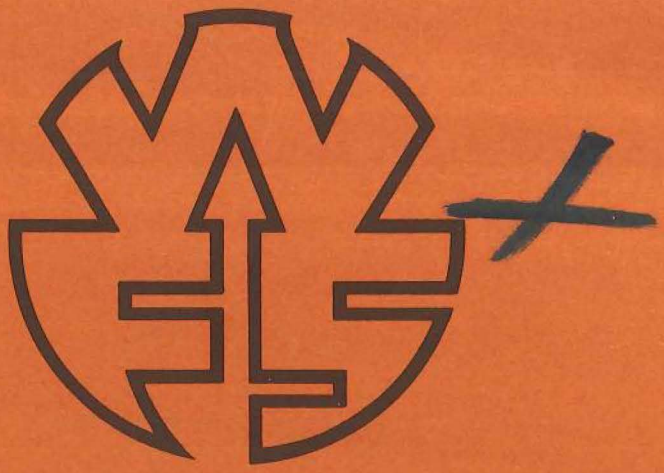

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A Study of Birth Intervals in Jordan

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The World Fertility Survey is an international research programme whose purpose is to assess the current state of human fertility throughout the world. This is being done principally through promoting and supporting nationally representative, internationally comparable, and scientifically designed and conducted sample surveys of fertility behaviour in as many countries as possible.
The WFS is being undertaken, with the collaboration of the United Nations, by the International Statistical Institute in cooperation with the International Union for the Scientific Study of Population. Financial support is provided principally by the United Nations Fund for Population Activities and the United States Agency for International Development.
This publication is part of the WFS Publications Programme which includes the WFS Basic Documentation, Occasional Papers and auxiliary publications. For further information on the WFS, write to the Information Office, International Statistical Institute, 428 Prinses Beatrixlaan, Voorburg, The Hague, Netherlands.

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Cette publication fait partie du programme de publications de l'EMF, qui comprend la Documentation de base, les Documents Non-Périodiques et des publications auxiliaires. Pour tout renseignement complémentaire, s'adresser au Bureau d'Information, Institut International de Statistique, 428 Prinses Beatrixlaan, Voorburg, La Haye, Pays-Bas.

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Esta publicación ha sido editada por el Programa de Publicaciones de la EMF, el que incluye Documentación Básica, Publicaciones Ocasionales y publicaciones auxiliares. Puede obtenerse mayor información sobre la EMF escribiendo a la Oficina de Información, Instituto Internacional de Estadística, 428 Prinses Beatrixlaan, Voorburg-La Haya, Países Bajos.

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A Study of Birth Intervals in Jordan

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1 Introduction

1.1 THE JORDAN FERTILITY SURVEY

This paper is a study of fertility using data from the Jordan Fertility Survey, which was conducted in 1976 by the Department of Statistics of the Government of Jordan in collaboration with the World Fertility Survey.

The Jordan Fertility Survey (JFS) was executed in two stages. The first stage, a household survey, involved the selection of a five per cent sample of the population of the East Bank, and yielded a total of 14 068 households. Subsequently, a one in four subsample of the household survey was drawn, and detailed individual questionnaires administered to ever-married women aged 15–49. In all, some 3610 women, or about 90 per cent of the eligible women canvassed, completed the individual questionnaire. The survey design and execution are described in detail in the Principal Report of the survey.

In both the household and individual surveys women's ages were poorly reported, with marked preferences for ages ending in the digits 0 and 5. Such age misstatement is not surprising since few women knew their exact dates of birth. In the individual survey, for example, only 30 per cent of those interviewed were able to supply both the month and year, and an additional 16 per cent only the year, of their birth (Abdel-Aziz 1983: 11). Lack of knowledge of the exact timing of vital events was evident also in the maternity histories these women provided, but here the frequency of missing data was considerably lower; overall, 67 per cent of children's dates of birth were reported in terms of a month and a year and a further 11 per cent were given as a year, while corresponding proportions for the most recent birth were respectively 84 and 6 per cent (Chidambaram *et al* 1980: 26).

An evaluation of the JFS data indicated that the reported timing of events was displaced systematically towards the date of interview, particularly for births that occurred in the earliest periods and to the members of the oldest cohorts. This displacement produced respectively over- and under-estimates of period fertility rates 10–19 and 20–24 years before the survey. Nevertheless, there was little evidence of outright omissions of births from the respondents' maternity histories. Indeed, cohort-period fertility rates, as well as cumulative fertilities by cohort and by period, showed not only a reasonable degree of internal consistency within the individual survey but also a close agreement with results from the National Fertility Survey of 1972 (Abdel-Aziz 1983).

The average number of children ever born by women approaching the end of the fecund span was of the order of 8.6 to 8.8 births, which is easily the highest fertility recorded by the WFS. In the early 1970s, however, the total fertility rate started to decline, from a level of 8.5 births per woman in 1966–70 to one of 7.7 in 1971–5. The greatest fertility declines were recorded for women younger than 25, and these mainly because of recent rises in age at marriage. For example, while nearly all women ultimately married, the proportions of ever-married women in the 15–19 and 20–24 age groups dropped from 31 to 20 per cent and from 73 to 64 per cent respectively in the five years preceding the survey. Nevertheless, fertility declines of 10–20 per cent were recorded also at the longest marriage durations between the two most recent five year periods.[1]

Previous studies based on the Jordan Fertility Survey have concentrated on aggregate fertility measures, such as age-specific and cumulative fertility rates. The present study departs from the focus of earlier work by attempting to disaggregate the family-building process into a series of stages, beginning with marriage and followed by the first, second and consecutive births. The aim of this paper is to determine the extent to which recent fertility declines in Jordan reflect rising ages at marriage, and whether such declines have been accompanied by changes in patterns of family formation.

1.2 METHODS OF ANALYSIS

Two aspects of family formation will be explicitly examined. The first is the level, or 'quantum', of fertility, which refers to the proportion of women who make the transition from one parity to the next. The second aspect is the 'tempo' of childbearing, which relates to the time taken by women who continue childbearing to move to the next higher parity.

The decomposition of these two components of family building is straightforward when dealing with the maternity histories of women who have completed their reproductive lives. The analysis of cross-sectional data, such as those collected in the JFS, is more complicated because they are subject to biases due to 'censoring' and 'selectivity'. The problem of censoring arises because the maternity histories of women still within the reproductive span are artificially truncated by the interview; but, the fact that a woman who has reached a given parity by the time of the survey has not moved to the next higher parity does not preclude her doing so later. The problem of selectivity arises because information on the transition from one parity to the next is

[1] For discussions of recent fertility trends see the Jordan First Country Report (Department of Statistics 1979) and the Jordan data evaluation report (Abdel-Aziz 1983).

available only for those who have already made the transition by the time of the interview, and such women tend not to be representative of all women in the population. Truncation biases in birth-interval data can be minimized, however, by using life-table techniques, while the effects of selectivity can be overcome by introducing appropriate demographic controls into the analysis.[2]

The principal life-table measure of interest here is the birth function, which represents the cumulative proportion of women having a birth of a given order within successive durations since the previous birth (or, in the case of the first birth, since marriage). In addition, we use two summary measures to describe the level and the shape of the birth functions. The first is the proportion of women who have had a birth within five years of the reference event. As it is based on five years' experience, it is termed the 'quintum', denoted by Q. The second is the trimean, T, of the birth function standardized at five years' duration.[3] The use of these measures is described more fully in Hobcraft and Rodríguez (1980).

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[2] See Rodríguez and Hobcraft (1980) for a discussion of types of biases in cross-sectional birth-interval data and for the construction of fertility life tables. A detailed discussion of life-table methodology is available also in Smith (1980).

[3] The trimean is defined as $T = (T_{25} + 2T_{50} + T_{75})/4$, where T_{25}, T_{50} and T_{75} are the quartiles of the standardized birth function.

2 Age, Cohort and Period Effects

In this section we examine birth intervals according to age at the start of the interval, age at the time of the survey and calendar period during which the interval commenced.

2.1 AGE AT THE START OF THE INTERVAL

To investigate age-related variations in the time to the next birth, life tables by birth order were constructed separately for four categories of maternal age, determined by the quartiles of the distribution of age at the start of the birth interval in the entire sample. The quartiles were rounded to the nearest completed year for the sake of simplicity, and are presented in table 1.

The four age categories at the start of the interval from marriage to the first birth are, therefore, younger than 15, 15–16, 17–18 and 19 or older, and for the interval from the first to the second birth younger than 17, 17–18, 19–20 and 21 or older, and so on. The estimated birth functions for births of orders one to eight shown graphically in figure 1 and in tabular form in table A1 (life-table calculations) are based on single-month durations, but to facilitate interpretation tabular results are presented only at selected durations. The quintum and trimean for each birth function are presented in table 2.

Age has a clear effect on the likelihood of bearing a child within the first five years of marriage: the quintum for women who married before age 15 stands at 87 per cent as compared to 93–94 per cent for women who married at older ages. Moreover, the relatively high trimean of 21 months for the youngest brides, as against 17 months for women marrying at ages 15–17 and 15 months for those marrying after their seventeenth birthday, indicates that those who did bear a child within five years of marriage took, on average, longer to do so than did women who married when older. The slower rate of childbearing experienced by women who married before age 15 is probably real, and can be attributed to adolescent subfecundity. Although menarche precedes marriage in Islamic societies such as Jordan, among women marrying at very young ages, the interval separating the two events is probably short. Since many cycles immediately after menarche are likely to be anovulatory, few of the youngest brides would have reached their full reproductive potential within the first years of marriage. In other words, one year of exposure for a very young woman will carry a smaller risk of pregnancy than one year of exposure for a woman who has already reached her reproductive prime. Indeed, despite initial differences in the timing of the first birth, the proportion of women who ultimately bore at least one child (97 per cent) is undifferentiated by age at marriage.

Table 1 Quartiles of distributions of age at the beginning of birth intervals by birth order

	Birth order							
Quartile	1	2	3	4	5	6	7	8
a_{25}	15	17	19	20	22	24	26	28
a_{50}	17	19	21	23	24	26	27	30
a_{75}	19	21	23	25	27	29	30	32

Table 2 Summary measures of birth intervals by birth order and age at the start of the interval

		Age at start of birth interval			
Birth order	Summary measure	a_{25}	a_{25}–a_{50}	a_{50}–a_{75}	a_{75}
1	Age	<15	15–17	17–19	20+
	Q	.87	.94	.94	.93
	T	21.2	17.4	15.1	15.1
2	Age	<17	17–19	19–21	22+
	Q	.97	.96	.99	.95
	T	20.9	20.4	20.2	19.8
3	Age	<19	19–21	21–23	24+
	Q	.97	.96	.96	.91
	T	22.0	21.6	22.1	22.6
4	Age	<20	20–23	23–25	26+
	Q	.97	.96	.97	.89
	T	23.0	23.3	23.4	24.4
5	Age	<22	22–24	24–27	28+
	Q	.95	.95	.95	.87
	T	23.4	22.9	23.6	24.4
6	Age	<24	24–26	26–29	30+
	Q	.95	.94	.92	.89
	T	22.6	23.3	23.8	24.8
7	Age	<26	26–27	27–30	31+
	Q	.95	.94	.92	.82
	T	22.4	23.8	24.8	25.0
8	Age	<28	28–30	30–32	33+
	Q	.90	.92	.90	.75
	T	22.9	23.4	25.1	26.4

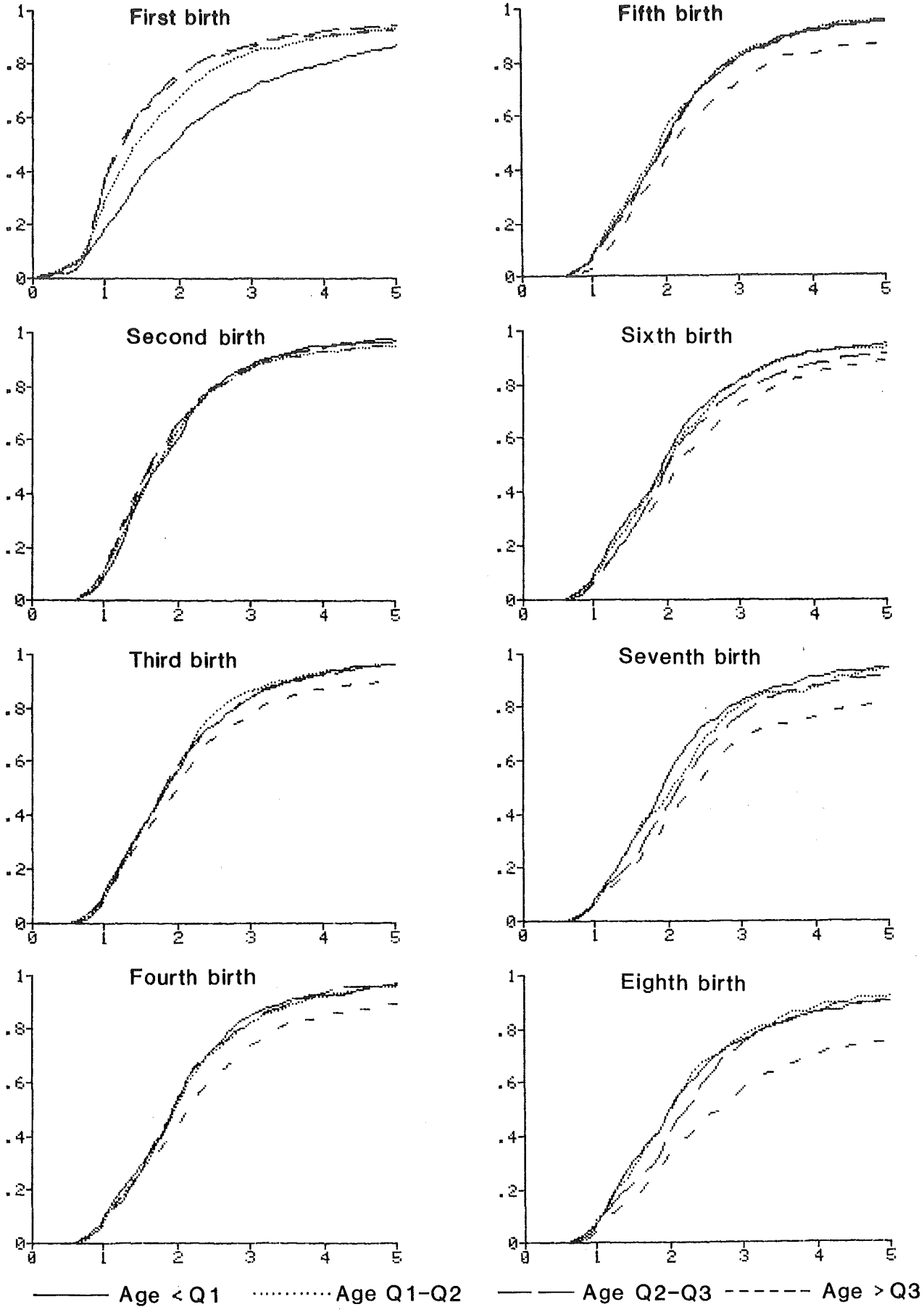

Figure 1 Life tables by birth order and age at start of interval

Maternal age has little bearing on the timing of the second birth: the quintums range between 95 and 99 per cent and, in each case, the trimean is of the order of 20–21 months. As we move to the higher parities, however, age differences become more apparent. This can be seen most clearly in the proportion of women in the oldest age category at each parity who bore another child within five years of the last. For example, the quintum of the fourth birth is as high as 97 per cent for women who had a third birth by age 25, but 89 per cent for those who were aged 25 or older when they reached parity three. Similarly, the quintum of eighth order births ranges only between 90 and 92 per cent for women in the first three age categories, but among those aged 33 years and older this figure falls to 75 per cent. Whereas age is strongly related to the quintum of fertility at the higher birth orders, differences in the timing of childbearing for women who progressed to the next higher parity are considerably less pronounced: the trimeans for the four categories of relative age for fourth order births vary only between 23 and 24 months, and for eighth order births only between 23 and 26 months.

The most striking characteristic of the birth functions, however, is the extremely high proportion of women at each parity who progress to the next higher parity. Even in the oldest age categories, the probability of bearing another child within five years of the last does not drop below 80 per cent before parity seven.

2.2 COHORT EFFECTS

To examine the childbearing experience of different cohorts of women, life tables by birth order were constructed separately for the five subgroups of the sample whose ages at the time of the survey were 15–24, 25–29, 30–34, 35–39 and 40–49. Complete results are presented in figure 2 and table A2, and summary measures for selected birth intervals are shown in table 3.

If we examine the interval from marriage to first birth, we find that the proportion of women bearing a child within five years of marriage is higher for younger cohorts than for older ones. The value of the quintum declines from 96 per cent for women aged 15–24 at the time of the survey to 87 per cent for those aged 40–49. Likewise, the trimean increases monotonically with age, from 15 months for the youngest cohort to 18 months for the oldest.

This inverse relation between women's ages at the time of the survey and the level and timing of early childbearing is consistent with the trend towards later marriage which has occurred in Jordan.[4] That is, given the very young ages at marriage that prevailed in Jordan until the recent past, many brides would not have been fully fecund. Rising ages at marriage imply that larger proportions of women will have passed through the phase of adolescent subfecundity before they married and, thus, that they were subject to higher risks of pregnancy in the first few years of marriage.

To test the reasonableness of this interpretation, life tables for the first birth were constructed for the various cohorts controlling for age at marriage. Summary measures for these life tables are shown below in table 4. Within each category of current age, the inverse relation continues to hold: the quintum tends to rise with age at marriage and the trimean becomes shorter. For example, among women aged 25–29 at the time of the survey, the trimean falls from 23 months for those married before age 15 to 14 months for those married at age 17 and above. In other words, over the range of typical ages at marriage, the later a Jordanian girl marries, the swifter she will be to bear her first child.

An additional, but unexpected, finding is that within categories of age at marriage there is a tendency for the time to the first birth to lengthen with increasing age. Examining the birth intervals for women who married before age 15, for example, we see that the proportion having a first birth within five years is higher for the 15–24 and 25–29 age groups than for the 30–34 and 35–39 age groups, which in turn is higher than the quintum for women aged 40–49 years. Were the inverse relation between the timing of the first birth and current age due principally to changes in the age composition of brides, the value of the quintum would, of course, remain unchanged within categories of age at marriage.

A tempting explanation for the observed pattern is an improvement in health conditions and nutritional levels, so that the fecundity of a woman aged, say, 15

[4] Among women currently aged 45–49, 31 per cent were first married before their fifteenth birthday. The corresponding proportion for women aged 15–19 is only 6 per cent (WFS 1980: 3).

Table 3 Summary measures of selected birth intervals by birth order and age at the time of the survey

Birth order	Summary measure	Age at time of survey (years)				
		15–24	25–29	30–34	35–39	40–49
1	Q	.96	.96	.93	.89	.87
	T	15.5	16.2	16.2	18.0	18.5
2	Q	–	.96	.96	.94	.94
	T	–	21.5	21.7	22.8	22.3
6	Q	–	–	.93	.90	.93
	T	–	–	23.3	24.1	23.6

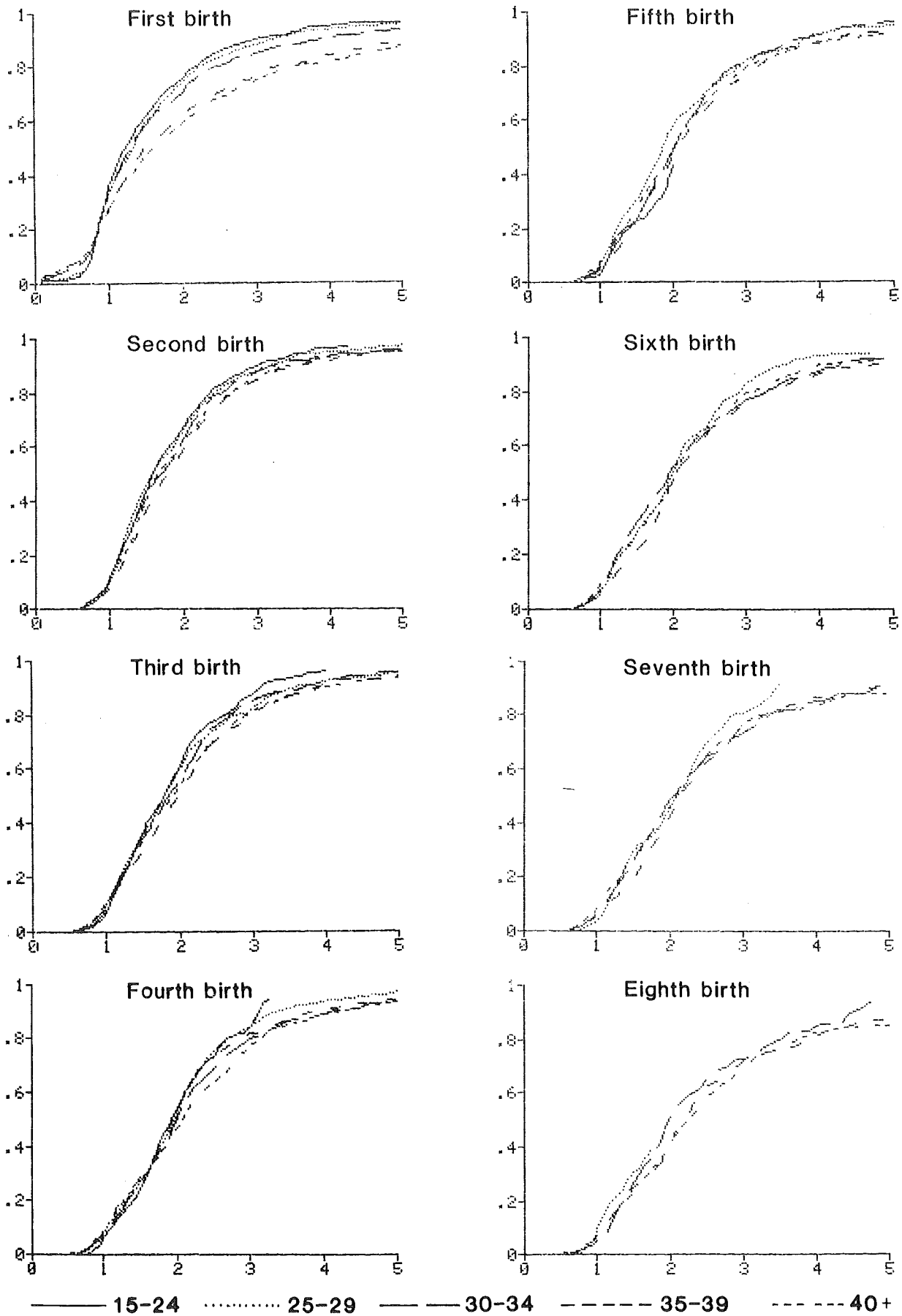

Figure 2 Life tables by birth order and age at time of survey

Table 4 Summary measures of first birth intervals by age at marriage and age at the time of the survey

Age at marriage	Summary measure	Age at time of survey (years)				
		15–24	25–29	30–34	35–39	40–49
<15	Q	.92	.93	.87	.86	.81
	T	19.2	22.7	19.7	22.0	22.1
15–16	Q	.98	.97	.95	.87	.90
	T	15.7	18.5	15.8	19.9	18.5
17–18	Q	–	.97	.95	–	.88
	T	–	13.8	15.8	–	17.4
19+	Q	–	.96	.95	.88	.91
	T	–	14.4	14.4	14.9	16.1

Table 5 Summary measures of selected birth intervals by birth order and calendar period at the start of the interval

Birth order	Summary measure	Calendar period				
		1955	1955–59	1960–64	1965–69	1970+
1	Q	.87	.91	.94	.95	.96
	T	19.7	17.8	16.6	15.0	15.2
3	Q	.95	.96	.96	.95	.93
	T	22.6	22.3	22.3	21.1	22.1
6	Q	.89	.95	.94	.91	.93
	T	24.4	24.1	22.9	22.9	24.5

today is higher than that 30 years ago. A more reasonable one is that there are errors in the data on which our life tables are based. Indeed, an evaluation of the Jordan Fertility Survey (Abdel-Aziz 1983) has indicated that older women tended to report their earliest confinements as occurring closer to the time of the survey than was actually the case. A systematic bias of this sort would lengthen the reported birth intervals and, thus, erroneously flatten the birth functions.

Returning to table 3, we find little variation in the level and timing of childbearing between age cohorts for births of orders two and above. The lack of variation in the birth functions between cohorts is, perhaps, one of the most remarkable features of these data. For example, among women aged at least 25 years the quintum for the second birth fluctuates about 95 per cent and the trimean deviates little from 22 months; while the exposure period was too short to allow estimation of corresponding summary measures for women aged 15–24, scrutiny of figure 2 shows that the behaviour of the youngest women varied little from that of their older sisters and mothers.

Examination of the interval between the fifth and sixth births reveals little variation between the three oldest cohorts: in each case the proportion of women who bore their sixth child within five years of the fifth is about 90 per cent and the trimean is about 23 or 24 months. The graphs of the birth functions indicate that women aged 25–29 might have not only been more likely to progress to parity six but may also have a shorter time between births. This suggests the operation of a selection process, since for a relatively young woman to have borne at least five children by the time of the survey she must have had abnormally short birth intervals.

2.3 PERIOD EFFECTS

To investigate variations in fertility over time, we have constructed life tables by birth order and the calendar period during which the interval started. The calendar periods considered are as follows: before 1955, 1955–59, 1960–4, 1965–9 and 1970 or later. Birth functions abstracted from the life tables are shown graphically in figure 3 and in tabular form in table A3. Summary indices for selected birth intervals are presented in table 5.

The proportion bearing their first child within five years of marriage rises from 87 per cent among women

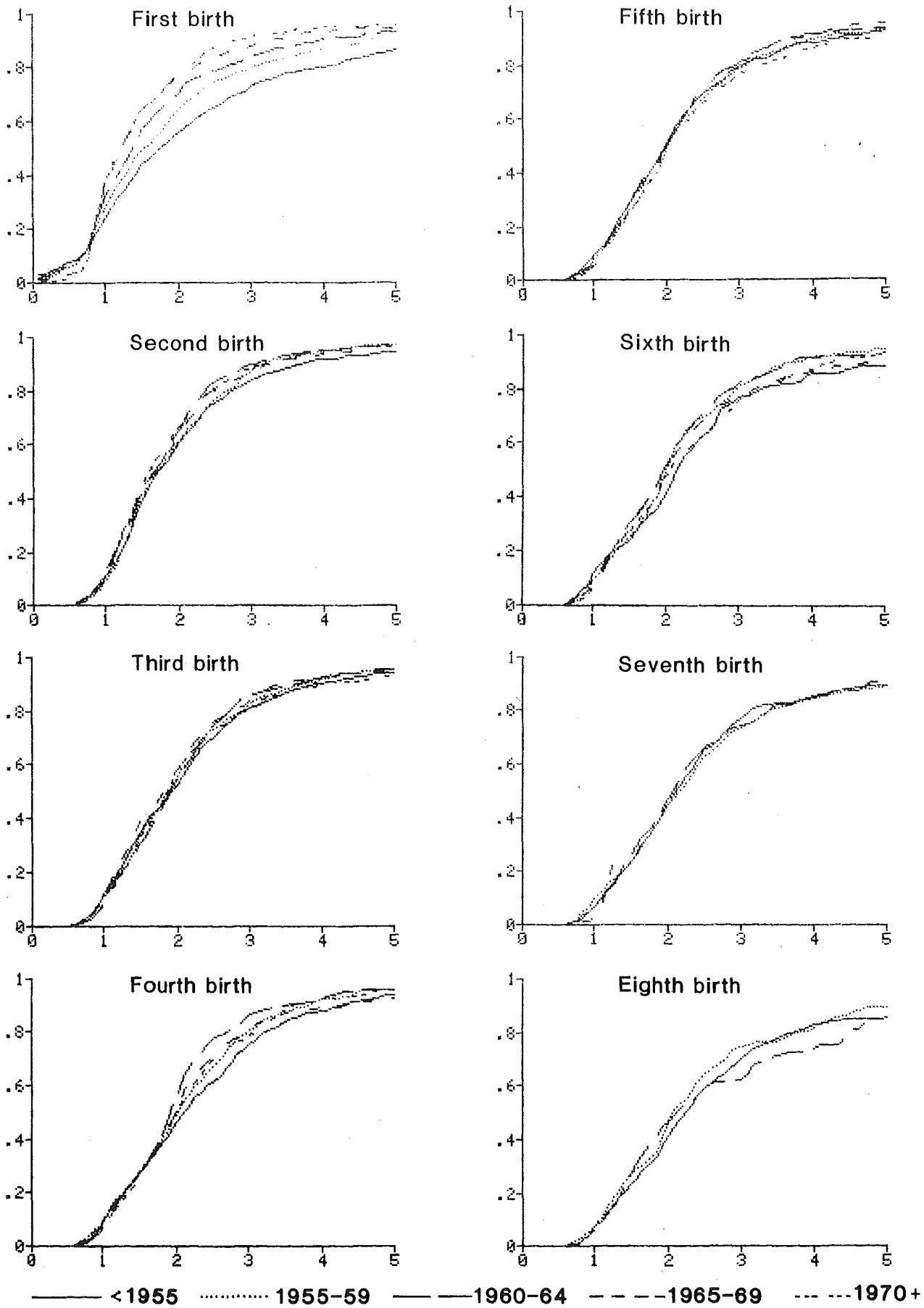

Figure 3 Life tables by birth order and calendar period

whose marriages were contracted before 1955 to 96 per cent for those who married during the most recent calendar period, and the trimeans decline from 20 to 15 months. Given disproportionate numbers of errors in the data for the earliest periods and possible selectivity for short birth intervals in the most recent period, these results must be interpreted with caution. Nevertheless, they do suggest a trend towards shorter first birth intervals, although the strength of any such trend is undoubtedly weaker than indicated.

Apart from the interval from marriage to the first birth, we find little evidence of period effects in the quantum and tempo of fertility. For example, the proportion of women who experienced a third confinement within five years of the second fluctuates about 95 per cent, and the typical birth interval for these women is of the order of 22 months. The ranges of values for the quintum (89 to 95 per cent) and for the trimean (23 to 25 months) are slightly greater in the interval between the fifth and sixth births; but even at this high parity there is no evidence for period differences.

3 Place of Residence and Education

In this section we consider the effects of two background characteristics, current place of residence and educational level, on the level and timing of childbearing.

3.1 CURRENT PLACE OF RESIDENCE

In the JFS, respondents were classified according to whether they were currently living in an urban or a rural area. The distinction between the two types of areas follows the standard designation used by the Department of Statistics, and takes into account population density, the availability of social services and the proportion of the labour force engaged in agriculture.

Life tables by birth order and type of current residence are shown in figure 4 and table A4 and are summarized in table 6.

Examining the interval from marriage to first birth we see that, in comparison with urban women, rural women show a slightly smaller proportion bearing a child within five years and a longer first birth interval. This finding is consistent with extremely low ages of marriage that have been observed in rural areas of Jordan (see Department of Statistics 1979: 29–30).

As we move to higher parities, we find that urban–rural differences disappear for second and third order births, and then reverse at each higher parity. It must be stressed that the differences in the values of the quintum and the trimean never exceed seven per cent and two months respectively, and that rural–urban distinctions are affected by migration and possible misclassifications of villages which were close to towns. Nevertheless, the consistency of the results does provide weak evidence for the emergence of an urban–rural differential in patterns of family formation, at least beyond parity five.

Table 6 Summary measures of birth intervals by birth order and current type of place of residence

Birth order	Summary measure	Current place of residence	
		Urban	Rural
1	Q	.93	.90
	T	16.1	18.2
2	Q	.97	.96
	T	20.0	21.0
3	Q	.95	.96
	T	21.8	22.3
4	Q	.94	.97
	T	23.5	23.3
5	Q	.92	.96
	T	23.6	23.4
6	Q	.91	.96
	T	23.2	24.4
7	Q	.88	.95
	T	23.5	25.4
8	Q	.84	.91
	T	24.1	24.6

3.2 EDUCATION

To investigate the effects of education on fertility, life tables were constructed separately for three educational categories. The members of the sample were

Table 7 Summary measures of birth intervals by birth order and educational level

Birth order	Summary measure	Level of education		
		None	<6	6+
1	Q	.89	.95	.96
	T	18.6	15.8	19.2
2	Q	.96	.98	.96
	T	20.9	19.4	20.2
3	Q	.96	.96	.89
	T	22.3	21.4	22.2
4	Q	.96	.96	.85
	T	23.3	22.8	25.6
5	Q	.96	.95	.74
	T	23.9	22.6	24.1
6	Q	.95	.88	.79
	T	23.8	22.2	25.8
7	Q	.93	.82	.75
	T	24.1	23.5	24.4
8	Q	.89	.77	–
	T	24.2	24.0	–

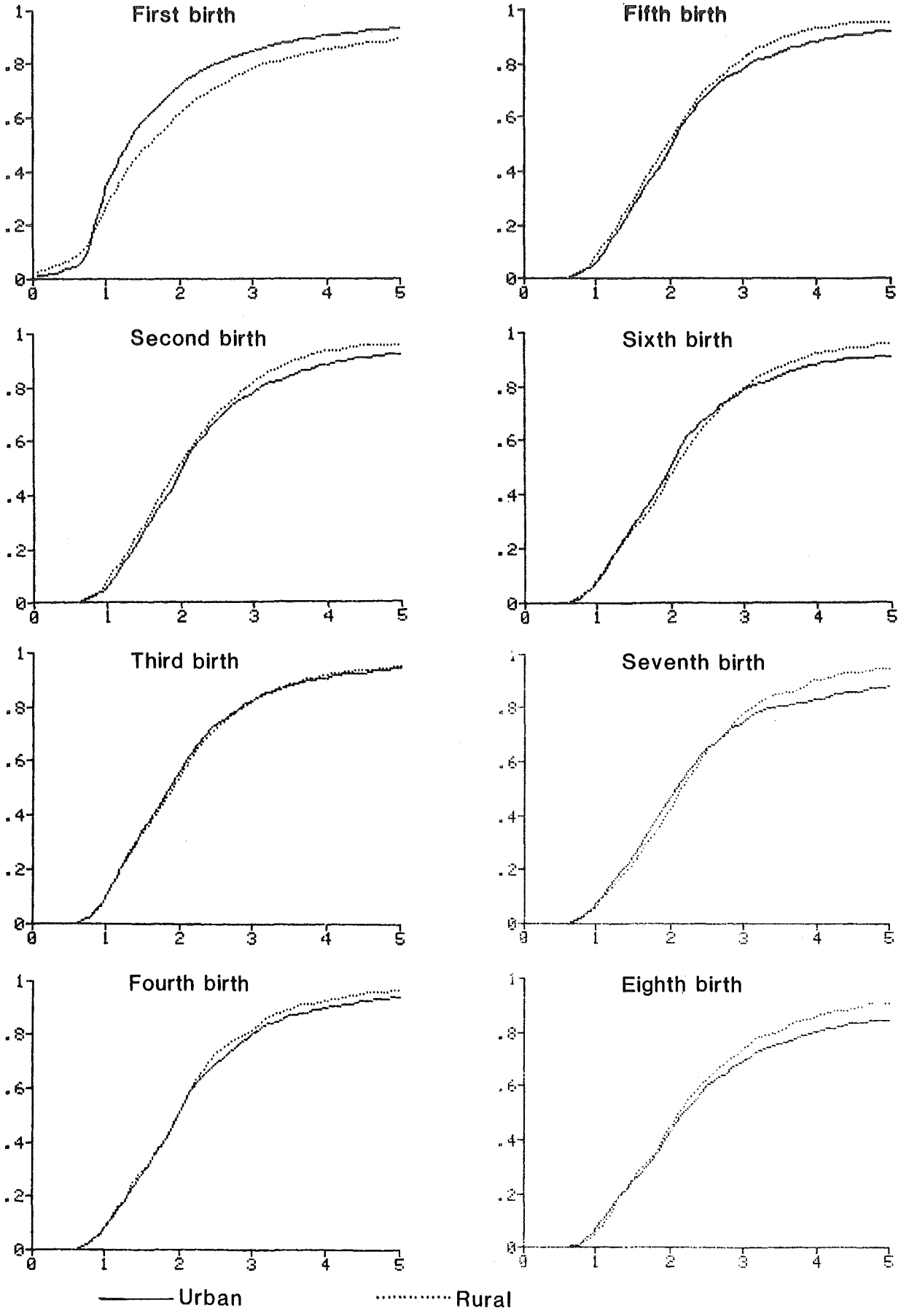

Figure 4 Life tables by birth order and place of residence

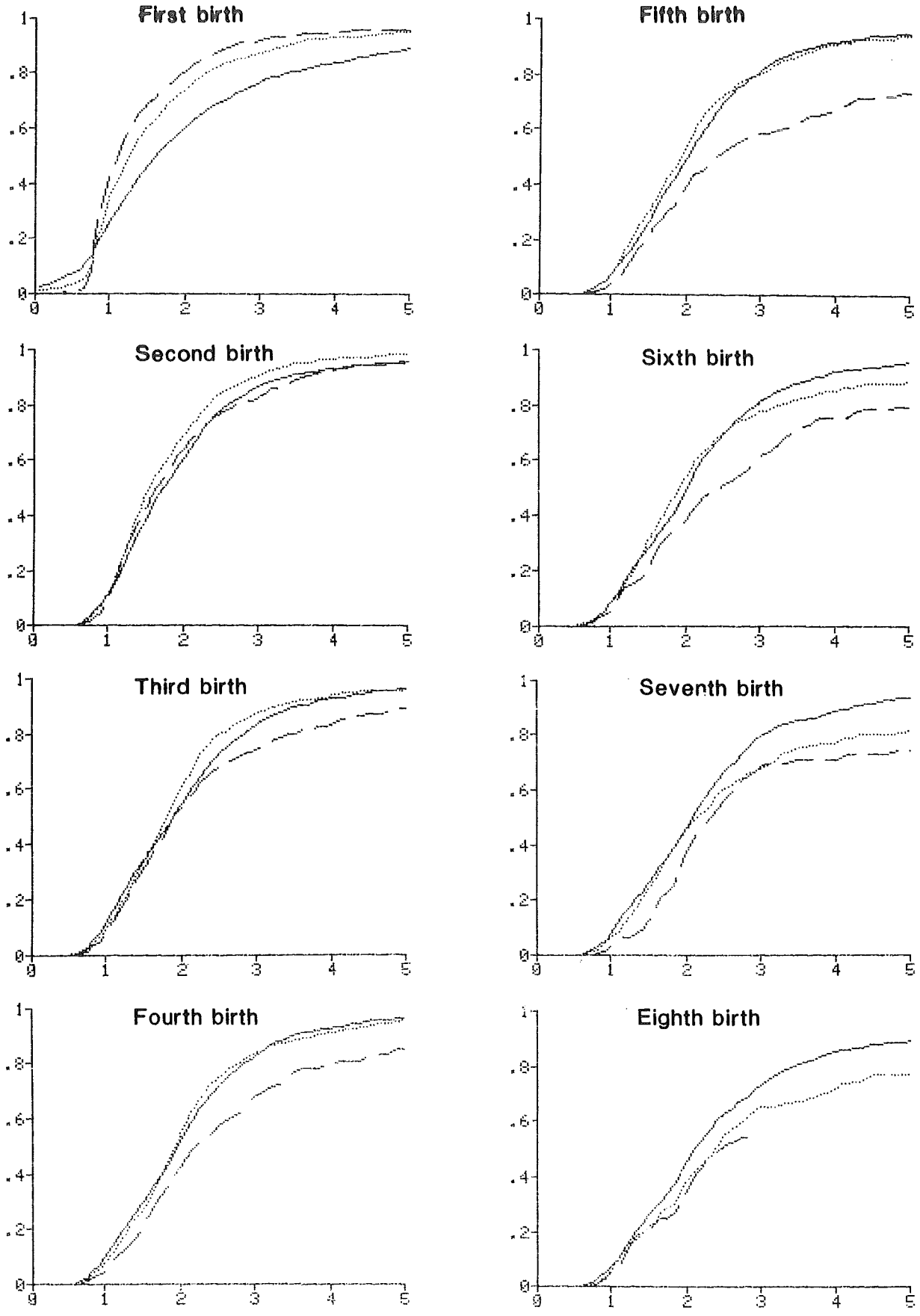

Figure 5 Life tables by birth order and educational level

classified into three broad groupings according to whether they had no formal education, incomplete primary schooling (<6) or primary level education or above (6+). Full results for the life-table calculations are shown in figure 5 and table A5. The quintums and trimeans of the birth functions are presented in table 7.

If we consider the first birth interval, we find that the proportion having a child by the end of the fifth year following marriage is smaller for uneducated than for educated women: the quintum is 89 per cent for the members of the first group, as compared to 95 and 96 per cent respectively for women with incomplete and complete primary schooling. In addition, the average length of the birth interval varies greatly between educational groups, with the trimean falling from 19 months for uneducated women to 14 months for the members of the best-educated group. The strong inverse relation between education and the time to first birth can be explained by education-related differences in ages at marriage, since uneducated women are more likely to marry when very young and, hence, before they are fully fecund.

Differences in the quantum and tempo of second-order births are minimal between the three educational groups. At higher parities, however, strong educational differences begin to emerge. Thus, at parities three and four the quintum is constant at 96 per cent both for uneducated women and for those with less than completed primary schooling, but falls to 89 and 85 per cent for women with at least primary education. For seventh order births, the quintum for the least educated women is only three percentage points lower than at the earlier parities, but for the best-educated group has already dropped to 75 per cent.

It is clear from figure 5 that the effect of education is manifested not only in the behaviour of women who completed primary school but also amongst women with incomplete primary schooling. While the values of the quintum vary little between uneducated women and women with less than completed primary education before parity four, systematic differentials do appear at the highest parities. For example, 95 per cent of the uneducated women can be expected to have another birth within five years of the fifth child and 89 per cent to have one within five years of the seventh, but corresponding proportions for women with some primary education are 88 and 77 per cent.

4 Conclusions

Marriage is virtually universal in Jordan, and childbearing is confined almost exclusively to women in the married state. Moreover, once married, women appear to settle down to a lifetime of frequent childbearing, terminated ultimately by sterility, marital dissolution or death.

Fertility levels in Jordan are not only extremely high but, as the present analysis has shown, women are remarkably homogeneous with respect to their patterns of family building. Thus, at each parity, the proportions bearing another child within five years vary little with age except in the oldest age groups, where the fact that comparatively few women continue to the next higher parity is due most probably to declining fecundity or to the onset of secondary sterility. In addition, while the tempo of fertility decreases slightly with parity, the likelihood of bearing another child is almost independent of the number of children already born.

Nevertheless, the analysis did reveal the existence of fertility differentials associated with differences in educational levels, as well as the possible emergence of a weak urban–rural differential. Apart from the interval between marriage and first birth, the effect of education on the quantum and tempo of childbearing begins to appear only at parities three and above, and then only among women with at least completed primary schooling.

That educational differences are not translated into period and cohort effects is attributable to the composition of the sample, since by far the majority of women have no formal schooling at all.

Ages at marriage have been rising in Jordan: the median age has increased from 16.7 years among women currently aged 45–49 to 19.4 years among those aged 20–24. This rise is associated in part with a tendency for the better educated to delay marriage. Because they postpone marriage, the better educated women are more likely to be fully fecund when they marry and, in turn, to have shorter first birth intervals. Nevertheless, the age-specific fertility of better educated women in the youngest age group will be lower than that of less educated women, and their overall reproduction spans will be shorter. In addition, the proportion of women proceeding to the higher parities falls across educational groups. Thus, we can expect some fertility decline in the near future as educated women come to constitute a larger proportion of the childbearing population.

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Appendix A – Detailed Tables

Table A1 Birth function according to birth order and age at start of interval

Birth order one

DURATION	AGE AT MARRIAGE < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.012	.023	.018	.006	.015
.50	.044	.051	.028	.024	.037
.75	.093	.119	.108	.106	.107
1.00	.191	.297	.372	.378	.312
1.25	.282	.430	.512	.532	.442
1.50	.388	.528	.634	.622	.545
1.75	.458	.612	.701	.691	.618
2.00	.533	.678	.759	.750	.682
2.25	.590	.735	.802	.804	.734
2.50	.640	.785	.834	.827	.773
2.75	.683	.822	.857	.848	.804
3.00	.713	.847	.871	.865	.825
3.50	.768	.875	.906	.903	.864
4.00	.804	.902	.926	.912	.887
5.00	.871	.936	.944	.930	.921
6.00	.901	.950	.954	.948	.939
N CASES	822	906	806	1017	3551
QUANTUM	.871	.936	.944	.930	.921
TRIMEAN	1.77	1.45	1.26	1.25	1.41
SPREAD	1.52	1.19	.90	.92	1.14

Birth order two

DURATION	AGE AT FIRST BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.026	.031	.019	.035	.029
1.00	.098	.111	.106	.132	.112
1.25	.233	.257	.279	.300	.266
1.50	.403	.397	.440	.438	.418
1.75	.510	.525	.561	.541	.532
2.00	.609	.640	.664	.647	.639
2.25	.723	.721	.738	.735	.729
2.50	.796	.794	.795	.805	.798
2.75	.848	.835	.829	.850	.841
3.00	.879	.876	.870	.870	.874
3.50	.929	.910	.924	.911	.918
4.00	.955	.934	.949	.932	.942
5.00	.970	.958	.987	.954	.966
6.00	.987	.976	.000	.963	.979
N CASES	870	879	666	884	3299
QUANTUM	.970	.958	.987	.954	.966
TRIMEAN	1.74	1.70	1.68	1.65	1.69
SPREAD	1.00	1.02	1.07	1.03	1.03

Birth order three

DURATION	AGE AT SECOND BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.026	.017	.014	.021	.020
1.00	.112	.097	.093	.098	.101
1.25	.238	.218	.228	.208	.224
1.50	.347	.345	.349	.315	.339
1.75	.451	.454	.458	.408	.443
2.00	.568	.573	.588	.510	.558
2.25	.674	.691	.664	.610	.660
2.50	.737	.782	.735	.687	.735
2.75	.792	.833	.792	.735	.788
3.00	.837	.865	.836	.774	.828
3.50	.896	.906	.901	.840	.886
4.00	.929	.935	.925	.872	.916
5.00	.966	.962	.964	.905	.950
6.00	.980	.978	.971	.934	.967
N CASES	893	755	575	770	2994
QUANTUM	.966	.962	.964	.905	.950
TRIMEAN	1.83	1.80	1.84	1.88	1.83
SPREAD	1.18	1.03	1.17	1.17	1.13

Birth order four

DURATION	AGE AT THIRD BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.023	.018	.027	.020	.021
1.00	.095	.083	.089	.074	.085
1.25	.199	.181	.159	.184	.182
1.50	.293	.273	.272	.267	.276
1.75	.392	.389	.403	.346	.382
2.00	.539	.522	.541	.439	.510
2.25	.659	.638	.653	.546	.623
2.50	.730	.719	.730	.624	.701
2.75	.806	.773	.779	.680	.760
3.00	.847	.821	.820	.737	.807
3.50	.907	.887	.895	.822	.878
4.00	.925	.922	.936	.850	.908
5.00	.967	.957	.973	.894	.948
6.00	.980	.976	.979	.914	.963
N CASES	575	913	517	647	2652
QUANTUM	.967	.957	.973	.894	.948
TRIMEAN	1.92	1.94	1.95	2.03	1.96
SPREAD	1.13	1.09	1.06	1.34	1.14

Table A1 *(cont.)*

Birth order five

DURATION	AGE AT FOURTH BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.023	.015	.027	.009	.019
1.00	.079	.087	.075	.032	.068
1.25	.176	.195	.165	.114	.162
1.50	.278	.303	.262	.229	.267
1.75	.394	.412	.394	.337	.384
2.00	.503	.551	.498	.434	.496
2.25	.620	.630	.606	.544	.600
2.50	.708	.714	.709	.618	.688
2.75	.760	.777	.781	.680	.751
3.00	.811	.824	.811	.715	.791
3.50	.881	.872	.869	.811	.859
4.00	.911	.919	.922	.829	.897
5.00	.949	.954	.953	.865	.932
6.00	.969	.969	.966	.880	.948
N CASES	531	529	665	575	2301
QUANTUM	.949	.954	.953	.865	.932
TRIMEAN	1.95	1.91	1.97	2.03	1.97
SPREAD	1.12	1.15	1.08	1.14	1.12

Birth order six

DURATION	AGE AT FIFTH BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.022	.020	.008	.011	.015
1.00	.097	.077	.064	.083	.080
1.25	.217	.195	.157	.157	.181
1.50	.319	.294	.252	.254	.279
1.75	.404	.397	.369	.328	.375
2.00	.535	.507	.495	.426	.492
2.25	.649	.621	.600	.535	.602
2.50	.721	.694	.670	.610	.674
2.75	.775	.779	.740	.667	.741
3.00	.817	.819	.785	.729	.788
3.50	.888	.882	.839	.790	.850
4.00	.922	.925	.878	.842	.892
5.00	.951	.939	.917	.888	.924
6.00	.970	.970	.938	.902	.946
N CASES	482	428	560	463	1934
QUANTUM	.951	.939	.917	.888	.924
TRIMEAN	1.88	1.94	1.98	2.07	1.96
SPREAD	1.17	1.17	1.13	1.32	1.18

Birth order seven

DURATION	AGE AT SIXTH BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.018	.019	.015	.021	.018
1.00	.083	.064	.074	.070	.074
1.25	.184	.184	.160	.135	.161
1.50	.301	.297	.231	.207	.250
1.75	.407	.395	.340	.288	.348
2.00	.553	.477	.441	.387	.458
2.25	.661	.570	.554	.470	.559
2.50	.738	.692	.647	.555	.648
2.75	.780	.757	.713	.631	.711
3.00	.819	.808	.772	.685	.762
3.50	.877	.854	.848	.736	.822
4.00	.913	.872	.878	.764	.852
5.00	.946	.942	.918	.815	.898
6.00	.968	.000	.933	.841	.918
N CASES	441	188	510	513	1652
QUANTUM	.946	.942	.918	.815	.898
TRIMEAN	1.87	1.98	2.07	2.08	2.01
SPREAD	1.04	1.20	1.18	1.19	1.18

Birth order eight

DURATION	AGE AT SEVENTH BIRTH < Q1	Q1-Q2	Q2-Q3	> Q3	TOTAL
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.013	.016	.023	.004	.013
1.00	.075	.086	.075	.053	.071
1.25	.198	.194	.159	.121	.167
1.50	.310	.286	.223	.176	.249
1.75	.392	.390	.286	.242	.327
2.00	.505	.502	.420	.336	.439
2.25	.594	.612	.509	.400	.525
2.50	.669	.679	.616	.474	.605
2.75	.722	.721	.692	.515	.657
3.00	.757	.774	.745	.576	.707
3.50	.816	.841	.821	.642	.773
4.00	.862	.885	.862	.701	.822
5.00	.899	.919	.904	.745	.862
6.00	.956	.935	.929	.757	.895
N CASES	394	265	263	387	1309
QUANTUM	.899	.919	.904	.745	.862
TRIMEAN	1.91	1.95	2.09	2.20	2.03
SPREAD	1.21	1.18	1.17	1.38	1.29

Table A2 Birth function according to birth order and age at time of survey

Birth order one

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.014	.016	.032	.037	.041
.50	.020	.030	.060	.073	.071
.75	.098	.099	.127	.134	.140
1.00	.362	.338	.344	.285	.271
1.25	.516	.465	.484	.395	.382
1.50	.614	.590	.582	.499	.467
1.75	.696	.673	.648	.558	.535
2.00	.761	.744	.706	.624	.594
2.25	.811	.799	.767	.666	.645
2.50	.857	.831	.803	.708	.682
2.75	.882	.861	.832	.740	.719
3.00	.898	.880	.847	.766	.749
3.50	.923	.919	.878	.806	.801
4.00	.950	.938	.904	.839	.817
5.00	.960	.957	.931	.889	.874
6.00	.976	.967	.941	.921	.900
N CASES	912	706	628	543	806
QUANTUM	.960	.957	.931	.889	.874
TRIMEAN	1.29	1.35	1.35	1.50	1.54
SPREAD	.94	1.01	1.11	1.37	1.42

Birth order two

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.022	.030	.031	.023	.035
1.00	.118	.106	.121	.089	.121
1.25	.277	.316	.279	.218	.238
1.50	.436	.458	.416	.369	.406
1.75	.575	.561	.512	.482	.528
2.00	.679	.664	.634	.594	.623
2.25	.765	.753	.740	.683	.707
2.50	.833	.820	.801	.765	.776
2.75	.874	.855	.848	.810	.824
3.00	.902	.881	.881	.854	.859
3.50	.945	.936	.921	.894	.903
4.00	.966	.954	.939	.926	.934
5.00	.000	.981	.961	.957	.956
6.00	.000	.991	.972	.974	.973
N CASES	709	683	605	524	779
QUANTUM	.000	.981	.961	.957	.956
TRIMEAN	.00	1.64	1.68	1.80	1.72
SPREAD	.00	1.02	1.01	1.08	1.03

Birth order three

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.009	.019	.021	.022	.025
1.00	.073	.107	.095	.099	.119
1.25	.217	.242	.225	.203	.225
1.50	.361	.355	.344	.302	.338
1.75	.470	.465	.444	.399	.442
2.00	.612	.601	.560	.511	.535
2.25	.726	.694	.667	.618	.632
2.50	.782	.745	.758	.710	.709
2.75	.827	.797	.812	.755	.771
3.00	.878	.823	.853	.802	.813
3.50	.937	.897	.889	.871	.869
4.00	.958	.922	.921	.910	.898
5.00	.000	.957	.957	.936	.941
6.00	.000	.972	.968	.967	.957
N CASES	497	637	580	509	771
QUANTUM	.000	.957	.957	.936	.941
TRIMEAN	.00	1.79	1.81	1.90	1.86
SPREAD	.00	1.12	1.08	1.14	1.21

Birth order four

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.006	.018	.020	.033	.021
1.00	.065	.084	.079	.091	.090
1.25	.150	.179	.166	.203	.191
1.50	.249	.274	.271	.288	.280
1.75	.413	.392	.379	.388	.369
2.00	.546	.532	.511	.540	.469
2.25	.655	.661	.619	.666	.570
2.50	.741	.754	.693	.742	.641
2.75	.810	.811	.755	.784	.708
3.00	.844	.849	.798	.819	.774
3.50	.000	.912	.869	.875	.854
4.00	.000	.939	.894	.908	.892
5.00	.000	.977	.941	.943	.936
6.00	.000	.000	.967	.950	.954
N CASES	300	546	549	501	756
QUANTUM	.000	.977	.941	.943	.936
TRIMEAN	.00	1.93	1.96	1.86	2.03
SPREAD	.00	1.01	1.13	1.01	1.36

Table A2 *(cont.)*

Birth order five

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.018	.008	.019	.016	.026
1.00	.036	.078	.062	.050	.083
1.25	.176	.207	.153	.129	.165
1.50	.231	.313	.246	.235	.283
1.75	.297	.440	.376	.359	.386
2.00	.433	.574	.484	.463	.493
2.25	.000	.643	.605	.574	.600
2.50	.000	.713	.715	.656	.682
2.75	.000	.763	.783	.726	.743
3.00	.000	.817	.814	.760	.788
3.50	.000	.863	.875	.858	.849
4.00	.000	.915	.917	.890	.885
5.00	.000	.943	.960	.935	.913
6.00	.000	.000	.970	.951	.935
N CASES	145	444	505	475	732
QUANTUM	.000	.943	.960	.935	.913
TRIMEAN	.00	1.86	2.00	2.05	1.94
SPREAD	.00	1.17	1.03	1.14	1.13

Birth order six

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.000	.017	.011	.016	.016
1.00	.000	.060	.081	.063	.097
1.25	.000	.190	.207	.138	.185
1.50	.000	.285	.324	.214	.284
1.75	.000	.373	.424	.322	.375
2.00	.000	.500	.525	.472	.476
2.25	.000	.633	.600	.569	.608
2.50	.000	.692	.664	.662	.676
2.75	.000	.776	.728	.717	.748
3.00	.000	.832	.771	.764	.796
3.50	.000	.902	.840	.825	.856
4.00	.000	.935	.880	.869	.900
5.00	.000	.000	.929	.902	.927
6.00	.000	.000	.953	.930	.945
N CASES	45	310	438	442	699
QUANTUM	.000	.000	.929	.902	.927
TRIMEAN	.00	.00	1.94	2.01	1.97
SPREAD	.00	.00	1.33	1.02	1.21

Birth order seven

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.000	.006	.015	.018	.023
1.00	.000	.039	.073	.064	.089
1.25	.000	.164	.163	.128	.181
1.50	.000	.297	.263	.193	.268
1.75	.000	.357	.367	.311	.359
2.00	.000	.457	.487	.423	.466
2.25	.000	.568	.574	.541	.560
2.50	.000	.700	.644	.630	.653
2.75	.000	.777	.689	.693	.720
3.00	.000	.814	.735	.759	.767
3.50	.000	.918	.819	.823	.814
4.00	.000	.000	.851	.870	.838
5.00	.000	.000	.914	.902	.886
6.00	.000	.000	.920	.929	.906
N CASES	18	200	370	398	666
QUANTUM	.000	.000	.914	.902	.886
TRIMEAN	.00	.00	2.03	2.11	1.95
SPREAD	.00	.00	1.31	1.12	1.18

Birth order eight

DURATION	AGE AT TIME OF SURVEY 15-24	25-29	30-34	35-39	40+
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.000	.000	.016	.020	.009
1.00	.000	.095	.052	.066	.078
1.25	.000	.216	.155	.165	.167
1.50	.000	.310	.267	.249	.236
1.75	.000	.397	.364	.303	.319
2.00	.000	.000	.514	.412	.418
2.25	.000	.000	.589	.522	.499
2.50	.000	.000	.647	.621	.580
2.75	.000	.000	.695	.665	.640
3.00	.000	.000	.724	.716	.695
3.50	.000	.000	.800	.762	.769
4.00	.000	.000	.848	.809	.822
5.00	.000	.000	.000	.872	.849
6.00	.000	.000	.000	.905	.881
N CASES	0	98	272	340	597
QUANTUM	.000	.000	.000	.872	.849
TRIMEAN	.00	.00	.00	2.05	2.05
SPREAD	.00	.00	.00	1.28	1.32

Table A3 Birth function according to birth order and calendar period

Birth order one

DURATION	CALENDAR PERIOD < 1955	1955-59	1960-64	1965-69	1970 +
.25	.044	.027	.038	.022	.008
.50	.078	.061	.067	.032	.015
.75	.133	.131	.139	.102	.095
1.00	.246	.290	.326	.365	.381
1.25	.344	.398	.449	.528	.533
1.50	.435	.490	.569	.641	.630
1.75	.498	.563	.645	.715	.707
2.00	.560	.644	.706	.762	.778
2.25	.612	.699	.764	.809	.829
2.50	.655	.747	.789	.836	.878
2.75	.698	.777	.815	.866	.898
3.00	.728	.801	.839	.881	.911
3.50	.781	.838	.880	.914	.934
4.00	.804	.869	.905	.935	.950
5.00	.868	.911	.935	.947	.959
6.00	.898	.927	.961	.954	.000
N CASES	853	547	595	663	937
QUANTUM	.868	.911	.935	.947	.959
TRIMEAN	1.64	1.48	1.38	1.25	1.27
SPREAD	1.54	1.27	1.11	.87	.92

Birth order two

DURATION	CALENDAR PERIOD < 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.034	.028	.036	.028	.021
1.00	.110	.091	.133	.119	.105
1.25	.230	.229	.276	.299	.283
1.50	.389	.413	.421	.424	.439
1.75	.506	.522	.534	.524	.569
2.00	.606	.616	.657	.638	.667
2.25	.688	.697	.766	.734	.751
2.50	.758	.771	.836	.806	.810
2.75	.809	.820	.871	.841	.860
3.00	.840	.878	.898	.871	.884
3.50	.887	.925	.935	.921	.925
4.00	.922	.949	.954	.939	.951
5.00	.944	.976	.972	.969	.978
6.00	.972	.983	.982	.976	.000
N CASES	630	474	599	666	930
QUANTUM	.944	.976	.972	.969	.978
TRIMEAN	1.74	1.77	1.66	1.68	1.65
SPREAD	1.05	1.10	.96	1.05	1.00

Birth order three

DURATION	CALENDAR PERIOD < 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.029	.020	.019	.021	.014
1.00	.121	.109	.096	.113	.079
1.25	.231	.214	.212	.257	.205
1.50	.343	.334	.303	.387	.326
1.75	.439	.442	.425	.472	.434
2.00	.526	.558	.543	.585	.571
2.25	.633	.649	.656	.689	.664
2.50	.705	.732	.747	.761	.721
2.75	.764	.783	.811	.802	.773
3.00	.811	.824	.856	.837	.806
3.50	.869	.885	.894	.907	.866
4.00	.902	.920	.925	.928	.898
5.00	.945	.957	.958	.953	.932
6.00	.962	.969	.980	.965	.000
N CASES	457	444	563	641	889
QUANTUM	.945	.957	.958	.953	.932
TRIMEAN	1.88	1.86	1.86	1.76	1.84
SPREAD	1.26	1.12	1.07	1.10	1.11

Birth order four

DURATION	CALENDAR PERIOD < 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.012	.036	.023	.025	.013
1.00	.091	.101	.070	.097	.074
1.25	.189	.196	.184	.189	.164
1.50	.278	.279	.271	.286	.268
1.75	.365	.389	.386	.373	.393
2.00	.463	.492	.559	.513	.502
2.25	.552	.592	.696	.636	.607
2.50	.617	.671	.775	.705	.699
2.75	.689	.752	.810	.768	.750
3.00	.748	.805	.861	.815	.781
3.50	.845	.876	.900	.872	.889
4.00	.880	.924	.925	.892	.922
5.00	.942	.961	.962	.925	.962
6.00	.968	.970	.972	.945	.000
N CASES	322	370	519	587	854
QUANTUM	.942	.961	.962	.925	.962
TRIMEAN	2.07	2.01	1.87	1.91	1.99
SPREAD	1.42	1.27	.93	1.10	1.14

Table A3 *(cont.)*

Birth order five

DURATION	CALENDAR PERIOD				
	< 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.027	.029	.020	.021	.009
1.00	.094	.079	.078	.062	.053
1.25	.173	.149	.166	.163	.161
1.50	.290	.251	.288	.262	.256
1.75	.397	.359	.408	.393	.365
2.00	.506	.485	.499	.495	.498
2.25	.611	.600	.606	.609	.581
2.50	.692	.673	.696	.711	.660
2.75	.741	.733	.775	.772	.716
3.00	.790	.783	.805	.810	.761
3.50	.845	.849	.882	.878	.817
4.00	.886	.895	.915	.910	.863
5.00	.927	.929	.932	.952	.905
6.00	.948	.956	.950	.957	.000
N CASES	202	287	486	549	777
QUANTUM	.927	.929	.932	.952	.905
TRIMEAN	1.93	2.00	1.95	1.97	1.97
SPREAD	1.15	1.13	1.11	1.07	1.17

Birth order six

DURATION	CALENDAR PERIOD				
	< 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.029	.009	.025	.013	.009
1.00	.113	.087	.094	.079	.062
1.25	.191	.172	.191	.171	.183
1.50	.240	.254	.303	.293	.269
1.75	.328	.352	.396	.394	.361
2.00	.411	.499	.515	.504	.478
2.25	.549	.642	.633	.604	.572
2.50	.628	.700	.711	.688	.631
2.75	.732	.750	.786	.744	.698
3.00	.770	.811	.823	.780	.761
3.50	.819	.889	.877	.840	.828
4.00	.863	.923	.925	.869	.882
5.00	.893	.954	.939	.908	.927
6.00	.934	.964	.953	.938	.940
N CASES	114	225	405	482	708
QUANTUM	.893	.954	.939	.908	.927
TRIMEAN	2.03	2.01	1.91	1.91	2.04
SPREAD	1.23	1.14	1.13	1.11	1.34

Birth order seven

DURATION	CALENDAR PERIOD				
	< 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.018	.024	.011	.017	.000
1.00	.070	.094	.067	.024	.000
1.25	.153	.171	.156	.249	.000
1.50	.237	.234	.265	.000	.000
1.75	.335	.338	.353	.000	.000
2.00	.449	.446	.468	.000	.000
2.25	.553	.531	.588	.000	.000
2.50	.650	.623	.658	.000	.000
2.75	.715	.692	.709	.000	.000
3.00	.773	.737	.745	.000	.000
3.50	.826	.808	.821	.000	.000
4.00	.853	.847	.849	.000	.000
5.00	.896	.891	.914	.000	.000
6.00	.921	.906	.000	.000	.000
N CASES	732	433	374	114	0
QUANTUM	.896	.891	.914	.000	.000
TRIMEAN	2.02	2.05	2.02	.00	.00
SPREAD	1.14	1.21	1.24	.00	.00

Birth order eight

DURATION	CALENDAR PERIOD				
	< 1955	1955-59	1960-64	1965-69	1970 +
.25	.000	.000	.000	.000	.000
.50	.000	.000	.000	.000	.000
.75	.013	.018	.006	.000	.000
1.00	.072	.077	.061	.000	.000
1.25	.155	.187	.154	.000	.000
1.50	.229	.270	.266	.000	.000
1.75	.308	.327	.379	.000	.000
2.00	.410	.468	.470	.000	.000
2.25	.503	.552	.534	.000	.000
2.50	.586	.643	.587	.000	.000
2.75	.645	.691	.612	.000	.000
3.00	.699	.743	.625	.000	.000
3.50	.778	.769	.712	.000	.000
4.00	.829	.821	.740	.000	.000
5.00	.856	.894	.000	.000	.000
6.00	.891	.905	.000	.000	.000
N CASES	673	361	241	34	0
QUANTUM	.856	.894	.000	.000	.000
TRIMEAN	2.08	1.99	.00	.00	.00
SPREAD	1.29	1.27	.00	.00	.00

Table A4 Birth function according to birth order and place of residence

Birth order one

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.020	.044
.50	.040	.069
.75	.112	.133
1.00	.343	.267
1.25	.478	.382
1.50	.583	.476
1.75	.655	.545
2.00	.717	.614
2.25	.765	.673
2.50	.803	.711
2.75	.829	.754
3.00	.846	.784
3.50	.884	.823
4.00	.904	.852
5.00	.933	.896
6.00	.947	.922
N CASES	2523	1073
QUANTUM	.933	.896
TRIMEAN	1.34	1.52
SPREAD	1.06	1.33

Birth order two

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.032	.021
1.00	.120	.093
1.25	.284	.224
1.50	.435	.379
1.75	.540	.514
2.00	.649	.615
2.25	.740	.703
2.50	.807	.777
2.75	.850	.820
3.00	.882	.856
3.50	.925	.902
4.00	.947	.931
5.00	.970	.957
6.00	.982	.973
N CASES	2316	983
QUANTUM	.970	.957
TRIMEAN	1.67	1.75
SPREAD	1.03	1.02

Birth order three

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.021	.018
1.00	.102	.099
1.25	.224	.222
1.50	.341	.334
1.75	.446	.434
2.00	.565	.544
2.25	.664	.650
2.50	.740	.723
2.75	.788	.788
3.00	.830	.824
3.50	.885	.888
4.00	.913	.923
5.00	.948	.955
6.00	.963	.976
N CASES	2107	887
QUANTUM	.948	.955
TRIMEAN	1.82	1.86
SPREAD	1.11	1.19

Birth order four

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.022	.020
1.00	.083	.089
1.25	.181	.185
1.50	.271	.287
1.75	.382	.381
2.00	.509	.512
2.25	.620	.631
2.50	.690	.727
2.75	.752	.778
3.00	.803	.817
3.50	.870	.896
4.00	.901	.926
5.00	.941	.966
6.00	.957	.979
N CASES	1867	785
QUANTUM	.941	.966
TRIMEAN	1.96	1.94
SPREAD	1.15	1.11

Table A4 *(cont.)*

Birth order five

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.020	.015
1.00	.061	.086
1.25	.155	.179
1.50	.260	.285
1.75	.376	.404
2.00	.487	.518
2.25	.597	.607
2.50	.681	.704
2.75	.744	.769
3.00	.780	.819
3.50	.844	.898
4.00	.884	.932
5.00	.923	.955
6.00	.936	.977
N CASES	1619	682
QUANTUM	.923	.955
TRIMEAN	1.97	1.95
SPREAD	1.11	1.16

Birth order six

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.014	.018
1.00	.078	.085
1.25	.182	.178
1.50	.283	.268
1.75	.382	.356
2.00	.499	.474
2.25	.615	.571
2.50	.680	.660
2.75	.742	.739
3.00	.787	.791
3.50	.842	.871
4.00	.881	.920
5.00	.911	.958
6.00	.935	.974
N CASES	1362	571
QUANTUM	.911	.958
TRIMEAN	1.93	2.03
SPREAD	1.14	1.27

Birth order seven

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.020	.013
1.00	.078	.063
1.25	.166	.149
1.50	.256	.234
1.75	.359	.320
2.00	.470	.428
2.25	.566	.539
2.50	.650	.643
2.75	.711	.710
3.00	.753	.785
3.50	.809	.858
4.00	.833	.904
5.00	.878	.948
6.00	.901	.962
N CASES	1178	474
QUANTUM	.878	.948
TRIMEAN	1.96	2.12
SPREAD	1.14	1.24

Birth order eight

DURATION	PLACE OF RESIDENCE URBAN	RURAL
.25	.000	.000
.50	.000	.000
.75	.014	.010
1.00	.076	.059
1.25	.172	.155
1.50	.246	.256
1.75	.326	.331
2.00	.434	.451
2.25	.517	.547
2.50	.598	.623
2.75	.646	.687
3.00	.694	.737
3.50	.759	.806
4.00	.806	.860
5.00	.842	.909
6.00	.873	.945
N CASES	925	384
QUANTUM	.842	.909
TRIMEAN	2.01	2.05
SPREAD	1.29	1.30

Table A5 Birth function according to birth order and educational level

Birth order one

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS	
.25	.042	.019	.004	.027
.50	.075	.033	.009	.049
.75	.138	.107	.087	.118
1.00	.263	.348	.424	.320
1.25	.365	.495	.597	.449
1.50	.464	.607	.692	.551
1.75	.540	.682	.749	.622
2.00	.606	.743	.810	.686
2.25	.662	.795	.854	.738
2.50	.701	.835	.888	.776
2.75	.739	.858	.911	.806
3.00	.767	.875	.921	.828
3.50	.812	.914	.940	.865
4.00	.842	.932	.951	.888
5.00	.891	.953	.959	.922
6.00	.914	.965	.972	.940
N CASES	1806	987	803	3596
QUANTUM	.891	.953	.959	.922
TRIMEAN	1.55	1.32	1.18	1.39
SPREAD	1.37	.97	.79	1.14

Birth order two

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS	
.25	.000	.000	.000	.000
.50	.000	.000	.000	.000
.75	.035	.026	.016	.029
1.00	.114	.120	.098	.112
1.25	.246	.288	.291	.266
1.50	.387	.475	.426	.418
1.75	.503	.586	.539	.532
2.00	.610	.694	.643	.639
2.25	.711	.776	.714	.729
2.50	.785	.842	.771	.798
2.75	.833	.881	.807	.841
3.00	.870	.910	.830	.874
3.50	.911	.951	.891	.918
4.00	.935	.967	.929	.942
5.00	.959	.985	.960	.966
6.00	.976	.993	.969	.979
N CASES	1707	892	700	3299
QUANTUM	.959	.985	.960	.966
TRIMEAN	1.74	1.62	1.68	1.69
SPREAD	1.04	.94	1.09	1.03

Birth order three

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS	
.25	.000	.000	.000	.000
.50	.000	.000	.000	.000
.75	.024	.016	.013	.020
1.00	.115	.090	.076	.101
1.25	.240	.210	.192	.224
1.50	.345	.341	.318	.339
1.75	.441	.459	.425	.443
2.00	.544	.608	.532	.558
2.25	.644	.722	.620	.660
2.50	.725	.796	.676	.735
2.75	.785	.843	.714	.788
3.00	.831	.874	.740	.828
3.50	.894	.915	.802	.886
4.00	.927	.938	.832	.916
5.00	.960	.959	.890	.950
6.00	.976	.968	.924	.967
N CASES	1643	799	552	2994
QUANTUM	.960	.959	.890	.950
TRIMEAN	1.86	1.78	1.85	1.83
SPREAD	1.23	.93	1.15	1.13

Birth order four

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS	
.25	.000	.000	.000	.000
.50	.000	.000	.000	.000
.75	.026	.016	.012	.021
1.00	.095	.080	.049	.085
1.25	.199	.176	.122	.182
1.50	.297	.265	.209	.276
1.75	.394	.390	.319	.382
2.00	.515	.545	.425	.510
2.25	.631	.668	.513	.623
2.50	.714	.742	.569	.701
2.75	.777	.797	.613	.760
3.00	.825	.831	.678	.807
3.50	.899	.883	.764	.878
4.00	.929	.913	.796	.908
5.00	.964	.955	.853	.948
6.00	.976	.967	.890	.963
N CASES	1550	692	409	2652
QUANTUM	.964	.955	.853	.948
TRIMEAN	1.94	1.90	2.13	1.96
SPREAD	1.18	.97	1.36	1.14

Table A5 *(cont.)*

Birth order five

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS	
.25	.000	.000	.000	.000
.50	.000	.000	.000	.000
.75	.019	.021	.011	.019
1.00	.072	.070	.039	.068
1.25	.157	.194	.122	.162
1.50	.261	.305	.221	.267
1.75	.384	.422	.300	.384
2.00	.494	.545	.398	.496
2.25	.601	.661	.459	.600
2.50	.701	.725	.521	.688
2.75	.770	.780	.565	.751
3.00	.817	.806	.587	.791
3.50	.889	.871	.628	.859
4.00	.924	.916	.673	.897
5.00	.956	.946	.738	.932
6.00	.972	.952	.764	.948
N CASES	1443	576	282	2301
QUANTUM	.956	.946	.738	.932
TRIMEAN	1.99	1.88	2.01	1.97
SPREAD	1.10	1.09	1.24	1.12

Birth order six

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS	
.25	.000	.000	.000	.000
.50	.000	.000	.000	.000
.75	.015	.016	.011	.015
1.00	.083	.079	.051	.080
1.25	.187	.177	.143	.181
1.50	.278	.308	.202	.279
1.75	.366	.418	.317	.375
2.00	.488	.538	.379	.492
2.25	.608	.630	.462	.602
2.50	.687	.691	.509	.674
2.75	.761	.743	.552	.741
3.00	.811	.775	.617	.788
3.50	.876	.821	.706	.850
4.00	.920	.853	.753	.892
5.00	.951	.883	.793	.924
6.00	.967	.914	.837	.946
N CASES	1291	473	170	1934
QUANTUM	.951	.883	.793	.924
TRIMEAN	1.98	1.85	2.15	1.96
SPREAD	1.20	1.03	1.44	1.18

Birth order seven

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS
.25	.000	.000	.000
.50	.000	.000	.000
.75	.022	.011	.005
1.00	.081	.063	.034
1.25	.175	.144	.068
1.50	.263	.244	.124
1.75	.356	.354	.231
2.00	.466	.457	.382
2.25	.577	.523	.479
2.50	.670	.604	.560
2.75	.736	.649	.640
3.00	.794	.679	.682
3.50	.852	.755	.712
4.00	.887	.774	.712
5.00	.932	.821	.745
6.00	.949	.848	.785
N CASES	1154	390	109
QUANTUM	.932	.821	.745
TRIMEAN	2.01	1.96	2.03
SPREAD	1.20	1.18	.88

Birth order eight

DURATION	EDUCATIONAL LEVEL NONE	1/5 YRS	6+ YRS
.25	.000	.000	.000
.50	.000	.000	.000
.75	.015	.009	.000
1.00	.076	.059	.051
1.25	.172	.152	.155
1.50	.260	.221	.205
1.75	.342	.291	.247
2.00	.458	.389	.347
2.25	.549	.456	.454
2.50	.628	.548	.506
2.75	.681	.599	.542
3.00	.732	.651	.000
3.50	.807	.674	.000
4.00	.856	.720	.000
5.00	.891	.771	.000
6.00	.924	.804	.000
N CASES	962	281	65
QUANTUM	.891	.771	.000
TRIMEAN	2.02	2.00	.00
SPREAD	1.29	1.21	.00