

**APPENDIX (ONLINE)**

**Appendix Table A-1: Effects (with standard errors) of various sociodemographic variables on first and higher-order birth rates 1991-2015, according to discrete-time hazard models estimated from data from the Norwegian population register.**

	First birth	Higher-order births
Intercept	-4.49 (0.003)	-3.33 (0.003)
Mother's age		
17-19	-2.52 (0.007)	-0.90 (0.031)
20-22	-1.25 (0.005)	-0.54 (0.008)
23-25	-0.71 (0.004)	-0.28 (0.005)
26-28	-0.22 (0.004)	-0.08 (0.004)
29-31 (ref)	0	0
32-34	-0.13 (0.005)	-0.07 (0.003)
35-37	-0.48 (0.006)	-0.34 (0.004)
38-40	-1.07 (0.009)	-0.89 (0.005)
41-44	-2.27 (0.014)	-1.99 (0.008)
Months since previous birth		
1- 9		-7.81 (0.106)
10- 18		-1.38 (0.005)
19- 27		-0.22 (0.004)
28- 36 (ref)		0
37- 48		-0.11 (0.004)
49- 60		-0.37 (0.004)
61- 72		-0.60 (0.005)
73- 84		-0.76 (0.006)
85- 96		-0.96 (0.007)
97-108		-1.14 (0.008)
109-120		-1.26 (0.009)
121+		-1.72 (0.006)
Number of children already born		
1 (ref)		0
2		-1.08 (0.003)
3		-1.58 (0.005)
4		-1.32 (0.009)
Previously born child died in infancy		
No (ref)		0
Yes		1.21 (0.016)

**Appendix Table A-2: Effects (with standard errors) of various sociodemographic variables on infant mortality 1991-2015 according to logistic models estimated from data from the Norwegian population register.**

Intercept	-6.01	(0.04)
Mother's age		
17-19	0.90	(0.09)
20-22	0.46	(0.06)
23-25	0.20	(0.06)
26-28	0.07	(0.05)
29-31 (ref)	0	
32-34	0.01	(0.05)
35-37	0.10	(0.06)
38-40	0.17	(0.07)
41-44	0.07	(0.14)
Months since previous birth		
1 - 18	0.57	(0.08)
19- 27	0.01	(0.07)
28- 36 (ref)	0	
37- 60	-0.17	(0.06)
61- 96	-0.03	(0.07)
97+	-0.13	(0.09)
Birth order		
1 (ref)	0	
2	-0.11	(0.06)
3	0.14	(0.07)
4	0.54	(0.08)
5	0.46	(0.14)
Same father as first-born?		
Yes (ref)	0	
No	0.69	(0.06)

**Appendix Table A-3: Estimated effects of reproductive factors on infant mortality under various assumptions, when a linear probability model for infant mortality was used both in the simulation and estimation.**

	Effects in simulation	Averages of effects from sibling model when the effect <u>of infant death on subsequent fertility in the simulation was</u>	
		0	1.0 (i.e. corresponding to the 'basic' simulation')
<b>Mother's age</b>			
17	0.00440	0.00468	-0.00274
18	0.00350	0.00320	-0.00375
19	0.00270	0.00204	-0.00432
20	0.00200	0.00190	-0.00427
21	0.00150	0.00141	-0.00406
22	0.00110	0.00099	-0.00393
23	0.00080	0.00069	-0.00358
24	0.00050	0.00043	-0.00329
25	0.00035	0.00029	-0.00270
26	0.00025	0.00008	-0.00233
27	0.00015	0.00015	-0.00178
28	0.00010	0.00017	-0.00105
29	0.00005	-0.00005	-0.00069
30 (ref)	0	0	0
31	0.00001	0.00014	0.00052
32	0.00003	0.00031	0.00121
33	0.00005	0.00021	0.00165
34	0.00010	0.00027	0.00196
35	0.00020	0.00060	0.00272
36	0.00025	0.00031	0.00284
37	0.00025	0.00062	0.00334
38	0.00025	0.00044	0.00359
39	0.00025	0.00090	0.00389
40	0.00025	0.00043	0.00373
41	0.00025	0.00089	0.00429
42	0.00025	0.00115	0.00462
43	0.00025	0.00110	0.00509
44	0.00025	-0.00005	0.00406
<b>Months since previous birth</b>			
1-18	0.00220	0.00200	0.00120
19- 27	0.00040	0.00032	-0.00027
28- 36 (ref)	0	0	0
37- 48	-0.00040	-0.00054	-0.00049
49- 60	-0.00033	-0.00056	-0.00059
61- 72	-0.00026	-0.00048	-0.00066
73- 84	-0.00020	-0.00040	-0.00091
85- 96	-0.00020	-0.00040	-0.00118
97-108	-0.00020	-0.00047	-0.00174
109-120	-0.00020	-0.00026	-0.00169
121+	-0.00020	-0.00081	-0.00327
<b>Birth order</b>			
1 (ref)	0	0	0
2	-0.00050	-0.00039	-0.00213
3	0.00050	0.00041	-0.00359
4	0.00200	0.00198	-0.00404
5	0.00200	0.00185	-0.00575

*Notes:* The reference category for birth interval length includes first-born children. In addition to the variables shown in the table, the mortality equation in the simulation included an intercept and 0.00050 multiplied by the mortality random term.

**Appendix Table A-4: Estimated effects of reproductive factors on infant mortality when there was an effect of infant death on subsequent fertility in the simulation model.**

	Negative linear effect of mother's age in the simulation		Positive linear effect of mother's age in the simulation	
	Effects in simulation	Average of estimates from sibling model	Effects in simulation	Average of estimates from sibling model
<b>Mother's age</b>				
17	0.52	-1.61	-0.52	-2.64
18	0.48	-1.45	-0.48	-2.43
19	0.44	-1.34	-0.44	-2.27
20	0.40	-1.22	-0.40	-2.03
21	0.36	-1.11	-0.36	-1.77
22	0.32	-0.96	-0.32	-1.53
23	0.28	-0.83	-0.28	-1.34
24	0.24	-0.72	-0.24	-1.15
25	0.20	-0.56	-0.20	-0.94
26	0.16	-0.46	-0.16	-0.75
27	0.12	-0.33	-0.12	-0.54
28	0.08	-0.20	-0.08	-0.36
29	0.04	-0.12	-0.04	-0.20
30 (ref)	0	0	0	0
31	-0.04	0.07	0.04	0.18
32	-0.08	0.16	0.08	0.35
33	-0.12	0.23	0.12	0.47
34	-0.16	0.26	0.16	0.60
35	-0.20	0.39	0.20	0.77
36	-0.24	0.36	0.24	0.81
37	-0.28	0.42	0.28	1.01
38	-0.32	0.49	0.32	1.06
39	-0.36	0.39	0.36	1.09
40	-0.40	0.40	0.40	1.21
41	-0.44	0.63	0.44	1.23
42	-0.48	0.07	0.48	1.21
43	-0.52	1.07	0.52	1.41
44	-0.56	0.96	0.56	1.56
<b>Months since previous birth</b>				
1-18	0.57	0.38	0.57	0.39
19- 27	0.20	0.09	0.20	0.08
28- 36 (ref)	0	0	0	0
37- 48	-0.20	-0.17	-0.20	-0.17
49- 60	-0.14	-0.12	-0.14	-0.14
61- 72	-0.10	-0.14	-0.10	-0.07
73- 84	-0.08	-0.18	-0.08	-0.13
85- 96	-0.08	-0.12	-0.08	-0.07
97-108	-0.08	-0.36	-0.08	-0.22
109-120	-0.08	-0.28	-0.08	-0.15
121+	-0.08	-0.66	-0.08	-0.43
<b>Birth order</b>				
1 (ref)	0	0	0	0
2	-0.11	-0.47	-0.11	-0.49
3	0.14	-0.72	0.14	-0.78
4	0.50	-0.82	0.50	-0.94
5	0.50	-1.16	0.50	-1.30
Mean absolute bias		0.742		0.697
Root of mean square bias		0.948		0.906

Notes: The reference category for birth interval length includes first-born children.

**Appendix Table A-5: Estimated effects of reproductive factors on infant mortality when there was an effect of infant death on subsequent fertility in the simulation model.**

	<u>No effect of longer interval after 4 years in the simulation</u>		<u>Adverse linear effect of longer interval after 4 years in the simulation</u>	
	Effects in simulation	Average of estimates from sibling model	Effects in simulation	Average of estimates from sibling model
<b>Mother's age</b>				
17	1.05	-0.96	1.05	-0.90
18	0.90	-0.94	0.90	-0.86
19	0.75	-0.94	0.75	-0.87
20	0.60	-0.94	0.60	-0.88
21	0.46	-0.92	0.46	-0.87
22	0.38	-0.80	0.38	-0.76
23	0.30	-0.73	0.30	-0.69
24	0.21	-0.69	0.21	-0.66
25	0.17	-0.55	0.17	-0.51
26	0.12	-0.47	0.12	-0.44
27	0.07	-0.34	0.07	-0.33
28	0.05	-0.22	0.05	-0.19
29	0.02	-0.13	0.02	-0.12
30 (ref)	0	0	0	0
31	0.01	0.11	0.01	0.10
32	0.02	0.26	0.02	0.27
33	0.04	0.35	0.04	0.34
34	0.06	0.44	0.06	0.43
35	0.08	0.63	0.08	0.61
36	0.10	0.62	0.10	0.60
37	0.12	0.77	0.12	0.77
38	0.12	0.85	0.12	0.79
39	0.12	0.80	0.12	0.79
40	0.12	0.80	0.12	0.80
41	0.12	0.64	0.12	0.77
42	0.12	0.87	0.12	0.82
43	0.12	0.91	0.12	0.85
44	0.12	1.00	0.12	1.04
<b>Months since previous birth</b>				
1-18	0.57	0.38	0.57	0.37
19- 27	0.20	0.09	0.20	0.08
28- 36 (ref)	0	0	0	0
37- 48	-0.20	-0.18	-0.20	-0.17
49- 60	-0.20	-0.19	-0.15	-0.13
61- 72	-0.20	-0.25	-0.10	-0.14
73- 84	-0.20	-0.31	-0.05	-0.14
85- 96	-0.20	-0.25	0.00	-0.05
97-108	-0.20	-0.52	0.05	-0.21
109-120	-0.20	-0.41	0.10	-0.09
121+	-0.20	-0.80	0.15	-0.40
<b>Birth order</b>				
1 (ref)	0	0	0	0
2	-0.11	-0.48	-0.11	-0.46
3	0.14	-0.73	0.14	-0.71
4	0.50	-0.83	0.50	-0.81
5	0.50	-1.17	0.50	-1.13
Mean absolute bias		0.671		0.648
Root of mean square bias		0.857		0.828

*Notes:* The reference category for birth interval length includes first-born children.

**Appendix Table A-6: Estimated effects of reproductive factors on infant mortality when there was an effect of infant death on subsequent fertility in the simulation model.**

	<u>Negative effect of higher birth order in the simulation</u>		<u>Positive effect of higher birth order in the simulation</u>	
	Effects in simulation	Average of estimates from sibling model	Effects in simulation	Average of estimates from sibling model
<b>Mother's age</b>				
17	1.05	-1.07	1.05	-0.95
18	0.90	-1.06	0.90	-0.93
19	0.75	-1.03	0.75	-0.92
20	0.60	-1.00	0.60	-0.92
21	0.46	-0.99	0.46	-0.90
22	0.38	-0.88	0.38	-0.78
23	0.30	-0.78	0.30	-0.70
24	0.21	-0.71	0.21	-0.67
25	0.17	-0.56	0.17	-0.53
26	0.12	-0.47	0.12	-0.44
27	0.07	-0.36	0.07	-0.33
28	0.05	-0.21	0.05	-0.19
29	0.02	-0.14	0.02	-0.11
30 (ref)	0	0	0	0
31	0.01	0.15	0.01	0.12
32	0.02	0.28	0.02	0.27
33	0.04	0.40	0.04	0.35
34	0.06	0.49	0.06	0.48
35	0.08	0.68	0.08	0.63
36	0.10	0.70	0.10	0.65
37	0.12	0.83	0.12	0.79
38	0.12	0.92	0.12	0.84
39	0.12	0.87	0.12	0.82
40	0.12	0.89	0.12	0.83
41	0.12	0.36	0.12	0.85
42	0.12	0.06	0.12	0.83
43	0.12	0.87	0.12	0.85
44	0.12	0.41	0.12	1.01
<b>Months since previous birth</b>				
1-18	0.57	0.31	0.57	0.38
19- 27	0.20	0.06	0.20	0.08
28- 36 (ref)	0	0	0	0
37- 48	-0.20	-0.18	-0.20	-0.19
49- 60	-0.14	-0.13	-0.14	-0.12
61- 72	-0.10	-0.12	-0.10	-0.14
73- 84	-0.08	-0.17	-0.08	-0.18
85- 96	-0.08	-0.24	-0.08	-0.14
97-108	-0.08	-0.42	-0.08	-0.33
109-120	-0.08	-0.41	-0.08	-0.28
121+	-0.08	-0.71	-0.08	-0.63
<b>Birth order</b>				
1 (ref)	0	0	0	0
2	-0.10	-0.46	0.15	-0.21
3	-0.20	-1.11	0.30	-0.59
4	-0.30	-1.66	0.45	-0.90
5	-0.40	-2.15	0.60	-1.07
Mean absolute bias		0.670		0.666
Root of mean square bias		0.879		0.852

Notes: The reference category for birth interval length includes first-born children.

**Appendix Table A-7: Estimated effects of reproductive factors on infant mortality when there was an effect of infant death on subsequent fertility in the simulation model.**

	Effects in simulation	Average of estimates from sibling model <u>when the following was assumed in the simulation:</u>				
		'Basic simulation' (As Tab. 2, col. 2)	Correlation between fertility and mortality random terms 0.25 instead of 0.50	Correlation between fertility and mortality random terms 0.75 instead of 0.50	Std. dev. of fertility and mortality random terms 0.50 instead of 1.00	Std. dev. of mortality random term 0.50 instead of 1.00
<b>Mother's age</b>						
17	1.05	-0.94	-0.95	-0.95	-0.89	-0.95
18	0.90	-0.89	-0.97	-0.96	-0.95	-0.93
19	0.75	-0.90	-0.95	-0.92	-0.99	-1.02
20	0.60	-0.91	-0.92	-0.92	-1.01	-0.95
21	0.46	-0.89	-0.92	-0.90	-1.00	-0.93
22	0.38	-0.78	-0.82	-0.80	-0.99	-0.82
23	0.30	-0.71	-0.74	-0.70	-0.91	-0.74
24	0.21	-0.67	-0.68	-0.67	-0.81	-0.70
25	0.17	-0.53	-0.54	-0.53	-0.70	-0.55
26	0.12	-0.45	-0.44	-0.44	-0.53	-0.47
27	0.07	-0.34	-0.34	-0.35	-0.47	-0.36
28	0.05	-0.20	-0.20	-0.20	-0.29	-0.25
29	0.02	-0.12	-0.10	-0.11	-0.09	-0.18
30 (ref)	0	0	0	0	0	0
31	0.01	0.10	0.14	0.12	0.23	0.11
32	0.02	0.27	0.31	0.25	0.40	0.27
33	0.04	0.35	0.40	0.35	0.56	0.37
34	0.06	0.43	0.49	0.44	0.70	0.40
35	0.08	0.62	0.68	0.60	0.92	0.62
36	0.10	0.62	0.66	0.65	1.05	0.67
37	0.12	0.76	0.85	0.74	1.16	0.73
38	0.12	0.82	0.92	0.81	1.22	0.82
39	0.12	0.80	0.84	0.80	1.26	0.87
40	0.12	0.79	0.90	0.85	1.36	0.85
41	0.12	0.76	0.87	0.78	0.87	0.53
42	0.12	0.85	0.87	0.63	0.59	0.12
43	0.12	0.88	0.99	0.47	0.86	0.44
44	0.12	0.96	0.65	0.97	0.66	-0.20
<b>Months since previous birth</b>						
1-18	0.57	0.38	0.40	0.37	0.42	0.37
19- 27	0.20	0.09	0.09	0.07	0.04	0.08
28- 36 (ref)	0	0	0	0	0	0
37- 48	-0.20	-0.17	-0.18	-0.20	-0.19	-0.21
49- 60	-0.14	-0.12	-0.14	-0.17	-0.10	-0.13
61- 72	-0.10	-0.14	-0.12	-0.15	-0.13	-0.16
73- 84	-0.08	-0.18	-0.18	-0.21	-0.21	-0.17
85- 96	-0.08	-0.12	-0.12	-0.21	-0.29	-0.27
97-108	-0.08	-0.36	-0.34	-0.40	-0.39	-0.38
109-120	-0.08	-0.28	-0.29	-0.48	-0.45	-0.41
121+	-0.08	-0.66	-0.64	-0.70	-0.87	-0.65

**Appendix Table A-7: (Continued)**

Effects in simulation	Average of estimates from sibling model when the following was assumed in the simulation:				
	'Basic simulation' (As Tab. 2, col. 2)	Correlation between fertility and mortality random terms 0.25 instead of 0.50	Correlation between fertility and mortality random terms 0.75 instead of 0.50	Std. dev. of fertility and mortality random terms 0.50 instead of 1.00	Std. dev. of mortality random term 0.50 instead of 1.00
Birth order					
1 (ref)	0	0	0	0	0
2	-0.11	-0.47	-0.52	-0.42	-0.65
3	0.14	-0.72	-0.82	-0.66	-1.16
4	0.50	-0.82	-0.95	-0.74	-1.53
5	0.50	-1.16	-1.30	-1.08	-2.12
Mean absolute bias		0.659	0.685	0.650	0.829
Root of mean square bias		0.842	0.876	0.833	1.032

*Notes:* The reference category for birth interval length includes first-born children.



**Appendix Table A-8: Estimated effects of reproductive factors on infant mortality when there was an effect of infant death on subsequent fertility in the simulation model.**

	Effects in simulation	Average of estimates from sibling model when the following was assumed in the simulation:				
		'Basic simulation' (as Tab. 2, col. 2)	Direct effect of child death of 0.5	Direct effect of child death of 0.5, controlled for in estimation	Also effect of earlier child death of 0.2	Two fertility random terms correlated 0.5
<b>Mother's age</b>						
17	1.05	-0.94	-0.95	-0.71	-1.09	-0.36
18	0.90	-0.89	-0.91	-0.70	-1.07	-0.51
19	0.75	-0.90	-0.92	-0.74	-1.06	-0.55
20	0.60	-0.91	-0.92	-0.75	-1.04	-0.58
21	0.46	-0.89	-0.90	-0.79	-1.02	-0.64
22	0.38	-0.78	-0.79	-0.72	-0.88	-0.56
23	0.30	-0.71	-0.71	-0.66	-0.80	-0.54
24	0.21	-0.67	-0.67	-0.65	-0.73	-0.53
25	0.17	-0.53	-0.53	-0.53	-0.59	-0.45
26	0.12	-0.45	-0.46	-0.47	-0.49	-0.36
27	0.07	-0.34	-0.34	-0.36	-0.37	-0.28
28	0.05	-0.20	-0.20	-0.22	-0.22	-0.20
29	0.02	-0.12	-0.12	-0.12	-0.13	-0.15
30 (ref)	0	0	0	0	0	0
31	0.01	0.10	0.10	0.10	0.10	0.08
32	0.02	0.27	0.26	0.30	0.26	0.21
33	0.04	0.35	0.34	0.41	0.37	0.28
34	0.06	0.43	0.43	0.54	0.49	0.41
35	0.08	0.62	0.62	0.77	0.63	0.47
36	0.10	0.62	0.62	0.79	0.66	0.56
37	0.12	0.76	0.77	0.99	0.77	0.65
38	0.12	0.82	0.82	1.14	0.87	0.66
39	0.12	0.80	0.81	1.17	0.83	0.71
40	0.12	0.79	0.80	1.18	0.85	0.77
41	0.12	0.76	0.77	1.27	0.74	0.73
42	0.12	0.85	0.88	1.48	0.92	0.50
43	0.12	0.88	0.85	1.46	0.46	0.72
44	0.12	0.96	0.96	1.55	1.00	0.46
<b>Months since previous birth</b>						
1-18	0.57	0.38	0.40	0.58	0.38	0.38
19- 27	0.20	0.09	0.09	0.25	0.09	0.07
28- 36 (ref)	0	0	0	0	0	0
37- 48	-0.20	-0.17	-0.18	-0.29	-0.17	-0.17
49- 60	-0.14	-0.12	-0.13	-0.31	-0.12	-0.06
61- 72	-0.10	-0.14	-0.15	-0.41	-0.11	-0.10
73- 84	-0.08	-0.18	-0.19	-0.49	-0.16	-0.11
85- 96	-0.08	-0.12	-0.14	-0.50	-0.11	-0.17
97-108	-0.08	-0.36	-0.36	-0.79	-0.26	-0.15
109-120	-0.08	-0.28	-0.29	-0.73	-0.25	-0.35
121+	-0.08	-0.66	-0.66	-1.28	-0.60	-0.49

**Appendix Table A-8: (Continued)**

	Effects in simulation	Average of estimates from sibling model <u>when the following was assumed in the simulation:</u>				
		'Basic simulation' (as Tab. 2, col. 2)	Direct effect of child death of 0.5	Direct effect of child death of 0.5, controlled for in estimation	Also effect of earlier child death of 0.2	Two fertility random terms correlated 0.5
<b>Birth order</b>						
1 (ref)	0	0	0	0	0	0
2	-0.11	-0.47	-0.47	0.10	-0.50	-0.48
3	0.14	-0.72	-0.71	-0.15	-0.82	-0.68
4	0.50	-0.82	-0.81	-0.21	-0.99	-0.74
5	0.50	-1.16	-1.14	-0.57	-1.37	-1.01
<b>Whether most recently born sibling died</b>						
				-2.90		
<b>Mean absolute bias</b>		0.659	0.659	0.749	0.690	0.536
<b>Root of mean square bias</b>		0.842	0.844	0.888	0.906	0.683

*Notes:* The reference category for birth interval length includes first-born children.

**Appendix Table A-9: Estimated effects of reproductive factors on infant mortality when a 'basic simulation' was carried out.**

	Effects in simulation	<u>Average of estimates from sibling model</u>	
		As Table 2, column 2	Control for infant death of most recently born sibling
<b>Mother's age</b>			
17	1.05	-0.94	-0.72
18	0.90	-0.89	-0.72
19	0.75	-0.90	-0.74
20	0.60	-0.91	-0.76
21	0.46	-0.89	-0.80
22	0.38	-0.78	-0.74
23	0.30	-0.71	-0.68
24	0.21	-0.67	-0.67
25	0.17	-0.53	-0.54
26	0.12	-0.45	-0.48
27	0.07	-0.34	-0.36
28	0.05	-0.20	-0.22
29	0.02	-0.12	-0.13
30 (ref)	0	0	0
31	0.01	0.10	0.10
32	0.02	0.27	0.32
33	0.04	0.35	0.43
34	0.06	0.43	0.56
35	0.08	0.62	0.79
36	0.10	0.62	0.82
37	0.12	0.76	1.02
38	0.12	0.82	1.17
39	0.12	0.80	1.21
40	0.12	0.79	1.21
41	0.12	0.76	1.31
42	0.12	0.85	1.53
43	0.12	0.88	1.52
44	0.12	0.96	1.63
<b>Months since previous birth</b>			
1-18	0.57	0.38	0.57
19- 27	0.20	0.09	0.24
28- 36 (ref)	0	0	0
37- 48	-0.20	-0.17	-0.29
49- 60	-0.14	-0.12	-0.32
61- 72	-0.10	-0.14	-0.42
73- 84	-0.08	-0.18	-0.49
85- 96	-0.08	-0.12	-0.51
97-108	-0.08	-0.36	-0.82
109-120	-0.08	-0.28	-0.75
121+	-0.08	-0.66	-1.33
<b>Birth order</b>			
1 (ref)	0	0	0
2	-0.11	-0.47	0.12
3	0.14	-0.72	-0.17
4	0.50	-0.82	-0.24
5	0.50	-1.16	-0.60
<b>Infant death of most recently born sibling</b>			
Mean absolute bias		0.659	0.769
Root of mean square bias		0.842	0.910

Notes: The reference category for birth interval length includes first-born children.

**Appendix Table A-10: Estimated effects of reproductive factors on infant mortality under various assumptions.**

	Effects in simulation	Averages of effects from sibling model when the following was assumed in the simulation and (except column 2) <u>only children of women with five children were included in the estimation</u>				
		'Basic simulation', all women included in estimation (As Table 2, column 2)	<u>25 timer higher overall odds of infant death and 3 times higher overall odds of birth</u>		<u>Effect (1.0) of infant death on fertility</u>	
			<u>No effect of infant death on fertility</u>	<u>Every second child included in estimation</u>	<u>All children included in estimation</u>	<u>Every second child included in estimation</u>
Mother's age						
17	1.05	-0.94	1.05	1.05	-1.20	-1.06
18	0.90	-0.89	0.90	0.89	-1.23	-1.06
19	0.75	-0.90	0.76	0.74	-1.23	-1.11
20	0.60	-0.91	0.59	0.59	-1.18	-1.09
21	0.46	-0.89	0.45	0.45	-1.15	-1.07
22	0.38	-0.78	0.37	0.37	-1.04	-0.99
23	0.30	-0.71	0.29	0.29	-0.94	-0.91
24	0.21	-0.67	0.20	0.20	-0.85	-0.81
25	0.17	-0.53	0.17	0.16	-0.71	-0.66
26	0.12	-0.45	0.12	0.12	-0.58	-0.55
27	0.07	-0.34	0.06	0.06	-0.48	-0.42
28	0.05	-0.20	0.04	0.04	-0.29	-0.26
29	0.02	-0.12	0.02	0.01	-0.16	-0.14
30 (ref)	0	0	0	0	0	0
31	0.01	0.10	0.02	0.01	0.15	0.13
32	0.02	0.27	0.02	0.03	0.32	0.27
33	0.04	0.35	0.05	0.04	0.48	0.40
34	0.06	0.43	0.06	0.06	0.64	0.52
35	0.08	0.62	0.08	0.08	0.77	0.63
36	0.10	0.62	0.11	0.10	0.89	0.74
37	0.12	0.76	0.13	0.13	1.01	0.85
38	0.12	0.82	0.13	0.13	1.05	0.91
39	0.12	0.80	0.10	0.11	1.08	0.97
40	0.12	0.79	0.11	0.12	1.12	1.05
41	0.12	0.76	0.15	0.15	1.14	1.09
42	0.12	0.85	0.14	0.13	1.13	1.15
43	0.12	0.88	0.07	0.06	1.13	1.24
44	0.12	0.96	0.11	0.11	1.21	1.35
Months since previous birth						
1-18	0.57	0.38	0.57	0.57	0.42	0.78
19- 27	0.20	0.09	0.20	0.20	0.13	0.30
28- 36 (ref)	0	0	0	0	0	0
37- 48	-0.20	-0.17	-0.20	-0.20	-0.20	-0.30
49- 60	-0.14	-0.12	-0.14	-0.14	-0.19	-0.35
61- 72	-0.10	-0.14	-0.09	-0.09	-0.22	-0.42
73- 84	-0.08	-0.18	-0.08	-0.07	-0.27	-0.47
85- 96	-0.08	-0.12	-0.09	-0.10	-0.35	-0.58
97-108	-0.08	-0.36	-0.08	-0.06	-0.42	-0.68
109-120	-0.08	-0.28	-0.10	-0.10	-0.53	-0.84
121+	-0.08	-0.66	-0.09	-0.07	-0.70	-1.06

**Appendix Table A-10: Estimated effects of reproductive factors on infant mortality under various assumptions.**

	Effects in simulation	Averages of effects from sibling model when the following was assumed in the simulation and (except column 2) only children of women with five children were included in the estimation					
		'Basic simulation', all women included in estimation (As Table 2, column 2)	25 timer higher overall odds of infant death and 3 times higher overall odds of birth		No effect of infant death on fertility		Effect (1.0) of infant death on fertility
			All children included in estimation	Every second child included in estimation	All children included in estimation	Every second child included in estimation	All children included in estimation
Birth order							
1 (ref)	0	0	0	0	0	0	0
2	-0.11	-0.47	-0.11		-0.27		
3	0.14	-0.72	0.14	0.14	-0.39	-0.47	
4	0.50	-0.82	0.49		-0.51		
5	0.50	-1.16	0.49	0.49	-0.99	-0.99	
Mean absolute bias		0.675	0.009	0.009	0.801	0.808	
Root of mean square bias		0.860	0.013	0.014	0.995	0.969	

*Notes:* The reference category for birth interval length includes first-born children. When calculating the mean absolute bias and root of mean square bias, the effect parameters for birth order 2 and 4 were not included.