

Supplemental Table: 1 Distribution by length of inter-birth interval, education, marital status, age at first birth, parity, and whether there had been a change of co-parent since previous birth

a) Interval from second to third birth (parents with 3 or 4 children)

		Men								Women									
										Interval since previous birth (months)									
		0	1-17	18-29	30-41	42-59	60-89	90+	Deaths	Person years (000s)	0	1-17	18-29	30-41	42-59	60-89	90+	Deaths	Person years (000s)
Education	10 years	1.9	9.8	19.1	16.4	19.5	18.3	15.1	8042	1243.4	1.8	9.6	18.6	15.8	19.7	19.4	15.2	6732	1716.8
	11-13	2.2	7.3	17.4	16.1	20.9	20.4	15.7	9556	2246.5	2.2	7.8	17.9	16.1	21.1	20.5	14.4	5611	2333.9
	14-17	2.6	5.6	17.4	17.8	22.2	20.4	14.0	2585	943.9	2.6	5.8	19.5	18.5	22.9	19.4	11.3	1529	1021.7
	18+	2.7	4.8	20.0	20.1	23.2	17.8	11.5	992	452.9	3.3	4.4	22.1	21.6	22.7	16.8	9.0	124	115.5
Marital status	Never-married	4.5	6.5	20.0	17.8	19.4	18.0	13.8	250	102.9	5.0	6.5	19.1	16.3	17.9	18.2	17.0	124	81.4
	Married	2.2	7.1	18.0	17.1	21.7	20.1	13.8	14673	4019.4	2.1	7.5	18.2	16.8	21.8	20.4	13.3	9089	4050.8
	Div/sep	2.2	8.8	18.2	15.5	17.4	16.8	21.2	5557	706.1	2.2	9.4	19.3	15.7	18.1	17.8	17.5	3161	793.9
	Widowed	1.8	9.0	19.5	16.3	19.7	19.0	14.7	695	58.3	1.7	10.3	21.0	16.4	20.0	18.4	12.2	1622	261.8
Age at 1st birth	<20	1.0	9.7	17.5	14.3	18.4	17.3	22.0	985	167.5	1.2	9.8	17.8	14.8	18.2	18.9	19.2	3206	910.2
	20-22	1.4	8.6	17.0	15.0	18.7	19.4	19.9	5360	998.8	1.6	8.6	17.7	15.2	20.1	20.5	16.3	5486	1851.3
	23-25	1.8	7.7	17.0	15.9	20.7	20.4	16.5	7101	1545.9	2.2	6.9	17.9	16.9	22.4	21.1	12.7	3344	1376.7
	26-28	2.3	6.5	17.8	17.4	22.0	20.7	13.2	4468	1190.2	3.2	6.2	19.4	19.0	23.8	19.9	8.4	1355	696.3
	29-31	3.2	5.9	19.2	19.1	23.6	19.7	9.4	2008	603.2	4.4	6.4	23.3	21.6	23.8	16.2	4.4	432	253.1
	32-34	4.1	6.1	22.9	21.2	23.5	15.9	6.2	801	247.8	7.7	6.9	29.6	23.8	21.1	9.2	1.9	134	76.8
	35-37	6.3	7.3	25.5	22.9	21.6	11.8	4.5	274	90.7	12.9	9.8	34.1	24.6	12.7	5.6	0.4	36	19.7
	38+	9.3	9.8	29.2	21.8	18.1	9.1	2.6	178	42.6	16.0	15.6	35.2	19.1	11.2	2.9	0.0	3	3.7
No of children	3	2.4	5.7	15.9	16.2	21.7	21.7	16.4	15093	3676.7	2.3	6.1	15.9	15.6	21.5	22.1	16.5	10015	3879.1
	4	1.7	12.4	24.7	18.9	18.9	13.3	10.1	6082	1210.0	1.6	13.4	26.2	19.4	19.7	13.2	6.4	3981	1308.8
	No	2.4	7.7	19.3	18.0	22.1	19.8	10.7	19234	4503.3	2.3	8.3	19.5	17.4	21.8	19.7	11.1	12918	4863.3
Change co-parent	Yes	0.1	3.6	3.4	4.2	7.9	17.5	63.3	1941	383.4	0.3	1.7	4.1	5.1	10.3	21.9	56.5	1078	324.6
	All	2.2	7.4	18.1	16.9	21.0	19.6	14.8	21175	4886.7	2.2	7.9	18.5	16.6	21.1	20.0	13.9	13996	5187.9

b) Interval from third to fourth birth (parents with four children)

		Men								Women									
										Interval since previous birth (months)									
		0	1-17	18-29	30-41	42-59	60-89	90+	Deaths	Person years (000s)	0	1-17	18-29	30-41	42-59	60-89	90+	Deaths	Person years (000s)
Education	10 years	3.3	8.7	18.8	15.9	17.7	19.2	16.5	2559	364.0	3.4	8.5	17.9	15.4	18.2	19.7	17.0	2256	525.3
	11-13	4.3	7.0	18.6	15.7	18.5	19.3	16.7	2667	544.4	4.4	7.2	18.4	15.3	18.2	20.1	16.4	1375	550.5
	14-17	5.3	5.8	19.8	17.7	18.9	17.7	14.8	602	203.3	5.6	5.8	20.9	17.9	20.1	18.1	11.6	330	210.2
	18+	5.6	5.0	21.4	18.9	20.5	16.3	12.3	244	98.3	6.0	4.9	21.5	21.1	21.5	15.7	9.3	20	22.8
Marital status	Never-married	7.3	8.6	22.6	18.4	16.3	15.8	11.1	53	17.7	9.8	8.2	23.1	15.5	13.4	16.7	13.3	28	13.8
	Married	4.3	6.8	18.8	16.5	19.0	19.5	15.0	4151	987.7	4.2	6.9	18.3	15.9	19.1	20.3	15.3	2509	1015.1
	Div/sep	3.6	8.7	19.8	15.2	16.2	15.4	21.1	1664	189.8	4.2	9.7	19.8	14.8	16.2	16.4	19.0	900	197.9
	Widowed	3.7	7.8	20.9	16.4	16.3	18.4	16.5	214	14.8	3.4	8.5	19.6	17.7	18.4	18.3	14.1	544	81.9
Age at 1st birth	<20	2.3	8.1	17.5	14.2	17.2	18.7	22.1	376	58.6	2.9	8.5	17.1	14.3	17.1	18.9	21.2	1160	297.8
	20-22	3.0	7.8	17.2	15.2	17.6	18.5	20.7	1781	300.5	3.5	7.7	17.6	14.9	18.0	20.7	17.6	1670	515.0
	23-25	3.9	7.0	18.1	15.8	18.5	19.8	16.9	2091	408.1	5.0	6.5	19.1	16.7	19.5	20.4	12.9	783	311.6
	26-28	5.0	6.6	20.1	16.6	19.3	19.5	12.9	1141	266.9	6.6	6.4	21.5	18.6	21.6	17.7	7.6	271	131.4
	29-31	6.1	6.3	21.9	18.8	20.1	17.0	9.9	439	112.6	7.6	7.5	26.3	20.9	20.3	13.1	4.3	67	39.9
	32-34	7.0	7.3	24.9	22.1	18.3	13.9	6.3	171	43.2	10.5	6.1	33.8	24.9	15.2	8.5	1.1	24	10.7
	35-37	8.6	7.5	29.3	21.3	16.9	12.3	3.9	52	14.0	20.5	17.5	33.9	23.1	12.5	3.0	0.0	5	2.1
	38+	9.1	9.2	32.7	21.7	14.5	8.7	4.1	31	6.2	11.9	15.6	20.9	25.1	16.0	0.0	0.0	1	0.3
Change co-parent	No	4.6	7.4	20.4	17.4	19.4	18.9	12.0	5486	1112.7	4.5	7.8	19.6	16.6	19.1	19.4	13.0	3685	1226.3
	Yes	0.1	4.6	4.2	4.3	8.4	17.0	61.4	596	97.3	0.4	1.9	4.3	4.3	9.9	22.2	57.0	296	82.4
All		4.2	7.1	19.1	16.3	18.5	18.7	15.9	6082	1210.0	4.2	7.5	18.7	15.8	18.5	19.6	15.7	3981	1308.8

Supplemental Table 2. Associations between length of inter-birth interval, period, age group, education, marital status, age at first birth and change of co-parent since previous birth and mortality 1980-2008 (Odds Ratios and 95% confidence intervals from fully adjusted discrete-time hazards models), men and women born 1935 -1968 and aged 40-73 with 2-4 children.

		Men		Women	
		Model 3		Model 3	
Interval between 1st and 2nd birth (months)	0 (multiple)	1.05	(0.95-1.16)	1.15*	(1.01-1.30)
	0>18	1.17**	(1.13-1.21)	1.13**	(1.08-1.17)
	18-29	1.05**	(1.02-1.08)	1.02	(0.99-1.06)
	30-41	1		1	
	42-59	0.99	(0.96-1.02)	0.97	(0.94-1.01)
	60-89	1.01	(0.97-1.00)	1.01	(0.97-1.06)
	90+	0.96	(0.92-1.01)	0.95	(0.90-1.00)
Period	1980-84	1		1	
	1985-89	0.93*	(0.88-1.00)	1.03	(0.95-1.12)
	1990-94	0.75**	(0.71-0.80)	0.91*	(0.84-0.99)
	1995-99	0.65**	(0.61-0.69)	0.86**	(0.80-0.94)
	2000-04	0.55**	(0.52-0.58)	0.81**	(0.75-0.88)
	2005-08	0.49**	(0.46-0.52)	0.75**	(0.69-0.81)
Age group	40-44	1		1	
	45-49	1.78**	(1.71-1.86)	1.73**	(1.64-1.81)
	50-54	2.99**	(2.87-3.11)	2.79**	(2.66-2.93)
	55-59	5.03**	(4.82-5.24)	4.50**	(4.28-4.72)
	60-64	8.82**	(8.45-9.21)	6.88**	(6.53-7.24)
	65-69	14.88**	(14.20-15.59)	10.56**	(9.98-11.2)
	70-73	22.52**	(21.20-23.92)	15.13**	(14.07-16.28)
Education (Years)	10	1		1	
	11-13	0.75**	(0.73-0.76)	0.70**	(0.68-0.72)
	14-17	0.57**	(0.55-0.59)	0.55**	(0.53-0.57)
	18+	0.46**	(0.44-0.48)	0.48**	(0.43-0.53)
Marital status	Never-married	1.61**	(1.50-1.73)	1.28**	(1.16-1.42)
	Married	1		1	
	Widowed	1.60**	(1.56-1.69)	1.38**	(1.32-1.43)
	Divorced/sep.	2.06**	(2.01-2.11)	1.55**	(1.51-1.60)
Age at first birth	<20	1.30**	(1.23-1.37)	1.25**	(1.20-1.30)
	20-22	1.15**	(1.12-1.18)	1.09**	(1.05-1.12)
	23-25	1		1	
	26-28	0.91**	(0.89-0.94)	0.98	(0.94-1.02)

	29-31	0.90** (0.87-0.93)	0.98 (0.93-1.03)
	32-34	0.88** (0.84-0.92)	1.03 (0.95-1.11)
	35-37	0.83** (0.77-0.88)	0.90 (0.79-1.03)
	38+	0.84** (0.78-0.90)	0.82 (0.65-1.04)
Number	2	1	1
of	3	0.93** (0.91-0.95)	0.89** (0.87-0.92)
children	4	0.94** (0.91-0.96)	0.86** (0.83-0.89)
Change of	No	1	1
co-parent	Yes	1.24** (1.19-1.29)	1.33** (1.27-1.39)