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Family Size Determinants in Cross River and Rivers States of Nigeria

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ABSTRACT - In this paper we examine the reproductive behaviour of people in the two south-eastern states of Nigeria. It is found that there is a general preference for large family size with an average family size of five (5). A significant proportion of those interviewed showed strong desire for an average of three additional children. The reasons adduced for this trend and supported empirically cut across socio-cultural and economic factors and family planning practice. For instance it is found that the level of education of respondents, age of the spouse at first marriage, number of times married, total number of wives in the household, type of current marriage and the use of condom and withdrawal methods have significant and positive effects on family size in Cross River State. Those factors having negative influence on family size in the State include income of spouse, withdrawal method currently in use, traditional family planning methods (i.e. excluding rhythm and withdrawal methods), intrauterine device ever used, and sperm jelly and oral tablets currently used. In the case of Rivers State, total number of wives in the household, age at first marriage, type of primary occupation, sperm jelly currently used and diaphragm/cervical method currently used exert positive and significant effect on family size while religion and number of times married negatively influence family size.

INTRODUCTION

In 1988, the National Policy on Population for Development, Unity, Progress and Self-reliance for Nigeria was launched. This marked a significant departure from the laissez-faire or pro-natalist attitude to population issues hitherto adopted by the Nigerian government. This attitude prevailed despite the fact that the demographic features of Nigeria pointed to the existence of population problem. For instance estimated annual population growth rate between 1952 and 1962 stood at 6.1 per cent whereas the rate for 1963-73 was 3.6 per cent (Odimegwu, 1998). The National Fertility Survey of 1981/82 (NFS, 1981) showed estimated total fertility rate of 6.4 (6.39 for village and 6.16 for urban areas) with the south-east having the highest fertility rate followed by south-west and with the north-east and the north-west health

zones having the least. The high fertility rate coupled with the declining mortality rate resulted in the rate of population growth due to natural increase rising from 2.5 per cent in the 1960s to a little above 3 per cent by 1985. Even at the time of the 1974 World Population Conference where the adverse consequences of uncontrolled population growth were highlighted and the actual population growth of the country was estimated to be 3.3 per cent, the general opinion in government circle was that socio-economic development would take care of all population-related problems. This implicit population policy had no effect on fertility especially during the prosperous 1970-1980 period as the NFS shows that Nigerian had a relatively stable and high total fertility rate of 6.3 children per woman with 3 per cent women using contraceptives (NFS, 1981).

It was not until the early to middle 1980s that the Nigerian government appreciated the magnitude of the population problem and took steps to correct it. Thus the goals of the 1988 population policy were to (i) improve the standards of living and quality of living and life of the people; (ii) lower population growth and birth rates through voluntary fertility regulation and (iii) achieve a more balanced spatial distribution of population between rural and urban areas. The policy contained an ambitious target of reducing the population growth rate from the estimated 3.5 per cent to 2 per cent by the year 2000. This was expected to be achieved through voluntary reduction in family size. In fact a notable feature of the "Nigerian Approach" is respect for the right of each couple to determine voluntarily the number and spacing of their children and the general preference for smaller family sizes. However, family size decisions (and in fact fertility) are generally influenced by biological, social, cultural, religious and economic factors. Given the biological factors, it is, therefore, obvious that the achievement of family size reduction will depend on the relative strength of the influence of the socio-cultural and economic factors on the people. The objective of this paper is to determine the current family size and the actual influence of the socio-cultural and economic factors on family size. This will then provide guides for intervention policies that will help to achieve the population objectives. The rest of the paper is organised as follows. In section two theoretical and empirical issues on socio-cultural and economic determinants of family size are discussed. This is followed by the methodology of the study in section three. The results of the study are discussed in section four while conclusion is the subject of section five.

Theoretical and Empirical Issues

Family size generally refers to the number of children raised by a family. It is often linked to the level of fertility: the higher the level of fertility, the higher the family size unless there is a deliberate and conscious attempts to control family size especially through the use of modern contraceptives. Over the years, considerable efforts have been devoted to the study of fertility. Both theoretical and empirical literature abound. On the theoretical front, there exist an enormous diversities among theories of fertility such as economic theories, medical or biological theories or theories derived from sociology and psychology. But our major concern is the theories which explain the socio-cultural and economic aspects of fertility and family size. These theories have been reviewed by Simons (1985) and Caldwell (1990) with Caldwell and Caldwell (1990), Acsadi and Johnson-Acsadi (1990), and van de Walle and Meekers (1992) providing additional theoretical and empirical evidences. Simons (1985) classified these theories into macro-economic and microeconomic theories of fertility. The macroeconomic theories try to explain the relationship between socio-economic developments of a country and fertility or demographic changes. These theories are called macro theories because the forces which influence fertility are outside the control of the family. Prominent among these theories are the Malthus, Marxist, neo-Malthus, the demographic - transition theory and what Caldwell (1990) called demographic economic theories.

Malthus theory posits a positive relationship between family size and income. This happens through the influence of income on the age of marriage. It is argued that when the economic conditions of young unmarried individuals is favourable, they marry relatively early with the resultant high fertility and vice versa. This relationship is also affected by the existing social institutions especially those influencing the ability to marry. In a situation where the couple are responsible for providing for it offspring, then marriages and thus fertility will be limited by the extent of the resources that the couple command. But when there is political intervention which takes this responsibility away from couples, marriages will take place at younger ages and fertility will rise and eventually a situation will come where the limited resources will be shared among larger body of claimants resulting in lowering of the standard of living (Poverty). The neo-Malthusians argue that this situation may not arise with the availability of modern contraception as it is a possible way to reconcile a family life with limited resources. To the Marxist, the level of fertility is a function of the existing class structure and the roles assigned to the different classes within the society. It is obvious, therefore, that the Marxist theory of fertility sees social class as an explanatory variable. The

demographic transition theory describes and seeks to explain a process whereby, as economic development occurs and as a global economy comes into being, both mortality and fertility ultimately and inevitably will decline to low levels. Caldwell's (1990:210) review of earlier studies points to the fact that economic and social development not only would bring down fertility and population growth but would eventually help stimulate parents to new aspirations for themselves and their children - aspirations that are incompatible with large families. However, the empirical evidence on a variant of this theory - the threshold theory, which seeks to postulate a relationship between development and the onset of fertility decline in terms of economic and social indexes (per capita income, urbanization, mortality levels, female literacy and cinema attendance) has shown it to be of little value. van de Walle (1968), showed that there was some doubt about whether low child mortality was a threshold for fertility decline, or low fertility a threshold for mortality decline, and concluded that both occurred in Europe with modernisation.

The demographic-economic theories try to explain how the demographic change (especially declines in fertility) due to economic development may be self-sustaining and may accelerate economic development. Early proponents of this macroscopic aspects of demographic-economic interactions (Leibenstein, 1957 and Nelson, 1956), argued that high levels of population growth could prevent both economic take off and the onset of demographic transition. While these theories may shade some light on the socio-economic dimension of fertility decline, their application to developing countries and indeed African countries have been called to question. In fact authors such as van de Walle and Meekers (1992) have argued that the best way to understand the fertility behaviour in Africa is to look at how these socio-economic factors affect the demand for and supply of children.

The microeconomic theories of fertility behaviour sees fertility as involving the use of resources with implications for other aspects of human behaviour. The central argument for high fertility has been that each child represents a net economic gain to the parents because of such contributions as child labour or support to parents in their old age, especially in circumstances in which child rearing is not very expensive. Easterlin (1975), Easterlin, Pollark and Wachter (1980) examine this situation in a "market" context. Thus where the demand for children is higher than their supply and where the cost of reducing that demand (i.e the cost of practising contraception - both economically, in terms of money and time, and psychically, in terms of disapproval of relatives and community), are high, high fertility and large family sizes are bound to occur. Becker (1960) and Schultz (1969), argued that fertility decline and hence small family size will occur when the cost of

children (that is expenditure on the children, the costs to mothers both in income foregone and also in the value of their time) become greater. Caldwell (1976, 1978, 1982), used wealth flow theory to argue that fertility decline is inevitable when there is a reversal of the net flow of resources - towards children rather than parents - but that economic change was the result of social changes that concentrated greater family concern on the children. Ben-Porath (1980) argued that where family transactions are preferable to external transactions in markets, there is bound to be high fertility implying, therefore. that fertility decline begins as the market competes ever more effectively with family produced goods and services. Most of these theories, as noted by Caldwell (1990), emphasize that fertility decline arising from social change affect family economic calculus, as does market penetrations. It is also suggested that market penetration may affect social change and that family change may allow similar market penetration.

In Africa, the high fertility rate and the consequent pronatalist nature of most families have been blamed on a number of factors namely: *socio-economic factors* (e.g income and relative economic status of husbands and wives; education of the couples, women's work participation, children's education and the household's migration status and community-level variables such as mortality, school enrolment rates, land availability, availability of health facilities, agricultural productivity, income distribution and the like); *cultural factors* (e.g forms of marriage - polygyny or monogamy. religion and religious beliefs, sex preference, fertility decision making process, leneage and child fostering etc); *mortality factors* (e.g infant and child mortality); *biological and life-cycle factors* (e.g temporary sterility associated with breast feeding and permanent or secondary sterility associated with venereal diseases and aging, age of wives and age at first marriage etc.) and *family-planning factors* (knowledge, attitude and practice of family planning). How these factors influence the demand for and supply of children in Africa has been a subject of intense discussion by researchers such as Farooq (1985), Acsadi and Johnson-Acsadi (1990), Caldwell and Caldwell (1990), Bongaarts, Frank and Lesthaeghe (1990), and van de Walle and Meekers (1992).

Bongaarts, Frank and Lesthaeghe (1990) argued that any detail and comprehensive analysis of factors influencing fertility requires a distinction between two classes of determinants: socio-economic and environmental background (social, cultural, economic, institutional, psychological, health and environmental) variables and proximate variables which consist of all the biological and behavioural factors through which the background variables must operate to affect fertility (e.g proportion of women married or in sexual unions, frequency of intercourse, postpartum abstinence, lactational

amenorrhae, contraception, induced abortion, spontaneous intrauterine mortality, natural sterility and pathological sterility). While the proximate variables help to improve understanding of the operation of the socio-economic determinants, they further argued that the overall net effect of a socio-economic variable on fertility can therefore be positive, negative, or insignificant depending on the relative contributions of the positive and negative effects of the proximate determinants. It must be noted that while the proximate factors or variables affect the supply of children, the socio-economic and environmental (cultural) background variables affect the demand for children. van de Walle and Meekers (1992:37-43) have shown how the socio-economic characteristics of individuals and the cultural-social context in which they live affect the supply and demand determinants of fertility. However, Lesthaeghe (1989), Caldwell and Caldwell (1990) and Acsadi and Johnson-Acsadi (1990) have shown how cultural factors in African societies, reflected in the high values attached to children, have contributed to the sustainance of high fertility. Children are regarded as source of wealth and prestige as well as security in old age. They are those that perform funeral and other rights, commemorate ancestors and protect family property (especially male children). Children are evidence of favour bestowed upon couples by ancestors. For the women, a woman's status is enhanced by the regular birth of children; barrenness or few children subject her to scorn and ridicule whereas many children assured respect. Moreover, daughters lessen mother's physical burdens of child care and work, and sons might ensure that she retained her home and property upon the death of her husband (Ascadi and John son-Ascadi 1990: 155). Caldwell and Caldwell (1990:211) concluded that "The central factor implicated in sub-Saharan African high fertility is a culture, molded by religion, that encourages repeated child bearing and abhors sterility at any stage. Fertility is powerfully supported by the unusual high value of children, which arises from a continuing economic flow from young to the old, and is also grounded in culture shaped by religion". Within this cultural setting there are factors or variables (such as late marriage, celibacy, sexual taboos, extended breastfeeding, lengthy abstinence and polygyny) which limit or depress fertility whereas others (such as early and universal marriage, acceptance of premarital relations and of children born out of wedlock, child fostering, condemnation of barrenness, and banning of birth control practices) may increase or maintain fertility at high level.

In Nigeria the relative importance of the socio-economic, cultural, mortality, biological and life-circle and family planning factors has been empirically determined by Farooq (1985). Among the important factors

identified are female educational attainment, practice of polygyny, male sex preference, female labour involvement in the traditional economic activities of farming and retail/petty-trading and attitude towards family planning. This supports Cleland and Wilson (1987:29) conclusion "that attitudes towards birth control, broadly defined, are of central explanatory importance for the timing of fertility transition even though it merely actualizes and legitimises the existence of latent demand". Caldwell and Caldwell (1976) found that in south west Nigeria, 40 per cent of first contraceptive use was to substitute for postpartum sexual abstinence, with the obvious possibility of raising fertility, while other major uses were to prevent conception during premarital and extramarital sexual relations or after terminal abstinence was supposed to begin.

3.   Methodology

The study was carried out in two states - Cross River and Old Rivers States - both located in the south-eastern Nigeria and within the south-south geo-political zone. The study made use of both primary and secondary data. The primary data were collected from cross-sectional survey carried out between January and April, 1997. The survey was restricted to ever married couples between the ages of 15-69 years for male and 15-49 years for female. Pre-tested questionnaires were used. Here trained interviewers were employed to interview the respondents and record responses in the questionnaires. The types of information collected from the questionnaires covered the background of the respondents, the prevailing types of marriage, the reproductive behaviour of the respondents, as well as the levels of awareness, attitude and practice of family planning by the respondents.

In collecting the data, we used multi-stage sampling technique to select the respondents. Firstly, we had to randomly select five local government areas (LGAs) from each state. The selected LGAs are Akamkpa, Calabar, Ikom, Odukpani and Yakurr in Cross River State and Port Harcourt, Obiakpor, Eleme, Okrika and Ahoada in old Rivers State. From each of these LGAs we randomly selected an urban and a rural area giving a total of ten urban areas and ten rural areas. The PHC numbering system was employed as a focus of systematic random sampling within each urban and rural area to select household respondents. In each household either the male-head or female-head was interviewed. The sample size consisted of 1,500 respondents per state giving a total of 3,000 respondents for the study area.

In addition to the administration of questionnaires, we used Focus Group Discussion (FGD) technique. The size of the participants was restricted to between seven and nine and comprised of males and females from both urban

and rural areas. The participants were mainly men of between 25 and 34 years and women of between 20 and 29 years. Apart from the general information on the participants (e.g sex, age, religion, marital status, types of marriage, number of children and occupation) the FGD sought to identify from the participants, the prevailing socio-economic and cultural factors in the areas and their influence on family size as well as the levels of awareness, attitude and practice of family planning.

These primary data or information were supplemented by secondary sources especially journal article, and others such as World Fertility Survey, Demographic and Health Survey, Demographic Yearbook and National Population Commission (NPC) of Nigeria. The data, especially those collected through questionnaire were coded and analysed using SPSS/PC + software. Furthermore, in order to assess the influence of socio-economic and cultural factors and family planning on family size, we estimated a multiple regression equation using Ordinary Least Squares (OLS) technique with total number of children per household as the dependent variable and the socio-cultural and economic factors and family planning techniques as explanatory (independent) variables.

4. Discussion of Results

The result discussed here is based on a total of 2,574 (1,478 for Cross River and 1,096 for Rivers States) questionnaires out of 3,000 administered. This consists of 67.8 per cent male and 32.2 per cent female for Cross River State and 75 per cent male and 25 per cent female for Rivers State. Selected socio-economic and demographic characteristics of the respondents are shown in table 1.

4.1 Reproductive Behaviour

The survey reveals an average family size of 5.07 (2.84 males and 2.70 females) in Cross River State. However, the actual number per household varies greatly. In Cross River State, about 62.2 per cent of the respondents reported a family size of five children and below while the remaining 37.8 per cent had six children and above. As noted by participants in the FGD, the family size varies between three and four in Calabar and six to eight in the northern part of the state. A break down by sex shows that 23.4 per cent had one male child, 27.4 per cent had two, 21.3 per cent had three and 13.6 per cent had four male children. In the case of female children 25.5 per cent reported one, 29.5 per cent reported two, 20.6 per cent reported three while 12.3 per cent reported four. This number would have been higher if there were no cases, of deceased children. Of 286 respondents who reported cases

Family size determinants

Table 1:   Selected Socio-Economic Characteristics of Respondents

		Cross River	Rivers
Number of respondents		1,478	1,096
Sex:	Males (%)	67.8	75
	Females (%)	32.2	25
Age:	below 20 yrs (%)	0.3	0.2
	20 - 49 (%)	86.9	66.9
	above 50 (%)	12.4	32.9
	Mean (years)	43	44
Residents (%):	Rural	46.8	26
	Urban	53.2	74
Education level (%):	**Respondents**		
	Primary Completed	25.2	13.6
	Secondary Completed	21.5	33.4
	Tertiary/Post Secondary	24.3	30.9
	Spouse		
	Primary Completed	21.3	15.0
	Secondary Completed	21.9	34.1
	Tertiary/Post Secondary	17.2	25.9
Primary Occupation (%):	**Respondents**		
	Farming/Trading	55.9	36.8
	Others (modern)	44.1	63.2
	Spouse		
	Farming/Trading	66.7	44.5
	Others (modern)	33.3	54.5
Type of Primary Job (%):	**Respondents**		
	Farming/Trading	43.2	39.0
	Others	56.8	61.0
	Spouse		
	Farming/Trading	56.6	45.9
	Others	44.4	54.1
Mean annual income (₦):	**Respondents**	27,455.8	75.265.4
	Spouse	20,073.0	47.034.0
Mean annual Expenditure (₦)		53,361.8	44.665.7
Marital Status of Respondents (%):	Married	91.3	89.0
	Separated	3.7	2.1
	Divorced	1.6	3.4
	Widowed	3.4	5.5
Mean age at First Marriage (Years):	**Respondents**	24	28
	Spouse	23	24
Form of Marriage (%):	Monogamy	88	90
	Polygyny	12	10

Source: Field survey

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of deceased children, about 61.2 per cent lost one while 19.2 per cent lost two children. In fact 71 per cent reported loosing one male child and 22.5 per cent loosing two male children. Again while 69.8 per cent reported loosing one female child, 19.8 per cent reported loosing two.

In spite of the reported family size about 60.6 per cent of the total respondents indicated that they were not satisfied with their present number of children. This, as indicated by 388 respondents, is because they have only one child (50.5 per cent), just want to have more (25.2 per cent), have small families (9.3 per cent), want to have own children (8.0 per cent) and up to God (4.4 per cent). Some 35 per cent of the respondents indicated their desire for more children. This desire arises from the fact that they want old age care (27.8 per cent), every family desires a certain number (27.1 per cent), want a baby boy (21.1 per cent), want a baby girl (7.5 per cent) and help with household and farm work (7.3 per cent). In terms of the number of more children wanted, there is no preference for a particular sex over the other but as FGD participants noted, the male-female children ratio desired are either 3:1 or 2:2. However, 24.1 per cent of the 453 respondents wanted a total of three children while 23.8 per cent wanted two more children. Meanwhile, the mean number of additional children desired is 3.52. The survey also revealed that about 51 per cent of the respondents ever discussed the number of children to have with their spouse at marriage. Of the 646 respondents that indicated the number, 29.3 per cent planned to have four, 26.8 per cent planned five while 20.3 per cent planned eight and above. The average number of children planned to have is, however, 5.998. Again it was discovered that about 37.7 per cent of the respondents are not currently using any family planning method. However, the methods currently being used in descending order of importance are rhythm method, (34.6 per cent), condom (28.1 per cent), withdrawal (13.3 per cent) abstinence (10 per cent) and traditional (2.9 per cent).

In the case of Rivers State, the mean family size is 5.13 comprising 2.96 males and 2.59 females. However, 19 per cent of the respondents reported having a total number of 3 children, 17.6 per cent reported having 4, 17.4 per cent 5 and 16 per cent 6. Only 10.7 per cent reported having over 7 children. In terms of sex composition, 30.6 per cent, 28.3 per cent, 15 per cent and 14.6 per cent reported having 2, 3, 1 and 4 male children respectively. Similarly 28.0 per cent, 26.4 per cent 25.2 per cent and 12.1 per cent also reported having 2, 1, 3, and 4 female children respectively. Even with this family size about 270 respondents (24.6 per cent of total) reported having children that are deceased. While about 46.4 per cent reported only one deceased child, about 30.6 per cent reported two. A breakdown by sex shows

that about 59.2 per cent had øne deceased male child while 29.3 per cent had two. Similarly 67 per cent had one deceased female child while 25.5 per cent had two.

Available data also show that about 785 respondents (71.6 per cent of total) felt not satisfied with the present number of children they have. The main reason being that they have only one child (34.9 per cent) and would therefore want to have more children (25.5 per cent). Another 16.6 per cent felt that they need more children because they currently have small family. 9.4 per cent felt they are looking up to God for children. Of the 244 respondents (22.3 per cent of total), that indicated the desire for more children, 14.3 per cent, 35.3 per cent, 20.6 per cent and 15.1 per cent wanted a total of 1, 2, 3 and 4 children respectively. 30 per cent desired a male child while 44.5 per cent desired two. Again while 47.2 per cent desired additional female child, 41 per cent desired two. Of all the reasons advanced for wanting more children, wanting a baby boy and every family requires a certain number stand out as the most important. Each of these reasons was pointed out by 21.6 per cent of the respondents. Other reasons are wanting a girl (14.7 per cent), help with household/farm work (10 per cent), pressure from family (8.9 per cent), spouse's desire (8.5 per cent), old age care (7.3 per cent) and pleasure from playing with children (7.3 per cent)

It was also found that 433 respondents (39.5 per cent of total), indicated that they discussed the number of children to have with their spouse at marriage. About 44.5 per cent of them planned to have three children while 2.14 per cent planned to have four (4) children. On the average more than 50 per cent planned to have two (2) male and two (2) female children. There is also high level of awareness of family planning by the respondents as only 47.7 per cent indicated not currently using any of the methods. In terms of the methods ever used and currently used, condom, oral tablets, spermicidal jelly/cream, withdrawal, intrauterine devices and traditional methods are the most popular. Apart from the fact that these methods are largely approved in marriages as indicated by 67 per cent of the respondents, about 76.6 per cent of the respondents have used for between one and six years. These methods are preferred because they are affordable, readily available, convenient and highly effective.

4.2 Determinants of family size

The regression results of the determinants of family size based on the identified socio-cultural and economic factors as well as the family planning methods used are presented in tables 2 and 3. The major socio-economic factors used are income, level of education, type of occupation and availability

of health and social facilities. The cultural factors include religion; forms, types and age of marriage, number of times married and total number of wives in the household while the family planning factors include methods ever used and currently used. The explanatory variables used in the regression are as follows.

HIGHEDUC	Highest level of education (self)
SPHIEDUC	Highest level of education (spouse)
TOTAN	Annual total income (self)
STOTANU	Annual total income (spouse)
TPROCC	Type of primary occupation
AGEATMAR	Age at first marriage (self)
AGEFSTMA	Age at first marriage (spouse)
TOTWIVES	Total number of wives in the household
TYPCURMA	Type of current marriage
NTIMESMA	Number of times married
RELIGION	Religion
USEIMPLA	Implants method ever used
USEASTI	Abstinence method ever used
USEORTAB	Oral tablets ever used
USEIUD	Intrauterine device ever used
USECONDM	Condom ever used
USEWITHD	Withdrawal method ever used
USEINJCT	Injectable method ever used
USETRADM	Traditional method ever used
USESPERM	Sperm jelly ever used
USERHYTH	Rhythm method ever used
USEDIACP	Diaphragm/cervical cap method ever used
USICONDM	Condoms currently used
USIABSTI	Abstinence method currently used
USIINJCT	Injectable method currently used
USIIUD	Intrauterine devices method currently used
USITRADM	Traditional method currently used
USIWITHD	Withdrawal method currently used
USISPERM	Sperm jelly currently used
USIRHYTH	Rhythm method currently used
USIORTAB	Oral tablets currently used
USIDIACP	Diaphragm/cervical method currently used
USITUBAL	Tubal ligation method currently used.

The results for Cross River state is presented in table 2. It is observed that income of the respondents (TOTAN) positively (even though not significantly) influences family size while that of the spouse (STOTANU) have negative influence. The level of education of the spouse (SPHIEDUC) also negatively influence family size while that of the respondents positively

Table 2: Regression Result of the Determinants of Family Size in Cross River State

Variable	Coefficient	T ratio	Sig. T
USITRADM	-1.748	-0.395	.696
AGEATMAR	-0.005	-0.051	.960
USEIMPLA	-2.978	-0.495	.624
USEASTI	-0.673	-0.288	.775
USEORTAB	1.940	1.060	.267
USIWITHD	-6.219**	-2.161	.39
USEIUD	-3.135*	-1.406	.170
SPHIEDUC	-0.441*	-1.414	.168
USISPERM	-10.059**	-2.216	.034
TOTAN	4.022E-06	0.255	.801
USECONDM	4.264***	3.083	.004
TOTWIVES	1.404*	1.537	.135
USEWITHD	4.509***	3.260	.003
USEINJCT	-0.940	-0.275	.786
AGEFSTMA	-0.301***	-2.969	.006
STOTANU	-1.481E-05*	-1.629	.114
TYPCURMA	6.942**	1.749	.091
USIRHYTH	-2.844	-1.011	.320
NTIMESMA	1.987**	2.028	.052
TPROCC·	-0.058	-0.109	.914
USETRADM	-7.818***	-3.006	.053
USESPERM	0.680	0.248	.806
RELIGION	0.431	0.562	.578
USIORTAB	-10.427**	-1.991	.056
USERHYTH	0.222	0.122	.904
USEDIACP	3.900	0.954	.348
USIABSIT	-1.713	-0.563	.578
USIINJCT	-2.372	-0.608	.548
USICONDM	-4.149	-1.252	.220
HIGHEDUC	0.883**	1.930	.063
USIIUD	-2.197	-0.582	.565
Constant	73.005	1.460	.155

Multiple R = .866   R square = .750   Adjusted R Square = .491
Standard error = 2.952   F = 2.897   Signif F = .0023
Note: *, **, and *** indicate that the estimates are significantly different from zero at 0.1, 0.05 and 0.01 level of confidence respectively.

influences. Since about 68 per cent of the respondents were male it means that majority of the spouses were female. This result implies that the higher the level of spouse (female) education, the lower the family size. This is because the current family planning efforts are female-focused and the more educated they are the more they are likely to adopt modern contraceptives which negatively affect fertility and consequently family size. In fact it has been shown that the fertility-inhibiting effects of marriage and contraceptive use increase with the level of women education, while the negative effect of infecundability (which is mostly determined by the length of breast-feeding) decreases with women education (van de Walle and Meekers, 1992:38). The type of primary occupation (TPROCC) is seen to have negative but not significant influence on family size. In this particular case, majority of the respondents are farmers and the bulk of income comes from this source. This may probably mean that the desire to raise more children that will help in farm work is no longer in vogue. A one way ANOVA of the relationship between health and social facilities and family size produces F-ratio of 1.3969. This shows that available facilities have no influence on family size.

In the case of cultural factors, empirical results show that religion has positive but not significant effect on family size. Since majority of the respondents are Christians and given the fact that Christianity encourages monogamy as well as family planning among married people, the result is as expected. Theoretically polygyny is negatively related with fertility. The results also show that the age at first marriage of the spouse, number of times married, type of current marriage and total number of wives in the household significantly affect the family size. Empirical evidence also shows that the level of involvement of spouse in decision making concerning the number and spacing of children also affect the family size. In fact the result of ANOVA on the relationship of family size and the level of involvement of spouse in decision making produces F-ratio of 4.2813 compared to 0.6874 for non involvement.

The various family planning methods outlined above as having been used or currently being used have diverse effects on family size. The most important methods based on t-ratio is condom. This is followed by withdrawal method (ever used and currently used), traditional methods, sperm jelly/cream and oral tablets. While condom and withdrawal methods ever used have positive impact on family size, the rest of the methods have negative impact. It thus appear that condom and withdrawal methods are not very effective in reducing family size. It is also seen that the coefficient of methods ever used have positive signs implying positive impact while that of currently used

methods have negative signs. On the whole, all the factors explain about 75 per cent variation in the family size.

Table 3 shows the results for Rivers State. In general the income of the respondents and that of the spouse are not statistically significant. While income of respondents have negative impact, that of the spouse have positive impact. The level of education of the respondents has positive sign while that of the spouse has negative sign even though both of them are not statistically significant determinants of family size. It is only the type of primary occupation that has significant positive impact on family size. Given the fact that most of the respondents have farming and petty trading as either primary or secondary occupation, the result is not surprising. Again the state of health and social facilities does not seem to have positive impact directly on family size, but given the fact that health institutions are important source of information on family planning, there is some indirect effect.

Table 3: Regression Result of the Determinants of Family Size in Rivers State

Variable	Coefficient	T ratio	Sig. T
USITRADM	6.464	.924	..386
TOTWIVES	6.328***	3.184	.015
TOTAN	-2.854E-06	-0.134	.898
USIDIACP	14.324**	1.837	.109
USITUBAL	-11.322	-0.931	.383
AGEATMAR	0.884***	3.104	.017
USEWITHD	-4.587	-0.971	.364
USISPERM	13.787**	1.989	.087
SPHIEDUC	-1.106	-0.899	.398
RELIGION	-2.609***	-3.747	.007
USIORTAB	-7.077	-1.235	.257
TPROCC	5.054***	4.010	.005
HIGHEDUC	0.572	0.539	.607
AGEFSTMA	0.095	0.568	.588
STOTANU	8.207E-06	0.394	.705
USIRHYTH	-6.309	-0.599	.568
USESPERM	-2.11	-0.516	.622
NTIMESMA	-5.645***	-2.606	.035
USECONDM	0.593	0.120	.908
USERHYTH	-3.616	-0.328	.752
Constant	-27.181	-0.542	.605

Multiple R = .945 R square = .894 Adjusted R Square = .590
Standard error = 2.728 F = 2.945 Signif F = .0740
Note: **, and *** indicate that the estimates are significantly different from zero at 0.05 and 0.01 level of confidence respectively.

In the case of cultural factors, total number of wives in the household, age of respondents at first marriage, religion and number of times married are the most important determinants of family size. While there is a positive relationship between family size and total number of wives and age at first marriage, negative relationship exist for religion and number of times married.

As regards family planning, it is only diaphragm/cervical cap and spermicidal jelly/cream methods currently used that have positive and significant impact on family size. This is surprising since these methods are used by small proportion of the respondents. Surprisingly condom which is the most popular method has no significant impact on family size. This again corroborates Caldwell and Caldwell (1976) finding that condom are used for purposes other than control of fertility.

In all, the various socio-cultural and economic factors and family planning practice explain about 89 per cent variation in family size (number of children in the family).

5.   CONCLUSION

What emerges from the above analysis is that the family size is large in the study area. This is as a result of interplay of two major factors - Socio-economic conditions of parents and cultural factors. Generally, income of parents is low compared with expenditure. The main source of this income is farming. Farmers are generally associated with large families because of the need for help with household and farm work. Probably because of their low levels of education they hardly use modern and effective techniques of family planning. Where family planning is adopted at all, they rely more on the traditional methods. Besides polygyny is very common among the farmers and this form of marriage is associated with large families.

Perhaps the most significant influence on family size are cultural factors. In these study area and as identified by FGD participants, heritage is patrilineal. Thus, if a woman in a monogamous marriage has only female children, the husband maybe forced into polygyny in order to have male children . Moreover women with only female children are often treated with great sympathy and pity. The worst case is a woman who has no child. In fact infertility is regarded with disdain and can be considered punishment for transgressions. Again, in these study areas, there is general preference for large families probably because of having children with different professions in the family and help in farm work in the villages. This also explains why many of those that wanted more children felt the need for them because every family desires certain member. The need for old age care is

also a very important reason for maintaining large families. Child fostering especially under the extended family system in still very common.

In spite of the prevalence of cultural and societal influences, it is also found that they do not adversely affect the use of family planning. Even religion is not against it. In these study areas the level of awareness of family planning is high but the attitude and practice of modern family planning techniques is low. However, the commonest methods of family planning ever used (Condom, rhythm and withdrawal) have not been found to be very effective in reducing family size presently going by the results of section 4.2.

In summary the study has shown that the level of education of respondents, age of the spouse at first marriage, number of times married, total number of wives in the household, type of current marriage and the use of condom and withdrawal methods have significant and positive effects on family size in Cross River State. Those factors having negative influence on family size in the State include income of spouse, withdrawal method currently in use, traditional family planning methods (i.e. excluding rhythm and withdrawal methods), intrauterine device ever used, and sperm jelly and oral tablets currently used. In the case of Rivers State, total number of wives in the household, age at first marriage, type of primary occupation, sperm jelly currently used and diaphragm/cervical method currently used exert positive and significant effect on family size while religion and number of times married negatively influence family size.

In the light of the above findings, it is really doubtful if the voluntary reduction in family size envisaged in the national population policy could be achieved soon unless additional programmes are urgently undertaken. Prominent among these programmes are the intensification of the current Population/Information, Education and Communication (POP/IEC) and Population/Family Life Education (POP/FLE) programmes especially those bothering on family planning and fertility regulation. This should be carried right down to the rural areas where the desire for large family is strongest. These programmes could be made in different local languages for easy understanding. In this regard Church leaders, health workers and the press (mainly radio) would be of great help.

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