

Why is fertility falling in Norway?

A descriptive analysis of parity transitions during the last decade

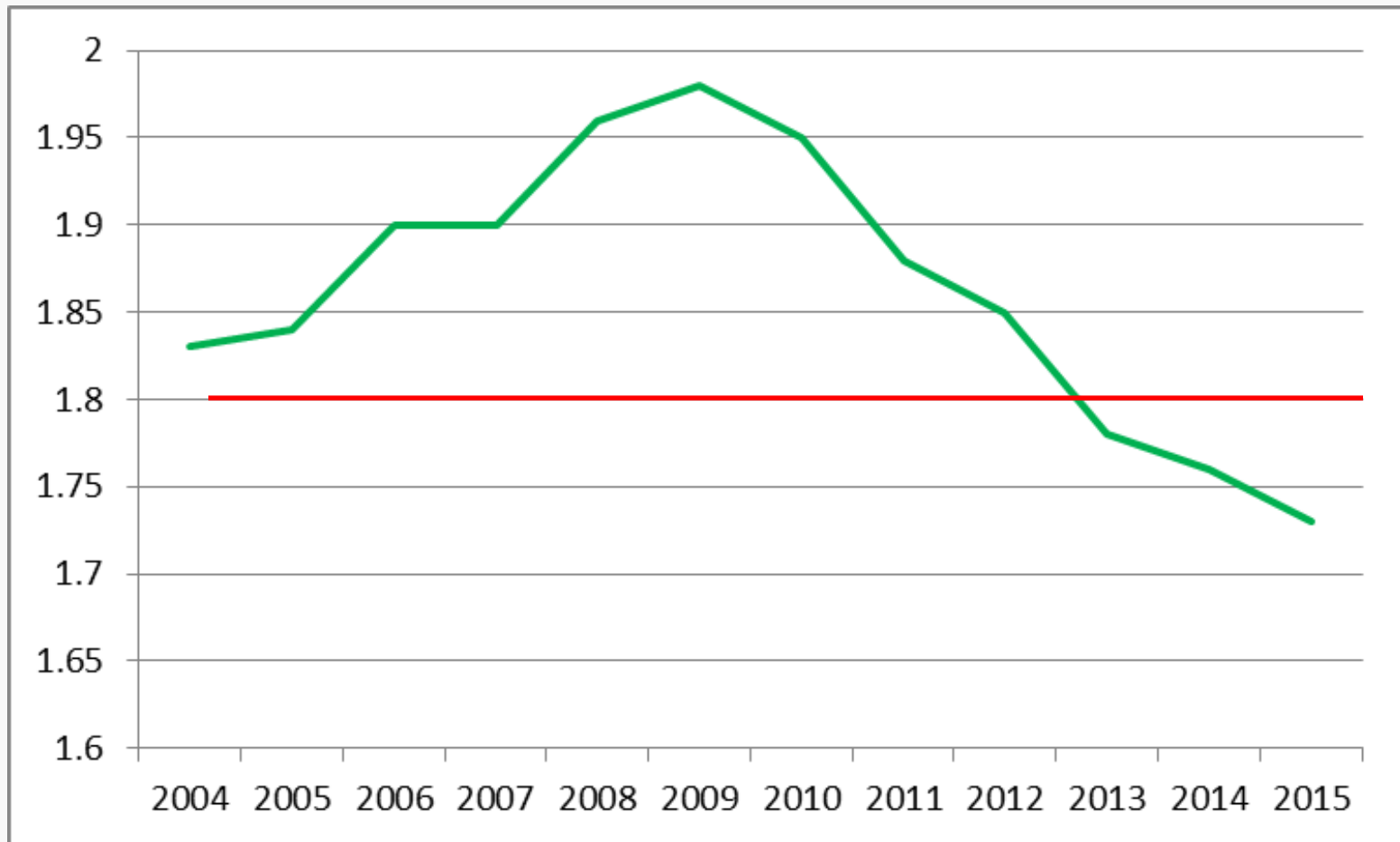
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UNECE projection workshop 2016

In collaboration with R.K. Hart & M. Rønsen

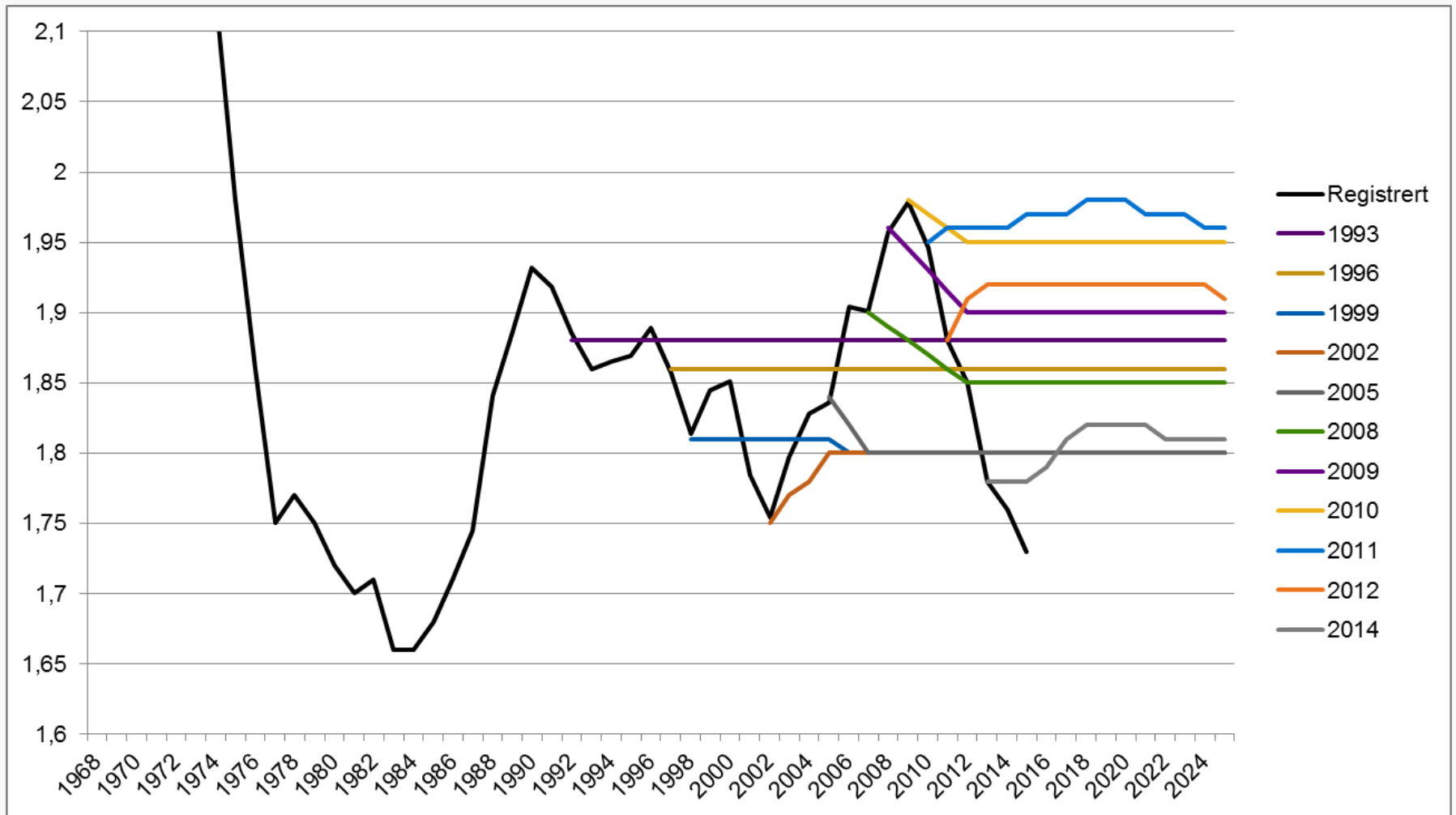
> 2009, steady decline in Norwegian TFR



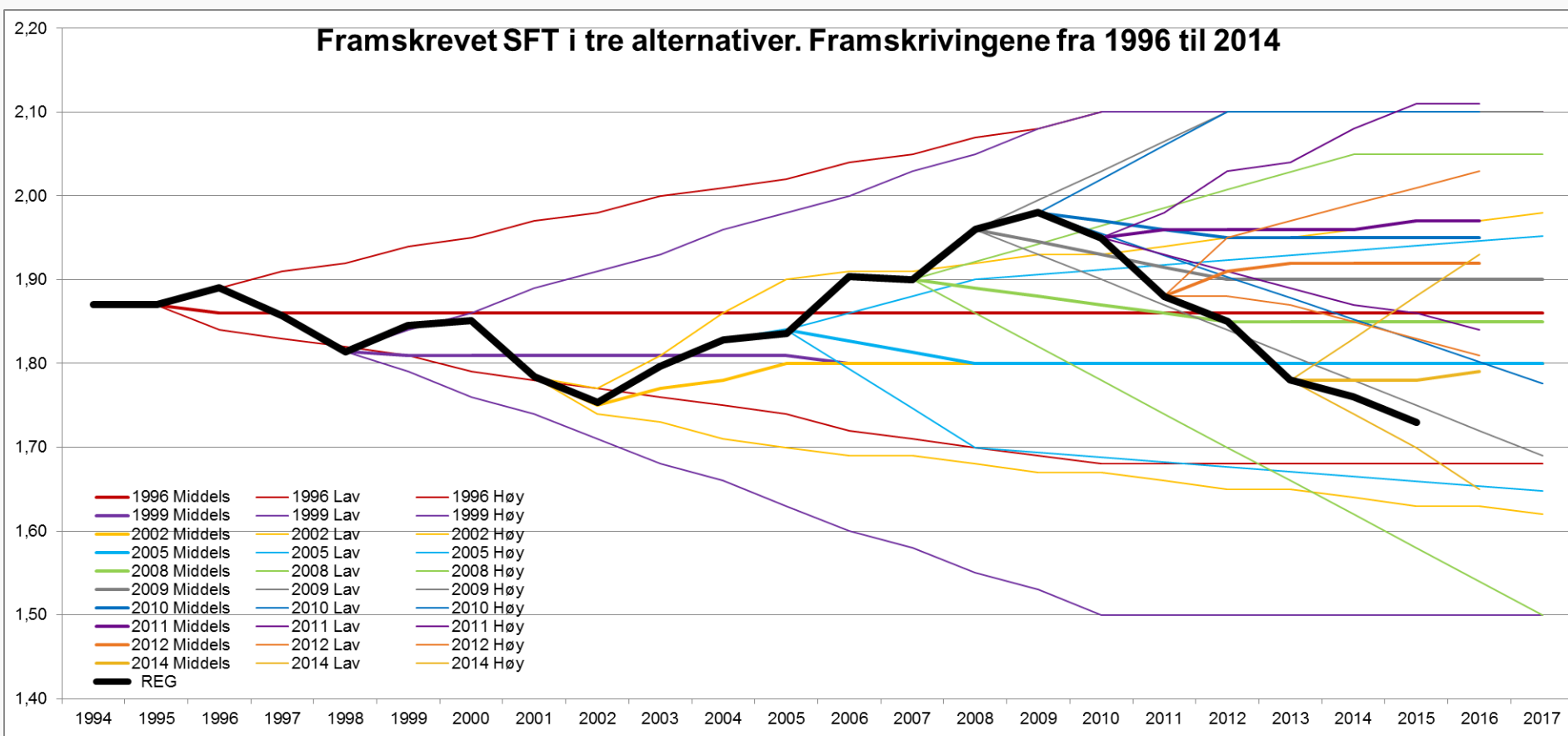
Background & Aim

- Norway will present new population projections June 2016
- Future fertility levels are set based on expert opinions – informed by
 - Socio-demographic patterns in fertility 2004-2014 (age, educational level/enrollment, labor force participation & imm. background)
 - The contribution of compositional changes to the fertility decline
- Women who differ on these characteristics are likely to vary in their time and monetary constraints
- Pinpointing subgroups with concentrated fertility falls may shed light on social mechanisms behind recent developments
- Knowledge of the patterns of change is also vital for policy makers and community planners, and perhaps relevant for countries attempting to counteract falling fertility levels

TFR 1993-2025 – Obs. & projected (M)



TFR 1996-2017 – Obs. & projecteed (LMH)



Norway

- The economic downturn in Norway has been very modest
- TFR in Norway still fairly high compared to other countries in Europe (Population Reference Bureau 2015)
- Part of the ‘Nordic fertility regime’
 - High TFR since few childless and one-child families rare
 - Near replacement or ‘highest-low’ fertility in combination with high female labor force participation (Frejka & Sobotka 2008)
- Comprehensive family policies facilitate childbearing
 - Eases the combo of paid work/parenthood to ensure high labor supply of mothers
 - But also policies to reduce the monetary cost of children
 - Evading low fertility a ‘covert’ political aim (Vollset 2011)

Existing studies

- Fertility decline >2009 mirrored in several Western countries
 - Linked to increasing unemployment and economic uncertainty (Goldstein et al.2013)
- Higher education and enrollment associated with smaller families
 - E.g. Berrington et al. 2015
 - But less so in the Nordic countries (Kravdal & Rindfuss 2008)
- Labor market attachment facilitates childbearing in the Nordic context
 - E.g. Andersson et al. 2014, Hart 2015, Jalovaara & Miettinen 2013, Koelet et al. 2015
- Kindergarten availability found to increase fertility
 - E.g. Rindfuss et al. 2010, Bauernschwester 2013
- Increased gender equality in care for small children may increase fertility
 - E.g. McDonald 2000, Goldscheider et al.2015
- Fertility is higher (but declining) in general among immigrants
 - E.g. Sobotka 2008
 - This is also the case in Norway (Tønnessen 2014)

Theoretical framework

Easterlin and Crimmins (1985)

- Supply
 - Refers to the ability to conceive and bear a child
 - One must be sexually active & physically able to have children
 - Fecundity declines with age, but medical treatment improved
- Demand
 - Refers to desire to have children: Economic & non-economic
 - Economic: Income effects and effects of costs of children (Becker 1991)
 - Non-economic: Preferences, norms & ideals (Lestaeghe 2010; Sobotka & Beajoulan 2014)
- Regulation costs
 - Refer to the access to and the acceptance of use of regular and emergency contraceptives (including elective abortion)

Data and methods

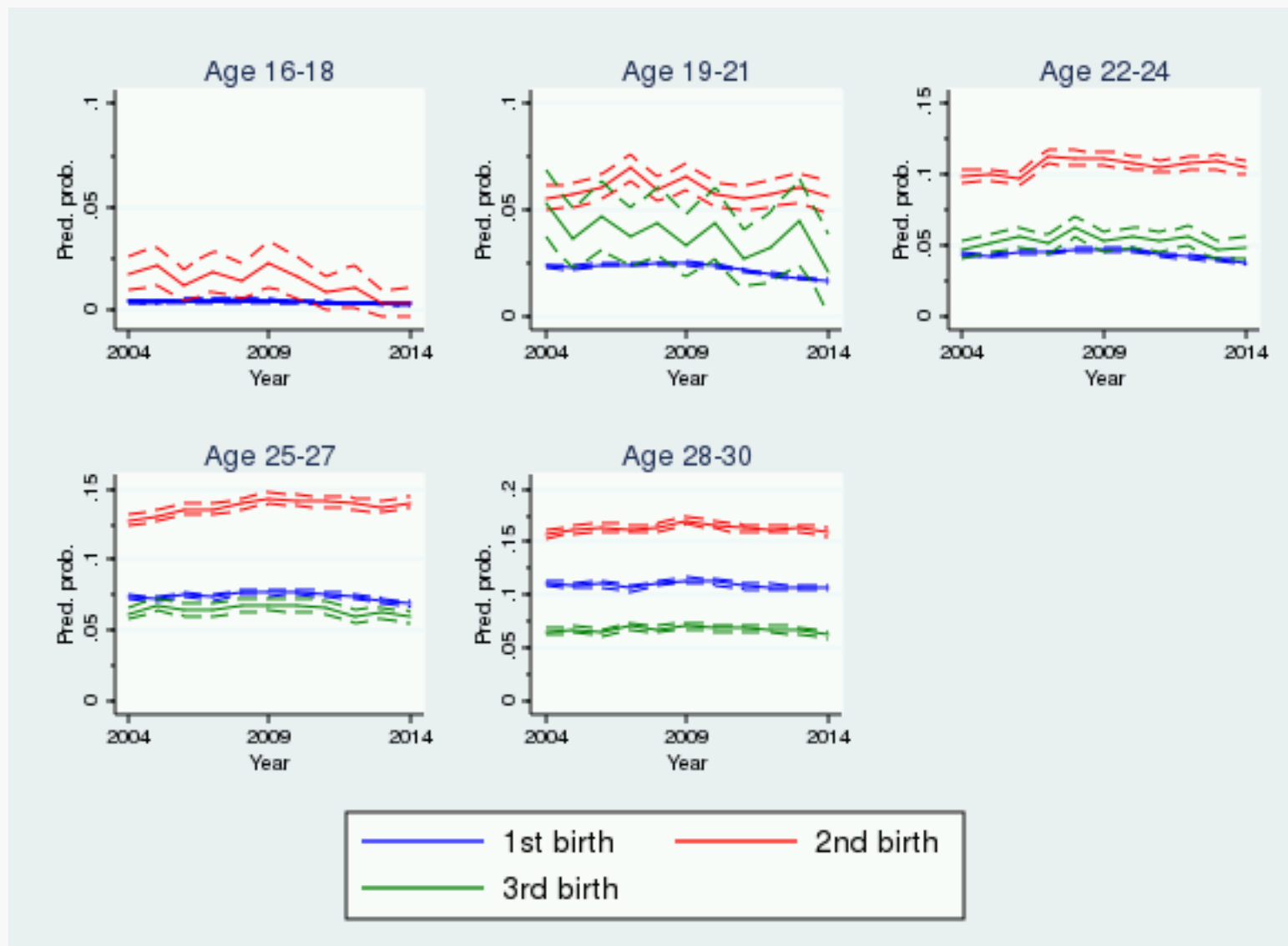
- Linked administrative population data (in-house)
- All women age 16-45 in 2004-2014 (N=1.8 million)
- Transitions to a first, second and third birth were analyzed separately using discrete time hazard regression models, presented as predicted probabilities
 - 307 493 1st births, 908 182 women, 6.8 pyrs
 - 249 129 2nd births, 461 342 women, 4.4 pyrs
 - 98 570 3rd births, 468 189 women, 5.7 pyrs
- Fully adjusted models include age, education (level & activity) & immigrant background
- Focus is also directed towards labor market attachment

Overall results: Absolute & relative change in predicted probabilities for 2004-09 & 2009-14

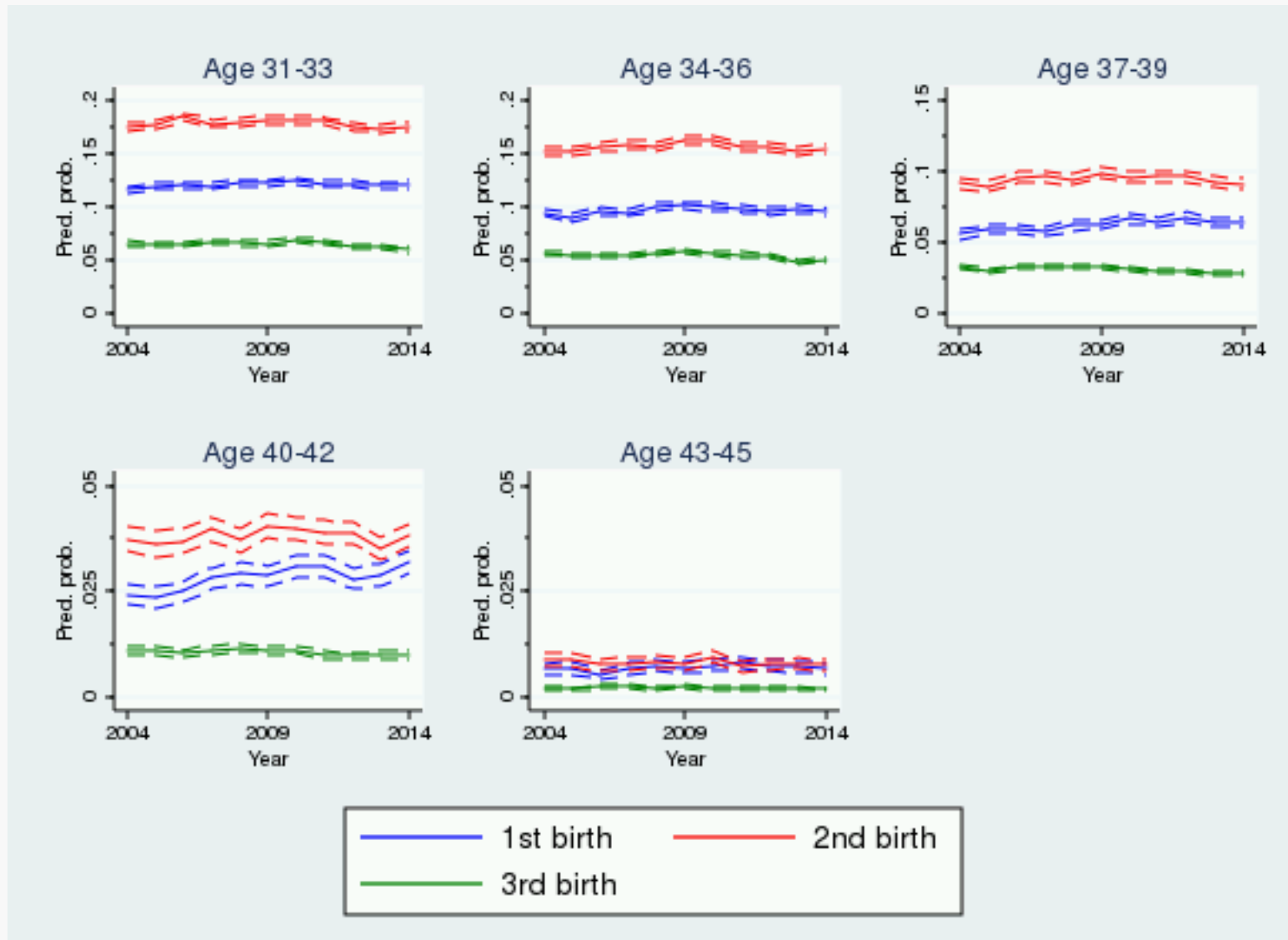
	2004-2009		2009-2014	
	Abs. change ^a	Rel. change ^b	Abs. change	Rel. change
First births	0.30*	6.0	-0.51*	-9.6
Second births	0.93*	7.9	-0.64*	-5.1
Third births	0.12	3.2	-0.47*	-12.3

Note: Results from fully adjusted models, i.e. age group, educational level and activity & immigrant background

Fertility probabilities by age group I



Fertility probabilities by age group II



Absolute and relative change in predicted probabilities for 2004-09 and 2009-14

	From 2004-2009		From 2009 to 2014	
	Abs. change ^a	Rel. change ^b	Abs. change	Rel. change
First births				
Basic schooling	0.31*	11.1	-0.79*	-25.9
High school	0.07	1.4	-0.94*	-17.5
Some college ed.	0.35*	4.2	-0.87*	-10.2
Higher college ed.	0.97*	10.8	-0.42	-4.2
Enrolled in ed.	0.12	5.4	-0.65*	-27.1
Not enrolled in ed.	0.43*	6.7	-0.39*	-5.6
In labor market	0.08	0.9	-1.29*	-14.9
Not in labor market	0.21*	10.0	-0.06	-2.4
Immigrant	0.77*	18.4	0.97*	19.8
Norwegian-born	0.07	1.4	-1.02*	-18.9

Note: Results from fully adjusted models, i.e. age group, educational level and activity & immigrant background (excluding the stratifying variable itself)

Absolute and relative change in predicted probabilities for 2004-09 and 2009-14

	From 2004-2009		From 2009 to 2014	
	Abs. change ^a	Rel. change ^b	Abs. change	Rel. change
Second births				
Basic schooling	0.50	5.6	-0.34	-3.7
High school	0.95*	9.1	-0.67*	-5.9
Some college ed.	1.20*	8.2	-1.05*	-6.6
Higher college ed.	1.23*	7.9	-0.43	-2.6
Enrolled in ed.	1.53*	16.9	-0.92*	-8.7
Not enrolled in ed.	0.87*	7.2	-0.60*	-4.7
In labor market	0.86*	6.7	-0.39*	-2.9
Not in labor market	0.39	4.3	-0.05	-0.5
Immigrant	0.41	3.9	0.11	1.0
Norwegian-born	1.12*	9.2	-0.91*	-6.8

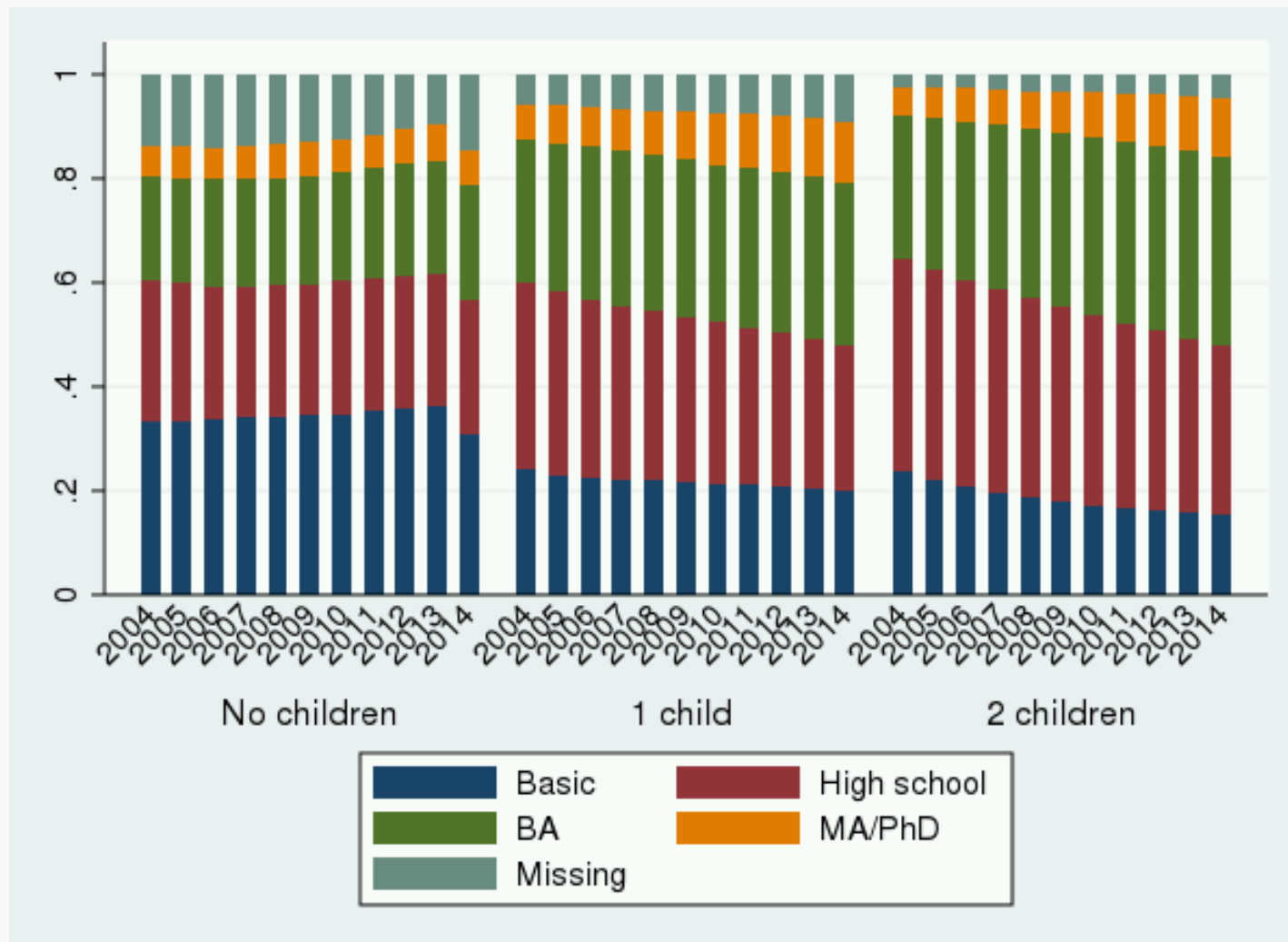
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Absolute and relative change in predicted probabilities for 2004-09 and 2009-14

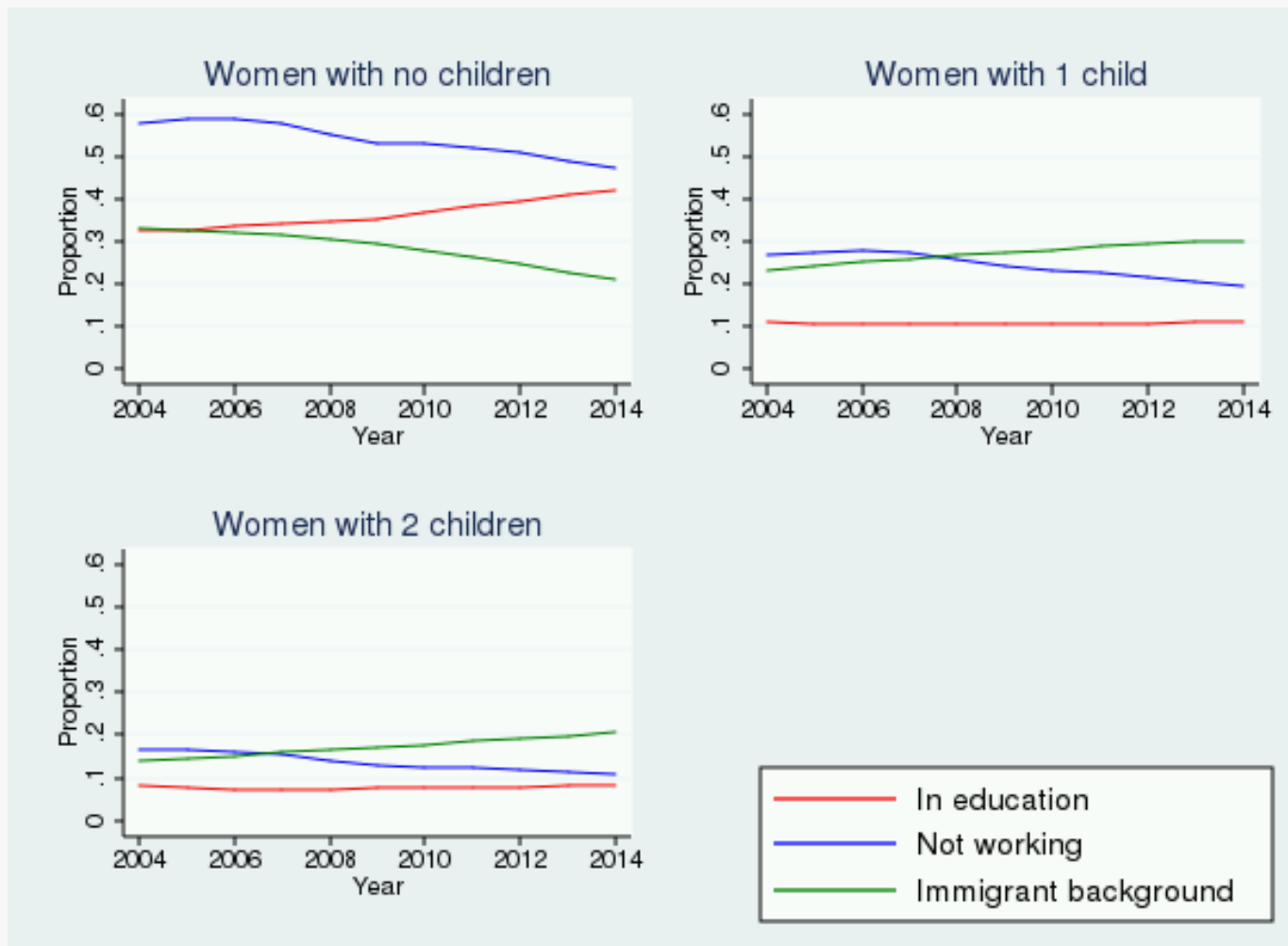
	From 2004-2009		From 2009 to 2014	
	Abs. change ^a	Rel. change ^b	Abs. change	Rel. change
Third births				
Basic schooling	0.10	2.7	-0.01	-0.1
High school	0.14	4.7	-0.38*	-12.5
Some college ed.	-0.01	-0.2	-0.66*	-15.6
Higher college ed.	0.33	6.8	-0.72*	-14.1
Enrolled in ed.	0.10	2.7	-0.48	-12.7
Not enrolled in ed.	0.12	3.3	-0.47*	-12.2
In labor market	0.19*	5.5	-0.42*	-11.5
Not in labor market	-0.42	-7.6	-0.19	-3.7
Immigrant	-0.29	-5.6	-0.38	-7.7
Norwegian-born	0.17*	5.0	-0.50*	-13.8

Note: Results from fully adjusted models, i.e. age group, educational level and activity & immigrant background (excluding the stratifying variable itself)

Changes in educational level over time



Proportion of women in the respective groups



Summary

- Birth ages rose consistently from 2004 to 2014
 - Robustness analyses showed that the spacing between children remained fairly constant
- >2009, slight fertility decrease for all transitions
 - 10, 5 and 12% for 1st, 2nd and 3rd births, respectively
 - True regardless of educational level and activity
 - The consistent increase in education thus plays a minor role
- For all transitions, fertility decreased for women in the labor market, but remained relatively stable for outsiders
 - The latter group comprises a decreasing share of women from 2004-14
- Fertility fell for all transitions for Norwegian-born women >2009
 - 1st birth probability rose for immigrant women
 - Only minor changes were seen for 2nd and 3rd births
 - Immigrant women comprise a decreasing share of childless women, but an increasing share of mothers in Norway

Implications for this year's projections

- Compositional changes – likely to continue!
 - We see no evidence that women will reverse their educational efforts (level & activity) or retreat from the labor market
 - Immigration is projected to continue to increase
- Fertility patterns within groups – likely to continue?
 - It is less clear to which degree the fertility patterns within the various groups of women will remain stable or change
 - If a change is to be expected, the direction is also unclear
- Continue current level (1.7)?
- Project the current average (1.86)?
- Incorporate the declining trend from 2009 (1.98-1.73)?
- Feedback is appreciated!

Conclusion

- Significant fertility declines are mainly found for younger women – and for 3rd births in particular
- Many of the other fertility declines are surprisingly consistent across different female groups
 - Compositional changes thus contribute relatively little to the overall fertility decline
- The preference for one or two children does not appear to have weakened markedly over time
 - A shift to 3-ch families will have a lasting impact on Norwegian TFR
- It is difficult to predict whether younger women actually prefer fewer children – or merely postpone family addition(s) to a later point in time

Thank you for your attention!

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