Out-of-wedlock Fertility and the Timing of First Marriage in Malawi

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Introduction

Although marriage in Malawi is nearly universal, the timing of first marriage has the potential to profoundly affect socio-economic outcomes. Early marriage, for example, can result in curtailed education, especially for women. Marrying young may lead to higher fertility, and more children may impose greater economic strain on households. Given the negative effects marrying early is thought to have on livelihoods, surprisingly little is known about factors that influence women's timing of first marriage in low income settings like Malawi. Although research has found correlations between poverty and early marriage, one unexplored factor that may lead to early marriage is unanticipated pregnancy. Moreover, most studies of early marriage must rely on cross-sectional data (e.g., Clark 2003), or use retrospectively reported data, such as from the Demographic and Health Surveys (e.g., Mensch, Grant, and Blanc 2006). Using new longitudinal data from a cohort of young adults in Central Malawi, this study looks at how unanticipated pregnancy influences the timing of first marriage among young, not-yet-married women and men, compared to counterparts who do not experience pregnancy out of wedlock.

Data, Methods, Preliminary Findings

The data come from the Marriage Transitions in Malawi (MTM) panel study, and are uniquely suited to study fertility, timing of school leaving, and marriage transitions.

Between 2007 and 2009, the MTM project collected longitudinal data from a random sample of 1,183 initially never-married women and men in the Central Region of Malawi. The study was designed to understand the links between pre-marital relationships and sexual activity, the transition into marriage and other major events of adulthood, socioeconomic status, and HIV/AIDS. Respondents provided detailed information on socio-economic characteristics, marriage and fertility, and sexual partnering. Three particular features of this longitudinal data set stand out. First, respondents were interviewed at short intervals, up to five times within a 24-month window, between from July 2007 and September 2009. Nearly all panel studies in sub-Saharan Africa conduct survey rounds at a minimum of yearly intervals (and often longer), which necessitates a reliance upon retrospective reporting of events, and may bias estimates due to recall error (such as on dating and marriage), and few have started with a sample of never-married young people, and followed them as they move to marriage.[1] Second, once core respondents married, spouses were added to the sample, enabling us to evaluate spousal characteristics.

Third, because adolescents and young adults tend to be geographically mobile, the study made additional efforts to track sample respondents who relocated after the baseline round in 2007. Such tracking allowed us to follow mobile respondents' socioeconomic and demographic behaviors. This is especially important since marriage itself often results in moving to a new village or town. Tracking proved important for ensuring re-

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[1] The issue of recall bias in reporting events is also relevant for migration data. For example, lacking panel data which follows movers over time, studies may need to use life history calendars to collect information on moves, the timing of moves, and the reason for the move. This is the approach of Reed, Andrzejewski, and White (2010) in their study of how migration links with education, employment, marital status and childbearing in Ghana.

contact rates; more than one-quarter of respondents physically moved during the course of the panel. Further, in addition the efforts to track, the frequent surveys (3/4 of the sample is interviewed bi-annually) make the data well-suited for this study. Partnership behaviors change rapidly and reliance on retrospective information with long recall periods introduces noise into the empirical analysis. Using data on marriage aspirations and fertility intentions and outcomes in the MTM, this study explores how unexpected fertility for not-yet-married young adults impacts marriage transitions.

The MTM sample was a random sample stratified, stratified by distance to main trading centers of 60 Enumeration Areas, out of a possible 215, from the Salima district of Malawi. To ensure capture of a sufficient number transitions from singlehood to first marriage over the course of the panel, we stratified was stratified by age for men and women, based on the known timing of marriage in other household survey data in Malawi. Within each EA, we selected 20 core respondents, 10 women and 10 men. The Table below shows the target sample age distribution by sex and the realized sample sizes. In the few EAs with an insufficient number of never-married women and men in the target age-range, an adjacent age-eligible person was selected at random.

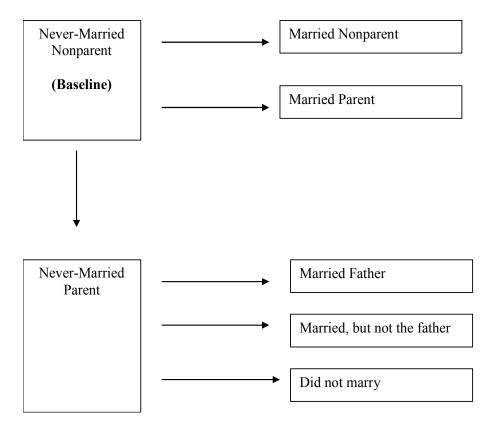**Table 1. MTM 2nd Stage Sample Design: Sample of Never Married Adults**

Female			Males		
Age	Target sample	Actual sample	Age	Target sample	Actual sample
13	0	1	14	0	1

14	0	27	15	0	1
15	60	124	17	0	15
16	180	154	18	60	82
17	180	120	19-20	180	223
18	120	84	21-22	300	201
19-21	60	87	23-25	60	63
23	0	1	26	0	1
Total	600	598	**Total**	600	587

Note: Actual sample is the sample from the baseline household survey collected in summer 2007.

The study analyses will primarily consist of multistate life table framework.   Multistate life table estimates are useful for examining the rates of movement from one state to another. For each state reported by respondents (became pregnant, got married, etc.), the month and year of each event is known. We are interested in several states following baseline status of never-married, never had a premarital pregnancy. It is possible that by the end of the survey (September 2009), young people will never had moved from this state. Other possible transition states include (1) Married, but not to the parent of the child; (2) Married the parent; etc. (See Figure 1).

Figure 1. Multistate Model Depicting Possible Transitions from Never-Married Parent

Never-Married Nonparent **(Baseline)**	→	Married Nonparent
	→	Married Parent

Never-Married Parent	→	Married Father
	→	Married, but not the father
	→	Did not marry

For instance, we will be able to compute the probability of age-specific marriage rates which is defined as the probability of marrying between ages X and Y ($X<Y$); that is, the conditional probability of marrying at age Y given that he/she remained single until age X. We take advantage of newly-collected, prospective panel data that tracks initially never-married adolescents in short time intervals as they enter into adulthood and people become pregnant and marry for the first time, dramatically reducing bias inherent in data generated from retrospective reporting.

Tables 2 and 3 provide basic tabulations showing the proportion of women and men in the sample, by had a premarital pregnancy (for men, whether they had impregnated their girlfriends), and subsequent marital outcome. Among several interesting findings, one is that among the women with a premarital pregnancy, 40% did not marry the parent. These findings will be explored further in the multistate framework.

Table 2. Had premarital pregnancy (PMP), marital outcome (N=240)

Had a premarital pregnancy	Did not marry		Married the parent		Married, but not the parent		Married, but not clear whether the parent		Total	
	No. Cores	% of PMPs	No. Cores	% of PMPs	No. Cores	% of PMPs	No. Cores	% of PMPs	No. Cores	% of PMPs
Women	53	41.09	63	48.84	12	9.30	1	0.78	129	100
Men	56	50.45	35	31.53	17	15.32	3	2.70	111	100
Total	109	45.42	98	40.83	29	12.08	4	1.67	240	100%

Table 3. No premarital pregnancy, marital outcome (N=945)

No premarital pregnancy	Stayed single		Got Married		Total	
	Number of Core Respondents	% of those with no PMP	Number of Core Respondents	% of those with no PMP	Number of Core Respondents	% of those no PMP
Women	318	67.66	153	32.34	471	100
Men	382	80.59	92	19.41	474	100
Total	700	74.15	245	25.93	944	100

References

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