Factors Influencing Women's Employment Status and Fertility Preferences among Married Women in South-South Region of Nigeria

Iheyinwa Chidinma Salami, Muyiwa Oladosu, *Ph.D*.
Department of Economics and Development Studies
Covenant University
Ota, Nigeria.
milasaify2014@gmail.com, muyiwa.oladosun@cu.edu.ng

Abstract—**Evidence from the literature show that in developed countries where considerable proportion of women participate in the labor force, total fertility and population growth rate are considerably low. This is in sharp contrast to most less developed countries like Nigeria where women's involvement in the labor force is low, and total fertility and growth rate are both consistently high. This study examines the relationships between factors influencing the relationships between women's involvement in the labour force and fertility preferences with focus on south-south region of Nigeria. The study employed the 2013 Nigeria Demographic and Health Survey (NDHS) data sets. Analysis applied univariate, bivariate, and multivariate analytical techniques. Preliminary results show that current working status of women in the region vary significantly by age, education, no of co-wives, state of residence, and age at first sex of the respondents (p-values = 0.000). Other factors with positive significant association with current work status are; religion (p-value = 0.034), and wealth index (p-value = 0.030). Earnings of women in the south-south region of the country were significantly associated with age, residence, education, religion, wealth index state of residence, and age at first sex (p-values = 0.000). These results have importance significance for policy and programmes geared to increase women's labour market involvement in Nigeria. The results from the multivariate analysis showed that policy makers and programmers need to consider variations and differences in state of residence, education, wealth status, and number of co-wives when designing tailor made programmes for these subgroups in the region.**

Keywords—women participation, labour force, current working status, and earning of women

I. INTRODUCTION

Evidence shows that high fertility has adversely influenced the socio- economic, demographic, and environmental development of developing countries such as Nigeria [4]. Given the country's total fertility rate (TFR) of 5.5%; one of the highest in the world, [17], there is no signal that a sustainable decline is visible soon. It is therefore imperative to further appreciate the forces underlying the fertility situation in the country. Labour Force Participation of women among other factors is identified as a significant predictor of fertility [14].The literature show that in developed countries considerable proportion of women participate in the labour force, with attendant low total fertility and population growth rate compared to most developing countries where low proportion of women participate in the labour force and fertility is high There are considerable untapped benefits of women labour force participation that Nigeria is yet to tap into. S. P. Tsani, L. Paroussos, S. Fragiadakis, I. Charalambidis, and P. Capros, P, (2012) argues that women human capital is underutilized both at the national and global levels in many countries.

In Nigeria, female labour force participation increased from 36% in 1990 to 39% in 2009 [22]. Although the increase of 3% is small, it did not have any appreciable effect on total fertility in the country. In the more industrialized societies, an inverse association between various measures of fertility among economically active and inactive women appears to have been more consistent than in the less developed societies. In the less developed societies, the nature of the relationship tends to vary with conditions and sectors of employment and it might be sufficient to note that research findings from Nigeria and some other African countries indicate that the relationship between female work and fertility is far from being consistent, varying from positive to negative, and from significant to no-significant relationships [20]. Even in the face of modernization, many people in developing countries still hold on to the view that the woman's place should be in the kitchen and therefore it is non-traditional for women to engage in paid jobs outside the home. The implication of this is that the rate at which women participate in the labour force is dictated by societal norms and stereotypes [12]. Therefore, in this paper we attempt to show that critically examining the factors influencing women's employment status and not just employment itself, provides a potentially better method of understanding and measuring the impact of female employment on fertility preference. This has become pertinent because it has been argued that it is not labour force participation *per se* which affects fertility but a series of other variables associated with labour force participation such as age, longer period of schooling, age at first sex, religion, residence, ethnicity etc. [5]. Hence, this paper attempts to examine the relationship between factors influencing women's

involvement in the labour force and fertility preferences with focus on the south – south region of Nigeria.

II. LITERATURE REVIEW

A. Overview

Labour market decisions and fertility are two important aspects of the female life cycle. Greater female participation in the labour force has often been suggested as a means of reducing fertility. The relationship between female labor force participation and fertility behavior has been confirmed in the industrialized countries, previous research focusing on less developed countries points to no such uniform pattern, [5].

There are divergent views on the likely effect of employment on fertility. However there appears to be a general consensus that women who are employed outside the home tend to have fewer children than those who have familial employment and work inside the home [12]. The findings clearly support the notion that working can have the effect of depressing fertility through the mechanism of competition for a woman's personal resources; especially time [12]. In the more industrialized societies, an inverse association between various measures of fertility among economically active and inactive women appears to have been more consistent than in the less developed societies. Women in these countries have fewer children and also delay the births A. R. Miller, (2006) [3], observed that fertility delay has been increasing with female education, labour force participation and earnings in the US since the post- war baby boom. However, in the less developed societies, the nature of the relationship tends to vary with conditions and sectors of employment, [20].

A. Bashieri, J. Cleland, C. Bailey and J. Falkingham. (2009)[1], re-assessed women "work- fertility" linkages in Africa with recent evidence. Result revealed that regions where women had a favourable work opportunity in the modern sector during the 1990s were those regions that experienced a larger increase in use of contraception and delayed the age at first birth during the subsequent decade. In contrast to the above findings, [9] found that women's employment is positively related with demanding another child. This study used the desire for another child as an instrumental variable for number of children/ fertility. The positive relationship was attributed to the increase of the economic potential was attributed to the increase of the economic potential of women in employment and thus influence their fertility intention. More so, the study identified residential setting as a key determinant of fertility preference. However, it is important to note at this point that research findings from Nigeria and some other African countries indicate that the relationship between female work and fertility is far from being consistent; varying from positive [16] to negative and from significant to non- significant relationships [20]. For instance, [15] re-tested the relationship between female labour force participation and fertility in Nigeria. The aim of the study was to empirically investigate the existing relationship between female labour force participation and

fertility in Nigeria. The results show that female labour participation leads to increase in fertility and that labour force participation of the women has little or no effect on fertility. This they attributed to probably the bounding of some work to child bearing and the communal living nature of Africans which makes it easy to raise children. This study aims to examine the relationship between women's employment status and fertility status, and preferences with a view to understanding the dynamics at the regional level.

III. DATA AND METHODS

The 2013 National Demographic and Health Survey (NDHS) is a national sample survey collected on fertility levels, marriage, fertility preferences, awareness and the use of family planning methods among other vital information. The 2013 NDHS is nationally representative covering the entire population residing in non- institutional dwelling units in the country. The survey list of enumeration areas (EAs) as primary sampling frame prepared used in the 2006 population census of the Federal Republic of Nigeria [13]. The 2013 NDHS sample was selected using a stratified three-stage cluster design consisting of 904 clusters, 372 in urban areas and 532 in rural areas. All women aged 15-49 who were either permanent residents of the households in the 2013 NDHS sample or visitors present in the households on the night before the survey were eligible to be interviewed. A total of 38,948 respondents were administered structured questionnaire [17]. The study analysis focuses mainly on 6058 women in the south-south region of Nigeria.

A. Variables

• Dependent Variable

The main variables in this analysis are the level of fertility defined by *the number of living children* which is categorized into 0 if none and 1 if they reported otherwise and *the fertility preference* among the married women which is categorized into 1: Have another/undecided and 2: No more/ sterilized/declared infecund. The analysis has been restricted to this category of women and not the singles because of the expectation that fertility- related policies are likely to be more meaningful to, and become more successful when adopted by women who are exposed to child bearing oriented sexual relations throughout their reproductive ages.

• Independent Variables

The main predictor variables are the socio- demographic factors influencing women's employment status and they include; age, residence, education, religion, state of residence, marital status, number of co-wives, wealth status index, age at first sex, and living arrangement.

The intervening variables include:
(i) *Work Status and Fertility*: This is defined as the act of engaging in a form of economic activity. It is categorized into; currently working, and not working.

(ii) Respondents Earnings: This elicits information on whether respondents received wages for the economic activity that they are involved with. Respondents earnings were classified into; not paid, cash only, and cash and in-kind/ in-kind only. The Dependent Variable

B.   Current use of Contraceptive

This is defined as whether a woman was using a form of contraception method at the time of survey. It is categorized into; not using, and using.

IV.   RESULTS

A.   Sample Characteristics and Description

The majority of women were aged 29 or younger (57%), lived in the rural areas (66%), and had secondary/higher education (69%). Most women were Christians (97%), in a monogamous union (82%), had first sexual debut at age 19 or younger (80%), and lived with their husbands (84%). Respondents were fairly evenly distributed the six states in the region; Bayelsa (20%), Delta (19%), Edo (18%), Akwa Ibom (16%), Rivers (15%), and Cross River (12%).

Majority of the respondents were employed (65%), earned cash only (78%), and were in the rich/richest socioeconomic bracket (63%). About 25% of respondents had one or two children, 18% had three or four, and 19% had 5 or more, while 38% do not have any. Results show that only 26% of the women who participated in the survey reported using contraceptive methods.

B.   Multivariate Results

- *Woman's Employment Status vs. Number of Living Children*

Women's employment status was measured using two variables namely; whether respondent was currently working or not working, and the mode of remuneration, in cash or in-kind or both. Table 2 presents logistic regression results in three models; one examined direct relationships between independent variables (background factors) and fertility, model 2 captures the effects of only the intervening variables, while model 3 shows the full model including both independent and intervening variables to tease out the most crucial effects in the model.

Results show that although education had a significant positive effect on number of living children in the reduced model 1, the effect was attenuated in the full model 3. Women with higher education were 0.34 times as likely as their counterpart with no education to have children. Likewise, women with secondary education were 0.37 times as likely as those with no education to have children. But in the full model, only employment status i.e. whether working or not working has significant positive effect on number of children. The odds that women who reported that they were employed would have more living children were over three times (3.6 times) that of their contemporaries that were unemployed.

- *Women's Employment Status Vs Fertility Preferences*

Results in Table 3 show that effects of independent variables like, state of residence, level of education, wealth status, and number of co-wives that were significant in Model 1 (reduced model) were not completely eliminated in Model 3 (full model). Findings in Model 3 show that women in Cross River, Akwa Ibom, Rivers, and Bayelsa were less to be favorable to having another child. Likewise, the odds that women will be favorable to another child decreases with level of education, wealth status, and number of co-wives.

The relationship between employment variables and preference for additional child was in the reverse direction of what was expected. The odds that working women would be favorable to another child was 4.9 times that of their counterparts not working, and the odds for working women who reported that they received both cash and kind remuneration was 1.7 times that of their counterpart who were not paid/received in-kind remuneration.

V.   DISCUSSION AND CONCLUSION

This paper examined the effects of employment based factors on fertility in conjunction with background factors. This is with a view to providing policy makers and programmers with additional information that will help to reduce current high fertility in the country, and thus better quality of life for the region and respective states in the long-run.

The results showed that policy makers and programmers need to consider variations and differences in state of residence, education, wealth status, and number of co-wives when designing tailor made programmes for these subgroups in the region. This finding is consistent with the report of [1]. The study contributes to the body of literature suggesting positive effect of work status on fertility [15, 16]. The work of [9] fully supports this finding. In her findings, women's employment is positively related to the demand of another child. This she opined is due to their economic potentials. The reasons for these results might be due to weakness of the two variables employed. Whether a women is working or not working excludes the type of work, working condition and salary, and the position she holds which may have considerable effects on the value placed on the job and thus, decision to have another child. A measure of employment status that captures position, years of experience, salary scale, may be able to do a better job of explaining the relationships between women's employment and fertility in the south-south region of Nigeria.

Table 1: Background Characteristics of the Respondent

Variable	Frequency	Percentage	Variable	Frequency	Percentage
	(N=6058)	(%)		(N=6058)	(%)
Respondent Age			**Number of Co-Wives**		
15-19	1376	22.7	No other Wives	2696	82.3
20-24	1063	17.5	One or More	578	17.7
25-29	1027	17.0			
30-34	803	13.3	**Age at First Sex**		
35-39	737	12.2	15 or Younger	1130	30.5
40-44	531	8.8	16-19	1829	49.4
45-49	521	8.6	20 or Older	744	20.1
State of Residence			**Living Arrangement**		
Edo	1079	17.8	Wife living with husband	2773	84.2
Cross River	727	12.0	Wife living elsewhere	521	15.8
Akwa Ibom	979	16.2			
Rivers	919	15.2	**Employment Status**		
Bayelsa	1224	20.2	No working	2131	35.4
Delta	1130	18.7	Working	3896	64.6
Place of Residence			**Earnings from Employment**		
Rural	3996	66.0	Not paid and in kind only	517	13.1
Urban	2062	34.0	Cash only	3083	78.2
			Cash and in kind	343	8.7
Highest Education Level			**Contraceptive Status**		
No Education	336	5.5	Not using	4468	73.8
Primary	1549	25.6	Using	1590	26.2
Secondary	3483	57.5			
Higher	690	11.4			

Source: Author's computation.2016.

TABLE 2: LOGISTIC REGRESSION ANALYSIS OF NUMBER OF LIVING CHILDREN AND BACKGROUND FACTORS, EMPLOYMENT CHARACTERISTICS

Variables	Model 1 (Number of living Children and background factors)	Model 2 (Number of Living Children by Employment)	Model 3 (Number of Living Children by Employment by Background factors)
State of Residence			
Edo	1.00		1.00
Cross River	1.361		1.289
Akwa Ibom	1.679**		1.591
Rivers	1.147		1.126
Bayelsa	1.424		1.371
Delta	0.798		1.109
Highest Educational Level	1.00		1.00
No Education	0.710		0.772
Primary	0.373*		0.449
Secondary	0.344*		0.349
Higher			
Wealth Index			
Poorest-Poorer	1.00		1.00
Middle	1.609		2.108
Richer	0.951		1.123
Richest	0.714		0.834
Religion of Respondent	1.00		1.00
Islam-Trad	0.734		1.009
Catholic	0.704		1.049
Other Christian			
Age at first Sex			
15 or younger	1.00		1.00
16-19	0.807		0.784
20 or older	0.682		0.741
Place of Residence			
Rural	1.00		1.00
Urban	0.794		0.705
Number of Co-wives			
Number of other wives	1.00		1.00
One or more	0.092(1.592)		1.216
Living arrangement			
Wife living with husband	1.00		1.00
Wife living elsewhere	1.200		1.098
Earnings from Employment		1.00	1.00
Not paid and in-kind only		2.099***	0.835
Cash only		2.105***	0.893
Cash and in-kind			
Employment Status			
No working		1.00	1.00
Working		2.730***	3.592**
-2 Log likelihood	1226.319	4011.568	901.965
Nagelkerke R Square	0.093	0.026	0.094
Wald (Model Chi Square)	878.132	1129.489	723.917

Source: Authors computation, 2016.

Table 3: Logistic regression analysis of Fertility Preference and Background factors, Employment Characteristics

Variables	Model 1(Fertility Preference by background factors)	Model 2 (Fertility Preference by Employment	Model 3(Fertility Preference by Employment by Background Factors)
State of Residence			
Edo	1.00		1.00
Cross River	0.571**		0.571**
Akwa Ibom	0.803		0.639*
Rivers	0.722		0.637
Bayelsa	0.217***		0.183***
Delta	0.694*		0.694
Highest Educational Level			
No Education	1.00		1.00
Primary	0.833		0.765
Secondary	0.385***		0.398***
Higher	0.496**		0.538*
Wealth Index			
Poorest-poorer	1.00		1.00
Middle	1.277		1.393
Richer	1.337		1.313
Richest	1.584*		1.624
Religion of Respondents			
Islam-Trad	1.00		1.00
Catholic	0.793		0.747
Other Christian	0.668		0.646
Age of First Sex			
15 or Younger	1.00		1.00
16-19	0.889		0.878
20 or older	0.768		0.799
Place of Residence			
Rural	1.00		1.00
Urban	0.880		0.853
Number of Co-Wives			
No other wives	1.00		1.00
One or more	1.483**		1.409
Living Arrangement			
Wife living with husband	1.00		1.00
Wife living elsewhere	1.118		1.133
Employment Status			
No Working		1.00	1.00
Working		2.981*	4.966*
Earnings from Employment			
Not paid and in-kind only		1.300*	1.115
Cash only		2.231***	1.690
Cash and in-kind			
Wald (Model of Chi-square)	457.874	640.544	308.828
2 log likelihood	2104.431	4649.959	1780.294
Nagelkerke R Square	0.087	0.014	0.108

REFERENCES

[1] A. Bashieri, J. Cleland, C. Bailey and J. Falkingham, "The women "work- fertility" link in Africa: a re- assessment of recent evidence" London school of Hygiene and Tropical Medicine- University of Southampton- School of Social Sciences. PAA 2009 Detroit, 2nd may 2009.

[2] A. Collver, and E. Langlois, "The female Labour force in Metropolitan Areas: An international comparison", Economic Development and cultural change, vol x, No. 4, July 1962.

[3] A. R. Miller, "The Effects of Motherhood Timing on Career Path", Mimeo 2006, Department of Economics, University of Virginia, 2006.

[4] G. D. Alene, and A. Worku, Differentials of fertility in North and South Gondar Zones, northwest Ethiopia. A comparative cross- sectional study",. BMC Public Health 2008, 8: 397 doi:10. 1186/1471-2458-8-397, 2008.

[5] H. C. Rafigul, "Female Status and Fertility Behaviour in a Metropolitan Urban Area of Bangladesh". Population Studies Vol 32, No. 2(July 1978) pp.261-273.

[6] ILO. "Key Indicators of the Labour Market (KILM), 5th Edition, International Labour Office, www.ilo.org. 2009.

[7] J. F. Elise. "Impact of women's Employment on Marital Fertility in the US 1970- 1975" Population Studies. Vol. 35, No,2, July, 1975.

[8] K. Dandekar, "Effect of Education on Fertility ", Proceedings of The World Population Conference, Belgrade", Vol.iv (1965), pp.146-149, 1965.

[9] M. D. J. W. Wijesinghe, "Women's Labour Force and Fertility Preference",Sri-Lanka Economic Research Conference 2012. Pp 173-178.

[10] M. R, Rosenzweig, "Female Work Experience, Employment Status, and Birth Expectations: Sequential Decision- Making in the Philippines".

[11] National Bureau of Statistics (2013) "Nigeria Demographic and Health Survey".

[12] N. M. Nwakeze, "Gender and Labour Force Participation in Nigeria: Issues and prospects. International Journal of Research in Arts and Social Science"s. Vol 2 pp 477 – 492, 2010.

[13] National Population Commission (1994).

[14] O. I. Lawanson, "Female Labour Force Participation in Nigeria: Determinants and Trends". 2008 Oxford Business and Economics Conference Program. ISBN; 978-0-9742114-7- June 22-24, 2008 Oxford U.K.

[15] O. M. Akpa and O. Ikpotokin. "Modeling the determinants of fertility among women of child- bearing age in Nigeria, Analysis using Generalized Linear Modeling Approach," International Journal of Humanties and Social Sciences- Vol.2 No 18; October 2012.

[16] O. O. Adebiyi, and T. A. Onifade, "Testing the Relationship Between Female Labour Force Participation and Fertility in Nigeria," Mediterranean Journal of Social Sciences. Vol 5, No 27, December 2014.

[17] P. Nwakeze, "Female Labour Force Participation and Fertility in Nigeria," Fordham University, ED292 726 1987.

[18] Population Reference Bureau, 2014.

[19] R.O. Carleton, "Labour Force Participation: A stimulus to fertility in Puerto Rico"? Demography 2: 233-239, 1965.

[20] S. Goldstein, "The influence of Labour Force Participation and Education on Fertility in Thai-Land" Population Studies 26: 419- 436, 1972.

[21] S. P. Tsani, L. Paroussos, S. Fragiadakis, I. Charalambidis, and P. Capros, P. Female Labour Force Participation and Economic development in Southern Mediterranean Countries: What scenarios for 2030? MEDPRO Technical Report No. 19 (Brussels: Mediterranean prospects), 2012.

[22] United Nations, Women's Employment and Fertility, "A comparative Analysis of World Fertility Survey Results for 38 developing countries", population studies, No, 96, New York 1985.

515

[23] V. Krishnan, "Female Labour Force Participation and Fertility: An Aggregate Analysis". Genus, Vol. 47, No1/2 (GENNAIO- GIUGNO), pp 177-192, 1991.

[24] World Bank, 2011.

.