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# Migration consequences on marital behaviour in Kenya

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**This paper analysed the relationship between migration process and marital behaviour in Kenya. Data for analysis came from the Kenya Demographic and Health Surveys (KDHS) of 1988/89 and 1993. The hypothesis was that, women who migrate comprise those that act rationally to maximise other lifetime aspirations at the expense of reproductive behaviours. That is, migrants are involved in behaviours that negatively influence fertility determining factor of marriage compared to that of never-migrants. The paper contended that, migration dynamics are important in determining reproductive behaviour of women through time and space. The methods of estimating the association between migration process and marital behaviours were undertaken through several analysis techniques: Singulate mean age at marriage (SMAM); ordinary least squares (OLS) and; logistic regression (LR). Singulate mean age at marriage estimated patterns of marriage by migration status by background variables. Ordinary least square regression was used to identify the impact of migration process on marriage behaviour relative to other factors. Logistic regression determined the probability that a woman will marry early or late among the migrants and never-migrants. Findings confirmed that migration negatively affects age at first marriage. Migrants marry relatively late compared to never-migrants.**

**Key words:** Migration process, marriage behaviour, consequences, Kenya.

## INTRODUCTION

The paper examines the relationship between the process of migration and marital behaviour. The main purpose is to identify and examine the migration factors that influence marital behaviour of the Kenyan women. The objectives are pursued in two parts: Part one estimate the patterns of marriage by background characteristics by migration status. Part two identifies and accounts for the relative importance of the factors that explain marital behaviour and the probability that a marriage will occur early (<20 years) or late ( $\geq 20$  years) between migrants and never-migrants.

Marriage is one of the principal intermediate determinants of fertility and overall variability among populations (Findley, 1982; Bongaarts, 1982, 1986; Bongaarts et al., 1984; Hobcraft and Little, 1984). Marriage interacts in many ways with several variables in different places such as education, labour force, contraceptive use, age, religion, ethnicity and migration (Gould, 1994). However, gross relationships between these variables and marital characteristics vary differentially by regions, and/or country (Brass and Jolly, 1993; United Nations, 1987; DHS, 1991). Due to migration, the changes

in marital behaviour may result because of migration processes characteristics of disruption, selection and adaptation (Ribe and Schultz, 1980; Easterlin, 1980; DaVanzo and Haaga, 1981; Goldenstein and Goldenstein, 1983; Brouckerhoff and Young, 1993; Brouckerhoff and Hongsook, 1995).

Various indices have been used in the measurement and the understanding of the characteristics of marital behaviour. These include age at first marriage, proportion married, the patterns of marital dissolution or instability, and marital frequency (Shapiro, 1991). In this paper, age at marriage is used due to its versatility (Davis and Blake, 1956; Bongaarts, 1978; Hobcraft and Little, 1984; Cleland and Wilson, 1987).

## METHODOLOGY

Data from the Kenya Demographic and Health Surveys (KDHS) of 1989 and 1993 is used to understand and gain insight in the role of migration in fertility determining factor of marriage in Kenya (Government of Kenya (GoK), 1989, 1994; Arnold et al., 1990, 1991; Demographic and Health Survey (DHS), 1990, 1991). Two analytical

procedures are used to achieve the objectives of this paper. The estimation of the patterns of marriage by background characteristics by migration status is based on retrospective reporting and current status by means of the singulate mean age at marriage (SMAM) methodology and the probability of women with late or early marriage at a given age by logistic regression model (LR).

### Singulate mean age at marriage (SMAM)

SMAM is widely accepted current marital status measure, where reporting of age is not very reliable. The procedure is an assessment of univariate estimates of age at first marriage (Hajnal, 1953). SMAM is computed from the proportion reported as currently never-married in each five year age group and measures the mean number of years spent in the single state among women ultimately getting married. It is calculated by considering a cohort of women passing through life at each age, the proportion among them who are single. In addition, it is assumed that no woman dies between her fifteenth and fiftieth birthday (15 to 49). The problem is to compute mean age at first marriage of women marrying before reaching 49<sup>th</sup> birthday as follows: Add the proportions single up to and including the age group 40 to 44 and multiply by the size of the age group adopted (5-year age group) (step 1); add the result of (step 1) to the years lived before the fifteenth birthday times the total cohort ( $15 \times 7274$ , that is total cohort in 1993, for example) (step 2); multiply the result by 45 and subtract it from (step 2) (step 3); subtract the result of (step 3) from the total cohort (e.g 7274) (step 4); Divide the result of (step 3) by the result of (step 4).

### Logistic regression (LR)

Similar co-variables used in SMAM analyses are adapted in LR. LR is used to analyse probability of entering a union or marriage at a given age. The analysis is restricted to women aged 20 years and over by which age majority of women would have been married. The dependent variable is a dichotomous measure of whether marriage took place early or late. It is taken as 1 if a woman was married at age  $\geq 20$  years (late), and 0 if otherwise,  $<20$  years (early).

Women who enter marriage before age  $<20$  years (teenage years) are said to have married early. Identifying those with high odds of marrying at age 20 years and above (late) should help us determine factors that are responsible for late marriage in Kenya. Factors that contribute to or encourage late age at marriage are important for population policy.

Thus, marital age is measured as dichotomous variable adopting basic logistic regression model expressed as follows:  $\ln [(q_i)/(1-q_i)] = b_0 + b_1X_i$  (Alan and Barbara, 1986; Hosmer and Lemeshow, 1989). Where:  $q_i$  = probability of outcome given array of independent variables,  $X_i$ , (as in the OLS);  $b_0$  = model baseline constant;  $b_1$  = a series of unknown coefficients estimated using maximum-likelihood method.

Independent variables are parametrized using theoretically low-risk groups as reference categories. The maximum-likelihood estimates are interpreted as the difference in the predicted log-odds of the outcome, say, that first marriage took place at 20+ years between those with the higher risk characteristics and those in the reference category (Norusis, 1993). Thus, exponentiation of the coefficients provides an estimate of the relative odds associated with those characteristics where the odds of an event occurring are defined as the ration of the probability that it will occur to the probability that it will not.

## RESULTS AND DISCUSSION

Kenya Demographic and Health Surveys (KDHS) and

Censuses data available showed that Kenya has reliable data on nuptiality (Brass and Jolly, 1993; Robins, 1994; Robinson, 1992; Robinson and Harbison, 1995). These sources of data show that age at first marriage for Kenyan women has been rising, although marriage age in Kenya is early as indicated by the median age of approximately 18 years (KDHS, 1989, 1993; Brass and Jolly, 1993; Robinson, 1992). This means that one-half of Kenyan women have married by age 18, that is, within their teenage years. To understand therefore how migration process affects marital behaviour, it is important to examine the existing differential patterns among the overall population and population sub-groups.

### SMAM by migration status

Migrants have a higher SMAM than the never-migrants. Among the migrant categories, urban migrants have the highest SMAM despite the place of origin. In never-migrants category, rural natives have the lowest SMAM. However, age at first marriage is higher for women migrants towards urban areas (Table 1).

The fact that migrant status supports late age at first marriage may mean that migration influences women's marital attitudes and perceptions. In addition, exposure to different environments may also lead to a fusion of different socio-cultural, economic, and demographic characteristics that may influence marital behaviour. For example, the enduring preference for urban environments for education, employment, and better standard of living may underlie the unique relationship between urban areas and marital behaviour (Magnani, 1980; Goldstein and Goldstein, 1983)).

Results by SMAM show that high SMAM is associated with being a migrant. Factors influencing migration such as urban residence, high literacy, high level of education influences high SMAM. These factors have been found by several studies to be positively related to migration and negatively related to marriage. Therefore, identifying the factors that are most influential relative to migration in determining marital behaviour is the concerns of the 'LS results'.

### LS results

Logistic results (Table 2) indicate that the odds of marrying after age  $\geq 20$  years is influenced by education (secondary+), work status (working), region of residence (Central and Eastern), place of residence (Urban), ethnicity (Kikuyu, Taita, and 'Others') and being a migrant. However, education (primary), region of residence (Coast, Nyanza, Rift Valley), ethnicity (Luo, Kalenjin, Miji/Swahili), and contraceptive use (folkloric and modern) encourage early age at first marriage. Current work status is found to be an important predictor of late age at first marriage, probably because it is

**Table 1.** Percent of ever-married women by age and singulate mean age at marriage (SMAM) by migration status and status category (Kenya Demographic and Health Surveys, 1989, 1993).

<b>% Married</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40-44</b>	<b>45-49</b>	<b>SMAM</b>
<b>1989</b>								
Never- migrant	15.7	59.3	86.0	95.5	97.0	98.1	96.7	18.78
Urban native	10.6	64.1	85.3	87.9	95.9	93.3	94.3	19.79
Rural native	20.8	58.3	86.0	96.6	97.1	98.5	96.9	17.03
Migrant	34.8	79.1	93.4	93.3	96.4	99.2	99.1	19.89
<b>Migrant category</b>								
R-U	36.9	70.2	81.8	86.6	90.8	91.2	93.3	19.92
R-R	39.4	65.6	82.8	86.0	100.0	100.0	100.0	18.04
U-U	26.0	77.2	94.3	87.8	89.7	100.0	100.0	20.00
U-R	36.9	85.7	97.8	96.3	97.9	100.0	99.4	19.00
<b>1993</b>								
Never-migrant	13.0	57.0	89.1	94.3	97.1	98.6	98.7	19.02
Urban native	11.3	44.6	79.6	83.7	87.9	98.0	100.0	19.97
Rural native	14.6	59.2	90.5	95.8	97.8	98.6	98.6	17.46
Migrant	30.7	78.0	90.2	95.1	97.5	97.8	94.5	19.92
<b>Migrant category</b>								
R-U	23.7	56.7	78.8	90.1	90.1	84.6	92.7	19.62
R-R	42.4	91.1	96.1	96.9	99.4	99.7	94.0	18.43
U-U	16.9	67.6	95.5	100.0	90.2	100.0	100.0	20.00
U-R	39.9	82.3	85.7	92.1	100.0	100.0	100.0	19.14

related to work before marriage and also outside the home, which may delay entry into marital union, especially cultural unions. Female work, especially outside the domestic sphere discourages early marriage in part by putting a woman outside the control of her parents giving her a sense of independence and an opportunity to earn income and become self-reliant. Secondary and tertiary education exerts strong positive and highly significant influence on late age at first marriage. In the net effect of the variables, urban residence shows significant increase in age at first marriage. Urban residents are more likely to marry late than their rural counterparts because urban areas being melting pot of cultures offer different lifestyles and opportunities that may delay and/or discourage marriage all together.

In relation to the probability of entering a union, the odds of marrying at age 20 or over among the migrants is most influenced by education (secondary+), region of residence (Eastern), religion (Protestants), using contraceptives (Traditional methods) and, work status (working). However, Education (primary), ethnicity (Luo), and contraceptives use (modern and Folkloric methods) increases the chance of entering marriage early. The odds of marrying late (age at first marriage, 20 years and above) or marrying early (age at first marriage, below 20 years) show that among all the migrant categories those

with secondary plus education marry late whereas those with low education primary and below marry early (Table 3).

## **CONCLUSION, APPLICABILITY OF RESULTS AND FUTURE RESEARCH**

SMAM results indicate that nuptial patterns (age at first marriage) of Kenyan women is influenced by migration behaviour and is background characteristics. Urban migrants and urban natives have the highest SMAM. The odds of marrying by age 20 or over increases by the duration of marriage, urban place of residence, education, works status, religion and ethnicity. The results support the already documented views of inverse association between urban residence and age at marriage (Cleland and Wilson, 1987; Hobcraft and Little, 1984). Current work status of women is also found to be an important predictor of late age at first marriage, probably because it is related to work status before marriage, which tends to delay entry into marital unions. Female work outside the domestic sphere discourages early marriage, in part by putting a woman outside the control of her parents, thus giving her a sense of independence and an opportunity to earn income and to

**Table 2.** Logistic regressions of selected socio-economic, socio-cultural, and demographic factors including migration status on age at first marriage for all ever-married women, 20 years and over (KDHS, 1989, 1993).

Variable	Logistic regression			
	1989		1993	
	Coefficient	Odds ratio	Coefficient	Odds ratio
<b>Education</b>				
Primary	-0.3512	0.7039***	-0.3404	0.7115***
Sec+	0.9894	2.6896***	1.0586	2.8824***
<b>No-education (RC)</b>				
<b>Region</b>				
Nairobi	0.0277	0.9727	0.0436	1.0446
Central	0.3400	1.4049**	0.1717	1.1873*
Coast	-0.6166	0.5398***	-0.0848	0.9187**
Eastern	0.7385	2.0929***	0.3976	1.4883*
Nyanza	-0.0369	0.9637	-0.0082	1.0083
Rift Valley	-0.1587	0.8532	-0.0813	0.9219
Western (RC)				
<b>Residence</b>				
Urban	0.2732	1.3142***	0.1403	1.1506*
Rural (RC)				
<b>Religion</b>				
Catholic	0.1673	1.1821	0.3673	1.4438
Protestant	0.0178	1.0180	0.1424	1.1531
Other religion	0.0930	0.9112	0.0901	1.0943
No-religion	-0.0948	1.0995	-0.3570	0.6997
Muslim (RC)				
<b>Ethnicity</b>				
Kalenjin	-0.2858	1.3308**	-0.0100	1.0101*
Kamba	0.0435	1.0445	-0.1907	0.8263
Kikuyu	0.3010	1.3512*	0.1639	1.1781**
Kisii	0.3390	1.4036	-0.2024	0.8168
Luo	-1.0192	0.3609***	-0.9464	0.3881
Meru/Embu	0.0174	1.1896	0.1168	1.1239
Miji/Swahili	-0.3392	1.4039**	-0.0777	0.9253**
Somali	-0.8696	0.4191	0.2251	1.2524
Taita	n/a	n/a	0.7439	2.1041*
Other	0.5143	1.6725	0.2089	1.2323
Luhya (RC)				
<b>Contraceptive use</b>				
Folkloric	n/a	n/a	-0.7585	0.4683
Traditional method	0.1453	0.8647	0.3666	1.4429
Modern method	-0.0987	0.9060*	-0.1199	1.1274
Never used (RC)				
<b>Work status</b>				
Working	0.2824	1.3263***	0.0074	1.0074*
Not working (RC)				

**Table 2.** Contd.

Migration status				
Migrants	0.1329	0.8756	0.1243	1.1324
Never-migrants (RC)				
Constant	-1.6334		-1.4872	
-2LL	4759.534		5409.551	
No. of cases	4695		5083	

\*, \*\* and \*\*\* mean statistically significant at  $p < 0.005$ ,  $p < 0.01$  and  $p < 0.001$ , respectively. -2LL is the maximum-likelihood, as an approximate measure of goodness of fit, that is, the likelihood-ratio test for the null hypothesis and RC stands for reference category. RC is reference categories of all variables. This defines all variables introduced in Logistic regression model (s).

**Table 3.** Logistic regressions of selected socio-economic, socio-cultural, and demographic factors including migration status on age at first marriage for all ever-married women, 20 years and over (KDHS, 1989, 1993).

Variable	Logistic regression			
	1989		1993	
	Coefficient	Odds ratio	Coefficient	Odds ratio
Duration of marriage	-0.0848	0.9187***	-0.0688	0.9335***
<b>Education</b>				
Primary	-0.3512	0.7039***	-0.3404	0.7115***
Secondary and above	0.9894	2.6896***	1.0586	2.8824***
No-education (RC)				
<b>Region</b>				
Nairobi	0.0277	0.9727	0.0436	1.0446
Central	0.3400	1.4049**	0.1717	1.1873*
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Rift Valley	-0.1587	0.8532	-0.0813	0.9219
Western (RC)				
<b>Residence</b>				
Urban	0.2732	1.3142***	0.1403	1.1506*
Rural (RC)				
<b>Religion</b>				
Catholic	0.1673	1.1821	0.3673	1.4438
Protestant	0.0178	1.0180	0.1424	1.1531
Other religion	0.0930	0.9112	0.0901	1.0943
No-religion	-0.0948	1.0995	-0.3570	0.6997
Muslim (RC)				
<b>Ethnicity</b>				
Kalenjin	-0.2858	1.3308**	-0.0100	1.0101*
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Working	0.2824	1.3263***	0.0074	1.0074*
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Constant		-1.6334		-1.4872
-2LL		4759.534		5409.551
No. of cases		4695		5083

\*, \*\* and \*\*\* mean statistically significant at  $p < 0.005$ ,  $p < 0.01$  and  $p < 0.001$ , respectively. -2LL is the maximum-likelihood, as an approximate measure of goodness of fit, that is, the likelihood-ratio test for the null hypothesis and RC stands for reference category. RC is reference categories of all variables. This defines all variables introduced in Logistic regression model (s).

be self-maintaining. Job search or entry into work may also lead to migration, particularly in the modern sector of employment, which makes possible delays of entry into marriage more likely to occur. Age at first marriage increases as education increases. Secondary and tertiary education levels exert strong positive and highly significant effect on late age of entry in first union.

Muslim women enter marital unions earlier than all other religious groups in Kenya. The prevalence of the traditional early and arranged marriage norms among Muslims and the characteristically low formal schooling attendance of the Muslim women are some of the reasons for early marriage. Ethnicity shows the expected pattern of delayed age at marriage amongst the Kikuyu and the Kamba, and relatively early marriage amongst the Luo and the Luhya, with the Miji/Swahili exhibiting the lowest. The mechanisms involved in Kenyan marital behaviour are varied and highly intertwined with migration being one of the factors affecting the changes in the patterns and determinants of age at first marriage hence marital behaviour.

The variations in age at first marriage due to migration thus conform to the findings from other studies (DaVanzo and Haaga, 1981).

### Applicability and future research

This paper indicates that the mechanisms involved in

Kenyan marital behaviour are varied and highly intertwined with migration. Migration therefore affects the changes in patterns and determinants of age at first marriage. Furthermore, the variations experienced in age at first marriage due to migration are found to be influenced also by the level of contraceptive use. Thus, policies that promote migration to destination that helps in fertility reduction should be encouraged. That is the strength of the relationship between migration and marriage might be taken as evidence that migration affects needs to be integrated into fertility and population growth analysis as a necessary contribution to population policy. Key policy questions are related to how the characteristics of migrants influence fertility behaviours and levels. Furthermore, since migration remains selective, disruptive and adaptive of the background characteristics, and will substantially affect fertility through combined effects of the process of movement and marriage characteristics of migrants especially at destination, it must be taken as a policy relevant variable.

While this paper has shown the relevance of migration to determinants of fertility behaviour, it has experienced problems typical of demographic surveys and the shortcomings of the DHS in particular. The most crucial is the limited information provided by the DHS on migration-related data.

However, because a comprehensive analysis and conclusions have not been reached due to the limitation

of the cross-sectional data used, the collection and use of longitudinal data, identified by many studies to be ideal for such study is recommended to capture these behavioural changes that occur over space and time. There is also a need to integrate the collection of local or small-scale migration information and its relation with fertility determining behaviour for both men and women at individual-level demographic surveys to understand the part played by both male and female in fertility behaviour due to migration.

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