Tradition and Change: the Transition to Adulthood among Ethiopian Women

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Demographic decompositions of recent fertility decline in urban Ethiopia indicate that a major component of the decline is delayed marriage among recent cohorts of women. Delayed marriage in urban areas of Ethiopia, and more modest increases in age at marriage in rural areas, are widely believed to be associated with increases in school enrollment at the secondary level and above, rural-urban migration, and increases in female urban employment. Qualitative and clinical studies conducted in other African countries suggest that as age at marriage increases, premarital sex becomes increasingly common. However, in Ethiopia the rise in age at marriage has not been accompanied by a rise in premarital fertility.

This paper systematically examines the social determinants of age at first intercourse, first marriage, and first birth among several cohorts of Ethiopian women to test alternative theories of change in the timing of early life course transitions. The study is based on data from the 2000 Ethiopia Demographic and Health Survey (DHS). The survey was conducted by the Central Statistical Authority of Ethiopia and was designed to be nationally representative. The Ethiopia DHS collected data for 15,367 women age 15-49, permitting separate analysis of rural and urban areas, and by birth cohort. We use information collected in the survey on age at first intercourse, age at first birth, and age at first marriage to construct event history files that can be analyzed with discrete-time hazard regression models.

We treat the start of sexual activity as competing risks with first intercourse at time of marriage and first intercourse prior to marriage as alternative outcomes. Next we examine the risk of marriage after first intercourse for those girls who begin sexual activity before marriage. We then model the hazard of a first birth, starting at age 12, with marital status as a time-varying variable. In all three models we include as covariates, birth cohort, religion, ethnicity, student status, level of schooling, place of residence, and duration. Both the student status and place of residence variables are time-varying to reflect changes in roles and social context. Tests for statistical interactions will be done to identify whether the determinants of the transitions to adulthood differ for urban and rural women and by birth cohort.

Preliminary results indicate that education plays a major role in delaying the start of sexual activity, entry into marriage, and the start of childbearing in Ethiopia. The effects of education operate through both prolonged enrollment in school, and higher levels of completed schooling. These results are consistent with the idea of role conflict, as well as the argument that schooling has lasting effects on how girls assess and negotiate the timing of transitions into adult roles. In the context of Ethiopia, where marriage and the onset of childbearing traditionally occurs at young ages, even modest increases in girls' education have a significant impact on age at marriage and first birth.

The results for cohort effects are relatively uniform across all four outcomes: the age-specific risks of the transitions into sexual activity, marriage and childbearing are lower among the most recent cohorts. The lower risks for both entry into marriage and first birth are not unexpected. The lower risk of first intercourse prior to marriage is contrary to what has been observed in many other Sub-Saharan countries, but is

consistent with the very low levels of nonmarital fertility in Ethiopia. In further analyses of these data we will explore this issue in greater depth. Results also show significant differences in the risk of early life course transitions by place of residence, ethnicity and religion.

Table 1: Age at Early Life Course Transitions, Women Age 15-49, Ethiopia 2000.

Outcome	
Sexual intercourse % right censored at time of survey % intercourse before marriage % first intercourse at time of marriage	 23.2 41.3 35.5
Median age at first intercourse	16
Median age at first marriage	16
Median age at first birth	18
Number of women = 15,367	

Table 2: Odds Ratios for Predicting Hazard of First Intercourse, Discrete-time Multinomial Logit Model. Women Age 15-49, Ethiopia 2000.

	First intercourse at time of marriage		First intercourse before marriage	
Predictors	OR	|Z|	OR	|Z|
Age cohort (ref.=1950-64)				
1965-74	0.76**	8.44	0.80**	6.15
1975-84	0.36**	28.56	0.44**	20.99
Religion (ref.=Christian)				
Moslem	1.26**	6.24	0.73**	7.06
Traditional	1.14*	1.95	0.80*	2.11
Ethnicity (ref.=Amhara)				
Affar	0.83**	2.55	0.74**	3.43
Gurage	0.31**	16.29	0.35**	14.21
Oromo	0.54**	13.47	0.35**	21.07
Sidamo	0.27**	11.35	0.80**	2.94
Somali	0.40**	14.46	0.16**	16.95
Tigrai	0.24**	16.30	1.32**	5.92
Welaita	0.60**	5.04	0.15**	10.20
Others	0.58**	11.45	0.33**	19.58
Time-varying covariates				
Duration (years)	2.11**	39.99	2.03**	32.09
Duration squared	0.97**	28.87	0.97**	23.76
Education (ref.=No formal education)				
Primary	0.53**	12.86	0.75**	6.24
Secondary	0.16**	22.61	0.54**	10.61
Currently attending school	0.61**	3.90	0.30**	14.70
Place of residence (ref.=City)				
Town	0.98	0.25	1.13*	2.33
Village	1.39**	6.44	0.83**	4.20
Number of women = 14,682				
Number of life years = 114,490				

*p-value < .05, **p-value < .01

Log likelihood = -38562.46

Table 3: Odds Ratios for Predicting Hazard of Entry into Marriage after First Intercourse before Marriage, Discrete-time Logit Model, Women Age 15-49, Ethiopia 2000.

Predictors	OR	|Z|
Age cohort (ref.=1950-64)		
1965-74	0.47**	5.01
1975-84	0.35**	6.51
Religion (ref.=Christian)		
Moslem	8.51**	10.25
Traditional	1.80	1.39
Ethnicity (ref.=Amhara)		
Affar	61.41**	5.67
Gurage	0.80	0.69
Oromo	5.87**	9.93
Sidamo	22.61**	4.55
Somali	11.88**	5.89
Tigrai	1.08	0.37
Welaita	15.05**	3.94
Others	6.09**	8.65
Time-varying covariates		
Duration (years)	1.23**	7.38
Duration-squared	0.99**	3.70
Education (ref.=No formal education)		
Primary	0.10**	13.25
Secondary	0.08**	4.87
Currently attending school	0.80	0.94
Place of residence (ref.=City)		
Town	2.02**	3.61
Village	19.89**	14.34
Number of women = 10,602		
Number of life years = 16,587		

*p-value < .05, **p-value < .01

Log likelihood = -6443.84

Table 4: Odds Ratios for Predicting Hazard of First Birth, Discrete-time Logit Model, Women Age 15-49, Ethiopia 2000.

Predictors	OR	|Z|
Age cohort (ref.=1950-64)		
1965-74	1.09**	3.09
1975-84	0.95	1.40
Religion (ref.=Christian)		
Moslem	0.94	1.95
Traditional	0.84**	3.25
Ethnicity (ref.=Amhara)		
Affar	0.84**	2.80
Gurage	1.24**	3.29
Oromo	1.54**	12.05
Sidamo	1.68**	6.53
Somali	1.80**	9.30
Tigrai	1.10**	2.14
Welaita	1.97**	6.37
Others	1.38**	8.18
Time-varying covariates		
Duration (years)	1.35**	25.27
Duration-squared	0.98**	24.23
Education (ref.=No formal education)		
Primary	1.05	1.29
Secondary	1.08	1.46
Currently attending school	1.10	0.64
Place of residence (ref.=City)		
Town	0.79**	4.51
Village	0.79**	7.31
Marital status (ref.=never married as of current age)	165.41**	24.51
Ever married as of current age		
Number of women = 14,682		
Number of life years = 49,811		

*p-value < .05, **p-value < .01

Log likelihood = -20896.50