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# Polygyny and the Rate of Population Growth 

HELENA CHOJNACKA $\dagger$

Polygyny is relatively frequent in the second half of the twentieth century among populations in Africa, a continent with high rates of population growth. It varies from about 37 per cent in Guinea, against about 20 per cent on average in West Africa as a whole, to around three per cent in North African countries like Egypt, Libya, or Algeria. ${ }^{1}$ It should be borne in mind, however, that the incidence of polygyny measured as a percentage of husbands with two or more wives, is only a direct indicator. The demographic consequences of polygyny, although usually practised only by a fraction of a population, are more pervasive, since they affect the proportion of married women and their age at first marriage in the whole community. Accordingly, a transition from polygynous to monogamous type of unions may have significant effects upon the nuptiality pattern of a country and in turn upon its rate of population increase.

Our considerations are confined to three questions: (1) What are the roots of and motives for the practice of polygyny in African societies? (2) How is it feasible to practice polygyny in societies characterised by a more or less balanced sex ratio? (3) How and to what degree does polygyny affect the age pattern of fertility and the rate of population growth?

## CAUSES OF POLYGYNY

Polygyny has been practised in African societies for centuries. Although the institution is undergoing profound changes under the influence of economic developments it is still perceived as a natural form of union. Even educated Nigerians who themselves live in monogamous unions perceive polygyny as natural, despite the fact that polygyny could probably never in the past have been universal for all men in a community.

The following three basic reasons have been most often put forward by anthropologists for the persistence of polygyny in African societies: ${ }^{2}$
(a) as a means of obtaining and demonstrating social status;
(b) as the main source of securing an appropriate labour force;
(c) as a sexual necessity since intercourse during pregnancy and post-partum is frequently forbidden by customs and taboos.
The first two factors are interrelated, (a) is to a large extent a reflection of (b), and both are of interest in the context of this paper.

In agrarian traditional societies characterized by high land-labour ratios and negligible role of capital - as has been the case in West Africa - labour is the critical factor. Thus, the demand for labour was high while the supply was limited, since the high rate of population increase in Africa has been a recent phenomenon; in the past the rate has been close to zero for most of

[^0]the time. ${ }^{3}$ Most traditional African societies were predominantly based on a subsistence economy and relied on the family as the major social institution. The effectiveness and strength of the family were determined by its size. Naturally, polygyny is a major means of evolving a large family, since it can expand only through marriage and reproduction. Hence the number of wives and children is regarded as a man's greatest asset, and the main indicator of his wealth and status. It has probably also been the major factor in economic and social stratification since - in a society in which the sexes are nearly balanced - it is impossible for every man to practise polygyny. Historically, as the polygynous nuptiality pattern evolved, men who were able to acquire additional wives found themselves in a more advantageous position, and having once achieved such a position they were expected to take more wives than men of lower status. ${ }^{4}$

Many features of family life pertinent to polygyny vividly reflect its underlying major determinant - the demand for labour. For example, the high preference for boys results from the need to expand the family's labour force. In the partrilineal system of kinship, girls are regarded as liabilities because as soon as they marry - and they marry soon - they move into the husband's home, while sons strengthen their family by marriage. The bride price, which is one of the principal conditions of validating a customary marriage embodies the payment for acquiring a worker, although through time it has assumed various additional meanings and symbols. The functions ascribed to a wife in traditional African societies; (a) bearing children; (b) working for the household, stress first of all the significance of labour. The complementarity of these two functions also demonstrates a special social dimension of polygyny. In a society in which a high premium is placed on children, and where a childless wife has little or no chance of continuing in a monogamous union, she may easily be driven out of the matrimonial home to face an uncertain future and insecurity. Her usually low social status, does not provide the needed sources of economic and social security. They are replaced by marriage and childbearing. In a polygynous union, even when her function as a mother fails, she is still able to remain as a wife performing her second function as a labourer, and thus to secure her position in the community. ${ }^{5}$

In societies afflicted by slave trade and exportation, polygyny probably became more common since slavery, selective for men, heavily distorted the sex ratio.

The advantages of a large domestic labour force were also strengthened by colonial systems. A peasant paying his hut tax and performing his labour duties in the fields was in a more advantageous position with more hands available free of charge.

These economic and social conditions which brought about polygyny are rapidly changing with industrialization and urbanization. First, because the need for more labour is becoming less pressing as capital and know-how become more prevalent. Secondly, the unprecedently high rates of population growth of the last several decades have provided a supply of labour which the economies have not been fully able to absorb, resulting in the new phenomenon of unemployment. ${ }^{6}$ Therefore, the labour factor becomes gradually less important, demand for labour diminishes while supply increases. Simultaneously, modernization is changing consumption patterns, shifting and generating new scales of preference. In effect, more wives, as more children and a large family in general, are becoming a disadvantage, particularly in non-agricultural areas.

Some qualifications must, however, be borne in mind; first, there are elements generated

[^1]by economic development which could delay changes in the polygynous nuptiality pattern. For instance, rural-urban migration is sex-selective, being dominated in Nigeria, as in other developing countries, by men aged $20-30$, i.e. prime marriageable ages for men, thus distorting the sex ratio ${ }^{7}$ in both rural and urban areas in opposite directions and creating conditions conducive to polygyny in the former. Secondly, polygyny may be adjusted, at least for a while, to changing conditions whilst performing old functions. Specifically, in Nigeria, with strong economic and social ties still confined to the family, where mutual understanding, trust and responsibility are concepts often limited to kin, and impersonal relations are still rudimentary, a polygynous marriage with several wives as partners in a husband's enterprise is often considered the most efficient and secure way to establish and carry on a business. Nevertheless, the evolution has been in the direction from large to smaller families. Thus, the relevant question is: what are the implications of such a change for population growth?

## THE POLYGYNY - NUPTIALITY HYPOTHESIS

The demographic effects of any type of marriage upon the rate of population growth are a product of the interplay of two basic variables: the age-specific fertility schedule and the nuptiality pattern of the population.

It is acknowledged that in high-fertility societies early marriage can be a significant source of immediate short and long-term reductions in the rate of population increase, and the reductions will be larger the higher the prevailing level of fertility. Changes in nuptiality under high fertility have an immediate effect upon the rate of growth and can produce similar effects to those brought about by substantial changes in marital fertility. ${ }^{8}$

For various reasons, the main focus in all previous demographic studies of polygynous unions has been on fertility differentials. Although the results have invariably shown insignificant variation in fertility and most findings have been inconclusive, a view that fertility among polygynous wives is lower than among monogamous ones is favoured. By implication a recent UN publication concludes, that as African countries become more industrialized and polygynous marriages become less common fertility may rise, at least in the short run. ${ }^{9}$

Among the most frequently suggested explanations of lower fertility in polygynous unions are:
(a) Reduced coital frequency per polygynous wife resulting from competition with other wives for the husband's attention;
(b) Differences in adherence to rules and taboos concerning periods of post-partum abstinence between polygynous and monogamous wives;
(c) Spacing of marriages over time in polygynous unions responsible for a shorter duration of wives' marital exposure compared with monogamous ones. ${ }^{10}$

Some of these conjectures are difficult to verify empirically. As regards (c) we shall present some information for Nigeria which does not confirm its validity.

The inconclusiveness of the results and uncertainty of the explanation probably diverted attention from inquiries into aspects of polygyny other than those related to fertility. The lack of

[^2]significant variation in fertility between the two types of union suggests that although fertility differentials may be of anthropological and historical interest, they are of secondary importance from the point of view of demographic implications. As Olusanya ${ }^{11}$ argues convincingly and our case studies confirms the causes ascribed to the polygyny-fertility hypothesis may be interrelated with other socio-economic factors. Significant demographic implications of polygyny result from the nuptiality pattern which evolves under this type of union, and the effects it generates upon the rate of population growth.

## EVIDENCE AND DISCUSSION

The five samples ${ }^{12}$ are relatively small (Table 1). In all but two cases (Iwo in Oyo State, Kabba in Kwara State) the communities are rural. The selection of the households ${ }^{13}$ was carried out from provisional established clusters in the main quarters of a community. Depending upon the size of the cluster, each fifth or tenth household was interviewed until the total number reached about 130. Nevertheless, we do not claim that the principle of random sampling was fully observed, mainly because no lists of households were available and the clusters were constructed on the basis of sketchy maps of the areas. Thus, the results should be used with caution. It should also be noticed that the interviewers encountered difficulties in establishing exact age for each member of the household. Since no vital statistics records are in existence, and no records are kept by the family, most often parents do not know the exact age of their children or their own. In many cases it was necessary for the interviewer to help estimate age on the basis of memorable events in the past for the villagers. The same caution applies in the case of age at first marriage. A sensitive question was related to children who had died. We partially avoided direct questioning by asking for the number of children ever born and presently alive, although the answer to the former may be biased by the respondent's reluctance to mention children who had not survived.

We realize that those shortcomings may render the data crude, and it is not possible to know the degree of exactness or accuracy. However, the orders of magnitude and directions of interrelationships between variables, which are most relevant for our considerations seem plausible and reliable when compared with other findings, especially, since data collected in various parts of Nigeria display strikingly similar tendencies and relations between variables. Naturally, further inquiries are indispensable to verify and refine our present findings.

Our samples contain between 29 and 50 per cent of polygynous households, and the fraction of polygynous wives is naturally higher and ranges from 50 to 72 per cent of the total number of women. No data are available to gauge how these proportions are related to the average in the respective communities and areas.

The extent of polygyny, measured by the number of wives per union, shows that in the majority of cases ( $60-70$ per cent) there are two wives, in about 20 per cent three, and in between five and ten per cent four or more wives (Table 2).

As regards fertility we found the number of children ever born per woman in the age group

[^3]Table 1. Size and Composition of the Samples

| Type of Marriage | Uratta |  | Ika Clan |  | Mosogar \& Igueben |  | Iwo |  | Kabba |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households | Wives | Households | Wives | Households | Wives | Households | Wives | Households | Wives |
| Polygynous <br> (P) | $\begin{gathered} 35 \\ (28.9)^{*} \end{gathered}$ | $\begin{aligned} & 86 \\ & (50.0)^{*} \end{aligned}$ | $\begin{gathered} 43 \\ (33.1)^{*} \end{gathered}$ | $\begin{gathered} 99 \\ (53.2)^{*} \end{gathered}$ | $\begin{gathered} 104 \\ (48.8)^{*} \end{gathered}$ | $\stackrel{282}{282}_{(72.1)^{*}}$ | $\begin{aligned} & 87 \\ & (29.7)^{*} \end{aligned}$ | $\begin{gathered} 200 \\ (49.3) \end{gathered}$ | $\begin{aligned} & 40 \\ & (33.3) \end{aligned}$ | $\begin{gathered} 95 \\ (54.3)^{*} \end{gathered}$ |
| Monogamous (M) | 86 | 86 | 87 | 87 | 109 | 109 | 206 | 206 | 80 | 80 |
| Total | 121 | 172 | 130 | 186 | 213 | 391 | 293 | 406 | 120 | 175 |

in Im Clan is a set of settlements in Cross-River State both located in the eastern part of the country. Mosogar and Igueben are rural comMratis in Bendel State in the, Midwestern part. Iwo is a town in Oyo State, Kabba is a town in Kwara State both in Western Nigeria. Ika Clan is the most agricultural sample with 76 per cent of the respondents being farmers, and only six per cent semi-professionals. This is reflected in high illiteracy ratios, 77 and 84 per cent of husbands and wives respectively are illiterate. and wives respectively.
The Iwo sample consist
bands and wives respectively. 45 per 24 per of the
bands and wives respectively.
In Kabba 35 per cent are farm
wives.
$45+$, to vary between six and seven (Table 3 ). The results are plausible and consistent with findings from other sources. ${ }^{14}$ As in previous studies, no significant difference in completed fertility between wives from polygynous and monogamous unions of the same community has been found. The results show divergencies in both directions. In Uratta village fertility is higher among monogamous wives, although after controlling for childlessness the difference diminishes substantially. In Ika Clan ${ }^{15}$ the number of children ever born per wife is higher for polygynous wives in almost all age groups. In Mosogar and Igueben, fertility is slightly higher among monogamous wives in the last two age groups, though in the light of the particularly small number of women in polygynous unions in the highest age group, we do not attach much significance to this divergence. The Iwo figures show higher fertility among polygynous wives. There is thus no consistent tendency towards higher or lower fertility between polygynous and monogamous groups. The divergencies that occur result to a large extent from the higher incidence of childlessness among polygynous wives.

Table 2. Frequency of Wives in Polygynous Unions

| Sample | Proportion of Polygynous Unions with Different Numbers of Wives: |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  | Two | Three | Four | Five + |
| Uratta | 71.4 | 14.3 | 11.4 | 2.9 |
| Ika Clan | 74.4 | 20.9 | 4.7 | - |
| Mosogar \& Igueben | 58.7 | 24.0 | 4.8 | 12.5 |
| Iwo | 77.0 | 18.4 | - |  |
| Kabba | 70.0 | 25.0 | 5.0 | - |

Table 3. Fertility by Age of Wives

| Age | Uratta | Ika Clan | Igueben |
| :--- | :--- | :---: | :---: |
|  | Children ever born per wife |  | Iwo** |


|  | P | M | P | M | P | M | P | M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15-24 | $\begin{gathered} 0.8 \\ (1.7)^{*} \end{gathered}$ | 2.7 | 3.4 | $\begin{gathered} 2.2 \\ (2.6)^{*} \end{gathered}$ | $\begin{gathered} 2.8 \\ (3.2)^{*} \end{gathered}$ | $\begin{gathered} 2.0 \\ (2.1)^{*} \end{gathered}$ | 1.6 | 1.6 |
| 25-34 | $\begin{gathered} 3.2 \\ (3.4)^{*} \end{gathered}$ | 3.5 | $\begin{gathered} 4.7 \\ (4.9)^{*} \end{gathered}$ | 4.1 | 4.9 | 4.9 | 3.3 | 3.1 |
| 35-44 | $\begin{gathered} 4.3 \\ (4.7)^{*} \end{gathered}$ | 5.7 | 5.7 | 7.4 | $\begin{gathered} 6.2 \\ (6.3)^{*} \end{gathered}$ | 6.6 | 5.4 | 4.9 |
| $45+$ | $\begin{gathered} 5.3 \\ (6.2)^{*} \end{gathered}$ | 6.7 | $\begin{gathered} 7.5 \\ (8.1)^{*} \end{gathered}$ | $\begin{gathered} 6.7 \\ (7.4)^{*} \end{gathered}$ | $(5.8$ | 8.1 | 5.2 | 4.6 |


| Number of Wives |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $15-24$ | 6 | 10 | 17 | 28 | 54 | 25 | 50 | 39 |
| $25-34$ | 17 | 19 | 38 | 36 | 95 | 42 | 89 | 114 |
| $35-44$ | 29 | 25 | 18 | 13 | 97 | 35 | 52 | 46 |
| $45+$ | 34 | 32 | 26 | 10 | 36 | 7 | 9 | 7 |
| Total | 86 | 86 | 99 | 87 | 282 | 109 | 200 | 206 |

$\mathrm{P}=$ Polygynous $\quad \mathrm{M}=$ Monogamous

* Number of Children per fertile woman.
** In the case of Iwo children-1.
The Kabba sample is missing from this table because in polygynous households we were not able to match the number of children ever born to each wife.
${ }^{14}$ According to Olusanya's estimates derived from Brass and Coale-Demeny model life tables, the gross reproduction rate for Nigeria is around 3.4, 4.0 and 3.3 for the Eastern and Western regions respectively (derived from Coale-Demeny), and 3.25, 3.04 (derived from Brass). P. O. Olusanya, Population Growth and its Components, in J. E. Caldwell, Population Growth and Socioeconomic Change in West Africa, 1975, New York., p. 268.
${ }^{15}$ Date for Ika Clan were tabulated from the survey conducted by A. T. U. Etukudo, Research Fellow in the Human Resources Research Unit, University of Lagos. I would like to express my thanks to Mr. Etukudo for making the data available to me and allowing me to incorporate them into the article.

The effects on other demographic variables caused by polygyny, namely on nuptiality and child mortality, are more significant. It is particularly important that the consequences are related to socio-economic factors which distinguish the two types of union as larger and smaller households. In general, polygynous households show the same basic characteristics of lower socioeconomic status as monogamous ones.
(1) Polygynous households have about three times as many children as monogamous ones. The discrepancy becomes smaller when the actual sizes of the two types of households are compared (Table 4). Three obvious factors account for this:
(a) higher child mortality in polygynous families;
(b) a higher rate of out-migration from the larger families;
(c) the presence of non-family members (i.e. other than parents and children) in monogamous households to a larger extent than in polygynous ones.
(2) Fertility shows no consistent variation between the two types of household. There is no consistent relationship between the level of fertility and education or standard of living (Tables 5, and 6). There is, however, a distinct tendency for the number of children ever born per household to increase with rising total income, notably in polygynous families in the rural areas. This trend

Table 4. Fertility and Child Mortality by Type of Marriage

| Uratta |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Marriage | Children Ever Born per: |  | Children Alive per: |  | Mean Age of Wives | Mean Number of people per Household | Child** <br> Mortality |
|  | HH | W | HH | W |  |  |  |
| Polygynous | 10.5 | $\begin{aligned} & 4.3 \\ & (4.8)+ \end{aligned}$ | 8.2 | 3.3 | 39.5 | 11.3 | 221 |
| Monogamous | 5.2 | 5.2 | 4.3 | 4.3 | 39.2 | 6.3 | 182 |
| Mean | 6.8 | 4.8 | 5.4 | 3.8 | 39.3 | 7.7 | 199 |
| Ika Clan |  |  |  |  |  |  |  |
| Polygynous | 11.8 | $\begin{gathered} 5.1 \\ (5.3)^{*} \end{gathered}$ | 7.9 | 3.4 | 35.5 | 10.9 | 331 |
| Monogamous | 4.3 | $\begin{aligned} & 4.3 \\ & (4.5)^{*} \end{aligned}$ | 3.3 | 3.3 | 29.5 | 5.9 | 223 |
| Mean | 6.8 | 4.7 | 4.8 | 3.4 | 32.7 | 7.6 | 307 |
| Mosogar \& Igueben |  |  |  |  |  |  |  |
| Polygynous | 13.7 | $\begin{gathered} 5.0 \\ (5.3)^{*} \end{gathered}$ | 11.7 | 4.3 | 34.2 | 10.5 | 143 |
| Monogamous | 5.0 | $\begin{gathered} 5.0 \\ (5.1)^{*} \end{gathered}$ | 4.6 | 4.6 | 31.7 | 6.6 | 85 |
| Mean | 9.2 | 5.0 | 8.1 | 4.4 | 33.5 | 8.2 | 127 |
| Iwo |  |  |  |  |  |  |  |
| Polygynous |  |  | 8.1 | 3.5 | 30.1 |  | 158 |
| Monogamous |  |  | 3.3 | 3.3 | 30.1 |  | 76 |
| Mean |  |  | 4.7 | 3.4 | 30.1 |  | 108 |
| Kabba |  |  |  |  |  |  |  |
| Polygynous | 11.8 | 5.0 | 8.2 | 3.4 | 45.9 | 9.3 | 309 |
| Monogamous | 5.0 | 5.0 | 3.8 | 3.8 | 37.6 | 5.6 | 246 |
| Mean | 7.3 | 5.0 | 5.2 | 3.6 | 41.7 | 6.8 | 280 |

$\mathrm{HH}=$ Household $\quad \mathrm{W}=$ Wife

[^4]Table 5. Fertility and Child Mortality by Education and Type of Marriage

| Uratta |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education of Wives | Type of Marriage | Number of Wives | Mean Age | Children Ever Born per Wife | Child <br> Mortality | Age at first Marriage |  |
|  |  |  |  |  |  | W | H |
| Iliterate | P | 65 | 40.5 | 4.2 | 243.6 | 18.5 | 26.9 |
|  | M | 40 | 40.0 | 5.6 | 205.4 | 18.6 | 26.0 |
| Primary | P | 18 | 39.2 | 4.5 | 148.1 | 19.2 | 26.6 |
|  | M | 35 | 38.0 | 4.7 | 132.4 | 17.6 | 26.1 |
| Secondary | P | 3 | 33.3 | 3.7 | 181.8 | 15.7 | 26.8 |
|  | M | 11 | 39.8 | 5.6 | 177.4 | 18.3 | 26.1 |
| Post-secondary | $\mathrm{P}$ | - | - | - | - |  | 20.0 |
|  | M | - | - | - | - | - | 25.0 |
| Ika Clan |  |  |  |  |  |  |  |
| Illiterate | P | 87 | 36.6 | 5.2 | 345.1 | 15.2 | 22.8 |
|  | M | 70 | 31.0 | 4.6 | 249.2 | 15.3 | 26.9 |
| Primary | P | 12 | 28.1 | 4.3 | 211.5 | 16.0 | 26.3 |
|  | M | 14 | 22.4 | 2.9 | 73.2 | 15.4 | 27.8 |
| Secondary | P | - |  | - |  | - |  |
|  | M | 3 | 29.0 | 3.3 | 0.0 | 17.0 | 29.2 |
| Mosogar \& Igueben |  |  |  |  |  |  |  |
| Illiterate | P | 208 | 36.4 | 5.4 | 144.1 | 15.4 | 20.8 |
|  | M | 38 | 33.7 | 6.3 | 129.2 | 15.3 | 24.8 |
| Primary | P | 71 | 28.0 | 3.9 | 141.3 | 16.1 | 22.3 |
|  | M | 36 | 31.1 | 4.8 | 64.0 | 17.6 | 23.5 |
| Secondary | P | 3 | 28.3 | 4.3 | 76.9 | 19.0 | 24.7 |
|  | M | 20 | 29.7 | 3.5 | 43.5 | 18.4 | 24.8 |
| Post-secondary | $\mathrm{P}$ | - |  |  |  |  | 24.5 |
|  | M | 15 | 30.7 | 4.0 | 16.7 | 18.7 | 26.5 |
| Iwo |  |  |  |  |  |  |  |
| Illiterate | P | 132 | 30.8 | 3.7 | 176.1 | 18.7 | 21.4 |
|  | M | 34 | 31.2 | 3.5 | 151.1 | 18.6 | 21.2 |
| Primary | P | 17 | 27.9 | 3.1 | 157.9 | 17.8 | 21.4 |
|  | M | 15 | 30.9 | 3.4 | 89.3 | 19.5 | 22.7 |
| Secondary | P | 4 | 26.8 | 3.0 | 181.8 | 18.5 | 21.5 |
|  | M | 19 | 29.7 | 3.0 | 34.5 | 22.3 | 25.3 |
| Post-secondary | $\mathbf{P}$ | 47 | 29.0 | 3.0 | 102.8 | 20.3 | 24.2 |
|  | M | 138 | 29.9 | 3.2 | 57.2 | 22.8 | 26.4 |
| Kabba |  |  |  |  |  |  |  |
| Illiterate | P | 38 | 45.6 | 4.9 | 318.9 | 19.8 | 30.4 |
|  | M | 12 | 40.7 | 6.4 | 350.7 | 19.6 | 27.3 |
| Primary | P | 33 | 50.5 | 5.6 | 304.4 | 19.3 | 28.7 |
|  | M | 23 | 38.7 | 5.5 | 299.2 | 20.0 | 25.3 |
| Secondary | P | 5 | 49.2 | 4.6 | 304.4 | 24.2 | 31.5 |
|  | M | 7 | 38.3 | 5.3 | 135.1 | 20.9 | 27.0 |
| Post-secondary | P | 19 | 38.0 | 4.3 | 296.3 | 18.5 | 25.5 |
|  | M | 38 | 35.7 | 4.2 | 177.2 | 19.8 | 25.5 |

$\mathrm{W}=$ Wives $\quad \mathrm{H}=$ Husbands

* The grouping is by level of wife's education in all cases but Kabba and Iwo. In the case of Iwo, children living. Age information for Kabba seems to be the most distorted.
is directly related to the size of landholding and reflects vividly one of the contradictions which afflict contemporary agriculture in many developing countries, namely, that between the still prevailing role of labour which motivates the maintenance of large families, and population pressure upon land which is bound to be accentuated by increasing family size. As available scanty evidence

Table 6. Fertility and Child Mortality by Standard of Living and Type of Marriage

| Uratta |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Standard of Living* | Type of Marriage | Number of Wives | Mean Age | Children Ever Born per: |  | Child <br> Mortality | Age at First Marriage |  |
|  |  |  |  | Household | Wife |  | Husband | Wife |
| Low | Polygynous | 58 | 39.4 | 9.4 | 3.7 | 235.0 | 27.5 | 18.6 |
|  | Monogamous | 51 | 36.8 | 4.8 | 4.8 | 177.7 | 26.7 | 18.8 |
| Medium | Polygynous | 22 | 40.5 | 13.4 | 5.5 | 198.4 | 23.7 | 17.8 |
|  | Monogamous | 28 | 44.1 | 5.9 | 5.9 | 186.8 | 24.8 | 18.3 |
| High | Polygynous | 6 | 43.5 | 9.7 | 4.8 | 206.9 | 27.7 | 21.3 |
|  | Monogamous | 7 | 36.4 | 6.0 | 6.0 | 190.5 | 26.3 | 17.9 |
| Ika Clan |  |  |  |  |  |  |  |  |
| Low | Polygynous | 32 | 35.5 | 10.8 | 5.1 | 302.5 | 22.8 | 15.8 |
|  | Monogamous | 42 | 28.6 | 4.3 | 4.3 | 298.3 | 27.7 | 15.0 |
| Medium | Polygynous | 39 | 35.4 | 11.5 | 4.7 | 299.0 | 24.1 | 15.1 |
|  | Monogamous | 31 | 29.7 | 4.1 | 4.1 | 195.3 | 27.7 | 15.9 |
| High | Polygynous | 28 | 35.8 | 13.4 | 5.8 | 273.3 | 24.9 | 15.1 |
|  | Monogamous | 14 | 31.5 | 4.5 | 4.5 | 63.4 | 25.4 | 15.6 |
| Mosogar \& Igueben |  |  |  |  |  |  |  |  |
| Low | Polygynous | 88 | 35.1 | 13.0 | 5.2 | 165.2 | 20.5 | 15.5 |
|  | Monogamous | 37 | 30.6 | 5.7 | 5.7 | 127.4 | 24.2 | 16.0 |
| Medium | Polygynous | 103 | 33.4 | 15.1 | 5.1 | 151.5 | 20.7 | 15.4 |
|  | Monogamous | 36 | 32.7 | 5.0 | 5.0 | 72.2 | 24.4 | 16.7 |
| High | Polygynous | 91 | 33.7 | 12.9 | 4.8 | 109.6 | 23.6 | 15.9 |
|  | Monogamous | 36 | 31.8 | 4.1 | 4.1 | 40.3 | 26.6 | 18.7 |
| Iwo |  |  |  |  |  |  |  |  |
| Low | Polygynous | 73 | 29.5 | 8.5 | 8.5 | 184.5 | 22.0 | 19.0 |
|  | Monogamous | 70 | 28.7 | 2.9 | 2.9 | 81.1 | 23.1 | 19.9 |
| Medium | Polygynous | 67 | 30.5 | 8.6 | 3.7 | 162.5 | 21.8 | 18.8 |
|  | Monogamous | 68 | 30.2 | 3.3 | 3.3 | 81.0 | 25.0 | 21.6 |
| High | Polygynous | 60 | 30.3 | 7.0 | 3.3 | 123.3 | 22.6 | 19.3 |
|  | Monogamous | 68 | 31.5 | 3.5 | 3.5 | 66.4 | 27.4 | 23.9 |
| Kabba |  |  |  |  |  |  |  |  |
| Low | Polygynous | 31 | 44.9 | 10.6 | 4.8 | 324.2 | 29.9 | 19.8 |
|  | Monogamous | 27 | 37.7 | 5.7 | 5.7 | 339.9 | 26.2 | 20.3 |
| Medium | Polygynous | 29 | 48.5 | 12.2 | 5.5 | 291.1 | 29.4 | 19.6 |
|  | Monogamous | 26 | 39.0 | 5.7 | 5.7 | 236.5 | 25.0 | 19.4 |
| High | Polygynous | 35 | 44.8 | 12.9 | 4.8 | 311.4 | 27.4 | 19.5 |
|  | Monogamous | 27 | 35.9 | 3.6 | 3.6 | 112.3 | 26.3 | 20.6 |

[^5]for Uratta indicates, the proportion of polygynous families rises sharply with increasing size of landholding and so does the average family size and standard of living per household. But if expressed per member of household the standard of living tends to decline with expanding size of landholding, implying that increments in family size more than offset increases in household income (Table 7).
(3) Child mortality is high in all samples: it ranges between $127-300$ deaths per 1,000 children ever born. There is a strong correlation between child mortality and socio-economic variables: it is substantially higher in polygynous than in monogamous households, and among illiterate than families. Child mortality diminishes with rising educational attainment, particularly of wives, and standard of living. Our findings support the hypothesis that educational attainment of the wife

Table 7. Landholding and Family Size - Uratta

| Size of Landholding <br> (Proxy acres) | Per cent of <br> Households | Mean Number of <br> People per <br> Household | Standard of Living* <br> per: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Polygynous | Monogamous |  |  |

* See footnote to Table 9
is more important in lowering child mortality than that of the husband. The same distinction in educational attainment of the parents shows not significant difference in affecting fertility (Tables 4, 5, 6).

When educational attainment and the standard of living are controlled, differences in child mortality between the two types of marriage seem to be smaller for illiterate mothers than at higher levels of educational attainment, and lower than at higher standards of living (Tables 5, 6).
(4) Polygynous husbands and wives are as a rule less educated and the proportion of illiterates among them is higher, notably among the wives, among whom the percentage with secondary and post-secondary education is negligible as compared with the husbands (Table 8).
(5) The standard of living per household member is lower in polygynous households (Table 9).

The findings presented in Table 9 are very revealing. The standard of living is slightly higher for monogamous households in three cases out of four. The values per member which are a more adequate measure show in all cases, that the standard of living in monogamous families is about 40 per cent higher than in polygynous ones.

It is of interest to note that although historically polygyny has been a means of acquiring wealth, it is perceived to-day that wealth is a necessary condition for polygyny. There is a common belief that only a rich man can afford more than one wife, although statistically contemporary polygynous families in Nigeria enjoy a lower standard of living than monogamous ones of the same community.
(6) Occupationally, polygynous unions prevail among farmers, petty traders and manual workers, and they are less frequent among non-agricultural, non-manual occupations and professions.
(7) Polygyny is more common among traditional believers and Moslems than among Christians. The exception is Uratta, which is a predominantly Christian village (Table 8).

These characteristics indicate that the basic differences between the two types of union are related to determinants and consequences of large and small families. There is no basis for extrapolating these cross-sectional findings and inferring historical trends. One might speculate that our households are at present in a transitional state of evolution from large polygynous families which used to be advantageous, to smaller conjugal ones, following the effects of developmental changes and the diminishing importance of the labour factor. This probably accounts for the time lag in realizing that polygynous families are no longer the richest in the community.

Why then do monogamous families not display lower fertility?
To answer the question a methodological clarification is needed. There exists a discrepancy between conventional fertility indices and the perception of fertility size among the indigenous population. Unlike the former, the latter regard the number of children per husband and not per wife as important. ${ }^{16}$ Consequently, the often interchangeably used concepts 'fertility decline' and

[^6]Table 8. Occupation, Education, Religion by Type of Marriage

| Occupation <br> Type of Marriage | Uratta |  |  | Ika Clan |  |  |  | Mosogar \& Igueben |  |  |  |  | Iwo |  |  |  | Kabba |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Husband |  | Wife |  | Husband |  | Wife |  | Husband |  | Wife |  | Husband |  | Wife |  | Husband |  | Wife |  |
|  | P | M | P | M | P | M | P | M | P | M | P | M | P | M | P | M | P | M | P | M |
| Farmers | 65.7 | 59.3 | 74.4 | 75.6 | 81.4 | 72.4 |  |  | 55.3 | 17.4 | 34.5 | 10.1 | 47.1 | 14.6 |  |  | 52.5 | 21.2 |  |  |
| Traders \& Craftsmen | 11.4 | 5.8 | 11.6 | 2.3 | 16.3 | 16.1 |  |  | 33.0 | 12.8 | 43.5 | 34.9 | 21.8 | 10.7 |  |  | 27.5 | 21.2 |  |  |
| Semi-Professional* | 22.9 | 34.9 | 5.8 | 12.8 | 2.3 | 8.1 |  |  | 11.7 | 67.9 | 3.6 | 36.7 | 31.1 | 74.7 |  |  | 17.5 | 56.3 |  |  |
| Home Work | - | - | 8.2 | 9.3 | - | 3.4 |  |  | - | 1.9 | 18.4 | 18.3 | - | $\rightarrow$ |  |  | 2.5 | 1.3 |  |  |
| Total | 100.0 |  | 100.0 |  |  |  |  |  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |  |  | 100.0 | 100.0 |  |  |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Illiterate | 45.7 | 30.2 | 75.6 | 46.5 | 69.8 | 80,5 | 87.9 | 79.3 | 62.5 | 16.5 | 74.1 | 34.9 | 62.1 | 16.5 | 72.4 | 24.8 | 42.5 | 15.0 | 82.1 | 32.5 |
| Primary | 40.0 | 43.0 | 20.9 | 40.7 | 30.2 | 16.1 | 12.1 | 17.2 | 28.8 | 24.8 | 24.8 | 33.0 | 9.2 | 7.3 | 9.2 | 5.8 | 32.5 | 28.7 | 10.5 | 21.3 |
| Secondary | 14.3 | 25.6 | 3.5 | 12.8 | - | 3.4 | - | 3.5 | 2.9 | 22.0 | 1.1 | 18.3 | 2.3 | 9.2 | 3.5 | 22.8 | 5.0 | 8.8 | 2.1 | 12.5 |
| Post-secondary |  | 1.2 | - | - | - | - | - | - | 5.8 | 36.7 | - | 13.8 | 26.4 | 67.0 | 14.9 | 46.6 | 20.0 | 47.5 | 5.3 | 33.7 |
| Religion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Catholic | 51.4 |  |  |  |  |  |  |  | 8.7 | 54.1 |  |  | 34.6 | 64.4 |  |  |  |  |  |  |
| Protestant | 37.1 |  |  |  |  |  |  |  | 12.5 | 31.2 |  |  |  |  |  |  |  |  |  |  |
| Moslem |  | 7.0 |  |  |  |  |  |  |  | 1.9 |  |  | 60.7 | 34.5 |  |  |  |  |  |  |
| Traditional | 2.9 |  |  |  |  |  |  |  | 78.8 | 12.8 |  |  | 4.7 | 1.1 |  |  |  |  |  |  |

* The group termed 'semi-professionals' contains: teachers, nurses, para-medical personnel, government employees in administrative and managerial jobs.

Table 9. Standard of Living in Polygynous and Monogamous Households

| Type of Marriage | Uratta* Index value per |  | Ika Clan** Income ( $\AA$ ) per |  | Mosogar \& Igueben Index value per |  | Kabba Income per ( N ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Househ | Head | Household | Head | Household | Head | Household | Head |
| Polygynous | $\begin{gathered} 93.8 \\ (95.3) \end{gathered}$ | $\begin{gathered} 8.3 \\ (52.9) \end{gathered}$ | $\begin{aligned} & 1035.8 \\ & (114.6) \end{aligned}$ | $\begin{gathered} 95.4 \\ (62.4) \end{gathered}$ | $\begin{aligned} & 192.4 \\ & (81.9) \end{aligned}$ | $\begin{gathered} 18.4 \\ (52.0) \end{gathered}$ | $\begin{gathered} 3127.5 \\ (90.0) \end{gathered}$ | $\begin{aligned} & 338.1 \\ & (54.8) \end{aligned}$ |
| Monogamous | 98.4 | 15.7 | 903.7 | 153.0 | 235.0 | 35.4 | 3440.5 | 617.1 |

(The values in parentheses are percentages, monogamous households $=100$ ) Iwo is not included into this table because of missing information about size of household.

* The standard of living index substitutes income, which was difficult to establish, for Uratta, Mosogar and Igueben. The index was constructed on the basis of information pertaining to living conditions (type of house and ownership, materials the walls are made of, water, and sewerage facilities, ownership of consumer durable goods). Each item was scored according to a scale of points determined by its proxy market price.
** For Ika Clan and Kabba, income information in naira (A) was available. In the case of Ika Clan, the figure relates to total income including estimated value of self-consumption. For Kabba it is income earned as reported by the respondents.
'family size limitation' should be distinguished, since they do not describe the same events. Obviously, a decline in fertility leads to a reduction in family size; however, the opposite is not always the case. Family size may be diminishing while fertility of women is not. This is not to argue for a change in the conventional indices of fertility. The distinction is indipensable for analytical purposes and should supplement the conventional indices wherever warranted. Accordingly, the transition from polygynous to monogamous unions results per se in a profound reduction in family size as well as in fertility as perceived by the indigenous population, although fertility as measured conventionally may remain unchanged. It should not be surprising that during a transitional stage fertility per monogamous wife, and also among better educated women, ${ }^{17}$ is no lower than among polygynous ones, and may even increase for a while in an attempt to 'make up' at least partially, for the declining fertility per husband. One would expect that the tendency to 'make up' is stronger among first-generation monogamous couples whose parents, particularly on the husband's side, have been married polygynously. There are at least two reasons for supporting such a contention:
(a) first-generation monogamous couples may be under stronger family pressure to have many children;
(b) they may also still attach importance to old values of high fertility, because of a realization lag.
Both factors may affect the couple's reproductive behaviour in a stronger fashion than their newly achieved economic and educational status, particularly since the latter might be attained and sustained at least to some extent because of state welfare measures such as free or partially free education, health care, housing and other provisions of a similar nature.

It is worth notice, that although fertility is not lower among monogamous or better-educated wives, it is different in nature since it is often chosen. Evidently they have a better knowledge of and practise family planning ${ }^{18}$ to a considerably higher degree than their polygynous and illiterate counterparts (Table 10). The most frequently indicated causes of high fertility among educated women of higher economic status in the West African setting are: (a) weakening the traditional lactation taboo resulting in shorter intervals between pregnancies; (b) improved public health

[^7]Table 10. Attitude Toward and Practice of Family Planning in Iwo

| Education of Wives | Attitude Toward Family Planning |  |  |  | Practice of Family Planning |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Approved |  | Disapproved |  | Ever Practised |  |  |  |
|  | Number | per cent | Number | per cent | Yes |  | No |  |
|  |  |  |  |  | Number | per cent | Number | per cent |
| Illiterate | 16 | 9.9 | 145 | 90.1 | 6 | 3.7 | 157 | 96.3 |
| Primary School | 23 | 51.1 | 22 | 48.9 | 11 | 22.0 | 39 | 78.0 |
| Secondary | 25 | 69.4 | 11 | 30.6 | 26 | 59.1 | 18 | 40.9 |
| Post-secondary | 100 | 79.4 | 26 | 20.6 | 76 | 68.5 | 35 | 31.5 |

measures and access to medical facilities. ${ }^{19}$ One would like to add (c) increasing completeness of the reporting of children ever born by better-educated women who also experience lower child mortality and are probably less prejudiced and less superstitious about counting their children or mentioning those who have died. Actually, the above factors explain only variability in the level of natural fertility but fail to answer the question why monogamous wives and better educated women do not limit their fertility, and choose to have as many children as their polygynous counterparts. Thus, the high fertility of monogamous women at the initial stage does not imply that a transition from polygyny to monogamy may increase fertility, or in particular, family size. It only shows that fertility decline is not necessarily an immediate concomitant of change in socioeconomic status; that natural fertility is not a constant uniformly determined level; that fertility declines with a time lag. All these features have been found in numerous European studies of the demographic transition and the findings for Africa, if verified by time series data, would confirm the universal nature of those assessments.

In conclusion, therefore, if cross-sectional evidence on the association between type of marriage and family size may be used to infer historical trends, our findings would imply that during the transition from polygyny to monogamy, though fertility may not decline at first concurrently with changing socio-economic status, family size will begin to fall as an inevitable product of evolving a prevalent monogamous nuptiality pattern. Obviously, its most important effects on the rate of population growth are solely (assuming unchanged fertility) the consequence of an increase in age at first marriage and declining proportion of ever married women.

## THE NUPTIALITY PATTERN UNDER POLYGYNY

The relevant findings pertinent to the marital pattern under polygyny are:
(1) The mean age at first marriage varies between 15-21 and 22-27 years for women and men respectively. In comparison with previous findings ${ }^{20}$ for southern Nigeria (Lagos, Ibadan) our results show a lower mean age, which is at least partially a result of the rural setting of our samples. The two towns in our case studies, Iwo in the vicinity of Ibadan, and Kabba show relatively high ages too, an average of 21 and 27 for women and men respectively. Unless the differences reflect regional variation between the East and West, age at first marriage seems to be higher in urban than in rural areas, but we have no direct evidence to that effect (Table 11).
(2) Age at first marriage is lower among polygynous than monogamous unions for both husbands and wives. Monogamous wives marry about one to two years later than polygynous ones, though it should be borne in mind that the very practice of polygyny by a fraction of a population reduces age at first marriage for all its members;

[^8]Table 11. Age at First Marriage

| Type of Marriage | Age at First Marriage (Mean) of: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Husband | First Wife | Second Wife | Third Wife | Fourth Wife | Fifth Wife |
|  | Uratta |  |  |  |  |  |
| Polygynous | 26.5 | 17.8 | 18.6 | 20.3 | 18.8 | - |
| Monogamous | 26.0 | 18.5 | - | - | - | - |
| Mean | 26.2 | 18.3 | - | - | - | - |
|  | Ika Clan |  |  |  |  |  |
| Polygynous | 23.9 | 15.7 | 15.4 | 14.4 | - | - |
| Monogamous | 27.3 | 15.4 | - | - | - | - |
| Mean | 26.2 | 15.5 | - | - | - | - |
|  | Mosogar \& Igueben |  |  |  |  |  |
| Polygynous | 21.6 | 14.8 | 16.1 | 16.3 | 15.1 | 16.0 |
| Monogamous | 25.1 | 17.1 | - | - | - | - |
| Mean | 22.4 | 15.2 | - | - | - | - |
|  | Iwo |  |  |  |  |  |
| Polygynous | 22.2 | 18.9 | 18.7 | 20.4 | 19.7 | - |
| Monogamous | 25.2 | 21.8 | - | - | - | - |
| Mean | 24.3 | 20.9 | - | - | - | - |
|  | Kabba |  |  |  |  |  |
| Polygynous | 28.9 | 20.2 | 19.1 | 19.2 | 20.0 | - |
| Monogamous | 25.9 | 19.9 | - | - | - | - |
| Mean | 26.9 | 20.1 | - | - | - | - |

(3) The difference in age between spouses at first marriage is similar in both types of unions; it ranges from eight to ten years, and widens in polygynous unions for each consecutive wife.
(4) Age at first marriage is positively related to the level of education of both husband and wife. A clear-cut tendency appears; the higher the educational attainment the later the age at first marriage among polygynous and monogamous couples alike (Table 5).

The empirical results are in accordance with expectations and display three characteristics of a nuptiality pattern under polygyny:
(1) very early age at first marriage for all women, not only those who stay in polygynous unions;
(2) universal incidence of marriage for women;
(3) an increasing gap between the ages at first marriage of men and women.

Early and almost universal marriage for girls is an inevitable consequence of polygyny. Available statistics for Nigeria confirm the rule. According to the Rural Demographic Sample Survey ${ }^{21}$ 70 per cent of women are married before reaching age 20 and only 1.7 per cent remain single in the age group 25-29. As one would expect, the percentage of never married men is relatively higher in all age groups between 30 and 55 , after eliminating the younger age groups because of later age at first marriage for men. In urban areas, notably in big cities, the proportion is probably much higher.

Early and universal marriage for women is inevitable because polygyny generates a constant disequilibrium between the demand for and supply of girls of marriageable age. Equilibrium is brought about by the age-sex differential and by postponing marriage to consecutive wives in polygynous unions. Men who practise polygyny most often ${ }^{22}$ begin by marrying a single wife like monogamous men, the difference being that after about five to seven years, they marry additional

[^9]wives. Each subsequent wife is of the same or similar age as the first wife was when she married. Hence, the difference between the age of the husband and each subsequent wife is increasing. The third and fourth wives could be younger than his children by the first wife. By postponing marriage to consecutive wives, younger cohorts of women can enter the marriage market and the excess demand for girls in each marriageable age bracket of men is brought into balance. As in all markets characterized by scarcity and shortages, hoarding is found in the form of child marriage, which is a means to secure a wife, or a particular wife in the future, thus resulting in customary marriage for girls at the age of six or seven years. Another feature of the scarcity is the special price tag in the form of bride-price that may be high and subject to fluctuations in time and space. ${ }^{23}$

The sex-age marriage differential resulting from and conditioning the first two is the major operational factor which makes the practice of polygyny feasible in societies in which the sexes are evenly balanced. It thus provides the explanation to the puzzling question of how it is possible to practice polygyny when abnormal situations with highly distorted sex ratios are excluded.

The importance of the sex-age marriage differential has been noticed previously by demographers and anthropologists. It has been suggested that a high rate of natural growth combined with a tendency of women to marry men older than themselves may produce an excess ${ }^{24}$ of women in the marriage market, thus generating the need for polygyny. Another view ${ }^{25}$ is that since men remain celibate for longer, they may end up by marrying women older than themselves. The shortcomings of these contentions stem from confusing cause and effect in the relation between polygyny and age at marriage. The fact that men marry women younger than themselves is a result not a cause of polygyny. Under polygyny men have to marry younger girls because there are not enough women of their own age. First, because polygyny requires more women than men on the marriage market at a given time, and secondly, because a high proportion of women of the same age as men are already married. Therefore, men must wait until younger cohorts of girls reach marriageable age. These tendencies are to some extent cumulative. To-day's imbalance is not only related to the deficiency in the supply of girls at any given time but is also a function of past deficiencies. This would imply that the longer polygyny is practised in a society the smaller would be the proportion of women who marry men of their own age and the larger the gap in age at first marriage between the sexes. By the same token, polygyny could not be practised indefinitely unless the proportion of polygynous unions varies on a cyclical basis. Unfortunately, we are not able to verify the latter hypothesis empirically, although its premisses are tested.

Spacing of marriage over time in polygynous unions does not imply that duration of marital exposure for each additional wife is smaller. It is known that male reproductive potential is less limited biologically than female. ${ }^{26}$ Although this potential can be partially offset by the relatively low life expectancy usually concomitant with polygyny in African societies (on average for

[^10]1970-1975 $e_{0}^{0}=53$, while several decades ago $e_{0}^{0}=35$ ). Secondly, it should be remembered that in tradional rural African societies where polygyny is practised the rate of divorce and the number of widows among women, notably at childbearing ages, is very low and in some areas may be close to zero, since re-marriage follows after a very short interval. For instance, in extended families among the Yoruba, wives of a deceased husband are automatically "inherited" through customary marriage by a younger brother or by the oldest son of the deceased. The oldest son of the first wife, as long as he was born before his father married his subsequent wives, may marry them not only after his father's death, but even when the father is still alive and no longer able to reproduce. Consequently, according to the same source ${ }^{27}$ only one per cent of females at ages 20-24 are widowed and 2.4 per cent separated, and for successive three quinquennial age groups the values are: 1.9 and $2.1,4.3$ and $2.7,9.0$ and 3.3 per cent respectively, increasing sharply thereafter. Although the proportion of women widowed increases significantly in the age group 35-39 and steadily at higher ages, it should be noticed that for women who begin childbearing early most of their fertility is near completion around age 35 (Table 3). Therefore, a rapid increase in the number of widows in the upper ages of the fertility schedule has limited demographic consequences.

This type of behaviour follows a logical and rational pattern resulting from the shortage of young women. It should be added that this relative shortage may be intensified by sex differentials in age-specific mortality rates. Specifically, there is some evidence for Nigeria which verifies a general finding for developing countries that death rates for men are lower than those for women in the childbearing ages. According to the Rural Demographic Sample Survey ${ }^{28}$ age-specific death rates were consistently higher for women in all age groups between 15 and 39. In a case study on mortality conducted in a West Nigerian town, Kabba, in 1977 it was also found that 37.2 per cent of all female deaths for the previous year occurred between ages 15 and 40 , while the respective percentage for men was 27.0.

In an attempt to find out whether there has been any tendency for age at first marriage to have changed, the households have been grouped by type and duration of marriage of the husband (Table 12). The results show no consistent trend either for husbands or for wives in both types of unions for the last several decades. It could be the case, as scanty evidence suggests, that in the past age at first marriage was higher for both husbands and wives, and that it has fallen for women since the 1930 's. ${ }^{29}$ Circumstantial evidence is offered by Ohadike, ${ }^{30}$ who cited Rev S. Johnson maintaining in 1921 that Yoruba men were seldom married before the age of 30 and the younger women not before 20, and a respondent from central Lagos blaming modernization for the decline in marriage age. Ohadike's own findings for a sample of women in Lagos in 1964 indicate an average age at first marriage of 19.8 and 28.1 years for wives and husbands respectively. Our hypothesis is also supported by evidence indicating a discrepancy between desired and actual age at first marriage. The latter as a rule is lower than the former. This would imply that the pressure on the marriage market is much stronger than the desire for and understanding of the appropriate marriage age.

In conlusion, therefore, it should be stressed that the major demographic consequence of polygyny is reflected in the very young nuptiality pattern for women which directly affects the rate of population growth. The above analysis implies that those groups of a society which are exposed to the effects of modernization are breaking with polygyny for economic and cultural reasons. One would be inclined to infer, mainly on the basis of fragmentary observation and

[^11]Table 12. Age at First Marriage by Duration

| Year of First Marriage of Husband | Number of Households |  | Age at First Marriage |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | P | M | Husband |  | Wives |  | $\mathrm{W}_{2}$ | $\mathrm{W}_{3}$ | $\mathrm{W}_{4}+$ |
|  |  |  | P | M | MW | $\mathrm{PW}_{1}$ |  |  |  |
| Uratta |  |  |  |  |  |  |  |  |  |
| Before 1940 | 5 | 5 | 29.2 | 23.4 | 18.0 | 19.6 | 17.8 | 21.3 | 18.0 |
| 1941-1950 | 22 | 20 | 26.3 | 23.9 | 17.2 | 18.3 | 19.1 | 20.0 | 19.5 |
| 1951-1960 | 8 | 35 | 25.6 | 25.9 | 19.5 | 15.5 | 17.9 | 19.5 | 19.0 |
| 1961-1970 | - | 16 | - | 29.0 | 18.3 | - | - | - | - |
| $1971+$ | - | 10 | - | 27.1 | 18.7 | - | - | - | - |
| Ika Clan |  |  |  |  |  |  |  |  |  |
| Before 1940 | 15 | 10 | 24.9 | 25.5 | 16.3 | 14.9 | 15.9 | 13.5 | - |
| 1941-1950 | 8 | 7 | 22.0 | 23.7 | 14.9 | 15.0 | 15.4 | 18.0 | - |
| 1951-1960 | 12 | 19 | 24.4 | 26.4 | 14.3 | 16.7 | 14.7 | 13.7 | - |
| 1961-1970 | 8 | 31 | 23.0 | 29.6 | 15.5 | 16.6 | 15.8 | - | - |
| 1971 + | - | 20 | - | 26.8 | 15.9 | - | - | - | - |


| Monogar \& lgueben |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Before 1940 | 7 | 1 | 20.1 | 22.0 | 14.0 | 14.6 | 16.0 | 16.4 | 15.9 |
| $1941-1950$ | 34 | 7 | 21.4 | 25.9 | 17.0 | 14.2 | 15.9 | 15.9 | 16.1 |
| $1951-1960$ | 50 | 35 | 21.0 | 22.8 | 17.1 | 14.6 | 16.0 | 16.2 | 14.8 |
| $1961-1970$ | 12 | 43 | 24.4 | 26.6 | 18.0 | 17.3 | 17.3 | 19.7 | 14.5 |
| $1971+$ | 1 | 23 | 28.0 | 25.6 | 17.3 | 17.0 | 16.0 | - | - |
| Iwo |  |  |  |  |  |  |  |  |  |
| Before 1940 | - | 1 | - | 22.0 | 18.0 | - | - | - | - |
| $1941-1950$ | 2 | 2 | 26.5 | 20.5 | 18.0 | 22.0 | 19.5 | 22.0 | - |
| $1951-1960$ | 35 | 20 | 22.1 | 23.5 | 20.2 | 19.1 | 18.9 | 20.5 | 19.7 |
| $1961-1970$ | 38 | 77 | 21.7 | 25.1 | 22.0 | 18.5 | 18.4 | 19.7 | - |
| $1971+$ | 12 | 106 | 23.0 | 25.8 | 22.0 | 19.0 | 19.3 | - | - |

Kabba

| Before 1940 | 10 | 4 | 27.8 | 26.5 | 19.5 | 20.7 | 20.9 | 17.5 | 19.0 |
| :--- | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| $1941-1950$ | 15 | 11 | 32.5 | 29.2 | 21.5 | 19.9 | 18.7 | 19.2 | 22.0 |
| $1951-1960$ | 13 | 32 | 26.6 | 25.9 | 19.7 | 20.0 | 18.8 | 20.0 | - |
| $1961-1970$ | 1 | 20 | 23.0 | 23.5 | 19.1 | 21.0 | 11.0 | - | - |
| $1971+$ | 1 | 13 | 22.0 | 26.4 | 21.6 | 21.0 | 17.0 | - | - |

$\mathbf{P}=$ Polygynous $\quad \mathrm{M}=$ Monogamous $\quad \mathrm{MW}=$ Monogamous Wives $\quad \mathrm{PW} \mathbf{1}_{1}=$ First Wives
$W_{2}=$ Second Wives $\quad W_{3}=$ Third Wives $\quad W_{4}+=$ Fourth or higher order wives
intuition, since official statistical evidence is completely lacking, that the extent of polygyny in Nigeria particularly in the Southern belt, has been diminishing. Therefore, the effects of an expanding monogamous nuptiality pattern at the expense of the receding polygynous one on the rate of population growth have probably taken place already. The lack of vital statistics and reliable census data for Nigeria confines our judgement, at least for the time being, to intuitive and deductive reasoning from fragmentary observation and sample data.


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    $\dagger$ United Nations Adviser in Economic Demography at the University of Lagos, Lagos, Nigeria.
    ${ }^{1}$ Demographic Handbook for Africa, UN, Economic Commission for Africa, April, 1975, p. 86.
    ${ }^{2}$ A. R. Radcliffe-Brown and Daryll Forde, African System of Kinship and Marriage, Oxford University Press, London, 1960, p. 89, 112.

[^1]:    ${ }^{3}$ According to Carr-Saunders's estimations the population of Africa during the eighteenth and nineteenth centuries was about 90-95 millions and stationary. Quoted in The Determinants and Consequences of Population Trends, Vol. 1, p. 21, United Nations, New York, 1973.
    ${ }^{4}$ Polygyny is the ambition of the tribesmen, an ambition most frequently achieved by aristocrats and wealthy elderly commoners. The king is expected to take more wives than any of his subjects, writes an anthropologist about the Swazi Kinship system. Radcliffe-Brown and Forde op. cit. in footnote 2, p. 89.
    ${ }^{5}$ This would imply the possibility that a relatively larger proportion of wives in polygynous unions may be childless than in monogamous ones.
    ${ }^{6}$ V. P. Diejomaoh and W. A. T. Orimalade, Unemployment in Nigeria. The Nigerian Journal of Economic and Social Studies, 13, 2, 1971.

[^2]:    ${ }^{7}$ The sex ratio in metropolitan Lagos, according to the Nigerian 1963 Census, was 191 in the age group $20-24,167$ at ages $25-29$, (males per 100 females). Similar distortions in the sex ratio are found in other urban areas.
    ${ }^{8}$ For a more thorough and formal explanation see A. J. Coale, The Growth and Structure of Human Populations, Princeton University Press, 1972, Chapter 2. R. Lesthaeghe, Nuptiality and Population Growth, Population Studies, 25, 3, (1971) pp. 417-422. A. J. Coale and C. Y. Tye, The Significance of Age-Patterns of Fertility in High Fertility Populations, The Milbank Memorial Fund Quarterly, 39, 4, October 1961.
    ${ }^{9}$ op. cit. in footnote 1, p. 84.
    ${ }^{10}$ H. V. Muhsam, Fertility of Polygamous Marriages, Population Studies 10, 1 (1956). J. E. Smith and P. R. Kunz, Polygyny and Fertility in Nineteenth-century America, Population Studies, 30, 3 (1976), p. 465.

[^3]:    ${ }^{11}$ P. O. Olusanya, The Problem of Multiple Causation in Population Analysis, with Particular Reference to the Polygamy-Fertility Hypothesis. The Sociological Review, 19, 2, 1971.
    ${ }^{12}$ The data used for this analysis have been collected by final year undergraduate students and one graduate student from the Economics and Sociology Departments of the University of Lagos, Nigeria. A survey based on face-to-face interviews was conducted during December 1977 and January 1978 in the home village or town of each student. The questionnaires were designed for specific case studies in economic demography. Although, they differed in the subject and thus type of questions, all contained similar background questions pertaining to the household as a unit and focused on type of marriage, age of and relationship between head of household and its members, fertility, child mortality, education, occupation, religion and standard of living.
    ${ }^{13}$ A household is defined as a group consisting of two or more persons related or unrelated by blood who occupy one housing unit, make joint provisions for food and other essentials for living, and pool their income and outlay. Family size limits the household only to individuals related by blood and marriage, i.e. parents and their children. Accordingly, family size here is synonymous with the number of children ever born per husband.

[^4]:    * Per fertile woman
    ${ }^{* *}$ Child mortality is the ratio of children ever died (d) over children ever born (c) multiplied by 1000 . In the case of Mosogar, information on children who had died under the age of five was available.

[^5]:    * See footnote under Table 9
    ** For Iwo: - living children

[^6]:    ${ }^{16}$ I found an interesting trace of the same attitude among my students, who despite taking courses in demography and being familiar with conventional indices of fertility, still insisted, almost subconsciously, that the number of children per husband is more important, since that is what counts in their communities.

[^7]:    ${ }^{17}$ In the light of the 'make up' argument the allegedly contradictory findings of different West Nigerian studies, which display both positive and negative correlations between fertility and socio-economic variables seem less contradictory. We have in mind the findings by Okediji, Ohadike, and Olusanya, the latter found a positive correlation between fertility and educational attainment, unlike the former authors. Robert $W$. Morgan, Fertility Levels and Fertility Change, in J. C. Caldwell, op. cit., footnote 14, pp. 207-211.
    ${ }^{18}$ Ibid., p. 74.

[^8]:    ${ }^{19}$ Ibid., p. 211
    ${ }^{20}$ Ibid, p. 200, Table 9.7

[^9]:    ${ }^{21}$ Rural Demographic Sample Survey, 1965-1966. Federal Office of Statistics, Lagos, Nigeria, 1968, Table 2. pp. 35-36
    ${ }^{22}$ There are exceptional cases when prominent men marry several wives at once. For example in February 1978 a wedding ceremony widely publicised by the media took place in Lagos, Nigeria, where a popular singer married 27 wives. It is of interest to note that all of the newly-wed were members of the husband's company.

[^10]:    ${ }^{23}$ It may be of interest to mention a recent satirical correspondence published in a popular daily Nigerian newspaper inviting 'those chronic bachelors who plague various cities' to Ilorin, the capital of Kwara State, where they could get a bride free of charge. Allegedly scores of marriageable girls are given in marriage free to very good friends of the family, on condition that the future husband is Moslem and an indigene of the area. The news is probably unique since the same article noticed that the price for a bride may run as high as $\mathbf{\$ 1 , 0 0 0}$ ( $\$ 1,500$ ), and a price between $\mathrm{N} 200-300$ is quite common, which is not cheap in a country with a gross national product of about $\$ 350$ per head.
    ${ }^{24}$ J. E. Smith and P. R. Kunz, loc. cit. in footnote 10, p. 465. E. van de Walle, 'Marriage in African Censuses and Inquiries', in: W. Brass, (Ed.) The Demography of Tropical Africa, Princeton University Press, 1968 p. 218, 236.
    ${ }^{25}$ Steven Polgar, 'Cultural Development, Population and the Family' in: The Population Debate, Vol. 2, United Nations, New York 1975, p. 240.
    ${ }^{26}$ Nukanya, indicating the gap in age at first marriage between women and men, states that whereas women are given the opportunity to begin their reproductive activities as soon as they are known to qualify biologically, the same opportunity is not available to men, thus, greatly limiting their reproductive potential. The observation seems doubtful; in any case it is of no demographic importance. G. K. Nakanya, Cultural and Demographic Influences on the African Family. The Population Debate, Vol. II, UN, New York p. 339.

[^11]:    ${ }^{27}$ op.cit. footnote 21, pp. 37-38.
    ${ }^{28}$ Ibid., p. 25.
    ${ }^{29}$ If this working hypothesis could be empirically verified, it would imply that the accelerating rate of population growth after the 1930's in Nigeria, as in other African countries, has resulted not only from the decline in mortality but also from declining age at first marriage for females.
    ${ }^{30}$ P. O. Ohadike, A Demographic Note, in J. Caldwell and C. Okonjo (eds.) The Population of Tropical Africa, p. 383.

