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**A COMPARATIVE ANALYSIS OF THE SOCIOECONOMIC
CORRELATES OF FERTILITY IN CAMEROON
AND THE CENTRAL AFRICAN REPUBLIC***

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A. INTRODUCTION

In most countries of the sub-Saharan Africa, population growth rates are still quite high (about 3% per year) and prospects for fertility declines are still quite remote in many of the countries of the continent. It is well known from the demographic history of the world and from recent and current country experiences that levels of socioeconomic development have powerful influence on fertility change (Singh and Casterline, 1985, NAS, 1993; UN, 1987). Generally, population growth is fastest in the poorest countries where socioeconomic conditions are worst as can generally be seen in high infant and child mortality, lack of basic health infrastructure including family planning, and low prevalence and use of modern contraception, among other factors. Although mortality decline is occurring rapidly in many African countries, fertility decline has not necessarily followed suit (Tarver, 1996).

In those countries in Africa where fertility transition is clearly taking place such as in Kenya, Zimbabwe, Botswana and South Africa, there is some association between the socioeconomic conditions that either obtained at the onset of the transition or that have sustained these transitions (Kirk and Pillet, 1998; Defo, 1998). Though generalizations about whole countries can be misleading, there is ample evidence that fertility decline tends to follow the contours of social and economic progress across countries and within countries. Socioeconomic differentials in fertility arise mainly because of socioeconomic differentials in marriage, contraceptive use and postpartum infecundity (Cochrane and Farid, 1990). Socioeconomic factors that have important influence in lowering fertility preferences and rates are: educational attainment (especially women's), employment opportunities (women's), Rural/Urban residence, availability and accessibility of health and family planning services. Education and rural-urban differentials are among the most widely studied socioeconomic factors in individual fertility change.

B. BACKGROUND

The Cameroon is located in mid-central Africa and consists of the former French Cameroons and the southern portion that is the former British Cameroons. The country has a surface area of 465,000 km² and is bordered by Central African Republic in the East, Chad in the Northeast, the Congo, Equatorial Guinea, and Gabon in the South and Nigeria in the West. In the Southwest, it has a sea-cost on the Atlantic Ocean of about 800 km. The French section is the largest (80%) of the country and supports the bulk of the population. It is one of the countries with very diverse populations in Africa in terms of ethnic composition and geographic spread. English and French are both the official languages and there are about 24 major African language groups in the country. About half of the people follow traditional beliefs, one third are Christian and the rest are Muslim. Islam is the dominant religion in the northern regions of the country.

Cameroon is one of the world's leading producers of cocoa. Offshore oil deposits exploited since the 1970s have made the country one of the most prosperous nations in sub-Saharan Africa. Agriculture plays an important role in the economy of the country and contributes about one-third to the country's GDP. The least developed part of the country is the north where cattle raising are the main occupation of the residents. Table 1 shows some selected socio-demographic and economic indicators for Cameroon¹.

The Central African Republic is located in the center of the continent, sandwiched by the Sudan in the East, Democratic Republic of the Congo in the South, Chad in the North and Cameroon in the West and the Congo in the Southwest. It obtained its independence in 1960 from France. It has an area of 623,000 km². Central African Republic has a population of 3.5 million people. It is one of the most underdeveloped areas in Africa. About 80% of the population earns its livelihood by farming, fishing or

working in forestry. Only about 3% of the total land area is used for growing crops. The principal sources of revenue are diamonds, coffee, tobacco, cotton and timber exports. Manufacturing activities are very limited in the country. The country's major exports are timber, cotton, diamonds, and coffee. The country is divided into five health administrative units known in French as "Region Sanitaire" that are quite diverse in their geographic and ethnic characteristics and economic endowment. Table 1 shows some socio-demographic and economic characteristics of the country².

C. DATA AND METHODS

1. Data

Data for this study are obtained from the Demographic and Health Survey (DHS) carried out in these two countries in 1998 and 1994/95, respectively. The DHS carried out nationally representative survey of 2,562 men of ages 15-59 and women of reproductive ages 15-49 in the Cameroon, and 1,729 men of ages 15-59 and women of reproductive ages 15-49 in Central African Republic. It collected information on the socioeconomic characteristics of the individuals such as residence, education, marriage types etc. It also collected information on fertility regulation such as: contraceptive use, fertility preferences and outcomes, maternal and child-health and nutrition. Unfortunately, the DHS does not collect data on income, which would be a better measure of socioeconomic status of women in either country, especially after it is denominated into a common currency to allow purchasing power parity comparisons. The available DHS data on the selected socioeconomic factors however offer a good opportunity to explore the association between fertility and these key socioeconomic variables. Although there is about a three-year difference between the times that the two surveys were carried out, one can still compare the effect on fertility of the socioeconomic characteristics of the two countries because the period is too short to have lead to any substantial changes that would have invalidated the results of the analysis in this report.

2. Variables

Two dependent variables that measure fertility outcome at the individual woman level are used in this study. These are Children Ever Born (CEB) and Number of Children Surviving (NCS). At the aggregate level, TFR is used to describe associations with the socioeconomic variables of interest.

The independent variables used are: residence (rural or urban), education (none, primary, secondary or above); region of residence; religion (Catholics, Protestants, Muslims and others including traditional religions); marriage type (single, monogamy or polygamy); and current use of contraception (none, modern, traditional)

3. Analysis

The analysis is carried out at two levels: first, a bi-variate analysis compares fertility outcomes (in this case TFR, CEB, NSC) by the major socioeconomic factors of interest such as region, residence, education, and religion. Analysis will be limited to the socioeconomic characteristics for which comparable data are available for the two countries.

The second level of analysis, uses multivariate logistic regression technique to examine the relationship between CEB and NSC as dependent variables and the socioeconomic factors identified above, as the explanatory variables. The dependent variable is made binary by using three categories (women with no children, women with between 1 and 4 children and women with five or more children). Given the fact that the dependent variable and most of the explanatory variables have more than one

category, we use logistic regression to measure the extent of association between the dependent variable and the explanatory variables. The multiple logistic regression model has the following general form:

$$\text{Logit}(\pi) = \alpha + \beta_1 X_1 + \dots + \beta_k X_k$$

Where π is the expected value of the outcome variable and denotes the proportion of successes, β represents the coefficient of the explanatory variable and X are the levels of the explanatory variables. Exponentiating a beta parameter provides the multiplicative effects of that predictor on the odds, controlling for other variables (Agresti and Finlay, 1997).

We will use the exponential values of the coefficients (odds ratios) to interpret the results because exponentiating the beta parameter provides us with the multiplicative effect of the explanatory variable on the odds as we control for other variables (Retherford and Choe, 1993; Agresti and Finlay, 1997). The results of the logistic model are a lot easier to interpret when we use odds ratios. For further description of the model used, see Agresti and Finlay, (1997); Retherford and Choe, (1993) and Agresti, (1996).

D. RESULTS

1. Descriptive Results

Table 1 shows selected socio-economic profiles of the two countries. The Cameroon has about four times the population of Central African Republic and a higher rate of natural increase. The rate of natural increase in the Central African Republic is below that of sub-Saharan Africa and Africa as a whole, while that of Cameroon is nearly the same as that of sub-Saharan Africa. Infant mortality rate in the Central African Republic is above that of sub-Saharan Africa and Africa while life expectancy in Central African Republic is lower than that of Sub-Saharan Africa and Africa as a whole. As for Cameroon, the infant mortality rate is lower than that of the sub-Saharan Africa, and life expectancy is higher. By virtue of these indicators, Cameroon is relatively better off as compared to Central African Republic.

Table 2 shows some basic socio-demographic characteristics of the two countries under study from the DHS data. In both countries, the proportion of married females is about 69% while the proportion of married males is higher in Central African Republic (58.6%) as compared to the Cameroon (51.1%). Gender differences in polygyny is possibly reflected in the fact that more females are in marital status than males, i.e. the fact that more women than men are married could possibly be explained by the practice of polygyny in these societies. With regard to the single state however, a bigger proportion of males than females are single in each country. The proportion of females and males who have ever been married (divorced, widowed, separated) is higher in Central African Republic than in Cameroon. The sex-distribution of population by rural-urban residence reflects the typical scenario in most African countries whereby larger proportions of the population reside in rural areas when compared to urban areas or towns. Cameroon has larger proportion of men and women residing in rural areas as compared to Central African Republic, but the latter has larger proportion of men and women who reside in urban areas and “other towns” and also has bigger proportion of both sexes residing in the capital city (Bangui) as compared to Cameroon’s two biggest cities of Yaounde/Douala. The distribution of the population by region in Central African Republic does not show major variation across the regions except the fact that the region that includes Bangui, the capital city has the bigger proportion of the population as was already mentioned before. Two regions in Cameroon i.e. Adamaoua/North/Extreme North and Center/South/East, together contain about 49 % of the population.

Major differences between Cameroon and Central African Republic can be seen in levels of educational attainment. Bigger proportions of women have no education (51.6%) in Central African

Republic than in Cameroon (28.1%) while smaller proportion of women in Central African Republic (13.5%) have secondary or better education as compared to Cameroon where the proportion is 31.7 %. Differences in the proportion of women who have primary level of education are not big for women in both countries although for men, about 10% more have primary level of education in Cameroon as compared to Central African Republic. The distribution of people by religion shows that the protestant religion is dominant in Central African Republic while in Cameroon Catholicism is the dominant religion. Cameroon also has larger proportion of Muslims than Central African Republic.

Table 3 shows levels of fertility, as measured by the total fertility rate and children ever born, by socioeconomic characteristics of the women surveyed. Fertility is lowest (TFR=3.1, CEB=5.1) in the major urban areas of Yaounde/Douala for Cameroon, and Bangui for Central African Republic, where the levels for TFR and CEB respectively are 4.7 and 5.9 children. Following these areas in levels of fertility are other urban areas and towns. Regions with concentration of urban areas similarly have lower levels of fertility, e.g. the coastal and central regions in Cameroon in which are situated the cities of Douala and Yaounde, respectively. Studies of African fertility dynamics have shown that secondary education (especially for women) has a significant impact on fertility preferences and outcomes (Kirk and Dudley, 1998; National Research Council, 1993). The distribution of fertility by education in table 3 reflects this association for both countries. For each of the countries, women with at least secondary school level of education have the lowest TFR and CEB while those with no education have higher rates. Women with no education in Cameroon have higher fertility (by one child) as compared to their counterparts in the Central African Republic. Overall, these indices of fertility are not significantly different in either country.

2. *Multivariate Results*

Tables 4-7 present odds ratios from the logistic regression results for the two measures of fertility (CEB and NSC) and the various explanatory variables used. Table 4 shows results for Cameroon. Urban women are (1.8 times) more likely than rural women to have had no children ever born and are less likely than rural women to have had higher numbers of children ever born. The same scenario is true for Central African Republic (table 5), although the numbers here are not statistically significant. Similarly in both countries, for number of children surviving (tables 6 and 7), urban women are more likely to be in the category of women who have no children surviving and are less likely to belong to the other two categories with higher number of children. Again for Cameroon, fertility by urban residence is statistically significant while the same is not true for Central African Republic. These results are consistent with those of other studies of fertility patterns in Africa that have mostly shown that urban residence has a substantial influence on fertility (Martin, 1995; Singh and Casterline, 1985; Muhuri, Balnc and Rutstein, 1994). Here too we see the association of lower fertility with urban residence, i.e. women living in urban areas do have fewer children than their rural counterparts (Martin, 1995; Cohrane and Farid, 1990; United Nations, 1987).

Generally from most studies of fertility in developing countries, education has the most powerful influence on fertility preferences and outcomes. Lower fertility is consistently associated with higher levels of education. This relationship is not conclusive for both Cameroon and Central African Republic. It appears that in these two countries, the effect of primary level of education as well as secondary level do not have the expected association with fertility. For Cameroon, women with primary level of education are significantly more likely (about 1.5 times) to belong to the category with at least five children ever born, while there is no significant relationship between secondary education and fertility. A slightly different picture emerges for the Central African Republic (table 5) for which women with primary level education are less likely to have between 1-4 children ever born, but are more likely to have at least five children ever born. A look at the number of surviving children (tables 6 and 7) shows that for Cameroon, women with primary level of education are significantly more likely to belong to the group that has five

or more children, and are less likely to belong to the group with between one to four children. There is no significant relationship between secondary school education and either children ever born or children surviving, for Cameroon, except that women with this level of education are less likely to belong to the category with no children. A similar picture is true for Central African Republic: women with primary level of education and those with at least secondary school education are less likely to belong to the category that has no surviving children. Here again, women with primary level of education are significantly more likely to belong to the group of those with at least five children. This is consistent with findings of other studies to the effect that in higher fertility countries, women with only primary level of schooling are more likely to experience higher fertility than were women with no education or those with secondary education (Capo Chichi, 2001; United Nations, 1983; Cochrane and Farid, 1990).

There is no significant pattern of association between fertility and region of residence in the Cameroon except for women in the Northwest region who are significantly more likely to belong to the group of those with between one and four children ever born, as compared to the reference region, which is Northeast. Similarly, for Central African Republic, there is no significant relationship between region of residence and fertility except for women in Region Sanitaire III who are significantly less likely to have no children ever born. A similar scenario is true for number of children surviving (table 7).

The effect of religion on children ever born in the Cameroon is as well not conclusive, and for Central African Republic there is no significant relationship between fertility and religion (tables 5 and 7). As compared to the Catholics, women belonging to other religions in the Cameroon are less likely to have more than five children. In the Cameroon, Muslim women are more likely to belong to the category that has no surviving children while women belonging to other religions are more likely to be in the category that has between one and four surviving children, but less likely to belong to the category that has at least five surviving children (table 6).

Polygynous marriages (referred to in the tables as polygamy) in Africa have generally been associated with high fertility because they are viewed as placing the woman in a bargaining position vis-à-vis each other and the husband. Women in high polygyny areas tend start sexual intercourse early and have high fertility goals (Ezeh, 1997). In such form of social organization, it is claimed that the only tool the woman can have to laying claim to property and inheritance (from the husband) are children (NAS, 1993). Results here (tables 4-7) indicate that in both the Cameroon and Central African Republic, women in polygynous marriages are significantly associated with lower fertility as compared with those in monogamous marriages.

In both countries, women with no children ever born are significantly less likely to be users of modern contraception while those with at least five children ever born are significantly more likely to be using modern methods of contraception. With regard to the number of surviving children, the pattern of significant association is the same, i.e. use of modern contraception is less likely to be associated with women who have no surviving children and is significantly more likely to be associated with women with at least five surviving children.

The duration of time a woman has stayed in marriage as would be expected, for each country, is significantly associated with the number of children. Marriage duration is less likely associated with lower number of children ever born and more likely associated with higher number of children ever born. Similar association can be seen for the index of number of children surviving. Again, as would be expected, women who have no children ever born are significantly more likely to be sexually active, for each of the countries and for both fertility measures.

E. PROSPECTS FOR FERTILITY DECLINE

Cross-section analysis of socioeconomic determinants of fertility is helpful in providing a snapshot of the association of fertility and selected explanatory factors. Such analysis is however limited in its ability to provide us with an idea of the future direction of change in fertility. Although fertility rates are still high in sub-Saharan Africa as compared to other regions of the world, fertility decline is already clear and significant in a few countries such as Kenya, Botswana and Zimbabwe (Locoh, 1994; Kirk and Pillet, 1998). In other countries of sub-Saharan Africa such as the two studied here, trends in fertility change are less clear and as such require further investigation. There are indications however that fertility is starting to decline even in some of these countries.

Figure 1 shows age-specific fertility rates for women of reproductive ages 15-44 in the Cameroon for two selected periods preceding the 1998 DHS. For each age group, fertility was lower in the most recent period (0-3 years) as compared to the earlier period (5-9 years). Fertility was also lower for the youngest cohorts as well as for the oldest cohorts. This clearly shows that women of reproductive age in the Cameroon were adjusting their fertility downwards and is supported by similar findings from other studies. For example, a study of fertility change in sub-Saharan Africa for the 1980s and 1990s indicated that for Cameroon, percent decline in TFR between the 1978 World Fertility Survey and the 1991 DHS survey was about 9 % over the thirteen- year period (Kirk and Pillet (1998).

Some of the socioeconomic factors attributed to this change in fertility is educational attainment, which depresses fertility through various mechanisms such as adoption by educated women of small family norms, better knowledge and use of modern contraception and later ages at first marriage and first birth. As more women in Cameroon move into the higher education group, we would expect this effect of education on fertility to be more pronounced in the future. As can be seen in figure 1, the gap in fertility outcome is widest for the 20-24-age cohort for the two periods preceding the survey. This is the cohort that would normally have better education and can be innovators in the fertility transition.

Another decisive factor in the lowering of fertility is the level and incidence of childhood mortality (Locoh, 1994; Kirk and Pillet, 1998). Cameroon's infant mortality of 77 per thousand live births (table 1) compares well with those of the fertility transition countries such as Kenya and Zimbabwe when they were at the onset stage. Generally, high levels of childhood mortality in Africa are associated with high levels of fertility (NAS, 1993). If Cameroon can sustain or lower further childhood mortality, we can expect to see this impacting fertility downward.

Another factor that has been associated with fertility decline in the Cameroon and in other African countries is that of economic crises, especially as exacerbated by the implementation of the World Bank's structural adjustment programs (SAPS). For example, Eloundou-Enyegue, Stokes and Cornwell, (2000) argue that in the Cameroon, economic crisis impacted both the rural and urban sectors of the economy in such a way that fertility declined by 20% over the specific periods studied (1987-1995). The decline was however largely confined to urban populations. They argue that the magnitude of the observed change suggest a sustained decline in fertility in Cameroon, especially in the urban areas.

Figure 2 shows age-specific fertility rates for Central African Republic, for the most recent periods (0-3 years and 4-7 years) preceding the 1994-95 DHS. Again here we see that age-specific fertility rates were lower for each age cohort for the more recent period as compared to the earlier period. The gap in fertility rates was largest for the younger cohorts but progressively narrowed down with older age cohorts. According to Kirk and Pillet (1998) Central African Republic was among countries that were characterized by stable or increasing fertility during the earlier periods (at least 7 years back). Fertility (TFR) decline in the recent periods however, was to the magnitude of one half of a birth. The authors however caution that because of data limitations, no conclusions should be reached about significant

fertility declines in some of the countries studied including Central African Republic, because of among other reasons, problems of severe birth displacements and low levels of contraceptive use. As for Cameroon, one of the socioeconomic factors discussed by many authors as having a powerful influence on fertility is education. The level of education (especially women's) remains very low in most countries of sub-Saharan Africa. Central African Republic is a typical country in the region with low levels of education. We noted earlier (table 2) that proportionately more women in Central African Republic had no education as compared to Cameroon. Considerable improvements will be necessary in women's education to reduce the pool of uneducated women in these countries in order for education to have the desired effect on fertility preferences and outcomes. As more women will be entering the pool of those with secondary level of education, fertility may begin to decline in a more predictable manner in Central African Republic.

Improvements in other socioeconomic characteristics in the country that directly affect the proximate determinants of fertility such as marriage, postpartum infecundity and contraceptive use, should further facilitate the prospects for fertility change that is already visible from the age-specific fertility patterns as discussed above. For example, improvements in women's education will increase age at which women get married thereby reducing total fertility, while improvements in accessibility to health services (Central African Republic has one of the lowest indicators of access to health services in sub-Saharan Africa, according to World Bank ranking), may increase accessibility and use of modern contraception thereby pushing fertility outcomes downwards. It is however possible that economic hardships currently experienced by many African countries, including Central African Republic, may as well force people in Central African Republic to opt for fewer children, as some authors have indicated is already happening in Cameroon. Although future levels are difficult to predict in any precise manner, analysis in this paper points to the fact that fertility has begun to decline in both Cameroon and Central African Republic and will most likely continue with that trend.

F. SUMMARY AND CONCLUSIONS

Results from multivariate analysis presented above do not show unambiguous association between the fertility measures used and the selected socioeconomic variables for either Cameroon and Central African Republic. The descriptive data however clearly showed that there are definite associations of lower fertility with urban residence and higher levels of education as would be expected. The finding here regarding education supports other studies that have indicated that although fertility declines monotonically with education in most parts of the world; in sub-Saharan Africa this is not necessarily the case (Muhuri, Blanc and Rutstein, 1994). Region of residence is often used as proxy for socioeconomic and cultural conditions that may have a bearing on the fertility outcomes of a given group. Results here do not show any clear association between region of residence and fertility in both countries. Generally, these results showed that women with higher fertility in each of the countries were significantly associated with higher use of modern methods of contraception than those with lower fertility. This could be because such women would be at a stage where they have attained their desired family size or are practicing more spacing. Similar conclusions can be drawn about religion. There is no consistent pattern of the influence of any one religious group on fertility.

Despite these inconclusive multivariate relationships, a look at age-specific fertility rates clearly show that fertility is starting to decline in both countries, especially among the younger cohorts of women who are probably better-educated and reside in urban areas. Further studies of socioeconomic determinants of fertility that examine contextual factors within smaller geographical areas in these countries may produce some useful insight into the relative impacts of socioeconomic factors in the nascent fertility transition in these countries

Notes

Background information on the study countries were obtained from:

1. **“Cameroon” Microsoft Encarta Online Encyclopedia 2001.**
<http://encarta.msn.1997-2001>
2. **“Central African Republic” Microsoft Encarta Online Encyclopedia 2001.**
<http://encarta.msn.com> (June 2001)

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Table 1: Socio-Economic Profiles of Cameroon and Central African Republic

Region/ Country	Area in Square miles	Pop (mills) mid 2000	Urban (%) 1998	GNP Per capita (1998 US\$)	Births Per1000 Pop.	Deaths Per1000 Pop.	Natural Increase (Annual%)	Infant Mortality	Life Exp
Cameroon	183,568	15.4	44	610	37	12	2.6	77	55
Central African Republic	240,533	3.5	39	300	38	18	2.0	97	43
Sub-Saharan Africa	11.7m	657	29	520	41	16	2.5	94	48
Africa	8.4m	800	33	670	38	14	2.4	88	51

Source: Population Reference Bureau-2000 World Population Data Sheet

Table 2: A Comparison of the Basic Socio-demographic Characteristics of Cameroon (1998) and Central African Republic, 1995.

Characteristic	Cameroon (1998)		Central African Republic (1995)		
	Female	Male	Characteristic	Female	Male
Marital Status			Marital Status		
Married	66.8	51.1	Married	69.4	58.6
Single	23.4	44.1	Single	19.5	31.8
Divorced/widowed/seperated	6.6	4.3	Divorced/widowed/seperated	11.1	9.7
Residence			Residence		
Yaounde/Douala	14.1	16.4	Bangui	21.5	24.2
Other towns	21.2	21.5	Other towns	21.1	20.2
Urban	35.3	37.9	Urban	42.6	44.5
Rural	64.7	62.1	Rural	57.4	55.5
Region			Region		
Yaounde/Douala	14.1	16.4	RSI	21.2	20.3
Adamaoua/North	29.5	26.8	RSII	16.4	17.2
Extreme North			RSIII	18.2	17.7
Center/South/East	22.6	23.0	RSIV	11.1	8.8
West/Coast	14.5	13.8	RSV	11.6	11.7
Northwest/Southwest	19.3	20.0	Bangui	21.5	24.2
Education			Education		
None	28.1	14.9	None	51.6	20.4
Primary	38.6	39.3	Primary	34.8	49.8
Secondary	31.7	40.9	Secondary+	13.5	29.8
Higher/Superior	1.6	4.9			
Religion			Religion		
Catholic	38.6	39.4	Catholic	34.6	32.8
Protestant	31.7	30.2	Protestant	55.0	56.2
Muslim	18.8	19.3	Muslim	8.9	9.0
Others	8.4	11.0	Animist	1.0	1.4
			Other	0.6	0.6

Source: DHS Cameroon 1998, p.26 and DHS Central African Republic, 1994-95, p.25

Table 3: Fertility by Socioeconomic Characteristics for Cameroon and Central African Republic

Cameroon				Central African Republic			
Characteristic	Total Fertility Rate	Percent of Currently Pregnant Women	Children Ever Born	Characteristic	Total Fertility Rate	Percent of Currently Pregnant Women	Children Ever Born
Residence				Residence			
Yaounde/Douala	3.1	5.7	5.1	Bangui	4.7	9.2	5.9
Other towns	4.5	7.8	6.1	Other towns	5.1	10.2	5.9
Urban	3.9	7.0	5.7	Urban	4.9	9.6	5.9
Rural	5.8	11.0	6.4	Rural	5.2	12.4	5.6
Region				Region Sanitaire (RS)			
Yaounde/Douala	3.1	5.7	5.1	RS I	5.3	12.8	5.6
Adamaoua/North/Extreme North	6.6	11.9	6.4	RS II	5.9	11.6	6.2
Center/Sud/Est	5.4	10.2	6.3	RS III	5.3	11.2	6.0
Quest/Littoral	4.7	7.4	6.3	RS IV	4.6	10.6	4.9
Nord-Ouest/Sud-Ouest	4.6	9.8	6.3	RS V	4.8	11.9	5.3
				Bangui	4.7	9.2	5.9
Education				Education			
None	6.6	12.1	6.2	None	5.2	11.3	5.7
Primary	5.3	9.8	6.5	Primary	5.3	11.2	5.7
Secondary+	3.6	7.2	5.2	Secondary+	3.9	10.8	5.5
Total	5.2	9.6	6.2	Total	5.1	11.2	5.7

Table 4: Logistic Regression Results of Children Ever Born on Selected Socioeconomic Variables, Cameroon, 1998.

Independent Variable	No children	1-4 Children	5 or more children
1. Residence	Odds Ratios	Odds Ratios	Odds Ratios
Rural (ref)	1.00	1.00	1.00
Urban	1.78***	0.83*	0.81*
2. Education			
None (ref)	1.00	1.00	1.00
Primary	1.11	0.73**	1.47**
Secondary+	0.92	1.05	1.04
3. Region			
North East (ref)	1.00	1.00	1.00
Central	0.81	1.20	0.82
West	0.63	1.23	0.85
Northwest	0.93	1.32*	0.98
4. Religion			
Catholic (ref)	1.00	1.00	1.00
Protestant	1.14	0.86	1.15
Moslem	1.36	0.97	0.82
Others	1.09	1.28	0.67*
5. Marriage Type			
Monogamy (ref)	1.00	1.00	1.00
Polygamy	1.08	1.29***	0.66***
6. Use of Contraception			
Modern	0.39***	0.86	2.09***
No method (ref)	1.00	1.00	1.00
7. Marital Duration	0.84**	0.91**	1.23***
8. Sexually Active	2.7**	0.94*	0.54***
Pseudo R2	0.202	0.120	0.356
P>χ^2	0.000	0.000	0.000
N	2916	2916	2916

*p=<0.10; **p=<0.05; ***p=<0.01

Source: Computed from DHS raw data file

Table 5: Logistic Regression Results of Children Ever Born on Selected Socioeconomic Variables, Central African Republic, 1994-95

Independent Variable	No children	1-4 children	5 or more Children
1. Residence	Odds Ratios	Odds Ratios	Odds Ratios
Rural (ref)	1.00	1.00	1.00
Urban	1.03	0.92	1.09
2. Education			
None (ref)	1.00	1.00	1.00
Primary	0.83	0.99	1.24*
Secondary+	0.66**	1.27*	1.16
3. Region			
RS I (ref)	1.00	1.00	1.00
RS II	0.71	1.15	0.95
RS III	0.64**	1.13	1.23
RS IV	1.12	1.18	0.69
RS V	1.03	1.03	0.95
4. Religion			
Catholic	0.94	1.56	0.50
Protestant	0.93	1.62	0.51
Moslem	1.20	1.34	0.52
Others(ref)	1.00	1.00	1.00
5. Marriage Type			
Monogamy(ref)	1.00	1.00	1.00
Polygamy	1.24*	1.05	0.84
6. Use of Contraception			
Modern	0.25***	0.96	2.20**
No method (ref)	1.00	1.00	1.00
7. Marital Duration	0.83***	0.93***	1.21***
8. Sexually Active	4.92***	0.88	0.43***
Pseudo R2	0.225	0.085	0.340
P>χ^2	0.000	0.000	0.000
N	3323	3323	3323

*p<0.10; **p<0.05;***p<0.01

Source: Computed from DHS raw data file

Table 6: Logistic Regression Results of Number of Children Surviving on Selected Socioeconomic Variables, Cameroon, 1998.

Independent Variable	No Children	1-4 Children	5 or more Children
1. Residence	Odds Ratios	Odds Ratios	Odds Ratios
Rural (ref)	1.00	1.00	1.00
Urban	1.64***	0.76**	0.94
2. Education			
None (ref)	1.00	1.00	1.00
Primary	1.20	0.63**	1.94**
Secondary+	0.96	0.89	1.40
3. Region			
North East (ref)	1.00	1.00	1.02
Central	0.82	1.17	1.12
West	0.85	1.08	1.02
Northwest	0.72	1.09	1.00
4. Religion			
Catholic (ref)	1.00	1.00	1.00
Protestant	1.21	0.90	1.08
Moslem	1.39*	0.99	0.77
Others	1.13	1.45**	0.51**
5. Marriage Type			
Monogamy (ref)	1.00	1.00	1.00
Polygamy	1.17	1.13	0.79*
6. Use of Contraception			
Modern	0.38***	0.71**	2.70***
No method	1.00	1.00	1.00
7. Marital Duration	0.87***	0.93**	1.20**
8. Sexually Active	2.59***	0.90	0.57***
Pseudo R2	0.1642	0.083	0.331
P>χ^2	0.000	0.000	0.000
N	2916	2916	2916

*p=<0.10; **p=<0.05; ***p=<0.01

Source: Computed from DHS raw data file

Table 7: Logistic Regression Results of Number of Children Surviving on Selected Socioeconomic Variables, Central African Republic, 1994-95

Independent Variable	No children	1-4 children	5 or more children
1. Residence	Odds Ratios	Odds Ratios	Odds Ratios
Rural (ref)	1.00	1.00	1.00
Urban	0.99	0.83*	1.31*
2. Education			
None (ref)	1.00	1.00	1.00
Primary	0.82*	0.92	1.55**
Secondary+	0.72*	1.21	1.34
3. Region			
RS I (ref)	1.00	1.00	1.00
RS II	0.95	1.11	0.98
RS III	0.75	1.11	1.32
RS IV	1.49**	1.04	0.81
RS V	1.31	0.99	0.69
4. Religion			
Catholic	1.22	1.15	0.82
Protestant	1.17	1.22	0.81
Moslem	1.21	0.94	0.95
Others (ref)	1.00	1.12	1.00
5. Marriage Type			
Monogamy (ref)	1.00	1.00	1.00
Polygamy	1.16	1.11	0.76**
6. Use of Contraception			
Modern	0.18***	0.76	3.20***
No method (ref)	1.00	1.00	1.00
7. Marital Duration	0.86***	0.94***	1.20***
8. Sexually Active	5.08***	0.85**	0.41***
Pseudo R2	0.208	0.048	0.319
P>χ^2	0.000	0.000	0.000
N	3323	3323	3323

*p=<0.10; **p=<0.05; ***p=<0.01

Source: Computed from DHS raw data file

Figure 1: Age-specific fertility rates, Cameroon

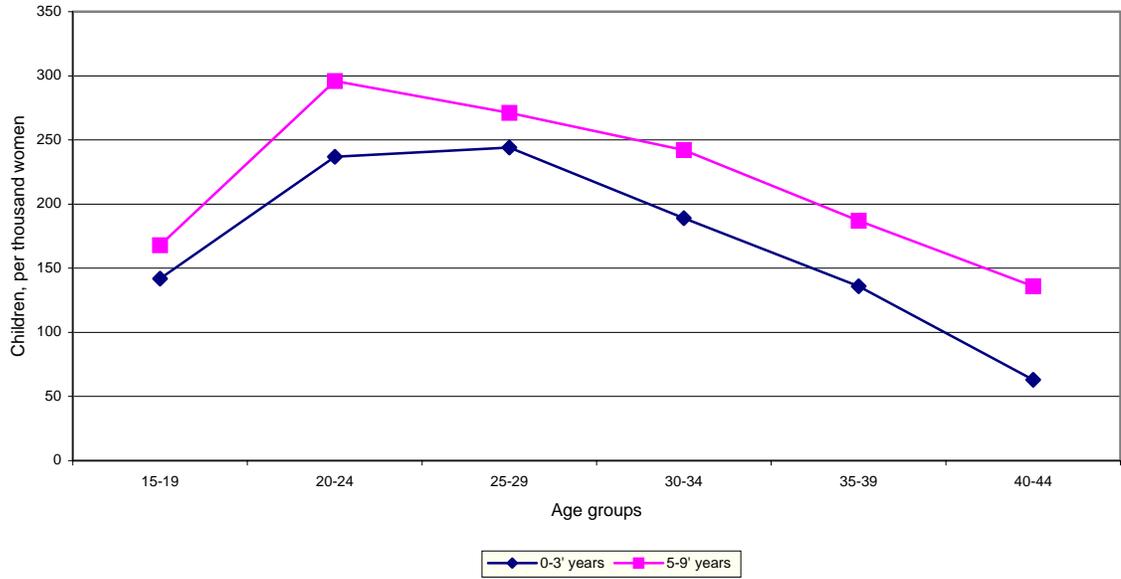


Figure 2: Age-specific fertility rates, Central African Republic

