

TABLE 1
Variables for a Group

Responses	$T_j, j=1, \dots, n$ OR $Y_{tj}, t=1, \dots, M; j=1, \dots, n$
At Risk Indicators	$R_{tj}, t=1, \dots, M; j=1, \dots, n$
Group Level Errors	—
Group Level Covariates	$GZ_t, t=1, \dots, M$
Individual Level Covariates	$IZ_{tj}, t=1, \dots, M; j=1, \dots, n$

TABLE 3
Description of Measures Used in Statistical Analyses

	Mean	Std. Dev.	Minimum	Maximum
<u>NEIGHBORHOOD LEVEL</u>				
<u>MEASURES</u> (N = 171)				
Distance to nearest town	8.24	3.93	.02	17.70
School within 5 minute walk ^a	.46		0	1
<u>INDIVIDUAL LEVEL</u>				
<u>MEASURES</u> (N = 1,395 women; 17,262 person-years)				
Ever went to school before first birth	.33		0	1
Total number of children ^a	3.17	3.10	1	13
Years since first birth ^a	11.37	8.17	0	34
Years ² since first birth ^a	196.11	256.26	0	1,156

^a Descriptive statistics for time-varying measures are computed at the time of first contraceptive use, or if no contraceptive use occurred, at the time of the censoring event (survey interview).

TABLE 4

HLM Estimates of the Effects of Neighborhood and Individual Level Characteristics on the Hazard of Permanent Contraceptive Use

	Model 1		Model 2		Parameter in CM
	HLM	MLN	HLM	MLN	
Intercept	-4.50*** (.18)	-4.01*** (.14)	-4.48*** (.17)	-4.01*** (.15)	00
<u>NEIGHBORHOOD CHARACTERISTICS</u>					
Distance to nearest town (time-invariant)	-.04** (.01)	-.04*** (.01)	-.04** (.01)	-.04*** (.01)	01
School within 5 minute walk (time-varying)	.36*** (.11)	.26*** (.09)	.30*** (.10)	.29*** (.09)	02
<u>INDIVIDUAL CHARACTERISTICS</u>					
Ever went to school before first birth (time-invariant)	.66*** (.12)	.66*** (.10)	.58*** (.09)	.58*** (.09)	10
Total number of children (time-varying)	.40*** (.04)	.34*** (.03)	.40*** (.04)	.41*** (.04)	20
<u>CROSS-LEVEL EFFECT</u>					
School within 5 minute walk * Ever went to school	-.19 (.17)	-.16 (.16)			11
<u>CONTROLS</u>					
Years since first birth	.18*** (.03)	.18*** (.03)	.18*** (.03)	.14*** (.03)	30
Years ² since first birth	-.01*** (.001)	-.01*** (.001)	-.01*** (.001)	-.01*** (.001)	40

Notes: Standard errors in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$, one-tailed tests.

Estimated Variances of Random Effects

	Model I		Model II	
	HLM	MLN	HLM	MLN
Intercept: $\text{Var}(\sigma_{0k})$	.01	.00	.01	.00
Ever went to school before first birth: $\text{Var}(\sigma_{1k})$	.09	.00	.07	.00
Total number of children: $\text{Var}(\sigma_{2k})$	.02	.02	.01	.02

Appendix Table 1. Neighborhood Level File for use with HLM

Nbrhd ID (1-171)	Distance to nearest town
1	0.04
2	0.02
3	0.03
4	0.07
5	1.24
6	0.82
7	1.69
8	2.15
9	0.22
10	0.41
11	0.20
12	0.40
13	2.71
14	4.58
15	3.38
16	3.24
17	7.07
18	6.31
19	6.00
20	5.68
21	5.25
22	4.67
23	4.89
24	4.88
25	4.83
26	4.57
27	5.02
28	5.25
29	3.96
30	4.10
31	3.66
32	3.54
33	4.35
34	4.77
35	4.37
36	3.64
37	2.82
38	2.99
39	3.16
40	3.39
41	7.52
42	7.85
43	8.19
44	8.48
45	7.84
46	9.23
47	9.22
48	8.29
49	10.28
50	10.63
51	10.67
52	10.76
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166	9.17
167	8.48
168	7.25
169	7.40
170	7.74
171	9.20

Appendix Table 2, continued

Neighborhood ID (1-171)	Respondent ID ^a	Respondent Ever Been to School (0,1)	Respondent's Total # of Children (minus 1)	Years Since First Birth (Time)	Years ² Since First Birth (Time ²)	School within 5- minute walk (0,1)	School within 5-minute walk * R s Educ (0,1)	Contracept. Use (Dependent Variable) (0,1)
009	263	0	0	0	0	0	0	0
009	263	0	0	1	1	0	0	0
009	263	0	1	2	4	0	0	0
009	263	0	1	3	9	0	0	0
009	263	0	1	4	16	0	0	0
009	263	0	1	5	25	0	0	0
009	263	0	1	6	36	1	0	0
009	263	0	2	7	49	1	0	0
009	263	0	2	8	64	1	0	1
...								
046	1345	0	0	0	0	0	0	0
046	1345	0	1	1	1	0	0	0
046	1345	0	1	2	4	0	0	0
046	1345	0	1	3	9	1	0	0
046	1345	0	1	4	16	1	0	0
046	1345	0	2	5	25	1	0	0
046	1345	0	2	6	36	1	0	0
046	1345	0	3	7	49	1	0	0
046	1345	0	3	8	64	1	0	0
046	1345	0	4	9	81	1	0	0
046	1345	0	4	10	100	1	0	0
046	1345	0	5	11	121	1	0	0
046	1345	0	5	12	144	1	0	0
046	1345	0	5	13	169	1	0	0
046	1345	0	5	14	196	1	0	0
046	1345	0	6	15	225	1	0	0
046	1345	0	6	16	256	1	0	0
046	1345	0	6	17	289	1	0	0
046	1345	0	6	18	324	1	0	0
046	1345	0	6	19	361	1	0	0
046	1345	0	6	20	400	1	0	0
046	1345	0	6	21	441	1	0	0
046	1345	0	6	22	484	1	0	0
046	1345	0	6	23	529	1	0	0
...								

^a To protect the anonymity of the respondents, ID numbers are artificially constructed for this table.

