn of the 21st century?" *Population Research and Policy Review* 31(5): 751-775.
- van Zanden, J. L., J. Baten, M. M. d'Ercole, A. Rijpma, and M. Timmer (eds.) 2014. *How Was Life? Global Well-being since 1820*. OECD Publishing. Available at http://www.oecd-ilibrary.org/economics/how-was-life_9789264214262-en
- VID. 2014. *European Demographic Data Sheet*. Vienna Institute of Demography and IIASA / Wittgenstein Centre for Demography and Global Human Capital. http://www.oeaw.ac.at/vid/datasheet/DS2014/DS2014_index.shtml
- Vobecká, J. 2013. *Demographic Avant-Garde: Jews in Bohemia between the Enlightenment and the Shoah*. Budapest: Central

European University Press.

- Wilson, C., T. Sobotka, L. Williamson, and P. Boyle. 2013. "Migration and intergenerational replacement in Europe." *Population and Development Review* 39(1): 131-157.
- Wynnyczuk, V. and R. Uzel. 1999. "Czech and Slovak Republic". In.: H. P. David (ed.) *From abortion to contraception. A resource to public policies and reproductive behavior in Central and Eastern Europe from 1917 to the present*. Greenwood Press, Westport, Connecticut, pp. 91-119.
- Zartler, U. and C. Berghammer. 2013. "Turbulenzen im Kinderleben. Mütterliche Partnerschaftsbiographien und multiple Übergänge nach elterlicher Trennung." [Turbulences in children's lives. Mothers' union histories and multiple transitions after parental separation]. *Zeitschrift für Familienforschung* 25(3): 286-308.
- Zeman, K., T. Sobotka, R. Gisser, M. Winkler-Dworak, and W. Lutz. 2011. "Geburtenbarometer Vienna: analysing fertility convergence between Vienna and Austria". VID Working Paper 07/2011, Vienna Institute of Demography.





Chapter 8

The relatively high fertility in Norway: a
result of affluence, liberal values,
gender–equality ideas, and the welfare
state

Øystein Kravdal,
Professor, Department of Economics,
University of Oslo



8

The relatively high fertility in Norway: a result of affluence, liberal values, gender-equality ideas, and the welfare state

1. Introduction

Almost all “more developed countries” have a total fertility rate (TFR) below the replacement level, which is 2.08 in the countries with lowest mortality. In the long run, below-replacement fertility leads to a shrinking population size in the absence of immigration. Furthermore, the proportion elderly in the population will increase particularly much when fertility is low. TFR is below 1.5 in several countries with below-replacement fertility and as low as 1.1-1.2 in some of them (and even lower in a few countries consisting of only a large city). This very low fertility has led to concerns, primarily about the economic and welfare consequences of an ageing population. At the other end, there is a quite large group of countries among those with below-replacement fertility where TFR is above 1.75. Norway is in this category, with a TFR of 1.78 in 2013 (down from 1.90-1.98 in 2006-2009) and an average of 1.86 over the years 2000-2013 (Statistics Norway 2014). Norwegian women in the youngest birth cohort (1968) that has reached the end of the reproductive period have had 2.03 children on average. Additionally, the country has for some years had very

high net in-migration (43700 annually as an average over the last 5 years, which is 0.9% of the population size), so the annual population growth is currently about 1.3% - slightly above the world average (1.2%). Yet, immigrants from high-fertility countries are still not a very large group and contribute little to the national TFR. According to Statistics Norway's medium projection, the population size will increase from 5.1 million today to 5.9 in 2030, 6.6 in 2050, and 7.7 in 2100. The proportion above age 70 will increase from currently 11% to 19% in 2060 (Tønnessen et al. 2014).

In Part I of this paper, possible reasons for the relatively high fertility in Norway are discussed, after first giving a short description of the country's fertility trends and patterns. Obviously, knowledge about the factors underlying the high fertility in Norway and some other rich countries is potentially valuable to countries concerned about low fertility, as it may inform discussions there about steps that could be taken to raise fertility. More specifically, some of the policies that have probably led to high fertility in Norway - though this was never the explicit intention - might be adopted (with some revision, of course) by other countries. Other fertility-stimulating factors, however, are rather unique and not to the same extent "transferable".

The paper ends with a discussion of whether the concern about low fertility is actually justified - in other words whether

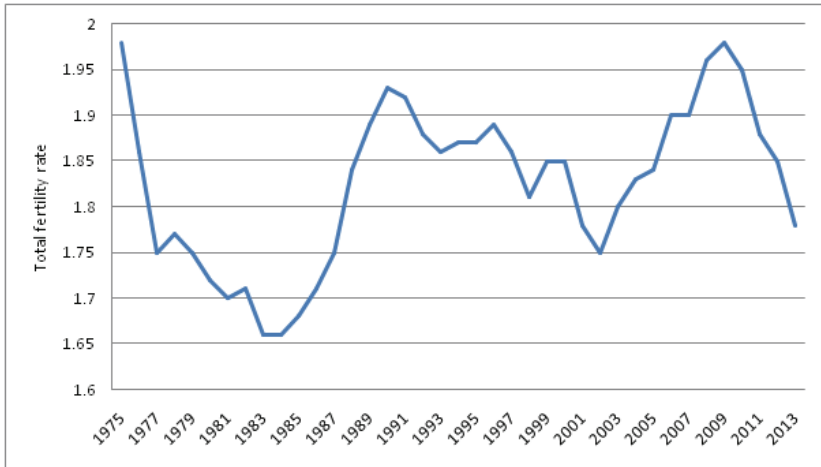
it had mattered if Norway's fertility had not been so high (Part II of the paper). While there clearly are challenges involved in meeting the needs of an older population, there are also advantages to be drawn from having a smaller and older population, and it is far from obvious how a small family size affects the wellbeing of the family members themselves – parents as well as children. These aspects of the low-fertility issue have not received much attention in the public debate.

2. PART I: Description of the high fertility in Norway and discussion of possible explanations

1) A brief description with an international perspective

The total fertility rate fell from about 4.5 in the late 19th century to 1.7 in the 1930s, increased to 3.0 in 1965, and then fell again. A record low of 1.66 was seen in 1984, after which the level increased (see Figure 1), and it has been above 1.80 every year since 1988 except 2001, 2002 and 2013, when it was 1.75-1.78. TFR has exceeded 1.9 in seven of these years. As mentioned earlier, the average over the period 2000-2013 was 1.86.

[Figure 8-1] Total fertility rate in Norway 1975-2013



Source: Statistics Norway

The current TFR is high by European standards (Population Reference Bureau 2014). In 2012, only France (2.08), Ireland (2.01), and the United Kingdom (1.90) were above Norway on the list. The level is also higher in two English-speaking countries outside Europe, New Zealand (2.06) and the US (2.06), and in another more-developed country, Israel (2.96), where the situation in many ways is extraordinary. In comparison, TFR is very low in some countries in Central Europe (e.g. Germany 1.42, Austria 1.42), Southern Europe (e.g. Greece 1.40, Italy 1.41, Spain 1.48), and Eastern Europe (e.g. Bosnia-Herzegovina 1.25, Ukraine 1.29, Poland 1.32). Even lower levels are seen in East Asia (e.g. Taiwan 1.11, South Korea 1.24), and in the second-largest country in that region, Japan, the TFR is only 1.39.

During periods when the age at birth is increasing, the aver-

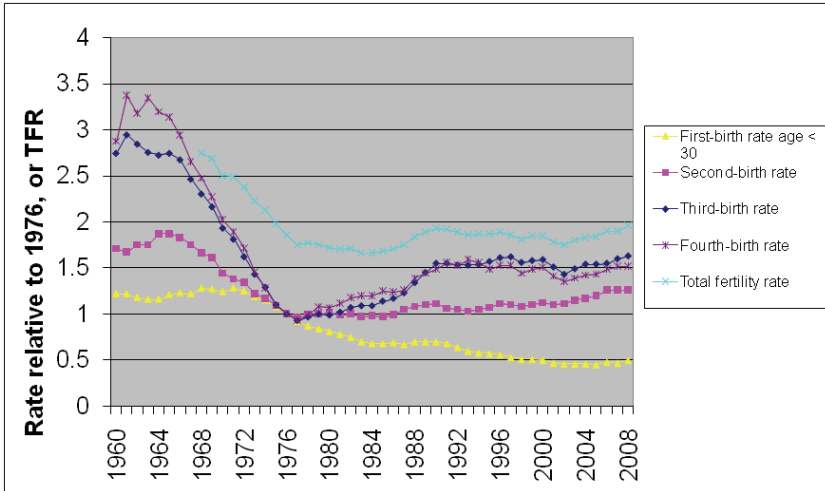
age number of children born to cohorts of women (“cohort fertility”) of reproductive age at that time is higher than the TFR (often also referred to as “period TFR” to avoid misunderstanding). As mentioned earlier, the youngest cohort of Norwegian women that can be observed up to age 45 – those born in 1968 – have had 2.03 children. Iceland, France and some English-speaking countries have seen higher fertility among the cohorts from the 1960s (Max Planck Institute for Demographic Research 2013). This is also the case for some Eastern-European countries, where the very low fertility is a rather recent phenomenon, but they are likely to experience a sharp decline in cohort fertility over the next years. The level in Germany and Italy is only slightly above 1.5, while it is 1.7 in Japan.

Norwegian women born in the 1930s had a cohort fertility of 2.5. The decline to the current level slightly below replacement has to a large extent been a result of a larger proportion stopping after having had two children. The proportion childless has only increased a few percentage points. In the 1968 cohort, 13 % were childless at age 45. Among those who became mothers in that cohort, 83% also had a second child, and among those who had a second child, 43% proceeded to have a third child. Thus, 31% ended up with at least three children (and 8% had at least four).

Figure 2 shows the period trends in the parity progression rates (effects of period, relative to 1976, on first, second, third

and fourth birth rates when age and duration since last previous birth are controlled for in hazard regression models). The decline in second- and higher-order birth rates started in the mid-1960s and lasted for about a decade, after which there was a stable level or an increase (the increase being partly due to a special type of selection, as described in Kravdal 2002), except for a small decline in 2000-2002 and a somewhat sharper decline after 2009. First-birth rates below age 30 started to fall in the early 1970s (giving period TFR an extra push downwards above and beyond the effect of the lower cohort fertility produced especially by a stronger inclination to stop after two children); the level was stable during the last half of the 1980s; a modest further reduction took place in the 1990s and first years of the new millennium (so that cohort fertility still was higher than period TFR); and there was a slight upturn over the years 2005-2009, followed by yet another dip downward. First-births rates at ages above 30 (not shown in Figure 2) have increased, which of course accords well with the fact that there has been only a modest increase in the proportion remaining childless.

[Figure 8-2] Period effects on parity-specific birth rates, when age and time since last birth are controlled for.



Based on similar (often less detailed and not always easily comparable) descriptions of parity progression from other countries, the following should be a reasonable summary: Relatively many Norwegians have at least one child (though figures are even higher in some Eastern European countries), and it is also more common than in most other rich countries that those who become parents have a second child (Frejka 2008). Likewise, there is a larger proportion progressing to higher parities, though differences with respect to transitions beyond the third child matter quite little for the differences in total fertility, as there are generally few who have so many children.

The average age at first birth was 27 years in 2005, which was higher than in many Eastern-European countries, but low-

er than in many other rich countries (Thevenon 2011). This relatively low age at first birth contributes to the relatively high cohort fertility (though it has been seen in simulation experiments that, at an individual level, age at first birth only affects the chance of having a second or third birth markedly when it exceeds about 30 years [Kravdal 2002]). The discussion below will therefore deal both with factors affecting quantum directly and timing determinants.

2) A theoretical framework

To facilitate the discussion of the forces responsible for Norway's relatively high fertility, I first present a list of factors that generally determine a woman's chance of having a child (inspired by the framework introduced by Easterlin and Crimmins 1985). In subsequent sections, I go through each of these factors with an eye to the possible differences between Norway and other countries.

Obviously, in order to have a child the woman must be sexually active and be physiologically able to conceive (as must her partner) and to bring the pregnancy to term. The chance of being sexually active depends, trivially, on whether the woman is involved in a relationship, which also - along with the type of relationship (formal marriage, consensual union, dating) - has implications for another main fertility determinant, the fertility

desires. The chance of entering into and remaining in a relationship status in turn depends on individual economic potentials, other factors that make a person attractive, values, and how easy it is to meet potential partners. Making this even more complex, actual fertility or childbearing plans may be involved in this pathway as well, thus producing a two-way association between partnership and fertility.

Assuming now that the woman lives in a partnership, the couple's childbearing desire (leaving aside the possibility that there is disagreement between the partners) depends partly on their purchasing power and the expected costs of childbearing. The latter include foregone income if a parent is at home with the child (still largely the mother) and more "direct" costs (e.g. clothes and food, plus child care expenses if a parent is not at home with the child). Besides, given childbearing costs and purchasing power, there may be differences between couples in the perceived emotional benefits from having and rearing children compared with the satisfaction one might get from an alternative use of money and time. Some people take great pleasure in being with children and seeing them growing up; others would prefer, for example, activities with friends, expensive hobbies or luxury goods. These "preferences" for childbearing do, of course, also affect the childbearing desire. (There is a quite large recent literature on how desires are formed and lead to intentions, the varying strength of these de-

sires and intentions, their changes over time, and possible discrepancies between partners. See, for example, Bacharach and Morgan [2013]. However, while this discussion shows that the desire concept in the Easterlin-Crimmins framework may deserve some fine-tuning, the framework can still be helpful in organizing a discussion.)

The details in the arguments with respect to purchasing power and costs vary depending on whether it is the number of children or the timing of the (first) birth that is considered. This is further discussed below. Also, the arguments depend on the type of relationship the couple have. For example, a woman in a consensual union may expect that there is a relatively large chance of disruption, after which she may be in a weaker position economically and also to a lesser extent have a co-parent to share the daily emotional pleasures and burdens of child-rearing with. This would lead not only to generally weaker fertility desires, but possibly also make the opportunity cost argument less relevant and produce less negative or more positive effects of the woman's own earning potentials or accumulated income (see discussion of such effects below). For a single woman, who would be much less likely to want a child, her own resources would enter even more strongly into the considerations. As a complicating factor, the chance of entering or remaining in a consensual union rather than marrying is lowest among the most resourceful women and men (Kravdal 1999). (The re-

sources on a relatively scale are then potentially more relevant than the absolute level, as mating involves an element of competition).

Yet another relevant issue is that people may feel some pressure, at least if they are married, to have at least one and preferably two children. Conversely, many of those who are not married may feel subjected to expectations about staying away from childbearing – and, of course, especially if they are not even cohabitants. One may consider such norms about the number of children – or about appropriate timing – to be another determinant of the childbearing desires, or it could be considered an additional main factor. (Furthermore, there are normative influences on important determinants of fertility, such as mothers' work activity.) Norms reflect to some extent current actual behavior. In other words, in countries where it is common to have few children, it may also be more accepted to remain childless or have only one child. The low "ideal fertility" (a somewhat diffuse concept) in Central Europe has been interpreted as an indication of such a mechanism (Goldstein et al 2003). Other authors have described European countries as being caught in a "low-fertility trap" (Lutz and Skirbekk, 2006). Conversely, one may argue that a relatively high fertility in Norway, produced by various factors discussed below, tends to further promote high fertility.

In principle, a preference for having at least one boy will in-

crease fertility in settings with generally low or moderate fertility and where the alternatives to achieving such a goal – sex-specific abortion or excess female mortality – are deemed unacceptable. However, sex preferences are typically weak in rich countries outside Asia (Anderson et al. 2006). Also, the “insurance effect”, “replacement effect” and other fertility influences of mortality that are important in many parts of the world have little relevance in more developed countries, given their very low infant and child mortality.

The third main determinant of the chance of having a child is the access to and acceptance of abortion and various types of contraception.

3) Fecundity and partnership

There is no evidence to suggest that sub- or infecundity is less common in Norway than in other rich countries. In principle, it is possible that less expensive treatment for or circumvention of these conditions – through the public health care system – could contribute positively to fertility. However, this would probably not matter very much. In an analysis of Danish fertility, Sobotka et al. (2008) concluded that assisted reproductive technology was involved in only 7% of the births.

Is the high fertility in Norway a result of a relatively large proportion marrying and remaining married? No, that is far

from the case. On the contrary, Norway has experienced a massive retreat from marriage: there has been a sharp increase in the proportion who never marries, those who marry do so at a higher age, and divorce rates are higher than ever - changes that probably are driven probably not least by women's economic independence, a generous welfare system, generally liberal values, and self-reinforcement. Crude marriage rates are not particularly high by European standards and crude divorce rates not particularly low (Eurostat 2012). Thus, the proportion married at any given age is probably not relatively high either. However, this situation is compensated for by informal cohabitation to a larger extent than elsewhere, and many cohabitants have children. Indeed, out-of wedlock fertility is very high, as in the other Nordic countries. In 2012, cohabiting mothers accounted for 43 per cent of all births in Norway, and single mothers for 12 per cent.

The relatively high fertility among Norwegian cohabitants reflects, of course, the factors discussed below that generally stimulate fertility in the population. In addition, it is possible that factors that tend to depress fertility among cohabitants compared to the married - such as a fear of being left too much alone with the economic and emotional burdens (though less relevant as shared custody has become more common) and norms prescribing childbearing within a formal marriage - carry less weight in Norway than in most other countries.

Norwegian women are resourceful and may believe they can cope well alone (see earlier comment on the possibly complex interaction between resources and type of relationship). Besides, there is a welfare state to rely on: a lone parent is entitled to a larger child allowance than others, there are special tax benefits, there is support to cover child care costs, and special allowances are given to those who are not working or who are enrolled in school (NAV 2013a; Barne, likestillings, og inkluderingsdepartementet 2013). (Some of these entitlements are generous also by Nordic standards, according to Rønsen and Skrede 2008). Furthermore, children with a lone parent (still most commonly a mother) are not likely to feel very stigmatized – nor are the lone parents – as the situation so common and might have been quite accepted anyway in such a liberal society. Some of these factors may also contribute to the relatively high fertility of single women, and they could in principle have a positive impact on the fertility of married couples concerned about the quality of their relationship.

This discussion of fertility among cohabitants builds on the assumption that such relationships are relatively unstable, and that those involved are conscious about that and take it into consideration in their decision-making. Indeed, the lack of stability is well documented: as in other countries (Manning et al. 2004), cohabitants with children have much higher disruption rates than the married (Jensen and Clausen 2003; Texmon

1999), presumably reflecting a combination of a lower quality of the relationship (Wiik et al. 2009) and lower practical and normative burdens associated with the disruption. This also means that, to the extent that disruptions or the underlying parental discord are harmful to children (contrary to what the parents who decide to have a child in such a relationship perhaps believe themselves), this aspect of the Norwegian high fertility may be seen as constituting a potential welfare problem. Such concerns about out-of-wedlock fertility are voiced in for example the US, where more of these births are to single mothers and the chance of falling into poverty is high (Sigle-Rushton and McLanahan 2002), but are rarely heard in Norway.

4) Effects of earnings and earning potentials

I will now deal with some arguments related to earnings and earning potentials, which are not only key determinants of the (potential) purchasing power but influence the childbearing costs. A quantum perspective will be taken first, and it will be assumed that the woman is the primary care taker.

A reasonable starting point is that, with a high income for the man, the couple can afford more children given the costs of childbearing. However, if the income is high, the couple may also feel that they should spend relatively much on each child, and they may attach more value to the material luxuries that

compete with raising a child. Thus, those with a stable high income do not necessarily have more children than those with a stable low income. However, a sharp decline in income, for example as a result of unemployment, is likely to depress fertility, because the material aspirations may need time to change; they may tend to reflect the higher incomes in earlier years (Kravdal 2002). In other words, the low unemployment among men in Norway, and the little fear of unemployment or an income drop for other reasons, may have contributed to the relatively high fertility. To elaborate on that, the GDP per capita is one of the highest in the world, there is low income inequality, very few are reckoned as poor, and the overall unemployment rate has not exceeded 4% during the post-war period except for a large part of the 1990s (up to 6%). Oil revenues have been used to build up a fund corresponding to three times the annual GDP, and prospects for the future look good also for many other reasons (Olsen 2013).

If the woman's earning potential is high, similar mechanisms may operate. However, there is an additional effect: high wage potential means that more is foregone (i.e. higher opportunity costs) each time unit the woman is at home to care for the child, and with higher costs of childbearing, one would be likely to want fewer children. Possibly, it is not the woman's wage potential in an absolute sense, but rather her wage potential relative to the man's income, that matters in such considerations.

Anyway, this type of argument has become gradually less relevant as a result of the increasing use of child care outside the family and some other factors that are further described below. To conclude, it is less obvious how low unemployment among women should be expected to affect fertility. Also, to the extent that Norwegian women have relatively high wages compared to men, the effect is hard to predict (and there may also be other types of mechanisms involved, for example related to women's domestic negotiating power).

Special arguments are developed for the timing of a birth, and are thus particularly relevant for a discussion of the chance of having a first child, which to a large extent is a matter of when to give birth rather than whether to give birth. A fundamental idea (see e.g. Happel et al. 1984) is that, if childbearing costs are independent of the birth timing and the parents' wages, and if borrowing money is costly, it would make good sense for a couple to postpone the first birth until the purchasing power is higher and the reduced consumption of other goods because of the childbearing expenses therefore matters less (given a diminishing marginal utility of consumption). This strategy would be particularly relevant if childbearing costs are high or their total income is currently low (absolute or relative to earlier levels that may be of importance for material expectations). In reality, however, the situation is more complex. First, there are typically opportunity costs of childbearing

which are positively linked especially to the mother's wage. To the extent that her opportunity costs are high, there would be a motive for waiting with childbearing - assuming these costs will not be higher later. On the other hand, there are direct costs going far beyond the time when she is particularly likely to be home with the child, and the higher her earnings, the weaker the reason for postponing childbearing because of these costs. An additional complication is that wages do tend to increase, so that the opportunity costs become higher if they wait. Thus, the conclusion would be similar to that obtained from a quantum perspective: low unemployment for men probably contributes positively to first birth rates, while it is less obvious what the effect of low unemployment or high relative wages for women would be.

A second fundamental idea in this literature on first-birth timing is that childbearing costs likely depend on the birth timing above and beyond any such wage increase. In particular, having a child while being enrolled may increase the risk of never completing the education, with economic and other long-term consequences (see elaboration on that argument in the next section). Also, to the extent that there are long-term wage penalties of having a period as homemaker to care for a child, it is possible that these depend on whether the period comes early in the work career or after the woman has become more established (or that the decision-makers assume that

there is such a relationship). In other words, it is possible that some work experience would increase the chance of having a child soon rather than later, and an additional argument for such an effect, which indeed has been seen in Norway (Kravdal 1994), is that in this situation more may have been saved, making it less necessary to wait for a higher income. Among women and men who have completed their education, the accumulated income and work experience may be relatively high in Norway because of the low youth unemployment rate (reflecting not only a generally low unemployment rate, but also that the educational system prepares the students reasonably well for vocations; Rindfuss and Brauner-Otto 2008).

As further discussed below, the country's economically advantaged position does not only prevent individual families from being hit by unemployment and feeling economic insecurity. It is also a reason for the generous policies and welfare arrangements, which probably affect fertility positively. A much poorer country would have found it problematic to finance these arrangements.

5) Other factors affecting the childbearing costs

The next step is to discuss childbearing costs more specifically. These probably vary greatly across rich countries (DiPrete et al. 2003), which contributes much to the fertility

differences. The discussion implicitly builds on two fundamental ideas already mentioned. First, when costs are high people may not want so many children and it makes particularly good sense to have the next child later rather than sooner. Second, the costs may depend on the timing of the birth.

Below, the factors affecting the childbearing costs are grouped into three categories: i) those making it easier to resume employment or otherwise maintain an income after childbearing, thus reducing opportunity costs (which have indeed been shown to be low compared to other countries; Sigle-Rushton and Waldfogel 2007), ii) those affecting the short- and long-term economic implications of having a child while being studying, and which have special relevance for the first-birth timing, and iii) other types of factors. The first and last category are relevant both for the quantum and timing of fertility.

It should be noted, however, that none of the policies that have probably been influential through such channels have been set up with pro-natalist purposes. Rather, the intention has been to improve the families' wellbeing, strengthen women's position in society, and add to country's supply of labour. It is also often argued that being in a day care centre benefits the children (except perhaps the very youngest) socially and intellectually.

6) Factors reducing the loss of income due to childrearing

In Norway, there is currently a 49-month parental leave with full wage compensation or 59 weeks with 80% compensation (14 weeks being reserved for the father), which is longer than in most other countries. For example, the OECD average in 2007 was the equivalent of 32 weeks with full compensation (Thevenon 2011). Those who have not become entitled to parental leave by having earned an income during 6 of the 10 months before birth receive a moderate cash amount. Not surprisingly, some studies - including one from Norway (Rønsen 2004) - have suggested positive effects of parental leave on fertility, but on the whole the evidence for such effects is not very strong (Kalwij, 2010).

There is also relatively good access to part-time work (Kalleberg 2000), which means that those who for various reasons cannot or will not work full time when they have young children can have at least some income rather than none (with implications also for later wages, as these are influenced by accumulated work experience and the signals of work commitment that are shown). Furthermore, employees are allowed to stay home with a sick child (up to 10-15 days per year as long as the child is younger than 12 years old), and even to leave work for a couple of hours each day to breastfeed, which may make it more attractive to go back to paid work early. For de-

tails about the various entitlements, see NAV (2013b) and Barne, likestillings, og inkluderingsdepartementet (2013).

Moreover, access to child care of high quality outside the family helps parents resume work quickly after the leave period is over. In Norway, 80% of children aged 1-2 and 97% of those aged 3-5 are in subsidized (directly by keeping prices low and indirectly through tax reductions) public or private day care centres, which are open during usual working hours every day. According to a comparison made in 2006, and where the Norwegian numbers may have been underestimated because of the lack of need for child care during the leave period, the proportion enrolled in day care centres was clearly higher in Norway than in most other OECD countries (Thevenon 2011). The implications for fertility have been assessed by Rindfuss et al. (2010), who compared birth rates in Norwegian municipalities with high and low day care coverage, and concluded that without the expansion of day care since the early 1970s, the country's fertility would have been $\frac{1}{4}$ child lower. Some parents also make use of other child care services: most commonly, they may pay a neighbour to look after the child, or there may be family members who can assist (very few employ an au-pair). The price may well be approximately the same as in a day care centre, but there is often less flexibility in terms of "opening hours", the service may not be available all days because of sickness, and the adults in charge may be less

qualified.

Some parents might have returned to work immediately after the leave period regardless of the right to breastfeed or stay home with a sick child, and regardless of whether they get a slot for their child in a day care centre or have to make use of other child care services. For them, the generous policies and access to high-quality day care is no economic advantage, but makes childrearing more convenient – which may be seen as increasing childbearing preferences (to be further discussed below).

Since 1998, a cash benefit has been offered to those who cannot find or do not want a place in day care for their child, which generally reduces the costs of childbearing in the country. More precisely, some may be generally uninterested in working while the child is young (and therefore have higher childbearing costs than those who have a child in day care). For them, the cash benefit simply constitutes an additional subsidy. Another group may make use of other child care options anyway. For them also the benefit constitutes a subsidy. A third group of women may switch from day care to using other types of child care or stop working in order to be entitled to the benefit, and they presumably do this because they think they are better off that way, so they also gain something (though some might argue that this strategy is not really in their own economic interest in the long term). Finally, such a switch may free

up slots in day care for others (as there still is excess demand in some municipalities), i.e. another, and for some potentially better, option is opened up for other parents. A positive association between take-up of the cash benefit and subsequent fertility has been observed (Lappegård and Aassve 2009; Vikat 2004), but interpretation is difficult as it is not obvious what such an indicator really captures.

Yet another factor that facilitates parents' work is that children are kept in school during lunch breaks – rather than being sent home to eat as in many other countries – and that after-school care is offered to the youngest (typically 1st to 4th grade). Furthermore, one might speculate whether Norwegians to a larger extent than many others could allow their young school children to go home from school alone, be alone at home, or spend time in parks or other places outside the home without adult supervision (Rindfuss and Brauner-Otto, 2008). The country has a low crime rate, and while the proportion living in urban areas is as large as in other rich countries, the cities tend to be smaller, with less intense traffic, and green areas are often not far away.

It is possible that the generally family-friendly environment has contributed to diminish the social differences in fertility. In particular, when child care becomes available at a price that depends little on the family income, the opportunity costs – which traditionally have been highest among the better-edu-

cated and others with a high wage potential - are substituted with direct costs that vary much less. Put differently, the efforts to help parents resume work quickly after birth have probably made Norwegian fertility higher than it would otherwise have been, and especially among the better educated.

The arguments above are implicitly based on the assumption that most women would be interested in working if they do not have young children (otherwise there would be no potential for an opportunity cost), and that they would also work when they have a young child if other persons they deem qualified can take care of the child. These assumptions should be reasonable enough. Norwegian women without young children have a high employment rate (there is no tax-splitting disincentive to work, such as for married German women), and it is widely accepted that a child is cared for by persons outside the family.

7) Factors improving the compatibility between enrolment and childrearing

A large proportion of young Norwegians study: the enrollment ratios in tertiary education are close to the average for Western Europe and North America (UNESCO 2013). What are the implications for fertility? On the one hand, it may be relatively easy for female (and male) students to complete the education even if they have a child, thus weakening the incentive

to postpone childbearing until the education is finished. One reason is that Norway has a relatively flexible educational system, in the sense that students are allowed to leave and re-enter. Furthermore, the students' access to day care is quite good, so it is less necessary to quit school to care for the child. Also, it may be relative easy to finance the studies in spite of direct and other costs of childrearing because there are no tuition fees (except in the rather few private schools) and educational loans are available. On the other hand, a woman must have worked 6 months during the last 10 months before birth to be entitled to the rather generous maternity leave, and students are often not in this position. In other words, this rule of the game will discourage students from having children.

If the first mechanisms dominate, the effects of school enrollment on fertility may be weaker in Norway than in most other countries. This could contribute to relatively early first births and therefore high cohort fertility, and if the increase in the number of years at school in Norway has not led to the same increase in the age at first birth as elsewhere, the gap between period TFR and cohort fertility (which is determined by the change in the age at birth) would not be so large either.

8) Other reasons for relatively low childbearing costs

Childrearing is subsidized through child allowances not re-

lated to income (NAV 2013c). One would expect such a cost reduction to reduce fertility, and indeed, some studies (Gauthier and Hatzius 1997; Milligan 2005), but not all (Kalwij 2010), have shown fertility effects of child allowances. The amount received in Norway corresponds to about 1/5 of the costs of raising a child to age 18 (see “standard budget” published by SIFO 2013). The child allowances are smaller in most other rich countries, but several countries also offer tax benefits for parents, which closes much of the gap (Bradshaw and Finch 2002).

Housing prices are another relevant issue: with a larger family, a larger house or apartment may be seen as needed (e.g. Clark 2012). Home-ownership is common in Norway, which may make it more expensive – at least in the short term – to have a child. Besides, statistics from the Federal Reserve Bank of Dallas (2013) show that housing prices (measured relative to personal consumption expenditure) are higher in Norway than in any other of the OECD countries considered. However, it is possible to borrow up to 85% of the amount (i.e. a down-payment requirement of 15%), while in some other countries there are down payments of up to 50% (Rindfuss and Brauner-Otto, 2008). Also, payment of interests (the rate being currently about 3%) can be deducted from the income before paying taxes, which essentially means that 28% of the interests are paid by the state.

Finally, there is one component of the costs of childbearing –

very broadly defined – that is lower in Norway than in most other rich countries: high-quality tertiary education, which many (especially well-educated) parents in countries such as the US plan to help their children with and may take into account in their fertility decision-making, is free – with the exception just mentioned. (This may also be yet another reason why Norway has relatively small educational gradients in fertility.)

9) Preferences

Is it possible that childbearing preferences – with implications both for the quantum and timing of fertility – are generally stronger in Norway than elsewhere? Do Norwegians, for example, have more tolerance than others for seeing the house messed up with toys or being kept awake at night by babies who cry? Do they spend less time on their children so that their leisure time is less reduced? Or are they less distressed by having to forego some of their own leisure activities? While one cannot reject the possibility of certain cross-country differences in these types of attitudes, there is currently no basis for answering the question in the affirmative. Attempts have been made to measure the pleasure derived from family-life compared with alternative sources of satisfaction (Crimmins et al. 1991), but these have rarely addressed cross-country differences.

Fathers' involvement and participation is a relevant issue when discussing possible differences in childbearing preferences. Fathers who like to be emotionally involved with children would probably be inclined to want relatively many children, given the childbearing costs and their purchasing power. It also seems likely that their partners develop particularly positive attitudes to childbearing in this situation: they might be pleased about sharing the joys and concerns with the father. The argument is somewhat different when it comes to the involvement in practical care (admittedly difficult to separate entirely from the emotional involvement) and the additional housework that typically follows from having more children, as these tasks tend to be seen as more burdensome, and as the total work-load to some extent may be considered as fixed, so that a larger contribution from a father means that the mother can do less. (Also, the burdens may involve a loss of income, so this discussion actually borders on issues addressed earlier.) If the father participates in these activities and is reasonably happy about it, and if the mother is pleased about being able to do less than she would otherwise do (and that other women she compares herself with may be doing) because of his contribution, they may - as a couple - develop relatively strong preferences for having children. In support of these ideas, a European study showed an association between fathers' egalitarian gender role attitudes and their childbearing desires, as

well as the number of children born so far (Puur et al. 2008), and their partners would presumably also be more positive to childbearing.

Other fathers are perhaps more reluctantly active with child care and housework. They may have been influenced by a normative pressure (i.e. feeling that this is expected and “appropriate” behavior) or requirements from the partner. In that case, they may have a relatively weak interest in having more children, given childbearing costs and purchasing power, which to some extent may counteract the potentially positive impact of the mother feeling that she carries a relatively small burden compared to others. If the fathers’ involvement comes at a very great cost to them, it is possible that the couple’s combined childbearing preferences are weaker than if the man had assumed a more traditional father role. (That said, it is not obvious how combined preferences or desires for a couple are formed. A “veto strategy” may be used, so that fertility is lower if an original agreement at the outset is changed to an unbalance by making one less willing and one more willing to have a child. Alternatively, there may be a negotiation towards the average.)

Given the high fertility among cohabitants, men may be quite willing to have children in unions that they should realize have a large chance of being dissolved, after which they may have relatively little contact with their children. This may be seen as

running counter to a picture of Norwegian men as really wanting a strong involvement with their children. However, many men may not take such long-term possible consequences much into account in their considerations, and many children are also born to cohabitants without the fathers (or mothers) having definitely wanted a child.

Not knowing how satisfied the fathers (and mothers) really are about their actual time use, it is difficult to interpret the associations between fathers' time use and fertility that are reported in the literature. Besides, a rather diffuse empirical picture has appeared. For example, an American study by Torr and Short (2004) showed the highest second-birth rates among the most traditional as well as the most modern couples (who shared the tasks relatively equally). In an analysis based on Italian data, Mencarini and Tanturri (2004) found that the chance of having another child was relatively high if the father helped with child care or housework, but the effects differed between one and two-child couples. It is also difficult to draw clear conclusions from the fact that fathers' share of the time spent on "physical" (Hook and Wolfe 2012) or "interactive" (see review by Gauthier and Philipov 2008) child care appears to be higher in Norway than in other European countries. What we can say is that, to the extent that Norwegian fathers' involvement indicate truly child-friendly attitudes on their part, fertility could be relatively high both because of their own child-

bearing preferences and because the mother may see child-rearing as more of a pleasure and less of a burden in such a situation.

In Norway, since 1993, some weeks of the parental leave (currently 14) have been reserved for fathers (i.e. not transferable to the mothers), and many fathers have made use of this opportunity. The intention was to strengthen fathers' (practical and emotional) involvement with children, but it remains to be known whether a few weeks alone (perhaps) with the child at this stage actually matters much in the long run. Attempts to estimate the effect have been made, but - in line with the points made above - the higher fertility that has sometimes been observed for men who have taken up the daddy leave (Lappegård 2010; Olah 2003) could well be a result of the general attitude of the men in this category. In an econometrically more advanced study by Rege and Solli (2013), it was found that men who took the parental leave had lower incomes in the longer run, which suggests that there indeed may be some effects on the participation at home.

10) Contraception

It is hard to imagine that Norway's high fertility can be attributed to poorer access to or acceptance of contraception or abortion than in most other rich countries. Many pregnancies

in Norway are unintended, resulting in a large number of abortions (245 abortions per 1000 births) and a large proportion of the births being “mistimed” or “unwanted” (about 1/3 among cohabitants according to a survey in 1996 (Kravdal 1997) and 1/3 of all births according to personal calculations from the Family and Occupation Survey 1988). However, the situation is probably not particularly bad by European standards. The abortion rate is not far from the average for Western and Southern Europe (Sardon 2004), so unless there is a particularly small proportion of the unintended pregnancies that end in abortion, the birth figures are not to a larger extent than elsewhere “blown up” by unwanted or mistimed births.

11) Summarizing the fundamental forces behind the high fertility

To summarize, Norway is in advantaged position economically, which probably contributes to the country’s relatively high fertility. Individuals, including young adults, face a low risk of unemployment and the State can afford to be generous with parents, not least with respect to day care and parental leave. In addition, there is political willingness to spend some of Norway’s wealth on such attempts to help young families economically and strengthen women’s position in the family and in society. This may in turn hinge on ideas about public responsi-

bility for individual wellbeing that are strongly rooted in Nordic societies (Esping-Andersen 1999), accompanied by widely accepted gender-equality ideals. It is possible that the latter also affect fertility positively through men's involvement with children and in housework. Another explanation for Norway's high fertility may be that, although the retreat from marriage is at least as pronounced as in most other countries, this is counteracted by widespread cohabitation and a large number of births in this population group – probably reflecting partly their trust in the welfare state and liberal values.

12) Some brief comments on the changes over time

So far, it is the possible reasons for the generally high fertility in Norway over the last couple of decades that have been discussed, but the changes over time may also deserve some attention. Starting further back in time, the decline from the mid-1960s was probably driven by the same factors as those responsible for a similar development in many other countries: opportunity costs of childbearing were rising (reflecting that women increasingly expected to work if they did not have additional children and their higher wage potential); there was a strong expansion of education (responsible for that wage increase and other effects of a higher educational attainment, and also, in combination with a persistent desire to accumulate

work experience before embarking on parenthood, delaying first birth simply through a longer time of school enrolment); there were later and fewer marriages and more divorces, driven not least by the development in education and other structural and ideational changes; and new contraceptive technologies were introduced. There may, of course, also have been a shift in preferences in favour of activities and goods competing with childrearing and in norms with direct implications for fertility (Crimmins et al. 1991; Lesthaeghe and Surkyn 1988), though on the whole the evidence is not so strong.

Reductions in opportunity costs because of expansion of day care and other increasingly generous family policies may be an important factor behind the levelling out and increase in second- and higher-order birth rates from the mid-1970s. Furthermore, the contraceptive “revolution” had to a large extent run its course by then, and there are some indications of stabilization of family values from other countries (Lesthaeghe and Moors 1995). As mentioned, also a selection effect tends to produce a positive trend in the higher-order birth rates (when it, very reasonably, is controlled for current age and time since previous birth, and there has been a rising age at first birth). Other factors could, of course, be involved as well.

The later start of the decline in the first-birth rates than in the higher-order birth rates may be due to increased sexual activity among the very youngest in the late-1960s and ear-

ly-1970s, but it is far from obvious why the decline continued through the 1970s and the first half of the 1980s and the rates took a new turn downwards from about 1990 (while the decline in higher-order births was brought to an end in the mid-1970s). Possibly, the opportunity cost argument that enters into decisions on timing matters less than that for quantum decisions (also consistent with the fact that second-birth rates have increased less than third-birth rates). Furthermore, the continued expansion of education is likely to be particularly relevant for first births.

The fertility trends have probably not – at least until recently – been strongly influenced by economic cycles, which have also been moderate-sized in Norway. In the mid-1990s, the first-birth rates and to lesser extent the second-birth rates declined and the upturn in the third-birth rates stopped. This could be partly a result of the unemployment that in those years was relatively high by Norwegian standards.

From 2002 to 2007, the total fertility rate increased by 0.2, and it fell by just as much from 2009 to 2013. Similar trends are also seen in the parity-specific birth rates. This development is not easy to understand. In 2003, the annual growth of the GDP per capita was relatively low and the unemployment rate relatively high, which was followed by 3-4 years of stabilization or improvement. This might have contributed to the fertility upturn. Furthermore, there was an unusually low (actually neg-

ative) growth rate in 2009, but not a particularly high unemployment rate, and the economic growth increased over the next 3 years (Norway being much less influenced by the financial crisis than most other countries), while fertility declined. With respect to the other factors discussed above, there has not been any documented change that could contribute to the upsurge and subsequent downturn of fertility during the last 10 years. It could be mentioned, though, that much media attention currently is given to Norwegian women's and men's busy lives outside the work and family spheres, which in theory could contribute to a fertility decline. According to anecdotic evidence, young people are increasingly eager to spend time on physical exercise and sophisticated food-making, to be active with friends, and to have a very nice home (and document the success in these areas through social media). How widespread these attitudes really are, and whether there has been much of a change during the last half decade or so, remains to be known. It would also be relevant to ask whether any such change - or other changes - have taken place in other Nordic countries as well, since they have all experienced a fertility decline recently (though it has not been quite as sharp in Sweden and Finland as in Norway, Denmark and Iceland).

3. PART II: Should Norwegians have been concerned if fertility had been much lower?

There are two main reasons why one might be concerned about low fertility. The one that is most widely discussed is that low fertility may have adverse consequences for society because it makes the population growth lower than it otherwise would have been, perhaps even negative, and - more importantly - that it pushes the proportion of elderly people upwards. Another possible reason for concern is that parents who have few children themselves could be disadvantaged by this in the longer term, or that there are adverse effects of growing up with few siblings. Some key arguments along those two main lines are briefly reviewed and discussed below, starting with the former.

1) Potential adverse aggregate-level effects

Particular attention has been given to the economic consequences of increasing old-age dependency ratios. For example, it has been argued that it may be difficult to sustain the commonly used pay-as-you-go pension system in a population with a larger proportion of elderly (Blake and Mayhew 2006). One may have to reduce the pensions, tax the workers heavier, or take up loans abroad, with possibly increased dependence

on other countries. In Norway, concern about the sustainability of the pension system has led to a pension reform aimed at delaying retirement. In addition, a higher proportion elderly will contribute to higher health expenditures (Dormont et al. 2006). This also may contribute to higher taxes or fiscal deficits, or there may be lower quality of the medical care, which is not to the same extent as the pensions regulated by law (Gerdtham et al. 2005). With a relatively small size of the population in the working ages, even finding the workers to provide the health care for the elderly may be difficult.

Another type of argument is that ageing may have consequences for the welfare system. On the one hand, the young segments of the population may want to downsize the welfare state, given the increasing challenges involved in supporting the old population. On the other hand, there will be a larger proportion of old voters, who may want to maintain the current system or at least the parts of it that they benefit from. Thus, it is not obvious how ageing will affect the total size of the government spending (Galasso and Profeta 2007; Sanz and Velázquez 2007).

Yet another issue is that the productivity of the work force may be affected by the ageing. One possible negative effect is that a higher average age of the workers itself may reduce productivity, though there is much uncertainty about this, as older workers probably have both characteristics that tend to reduce

productivity and characteristics with the opposite impact, and as there likely will be self-regulating mechanisms involving for example the use of adult educational programs (Tang and MacLeod 2006; Skirbekk 2008; Disney et al. 1996, vanDalen 2010). Second, a larger proportion of elderly may reduce the productivity of the work force through a lower savings rate, perhaps compensated to some extent by more import of capital (Demery and Duck 2006).

The importance of a possibly smaller total population size following in the wake of low fertility has been much less analysed, perhaps partly because there are still few countries that have actually experienced a population reduction. One issue is that a country may have smaller military power and less international political influence if its population, and therefore the absolute size of the economy, is smaller. This “nationalistic” argument is an old one, and motivated for example the early French pro-natalist policies, but it may still have some relevance (Demery 2003; Grebenik 1989, Jackson and Howe 2008). Another possibly harmful effect, relevant for some countries, is that further reduction of the population size may make it difficult for some sparsely populated regions to survive because there are too few people to share the expenses for basic infrastructure (Felmingham et al. 2002). (An argument about populous countries having an advantage more generally through efficiencies of scale may be of less relevance in a globalized

economy.) Further, it is possible that a reduced size of the domestic market undermines some of the optimism and willingness to take risks that one otherwise would have seen (Jackson and Howe 2008).

Certain steps can be taken to ameliorate some of the consequences of ageing. One may, for example, increase the age at which workers become eligible for retirement pension, which may involve some efforts to increase the productivity of older workers (who tend to be healthier than ever before) through human capital or other investments. One may also make it easier for women to work, one may get people ready for work at a lower age through more efficient educational programs, and (unless immigration is suspected to produce major social problems) one may admit more (skilled) immigrants (Rand 2004; Blake and Mayhew 2006). (That said, immigration is not necessarily an efficient remedy against ageing; Coleman 2008). Also, the negative effect of the productivity of the work force because of ageing (even without any increase in retirement age) might be partly counteracted by life-long learning programs. In principle, it would of course also help if one could manage to get more out of the money in the health care, but this is not a sector where it is easy to make large efficiency gains.

To the extent that adverse societal effects of ageing or population decline really exist, and these possible remedies are seen as unsuitable or insufficient, political attempts to raise

fertility would be justified. Various schemes to subsidize child-bearing would be obvious ingredients. However, a prerequisite would be that the costs of doing so do not exceed the gains (and the latter include not only aggregate factors such as mentioned, but also the advantages for individual families who, given positive incentives, presumably make decisions – such as having a child – that give them a higher level of wellbeing than they otherwise would have had.) To put it differently, one could certainly convince many of reproductive age to have a child in the extreme situation where not only most expenses are covered but people are actually paid, and very generously. Who wouldn't tolerate the burdens associated with raising yet another child for, say, a million dollars? But would it be worth it? It will always be hard to know whether a pro-natalist policy is economically sound, as both the costs of increasing fertility and the benefits for society are very difficult to assess.

2) Positive aggregate-level consequences

On the other hand, there may also be positive aggregate-level effects of low fertility, and if these are dominant, the motive for trying to increase fertility for externality reasons would be undermined.

One relevant issue is that low fertility, trivially, also contributes to reduce the proportion of children in the population. If the total allocations to education are fixed, fewer children

means larger educational investments per child, which will increase labour force productivity later. It has been pointed out that this effect, under certain conditions, may more than outweigh the costs of supporting more elderly, leaving an economic impact of low fertility and ageing that on the whole is positive (Lee and Mason 2010).

Another possible advantage is that a lower savings rate is needed to maintain the capital-labour ratio when the size of the work force shrinks, and a related issue is that one would not be faced with so many challenges related to fast expansion of infrastructure (e.g. increasing transportation capacity) as would a rapidly growing country. Furthermore, a smaller population may cause less environmental damage. A trivial version of the latter argument is that, if all types of environmental imprints from each individual are fixed, fewer persons means, for example, less emission of climate gases, less air pollution in general, less waste production, less deforestation, and less soil degradation due to food production (McNeill 2006). Reality is, of course, more complex because changes in population size may lead to changes in income-generating and leisure activities, in technology, and in policies, with implications for how each individual influences the environment. For example, should population decline somehow lead to higher average incomes, one may possibly - under certain conditions - experience an increased pressure on the environment. This seems a

bit far-fetched, though. Just as environmental concerns are reckoned among the strongest arguments against high population growth in poor countries (Cleland et al. 2006) – though the exact effect certainly depends on a number of economic and political factors (e.g. Panayoutou 1994) – one should welcome a population decline in the rich part of the world for such reasons. Also the ageing may be beneficial from an environmental perspective: old people's consumption is probably less damaging to the environment than that of the younger (McDonald et al. 2006).

Finally, one might suspect that a crowded environment (which is not the same as outright degradation of the environment) could have adverse psychological and health effects, and with lower population growth, crowding would tend to be less of an issue. However, there has not been much research on such crowding effects (for some discussion and analysis of related issues, see Chaix et al. 2006; Solari and Mare 2012).

3) Family-level effects

Parents' well-being

Childbearing affects, of course, the parents' welfare and lifestyle in a number of ways. To start on the positive side, there are emotional rewards: children may show affection, they may help their parents feel that life has a purpose, they may be seen

as giving the parents adult status (relevant only for the youngest parents), it may be fun for the parents to engage in various activities with the children, and it may be exciting to see them develop (Eiback and Mock 2011; Nelson et al. 2012; White and Dolan 2009). In rich countries, these rewards are the main motive for having children (see discussion of pleasures and burdens of childbearing and preferences above). In addition, while economic benefits are a central motive for having children largely in poorer settings (Caldwell 1976), they may also have relevance in some developed countries, where children may make quite important contributions to the family income through agricultural or other types of work (Council of Europe 1996). Furthermore, financial support from adult children may be important to the poorest segments of the elderly population in these countries, especially where public support systems are not well developed (Rendall and Bahchieva 1998). Children may of course also provide practical assistance when the parents are old or sick or are under special pressure for other reasons (Antonucchi 2003; Barefoot et al. 2005; Lusyne and Page 2008). Possibly, such financial or practical help from children may become more important in the future because of ageing-induced (see discussion above) strains on the public support arrangements

On the other hand, there are also expenses and burdens, as mentioned above. To be more specific about these, a child

needs, for example, food, clothes and equipment for leisure activities, and the parents will either have to forego some income because one of them - typically the mother - must withdraw from the labour force to care for the child the first years, or they must pay others to do the child care. One or both parents may be able to put in extra hours of gainful work to ease the situation, but the family may still end up in a relatively unsatisfactory economic situation (Aassve et al. 2006). It should also be noted that withdrawal from the labour market may be a loss not only economically, but also because of the social and other pleasures one may enjoy at the work place, and because a smaller economic contribution may weaken the woman's influence vis-à-vis her partner more generally (England and Folbre 2005). Furthermore, most people surely realize that, if they have children, there will be periods when they will be intensely involved in care. While this is probably seen as very rewarding by many, others may consider this activity as largely a burden and prefer to do as little of it as possible (Poortman and van der Lippe 2009). A related issue is that there may be periods with little sleep while a child is young (Dørrheim et al. 2009) and less time for own leisure activities (Bittman and Wajkman 2000). Also, parents may be distressed because of major worries about the children's well-being.

Additionally, childrearing has various effects that people perhaps are less conscious about. For example, parents are less in-

clined to take risks than the childless (Wang et al. 2009), they tend to be subjected to stronger social control at home (Joutseneemi et al. 2007; Kendig et al. 2007), and they are often better socially integrated into the community (Knoster and Eggebeen 2006; Bühler 2008; Nomaguchi and Milkie 2004). Furthermore, the quality of the relationship may be influenced by whether the couple have children and how many they have (Twenge et al. 2003).

Many of the mentioned consequences of childbearing may in turn influence the parents' health and mortality (Grundy and Kravdal 2010), and there may be physiological effects as well. Most importantly in developed countries, the number of pregnancies - and the age at which the first occurs - may affect the mother's chance of developing cancer through hormonal changes or other physiological mechanisms (Salehi et al. 2008; Russo and Russo 2007). There may also be biological effects on the chance of getting other diseases (Fletcher et al. 2002; Skilton et al. 2009). Such effects of parenthood are, of course, not relevant for men.

Obviously, the effects cannot be perfectly foreseen by the parents. For example, a couple may have decided to have a child because they assume that the emotional rewards would more than outweigh the economic disadvantages and practical burdens associated with raising a child, and they may have taken into account other types of possible implications as well, but

the child may for various reasons cause them much more worries than they expected, or their economic situation may be even more strained than feared. Conversely, the child may turn out to be more of a blessing than expected. The key issue from a policy perspective is whether the benefits and burdens that come in addition to those expected tend to go in certain directions, so that, on the whole, people do not make fertility decisions that are in their own interest. To be more specific, do people for example tend to be too pessimistic about the care burdens in the first years of the child's life or to underestimate the long term health benefits of having children as old age support, or are there physiological advantages (for women) they are unaware of? Or are they instead over-optimistic? There is currently no knowledge about this.

Children's well-being

In addition to being important for the quality of their own lives, the number of children a couple have may also affect the children themselves. It is widely believed that children benefit from having siblings (a notion perhaps underlying the two-child norm that has probably affected fertility in rich countries for a long time; Blake 1968). However, there are likely to be both disadvantages and advantages, and there is little knowledge about the total impact. To start with the latter, several (but not all)

studies have shown that children with siblings have particularly well developed social skills (e.g. Downey and Condrón 2004). They may also tend to be less involved in activities that one can do alone and that may have some negative implications, such as watching TV very much (e.g. Bagley et al. 2006). On the other hand, there may be less economic resources available to those who have (several) siblings, both in childhood and later (Keister 2003), and they may get less attention from the parents. Because of such effects, and for other reasons, one might expect a negative association between sib ship size and children's education, which has indeed also been shown in some Western countries (Booth and Key 2009; Conley and Glauber 2006; Downey 1995; Goux and Maurin 2005; Jæger 2008; Kuo and Hauser 1997). However, many of the more recent investigations, some of which have used twin births as an instrument to deal with the selection problem, have reported little or no effect (Angrist et al. 2006a; Åslund and Grönqvist 2010; Black et al. 2005; Caceres-Delpiano 2006; de Haan 2010).

Presumably, the effects of having siblings depend on the economic resources of the parents and in society, and whether the parents have wanted as many children as they have. Such interactions have not attracted much attention.

Conclusion about family-level effects

To the extent that low fertility in a more developed country is

a result of sub- or in fecundity, and people thought (rightly) that they would be happier if they could have more children, one could argue that attempts should be made to increase the couples' well-being by supporting the relevant treatment - though there is always the possibility that the money could have more beneficial effects if used elsewhere. Such a situation would resemble that in less developed countries, where attempts are made - partly through family planning programmes - to increase individual well-being by helping people avoid having more children than they want.

As argued above, however, the low fertility in rich countries probably largely reflects that many really want so few children. They believe this is best for themselves and the children (or perhaps that any disadvantage for one of the parties is more than offset by advantages for the other). Turning again to the poorer settings, there is an idea that people may not fully realize the harmful consequences of having children very narrowly spaced and may need to be informed (though many short intervals are surely a result of unplanned pregnancies). Could it be argued in a similar way that there are consequences of child-bearing (number of children or timing of births) also in our part of the world that parents are unaware of or for other reasons do not take adequately into account - as was indicated as a theoretical possibility above? As mentioned, there is at present little evidence in support of such an idea, but this issue hasn't

attracted any research interest either, and future studies could, in principle, reveal that low fertility or late childbearing tends to have certain implications for the quality of the parents' or the children's lives that would be relevant for people to consider when making their fertility decisions. Obviously, one should then disseminate this knowledge to the public.

A quite different issue is that fertility desires may fall short of the number of children people consider "ideal" or would have liked to have if they were richer or healthier or had better access to child care. It has occasionally been pointed out, perhaps more in the grey literature and in policy reports (Commission of the European Communities 2006; European Foundation for the Improvement of Living and Working Conditions 2004) than in scholarly journals, that wanting (and having) fewer children than considered "ideal" constitutes a welfare "problem" that could motivate pro-natalist policies. However, it is far from obvious that such an individual feeling of discomfort because of a gap between actual and ideal fertility desires should be considered a "problem" in the sense that other people need to bother. As mentioned also by Lutz (2007), we all have unsatisfied dreams. Some people would have taken a great pleasure in driving a Rolls Royce, but do not have the money to buy it, while others would ideally have wanted an annual 8-week vacation. The key issue must be whether the obstacles to further childbearing are "avoidable" or "unreasonable",

in the sense that they could be removed without taking too much from others. For example, if there are laws that make it extremely inconvenient to have a second child, but that have no favourable impact on anything else, they may be abolished. This is far-fetched, however. More realistically, there are economic or practical obstacles that can only be removed at the expense of others people's well-being. Thus, to conclude and summarize, a discrepancy between actual and ideal fertility desires should not be considered a "problem". There is only a "fertility problem" if i) experts know that some effects of childbearing tend to go in certain directions but the public is not sufficiently aware of them (or such general effects exist but are not yet identified), or ii) if the childbearing decisions that are taken have adverse effects on others.

4) Additional complexity

It was assumed above, for simplicity, that low fertility can affect the lifestyle and well-being of individual families and also have societal effects through the population growth and structure. However, there is also another type of externality: the effects that a couple's fertility has on their own lives – for better or worse – may also have implications for others (which they are not likely to take into account in their decision-making). As mentioned, those with few children may, for example, be less integrated into the community, which may be accept-

able to them (to the extent that it is foreseen), but there may be less positive implications of this for other people, one reason being the possible health effect of social cohesion (Islam et al. 2006). Another individual-level effect of low fertility is that the mothers will be more likely to have paid work. This will probably have important, and perhaps largely positive, societal implications. A related type of spill-over effect would be, for example, that the entire society may be influenced if it is the case that children without siblings tend to be less sociable than other children.

Additionally, the distinction between the micro and the macro perspective is blurred because a couple's low fertility may contribute to or be partly a result of others' low fertility through learning and imitation effects (Goldstein et al. 2003; Montgomery and Casterline 2006).

5) Tying all the pieces (in Part I and Part II) together

To conclude, Norway has higher fertility than most other countries, which probably is a result (though unintended) of a strong economic position, gender equality ideals that are deeply rooted in society, generally liberal values, and strong political agreement about a public responsibility to support individual families – for example through day care services or other arrangements that will reduce the costs of having young children. Countries concerned about low fertility could in principle decide to give higher priority to the latter kind of initiatives.

The first three factors are to a lesser extent “transferable”.

That said, it is not obvious that Norway’s relatively high fertility is so enviable (except that it signals an economic situation that may be seen as enviable). While low fertility exacerbates the ageing and pushes the population growth down, which may cause certain societal-level disadvantages (e.g. related to the financing of pensions and health care for the elderly), there may also be adverse societal consequences of high fertility. In particular, a younger and larger population (though the latter is admittedly, in Norway, primarily a result of massive immigration) will intensify the pressure on the environment. This argument (even more relevant for countries that are poorer or have higher population density) has not received much attention in the political debate. Obviously, childbearing also has effects at the family level (with further implications for society), but we are not in the position to say that high fertility tends to be better for the parents and children than low. Stated differently, one cannot conclude that families in, say, Italy would have been better off – given their circumstances – with a fertility as in Norway. However, it is not impossible that childbearing in unstable relationships, which is quite common in Norway and contributes to the country’s high fertility, has some adverse implications for those directly involved.

References

- Aassve, A., Mazzuco, S., and Mencarini, L. 2006. An empirical investigation into the effect of childbearing on economic wellbeing in Europe. *Statistical Methods and Applications* 15: 209-227.
- Amato PR. 2000. The consequences of divorce for adults and children. *Journal of Marriage and the Family* 62, 1269-87.
- Andersson G, Hank K, Rønsen M, Vikat A. 2006. Gendering family composition: sex preferences for children and childbearing behavior in the Nordic countries. *Demography* 43: 255-267.
- Angrist, Joshua D., Victor Lavy, and Analia Schlosser. 2010. "Multiple experiments for the causal link between the quantity and quality of children," *Journal of Labor Economics* 28(4): 773-824.
- Antonucci, T.C., Arjouch, K.J., and Janevic, M.R. 2003. The effect of social relations with children on the education-health link in men and women aged 40 and over. *Social Science and Medicine* 56: 949-960.
- Åslund, Olof and Hans Grönqvist. 2010. "Family size and child outcomes: Is there really no trade-off?," *Labour Economics* 17(1): 130-139.
- Bachrach, C. A. and Morgan, S. P. 2013. A cognitive-social model of fertility intentions. *Population and Development Review* 39: 459-485.
- Bagley, S., Salmon, J., and Crawford, D. 2006. Family structure and children's television viewing and physical activity. *Medicine and Science in Sports and Exercise* 38: 910-918.

- Barefoot, J.C., Grønbaek, M., Jensen, G., Schnohr, P., and Prescott, E. 2005. Social network diversity and risks of ischemic heart disease and total mortality: findings from the Copenhagen City Heart Study. *American Journal of Epidemiology* 161: 960-967.
- Barne, likestillings, og inkluderingsdepartementet. 2013. Småbarnsforeldresrettigheter. http://www.regjeringen.no/upload/BLD/Smaabarnsforeldre_net_07-2011.pdf
- Bittman, M. and Wajcman, J. 2000. The rush hour: The character of leisure time and gender equity. *Social Forces* 79: 165-189.
- Black, S.E., Devereux, P.J., and Salvanes, K.G. 2005. The more the merrier? The effects of family size and birth order on children's education. *The Quarterly Journal of Economic* 120: 669-700.
- Blake, D. and Mayhew, L. 2006. On the sustainability of the UK state pensions system in the light of the population ageing and declining fertility. *The Economic Journal* 116: F286-F305.
- Booth, Alison L. and Hiau J. Kee. 2009. Birth order matters: The effect of family size and birth order on educational attainment. *Journal of Population Economics* 22: 367-397.
- Bradshaw J and Finch N. 2002. A comparison of child benefit packages in 22 countries. Research Report 174. Department for Work and Pension. University of York.
- Bühler, C. 2008. On the structural value of children and its implication on intended fertility in Bulgaria. *Demographic Research* 18: 569-610.
- Cáceres-Delpiano, Julio. 2006. The impacts of family size on investment in child quality.

- Journal of Human Resources 41(4): 738-754.
- Caldwell, J.C. (1976). Toward a restatement of demographic transition theory. *Population and Development Review* 2: 321-366.
- Chaix B, Rosvall M, Lynch J, Merlo J. 2006. Disentangling contextual effects on cause-specific mortality in a longitudinal 23-year follow-up study: impact of population density or socioeconomic environment. *International Journal of Epidemiology* 35: 633-43.
- Clark WAV. 2012. Do women delay family formation in expensive housing markets? *Demographic Research* 27: 1-24.
- Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., and Innis, J. 2006. Family planning: the unfinished agenda. *Lancet* 368: 1810-1827.
- Coleman, D. 2008. The demographic effects of international migration in Europe. *Oxford Review of Economic Policy*, 24, 452-476.
- Commission of the European Communities. 2006. Demographic future of Europe - from challenge to opportunity. Brussels
- Conley, Dalton and Rebecca Glauber. 2006. Parental educational investment and children's academic risk: Estimates of the impact of sibship size and birth order from exogenous variation in fertility. *Journal of Human Resources* 41(4): 722-737.
- Council of Europe. 1996. Children and work in Europe. Strasbourg: Council of Europe Publishing.
- Crimmins EM, Easterlin RA, Sato Y. 1991. Preference changes among American youth: family, work and goods aspirations. *Population and Development Review* 17: 115-133.

- De Haan, Monique. 2010. Birth order, family size and educational attainment. *Economics of Education Review* 29(4): 576-588.
- Demery, P. 2003. Population policy dilemmas in Europe at the dawn of the twenty-first century. *Population and Development Review* 29: 1-28.
- Demery, D. and Duck, N.W. 2006. Demographic change and the UK savings rate. *Applied Economics* 38: 119-136.
- DiPrete TA, Morgan SP, Engelhardt H, Pacalova H. 2003. Do cross-national differences in the costs of children generate cross-national differences in fertility rates? *Population Research and Policy Review* 22: 439-477.
- Disney, R. 1996. *Can we afford to grow old?* Cambridge: MIT Press
- Dormont, B., Grignon, M., and Huber, H. 2006. Health expenditure growth: reassessing the threat of ageing. *Health Economics* 15: 947-963.
- Downey, D.B. and Condrón, D.J. 2004. Playing well with others in kindergarten: The benefit of siblings at home. *Journal of Marriage and Family* 66: 333-350.
- Downey, D.B. 1995. When bigger is not better: Family size, parental resources, and children's educational performance. *American Sociological Review* 60: 747-761.
- Dørheim, S.K., Bondevik, G.T., Eberhard-Gran, M. and Bjorvatn, B. 2009. Sleep and depression in postpartum women: A population-based study. *Sleep* 32: 847-855.
- Easterlin, R. and Crimmins, E. 1985. *The fertility revolution: a supply-demand analysis.* Chicago: University of Chicago Press.
- Eibach, R.P. and Mock S.E. 2011. Idealizing parenthood to rationalize parental investments. *Psychological Science* 22: 203-208.

- England, P. and Folbre, N. 2005. Gender and economic sociology. In: Smelser, N.J. and Swedberg, R. (Eds.). *Handbook of economic sociology*, second edition. Princeton: Russell Sage Foundation and Princeton University Press: 627-649.
- Esping-Andersen G. 1999. *Social Foundations of Postindustrial Economics*. Oxford: Oxford University Press.
- Eurostat 2012. Marriage and divorce statistics.
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Marriage_and_divorce_statistics
- Federal Reserve Bank of Dallas 2013. International House Price Data Base. <http://www.dallasfed.org/institute/houseprice/>
- Felmingham, B., Jackson, N., and Zhang, Q. 2002. Indicative impacts of population decline on the operations of local government in Tasmania. *Australasian Journal of Regional Studies* 8: 95-109.
- Fletcher, B., Gulanick, M., and Lamendola, C. 2002. Risk factors for type 2 diabetes mellitus. *Journal of Cardiovascular Nursing* 16: 17-23.
- Frejka T. 2008. Overview Chapter 2: Parity distribution and completed fertility size in Europe: Incipient decline of the two-child family model. *Demographic Research* 19: 47-72.
- Galasso, V. and Profeta, P. 2007. How does ageing affect the welfare state? *European Journal of Political Economy* 23: 554-563.
- Gauthier AH, Hatzius J. 1997. Family benefits and fertility: An econometric analysis. *Population Studies* 51: 295-306.
- Gauthier AH and D Philipov. 2008. Can policies enhance fertility? *Vienna Yearbook of Demography* 1-16.
- Gerdtham, U.-G., Lundin, D., and Sáez-Martí, M. 2005. The ageing of society health service provision and taxes. *Journal of Population*

- Economics 18: 519-537.
- Goldstein, J., Lutz, W., and Testa, M.R. 2003. The emergence of sub-replacement family size ideals in Europe. *Population Research and Policy Review* 22: 479-496.
- Goux, Dominique and Eric Maurin. 2005. The effect of overcrowded housing on children's performance at school. *Journal of Public Economics* 89(5-6): 797-819.
- Grebenik, E. 1989. Demography, democracy, and demonology. *Population and Development Review* 15: 1-22.
- Grundy E and Ø Kravdal. 2010. Fertility history and cause-specific mortality: a register-based analysis of complete cohorts of Norwegian women and men. *Social Science & Medicine* 70: 1847-1857.
- Hoffman, L.W. and Manis, J.D. 1979. The value of children in the United States: A new approach to the study of fertility. *Journal of Marriage and the Family* 41: 583-596.
- Hoffman, L. W. and Manis, J. D. 1982. The value of children in the United States. In: Nye, F.I. (ed.). *Family relationships: rewards and costs*. Beverly Hills, CA: Sage Publications: 143-170.
- Hook JL and Wolfe CM. 2012. New fathers? Residential fathers' time with children in four countries *Journal of Family Issues* 33: 415-
- Islam, M.K., Merlo, J., Kawachi, I., Lindström, M., and Gerdtham, U.G. 2006. Social capital and health: Does egalitarianism matter? A literature review. *International Journal of Equity in Health* 5: 3.
- Jackson, R. and Howe, N. 2008. The graying of the great powers. *Demography and geopolitics in the 21st century*. Center for Strategic and International Studies. Washington.
- Jensen AM, Clausen SE. 2003. Children and family dissolution in

- Norway: The impact of consensual unions. *Childhood* 10: 65-81.
- Joutsenniemi, K., Martelin T., Kestilä, L. Martikainen, P., Pirkola, S., and Koskinen, S. 2007. Living arrangements, heavy drinking and alcohol dependence. *Alcohol and Alcoholism* 42: 480-491.
- Jæger, M M. 2008. Do large sibships really lead to lower educational attainment? New evidence from quasi-experimental variation in couple's reproductive capacity. *Acta Sociologica* 51: 217-235.
- Kalleberg, A.L. 2000. Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology* 26: 341-365
- Kalwij A. 2010. The impact of family plocity expenditure on fertility in Western Europe. *Demography* 47: 503-519.
- Keister, L.A. 2003. Sharing the wealth: The effect of siblings on adults' wealth ownership *Demography* 40: 521-542
- Kendig, H., Dykstra, P.A., van Gaalen, R.I., and Melkas, T. 2007. Health of aging parents and childless individuals. *Journal of Family Issues* 28: 1457-1486.
- Knoester, C. and Eggebeen, D.J. 2006. The effects of the transition to parenthood and subsequent children on men's well-being and social participation. *Journal of Family Issues* 27: 1532-1560.
- Kravdal, Ø. 1994. The importance of economic activity, economic potential and economic resources for the timing of first birth in Norway. *Population Studies* 48: 249-267
- Kravdal, Ø. 1997. Wanting a child without a firm commitment to the partner: Interpretations and implications of a common behaviour pattern among Norwegian cohabitators. *European Journal of Population* 13: 269-298.
- Kravdal, Ø. 1999. Does marriage require a stronger economic

- underpinning than informal cohabitation? *Population Studies* 53: 63-80
- Kravdal, Ø. 2001. The high fertility of college educated women in Norway: An artefact of the separate modelling of each parity transition. *Demographic Research* 5: 187-21
- Kravdal, Ø. 2002. The impact of individual and aggregate unemployment on fertility in Norway *Demographic Research* 6: 263-294.
- Kravdal, Ø. 2002. Is the increase in second- and higher-order birth rates in Norway and Sweden from the mid-1970s real or a result of inadequate estimation methods. *Demographic Research* 6: 241-262
- Kravdal Ø. 2010. Demographers' interest in fertility trends and determinants in developed countries: Is it warranted? *Demographic Research* 22: 663-690.
- Kravdal, Ø., I. Kodzi and W. Sigle-Rushton. 2013. Education in sub-Saharan Africa: A new look at the effects of number of siblings. *Studies in Family Planning* 44: 275-297
- Kulu H, Vikat A, Andersson G. 2007. Settlement size and fertility in the Nordic countries. *Population Studies* 61: 265-285.
- Kuo, Hsiang-Hui D. and Robert M. Hauser. 1997. "How does size of sibship matter? Family configuration and family effects on educational attainment," *Social Science Research* 26: 69-94.
- Lappegård T. 2010. Family policies and fertility in Norway. *European Journal of Population* 26: 99-116.
- Lappegård T and Aassvee A. 2009. Childcare cash benefit and fertility timing in Norway.. *European Journal of Population* 25: 67-88.
- Lee, R., and Mason, A. 2010. Fertility, human capital, and economic growth over the demographic transition. *European Journal of*

- Population 26: 159-182.
- Lesthaeghe, R and Surkyn, J. 1988. Cultural dynamics and economic theories of fertility change. *Population and Development Review* 14: 1-45.
- Lesthaeghe, R. and Moors G. 1995. Is there a new conservatism that will bring back the old family? Ideational trends and the stages of family formation in Germany, France, Belgium and the Netherlands 1981-1990. *Proceedings of the EAPS Conference Milan, Vol I. pp. 225-265.*
- Lusyne, P. and Page, H. 2008. The impact of children on a parent's risk of suicide following death of a spouse, Belgium 1991-96. *Population Studies* 62: 55-67.
- Lutz W and Skirbekk V. 2005. Policies addressing the tempo effect in low-fertility countries. *Population and Development Review* 31: 699-720.
- Manning, W.D., Smock, P.J., Majumdar, D. 2004. The relative stability of cohabiting and marital unions for children. *Population Research and Policy Review* 23: 135-159.
- McIntosh, C.A. and Finkle, J.L. 1995. The Cairo conference on population and development. A new paradigm? *Population and Development Review* 21: 223-260.
- McDonald, G.W., Forgie, V.E., and MacGregor, C. 2006. Treading lightly: The ecofootprints of New Zealand's ageing population. *Ecological Economics* 56: 424-439.
- McNeill, J.R. 2006. Population and the natural environment: Trends and challenges. *Population and Development* 32 suppl: 183-201.
- Max Planck Institute for Demographic Research 2013. Cohort fertility rates for 37 developed countries. Data sheet for press release.

March 21, 2013.

Mencarini, L. and Tanturri, M.L. 2004. Time use, family role-set and childbearing among Italian working women. *Genus* 60: 111-137

Milligan K. 2005. Subsidizing the stork: new evidence on tax incentives and fertility. *Review of Economics and Statistics* 83: 539-555.

Montgomery, M.R. and Casterline, J.B. 1996. Social learning, social influence and new models of fertility. *Population and Development Review* 22 suppl: 151-175.

NAV. 2013a. Benefits for single mother/father.

<https://www.nav.no/805369191.cms>

NAV. 2013b. Parental benefits.

<https://www.nav.no/English/English/Foreldrepenger+ved+f%C3%B8dsel.353602.cms>

NAV. 2013c. Child benefits.

<https://www.nav.no/English/Related+information/Child+benefit.212728.cms>

Nauck, B. and Klaus, D. 2007. The varying value of children: Empirical results from eleven societies in Asia, Africa and Europe. *Current Sociology* 55: 487-503.

Nelson, S.K., Kushlev, K., English, T., Dunn, E.W., and Lyubomirsky, S. 2012. In defense of parenthood : Children are associated with more joy than misery. *Psychological Science* on line first.

Nomaguchi, K.N., and Milkie, M.A. 2004. Costs and rewards of children: The effects of becoming a parent on adults' lives. *Journal of Marriage and Family* 65: 356-374.

OECD 2001. *Employment Outlook*. Paris: OECD.

Olah O Sz. 2003. Gendering fertility: second births in Sweden and

- Hungary. *Population Research and Policy Review* 22: 171-200.
- Olsen, Ø. 2013. The economic outlook. Speech by Governor Øystein Olsen to invited foreign embassy representatives, Norwegian Bank.
<http://www.norges-bank.no/no/om/publisert/foredrag-og-taler/2013/embassy-representatives/>
- Panayoutou, T. 1994. Population, environment, and development nexus. In: Cassen, R. (ed.). *Population and development: old debates, new conclusions*. New Brunswick: Transaction Publishers:149-180.
- Polit, D.F. and Falbo, T. 1988. The intellectual achievement of only children. *Journal of Biosocial Science* 20: 275-285.
- Poortman, A.R. and Van Der Lippe, T. 2009. Attitudes toward housework and child care and the gendered division of labor. *Journal of Marriage and the Family* 71: 526-541.
- Population Reference Bureau. 2014. *World Population Data Sheet*.
- Puur A, OlahLSzTazi-Preve MI, Dorbritz J. 2008. Men's childbearing desires and views of the male role in Europe at the dawn of the 21st century. *Demographic Research* 19: 1883-1912.
- Rege, M., and Solli, I.F. 2013. The impact of paternity leave on fathers' future earnings. *Demography* 50: 2255-2277.
- Rendall, M.S. and Bahchieva, R.A. 1998. An old-age security motive for fertility in the United States. *Population and Development Review*: 24, 293-307.
- Rindfuss RR Brauner-Otto SR. 2008. Institutions and the transition to adulthood: Implications for fertility tempo in low-fertility settings. *Vienna Yearbook of Demography* 57-87.
- Rindfuss R., D. Guilkey, S.P. Morgan, Ø. Kravdal.2010. Child care availability and fertility: Norway. *Population and Development*

Review 36: 725-748.

Russo, I.H. and Russo, J. 2007. Primary prevention of breast cancer by hormone-induced differentiation. *Recent Results in Cancer Research* 174: 111-130.

Rønsen M. 2004. Fertility and public policies – evidence from Norway and Finland. *Demographic Research* 10:143-170.

Rønsen M and Skrede K. 2008. Fertility trends and differentials in the Nordic countries – Footprints of welfare policies and challenges on the road ahead. *Vienna Yearbook of Population* 103-123.

SIFO 2013. Standard budget for consumer expenditures.

<http://sifo.no/files/standardbudsjett2011-eng-print.pdf>

Salehi, F., Dunfield, L., Philips, K.P., Krewski, D., and Vanderhyden, B.C. 2008. Risk factors for ovarian cancer: an overview with emphasis on hormonal factors. *Journal of Toxicology and Environmental Health, Part B: Critical Reviews* 11: 301-321.

Sans, I. and Velázquez, F.J. 2007. The role of ageing in the growth of government and social welfare spending in the OECD. *European Journal of Political Economy* 23: 917-931.

Sigle-Rushton W, McLanahan S. 2002. For richer or poorer? Marriage as an anti-poverty strategy in the United States. *Population (English selection)* 57: 509-526.

Sigle-Rushton W, Waldfogel J. 2007. Motherhood and women's earnings in Anglo-American, Continental European, and Nordic countries. *Feminist Economics* 13: 55-91.

Skilton, M.R., Sérusclat, A., Begg, L.M., Moulin, P., and Bonnet, F. 2009. Parity and carotid atherosclerosis in men and women: insights into the roles of childbearing and child-rearing. *Stroke* 40, 1152-1157.

- Skirbekk, V. 2008. Age and productivity capacity: Descriptions, causes and policy options. *Ageing Horizons* 8: 4-12.
- Sobotka, T., Hansen, M.A., Jensen, T. K., Pedersen, A.T., Lutz, W., Skakkebæk, N.E. 2008. The Contribution of Assisted Reproduction to Completed Fertility: An Analysis of Danish Data. *Population and Development Review* 34: 79-101.
- Solari D and Mare RD. 2012. Housing crowding effects on children's wellbeing. *Social Science Research* 41: 464-476.
- Statistics Norway. 2014. Births, 2013. <http://www.ssb.no/en/befolkning/statistikker/fodte/aar/2014-04-08>
- Tang, J. and MacLeod, C. 2006. Labour force ageing and productivity performance in Canada. *Canadian Journal of Economics* 39: 582-603.
- Texmon, I. 1999. Samliv i Norge mot slutten av 1900-tallet. En beskrivelse av mangfold og endring. Vedlegg 3i Norges offentlige utredninger NOU 1999:25, Statens forvaltningstjeneste/Statens trykning, Oslo.
- Thevenon O. 2011. Family policies in OECD countries: A comparative analysis. *Population and Development Review* 37: 57-87.
- Torr, B.M. and Short, S.E. 2004. Second births and the second shift: a research note on gender equity and fertility. *Population and Development Review* 30(1): 109-130.
- Twenge, J.M., Campbell, W.K., and Foster, C.A. 2003. Parenthood and marital satisfaction: A meta-analytic review. *Journal of Marriage and Family* 65: 574-583.
- Tønnesen M, Syse A, and Aase KN. 2014. Befolkningsframskrivinger 2014-2100: Hovedresultater.

http://www.ssb.no/befolkning/statistikker/folkfram/_attachment/183094?_ts=146a4754ba8

Unesco 2013. Tertiary indicators

http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=167&IF_Language=eng

Van Dalen HP, Henkens K, Schippers J. 2010. Productivity of older workers: perceptions of employers and employees. *Population and Development Review* 36: 309-330.

Vikat A. 2004. Women's labour force attachment and childbearing in Finland. *Demographic Research, Special Collection 3*, article 8.

Wang, X.T., Kruger, D.J., and Wilke, A. 2008. Life history variables and risk-taking propensity. *Evolution and Human Behaviour* 30: 77-84.

White M.P. and Dolan, P. 2009. Accounting for the richness of daily activities. *Psychological Science* 20: 1000-1008.

Wiik, K. A., Bernhardt, E. and Noack, T. 2009. A Study of Commitment and Relationship Quality in Sweden and Norway. *Journal of Marriage and Family* 71: 465-477



Chapter 9

Canadian Fertility Trends and Policies: A story of provincial variation

Sarah BRAUNER-OTTO,
Assistant Professor, Department of Sociology,
McGill University



9

Canadian Fertility Trends << and Policies: A story of provincial variation

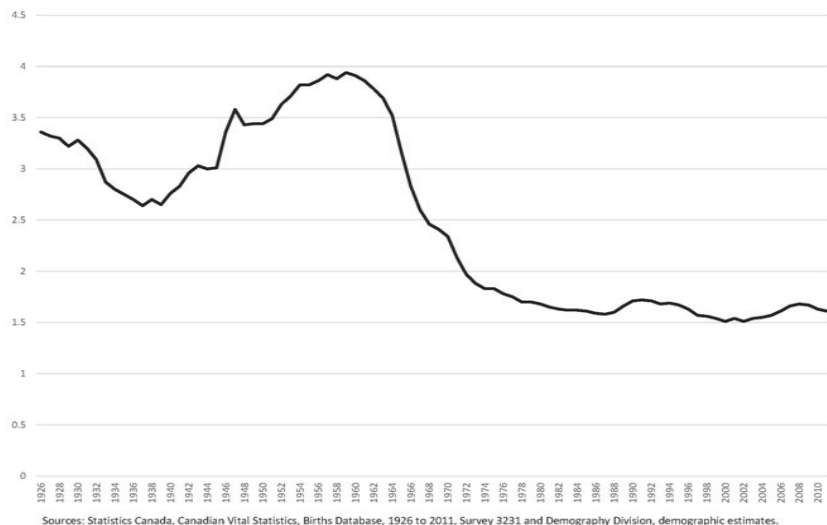
1. Introduction

Like other wealthy, industrialized countries Canada experienced a post-World War II baby boom followed by a baby bust. The Total Fertility Rate (TFR) continued to decrease after the bust period and was 1.63 in 2011. While this overall trend of decreasing fertility is quite common, the specific path of Canada's fertility decline is quite different from that in other wealthy, industrialized countries. And, the current TFR is one the one hand well below what we see in other English speaking and Scandinavian countries but, on the other hand, above that in other European and low-fertility countries. This paper takes a first step towards understanding the causes and consequences of Canada's unique fertility path. First, I describe this fertility trend in more detail, paying particular attention to provincial variation. Second, I focus on fertility from the 1980s on and discuss institutional factors that may have influenced the fertility decline, again presenting provincial variation when appropriate. Throughout I make an effort to address the aging related implications.

2. Fertility Trends

Figure 1 shows the Canadian Total Fertility Rate (TFR) from 1926 to 2011. Like most wealthy, industrialized countries, fertility in Canada decreased in the 1920s and 30s, reaching a low during the Great Depression, and then experienced a post-World War II baby boom, peaking around 1959 with a TFR of 3.49. Starting in 1960 fertility began to drop precipitously and continued to do so well into the 1980s dropping to 1.58 in 1987. This was followed by a short increase, but the TFR fell again after 1991, reaching a low of 1.51 in the early 2000s, and then steadily increased to a high of 1.68 in 2009. In 2011 it had a TFR of 1.63.

[Figure 9-1] Total fertility rate for Canada 1926–2011

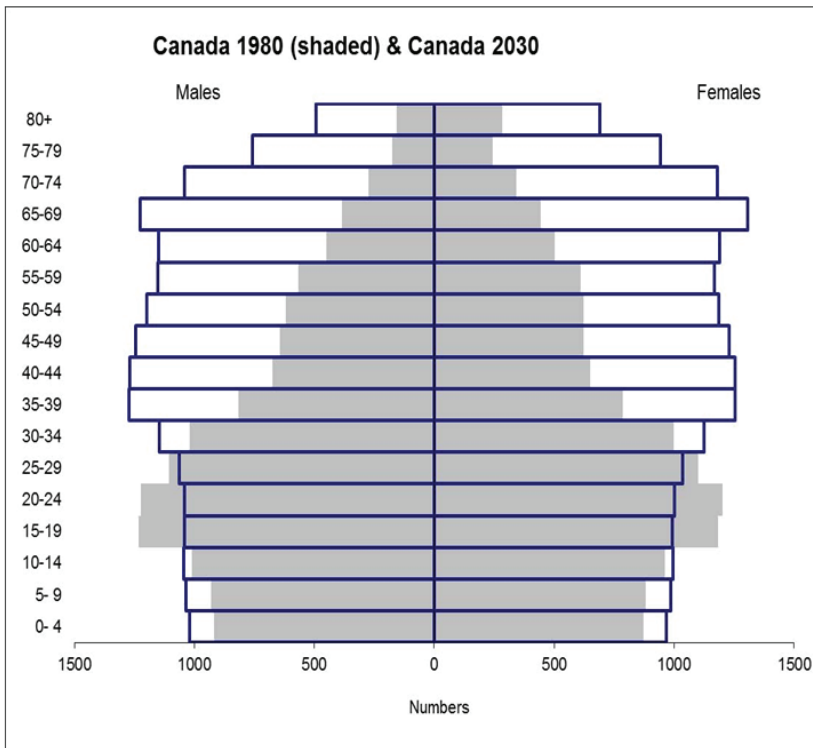


This lengthy and continued drop in TFR and following low levels makes a distinct fertility path for Canada. Where other English speaking countries experienced a decline leveling off around replacement, Canada's TFR dropped significantly more, dipping as low as 1.49 in 2000 and has been hovering around 1.65 since 2008. While other English speaking countries have generally had TFRs above 1.75 since the 1980s, the Canadian TFR was equal to or greater than 1.75 only twice during this period. Scandinavian and Northern European countries had similarly severe decreases in fertility reaching TFRs at or below 1.6, but they have experienced substantial increases since the mid-1980s and are now clustered with TFRs between 1.75 and 1.89. German speaking, Southern European, and Asian countries have continued or maintained their fertility decreases and currently have TFRs below 1.5.

This dramatic decrease in fertility and current low level has serious consequences for the Canadian population. Figure 2 shows population pyramids for 1980 (shaded) and projected for 2030 (lines). Clearly, these two populations have very different needs. In particular, a larger share of the population will need health services and other care associated with aging, and the educational needs typically associated with young populations will not be as necessary. Although the Old Age Dependency Ratio is still substantially lower than the Youth Dependency Ratio, they are expected to cross over as soon as 2016 (Denton,

Feaver, and Spenser 2000 as cited in Trovato 2011). The extent to which this shift in the make-up of the Canadian population is problematic depends to some extent on how well the government addresses the changing health care needs and potential strain on the public pension system (Trovato 2011).

[Figure 9-2] Population Pyramids for Canada



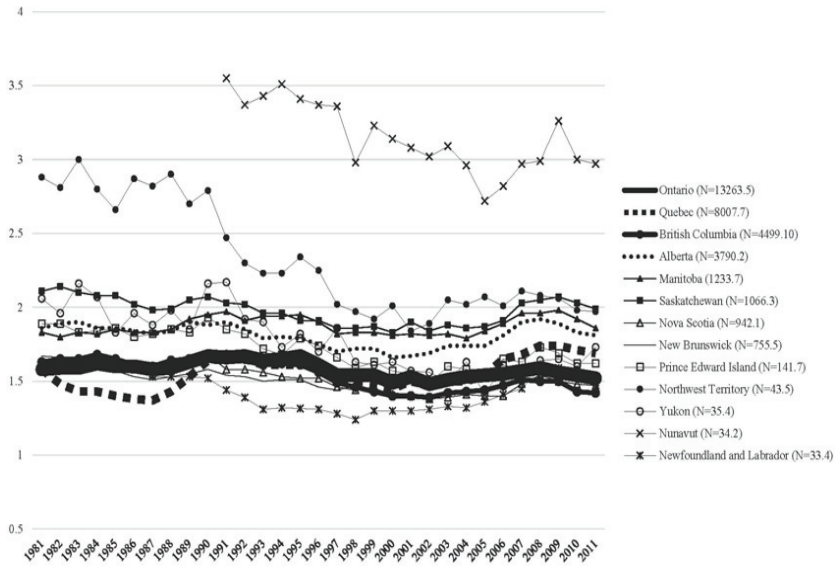
Population by Age Group, Estimates 1950-2000 and Medium Variant Projections 2005-2050

Data Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat 2001.

World Population Prospects: The 2000 Revision, Vol. II, The Sex and Age Distribution of Populations. New York: United Nations.

This trend discussion is missing a crucial component of the Canadian story, a component which may help us understand this unique path—provincial variation. Figure 3 shows the TFRs for all Canadian provinces and territories, and weights the width of each line by the proportion of the total Canadian population in that area in 2011. We see some provincial differences. What jumps out from this chart is that fertility in Nunavut and the Northwest Territories has been, and in the case of Nunavut continues to be, substantially higher than that in the other areas. This is due to the large proportion of Aboriginals living in these areas—85% and 50% respectively in the 2006 census. However, since these two areas house less than 0.3% of the total Canadian population these high fertility rates contribute little to the overall story.

[Figure 9-3] TFRs for Canadian Provinces 1981-2011

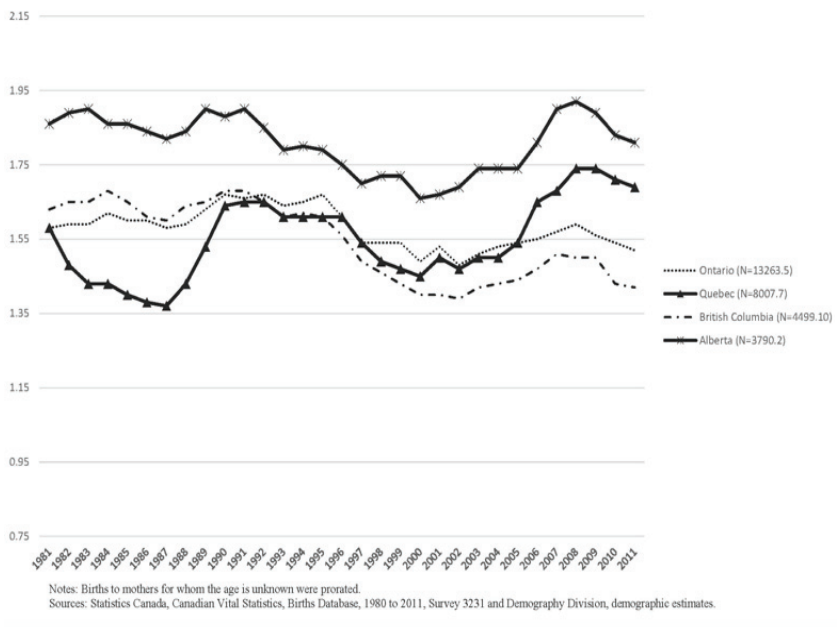


Notes: Lines are weighted by the proportion of Canadian population living in each area. Births to mothers for whom the age is unknown were prorated; Nunavut is included in Northwest Territories before 1991; Data by age of mother not available in Newfoundland and Labrador before 1991.
Sources: Statistics Canada, Canadian Vital Statistics, Births Database, 1980 to 2011, Survey 3231 and Demography Division, demographic estimates.

Since the four largest provinces of Ontario, Québec, British Columbia, and Alberta house 86% of the Canadian population we can focus on those areas. Figure 4 shows the TFRs for these provinces and we can now clearly see provincial variation. Fertility in Alberta has been the highest of these four provinces and consistently near replacement. In fact, the TFR for Alberta is similar to that in other English speaking countries like Australia and the UK. British Columbia has had lower fertility, having a TFR as low as 1.39 in 2002. The TFR in Ontario was much closer to that for Canada as a whole ranging between 1.67 in the late 1990s and 1.47 in 2002 and has been less varia-

ble over time than fertility in BC. Finally, we turn to Québec and see that the TFR was substantially lower than for the other provinces until the early 1990s—it reached a low of 1.37 in 1987. Throughout the 1990s it had a TFR similar to that in BC and Ontario, but around 2000, fertility in Québec started rising, reaching a high of 1.74 in 2008 and 2009.

[Figure 9-4] TFRs for Four Largest Canadian Provinces 1981-2011



3. Causes of provincial variations

Early fertility reductions, those following the baby boom till the 1980s, are generally thought to be due to similar changes across the provinces. Economic changes, increases in women's labor force participation, increasing educational attainment, and decreasing religiosity have all been identified as important factors throughout Canada.

Regarding the more recent and different, provincial fertility paths, the role of institutions, in particular gender equality and family policies, is a likely contender. In Canada there is considerable variation at the provincial level in terms of institutional structure, particularly comparing Québec to the rest of Canada. Although united with the other provinces under the constitution, Québec's history has long moved separately. Québec, a former French colony with stronger cultural ties to France than England, has a distinct identity and social structure from the rest of Canada. For example, while both English and French are official languages at the federal level, only French is the official language of Québec. Language is one of the many long held cultural differences between Québec and the ROC and is often seen as the corner stone of Québec culture. Additionally, Québec operates under civil law, like France, while the other provinces and federal law follow common law. We can see these differences in many demographic behaviors, not just fer-

tility rates. Marriage is far less common in Québec and cohabitation far more common (Le Bourdais and Marcil-Gratton 1996; Pollard and Wu 1998). These differences are generally viewed positively in Québec which has always been concerned with maintaining a separate identity. In light of this concern and because it saw an even larger decrease in fertility following the Baby Boom than the ROC, Québec has had more generous family policies generally electing to alter federal policies and implement its own benefits when possible. I discuss these specific policies below in more detail.

Family policies are not the only way Québec differs from the ROC. There is a long history of cultural and institutional differences. Religion is an example of one institution tightly connected to fertility with tremendous provincial variation (Laplante 2006; Wu and Baer 1996). In Québec, the vast majority (roughly 80 percent) of residents are Catholic whereas in the ROC only about 30 percent are Catholic and the majority is Protestant (Statistic Canada 2005). Furthermore, while the Protestant church was never particularly active in state affairs in the ROC, the Catholic Church played a major role in all areas of Québec life, most notably in education. As part of the Quiet Revolution this influence decreased, a new secular run school board was created, and the strong pro-natalist push of the Catholic church diminished. Current differences in the education systems are discussed below.

Since after the Quiet Revolution, Québécois have been considered to be more gender egalitarian than the ROC (Wu and Baer 1996). This is most readily seen by the higher rates of cohabitation, lower rates of marriage, and higher women's labor force participation rates (Le Bourdais and Marcil-Gratton 1996; Wu and Schimmele 2011). Québécois typically have less gendered divisions of household labor (Stalker and Ornstein 2013).

Alberta's higher fertility has been linked to economic and demographic considerations (Trovato 2010). The province contains a third of Canada's agricultural land and farm families tend to have higher fertility. Alberta has an oil-based economy with no provincial sales tax, low provincial income taxes, higher wages, and lower unemployment rates than the other provinces. Further, compared with other provinces, a larger proportion of Alberta's population are members of high fertility religious groups such as Mormons, Hutterites, and Mennonites, as well as a considerable presence of higher fertility Aboriginal/First Nations groups.

In the following sections I discuss the major social institutions identified to be relevant for fertility, paying particular attention to how those institutions vary between Québec and the ROC (Rindfuss and Brauner-Otto 2008). Note, this paper only reviews literature available in English. Additional research on Québec exists but is only available in French.

4. Cash transfers and tax benefits

Explicit child related policies designed to encourage child-bearing have been in place throughout Canada, and have generally been greater in Québec than in the ROC. Here I provide highlights of the federal and Québec programs. For a detailed discussion I recommend Duclos et al. 2001 and Ang 2014 where the information presented below was obtained. Canadian federal child related policy has included both a family allowance and tax deductions since 1945. The major reform most relevant to recent fertility trends occurred in 1988 when a non-refundable child tax credit replaced the previous deductions and the family allowances became susceptible to a “clawback” for higher income families. In 1993 the allowances and the non-refundable tax credit were replaced with a refundable, means tested tax credit called the Child Tax Benefit (families with 1 or 2 children would receive no benefit if their income was over \$66,721). These benefits were increased in 1998, 1999, and 2000. Here is an example of how benefits changed over time: in 1985 a two-parent, two-child family with an earned income of \$40,000 would have received \$911 (dollar amounts in 2001 Canadian dollars). This amount would have increased to \$1,378 in 1995; an increase of a factor of 1.5 or 51%. In 2006, the Universal Child Care Benefit was implemented and is currently in place. This is a \$100/month taxable payment for each child

under the age of 6.

Québec has had additional benefits. Family allowances were in place from at least the mid-1970s. In 1981, policy was changed to a non-taxable allowance for each child under age 18 and tax deduction for children over 15. In 1982, the amounts were indexed for inflation and an “availability allowance” for those not claiming child care expenses was implemented. In 1986 the allowances were reduced and policy was changed to a tax deduction for children under age 16. There were two major policy changes in 1998. First, a family tax reduction for families with children under age 18 and a decrease in the amount clawed back from the allowances were implemented. Second, the introduction of the Allowance for Newborn Children (ANC), was implemented in the spring of 1988 without advanced warning. These “Baby Bonuses” were a non-taxable benefit available to residents of Québec starting May 1, 1988. The size of the ANC benefit depended on parity and initially paid \$500 paid at the birth of the 1st and 2nd child and then \$3,000 for the 3rd or higher (paid in quarterly payments of \$500). From then on until 1992 benbefits for the 2nd and higher parity births were steadily increased so that by May 1992 families received \$500 for the 1st child, \$1,000 for the 2nd, and \$8,000 for a third child. This program ended suddenly in 1997 at which point the Integrated Child Allowance was implemented. This contained only income tested benefits and

no universal allowances, but it was announced at the same time that the expansions of child care subsidies and parental leave which were meant to take its place were announced (see discussions below). In 2005 the previous child tax policy was replaced with a universal refundable tax credit that varies by income and family structure.

There are additional tax credits available to families including a child fitness credit and a child arts credit. In almost all cases, such credits are available at the federal level AND a similar credit is available at the provincial level for Québec only.

In sum, families in Québec will have received more per-child benefits than families in the ROC. As mentioned above, benefits at the federal level increased by a factor of 1.5 from 1985 to 1995, but they did so by a factor of 5 over the same period in Québec. Dates of major policy changes likely to have influenced fertility are 1988 when the Baby Bonuses were first introduced, 1990 and 1991 when benefits for 3rd and higher parity births were expanded, and 1997 when the Baby Bonuses ended.

the number of births in Québec did not increase while the Baby Bonus program was in effect, leading to its cancellation. However, as we would expect, thorough demographic investigations have revealed that this simple calculation does not reveal the true effect of the policy on fertility. Several empirical investigations employed a difference-in-difference approach

to identify whether the fertility changes in Québec were different from those in the ROC. Using vital statistics Duclos et al. (2001) found a positive effect of the Baby Bonuses on fertility. The effect was largest for 3rd parity births and decreased with mother's age. Milligan (2005) used census data and also found a significant positive effect of the policy on fertility—fertility increased by an average of 12% and by as much as 25% depending on family composition and income. Furthermore, he found that the effect of the policy was greater for wealthier families. Most recently, Ang (2014) found that the Baby Bonuses only slightly, 1.72%, increased birth rates. This contradictory finding may be because the Ang study used the census master files as opposed to the public microdata files that Milligan used, Ang accounted for other financial policies available at the same time, or because Ang's choice of dependent variable (birth rate) is different from that used by the other authors (the TFR)

Unfortunately, none of these studies were able to determine whether the effect of the policy was on the quantum or the tempo of childbearing. Although evidence does seem to imply that there was at least some quantum effect, particularly for 3rd parity births (Duclos et al. 2001). Additional research using cohort fertility is necessary to answer this question.

5. Childcare

Another area of family policy where Québec has invested more than the ROC is childcare. In 1997 Québec replaced the “Baby Bonus” with an income-tested child allowance and there was a major overhaul of the child care system. In the first year of the program (September 1997) subsidized daycare spaces for four year olds were priced at \$5/day/child. Each year the subsidized child care coverage was expanded to all children not yet five years old by September 30, 2000. The number of available reduced-fee spots expanded from 74,058 in 1997 to over 200,000 spots in 2010. Reduced fee child care is now available to over half of all eligible children aged 0-5 (Lefebvre, Merrigan, and Roy-Desrosiers 2011) 2000, coverage was expanded to all children not yet five years old by September 30, 2000. The number of available reduced-fee spots expanded from 74,058 in 1997 to over 200,000 spots in 2010. Reduced fee child care is now available to over half of all eligible children aged 0-5 (Lefebvre, Merrigan, and Roy-Desrosiers 2011).

In 2004 the price of day care increased to its current rate of \$7/day/child; to put this in perspective the minimum wage in Québec is \$10.15/hour. As one would expect, a greater proportion of pre-school aged children in Québec are in regulated, center-based childcare than in the ROC—72% vs 42% in 2004-05. Also, the percent in Québec increased far more over

this period than it did in the ROC (rates in 1994-95 were 24% and 21%, respectively) (Cleveland et al. 2008).

The policy was not implemented explicitly with the idea of increasing fertility, although theoretically the link is likely. Accessible childcare should make childrearing easier, lowering the costs of having children, and therefore increasing fertility. Increasing women's labor force participation and improving child educational outcomes were listed as key objectives. The empirical evaluations of the policy have followed these intentions focusing largely on work and school readiness. For example, existing research has examined the link between the day care expansion and women's labor participation and to gender equality. Using difference-in-difference approaches comparing Québec with the ROC this research reveals that mothers' employment was much higher in Québec. Estimates reveal an additional 70,000 women were employed (Fortin, Godbout, and St-Cerny 2012) and that labor force participation rates of mothers with children aged 1-5 increased by 8% and are now markedly higher in Québec than the rest of Canada (Beaujot, Du, and Ravanera 2013; Lefebvre and Merrigan 2008). These additional labor force contributions resulted in a higher GDP and a positive tax-transfer balance for the government—meaning that costs of fertility for the economy are less than they would have been otherwise. With respect to aging populations, this extra labor force participation can be seen as a

way to mitigate some of economic stress due to growing old-age dependency ratios. In terms of gender equality, the child care expansion has been linked to a decrease in households with a traditional division of household labor (Stalker and Ornstein 2013). Improvements in work-family balance and decreases in gendered divisions of household labor are linked to increased fertility in many existing theoretical frameworks. An additional note on the child care expansion concerns the extremely high take up rates. At least partly because the policy is universal families across income levels are eager to obtain a subsidized spot. This has led to questions of equity and quality and some argue for reforms to the policy. No such reforms appear to have any traction.

6. Parental leave

Family leave also varies between Québec and the rest of Canada, both in terms of who is covered and the level of payment (Tremblay 2009). Paid maternity leave was first provided at the federal level in 1971 under Unemployment Insurance (UI). The benefit was fairly modest—10 weeks at 55%—and women were eligible if they had worked at least 300 hours in the previous year. This policy was essentially unchanged until 1996, although many collective agreements formed over this time included benefits more generous than the federal policy.

In 1996 maternity leave became part of the Employment Insurance Act (EI). Under this plan women could receive 15 weeks of pregnancy benefits and 10 weeks of parental leave at 55% replacement rate up to \$39,000 (Ang 2014). To be eligible for benefits women had to have worked 700 hours in the previous year; self-employed women were not included, and there was a 2 week waiting period during which no benefits are paid. In 2000 parental leave was expanded from 10 to 35 weeks and the eligibility requirement was reduced to 600 hours.

Since January 2006 Québec has offered an alternative, more generous plan, the Québec Parental Insurance Program (QPIP). Table 1 provides the details of how QPIP differs from the federal policy. You can see that it pays at a substantially higher rate, covers more earnings, has no waiting period, has reserved time for fathers, and far more women are eligible as it covers the self-employed and has a low earnings threshold. Additionally, parents in Québec have some choice in how they use the benefits in that they can elect the special plan which pays at a higher rate but for a shorter time period. Parents that elect the Basic QPIP could receive almost twice as much as they would if they lived in a different province.

It is worth noting that discussions of extended parental leave began in 1997 when the previous system of Baby Bonuses ended. Extended parental leave was meant to complement the extended child care efforts as a way to continue to support

working families in Québec. However, agreement on the exact nature of the parental leave policy was only reached in 2001 and only implemented in 2006 (Ang 2014).

<Table 9-1> Parental Leave in Canada and Quebec as of 2006

	Canada (EI)		Quebec (QPIP)	
			Basic plan	Special plan
Eligibility	had 600 hours paid work in past year		earned at least \$2000 in past year	earned at least \$2000 in past year
Birth mothers	15 weeks maternity leave		18 weeks maternity leave	15 weeks maternity leave
	55% of average earnings up to \$39,000 in 2006	70% of average earnings up to \$59,000 in 2006	75% of average earnings up to \$59,000 in 2006	
	2 week waiting period	no waiting period	no waiting period	
Birth fathers	Not covered		5 weeks paternity leave	3 weeks paternity leave
All parents (birth and adoptive)	35 weeks parental leave		32 (37) weeks parental leave for birth (adoptive) parents	25 (29) weeks parental leave for birth (adoptive) parents
	taken by one or shared by both	taken by one or shared by both	taken by one or shared by both	
	same as maternity but no 2nd waiting period	same as maternity except for benefit rate: 7 (12) weeks at 70%, 25 weeks at 55% for birth (adoptive) parents	benefit rate is 75% for all weeks of parental leave	
Maximum total benefit	\$21,750 in 2008 dollars		\$40,430.29 in 2008 dollars	\$37,521.63 in 2008 dollars

Sources: Ang 2014; Marshall 2010; Tremblay 2007

A final note about parental leave policy in Canada, many employers elect to provide Supplemental Unemployment Benefits (SUB), commonly known as top-ups, to their employees on leave (Marshall 2010). These benefits are regulated at the federal level but are completely voluntary. Most plans limit benefits to employees of certain classes, with a minimum prior work history, and who are eligible for federal benefits. Typically employees sign an agreement stating they will return to that employer for a specified time or will repay the top-up. In 2008, 20% of women receiving paid leave also received an employer top-up. Importantly for this paper, mothers in Québec are 2.7 times more likely to report having an employer top-up than those in the ROC (Marshall 2010). Some of this may be because women employed in the public sector and those covered by collective agreements are more likely to receive top-ups (Marshall 2010). To my knowledge, there has only been one empirical attempt (published in English) to assess whether parental leave policies have influenced fertility in Canada. Ang (2014) used census data in a difference-in-difference approach and showed that QPIP increased the birth rate by 23.5%. The vast majority, 77%, of these additional births were first or second births.

As one might expect, Québec fathers are much more likely to take advantage of parental leave than fathers in the ROC. Take up rates were 56% vs 11% in 2006 respectively (Tremblay 2009).

Other research done outside of Canada suggests that higher use of paternity leave is related to more gender equity, another factor that is related to fertility.

7. Education

There are several features of an education system that may influence fertility. Overall, the general education system in Canada is similar to the US in that it is fairly open, a feature that should encourage childbearing. When children start school is important because it relates to women's labor force participation, child care, and opportunity costs. In Alberta, Newfoundland, Nova Scotia (since the late 1990s), Ontario, and Québec, the maximum age for school entry is 6. It is 7 in the ROC. But, there is provincial variation in kindergarten availability. In Québec, kindergarten for five year olds was expanded to full-day in 1997 at the same time that the major child care advances described above were made. When children finish mandatory schooling may also be important given that women generally avoid combining the mother-student roles. Attendance is compulsory to age 18 in Manitoba, New Brunswick, and Ontario, and age 16 in the other provinces. The dropout rate for Canada as a whole was 8.1 in 2009-2012 (Statistics Canada 2012) and range between 5.6 percent in BC to and 10.6 percent in Québec. But there have been tremendous changes in high school dropouts by province over the past 25 years. For Canada

as a whole the dropout rate dropped from 16.6 percent in 1991 to 8.0 percent in 2012. The largest reductions in high school dropouts occurred in Newfoundland and Labrador, Prince Edward Island, and Nova Scotia where there was an almost 60 percent reduction. High school dropouts decreased by about 40 percent in Québec over this time.

There are additional provincial differences in terms of the timing of the completion of secondary school. Until 1984, Ontario had 5 years of secondary education whereas the other provinces (except for Québec which is discussed below) had 4 years. After 1984 students could graduate from secondary school after 4 years and the fifth year (OAR or Ontario Academic Credit, previously called grade 13) was for those planning on obtaining post-secondary education. However, in reality, roughly 85% of all students completed the 5th year of secondary schooling (Casas and Meaghan 1996) and it wasn't until 2003 that the 5th year was completely abolished. This means that Ontario students were generally a year older upon secondary school completion than students in other provinces (except Québec). To the extent that women delay childbearing until they have completed schooling and that delayed fertility generally translates into foregone fertility, the extra year of secondary school may explain some of the very low fertility seen in Ontario. It is worth noting that since mid-1980s, that is when the 5th year of secondary schooling was phasing out, the

TFR in Ontario has slowly become higher than the TFR in British Columbia, the other major province with a similar fertility history.

In Québec, students graduate high school after grade 11. They can then attend college or CEGEP (collège d'enseignement général et professionnel) for 2 years if they are planning on continuing to university and 3 years if they want a terminal degree (these are typically more trade oriented degrees). This means that students in Québec are generally a year younger upon secondary school completion than students in other provinces.

8. Housing

Housing is clearly associated with fertility in Canada, although the causal direction is unclear. Families with children are more likely to own their residence than to rent (Rajulton 2011). And, couples with children are most likely to be living in single-detached homes and are the most common group living in such homes (Rajulton 2011). However, no research has investigated the degree to which housing availability and ownership may lead to delayed or foregone fertility. The housing market is similar to that in the US where mortgages are common, down payments are moderate (typically 20%), the duration of mortgage foreclosure is fairly short, and the judicial sys-

tem is highly efficient (Chiuri and Jappelli 2003). While urban residents may feel that there is a shortage of desirable housing, the suburbs continue to grow (Turcotte 2011) and there is no real short of space for new constructions. Although there have been zoning changes which make construction of new rental units difficult (Hulchanski 2006). Regarding any change over time, the down payment percent has decreased since the 1970s so if anything we would have expected fertility to increase later (Chiuri and Jappelli 2003).

There have been specific housing programs designed to improve access to and the stock of affordable housing. Federal efforts are overseen by the Canadian Mortgage and Housing Corporation (CMHC) and as of 1996 consist largely of supports for home ownership. For example, since 1992 the federal government has been insuring mortgages so that home buyers could purchase with only a 5 percent down payment and families can borrow up to \$40,000 from their retirement plans for a down payment (Hulchanski 2006). Additionally each province has its own housing authority and, as of 1996, is solely responsible for social (or public) housing. Provinces receive transfers from the federal government and then implement them as they choose. Only 5 percent of Canadian households live in social housing, but there are waiting lists and provinces have felt cuts in the federal transfers over time (Hulchanski 2006). As an example of how housing policy varies at the provincial level, only Québec,

B.C., Manitoba, and Saskatchewan have housing allowances (Finkle et al 2006). Another difference, one that highlights the unique place of Québec, concerns how rental contracts are enforced. Recall, Québec operates under civil law whereas the ROC under common law. As part of this, landlords are not allowed to require a security deposit in Québec—a practice common in the ROC and housing laws tend to be more supportive of tenants than landlords in Québec. However, those laws have not changed in recent years so it is unlikely that those differences could explain the growing provincial variation in fertility trends. Québec did have an explicit family housing policy, the Home Ownership Program, for a few years in the late 1980s (Ang 2014). This was implemented in 1988 as a 3 year program where the government would back loans of 10% of the mortgage loan and Québec would assume the interest charges of 7 years for families with dependent children on modestly priced homes (\$75,000 maximum in 1988). This program was expanded to include families with only 1 child and increased the value of eligible homes to \$100,000 (\$110,000) in 1989 (1990).

Unfortunately, I know of no explicit evaluations of these housing programs and their connection to fertility or even other family behaviors.

9. Net costs

One major barrier countries face when deciding which, if any, policies to implement is cost. Several studies have at-

tempted to assess the net costs of specific programs and policies and many account for upfront costs to implement the program and any increases in tax revenue, productivity, etc. related to mother's labor force participation. For instance, Ang (2014) estimated that each additional birth resulting from the Baby Bonuses had a net cost to the government of \$223,626 in 2008 Canadian dollars but each additional birth resulting from the QPIP cost only \$15,828 2008 Canadian dollars. These estimates also include tax revenue gains and losses that result from women's changing employment patterns. Clearly, in this situation much of the cost of the parental leave policy is in fact born by employees and employers. In fact, Ang demonstrates that the net revenue from the payroll tax designed to fund this benefit raised \$47,856 per child. Taking a different approach, Milligan (2005) estimated that a "\$1000 increase in the benefits received in the first year [of the Baby Bonuses] increased the probability of having a child by 16.9% (page 551)." Fortin et al. (2012) estimate that Québec's child care subsidies yield a 1.7% or \$5.1 billion increase in Québec's GDP in 2008. Others have estimated that Québec recovers "38% of the gross cost of the subsidy through an increase in personal income taxes and contributions to social insurance and a decrease in child tax measures (Fortin et al. 2012, page 14).

10. Conclusion

Fertility in Canada has been low for over 30 years—lower than what we have seen in other English speaking countries and unlike Scandinavian countries, has not appeared to rebound. To understand this trend we need to look within Canada at the provincial level. Alberta has consistently had higher fertility at a level similar to that seen in English speaking countries; provinces with high proportions of aboriginals have even higher fertility with TFRs well above replacement; BC and Ontario have had the lowest fertility levels since the mid-1990s. And, the TFR in all provinces has been generally decreasing since the 1960s. The exception to this is Québec. Initially, fertility in Québec was the lowest of all provinces, but in the 1980s it began increasing, narrowing the gap between it and the other provinces. Fertility in Québec has been higher than BC since the mid-1990s and higher than Ontario since 2005. The variation we see across provinces points to several macro-level or institutional factors as important fertility influences. Perhaps most obvious is that family policies vary across province and since the late 1980s Québec has had the most generous ones. What little empirical evidence exists, does support the idea that at least some of these policies are responsible for Québec's unique and rising fertility path. Other institutional components may not map readily onto changes or variations in fertility. But,

when you look at the entire institutional context of Québec versus the ROC, accounting for the end of the 13th year of secondary school in Ontario, the beginning of universally available, full-day kindergarten to 5 year olds, heavily subsidized day care, and more renter protections in Québec, these features in combination they reveal a pattern of greater family supports and a more pro-natalist environment. As a result, some speculate that Québec will experience a fertility rebound similar to that in Scandinavia, only delayed a decade or so (Roy and Bernier 2007).

Although there are long-term consequences to having an aging population, such as what will result from these fertility rates, there has not been much public discussion or policy effort focused on increasing fertility. Québec's institutional changes were motivated more by fears of a shrinking presence and lost identity than over the burden of an aging population. At this point it appears Canada is calmly facing the prospects of an aging population.

References

- Ang, X.L. 2014. "The Effects of Cash Transfer Fertility Incentives and Parental Leave Benefits on Fertility and Labor Supply: Evidence from Two Natural Experiments." *Journal of Family and Economic Issues Online* First.
- Beaujot, R. and J. Wang. 2010. "Low Fertility in Canada: The Nordic Model in Québec and the U.S. Model in Alberta." *Canadian Studies in Population* 37(3-4):411-443.
- Beaujot, R., C.J. Du, and Z. Ravanera. 2013. "Family policies in Québec and the rest of Canada: Implications for fertility, child-care, women's paid work, and child development indicators." *Canadian Public Policy* 39(2):221-239.
- Casas, F.R. and D.E. Meaghan. 1996. "A Study of Repeated Courses among Secondary Students in Ontario." *The Journal of Educational Research* 90(2):116-127.
- Chiuri, M.C. and T. Jappelli. 2003. "Financial market imperfections and home ownership: A comparative study." *European Economic Review* 47(5):857-875.
- Duclos, E., P. Lefebvre, and P. Merrigan. 2001. "A "Natural Experiment" on the Economics of Storks: Evidence on the Impact of Differential Family Policy on Fertility Rates in Canada." *Centre De Recherche Sur l'Emploi Et Les Fluctuations Économiques Cahier De recherche/Center for Research on Economic Fluctuations and Employment Work Paper* 136:1-46.
- Finkle, M., C. Climaco, J. Khadduri, and M. Steele. 2006. "Housing Allowance Options for Canada." *Canada Mortgage and Housing Corporation (CMHC-SCHL) Research Report Housing Affordability*

and Finance Series :1-147.

- Fortin, P., L. Godbout, and S. St-Cerny. 2012. "Impact of Québec's Universal Low-Fee Childcare Program on Female Labour Force Participation, Domestic Income, and Government Budgets." *Chaire De Recherche En Fiscalité Et En Finances Publiques Working Paper 02:1-29*.
- Hulchanski, J.D. 2006. "What Factors Shape Canadian Housing Policy? The intergovernmental role in Canada's housing system." Pp. 221-250 in *Canada: The State of the Federation 2004, Municipal-Federal-Provincial Relations*, edited by R. Young and C. Leuprecht. Kingston, ON: The Institute of Intergovernmental Relations, Queen's University.
- Laplante, B. 2006. "The rise of cohabitation in Québec: Power of religion and power over religion." *Canadian Journal of Sociology* 31(1):1-24.
- Le Bourdais, C. and N. Marci-Gratton. 1996. "Family transformations across the Canadian/American border: When the laggard becomes the leader." *Journal of Comparative Family Studies* 27(3):415-436+iii.
- Lefebvre, P., P. Merrigan, and F. Roy-Desrosiers. 2011. "Québec's Childcare Universal Low Fees Policy 10 Years After: Effects, Costs and Benefits." *Centre Interuniversitaire Sur Le Risque, Les Politiques Économiques Et l'Emploi (CIRPÉE) Working Paper Series 11-01*.
- Lefebvre, P. and P. Merrigan. 2008. "Child-care policy and the labor supply of mothers with young children: A natural experiment from Canada." *Journal of Labor Economics* 26(3):519-548.
- Marshall, K. 2010. "Employer top-ups." *Perspectives on Labour and*

- Income 11(2):5-12.
- Milligan, Kevin. 2005. "Subsidizing the stork: New evidence on tax incentives and fertility." *Review of Economics and Statistics* 87(3):539-555.
- Pollard, M.S. and Z. Wu. 1998. "Divergence of Marriage Patterns in Québec and Elsewhere in Canada." *Population and Development Review* 24(2):329-356.
- Rajulton, F. 2011. "Households and Housing in Canada." Pp. 60-82 in *The Changing Canadian Population*, edited by B. Edmonston and E. Fong. Montréal; Ithaca: McGill-Queen's University Press.
- Rindfuss, R.R. and S.R. Brauner-Otto. 2008. "Institutions and the transition to adulthood: Implications for fertility tempo in low-fertility settings." *Vienna Yearbook of Population Research* (1):57-87.
- Roy, L. and J. Bernier. 2007. "Family Policy, Social Trends and Fertility in Québec: Experimenting with the Nordic Model?" *Ministere De La Famille, Des Aines Et De La Condition Feminine*.
- Stalker, G. and M. Ornstein. 2013. "Québec, daycare, and the household strategies of couples with young children." *Canadian Public Policy* 39(2):241-262.
- _____. 2013. "Québec, daycare, and the household strategies of couples with young children." *Canadian Public Policy* 39(2):241-262.
- Statistics Canada. 2005. *Census of Population 2005*. Ottawa: Statistics Canada, 2012.
- Statistics Canada. 2012. *Labour Force Survey 2012*. Ottawa: Statistics Canada, 2012.
- Tremblay, D. 2009. "More Time For Daddy: Québec leads the way with

its new parental leave policy.” *Our Schools, our Selves* 18(3):223-228.

Trovato, F. 2011. “Canada’s Age and Sex Composition.” Pp. 41-59 in *The Changing Canadian Population*, edited by B. Edmonston and E. Fong. Montréal: Ithaca: McGill-Queen’s University Press.

Turcotte, M. 2011. “Life in Metropolitan Areas. The city/suburb contrast: How can we measure it?” *Canadian Social Trends—Statistics Canada* 11-008:2-19.

Wu, Z. and C.M. Schimmele. 2011. “Changing Canadian Families.” Pp. 235-252 in , edited by B. Edmonston and E. Fong. Montréal: Ithaca: McGill-Queen’s University Press.

Wu, Z. and D.E. Baer. 1996. “Attitudes Toward Family and Gender Roles: A Comparison of English and French Canadian Women.” *Journal of Comparative Family Studies* 27(3): X2-452+iii-iv.



Chapter 10

The influence of family policies on fertility in France: lessons from the past and prospects for the future

Olivier Thévenon,

National Institute for Demographic Studies



10 The influence of family policies on fertility in France: lessons from the past and prospects for the future

1. The specific characteristics of French policies to support families and fertility

1.1 Encouraging births: a historic objective of family policy

Natalism is both a demographic doctrine and a set of policies implemented by a government to promote population growth by stimulating the birth rate. For many decades, it was one of the main motivations for the family policies implemented in France (Rosental, 2003). Fears of "depopulation" after the mass loss of life during the Franco-Prussian War of 1870 then during the two world wars have been supplanted by concerns about population ageing. The assumption is that a country that encourages large families will be in a better position to cope with population ageing, the implications of which Robert Debré and Alfred Sauvy set out as early as 1946 in their book *Des Français pour la France*. Still today, the advocates of natalism cite the importance of family policies for France's pay-as-you-go pension system, which is easier to balance when fertility is high. Against this natalist background, over time France has developed a relatively generous system of financial support for fami-

lies in general and "large" families – with three or more children – in particular. Direct financial support, such as tax breaks through the "family quotient"⁵⁰), increases substantially with a third child. While the aim of this support is obviously to encourage families to have at least three children, it is also, and now primarily, to reduce inequality in living standards between large families, small families and childless households (Thévenon, 2011a).

By reducing the cost of raising a child, the financial support given to families is intended not only to enable households to have the number of children they want, but also to provide them with sufficient financial resources to raise their children in decent conditions. Yet, the financial support paid to families in France is not more generous for low-income households, unlike in countries where financial support for families comes under welfare payments with a redistributive function. On the contrary, the French system is more generous to households at the top of the income pyramid, adding the payments via family allowance and tax breaks through the family quotient. This feature of the French system has been partly "corrected" by the lower income threshold for tax breaks introduced in 2013.

50) The quotient familial ("family quotient") mechanism used to calculate income tax is original to France. Its basic purpose is to compensate for the cost of children by taking the presence of a partner and children into account in the calculation of income tax. The family quotient operates as follows: total household income is divided by the number of "adult equivalent units" in the household, and the relevant tax rate from the progressive scale is applied to this income per unit. The resulting tax rate is then applied to household income.

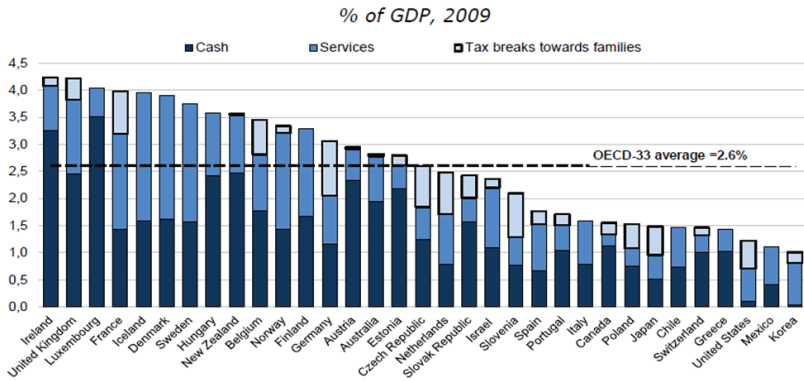
1.2 Public support for families in France is relatively generous and diversified

France is one of the countries where total public spending on families with children is the highest as a percentage of national wealth. Another feature of French family policies is the breakdown of spending, starting with the relatively share in the form of tax breaks, including tax relief for childcare costs (Graph 1). The high percentage of spending on childcare services is a feature that France shares with the Nordic countries – unlike, for example Germany, where investment in childcare facilities is small compared with financial payments to families. In international comparisons, France is similar to Nordic countries like Finland in the level of spending on childcare services, and shares with other continental European countries a high level of spending on financial support (Thévenon, 2011b). In France, the share of spending on childcare services allocated to pre-school education is strongly dominant, whereas spending on early childhood facilities (for children aged under 3) is much lower than in the Nordic countries (Graph 1, Panel 2B). Spending on pre-school education thus accounts for 0.68% of GDP in France, compared with an OECD average of 0.38%, and more than 0.7% in Iceland and Denmark. By contrast, only 0.44% of French GDP is invested in childcare facilities for children aged under 3, which, although higher than the OECD

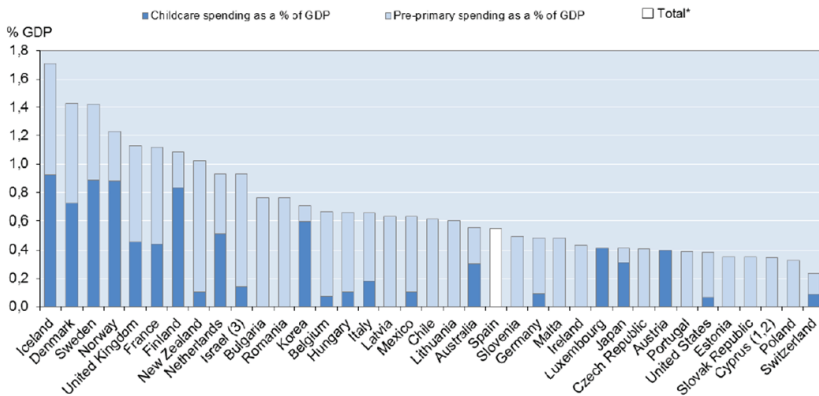
average of 0.3%, is significantly lower than the 0.9% spent in Denmark. Some of these differences can be attributed to greater coverage of these services within the population of children aged under 3, and the relatively high average weekly time during which these children are cared for.

[Figure 10-1] Public spending on families

Panel A: Breakdown of spending: financial benefits, childcare services and tax breaks



Panel B: Breakdown of spending on services for children aged under 6



Notes: Public support accounted here only concerns public support that is exclusively for families (e.g. child payments and allowances, parental leave benefits and childcare support). Spending recorded in other social policy areas as health and housing also assists families, but not exclusively, and is not included here.

Source: OECD Family Database

1.3 The work–family balance: a "new" policy lever to support fertility

Other support mechanisms developed to serve family policies are of crucial importance in the decision to have children and the timing of births, because they help parents, particularly mothers, to balance work and family. They mitigate the opportunity cost of career interruptions and the specific career profiles of mothers as a result of childbirth and childrearing. Entitlements to parental leave, which guarantee a job to return to and are accompanied by replacement income and access to childcare services, can also be an incentive to have a child⁵¹).

Inset 1: Parental leave in France and how it is paid

In France, any parent who is an employee and who meets the eligibility conditions is entitled to take parental leave for up to

51) Although not its primary objective, the Prestation d'accueil du jeune enfant (PAJE) - replacement income for parents who stop working or work part-time in order to care for a child - and childcare services for young children have an influence on fertility, by facilitating parents' return to work after the birth of a child.

three years after the birth of a child, after which he/she can return to the same or a similar position with the same employer. This individual leave entitlement can be combined with a stay-at-home allowance paid to the household if one of the parents stops working or works part-time in order to care for a young child. The eligibility conditions for the stay-at-home allowance have changed considerably over time.

The Allocation Parentale d'Éducation, a stay-at-home allowance to care for a young child, was first introduced in 1985 for parents who chose to stop working or to reduce the number of hours they worked when their third child was born. The allowance was paid for up to 36 months. Eligibility for the allowance was extended to a second child in 1994. The overwhelming majority of beneficiaries of parental leave and the stay-at-home allowance are women.

Parents of only one child were not eligible for the stay-at-home allowance, as a result of a compromise between policy objectives (Thévenon, 2006). Policymakers clearly sought to encourage childcare by parents alongside childcare outside the family. The stay-at-home allowance was also motivated by employment policy considerations, which saw it as a way to reduce the pressure on the labour market from the increasing supply of female workers. At the same time, policymakers decided to exclude the first child, aside from budget considerations, so as not to hamper women's careers, since women

usually enter the workforce around the same time as the birth of their first child. A reform in 2004, called the *Prestation d'Accueil du Jeune Enfant (PAJE)* ("young child package"), extends the stay-at-home allowance to the first child, but it is paid for a shorter period and is subject to specific eligibility criteria. The *Complément de Libre Choix d'Activité (CLCA)* is thus a stay-at-home supplement, open to parents of one or more children, paid for a maximum period of six months to a parent who chooses to stop working or to work less.

In addition, parents of a third child can opt for the *Complément Optionnel de Libre Choix d'Activité (COLCA)* ("optional stay-at-home supplement"). This is a higher benefit (€824 per month in 2014, compared with €572 for the CLCA) but it is paid for only 12 months. This benefit has enjoyed only limited success, however, since there were only 2,600 recipients of the optional stay-at-home supplement at the full rate in 2008, which is only 1.7% of the recipients of the CLCA. Parents of very young children in France are thus entitled to take a relatively long period of parental leave compared with other countries - almost 36 months for parents of at least two children - and during that period to receive a relatively low fixed stay-at-home allowance, amounting to slightly less than half of the minimum wage. The French leave entitlement thus differs from systems where leave is granted for a much shorter period but compensation is a percentage of the last salary (up to a

ceiling). Relative to the number of births, spending on maternity and parental leave is still relatively low in France compared with the Nordic countries and some eastern European countries.

In total, there is a wide variety of support in France for different types of daytime childcare: in 2012, 63% of children under⁵²⁾ were minded mainly by their parents and 4% by their grandparents; 18% were minded by a childminder, 10% in a childcare centre (*crèche*), 2% by at-home care, and 3% by other arrangements (including public pre-school). However, the type of daytime childcare chosen by parents is heavily dependent on their labour-market status and on household income level. As income rises, the share of daytime care by parents decreases and the share of formal childcare increases (especially childminder and at-home care). Thus, 91% of children from families in the lowest income quintile are mainly minded by a parent, compared with only 31% of children from families in the highest income quintile.

Daytime care by mothers is encouraged by the stay-at-home allowance, of which 98% of beneficiaries are female. Three-quarters of these mothers have an income below or equal to the sec-

52) Other evaluations have highlighted the impact of extending the stay-at-home allowance to the second child in 1994. Piketty (2005) has estimated that the reform encouraged an additional 110,000 women to stop working. Over the long run, it seems that the allowance has held back the workforce participation rate of mothers of two children, versus an increase in the workforce participation rate of mothers of one child and of three children (Thévenon, 2009).

ond quartile. Furthermore, mothers who claim the stay-at-home allowance at the full rate (conditional on full-time leave from paid employment) are often motivated by low income, poor working conditions or difficulties in managing the work-family balance because of atypical working hours. In 2008, an estimated 40% of (the female) recipients of the full-rate allowance would have preferred to continue working. But they were unable to because their working conditions were too restrictive and they did not manage to find satisfactory childcare (HCF, 2011). The stay-at-home supplement is clearly more of an incentive for low-income households because the amount of the benefit is closer to the wage they are giving up, and is similar to the childcare allowance for other types of childcare (Bechtel et al. 2005; HCF, 2011). Moreover, the women who opted for parental leave (or to stop working) more frequently held a job with atypical working hours (64%) than those who returned to work (45%). Furthermore, most of the recipients of the stay-at-home allowance (70%) received it for the maximum period (Legendre et al. 2011). Furthermore, two-thirds of beneficiaries of the stay-at-home allowance return to work within a few months after a long period of leave, usually to the same job at the same hours. But more than one-fifth (22%) of women who had been working full-time before the birth of their child choose to return to work part-time. Of former beneficiaries of the stay-at-home allowance who are not working a few months

after the allowance finishes, a majority (69%) say this is due to difficulty finding a job, but for one-fifth it is because they are receiving another similar allowance because they have had another child.³ Furthermore, women who interrupt their careers to take parental leave suffer a drop in salary of roughly 10% for every year of leave after they return to work, and this penalty persists over time (Lequien, 2012). Dual-earner families are more likely to make use of childcare centres: in 2007, 64% of children aged under 3 and whose parents were working were enrolled at a childcare centre, versus 8% of children at least one of whose parents was not working. For children whose parents are both working full-time, childminders are the main type of daytime childcare (37% of children). This contrasts with 18% of these children minded at childcare centres, 4% by at-home childcare and 5% by other arrangements. Still, 27% are minded mainly by a parent during the day, and 9% by grandparents. Here again, working conditions and household income are key determinants of childcare arrangements, as longer working hours increase the probability of choosing a childcare centre as the main daytime childcare solution. By contrast, grandparents and/or other family members are the main childcare providers at night or during weekends for parents with non-standard work patterns.

Differences in the "cost" for parents of the different childcare options explain the clear stratification of childcare arrange-

ments by families' socio-economic status: public childcare centres are clearly the most affordable option for households where both parents work full-time and earn the minimum wage: this type of childcare costs less than 5% of household income, versus 10.6% for a childminder (HCF, 2013). By contrast, for households whose income is equivalent to six times the minimum wage, the cost of childcare centres is almost the same as that of a childminder. For this reason, the "choice" of type of childcare is a decision that remains highly stratified by income level. Only 8% of children from the least affluent families were minded outside the family, compared with 68% of children from the most affluent families⁵³).

The diversification of support for different types of early childhood care theoretically enables parents to choose the solution that best suits their preferences. The positive aspects of this variety are the complementarity of financial support mechanisms enabling parents to choose between different types of childcare, and the investment in the expansion of childcare services. Furthermore, the continuity of support, which is uninterrupted during the first years of a child's life, is an advantage that enables many parents to adapt their childcare solutions to needs that change over time and with the age of the child. However, while childcare services outside the home are theo-

53) Additionally, 13% of children from households in the lowest income quintile are minded during the day by a childminder, compared with only 3% of children from households in the first and second quintiles.

retically accessible from a very early age (three months), actual access to different types of childcare remains highly stratified by household income and occupational constraints.

Despite the principle of freedom of choice underpinning the diversification of support, the French system is highly polarised, with support for childcare by parents and support for childcare outside the home benefiting the two ends of the social spectrum differentially. For the most affluent households, access to - heavily subsidised - childcare outside the home enables both parents to continue working; by contrast, the only choice for women from low-income households is to stop working for a relatively long period, with unanticipated consequences on their ability to return to work and their future careers. In other words, the polarisation of the system of childcare support reinforces rather than reduces pre-existing inequalities in workforce participation. Those inequalities are also gender-biased: the overwhelming majority (96%) of the beneficiaries of the stay-at-home allowance in 2008 were women, whereas most men stick to the 11 days of paternity leave to which they are entitled.

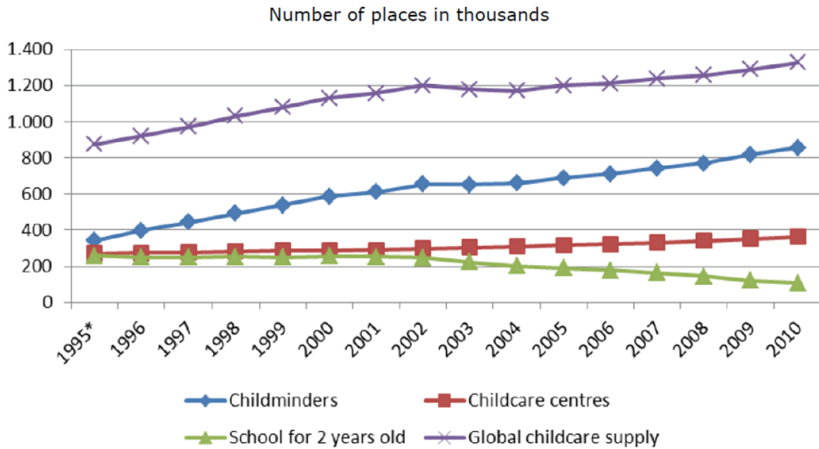
Moreover, the increase in the number of births since the early 2000s and the decline in public pre-school places available for children aged under 3⁵⁴) are putting additional pressure on

54) Free public pre-schooling is provided for children aged 3 to 6 in France. There are also a limited number of places in pre-schools available to 2-year-old children.

the supply of childcare. Early childhood services are expanding, but, while they compensate for the decline in pre-school places for children under 3, they are not "absorbing" the additional births occurring every year. The recent trend is thus an increase in individual at-home childcare by childminders (a 6% average annual increase between 1995 and 2010) (Graph 2). Childcare at childcare centres has also increased, but at a much slower pace. By contrast, the number of places in pre-schools for two-year-old children has contracted by 6% on average. The overall result is a net increase in the ratio of available places to children (from 41.3 per 100 children under three in 1995 to 57.2 in 2010).

In other words, it appears as though the reduction in pre-school places for children under 3 has been counter-balanced by an expansion of individual and collective childcare solutions. However, the expansion of services is not keeping pace with births. If provision of early childhood services is not increased, the number of beneficiaries of the stay-at-home allowance is likely to go up, by default more than by real choice, and the inequality of access to the different types of childcare by income and labour-market status will be reinforced.

[Figure 10-2] Childcare supply in France (1995–2010)



Pre-school for 2-year-olds
Total childcare supply

Note: at-home childcare at home is not included

Source: Vanovermeir(2012) based on DREES, CNAF, Ministry of Education, and IRCEM data

1.4. The impact of the crisis on family policies: between mitigation and austerity

The financial crisis of 2008 led to adjustments in family policies that varied in nature and degree in different countries. As for social spending in general, these adjustments took place in two phases. Many countries initially increased family and housing benefits or introduced tax measures to cushion the impact of the crisis on household income. Subsequently, family benefits were scaled back as part of fiscal consolidation implemented in many countries. Some governments (Greece,

Hungary, the Netherlands and the United Kingdom) froze family benefits or restricted eligibility, but few countries reduced the amounts allocated to early childhood services. The net impact of the crisis was therefore an increase in the percentage of national wealth allocated to family support over the 2007-2010 period. Adjustments to family policies can also be divided into two phases in France. Support measures to mitigate the impact of the crisis initially prevailed, in the form of tax breaks for low-income families, as well as a €150 bonus for low-income families with school-age children. Then, in the first quarter of 2012, the indexation of family benefits was frozen, marking a change in direction towards reining in expenditure. But the main development in the second phase was the reform of 2013, which, although aimed at fixing the family support deficit by 2017, simultaneously reaffirmed certain priorities.

The lowering of the ceiling for tax breaks through the family quotient and the reduction in the amount of support paid under the young child package, combined with a simultaneous increase in family supplements paid to low-income families, signalled a decision to refocus support on low-income families and to reaffirm the role of family support as a social policy instrument. These measures introduced in 2013 were rounded out with a reform of family allowance (paid to all families in France from the birth of a second child), which is now on a decreasing scale for households with monthly income above

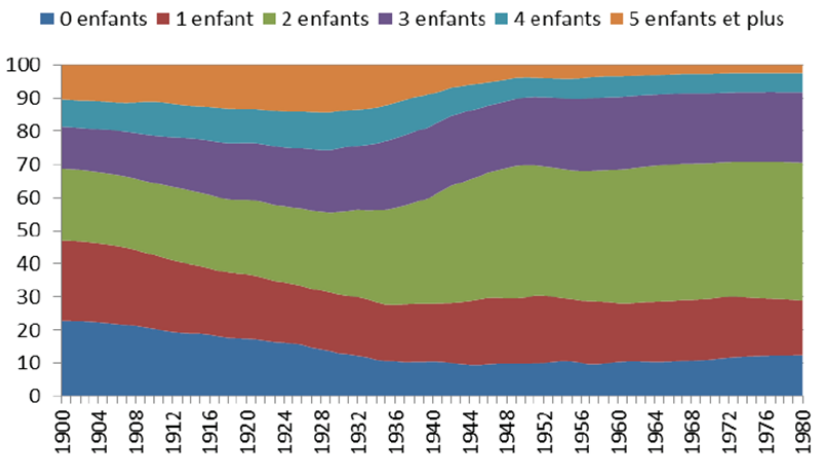
€6,000. Payment of the stay-at-home allowance during parental leave is now limited to 24 months, instead of 36 months previously, for mothers of at least two children, although it can be extended if the father takes leave. The primary aim of these measures is to cut spending, although some hope that more fathers will be encouraged to take leave. Most significantly, the reduction in financial support is occurring simultaneously with a major programme to expand early childhood services, with a target of 275,000 new places by 2018. A multi-year poverty reduction and social inclusion plan, also introduced in 2013, reinforces these measures by seeking to improve access to childcare places for disadvantaged families by requiring childcare centres to reserve 10% of places for children from families living below the poverty line.

1.5. Relatively high stable fertility

Against the backdrop of these family support mechanisms, the long-term trend in French fertility has been a fairly moderate decline in the average number of children per woman in the cohorts born since the Second World War. That overall trend nevertheless masks significant changes in terms of family size: the number of women who have three or more children during their reproductive lives has fallen significantly in favour of families with two children (Graph 3). However, the percent-

age of women with three or more children remains significantly higher in France (and in other countries where fertility is relatively high) than in countries with low fertility. The percentage of women who remain childless throughout their reproductive lives remains comparatively low in France. Overall, parenthood and families of two or more children are more common in France than in other European countries (Breton and Prioux, 2009; Thévenon, 2011a).

[Figure 10-3] Percentage of women by total number of children



0 children, 1 child, 2 children, 3 children, 4 children, 5 or more children

Source: Toulemon et al., 2008.

The trends in France can be attributed to several factors, the links between which are extremely difficult to unravel. Children, as a value and a purpose, are essential to a great

many households. The ideal number of children people want is high in France compared with other European countries. The potency of that ideal can also be seen in the absence of a visible impact of periods of economic recession on fertility rates in France (2). While the household confidence index closely tracks the economic cycle, no significant change can be seen in the behaviour of parents-to-be. Fertility has remained at a high level in France, despite pessimism and lack of confidence in the future and in institutions, repeatedly indicated by surveys. Lastly, the long and continuous existence of family support and child protection policies in France expresses an enduring collective attachment to family values.

2. What is the impact of policies on fertility?

2.1. Evaluating the impact of policies on fertility: a difficult exercise

How then can we know what the precise contribution of policies to fertility is? Evaluating the impact of family support is no easy task; moreover, the available literature on the case of France encourages us to qualify our conclusions because the impacts measured are small. The difficulty of the exercise can be attributed to several factors that make the evaluation approach partial or inoperative. Partial, because evaluations often consider only the impact of a specific measure, without

taking into account possible interactions with other measures with which it forms – or doesn't form – a consistent whole, or the effects of context, which can alter its influence. Many of the available studies focus on a single measure, which reduces their ability to be generalised⁵⁵). Other studies consider a group of measures together, for instance aggregating all financial support paid to some households. In that case, it can be hard to identify the impact of individual measures. Comparative studies can identify the variations in context that might alter the impact of certain measures on fertility.

Another factor that complicates the evaluation of the impact of family policies on fertility is that the decision to have a child is usually planned. It is a decision that unfolds within a long timeframe, during which the impact of policies can take time to appear. Having a child first implies the formation of a more or less firm fertility intention, which various factors may cause to be realised or not. Those factors include the fulfilment of preliminary conditions to having a child, such as being in a stable relationship and having a stable job, some of which may be negotiated over fairly long timeframes within couples. One im-

55) These studies are said to lack external validity, which can be due to the fact that the experience evaluated concerned a highly specific sub-population or with precise characteristics. This might be, for instance, a family policy measure (a financial support mechanism) that targets a specific population group. The measure would not necessarily have a proportional impact if it were extended to the whole population. Similarly, there is no guarantee that the policy result would increase in the proportions measured by the experiment if the financial value of the mechanism were increased.

portant parameter in the realisation of fertility intentions seems to be the perceived control of parents-to-be in relation to having a child (Ajzen and Klobas, 2013). The realisation of a fertility intention involves the conception phase, which is itself a process that can take time, prior to the birth of a child, which is the observable datum for the demographer. Policies – and more broadly the institutional context – influence the various parameters of the decision at various stages in the process between the intention to have a child and its realisation. However, the impact of legislation is not always directly perceptible in the period reviewed by evaluations. The risk lies in identifying only the windfall effects, which are the first to appear, and minimising the real changes in behaviour that show up in the longer term.

A policy can take a long time to have an impact, often only after households have had sufficient time to test its reality, durability and stability. Those three parameters are particularly important when it comes to fertility, which is a long-term, irreversible decision. The stability of family policies is therefore an essential parameter for household confidence. Another difficulty is that some measures will have only an indirect impact on fertility, i.e. after or simultaneous with their impact on labour-market behaviour. The period covered by the policy evaluation is therefore a parameter that conditions the size of the impact measured.

A final difficulty lies in defining which measures to include in an evaluation. Paradoxically, the measures introduced with the explicit objective of supporting fertility have had a fairly limited impact, whereas measures designed to support the work-family balance or to raise living standards appear to have a more tangible impact on fertility, even though this was not their primary aim.

Those standard precautions voiced, it is nonetheless possible to review the few studies of the impact of family policies on fertility in France. These evaluate different aspects of family policies. We shall begin with those that deal with the combined impact of financial incentives or the impact of a specific measure, such as the family quotient for the third child or the stay-at-home allowance⁵⁶).

2.2. Financial support has an impact but it is limited

By estimating the impact on fertility of financial transfers to families unrelated to employment, Olivia Ekert (1986) was the first to measure the cumulative impact of family allowance,

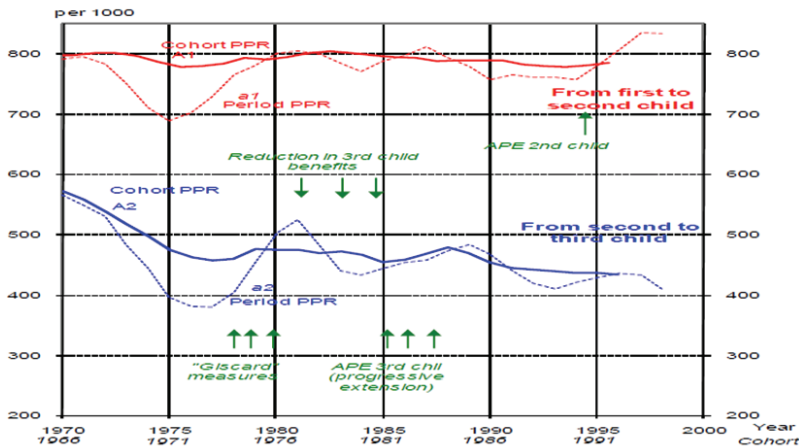
56) Introduced in 1985, the Allocation parentale d'éducation (APE) is a fixed allowance paid to one of the parents who has chosen to stop working in order to care for a young child. Extended in 1994 to parents of two children, it was superseded in 2003 by the Complément de libre choix d'activité (CLCA), a stay-at-home supplement within the Prestation d'accueil du jeune enfant (PAJE) young child package, and extended, subject to certain employment criteria, to parents of only one child.

family supplement and housing benefit in the 1970s. While their impact was not negligible, it was limited, pushing up the fertility rate by around 0.2 children per woman. The author believes that full compensation of the cost of raising a child through benefits would have increased the fertility rate by only 0.3 children per woman. The impact of the tax and social welfare system on labour-market and fertility behaviour can be estimated by a micro-simulation model (Laroque and Salanié, 2004, 2005, 2008). This takes account of the interactions between mothers' labour-market and fertility behaviour, and of the possible interactions between different welfare benefits and tax measures. However, the results are highly dependent on the assumptions used to model the behaviour, evidenced by the large differences, and even contradictions, in the results obtained by these authors in the three successive versions of their work. The influence of financial transfers on fertility seems to be relatively small. A reduction in the cost of raising a child by almost one-quarter through the welfare and tax system would increase the fertility rate by only 5%. Furthermore, the impact of financial incentives varies with birth order, with higher-order births apparently more sensitive to financial incentives.

The reform of the family quotient in 1981 made the third child equivalent to a full unit, instead of a half-unit previously. That is an interesting case for assessing the impact of taxation on third-order fertility (Landais, 2003). The impact is positive

but very small. A 1% change in tax relief for a third child seems to have boosted the proportion of households with three children by no more than 0.05%. Crucially, the reform was slow to take effect, taking five to ten years. The impact was more pronounced on higher-income households, where the incentive is also higher. Breton and Prioux (2005) take a longer-term perspective by including the reforms that affected support for a third child since 1970. Very similar cyclical variations from 1970 to 2000 are observed in the probabilities of having a second or a third child. They are fairly congruent with the policy measures aimed at encouraging families to have a third child (Graph 4). This suggests that these measures may have not only influenced the decision to have a third child but also the decision to have a second child, with a view to subsequently having a third child or not. The signal of these voluntarist policies may also influence a population indirectly concerned.

[Figure 10-4] Policy support for a second and third child and associated fertility trends



Source: Breton and Prioux (2005)

2.3. The impact of support for the work-family balance

However, the propensity to have a third child seems much more sensitive to the measures targeting households with three children introduced in the late 1970s and 1980s. These measures had a visible impact on the timing of births, and also seem to have contributed to the stability or even to a slight increase in the probability of having a third child until the late 1980s. Reserved for parents of three or more children when it was introduced in 1985, the stay-at-home allowance seems to have made a particularly strong contribution, even if it is hard to quantify its precise impact. Conversely, the probability of having a third child decreased significantly when the measures

were no longer restricted to the third child. When the stay-at-home allowance was extended to the second child in 1994, the probability of having a second child increased. The specific impact of the stay-at-home allowance on second-order fertility is also analysed by Thomas Piketty (2005), who takes into account the fact that the measure can influence the employment status of women even before fertility, because that is its primary aim. To identify the real causal impact, it is important to be able to estimate what the total number of second- and third-order births would have been without the reform, in order to distinguish the causal impact from the wind-fall effects of births that would have occurred even without the reform. T. Piketty finds that the reform of the stay-at-home allowance accounted for no more than 20%-30% of the total increase in births observed between 1994 and 2001: at most 10% of third-order births and 10%-20% of second-order births. The impact on fertility is preceded by an impact on women's workforce participation. The same reform appears to have directly caused 100,000-150,000 mothers of two children to interrupt their careers (out of a total of 220,000 withdrawals from the workforce). According to Moschion (2010), a high percentage of women thus decided to withdraw from the workforce for the birth of a second child, whereas before the reform, this withdrawal would have occurred more frequently for the birth of a third child. However, the reform seems mainly to have induced

temporary withdrawals from the workforce, without altering the propensity to return to work of women with two children, since their workforce participation (including full-time) has increased at a comparable rate to that of childless women and women with one child over the twelve years following the reform – albeit with a lag corresponding to the years immediately following the introduction of the reform (Thévenon, 2009).

These evaluations show that the policies that provide financial support for families or that enable a short interruption of work after the birth of a child have a positive impact on fertility. The identified impacts are nevertheless small and insufficient to explain why France now has the highest fertility rate in Europe, combined with a relatively high female workforce participation rate. Comparatively to women in many other European countries, more French women manage to work full-time with a child regardless of the age of the child, and more work part-time for a relatively period, the frequency of which increases with a second child and even more with a third child (Thévenon, 2009).

2.4. The work–family balance: a key issue for fertility

To understand how family policies contribute to the high fertility rate in France, it is useful to compare fertility trends between countries over several decades and attempt to measure

the impact of policies on trend differentials. Several studies document the impact of policies on fertility differentials in Europe and other economically advanced countries (see in particular, Gauthier and Hatzius, 1997; Kalwij, 2010; Harknett, and the literature review by Thévenon and Gauthier, 2011). One of the most recent is the study by Luci-Greulich and Thévenon (2013), which estimates that impact by taking into account the three standard components of family policies:

- leave for the birth of a child, considering differences in the length of leave and the average amount per child paid for leave or of a baby bonus;
- other forms of financial support, also measured as an average amount per child aged under 18;
- the provision of early childhood services, characterised by the coverage rate and the average expenditure per child aged under 3.

Their results suggest that all forms of support have a positive impact on fertility, all other things being equal, and that a combination of these types of support is likely to boost fertility. However, the impact of the length of leave and associated payments appears, on average, particularly small compared with the impact of coverage of childcare services for children aged under 3. Furthermore, the impact of the different measures is not uniform across countries and varies according to the overall characteristics of family policies. Thus, financial support has a comparatively bigger impact in the Nordic countries,

where childcare coverage is relatively high and leave comparatively generous. Conversely, the impact of childcare coverage is bigger in continental Europe where the coverage rate is lower than in the Nordic countries and where financial support is massive. Overall, these differences suggest that a certain balance between the different measures is likely to have the biggest impact on fertility.

In the light of that result, the success of French family policies indeed seems to lie in the diversified system of support that provides parents with supplementary resources in the form of money, time and services needed to raise children. All of these forms of support and the variety of types of childcare available make the decision to have a child less dependent on the parents', particularly the mother's, employment status. Measuring the respective contribution of each type of support is probably impossible, especially as the total combined impact of all these measures is certainly greater than the sum of the impact of each individual measure, owing to their overall and historic consistency and the confidence that generates.

3. Challenges for French family policies in an ageing society

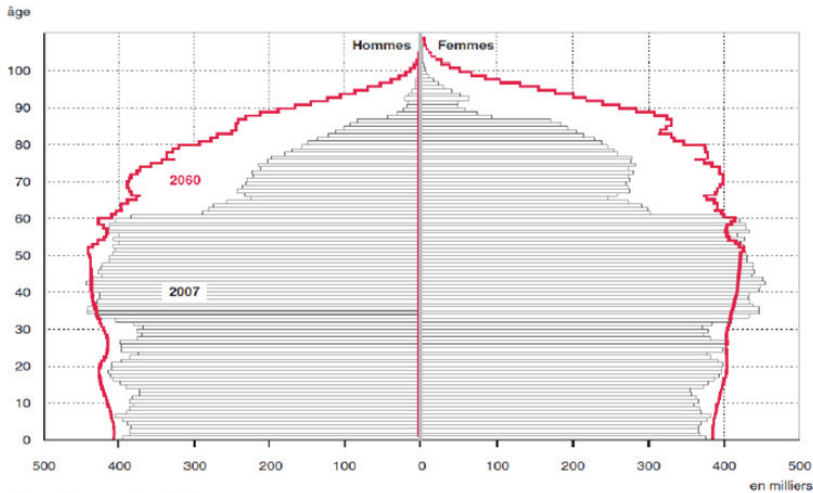
Population ageing will necessitate, in the short or medium term, a major adaptation of family policies, particularly measures enabling households to manage the work-family balance.

Ageing does not affect men and women in the same way. For that reason, a more equal division between men and women of care for children and dependent parents seems necessary, given the needs that will be generated by population ageing. Increasing the supply of childcare services and supporting families stand out as priorities, given the positive impact on child development usually observed and a related reduction in social inequality, on the retention of mothers in the workforce and ultimately on fertility.

3.1. Population ageing will increase demand for measures to support the work-family balance

In France as in other economically advanced countries, population ageing is manifested in a sharp increase in the percentage of elderly people. Population projections suggest that, by 2060, the number of men and women aged 80 and over will have increased sharply, and the number of dependent elderly people practically doubled from 1.15 million people in 2010 to 2.3 million in 2060. Given this "top-down" ageing, changes in fertility will have only a limited impact on the age structure of the population (Graph 5).

[Figure 10-5] Ageing population in France



Scope: metropolitan France

Source: INSEE, population estimates for 2007 and 2007-2060 population projections to 2060

Men and women will not be affected by ageing in the same way. As is already the case now, women will represent a larger percentage of the elderly population than men, despite faster gains in male life expectancy. Furthermore, more women than now will live with a spouse, whereas fewer men than now will live with a spouse. The percentage of women with a surviving spouse will nevertheless be much lower than that of men (Charpin, 2011). For both sexes, the presence of at least one surviving child will be much more likely, and these children will be the main potential family carers. However, the evolution of health at very old ages and the impact of the increase in separations remain unknowns that create uncertainty about the

conditions surrounding ageing. In any case, population ageing in France implies an increase in the number of dependent elderly people, whose need for care will be added to children's need for care. Given the increasing age at motherhood, the cohorts born since the 1960s are highly likely to have to care simultaneously for a very young child and a very elderly parent (Mason and Zagheni, 2014). However, that "double burden" should become less frequent for future cohorts, as the timing of children stabilises, fertility rates fall and life expectancy increases. On the contrary, future cohorts will more frequently become grandparents at an age when they will also have a dependent spouse, and this probability will increase with each subsequent cohort.

Therefore, the main issue of ageing in terms of family social policies will be the ability to improve the dependency ratio, particularly by extending the workforce participation of seniors (both men and women), and to finance public support for the most vulnerable segments of the population. This also involves facilitating training of the human capital needed to expand and fund our system of social protection. Three directions in family policies contribute to these objectives: support for the work-family balance (in a context where the need to balance work and family is occurring at a later age with a double burden of having to care simultaneously for children and parents); gender equality in care; and investment in children's education and

development.

These policy directions seem desirable for several economic and ethical reasons: favouring retention in employment and avoiding losses of human capital; enabling young adults not to have to choose between a career and having children; encouraging gender equality; and reducing social inequality in learning and development, which appear early in childhood and are reflected in inequality in access to childcare outside the family according to household income mentioned earlier. These policy directions also seem desirable in terms of fertility, given the result established by Harknett et al. (2013), suggesting that inter-generational obligations (using grandparents to mind children and caring for dependent parents) have a negative impact on fertility.

3.2. Parental leave will have to be adapted to encourage gender equality

The relevance of the current mechanisms of support in terms of leave is worth reconsidering in the light of the policy directions evoked above. Leave entitlements enable parents who work to suspend their employment contracts in order to care for dependents, whether children or parents. Caring for young children or for dependent elderly parents imply different time constraints. The time that parents need to care for new babies

is by nature usually predictable, with a horizon of a few years. For that reason, parental leave enables parents to leave their jobs or reduce their working hours for a period of up to several years (for parents of at least two children, and six months for the first child). As noted earlier, because of the low amount of the stay-at-home allowance during that period, women account for almost all (96%) the recipients (with the impact discussed in the previous section).

In this context, the international literature on the impact of leave suggests that mothers' and fathers' propensity to take parental leave is sensitive to two parameters: leave entitlements for exclusive use by each parent, and the level of compensation (OECD, 2011). Most countries that encourage fathers to take days off for paternity leave offer compensation proportional to salary (up to a ceiling). Since men very often earn more than their wives, their leave entails a smaller loss of income when the compensation is proportional to their salary than when it is a much lower fixed amount. From that perspective, the current format of parental leave in France, combining a relatively long period with a fixed benefit equal to about half of the minimum wage, and no paternal and maternal quotas, does little to encourage fathers to take leave and is thus unfavourable to gender equality. In 2014 the French government decided to reduce to 24 months (from 36 months) the maximum period during which a parent can receive the stay-at-home allowance, with

the other 12 months paid only if the other parent takes leave. Even though one of the stated aims of this measure is to encourage fathers to use it, it is unlikely to have a major impact on fathers' behaviour without a change in the level of compensation. On the contrary, the measure is more likely to reduce the total number of months the benefit will be paid, which will cut spending, which is the main objective of the reform⁵⁷).

Employees who have to care for a dependent elderly parent are in a different situation and usually have occasional and unpredictable time needs. To meet those needs, employees with at least two years' service in their company can ask their employer for family-carer leave, which is granted for three months renewable, up to one year of interruption, if their parent is severely incapacitated⁵⁸). This leave does not come with any financial compensation. Moreover, it cannot be taken for periods of less than three months or part-time and is only granted after a notice period of two months (which may be reduced to two weeks in a case of emergency). This type of leave

57) Moreover, we can fear that, unless fathers are highly motivated, those most inclined to stop working to take long leave will most likely be employees on low incomes, whose spouse also earns a relatively low income. An increase in the risk of poverty can therefore be expected in families that make that choice.

58) Employees with a parent whose life is in danger can also apply for family leave. This type of leave, of three months renewable once, can be taken part-time, and is associated with daily compensation that can be received for up to 21 days.

is only very partially meets the needs of employees who have to care for a parent unpredictably or occasionally. Family-carer leave could be made more flexible by allowing it to be split into shorter periods or taken part-time (HCF, 2011). Eligibility is also very restrictive, since only employees whose parent who has a severe incapacity that is recognised by social insurance are entitled to apply.

3.3. Services to support young children their families

The expansion of care and education services for young children is also a particularly relevant policy objective in context of population ageing. Its positive impact on several aspects justifies a particular emphasis on supporting that expansion.

The first benefit identified both in France and in the international literature is the positive impact of collective childcare before age 3 on children's cognitive, emotional and social development, as well as on performance when they enter the primary school system and even beyond¹⁰ (for France, see Caillé, 2003; Dumas and Lefranc, 2012; Goux and Maurin, 2010; and the literature review by Ruhm and Waldfogel, 2011). Moreover, these benefits are clearly identified and higher for children from disadvantaged families, which justifies the expansion of early childhood services from a perspective of equity as well as efficacy. Eventually, we hope to provide children from the ear-

liest age with the resources they need to achieve at school and in the labour market. We stand to reap collective benefits, in addition to individual gains, if policies aimed at early childhood lead to a lower school dropout rate, better results and better workforce integration in the long term. Expanding access to early childhood services also has a positive impact on women's employment and their retention in the workforce after the birth of children, which is another strong motivation for countries to support it. Human capital and productivity gains can therefore be expected, which are also a response to the need to increase the number of workers to counterbalance the increase in the number of non-workers brought about by the extension of life expectancy. Lastly, the positive impact, mentioned earlier, that increasing coverage of care for children aged under 3 seems to have on fertility is a third lever for mitigating population ageing.

As discussed above, France is one of the countries that devotes the highest percentage of national wealth to expanding childcare - 1.8% of GDP allocated to all services for children aged under 6, compared with a European average of 0.95%. Yet, the estimated shortfall in childcare places for children under 3 relative to demand could be 400,000 (roughly half of all annual births). The French government has therefore launched a programme to expand services with the target of net creation of 275,000 places (100,000 in childcare centres, 100,000 with

childminders; and 75,000 places in pre-schools for 2-year-olds).

Moreover, various factors have prompted an in-depth discussion of a unified strategy for children and adolescents. Some of these factors have prompted a review of the structural capacity of the French system to respond to "new" forms of inequality affecting children: the increase in the dropout rate and educational inequality, reflected in part in PISA surveys; the impact of the economic crisis on families' standard of living, with almost 440,000 children falling below the poverty line since 2008 (Fanjul, 2014); some parents' difficulties with parenting, which encourages strengthening support for parents (Jacquey-Vazquez et al., 2013).

This discussion aims to establish a consistent framework for action by the different actors that provide services for children and their families around a common core underpinned by the concept of "complete child development". This concept reflects the need to take into account the possible interactions between children's cognitive, emotional and social development. It also seeks to encourage actors that provide services for children and their families to better coordinate their actions in space (by considering the needs of children and parents together in terms of health, social welfare and education) and in time (by monitoring the actions targeting different segments of the population more effectively over time). Policymakers appear to be seeking a real paradigm shift in action for young children, by re-

viewing the content of the services provided, their complementarity and the boundaries sometimes created between families and institutions, with a view to adapting support to the different paces of children, target groups and the needs of families.

4. Conclusion

The objectives of French family policies have become more diverse over time. They are no longer aimed exclusively at increasing fertility and improving living standards for families, but now seek to support the work-family balance. The range of mechanisms that can influence fertility has thus broadened, although it is not always possible – or even useful – to determine the respective impact of each measure. Most of the studies identified find that the various measures that make up family policy have a positive but small impact on fertility. Financial support, parental leave and childcare services play complementary roles; childcare has become crucial to the balance between child-rearing and the workforce participation of both parents.

In this regard, France is one of the countries with the most diverse ranges of support. This system is the result of a historical process characterised by high stability and a strong consensus on the need to maintain it. The confidence it gives households that they will benefit from continuous support from the birth of a child until entry into the school system and be-

yond which is adapted to their needs in terms of time, income and services, creates a favourable environment for the decision to have children.

However, the economic crisis of 2008 triggered a change in family policies by accentuating the redistributive nature of financial support mechanisms (via a reduction in support for affluent households and a slight increase in support targeting poor households) and by favouring the expansion in early childhood services. At the same time, the crisis has pushed many families into poverty and made it harder for some households to attain a standard of living favourable to children's care and education. In addition, population ageing is creating new needs in terms of the work-family balance. In this context, an issue of vital importance in the years ahead will be to increase the number of places available in childcare facilities and to improve the quality of their content in order to respond to the diversification of families' profiles and needs. Furthermore, population ageing makes it even more necessary for care of children and dependent parents to be more equally shared between men and women, which a reform of leave policy can encourage. These adaptations seem essential for maintaining French households confidence in and attachment to family policy, one of whose virtues is that it does not force them to choose between pursuing a career, starting a family, and fulfilling their duty of care to their parents.

References

- Ajzen I. and Klobas J., 2013, "Fertility intentions: An approach based on the theory of planned behavior", *Demographic Research*, vol. 29, July-December, art. 8, p. 203-232.
- Algan Y., Beasley E., Vitaro F. and Richard E. Tremblay (2013), "The Long-Term Impact of Social Skills Training at School Entry: A randomized controlled trial", Working paper.
- Breton D. and Prioux F., 2005, "Deux ou trois enfants ? Influence de la politique familiale et de quelques facteurs sociodémographiques", *INED, Population*, vol. 60, No. 4, p. 489-522.
- Breton D. and Prioux F., 2009, "The one-child family: France in the European context", *Demographic research*, vol. 20, art. 27, 9 June, pp. 657-692.
- Caillé J.-P. (2003), "Faut-il développer la scolarisation à deux ans ?", *Éducation et formations*, No. 66, pp.7-11.
- Charpin J.M. (2011), *Perspectives démographiques et financières de la dépendance*, Rapport pour le Ministère de la Cohésion Sociale.
- Dumas Ch., Lefranc A., (2012), "Early schooling and later outcomes: Evidence from pre-school extension in France", in Ermisch, J., M. Jäntti, and T. M. Smeeding (eds.) *From Parents to Children: The Intergenerational Transmission*, New York: Russell Sage Foundation.
- Ekert O., 1986, "Effets et limites des aides financière aux familles: une expérience et un modèle", *Population*, vol. 41, No. 2, pp. 327-348.
- Gauthier, A., & Hatzius, J. (1997). "Family benefits and fertility: An econometric analysis". *Population Studies*, 51(3), 295-306.

- Goux D., Maurin E. (2010), "Public School Availability for Two-year Olds and Mothers' Labour Supply", *Labour economics*, vol. 17, 951-962, 2010.
- Harknett K., Billari F., Meladia C. (2014), "Do Family Support Environments Influence Fertility? Evidence from 20 European Countries", *European Journal of Population*, 30.1: 1-33.
- Haut Conseil de la Famille (2013), "Point sur l'évolution de l'Accueil des enfants des enfants de moins de trois ans", Note, <http://www.hcf-famille.fr/>.
- Haut Conseil de la Famille (2011a), "Architecture des aides aux familles : quelles évolutions pour les 15 prochaines années ?", Memo, 28 April 2011.
- Havnes T., Mogstad M., "No Child Left Behind: Universal Child Care and Children's Long-Run Outcomes", *American Economic Journal: Economic Policy*, 3(2): 97-129.
- Jacquey-Vazquez B., Raymond M., Sitruk P., 2013, Evaluation de la politique de soutien à la parentalité, Inspection Générale des Affaires Sociales, La documentation française.
- Kalwij, A. (2010). "The impact of family policy expenditures on fertility in Western Europe." *Demography*, 47(2), 503-519.
- Landais C., 2003, "Le quotient familial a-t-il stimulé la natalité française ?", *Économie publique*, n° 13, p. 3-31.
- Laroque G. and Salanié B., 2008, Does fertility respond to financial incentives?, IZA DP 3575D.
- Legendre E., Vanovermeir S. (2011), « Situations professionnelles à l'entrée et à la sortie du complément de libre choix d'activité (CLCA) », *Etudes et Résultats*, 750, DREES.
- Lequien L. (2012), The impact of parental leave duration on later

- wages, *Annals of Economics and Statistics*, 107-108, pp.267-285.
- Luci-Greulich A. and Thévenon O., 2013, "The impact of family policies on fertility trends in developed countries", *European Journal of Population*, vol. 29, No. 4, pp. 387-416.
- Mason C., Zagheni E. (2014), "The Sandwich Generation: Demographic Determinants of Global Trends", *European Population Conference*, Budapest.
- Moschion J., 2010, "Reconciling Work and Family Life: the Effect of the French Paid Parental Leave", *Annales d'économie et de statistiques*, No. 99-100, p. 217-246.
- Fanjul, G. (2014), *Children of the Recession: The impact of the economic crisis on child well-being in rich countries*, UNICEF Report.
- OECD (2011), *Doing Better for Families*, OECD Publishing, Paris.
- Piketty T., 2005, "L'impact de l'allocation parentale d'éducation sur l'activité féminine et la fécondité en France, 1982-2002", in Lefèvre C. (ed.), *Histoires de familles, histoires familiales*, Les Cahiers de l'Ined, No. 156, p. 79-109.
- Rosental P.-A., 2003, *L'intelligence démographique : Sciences et politiques des populations en France (1930-1960)*, Paris, Odile Jacob.
- Ruhm, Christopher J. and Waldfogel, Jane, 2011. "Long-Term Effects of Early Childhood Care and Education," *IZA Discussion Papers* 6149, Institute for the Study of Labor (IZA).
- Thévenon O. 2011a. Does fertility respond to work and family-life reconciliation policies in France? in Noriyuki Takayama and Martin Werding (eds.) *Fertility and Public Policy: How To Reverse the Trend of Declining Birth Rates*, Cambridge MA and

London UK: MIT-Press, chapter 10.

- Thévenon, O. (2011b). "Family policies in OECD countries: A comparative analysis." *Population and Development Review*, 37(1), 57-87.
- Thévenon O. (2011c), "Pourquoi réformer l'accueil de la petite enfance en France? Comparaison avec les autres pays de l'OCDE", *Revue d'Economie Politique*, 121(5), pp. 667-712.
- Thévenon, O., and Gauthier, A. (2011). "Family policies in developed countries: A fertility booster with side-effects" *Community Work and Family*, 14(2), 197-216.
- Thévenon O., 2009. "Increased Women's Labour Force Participation in Europe: Progress in the Work-Life Balance or Polarization of Behaviors?" *Population*, 64(2): 235-272.
- Thévenon O., Adema W., Ali N. (2014), "Family policy in France and Europe: recent changes and effects of the crisis", *Population & Societies*, 512.
- Toulemon L., Pailhé A. and Rossier C., 2008, "France: High and stable fertility", *Demographic Research*, vol. 19, July-December, art. 16, pp. 503-556.
- Vanovermeir S. (2012), "L'accueil des jeunes enfants: axe majeur de la politique familiale française depuis les années 1970", *Dossiers Solidarité et Santé* 31, DREES, Ministère des Affaires Sociales.





Chapter 11

Value of Women's Work at Home and Intergenerational Resource Allocation in South Korea

Namhui HWANG, Fellow,

Korea Institute for Health and Social Welfares
Sang-Hyup LEE, Professor,

Department of Economics,

University of Hawaii at Manoa



11

Value of Women's Work at Home and Intergenerational Resource Allocation in South Korea <<

1. Introduction

Household production or non-market labor refers to household activities such as child rearing or care-giving for elderly. This can be seen as an implicit income (Becker 1965) as it increases the consumption of goods and services. The Gross Domestic Product in a nation does not include this implicit income. Hence there can be issues of understatement of economic scale of a nation. The estimated economic value of household production varies from country to country. In Canada, it was 33% of GDP in 1998 (Hamdad 2003). In Korea it ranged from 28 to 48% in 1999 (Moon 2002). Kim (2003) estimated that the economic value of household production for full-time housewives alone is 15% of GDP. On the other hand, as a market economy develops, a considerable part of the non-market labor is outsourced to the market. Thus there could be an overstatement of changes in social welfare in the process of non-market labor being converted into market labor (Stiglitz et al. 2009).

Ignoring household production can create other problems, such as an understatement of the contribution of women to the

national economy. Estimates of income distribution or poverty level could be biased as well because a single-earner household could have more implicit income than a double-earner household even with same household income (Abraham and Mackie 2005). In this case, the single-earner household's disposable income is usually higher, increasing the welfare of the household. Frazis and Stewart (2011) have shown that income equality improves when the distribution of income is estimated with the extended income, including implicit income.

Some of the research questions are questions of ethics, such as the specialization by gender maintained by self-selection, coercion, or discrimination. However, there are also questions in terms of efficacy and efficiency such as waste of human capital and the productivity of a nation. Moreover, if we would like to understand the full nature of population aging and decreasing fertility, we should include time inputs along with market inputs. For example, time use is very important for accurately valuing human capital investment and the cost of youth and old age dependency. By measuring the value of time at home, we can see that the cost of an infant in parents' time far outweighs the cost of market goods and services purchased for that infant. Measuring those time inputs gives us the total cost of children. This type of measurement also allows us to examine tradeoffs between money and time. Intra-household transfers received by co-resident elderly may or may not offset their time spent in

child care or other home production that is transferred to others in the household.

Some researchers have tried to measure the value of non-market labor (Hamdad 2003; Kim 2003). However, a substantially improved study is needed to more comprehensively measure the non-market production by age and by gender. In particular, if we would like to understand the relationship between non-market labor and demographic changes, we need to measure the size of consumption and other resource allocations due to non-market labor over the life-cycle, which has not been done in the previous studies.

This study tries to fill the gap in the literature by using a new methodology—National Transfer Accounts (NTA)—which measures how people at each age in the life-cycle acquire and use economic resources⁵⁹). The NTA represent a significant advance compared with previous studies because they provide a comprehensive set of measures of production, consumption, savings, and transfers in a manner consistent with national income and product accounts⁶⁰). The NTA also consider the pub-

59) The NTA were developed as an international project led by Ronald Lee of the University of California at Berkeley and Andrew Mason of the East-West Center.

60) The NTA are estimated relying on a variety of data sources. In addition to national income and product accounts, government financial statistics and government administrative records are used to estimate economy-wide aggregates. Age profiles are estimated by making extensive use of administrative records and nationally representative income and expenditure surveys, labor force surveys, health expenditure surveys, and special-purpose household surveys.

lic and private sectors, both of which mediate economic flows across ages, which in turn can be used to study the implications of demographic change.

A natural extension of the NTA perspective is to add sex as an additional characteristic. This involves two distinct efforts: disaggregating the current national accounts-based NTA by gender, and adding a satellite account for time inputs, here called National Time Transfer Accounts (NTTA). Time inputs include productive activity that is not already accounted for in national accounts⁶¹). This is often referred to as the non-labor market or household production. This study further expands the NTA to the non-market labor to construct the NTTA as the household production satellite accounts of the NTA. In addition, this study aims to analyze the scale of market labor and non-market labor by combining the results of estimation with the NTA and to examine the characteristics by dividing by gender. This study contributes to the literature in that it analyzes the intergenerational resource allocation of non-market labor for the first time in Korea.

Korea might be an interesting case for several reasons. First,

61) Time inputs not accounted for in national income should not be confused with unpaid family work in household-owned farms or other enterprises. Unpaid family work does not generate earnings for the unpaid family laborer, but it does produce goods and services traded in the market or goods not traded in the market but with value imputed in national income, thus generating income for the household that is already part of national income.

Korea's population is aging very rapidly. The total fertility rate (TFR) decreased from 4.53 children per woman in 1970 to around 1.2 recently, reaching the world's very low level. Second, intergenerational resource allocation in Korea is experiencing an era of transition, as the traditional familial support system deteriorates and as dependency on social programs expands. The importance of the old-age support system has received a good deal of attention recently, given the country's rapid population aging and extremely low fertility. Korea is also entering a stage of slower economic growth. As the country passes through this transition, a study of the intergenerational reallocation of its economic resources is timely. Third, the degree of gender role is still pretty high in Korea as women are still mainly responsible for work at home. Finally, investment for children is very high in Korea, which might be also be related to the aforementioned factors.

This study is composed as follows. Section II briefly reviews the previous studies related to the subject of this study, and Section III discusses data and methodology of the NTTA. Section IV presents the results of estimation of the NTTA, and the final section V concludes.

2. Previous Studies

A considerable part of the resource allocation of non-market

labor can be made through private transfers between household members. The existing studies on intergenerational transfer have mainly focused on the motives of private transfers and the crowding-out relationship between the private and public transfers. The motives of private transfer include the altruistic motive and the exchange motive. In the theory of altruistic motive, the individuals with high income increase their utility through the transfer to other family members with low income (Becker, 1974; Becker and Tomes, 1986). The intergenerational transfer between parents and children can reach the optimum level through the intervention of government (Becker and Murphy, 1988), and therefore, the increase in public transfer generates the decrease in private transfer. This crowding-out effect between private transfer and public transfer was one of the major topics in the early literature such as Willis(1980), and Kotlikoff and Spivak(1981).By the exchange motive, the private transfer is provided with the expectations for future inheritance from parents (Bernheim et al., 1985), psychological benefits such as phone calls, visits between family members, or a form of services such as taking care of grandchildren, (Cox 1987; Cox and Rank 1992; Altonji et al. 1996). Korean studies have mainly focused on the impacts of private transfer on poverty. Son (1999), Seok and Kim (2000), Kim (2002), and Hong (2002) demonstrated that, in the Korean society, the private transfer mainly occurs among the poor, which is in stark

contrast with western societies. Several recent studies have also tested the crowding-out and concluded that the crowding-out effect exists between the private transfer and public transfer (Kang and Jeon 2005; Seong 2006; Kim 2008; Kang 2011; and Jeon and Park 2011).

However, none of these studies explicitly measure the contribution of non-market labor to the national economy. Mitchell (1921) is the pioneer who discussed the contribution of non-market labor, which discusses why non-market labor should be included to measure the true economic size of a nation. The method, range, and economic value of non-market labor have been actively discussed since then (Murphy 1978, 1982; Chadeau 1985; Fitzgerald and Wicks 1990; Mun et al. 2002; Kim 2003; Kwon 2009; Yun 2010). However, these studies have not explicitly measured the contribution of non-market labor over the life-cycle to the national economy, which is a motivation for further research.

3. Data and Methodology

1) Data

We use the 2nd round of the Korean Time Use Survey (KTUS2004), and the 7th (2004) and 8th rounds (2005) of the Korean Labor and Income Panel Study (KLIPS). The KTUS is the

only survey data in Korea providing information on time use by activities, such as preparing meals, doing laundry, and caring for family members. The KTUS has been conducted every five years since 1999 and aims to measure the life style and quality of life of the people. The KTUS in 2004 was conducted for people ages 10 or older for two days: 12,651 households responded to all questions, and 31,634 individuals responded all questions. Information on gender and age of the children under age 10 were separately obtained from Statistics Korea. There is no information on the time use of the 4,849 children under age 10. We assume that they do not spend time for non-market labor. In addition, there is no information on the weight of household members. For simultaneous activities, the KTUS contains information on the main and the secondary activities. We use the information on only the main activity for these cases. The weight of days in a week cannot be used, but it appears that the difference between days in a week is not substantial. We use the average of any two days of activity of an individual for estimation.

The KLIPS provides the information on labor income of each individual, consumption of each household, and amount of private transfers. However, the information provided by KLIPS is not time consistent; for example, the individual and household information is at the time of the survey, but the information on income and consumption is available for the year previous

to the survey. To overcome this problem, we use the merged data set of personal and household data of the 7th round and income and consumption data of the 8th round.

2) Methodology of the NTTA

The NTTA follows the basic methodology of the NTA, and starts from the point that the life-cycle deficit (LCD) and the age reallocation should be same. Explaining the basic methodology of the NTA is beyond the scope of this paper. More detailed information on the NTA and methodology for calculating the NTA is available from the United Nations (2013), Mason, Lee et al. (2009) or from Lee, Lee, and Mason (2008). However, it is worthwhile to note two differences between the NTA and the NTTA. First, the age reallocation of the NTA consists of asset-based reallocation and transfers, but the NTTA has no asset-based reallocations because the non-market labor cannot be saved. This means the LCD should be equal to zero as well as transfers. Second, the NTA is composed of the private sector and the public sector, but the NTTA is made of only the private sector as of today. The LCD is the difference between consumption and production including non-market labor. Thus, when the LCD is positive, one can consume by receiving transfers from others, and vice versa. This can be shown in Equation (1) where C represents consumption, Y labor income, F_i trans-

fer inflows, and F_o represents transfer outflows.

$$C - Y = F^i - F^o \quad (1)$$

The transfers are again divided into the inter-household transfers and the intra-household transfers. The inter-household transfers are transfers between households, while the intra-household transfers are transfers within a household. The age profile of the NTTA comprises two sectors. The first sector is the total economic value of non-market activities measured at the macro level, and the second sector is per capita value by age of these economic activities. The total economic value of the total amount is obtained by multiplying the per capita age profile from the survey by the actual population by age and gender. This process is expressed in Equation (2), where $x(a, g)$ is per capita age (a) profile by gender (g), $N(a, g)$ population by age and gender, and A and G, respectively, represent the age (up to 90+) and both genders. When using the survey data, there is a slight discrepancy between these items. The NTTA assumes that inflows are more accurate, and adjusts the outflows only.

$$\sum_{a=0}^A \sum_{g=1}^G x(a, g) N(a, g) \quad (2)$$

3) Methods of Estimation

The previous studies on household production have focused on measuring only the economic size of the value of production. How the products due to household production are distributed and consumed between household members has received little attention. One of the reasons is that the production process is made individually, but is consumed collectively by household members, and it is often difficult to allocate the production among household members. Nevertheless, all scholars agree that all household members enjoy the benefits (Becker 1965; Nelson 1998; Pollak 2005; Brown & Zhang 2012).

To make the NTTA comparable to the NTA based on national income, we would want to value what is produced in the time spent (Abraham and Mackie 2005). One difficult task is to find the price of each service. Ideally one would need additional data sources on the price and quality of each output activity. But that is very difficult to do from a data perspective. Thus, we need to choose to estimate the value of the labor inputs only in the NTTA, and value the time spent by the wage that would be earned by someone doing the activity, instead of the price that someone would pay for the activity. This decreases the data burden and removes many other methodological problems, such as how to avoid double counting production that involves purchased and unpurchased inputs. For example, national ac-

counts already include the value of the raw food inputs, so valuing a home-cooked meal from output activity may double count the value of the home-cooked meal. Thus, the time inputs will be valued by their wage, not by the value of their production value.

There are three alternative methods in valuing time inputs. The specialist replacement method, the opportunity cost method, and the general replacement method. The specialist replacement method measures how much it would cost if the person had to pay someone else to perform each task. The other main valuation alternative is opportunity cost, valuing a person's time by its opportunity cost. This tends to give a very high estimate because it imputes skilled inputs to jobs that may not require those skills or that require completely different skills. It would also often lead to valuing a man's hour of home production time as more valuable than a woman's, because men's wages in the market are generally higher than women's, whereas the woman's output might in practice be superior and quicker. The generalist replacement method involves finding one appropriate wage that would be used for all household production activities. This is usually a housekeeper's wage. The main issue in this method is that in many countries housekeepers may be employed by only very wealthy households. In this case the housekeeper wage will be quite high and not a good approximation of what an average household would have

to pay to replace the activity in the market. However, in countries where housekeepers are more common and there is sufficient wage data to identify a housekeeper's wage, generalist replacement can be used. In general, the value of time at home will be the largest with the opportunity cost method followed by the specialist replacement cost method and the general replacement cost method.

Despite of the weak point of subjective evaluation, given the substantial issues on the other two approaches, the NTTA will use the specialist replacement method which is also the most appropriate fit with NTA concepts and methods. The specialist replacement method also coincides most with the third party criterion⁶²⁾, which is the standard for division of non-market labor presented by Reid (1934). The method is also recommended by the U.S. National Research Council to measure the value of non-market labor when we construct the household production as satellite accounts (Abraham et al., 2005).

Another issue is to find average wages by job or occupation. An average of wages of a babysitter, a childcare worker and an early education teacher would apply to time spent doing child care; a maid or janitorial service wage would apply to time spent cleaning; and a food service wage would apply to time spent preparing food, serving it and cleaning up after.

62) The third party criterion includes only the activities for which wages should be paid if someone conducted the non-market labor.

However, time spent fixing the house should be valued at a handyman's wage instead of a skilled carpenter's wage, or an electrician's or a plumber's. We address this issue by choosing wages for jobs that an average person could actually do. We weight the average wage by the number of people employed in each type of occupation to achieve some measure of likely distribution, by which skill levels and particular types of activities are also distributed across households. We also use the same imputed wage for men and women doing the same task, which assumes men and women will be equally productive at the same task. This might be a poor assumption, but to our best knowledge, there is no alternative way to handle this problem. We use the Basic Statistical Survey of Wage Structure in 2004 for this purpose. The data provides information on wage and working hours by type of occupation of paid workers who work more than 5 hours per week nationwide. We calculated the average wage rate per hour and applied it to our study. The information on types of occupation was obtained from the 5th revision of the Korean Standard Occupation Classification system.

The individual consumption cannot be directly measured by using the KTUS, hence it needs more estimation technique. There are several different methods, such as data-driven methods or using relative age share, also called equivalent adult consumer (EAC) weights. To maintain consistency with the

NTA, we use the same EAC weights for same-aged males and females.⁶³⁾

However, the methods vary depending on who and which age group enjoy the benefits. Table 1 presents a detailed method of estimation of the NTTA. For example, household management is equally distributed to all household members, as it benefits all the household members jointly. However, the value of time for taking care of the family is distributed based on the beneficiary information that is available from the KTUS. When there is no information on the beneficiary, the value was distributed equally among the household members. For participation and volunteering work, we distributed the value equally to the entire population of the nation, as the entire population benefit from it.

The transfer is estimated by dividing into the inflows and outflows, and the outflows can be directly calculated through the amount of time provided in the KTUS. The household management is supposed to be consumed by all the household members in the households, and hence it is not part of inter-household transfers. Likewise, the participation and volun-

63) This issue is related to the debate about whether a unitary sharing model within the household is accurate (Browning and Chiappori, 1998). Some find that both spousal market income and gender roles contribute to different consumption by sex within the household (Phipps and Burton, 1998). Examining alternatives to the equal gender weights assumption is an important priority for fully understanding our results, but this is left for future study.

teering do not have a household beneficiary, and hence they are not included in the intra-household transfers. The inter-household transfers are equally distributed for the beneficiary ages when they are known. When they are unknown, they are distributed to all ages. The participation and volunteering are allocated to the entire population. When the inflows and outflows of inter-household transfers of household members are added up in the unit of household, the result should be always zero.

For the intra-household transfers, the surplus or deficit is calculated by the difference between production and consumption of each household member. When the production exceeds the consumption, the surplus (the outflows of intra-household transfers) are generated and transferred to other household members. If the consumption exceeds the production, the inflows of intra-household transfers are generated and transferred from other household members.

<Table 11-1> Methods of Estimation of NTTA

Category		Methods of Estimation	Remarks	
Production	Household Management	Directly calculate with the amount of time for household management of each individual		
	Taking Care of Family	Directly calculate with the amount of time for taking care of family of each individual		
	Participation and Volunteering	Directly calculate with the amount of time for participation and volunteering of each individual		
Consumption	Household Management	Equally distribute to the household members for each household		
	Taking Care of Family	Equally distribute to the population of the age group who are benefited.		
	Participation and Volunteering	Equally distribute to the entire population		
Transfer	Inter-Household	Taking Care of Family	Divided into inflows and outflows and equally distribute to the entire population of the relevant age	
		Participation and Volunteering	The outflows are equal to the production of participation and volunteering, and the inflows are equal to the consumption of participation and volunteering.	
	Intra-Household	Household Management	Calculate the difference between consumption and production of household management	Identity equation
		Taking Care of Family	Calculate as the formula, consumption minus inter-household transfers minus production of taking care of family	Identity equation

Finally, in order to estimate the total amount of the NTTA in the nation, the per capita age profile is multiplied by the population by gender and age. The total population in 2004 was about 48 million. Men accounted for 50.3%, children ages 0 to 19 for 26.2%, adults ages 20 to 64 for 65.1%, and the elderly 65 and older for 8.7% of the population.

4. Results

1) Results of the NTTA

The results of the total estimated amount of the NTTA are presented in <Table 2>. The consumption and production of home production is about 173,350 billion won in 2004⁶⁴), which is about 21% of GDP (826,893 billion won) and about 40% of market production. The inter-household transfers were 15,880 billion won, and 59,620 billion won was generated as intra-household transfers. Children consumed much more than they produced. Adults ages 20-64 and the elderly ages 65 and older produced more home production than they consumed.

<Table 11-2> Aggregate NTTA(Unit: Billion won)

Category	Overall	0-19	20-64	65+
Life Cycle Deficit	0	60,314	-58,856	-1,458
Consumption	173,350	64,980	91,355	17,015
Household Management	118,918	26,006	77,814	15,098
Taking Care of Family	48,254	37,353	9,519	1,382
Volunteering	6,178	1,621	4,021	536
(-)Labor Income	173,350	4,665	150,211	18,473
Household Management	118,918	3,012	100,392	15,514
Taking Care of Family	48,254	1,192	44,761	2,301
Volunteering	6,178	461	5,057	659
Age Reallocation	0	60,314	-58,856	-1,458
Inter-Household Transfers	0	5,631	-5,141	-490
Inflows	15,880	6,336	8,377	1,167
(-)Outflows	15,880	705	13,518	1,657
Intra-Household Transfers	0	54,684	-53,715	-969
Inflows	59,620	54,684	4,504	432
(-)Outflows	59,620	0	58,219	1,401

64) The average exchange rate was 1,145 won per dollar in 2004.

〈Table 3〉 presents the per capita value in each age group of the NTTA. The per capita consumption and production value is 3.61 million won, and inter-household transfers and intra-household transfers are 330,000 won and 1.24 million won, respectively. It is notable that the intra-household transfer is more than four times as much as that of inter-household transfers.

The production and transfer outflows are largest for working ages, and the consumption and transfer inflows are largest for children. The household production of the elderly is relatively small compared with the adults ages 20-64: less than one-eighth of that for the working age. However, considering that the elderly account for less than 9% of population, the elderly are also contributing substantially to the production of household production.

〈Table 11-3〉 Per Capita NTTA(Unit: Ten thousand won)

Category	Overall	0-19	20-64	65+
Life Cycle Deficit	0	479	-188	-35
Consumption	361	516	292	408
Household Management	248	206	249	362
Taking Care of Family	100	296	30	33
Volunteering	13	13	13	13
(-)Labor Income	361	37	480	443
Household Management	248	24	321	372
Taking Care of Family	100	9	143	55
Volunteering	13	4	16	16
Age Reallocation	0	479	-188	-35
Inter-Household Transfers	0	45	-16	-12
Inflows	33	50	27	28
(-)Outflows	33	6	43	40
Intra-Household Transfers	0	434	-172	-23
Inflows	124	434	14	10
(-)Outflows	124	0	186	34

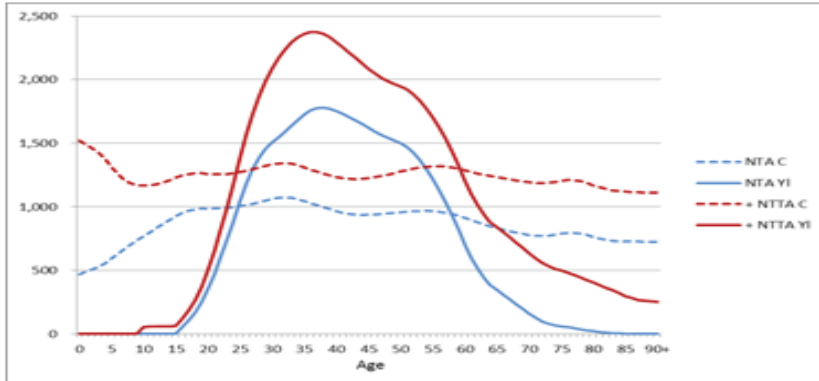
2) Combination of the NTA and the NTTA

In this section, we combine the NTA and the NTTA. Figure 1 shows per capita production by age. Unlike the NTA, the combined consumption peaks at children ages 0 to 4 when we include the non-market labor into the production. In summary, the consumption of children increases by 67% when you add the value of time devoted to children ages 0 to 19. The burden for adult parents for their children increases by 52%.

The combination of the NTA and the NTTA can provide the answer for the retirement-consumption puzzle as well. Banks et al. (1988), Bernheim et al. (2001), An and Jeon (2003), Hurd and Rohwedder (2003), and Haider and Stephens (2004) argued that consumption rapidly decreases after retirement. This raises a question on the life-cycle hypothesis. However, these studies have limitations, as they examined the consumption of goods and services purchased in the market. As shown in (Figure 1), per capita consumption measured by the NTA decreases as people age, but the consumption of household production increases more for the elderly. As a result, the combined consumption gets flatter when the two are combined.

[Figure 11-1] Per Capita Consumption of NTA and NTTA

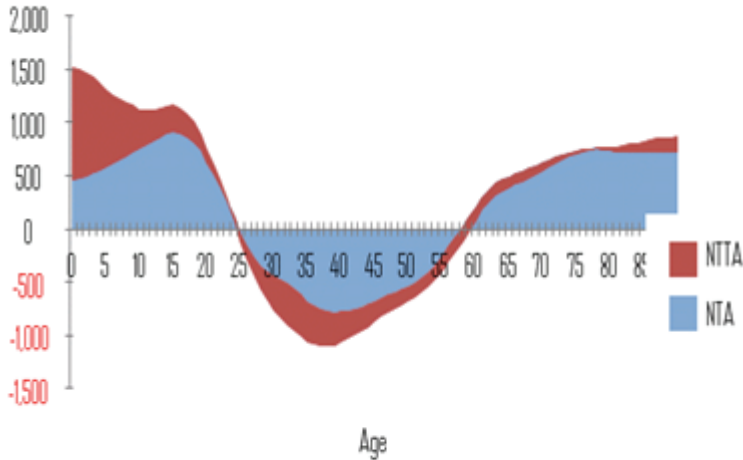
(Unit: Ten thousand won, 2004)



Age profiles of per capita production show a very different picture when we include the household production. Most of all, the combined production increases substantially not only for adults, but also for the elderly. Thus the LCD gets bigger for the children, and also gets bigger for the elderly ages 80 and older. However, for working ages, as the production increases more than the consumption, the life cycle surplus gets bigger. The LCD age span of the NTA is between 25 and 57 years, while that of the NTA plus the NTTA is between 24 and 77 years <Figure 2>.

[Figure 11-2] Per Capita LCD of NTA and NTTA

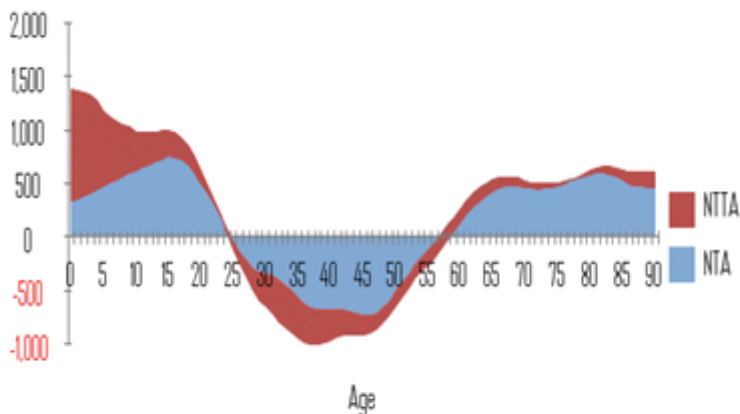
(Unit: Ten thousand won, 2004)



〈Figure 3〉 shows the net private transfer, which is the sum of net inter-household transfers and net intra-household transfers. It is not surprising that it is very similar to the LCD as there are no public transfers and no asset-based reallocation. The surplus of net private transfer gets bigger for the children, which is mainly from their parents.

[Figure 11-3] Per Capita Net Private Transfer of NTA and NTTA

(Unit: Ten thousand won, 2004)



3) Results of the NTTA by Gender

The results for per capita NTTA by gender are presented in (Table 4). Men have the LCD of 2.28 million won, which consists of the inter-household transfers of 20,000 won and the intra-household transfers of 2.26 million won. On the other hand, women have the life cycle surplus of 2.31 million won, which consists of the inter-household transfers of 20,000 won and the intra-household transfers of 2.29 million won. The children show a positive value of age reallocation regardless of their gender. But, things are quite different for the working ages and elderly. Men in the working ages show a deficit of 1.23 million won, while women in the same age group have a sur-

plus of 5.05 million won, mainly by the intra-household transfers. For the elderly, men show a deficit of 1.99 million won, and women show a surplus of 2.10 million won. There is also a clear difference between men and women in the time use after retirement, as the female elderly account for a great deal of household production. These results are generally consistent with the previous studies (Park and Son 2006; Kim 2006; Kim 2007; Park 2007).

〈Table 11-4〉 Per capita NTA by Gender

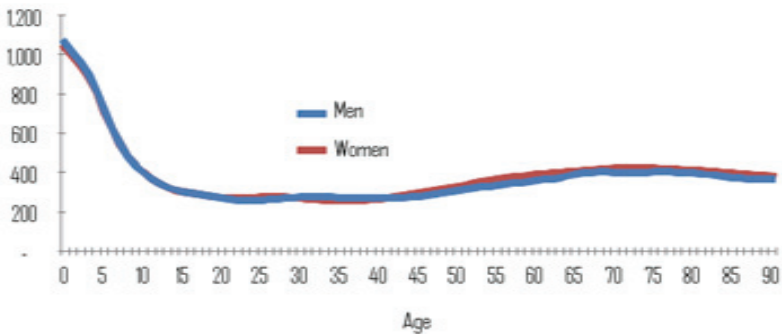
(Unit: Ten thousand won, 2004)

Category	Oveall		0-19		20-64		65+	
	Men	Wo men	Men	Wo men	Men	Wo men	Men	Wo men
Life Cycle Deficit	228	-231	489	465	123	-505	199	-210
Consumption	358	364	517	514	287	297	398	415
Household Management	237	257	208	205	238	259	348	371
Taking Care of Family	108	94	296	297	36	25	37	31
Volunteering	13	13	13	13	13	13	13	13
(-)Labor Income	129	595	28	49	164	802	199	626
Household Management	68	428	15	35	83	562	140	544
Taking Care of Family	45	158	8	12	60	229	46	65
Volunteering	16	9	6	2	21	11	13	16
Age Reallocation	228	-231	489	465	123	-505	199	-210
Inter-Household Transfers	2	-2	42	47	-14	-19	-7	-14
Inflows	33	33	50	51	27	27	28	28
(-)Outflows	31	35	8	4	41	46	35	42
Intra-Household Transfers	226	-229	446	418	137	-486	207	-197
Inflows	239	108	446	418	156	5	210	4
(-)Outflows	13	338	0	0	19	491	4	200

Per capita consumption and production by gender are presented in Figures 4 and 5. The consumption peaks at infant periods regardless of gender, which is in large part due to the fact that taking care of the family accounts for a large part of home production for this age group. Household management has contributed greatly to the small increase in consumption of the elderly. Participation and volunteering is trivial at all ages. Per capita production peaks between 30 and 35 for women and is very large at those ages due to child rearing. Production for older women is also quite substantial, while production for men is trivial for all age groups.

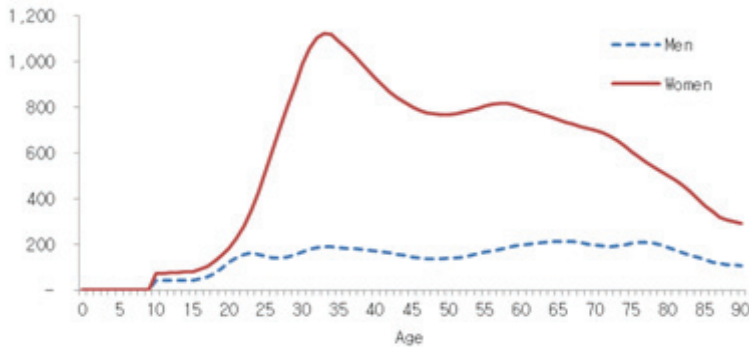
[Figure 11-4] Per Capita Consumption by Gender, NTTA

(Unit: Ten thousand won, 2004)



[Figure 11-5] Per Capita Production by Gender, NTTA

(Unit: Ten thousand won, 2004)

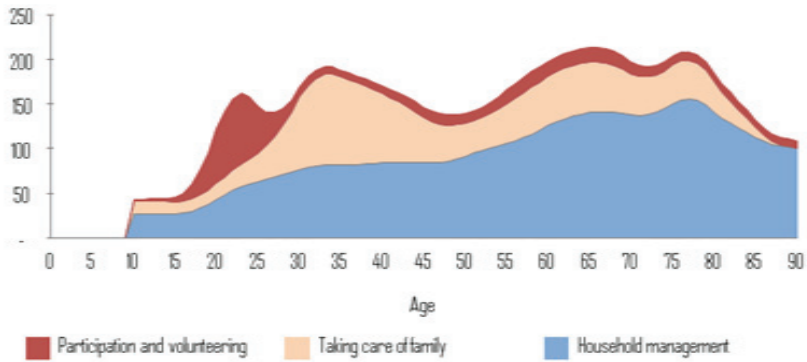


Per capita production by type of activities shows a stark difference by gender. For males, the most prominent characteristic is that the participation and volunteering accounts for the largest portion of household production in early 20s, perhaps in large part due to military service (Figure 6). Although those who are in the army are excluded from the survey, a substantial number of men who provide services without pay at public institutions or defense industry enterprises are included in the survey. The household production would be really large if we further include the people in the army in Korea. Taking care of the family is largest for men ages 30 to 35 who usually have infants. On the other hand, the household management is the most substantial production item for men in their late 70s. Women show a much larger household production (Figure 7). The household management is largest for all ages, reaching 6 million won or more in their 30s through 60s. Taking care of

the family is also very large for the late 20s through 30s, during which time women give birth to and rear their children. The participation and volunteering is small for women regardless of age.

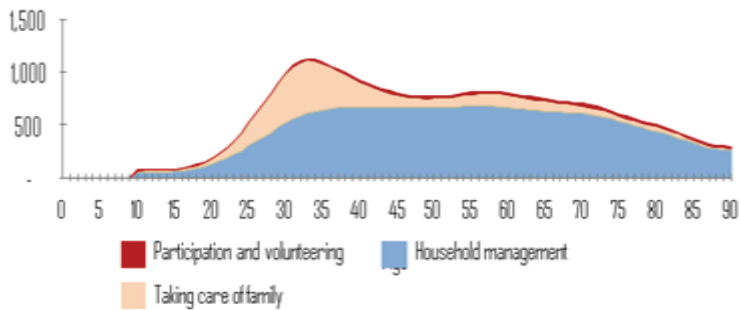
[Figure 11-6] Per Capita Production by Type, Male, NTTA

(Unit: Ten thousand won, 2004)



[Figure 11-7] Per Capita Production by Type, Female, NTTA

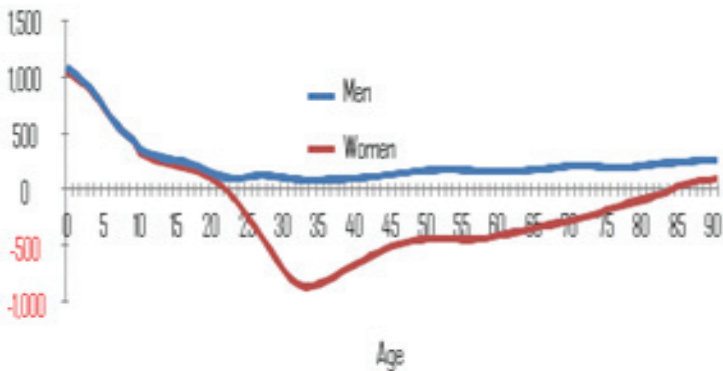
(Unit: Ten thousand won, 2004)



The age profiles of per capita LCD by gender are presented in Figure 8. Men show a positive value (i.e., deficit) at all ages, while women show a large negative value (i.e., surplus) for ages 22 to 84. The life cycle surplus of women peaks at age 33 with 8.65 million won (\$7,555).

[Figure 11-8] Per Capita LCD by Gender, NTTA

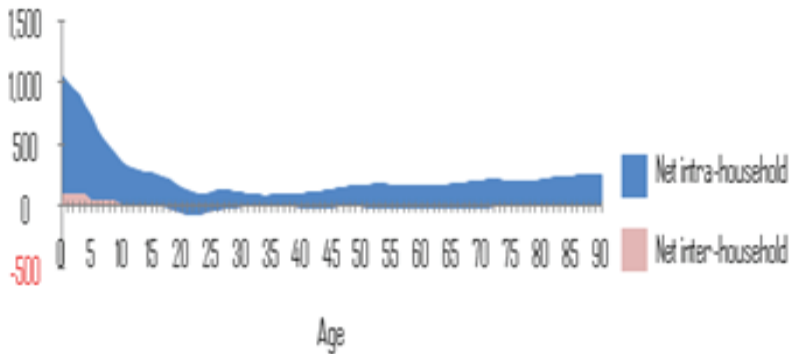
(Unit: Ten thousand won, 2004)



Figures 9 and 10 show per capita net private transfers by gender. The net intra-household transfers are dominant sources for the private transfers which fill the LCD. Men are the net beneficiary of the non-market labor regardless of age, although the net inter-household transfers are slightly negative in the early 20s due to military service. Women are the net contributors of non-market labor in the working ages as well as in old age.

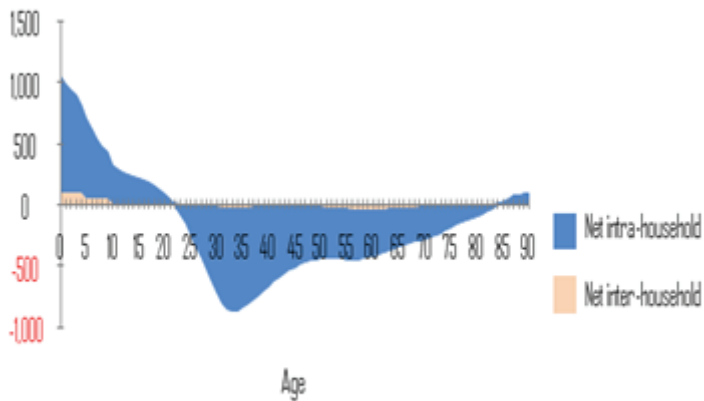
[Figure 11-9] Per Capita Net Private Transfer, Male, NTTA

(Unit: Ten thousand won, 2004)



[Figure 11-10] Per Capita Net Private Transfer, Male, NTTA

(Unit: Ten thousand won, 2004)



5. Summary

This study examined the intergenerational resource reallocation in Korea by considering the non-labor market activities. If we want to understand the full nature of decreasing fertility, we should include time inputs along with market inputs to measure the total cost of children. For this purpose, a new method of accounting methodology considering non-labor market activities, the National Time Transfer Accounts (NTTA), is applied by using the Korean Time Use Survey in 2004.

The results show that per capita production increases by 40% when we consider the non-market labor in Korea. Per capita consumption of children increases by 67%, while the consumption of adult parents for their children increases by 52%. Men are the net beneficiaries of non-market labor regardless of their ages, and women are net contributors of non-market labor. The amount of the transfers is the largest for women in their late-20s and mid-40s, at which ages Korean women are mainly responsible for household activities, including child rearing and elderly care. The results also suggest that ignoring the non-market labor activities in Korea substantially overstates the drop in consumption after retirement in Korea: the retirement-consumption puzzle.

There are several limitations of this study, many of which originate from its assumptions. However, the most important

limitation is that the study focuses only on the private sector. There has been no attempt to extend the NTTA to the public sector yet, which would be beyond the scope of this study. Finally, the results in this study are still tentative. The study including its methodology is being developed as a collaborative project. We expect to compare our results with other countries in the near future.

References

- Abraham, K.G. and Mackie, C. , 2005, *Beyond the Market : Designing Nonmarket Accounts for the UnitedStates*. Washington, D.C., National Academies Press.
- Altonji, J. G., F. Hayashi, Kotlikoff. L., 1996, "The Effects of Income and Wealth on Time and Money Transfers between Parents and Children", NBER Working Paper, No. 5522.
- An, Chong-Bum and Seung-HoonJeon, 2003, "Measuring the Optimal Income Replacement Rate: A Panel Data Analysis", paper prepared for the 59th Congress of IIPF.
- An, Chong-Bum, Sang-Hyop Lee, and Namhui Hwang, 2010, "Economic Crisis and Intergenerational Economy: Lessons from Korea's 1997-98 Economic Crisis", *KDI Journal of Economic Policy*. Vol.32(1).
- Banks, James, Richard Blundell and Sarah Tanner, 1988, "Is There a Retirement-Savings Puzzle?", *American Economic Review*, 88(4): 769-788.
- Barro, R. J., 1974, "Are Government Bonds Net Wealth?", *Journal of Political Economy* 82, 1095-1117.
- Becker, Gary, 1965, "A Theory of the Allocation of Time", *Economic Journal* 75, pp. 493-517.
- Becker, Gary , 1974, "A Theory of Social Interactions", *Journal of Political Economy* 82(6), 1063-93.
- Becker, Gary, and Tomes, 1986, "Human Capital and the Rise and Fall of Families", *Journal of Labor Economics*, 4(2).
- Becker, Gary, and Kevin M. Murphy. 1988, "A Theory of Rational Addiction", *Journal of Political Economy*, 96(4): pp. 675-700.

- Bernheim, B. Douglas, Jonathan Skinner and Steven Weinberg, 2001, "Accounts for the Variation in Retirement Wealth among U.S. Households?", *American Economic Review* 91(4): 832-857.
- Bernheim, B. Douglas, Andrei Shleifer, and Lawrence H. Summers, 1985, "The Strategic Bequest Motive", *Journal of Political Economy*, 93(6): 1045-1076.
- Brown & Zhang, 2012, "Is Volunteer labor Part of Household Production? Evidence from Married Couples", *Rev Economic Household* 7 (January)
- Chadeau, Ann, 1985, "Measuring Household Activities: Some International Comparisons", *Review of Income and Wealth*, 31, pp. 237-254.
- Cox, Donald, 1987, "Motives for Private Income Transfers", *Journal of Political Economy* 95, pp. 508-46.
- Cox, Donald, and M. Rank, 1992, "Inter-vivos Transfers and Intergenerational Exchange", *Review of Economics and Statistics* 74(2), pp. 305-314.
- Dunn, T. A. and W. P. John, 1997, "The Timing and Division of Parental Transfers to Children", *Economic Letters*, Vol. 54, 135-137.
- Frazis H, Stewart J, 2011, "How Does Household Production Affect Measured Income Inequality?", *J Popul Econ* 24:3-22.
- Gronau, Reuben., 1991, "The Intra-family Allocation of Goods-How to Separate the Adult from the Child", *Journal of Labor Economics*, Vol.9, No.3, pp. 207-235.
- Haider, S. and M. Stephens jr., 2004, "Is there a Retirement-Consumption Puzzel? Evidence Using Subjective Retirement Expectations", NBER Working Papers No. 10257.

- Hamdad, 2003, "Valuing Households' Unpaid Work in Canada, 1992 and 1998: Trends and Sources of Change", Statistics Canada Economic Conference, May, 2003.
- Hochguertel, S. and O. Henry, 2000, "Compensatory Inter Vivos Gifts", Working Papers in Economics 31, Gteborg University.
- Hurd, Michael D. and Susann Rohwedder, 2003, "The Retirement-Consumption Puzzle : Anticipated and Actual Declines in Spending at Retirement", NBER Working Paper, No. 9586.
- Jensen, R. T., 2003, "Do Private Transfer 'Displace' the Benefits of Public Transfer? Evidence from South Africa", *Journal of Public Economics* 88, 89-112.
- Kotlikoff, L. J. and A. Spivak, 1981, "he Family as an Incomplete Annuities Market", *Journal of Political Economy* 89(2): 372-91.
- Lee, Ron, and Andrew Mason, principal authors and editors, 2011, *Population aging and the generational economy: A global perspective*. Cheltenham, UK, Edward Elgar.
- Lee, Ron, Sang-Hyop Lee, and Andrew Mason. 2008. Charting the economic life cycle. In A. Prskawetz, D. Bloom, and W. Lutz (eds.), *Population aging, human capital accumulation, and productivity growth, supplement to Population and Development Review* 33. Also NBER Working Paper 12379.
- Mason, Andrew, Ron Lee et al. 2009. *Population aging and intergenerational transfers: Introducing age into national income accounts*. In D.A. Wise (ed.), *Developments in the Economics of Aging: 89-122*. National Bureau of Economic Research Conference Report. Chicago: University of Chicago Press.
- McGarry, K. and Schoeni, F. Robert, 1995, "Transfer Behavior in the

- Health and Retirement Study: Measurement and the Redistribution of Resources within the Family", *Journal of Human Resources*, Vol 30, 184-226.
- McGarry, K. and Schoeni, F. Robert. 1997, "Transfer Behavior within the Family: Results from the Asset and Health Dynamics Study", *The Journals of Gerontology*, Vol 52B, 82-92
- Mitchell, W. et al., 1921, "Income in the United States: Its Amount and Distribution, 1909-1919", NBER, New York.
- Murphy, Martin, 1978, "Value of Non-Market Household Production: Opportunity Cost versus Market Cost Estimates", *Review of Income and Wealth*, 24, pp. 243-255.
- Murphy, Martin, 1982, "Comparative Estimates of the Value of Household Work in the U.S. for 1976", *Review of Income and Wealth* 28, pp. 29-43.
- Nelson, Julie A., 1988, "Household Economies of Scale in Consumption: Theory and Evidence", *Econometrica*, Vol. 56, No. 6, pp.1301-1314.
- Pollak, 2005, "Bargaining Power in Marriage: Earnings, Wage rates, and household Production", National Bureau of Economic Research working paper 11239.
- Preston, S. H.1984. "Children and the Elderly: Divergent Paths for America's Dependents." *Demography* 21(4): 435-457.
- Razin, A., E. Sadka, et al., 2002. "The Aging Population and the Size of the Welfare State", *Journal of Political Economy* 110(4): 900-918.
- Reid, M., 1934, *Economics of Household Production*. New York, Wiley.
- Rosenzweig, M. R. and Wolpin, K. I., 1994, "Parental and Public

Transfers to Young Women and Their Children”, *American Economic Review* 84(5), 1995-1213.

Stiglitz, J., A. Sen and J.P. Fitoussi. 2009. “Report by the Commission on the Measurement of Economic Performance and Social Progress”, www.stiglitz-sen-fitoussi.fr.

United Nations, 2013. *National Transfer Accounts Manual* (New York: United Nations)

Willis, R. J., 1980, *The Old Age Security Hypothesis and Population Growth. Demographic Behavior: Interdisciplinary Perspectives on Decision-making*, Westview Press: pp. 43-69.

〈In Korean〉

Hong, Kyoung-jun, 2002, “ After the Enactment of National Basis Livelihood Security Act: An Analysis on the Anti-poverty Effectiveness of Public and Private Income TransferS”, *Korean Journal of Social Welfare*50: 61-85.

Jeon, Seung-Hoon and Seung Jun Park, 2011, “The Effect of Public Transfer on Private Transfer”, *Journal of Korean Economic Study*29(4): 171-205.

Jeon, Young-jun, 2003, “An Analysis on the Budgetary Structure of Korean Public Pensions Using Generational Accounting”, *Korean Journal of Public Finance*17(2): 111-151.

Kang, Sung-ho, 2011, “The Change of Supporting Mindset, Crowding Out Effect and Income Support”, *Journal of Korean Public Policy, The Korean Association of Public Policy*13(1): 113-144.

Kang, Sung Jin and HyungJoonJeon, 2005, “The Study on the Motivation of Private Transfers and the Crowding out Effect of

- Public Transfers", *Journal of Korean Public Economics* 10(1).
- Kim, Hi-sam, 2008, "Private Income Transfers and Old-Age Income Security", *KDI Journal of Economic Policy* 30(1).
- Kim, Jin-wook, 2006, "Analysis their use of time upon work, family and leisure: A Study on the Time of the Elderly in Korea", *Journal of Welfare for the Aged*, Vol.32(Summer)
- Kim, Ju-Hyun, 2007, " Productive Aging of Older People Based on Time Use", *The Journal of the Korean Gerontological Society* 27(4):.739-54.
- Kim, Jun-young, 2003, *Women Labor Economic in Korea*, Haenaem.
- Kim, Kyo-Sung, 2002, "The Effect of Income Transfer on Poverty Rate", *Korean Journal of Social Welfare*48: 113-49.
- Korean Ministry of Labor, 2005, *Report on Wage Structure Survey*
- Kwon, Tae-hee, 2009, "Women's Unpaid Household Work in Korea", *Educontents*.
- Lee, Ron, Sang-Hyop Lee, and Andrew Mason
- Mason, Andrew, Ron Lee et al.
- Moon, S., 2001, *Research on Development of Satellite Account of Unpaid Household Labor*, Seoul : Ministry of Gender Equality.
- Park, Minja and Son, Moon Geum, 2006, "Focusing on statistics from lifetime use survey: Every lifetime of aged men and women", *DuksungJournal of Social Sciences*11: 121-45.
- Park, Soomi, 2007, "A Study on the Gender Gap in the Korean Elderly Women's Time Use", *The Women's Studies*72(1): 5-30.
- Seok, Jae-eun, andTae-wan Kim, 2000, *Analysis of the Income of the Elderly and the Income Security System Improvement*, Korea Institute for Health and Social Affairs.
- Seong, Jae-min, 2006, "Private Transfers Appeared in the Korea Labor

and Income Panel Study”, Monthly Labor Review, Korea Labor Institute15: 75-83.

Son, Byoung-don, 1999, “The Effects of Private Income Transfers onPoverty Reduction in Korea”, Korean Journal of Social Welfare39: 157-79.

Statistics Korea, 2005, Report on the 2004 Time Use Survey.

Yun, Ja-young, 2010, Non-market Labor and Human Capital Formation of Children, Korea Labor Institute.



Chapter 12

Governmental support for families and obstacles to fertility

Anne GAUTHIER,
Senior Researcher,
Netherlands Interdisciplinary Demographic
Institute



12

Governmental support for families and obstacles to fertility

1. Introduction

The rapidly falling fertility levels across the globe and the persistence of below replacement fertility levels have attracted considerable attention in scientific and political circles in the past few decades. For instance, The Economist published an issue with the heading 'Falling fertility' on its cover in October 2009 and the European Commission stressed the problems associated with low fertility in a widely discussed Green Paper in 2005. In most of these documents, the key conclusions were two-fold. First, young couples were having fewer children than they actually wish because of various obstacles -- especially financial obstacles and obstacles related to the combination of work and family life--; and second, adequate policies could remove these obstacles and in so doing could close in the gap between actual and desired fertility.

These conclusions have a definite appeal: by doing more to support families, governments should see an increase in fertility. Numerous studies have however shown that this is not necessarily the case. While there appears to be indeed a positive impact of policies on fertility: the impact tends to be very

small and oftentimes temporary (e.g. Gauthier 2006; Thévenon and Gauthier 2011). The question is therefore: why? In particular, is it because governments do not do enough to support families? Because they do not adequately respond to the needs of families? Or is it that the obstacles to fertility are such that they are pretty much out of reach for governments? These questions are at the core of this paper. I attempt at answering them by first examining historical trends in governmental support for families, and second by examining perceived obstacles to fertility and policy preferences. In doing so, my focus is on changes over time and especially on the possible mismatch between perceived obstacles to fertility and the actual governmental support for families. To the extent that the data allow it, I also point to differences between Eastern and Western countries.

The paper is structured around three sections. In Section 1, I first provide an overview of historical trends in governmental support for families including financial support for families and support for working parents. In Section 2, I shift to public opinion data and discuss changes over time in perceived obstacles to fertility and related policy preferences. The paper then concludes in Section 3 with a discussion of the possible impact of policies on fertility.

2. Historical trends in governmental support for families

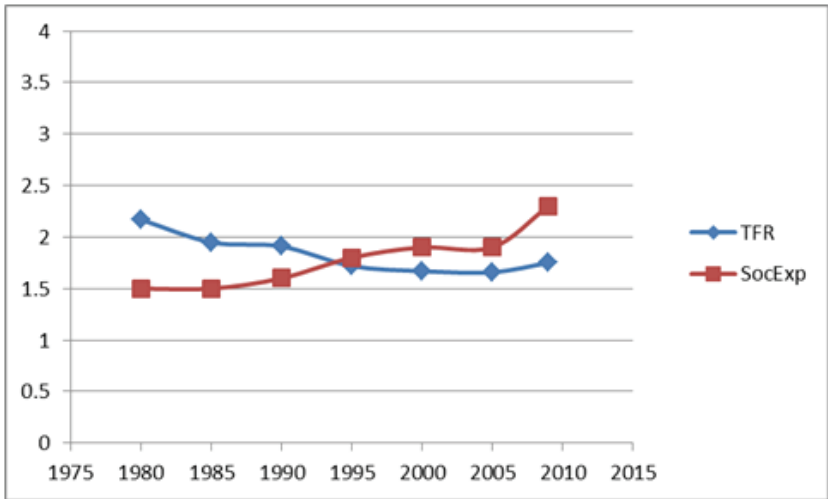
The term governmental support for families encompasses a wide array of different benefits and services provided to families by various levels of governments. Such benefits and services range from financial support in the form of cash transfers and tax relief all the way to support for working parents and support in the fields of education, health and housing. Needless to say, these measures are rarely governed by a single family policy but are instead under the realm of different ministries and departments. As a result, comprehensive and cross-nationally comparable data on the overall governmental support for families in different countries is non-existent. As will be seen in this paper what we instead have are data on various (but incomplete) components of governmental support.

Keeping this data limitation in mind, the starting point and motivation for this paper is the "simple" fact that governmental support for families has increased over time while fertility has declined. This is illustrated in Figure 1a for OECD countries and in Figure 1b for selected countries. In this figure, governmental support is expressed in term of public expenditures on families as a percentage of GDP. As can be seen, the index increased from around 1,5 percent, on average, in 1980 to close to 2,5 percent in 2010. Similar increases have been observed for specific countries, although at different levels. In

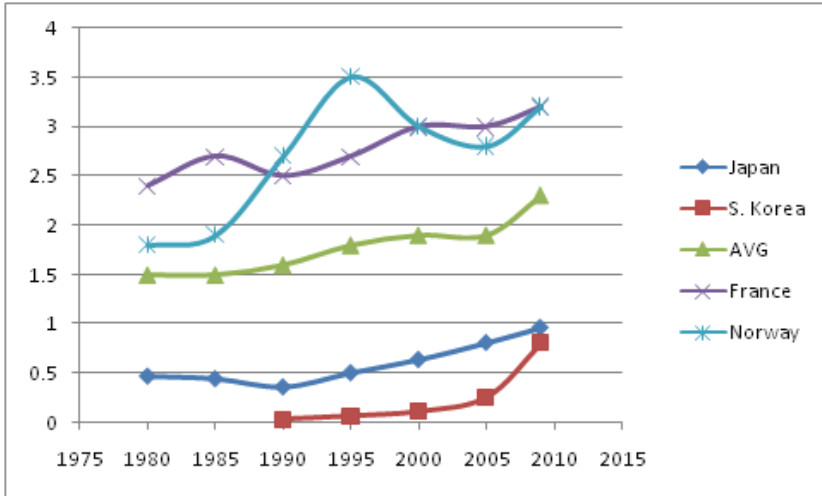
Figure 1b the trends in Japan and South Korea are contrasted to those in France and Norway: two countries known for their relatively high support for families. The East-West gap is obviously very large. As described later in this section, a similar gap is observed for most forms of governmental support for families.

[Figure 12-1] Trends in fertility and social expenditures for families in selected countries, 1980-2009

a) Average values for OECD countries



b) Social expenditures for families in selected countries(as a percentage of GDP)



Where TFR: Total fertility rate; SocExp: Social expenditures on families as a percentage of GDP

Sources: TFR:OECD Family Database; SocExp: OECD Social Expenditure database (SocX Aggregate series): Total public expenditures for families as a percentage of GDP: Online: http://stats.oecd.org/Index.aspx?datasetcode=SOCX_AGG

These simple graphs obviously run counter to the hypothesis that governmental support for families has a positive impact on fertility. If this hypothesis were supported, the data would instead show an increase over time in both indicators. In reality, the causality between governmental support and fertility is very tricky to establish –especially on the basis of these graphs. It could for instance be that the increases in governmental support have prevented fertility from falling to even lower levels, or it could be that the two trends are influenced by external factors. As will be discussed in the last section of the paper,

there are some indications that governmental policies can influence fertility decisions. It remains that the overall impact of policies on fertility is likely very small.

What these graphs also hide is the fact that the nature of governmental support for families has considerably changed over time. Three main periods are usually distinguished In the literature (e.g. Gauthier 1996). The first one spans the years 1945 to the 1960s when there was a very rapid expansion of governmental support for families. In most countries this expansion took mainly the form of universal child or family allowances. This new form of financial support marked in fact a drastic shift with the very targeted and scattered measures of financial support that were in place prior to World War II. In contrast, the dominant ideology of the immediate post World War II period was that the financial support of all families was governmental responsibility. The second period spans the years 1970s and 1980s when the focus again shifted but this time towards the introduction of measures targeted at families in greatest needs especially poor families and single-parents. In most countries this shift translated into the introduction of new measures and programs for families in greatest needs while in others it translated into the imposition of ceilings and means-testson previously universal cash transfers⁶⁵).Concerns

65) Note that in some countries the shift from universal to means-tested programs instead took place in the 1990s.

about child poverty, rising numbers of single-parents, and financial constraints on governmental budgets were behind this new emphasis on families in greater needs. Finally the third period extends from the 1990s till today and was characterized by a new emphasis on governmental support to working parents including extended leave arrangements and childcare provision. In most countries, this new emphasis was not motivated by low fertility levels but was instead introduced under the heading of gender equality. And while the initial aim was to support the participation of women (mothers) in the labour market, this aim was eventually broadened to encompass working fathers.

These three historical periods broadly apply to all industrialized countries. Differences between countries remain however large when it comes to the actual level and nature of governmental support for families. We already pointed to this in Figure 1b in contrasting Japan and South Korea with France and Norway. The choice of these four countries was obviously not a random one. In particular, and as mentioned, France and Norway are known for their relatively high support for families. The nature of their respective support for families varies however quite systematically (Gauthier 2002; Thevenon 2008; 2011). Norway's approach to family policy is similar to that observed in the other Nordic countries. It is an approach that mainly emphasizes support for working parents, especially in terms of

well-remunerated parental leave and highly subsidized child-care facilities, and an approach that also favours income redistribution through an extended system of cash benefits and tax transfers. As a result, female labour force participation in these countries tends to be high and child poverty low. France's approach to family policy is instead most comparable to that in place in the other Western European countries. It is an approach that tends to be relatively generous when it comes to the financial support for families, but less so when it comes to support for working parents. France has in fact a very long history of governmental support for families and endorsed for a long period of time an explicit pronatalist ideology. Nowadays the French pronatalist ideology has gradually faded in the background of other economic priorities. The actual level of governmental support for families remains nonetheless relatively large. In contrast to these two countries, Japan and South Korea's approach to governmental support for families tends to instead share similarities with that in place in other liberal welfare states. It is an approach characterized by relatively low levels of governmental support for families both in terms of financial support and in terms of support for working parents. As a result, child poverty in these countries tends to be relatively high and leave arrangements in connection with childbirth and childrearing relatively short.

As will be seen below, governmental support for families in

Japan and South Korea has changed quite substantially in recent years. It remains that, from an international perspective, these two countries lag behind Europe's leading countries.

2.1. Financial support for families

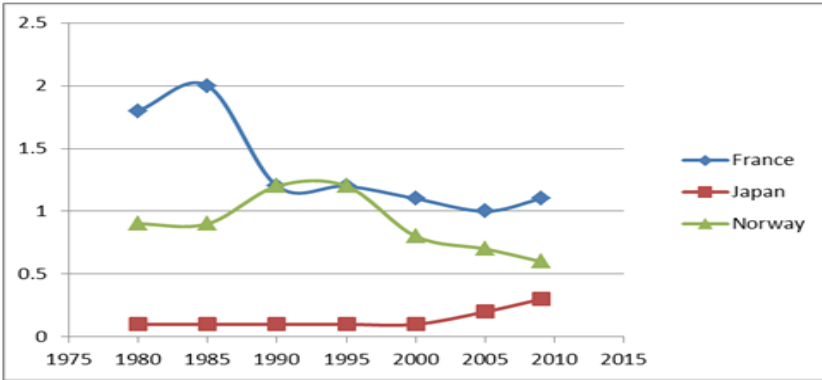
The field of financial support for families encompasses a wide range of various types of cash transfers and tax benefits, some universal, some means-tested. Figure 2a and 2b below present two different time-series that capture trends in financial support for families. The first series refers to governmental expenditures on family and child allowances as a percentage of GDP. The trends contrast quite sharply with those of the earlier series (in Figure 1). While the data on total governmental expenditures on families displayed an increase over time, data restricted to family allowances display instead a retrenchment – at least for France and Norway (Figure 2a). Japan's expenditures on family allowances remained low throughout this period with the exception of the recent years when a substantial increase was observed. This increase reflects the expansions to the country's child benefit program from the 2000s. Data for Korea is not available for this indicator.

The second time-series captures more comprehensively financial support for families by taking into account both cash transfers and tax relief for families with children. The index is

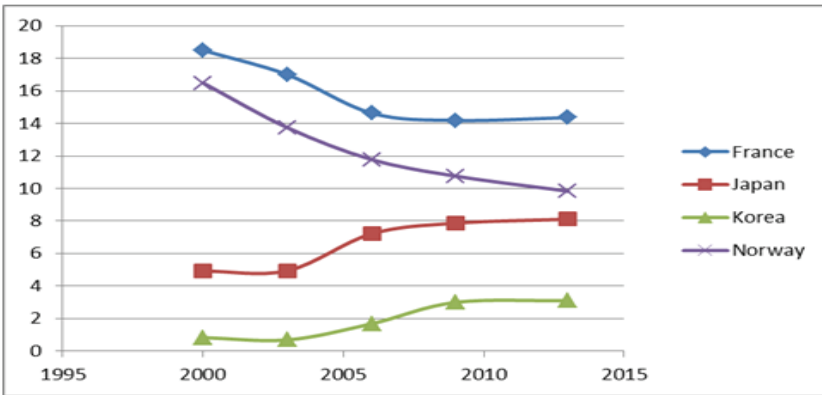
based on the net income of families after taxes and should be interpreted as the percentage of additional income available to families with children as compared to that of an equivalent single person. The time-series is much shorter but captures interesting cross-national differences. Specifically, France and Norway have both have seen a strong decline since 2000, but have nonetheless maintained their leading position,. In contrast, financial support for families has increased in both Japan and Korea during this period. The strong declines in financial support for families observed in Norway, and to a lesser extent in France, are surprising. It is however possible that they are an artifact of the data in not capturing tax benefits (Figure 2a) or the support to one-earner families only as opposed to two-earner families (Figure 2b). Support for working parents (through work incentives) has indeed been an important focus of policies since the 1980s and 1990s and are not captured by the above data.

[Figure 12-2] Trends in financial support for families in selected OECD countries

a) Governmental expenditures on family allowance programs , 1980-2009
(as a percentage of GDP)



b) Index of financial support for families, 2000-2013¹



Note: 1- The index represents the disposable income of a two-child two-parent (one earner) family as a percentage of the disposable income of a single person with similar earnings. The disposable income is that after taxes and cash transfers. The earnings are that of an average worker in the manufacturing sector.

Source: OECD Social Expenditures database; and Comparative Family Policy Database, based on data on from Taxing Wages by the OECD (own calculation).

Cash support for families in the form of cash transfers and tax credits are however not the only type of financial support for families. Governments also support financially families through subsidies and services in the fields of health, housing and education. Cross-nationally comparable data on these other policy fields are however very rare. To our knowledge, the study by Bradshaw and Finch (2002) is the only one to have attempted to quantify various components of governmental support for families for a large number of countries. Their results vary depending on the circumstances of each family (income and number of children). In general, however, the results reveal the low support for families in Japan compared to that of other countries (South Korea was not included in the study). In contract, France and Norway appeared in a middle to high position. Moreover, the study also revealed that Japan's ranking worsened considerably after taking into account housing and services. In other words, while the level of financial support provided to families in Japan through taxes and benefits is low by international standards, it is even lower when health, education and housing are taken into account.

2.2. Support for working parents

Throughout the last decades, governments have introduced a wide array of measures aimed at supporting working parents.

Among those, the maternity, parental, paternity and childcare leave schemes occupy a central place. The use of these terms is not consistent across countries. But in general maternity leave refers to the period immediately before and after birth, is generally of a relatively short duration (a few months) and is reserved to the mother. In contrast, the terms parental and childcare leaves tend to refer to leaves of longer duration (1 to 3 years) which, in several countries, can be shared (totally or partially) between parents⁶⁶). Finally, the term paternity leave is usually reserved to the very short period of leave reserved exclusively to fathers and usually associated with childbirth.

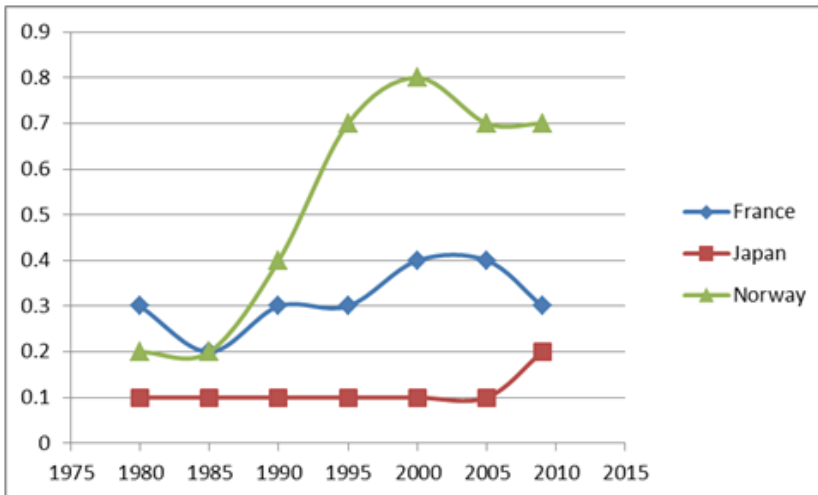
Figure 3a presents a time-series on governmental expenditures on maternity and parental leave. It reveals a considerable increase, especially from the early 1990s. Japan appears in a lagging position on this indicator, way behind France and Norway. Figure 3b displays the data differently, not in terms of expenditures, but instead in terms of the actual duration of maternity and parental leave. The index is expressed in terms of number of weeks and is pro-rated by the amount of cash benefits paid during the leave. It should thus be interpreted as the number of fully compensated weeks of leave (e.g. 12 weeks

⁶⁶) Some countries draw a distinction between parental leave which refers to the leave of absence immediately following maternity leave and which can last up to three years in some countries and childcare leaves which in some countries is a subsidy for stay-at-home parents. In most countries however the two terms are used as synonymous.

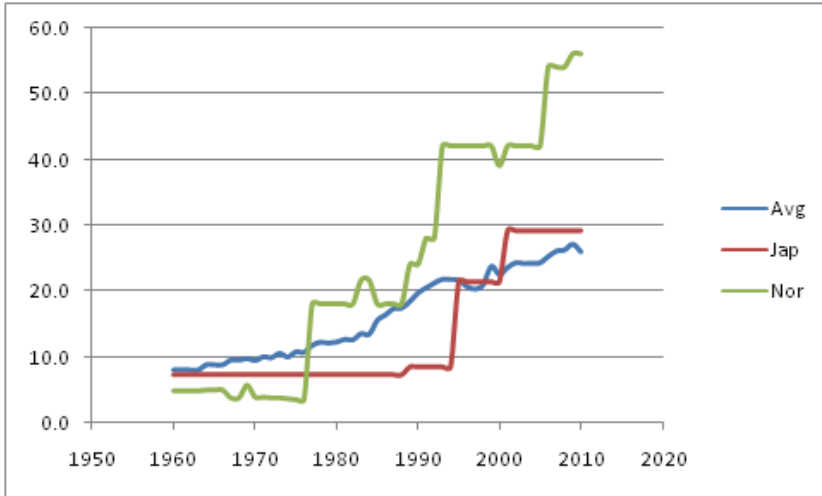
paid at 60 percent of previous earnings is equal to 7,2). As mentioned earlier, Norway belongs to a group of countries which provides high support for working parents. This can be seen in this figure by the leading position of Norway on this indicator. Japan appears again in a lagging position but with a sharp improvement since the mid-1990s. This improvement comes from the introduction of a new parental leave in the early 1990s and an increase in its cash benefits some years later.

[Figure 12-3] Trends in governmental support for working parents

a) Governmental expenditures on maternity and parental leave, 1980-2009
(as a percentage of GDP)



b) Maternity and parental leave arrangements, 1960–2010¹



Note: 1- The index represented the number of weeks of maternity and parental leave pro-rated by the cash benefits received during this period. It is thus the number of fully compensated weeks of leave (e.g. 12 weeks of leave at 60 percent of salary is equal to 7,2 fully compensated weeks).

Source: OECD Social Expenditures database and Comparative Family Policy Database, based on data on various sources of data including the USA Social Security Programs throughout the World (own calculation).

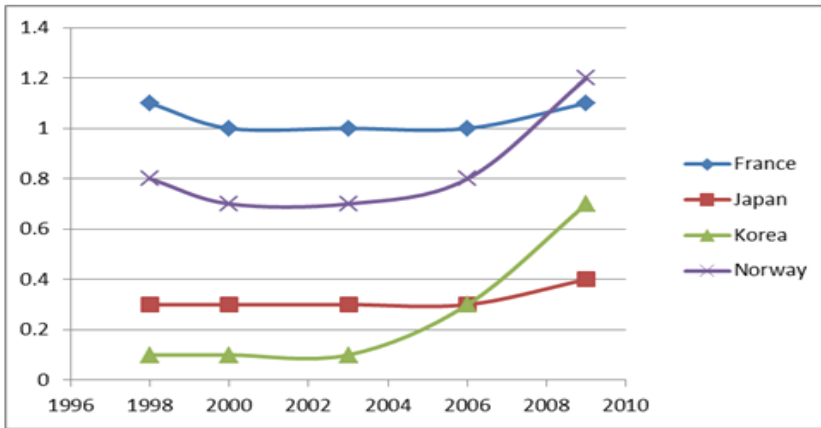
The provision of parental or childcare leaves has become the norm in most countries. These leaves tend to be of a relatively long duration, are partially paid (usually at a lower rate than the maternity leave), and can in some countries be shared with the father. The take-up rate of such leaves tends to be relatively high among mothers, but remains quite low among fathers. The public acceptance of fathers taking leave as well as financial reasons are often given for the low take-up rate of parental leave by men. The Scandinavian countries stand so far

as the most advanced group of countries in this respect with higher take-up rates of parental leave by fathers .

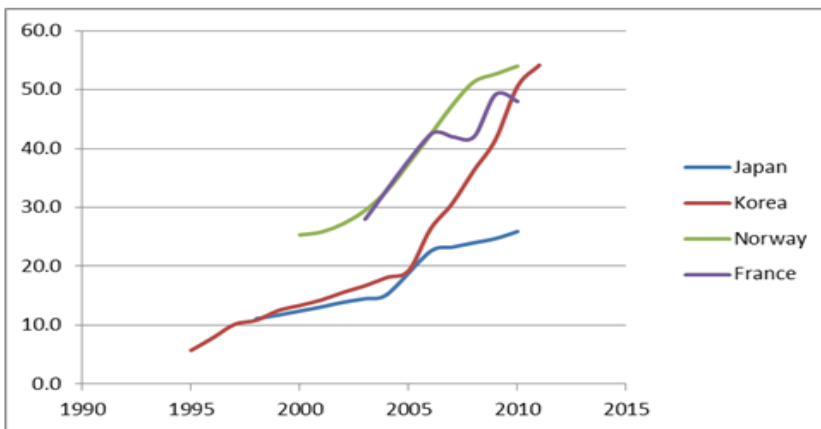
While leave arrangements are a key way of helping parents combine work and family responsibilities when the children are very young, the provision and subsidies of childcare is another crucial element. In most countries, the provision of public childcare has increased quite steadily since the 1980s. Its supply continues however to lag severely behind its demand and its cost remains very high for numerous families. We lack again cross-nationally consistent time-series data. What we do have are data on governmental expenditures on childcare and preschool education for recent years (Figure 4a) and for enrolment rate in formal care and preschool for children age 0-2 years old (Figure 4b). The data reveal the strong increase in governmental support for childcare during the past decades. France and Norway appear in a leading position on both indicators and Japan in a lagging position. The trend for Korea is remarkable and displays a very rapid expansion of childcare provision: a decision mainly motivated by a desire to support female labour force participation.

[Figure 12-4] Trends in governmental support for childcare in selected countries

a) Governmental expenditures on childcare and preschool education, 1998-2009 (as a percentage of GDP)



b) Enrolment rate of children under 3 years of age in formal childcare and pre-school in selected countries, 1995-2011



Sources: OECD Social Expenditure database, and OECD Family Database.

The above description of governmental support for working parents is obviously incomplete. A more complete picture would require additional data on the conditions of work (e.g. possibility of working from home, having flex-time, or opportunities for part-time work), the quality and cost of childcare provision, and the legal protection of workers in connection with childbirth and childrearing. Despite these limitations, the overall conclusion is that governmental support for families has increased during the past decades, especially in the field of support for working parents. The support for families in Japan and South Korea has followed a similar trend although tends to remain below the leading countries.

3. Obstacles to fertility and policy preferences

Having examined trends in the actual level and nature of governmental support for families, we now shift our inquiry to individuals' perceived obstacles to fertility and their related policy preferences. Cross-nationally comparable data on this topic are however rare and time-series nearly inexistent . We relied in this section on three sources to piece together some data on this topic: Eurobarometer surveys, Population Policy Acceptance Surveys, and country-specific fertility surveys (for Japan). As will be seen, and despite the differences in survey questions, financial obstacles to fertility tend to emerge as the top item.

We start with the Eurobarometer survey in view of its longer time-series. The survey questions and items are not the same across the years and therefore not directly comparable. What we can however draw from them are broad findings. Moreover, and in order to facilitate the interpretation of the data, I have classified the survey items into three main groups: financial items (including housing and the cost of children), work-family reconciliation items and other items. The data in Table 1 (first two columns) display respondents' answer to the question of the main problems facing families. Financial problems, including housing and the high cost of children, dominate both the 1979 and 2008 results. This strong consistency is remarkable. By 2008, problems related to the combination of work and family responsibilities also received a high support with a high percentage of respondents agreeing with this item.

(Table 12-1) Obstacles to fertility and difficulties facing families in European countries

	Eurobarometer1	1979	Eurobarometer2	2008	Population Policy Acceptance Survey3	1991	2003
Financial reasons	Housing	25.4	High cost of housing	39.0	Another child would cost too much	17.5	18.3
	Money	30.6	High cost of children Level of public support for families	31.6 15.6	House is not suitable	20.5	n/a
Work-family incompatibility reasons	Hours of work	10.6	Combining work and family	24.7	My job would not allow it	16.8	28.7
	School holidays	9.9	Too little support from employers	9.8			
	Childcare	14.3	Arranging good childcare	11.8			
General & parenting reasons	Transport	9.9	School	17.6	Concerned about the future	29.3	12.4
	Playgrounds	13.9			Enough difficulties	14.3	n/a
	Leisure facilities	13.5			Will not be able to take care	21.3	n/a
Lifestyles	Social problems	5.5			My other children would not	16.5	n/a
					Want to maintain my standard of living	21.7	19.2
					Would have to give up leisure time	6.8	31.1
Demographic					Would not be able to enjoy life	11.3	24.2
					Too old	24.2	35.8

	Eurobarometer1	1979	Eurobarometer2	2008	Population Policy Acceptance Survey3	1991	2003
					My health	33.5	31.3
					I have all the children I want	54.7	12.3
					My partner is against it	31.0	19.2
					Live alone and no partner	25.5	2.4
					Afraid of a pregnancy	15.0	n/a
Other			Unequal sharing of household tasks	5.8			

Notes: 1- Data from the Eurobarometer surveys. In 1979 the question was: "Have you experienced in raising any of your children whilst under the age of 15 (either now or when they were 15) any of the following problems?"; The figures reported in this table are the average across all participating countries. In 1979, the following countries participated Belgium, Germany, Denmark, France, Greece, Ireland, Italy, Luxembourg and Netherlands; 2- Data from the Eurobarometer survey. The question asked was in 2008: was: "I am going to read out a list of difficulties which families could face. In 2008 the questions were asked to all 27 EU member states: 3- Data from the Population Policy Acceptance Surveys. Figures for 1990 are averages of the percentages of respondents aged 20-39 who answered that the items were 'very important' for not wanting a(nother) child in Austria, Czechoslovakia, Germany, Italy, Netherlands, and Switzerland (questions were not asked to male respondents in Belgium, Hungary and Spain); Figures for 2003 are averages of the percentages of respondents aged 20-40 who answered that the items were 'very important' for not wanting a(nother) child in Austria, Belgium, Cyprus, the Czech Republic, Estonia, Finland, Germany (East and West), Hungary, Lithuania, Poland, Romania and Slovakia (questions were not asked in Italy).

Sources: Compiled by the author based on the data from the data surveys archived at GESIS (Eurobarometer 11 (April 1979) and based on the Analytical report for the 2008 survey (Flash Eurobarometer 247 (September 2008)). For the Population Policy Acceptance Surveys, figures for 1990 were calculated based on Table A.9 in Moors and Palomba (1995); Figures for 2003 are based on Table 3.3 of Fokkema and Esvelt (2006).

The other two columns of Table 1 draw from a totally different source of data, the Population Policy Acceptance Surveys, that were carried out in selected European countries in the 1990s and early 2000s. The question asked to respondents differ from the Eurobarometer ones and was instead stated as obstacles to fertility. Results again very strongly illustrate the importance of financial items. Problems related to housing and the cost of children appear in both years as very important. Problems related to the combination of work and family responsibilities was not rated among the top item in the first wave of the survey, but emerged as very high in the second wave. General concerns about the future also appear as very important, especially in the first wave of the survey. In both years, demographic reasons, including being too old and health reasons, receive a high support.

There is no fully comparable data for Eastern countries. Japan's recent national fertility surveys however did include one question on why couples did not realize their ideal number of children. The data appear in Table 2. Financial reasons, namely 'it costs too much to raise and educate children' clearly dominate the results in both 2005 and 2010. This is not surprising considering the high private expenditures on education in Asian countries (see below). In contrast, work-family reasons receive very low support: a situation likely reflecting the persistence of traditional norms regarding gender division of labour in many Asian countries⁶⁷).

(Table 12-2) Reasons why couples do not realize their ideal number of children in Japan in 2005 and 2010 (percent mentioning each item)

		2005	2010
Financial reasons	It costs too much to raise and educate children	65,9	60,4
	House is too small	15,0	13,2
Work-family incompatibility reasons	Interference with one's job or business	17,5	16,8
General context and childrearing reasons	Can't bear mentally/ physically the burden of childrearing anymore	21,6	17,4
	Social environment is not suitable for children to grow up without worry	13,6	7,2
Demographic reasons	Hate to bear children at older age	38,0	35,1
	Want to have a child but can't conceive one	16,3	19,3
	Health reasons	16,9	18,6
	Want the last child to grow up before husband retires	8,5	8,3
Other reasons	Can't get husband's cooperation with household chores and childrearing	13,8	10,9
	Husband does not want it	8,3	7,4
	Want to cherish the life of couple or oneself	8,1	5,6

Note: the figures are for first marriage couples whose intended number of children is less than their ideal one.

Source: National Institute of Population and Social Security Research (2011), Table 3.2, based on the 13th and 14th National Fertility Surveys.

67) In the 2010-2014 wave of the World Value Survey, 15 percent of respondents in Japan agreed or strongly agreed that a "preschool child suffers if his or her mother works". The comparable percentage for South Korea was 55 percent. The same question was asked in the 2012 ISSP survey on family and changing gender roles. The percentages agreeing or strongly agreeing were respectively 68% for Korea, 21 for Japan, 35 for France and 15 for Norway.

The high cost of education is an area for which there is considerable East-West difference. Numerous studies have documented the very high pressures on Asian families to help their children succeed in the education system, especially by gaining entrance to the best schools. A large percentage of families consequently invest in additional private schooling for their children: a situation particularly costly for families. There is no long time-series data on the actual cost of education for families. However what we do have are data on public and private expenditures on education for the recent years. Data for 2011 reveal the major East-West differences when it comes to this policy field. While across OECD countries, private household expenditures on education (at all levels) represent 14 percent of total expenditures on education, in Japan and South Korea the figures are respectively 32 and 26 percent. In contrast the figures in most Western European countries are much lower. They are for instance 11 percent in France and a mere 1 percent in Norway.

People's perceived obstacles to fertility is one way of gauging people's needs for governmental support. The other way is by asking people directly about their preference for different types of policies. Table 3 present results again drawing from the Eurobarometer surveys and the Population Acceptance surveys. Again the survey questions are not exactly the same and the survey items differ across years. The results display

nonetheless some consistency with the previous ones in that both financial support for families (including housing) and support for working parents receive high support. In the case of the data from the Population Policy Acceptance Survey, the results furthermore display an increase over time in the support for measures aimed at better reconciling work and family responsibilities. There is however one relatively surprising result. As we saw earlier, financial items were among the top perceived obstacles to fertility. From this point of view, we would therefore expect financial measures to be among the most preferred policies. Higher child allowances and lower income taxes did receive relatively high support across the different surveys. Overall, public opinion appears instead to lean towards the provision of support for working parents as the key priority. There is unfortunately no comparable data for Japan on policy preferences. We could however speculate that decreases in the cost of education would have received a high level of support among the population.

(Table 12-3) Policy preferences

	Eurobarometer1	1989	Eurobarometer1	1997	Population Policy Acceptance Survey2	1991	2003
Financial and housing measures	Suitable housing	44.2	Higher child allowances	19.1	Lower income tax	3	1
	Child allowance	27.1				4	5
	Cost of education	38.0			Means-tested family allowances	12	7
	Tax incentives for families	37.5			Birth allowance	10	8
	Uncertain economic prospects	35.9			Childcare allowance	8	10
					Rise in child allowance	13	9
					Decreased cost of education	5	9
Work-family Reconciliation measures	Time off work	22.2	Better leave arrangements	18.2	Better housing	7	3
	Childcare availability	38.9	Better & cheaper daycare	20.7	Improved leave	9	6
	Working hours	23.3	Flex work arrangements	18.9	Better daycare for 0-2	1	2
	Problems with travel	10.3	More and better part-time	14.1	Better daycare for 3-5	11	11
Other measures					After-school childcare	6	4
					Flex work hours	2	1
	Birth control availability	5.1			Opportunities for part-time work		

Notes: 1- Data from the Eurobarometer. The question asked was: "If the purpose is to improve the life of families, which three of the following things should governments make top-priority for action?". The figures correspond to the percent mentioned; 2- Data from the Eurobarometer. The question asked was: "The government could introduce a number of measures to make it easier to have, to care for, and to bring up children. From the following list, could you please tell me which measure you would most like to see brought in?" (only one answer allowed). The figures correspond to the percentage who choose that measure; 3- Data from the Population Policy Acceptance Survey. The question asked was: "What do you think of the following measures to facilitate having, looking after, and raising children? Are you strongly in favour, in favour, neither in favor nor against, against, or strongly against their implementation?". The figure reported in the table are the percentage indicating a positive attitude towards the suggested family policy measures. For 1990, the data refer to respondents age 20-39 and is the average across countries (computed from Table A.10). For 2003, the data also refer to the population age 20-39 for all countries (own calculation from the CD-Rom included in the book).

Sources: Compiled by the author based on the data archived at GESIS: Eurobarometer 32 (Oct-Nov 1989) and Eurobarometer 47.1 (March-April 1997). For the Population Policy Acceptance Surveys, figures for 1990 were calculated based on Table A.10 in Moors and Palomba (1995) (average across all countries); Figures for 2003 are computed by the author from the CD-Rom.

On the basis of these data, can we conclude to a mismatch between the type of support provided by governments to families and people's own preferences? The answer is not totally clear-cut. For sure the recent emphasis on work-family reconciliation measures by governments appears to be responding to a real needs among the population, especially in view of the strong increase in female labour force participation. Better leave arrangements and higher provision for childcare facilities are still needed in some countries, but overall there appears to be indeed a good match between governmental and public priorities in this area. The situation is however not as clear when it comes to financial support for families. As seen, governmental support in this area has declined in the recent decades in some countries. At the same time, financial reasons continue to be perceived as a major obstacle to fertility. Better financial support for families with children, especially when it comes to the cost of education, is therefore likely an area where governments' and public priorities diverge, at least in Asian countries. More general concerns about children's future, the overall economic climate and job prospects are also likely areas which strongly affect individuals in their fertility decisions: areas that are much more difficult to tackle for governments.

4. Possible impact on fertility

As mentioned earlier, governmental support for families does not have a pronatalist aim in the very large majority of countries but instead aim more generally at promoting the well-being of parents and children and at supporting gender equality. Nonetheless the question of whether or not policies have an impact on fertility has been one that has been addressed in numerous studies. Rarely however have people been asked directly about whether or not they thought that governmental support could impact their fertility decision. Such a question was asked in the Population Policy Acceptance Surveys and provides a unique opportunity to examine the question of policy impact from the point of view of families themselves. The question asked in both waves was: "If those measures which you consider desirable were introduced, would this have consequences for your own personal life? Please indicate whether you agree or disagree with the following statements". Results appear in Table 3. In both waves, the highest level of support went to the item saying that the introduction of their preferred policy measures would allow couples to have their children more easily. Around 60 percent of respondents age 20-40 supported very strongly this statement. Support was much lower when it came to the other items with about 20 to 40 percent saying that it would allow couples to have children sooner, that

they would reconsider having a child and that they would probably have another child.

<Table 12-4> : Perceived policy impact of policies on fertility decisions

	PPAS-I	PPAS-II
It would make it easier for me to have the number of children I intend to have	59,8	62,6
It would enable me to have my next child sooner	24,4	36,0
I would reconsider the possibility of having a(nother) child	29,8	43,8
I would probably decide to have a(nother) child	23,1	38,1
I definitively do not want another child	25,1	n/a

Notes: The question asked was: "If those measures which you consider desirable were introduced, would this have consequences for your own personal life? Please indicate whether you agree or disagree with the following statements:". The figures are the percentage agreeing with the statement. In both years they refer to respondents age 20-39 years old. In 1990, an additional item was included: ""These measures should be a normal part of life's necessities in any case".

Sources: Figures for 1990 were calculated based on Table A.11 in Moors and Palomba (1995) (average across all countries); Figures for 2003 are computed by the author from the CD-Rom.

On the basis of these data, researchers have been able to estimate the possible impact of policies on fertility. In both waves, the impact on the total number of children would be around 0,2 children, that is, the fertility rate would be about 0.2 higher if the policies were introduced. Of course, these data should be interpreted with caution since responding that one would have another child in a survey may well differ largely from deciding to have, or not, a child in reality. Still, this figure provides an idea of the possible impact of policies: a sort of upper-bound estimate - and interestingly, it is quite consistent

with results obtained from econometrics models.

5. Conclusion

Public support for families continues to be an important budget item in governmental social expenditures representing more than 2 percent of GDP on average. Yet, public opinion remains divided as to its degree of satisfaction with this support. Asked how satisfied they were with public support for families with children, 62 percent of respondents in the 2008 Eurobarometer survey said to be very or fairly satisfied⁶⁸). And while work-family reconciliation measures appear to receive a high level of support among the public as an important policy area, it remains that financial concerns including the high cost of children also ranks high in public opinion. In view of these results, the question is obviously: Have the governments missed the mark and/or should do more (or differently) for families?

68) A large percentage of respondents did not know or failed to answer the questions (21 percent).