A Note on Economic Activity of Women in Nigeria

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The aim of this article is to investigate some of the factors explaining the economic activity of women in Nigeria, in particular, to examine the question of whether urbanisation is likely to lead to a "marginalisation" of women in Nigeria. Such a question would not normally be asked in most developing countries because, since recorded female labour force participation is low in the rural areas of most countries, it could be expected that urbanisation would be associated with rising levels of female activity. However, a different situation exists in sub-Saharan Africa with female participation in the rural economy being strikingly high.[1] This is associated with a traditional division of labour which allocates prominent roles to women in subsistence agriculture and often in trading activities. This tradition is partly explained by the need for men to travel long distances to hunt or, in this century, increasingly to find wage earning activity.

The present study is based on a survey carried out by the Human Resources Research Unit of the University of Lagos in 1973 and 1974. It covered a sample of 2,700 women aged 20 and over drawn from four areas of Nigeria. It is admitted at the very outset that conceptual deficiencies in the survey appear to have led to an understatement of labour force participation in rural areas, making the analysis somewhat questionable.

RATES OF FEMALE ECONOMIC ACTIVITY IN NIGERIA

The definition of labour force participation used was quite simple. Women were asked if they did any work for pay or to earn money, either outside or inside the home. If not, they were classified as a non-participant. However, the unemployed are normally considered as part of the labour force. Moreover, since no reference was made to any time it is not clear how the survey classified women who normally worked but who, for some reason, were not doing so at

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[1]See for example [1].

the moment. Finally, by treating only monetary activities as economic activity the definition had the effect of excluding from the labour force women producing goods for self-consumption, or working in family enterprises from which they derived no direct monetary compensation. These three deficiencies all had the effect of understating female participation and the last one in particular could represent a considerable number of women in rural areas. It is likely, therefore, that the participation rates given here are considerably under reported.

Participation rates, and their composition between work inside and work outside the home, are given in Table 1 for a number of sub-groups of the female population. The two major features are the pattern of the age-specific rates, which has an inverted U-shape, and the difference between urban and rural areas, with the former having higher participation rates.

These results may be compared with those of two other surveys carried out in Nigeria. One of these was conducted in Lagos in 1973 [3] in which overall participation rates were found quite similar to those shown in Table 1 for urban areas, except that it showed slightly higher rates in the older age groups. The other survey was the Labour Force Sample Survey of 1966-1967 which was carried out in Lagos and in rural Nigeria [7]. This survey also showed urban rates quite similar to those shown in Table 1. However, the rural rates were much higher. In fact, the 1966-1967 survey found that participation rates were higher in rural areas than in Lagos, whereas the survey on which the present study is based found the opposite. Thus, while there is some corroborative evidence for the accuracy of the participation rates in urban areas, some reservations must be held about the findings in rural areas.

Table 1

Rates of Economic Activity Inside and Outside the Home

	AGE				
	20-24	25-29	30-39	40-49	50-59
Full sample					
Work outside home	29.0	32.9	32.5	26.3	12.8
Work inside home	18.9	24.6	30.7	31.1	34.9
Work inside and outside	5.7	5.5	9.6	7.2	9.3
Participation rate	53.6	63.0	72.7	64.7	57.0
Sample size	768	724	785	334	86
Urban					
Work outside home	34.1	58.2	45.3	35.0	19.1
Work inside home	14.9	22.8	25.3	29.1	36.2
Work inside and outside	5.2	5.2	6.8	8.4	14.9
Participation rate	54.2	66.2	77.4	72.4	70.2
Sample size	592	521	501	203	47

Continued—

Table-1—Contd.

	20.24	25.29	30.39	40.49	50.59
Rural					
Work outside home	11.9	19.2	9.9	13.0	5.1
Work inside home	32.4	29.1	40.3	34.4	33.3
Work inside and outside	7.4	6.4	14.5	5.3	2.6
Participation rate	51.7	54.7	64.7	52.7	41.0
Sample size	176	203	283	131	39
Married Women					
Work outside home	18.4	28.8	28.9	25.7	4.0
Work inside home	24.1	26.6	32.5	33.0	36.0
Work inside and outside	4.9	5.2	9.5	6.9	10.0
Participation rate	47.5	60.6	70.8	65.5	50.0
Sample size	526	601	665	261	50
Single Women					
Work outside home	55.6	57.4	57.1	—	—
Work inside home	5.3	17.6	10.7	—	—
Work inside and outside	7.0	7.4	3.6	—	—
Participation rate	67.9	82.4	71.4	—	—
Sample size	186	68	28	9	1
Separated, Widowed/Divorced					
Work outside home	37.3	51.1	52.9	26.2	27.3
Work inside home	15.7	10.6	24.1	24.6	30.3
Work inside and outside	7.8	8.5	10.3	8.2	9.1
Participation rate	60.8	70.2	87.4	59.0	66.7
Sample size	51	47	87	61	33

ANALYSIS OF PATTERNS OF FEMALE ECONOMIC ACTIVITY

· Given the suspect *levels* in rural areas, analysis of determinants of participation in rural areas and of different patterns in rural and urban areas must be tentative. However, the relevance of particular factors associated with urban-rural difference should still be discernible in the analysis of the behaviour of women in urban areas. The suggestion that urbanisation is associated with declining participation is based on the changing nature and requirements of increasingly "formal" (wage) employment and the greater constraint on participation represented by child-care responsibilities. Accordingly, an attempt was made to use the survey data to test simple behavioural functions to assess whether certain personal, household, cultural, and labour market factors were more important explanations of participation in urban areas than in rural areas.

The basic micro-behavioural function tested was the following:—

$$L_f = a+b_1(E)+b_2(C)+b_3(A)+b_4(M)+b_5(U)+b_6(T)+b_7(S)+e$$

where L is the probability of participation. E is a vector of dummy variables for level of educational attainment, which is a proxy measure for a woman's opportunity income and hence would be expected to be positively correlated with her probability of participation. C is a measure of fertility. Unfortunately the survey data only allowed it to be defined as a dichotomous variable: a dummy variable for women without children being included in the regression equations and women with one or more children being the excluded category. There are a number of problems with this variable. The data did not indicate whether the child or children were born recently or were still alive. It should also be noted that childlessness could also be a proxy for other factors affecting female economic activity such as physical health, marital status and recency of marriage. Marital status is controlled for in the regressions but since the other two variables are not included, the results for the fertility variable should be interpreted with caution.

The variable A consists of a set of dummy variables for membership of various age groups. Age can be taken as a very crude proxy for demand-for-child-care time, with the expectation that women in their early twenties (the period of most intensive childbearing) are less likely to be in the labour force than older women. Marital status (M) is used as a control variable, married women being expected to have lower participation. The variable U is a control for differential labour market conditions, and possibly cultural-social environments, in different urban areas—the four urban areas being Lagos, Enugu, Ibadan and Zaria. Ethnic differences (T) are also considered, being tested as a dummy variable for members of the Yoruba ethnic group, all other ethnic groups comprising the excluded category.

As previously mentioned, women generally appear to have a more important economic role in West Africa than in less developed countries elsewhere; this is usually because a large part of subsistence agricultural activity is traditionally carried out by women.[2] Among the Yorubas the situation is somewhat different: in a tradition dating back at least to the early nineteenth century, women, though assuming a less important role in agriculture, have dominated marketing activities and have tended to enjoy considerable economic and political independence [5]. Therefore, we were interested to test whether in fact this strong commercial role of Yoruba women would be reflected in higher rates of economic activity.

Finally, some data were available on whether a woman's husband or anyone else made a financial contribution to her personal or household expenses. This was tested as a dichotomous variable (S) for women not receiving such financial support, the excluded category being women receiving some such form of financial support. One would expect significantly higher activity rates for women not receiving financial support if economic factors were a major determinant of a woman's decision to enter the labour market.

To test this function, multiple regression analysis was used. All of the variables used in this analysis are categorical in nature, including the dependent

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[2] See for example [6, p. 55].

variables.[3] This gives rise to certain statistical problems related to the significance testing of results and as a consequence the statistical results reported in this paper should be interpreted with caution, although it appears that with this type of analysis the conventional statistical tests are more likely to be conservative than *vice versa*.[4]

Results of two regressions, for women aged 20 to 49 living in urban and rural areas respectively, are presented in Table 2. A larger part of the variance is explained in the regression for the urban sample, 14 percent as against 10 percent for the rural sample, but both equations are statistically significant and these figures are not unduly low for behavioural functions based on micro data. Three variables explain much of the variance in both samples. These are: education (E), the variable for women receiving some financial support (S)

Table 2

Regressions on Women Aged 20-49: Comparing Urban and Rural Areas

Independent variables		Urban			Rural		
		Coeffi- cient	Standard Error	F	Coeffi- cient	Standard Error	F
Age 25-29	(A$_2$)	0.123	0.030	18.8**	—0.024	0.050	0.2
Age 30-39	(A$_3$)	0.229	0.029	060.3**	0.103	0.048	4.7*
Age 40-49	(A$_4$)	0.190	0.039	023.8**	—0.000	0.057	0.0
Primary education	(E$_2$)	—0.059	0.027	04.8*	0.179	0.050	12.8**
Secondary education	(E$_3$)	0.171	0.030	32.6**	0.285	0.076	14.1**
Tertiary education	(E$_4$)	0.226	0.047	22.8**	0.576	0.163	12.5**
Married	(M)	—0.054	0.033	2.7	0.070	0.058	1.4
No children	(C)	—0.043	0.034	1.6	—0.143	0.058	6.1*
Not receiving financial support	(S)	0.130	0.032	16.1**	0.170	0.061	7.9**
Yoruba	(T)	0.119	0.028	18.4**	0.269	0.050	28.6**
Ibadan resident	(U$_3$)	0.174	0.029	34.9**	—	—	—
Enugu resident	(U$_2$)	0.071	0.030	5.5*	—	—	—
Constant		0.381			0.397		
R^2		0.141			0.102		
F		24.1**			08.7**		
Degrees of freedom		12/1,768			10/767		

*Significant at 5 percent level.
**Significant at 1 percent level.
Dependent variable: (L) labour force participation
Excluded categories: (A) age 20-24
                       (E) no education
                       (M) not married
                       (C) having one or more children
                       (S) receiving financial support
                       (T) non-Yoruba
                       (U) resident of Zaria or Lagos metropolitan area.

[3]A detailed explanation of the use of categorical variables may be found in [4].

[4]For a discussion of the problems inherent in using a categorical (binary) specification of the dependent variable, see [2].

and ethnicity (T). For each of these variables the relationship is in the expected direction for both the urban and rural samples. Other things being equal, women with more education, particularly those with at least secondary education, were more likely to be economically active. The same was true of women not receiving financial support and Yoruba women.

In the urban sample, significant coefficients are obtained for the dummy variables for residence in Ibadan and Enugu (U_s and U_2), suggesting that differences in labour market conditions, and perhaps in other environmental factors, proxied by these variables, help to determine women's activity rates. These variables are not applicable in the rural sample. The age variables (A) are more strongly significant in urban than rural areas. The positive coefficients for the age variables in the urban sample indicate that women had a higher propensity to be in the labour force if they were older than 24 (the excluded category). But it appears that age was not strongly related to participation in rural areas.

Neither marital status nor fertility appear to place important constraints on women's economic activity in either urban or rural areas of Nigeria. The marital status variable (M) is not significant in either sample and the fertility variable (C) is only significant in the rural sample where its negative coefficient suggests that childless women were less likely to be in the labour force.

Because of the importance of education in these results, both the urban and rural samples were split into more and less educated women (those with secondary or higher education being taken as the more educated group) and separate regressions were run for all four sub-samples. The results are reported in Tables 3 and 4.

In the urban sample (Table 3), the more educated women appear to be more homogeneous: only two variables age (A) and financial support (S) are statistically significant and only 8 percent of the variance is explained. The economic activity of less educated urban women is mainly explained by the same variables as are significant for the urban sample as a whole. The results for age (A), ethnicity (T) and labour market conditions (U) are more or less the same. The only important differences are for marital status (M), which is weakly significant for the less educated group and suggests some limited tendency for marriage to inhibit women's participation in the labour force and financial support (S) which is not significant for the less educated women. The latter result is interesting since women not receiving financial support do appear to have significantly higher participation rates in the more educated group. The most likely explanation for this result is that, since less educated women would normally come from lower income households, the amount of financial support their husbands (or other persons) could afford to give them would not be sufficiently large to affect their decision to enter the labour force.

The results obtained by splitting the urban sample into two educational groups confirm the importance of education in explaining women's economic activity since it seems that more educated women have higher participation rates irrespective of most of the other factors which explain the participation of less educated women.

Table 3

Regressions on Urban Women Aged 20-49: Comparing Less than Secondary Educated and Secondary or Tertiary Educated

Independent variables		Less than secondary education			Secondary or tertiary education		
		Coefficient	Standard Error	F	Coefficient	Standard Error	F
Age 25-29	(A_2)	0.117	0.037	9.8**	0.111	0.044	6.5*
Age 30-39	(A_3)	0.215	0.037	34.3**	0.236	0.049	23.0**
Age 40-49	(A_4)	0.180	0.046	15.6**	0.097	0.081	1.4
Married	(M)	—0.097	0.045	4.8*	—0.001	0.053	0.0
No children	(C)	—0.034	0.045	0.6	—0.036	0.056	0.4
Not receiving financial support	(S)	0.079	0.046	2.9	0.190	0.044	18.8**
Yoruba	(T)	0.135	0.033	16.6**	0.097	0.051	3.7
Ibadan resident	(U_3)	0.240	0.038	40.9**	0.052	0.047	1.2
Enugu resident	(U_2)	0.070	0.037	3.6	0.072	0.051	2.0
Constant		0.436			0.552		
R^2		0.144			0.081		
F		21.5**			6.0**		
Degrees of freedom		9/1,153			9/608		

*Significant at 5 percent level.
**Significant at 1 percent level.
Dependent variable: (L) labour force participation
Excluded categories: (A) age 20-24
                (M) not married
                (C) having one or more children
                (S) receiving financial support
                (T) non-Yoruba
                (U) resident of Zaria or Lagos metropolitan area.

Less clear-cut results were obtained by splitting the rural sample by level of education (see Table 4), partly because the sample contained only a small number of rural women with secondary or tertiary education. The coefficients for some of the age variables (A) in the more educated group in Table 4 are large and significant but it might not be wise to place too much importance on this result, given the small sample size. The only other significant variable for the more educated group is financial support (S). For the less educated group the results are fairly similar to those obtained for the whole rural sample but this can mainly be attributed to the fact that most of the rural sample is in this less educated group. Therefore the results of splitting the rural sample are rather informative and it is not clear whether or not there are important differences in behaviour of women with different levels of education in rural areas (again I.L.O.).

Table 4

Regressions on Rural Women Aged 20-49: Comparing Less than Secondary Educated and Secondary or Tertiary Educated

Independent variables	Less than secondary education			Secondary or tertiary education		
	Coefficient	Standard Error	F	Coefficient	Standard Error	F
Age 25-29 (A$_2$)	—0.057	0.055	1.1	0.362	0.111	10.6**
Age 30-39 (A$_3$)	0.080	0.051	2.5	0.276	0.135	4.2*
Age 40-49 (A$_4$)	—0.040	0.060	0.4	0.104	0.202	0.3
Married (M)	0.026	0.062	0.2	0.067	0.163	0.2
No children (C)	—0.126	0.062	4.1*	—0.212	0.173	1.5
Not receiving financial support (S)	0.175	0.067	7.0**	0.246	0.121	4.1*
Yoruba (T)	0.294	0.053	30.3**	0.135	0.133	1.0
Constant	0.477			0.579		
R^2	0.067			0.350		
F	7.3**			3.7**		
Degrees of freedom	7/714			7/48		

*Significant at 5 percent level.
**Significant at 1 percent level.
Dependent variable: (L) labour force participation
Excluded categories: (A) age 20-24
                                   (M) not married
                                   (C) having one or more children
                                   (S) receiving financial support
                                   (T) non-Yoruba

CONCLUSIONS

Some differences were found between the factors explaining women's economic activity in urban and rural areas, the main one being that age was less important in rural areas. But over-all, the differences between urban and rural areas were not very marked. For example, there was no evidence that marital status or childcare placed any major constraints on women's economic activity in either urban or rural areas (except to a very limited extent for less educated urban women). Therefore, while our analysis is purely cross-sectional and it is possible that a longitudinal study would have shown that urbanisation has contributed to a decline in female activity, on the evidence of this survey it does not appear that urbanisation has so far led to any "marginalisation" of women in Nigeria.

A number of other factors were found to influence women's economic activity rates. More educated women, particularly those with at least secondary education, were more likely to be in the labour force. Social and environmental differences also appear to exert a strong influence over women's economic activity. Residents of Ibadan (and to a lesser extent Enugu) tended to have

higher participation rates than those from other urban areas presumably because of differences between the labour markets and other environmental factors in these towns. The traditionally more independent role of Yoruba women appears to explain their higher activity rates. Finaly, strong evidence is found for the economic motivation behind women's participation in the labour force because women not receiving financial support from a husband or other person were more likely to be in the labour force.

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