Ethnic-Based Nuptial Regimes and Marriage Behavior in Indonesia

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How persistent are ethnic-based nuptial regimes in the face of rapid modernization in a developing country context? Do cultural norms related to marriage influence actual marriage behavior? Many societies and ethnic subgroups have clear rules for mate selection, new household formation, gifts and transfers at marriage, and inheritance, all of which shape expectations for the appropriate age at marriage and post-marriage residence (Caldwell, Reddy, & Caldwell, 1983; Malhotra & Tsui, 1996). For example, age at marriage is generally later in societies (or subgroups) that expect a newly married couple to establish their own household (Hajnal, 1982). In Latin American and Southeast Asia, there is evidence that longstanding cultural norms continue to influence marriage timing and behavior even during rapid economic development (Fussell & Palloni, 2004; Hirschman & Nguyen, 2002; Pramualratana, Havanon, & Knodel, 1985).

In this study we use a unique dataset from Indonesia to examine the association between ethnic nuptial regimes and observed behaviors for adults born 1951-1980. Using reports from traditional law ("adat") experts, we compare expectations for age at marriage and post-marriage residence with actual marriage behaviors. We first test whether the ethnic-based norms for traditional age of marriage are associated with marriage hazard, and whether this association has changed over time. We then evaluate whether the expectation of residence with either the bride's or the groom's family after marriage is associated with the likelihood that the couple will live with either family after the wedding. We also test whether this association has changed over time. In both analyses we examine the role of education in mediating the relationship between ethnic norms and marriage behavior. Indonesia has experienced rapid increases in educational attainment since the 1960s. This increase in exposure to secondary education in particular may be an important source of ideational change that attenuates the importance of adat norms for couples making marriage decisions.

MARRIAGE, EDUCATION, AND ADAT LAW IN INDONESIA

Indonesian marriage trends resist oversimplification. Several of the empirical regularities that characterize changes in marriage behavior in other developing countries are not evident in Indonesia. Early marriage is more common and marriage more universal than in other Southeast Asian countries. This is particularly true for the Javanese, Indonesia's largest ethnic group (Williams, 1989, 1990b). While these features of Indonesian nuptial regimes might be considered "traditional," Indonesian women simultaneously enjoy a comparatively high status and financial independence within marriages (Williams, 1990a).

Like many countries in transition, Indonesia witnessed both increases in age at marriage and significant improvements in educational attainment during a recent period of strong and sustained economic growth. From 1965 to 1997, the percentage of women aged 15 to 19 who completed primary education increased from 17 percent to more than 50 percent. For this entire period, GDP in Indonesia increased at nearly 5 percent a year. As may be expected, these decades were also marked by notable

delays in marriage. In 1971, 37 percent of women aged 15 to 19 were ever married. By 2003, this was true for less than 10 percent of 15-19 year old women.

A unique aspect of the Indonesian marriage context is the importance of traditional ethnic-based law. Called adat law, these local legal systems outline specific obligations and expectations for various social and economic relationships, including marriage. Indonesia's many ethnic groups, which can be broadly categorized into bilateral, patrilineal and matrilineal traditions, vary considerably in the value of gifts given by the bride's and groom's families, the responsibility for wedding costs, and the living arrangements of the newly married couple. Ethnic groups also vary in the importance that different ethnicities ascribe to adat law. In Table 1, responses from adat experts from five of the major ethnic groups provide evidence of this variation. For example, half of Javanese adat experts report that the newly married couple lives with bride's family; the corresponding proportion is zero for Balinese adat experts and 100 percent for Banjar experts. Similary, ethnicities vary in degree to which the ability to afford a separate household determines length of residence with parents after marriage.

DATA

For this study we use rich data from the Indonesia Family Life Survey (IFLS). IFLS was first fielded in 1993 and sampled over 7,200 households in fourteen Indonesian provinces representing over 83 percent of Indonesia's population. The second and third waves, IFLS2 (1997) and IFLS3 (2000), respectively, each successfully re-interviewed over 94 percent of initial IFLS households, including newly formed "split-off" households and households that had moved. Attrition rates in the IFLS are very low. The survey collects detailed household and individual-level data, including marriage, education and migration histories for both men and women. At the community level, IFLS includes interviews with village leaders and, in 1997, with experts in local adat law and traditional customs. The adat interviews are a particularly distinctive feature of the IFLS.

For our analysis we construct an analytic sample of all IFLS1 household members who were age 20-49 in 2000. From this group we retain those respondents who are present in an IFLS household in either 1997 or 2000 (or both) and can thus provide detailed information on age, own educational attainment, parents' educational attainment, residence at age 12, ethnicity, marital status, and year of marriage if married. We measure educational attainment in an indicator variable that equals 1 if the respondent completed any secondary school and 0 if not. Mother's and father's education is measured similarly. Residence at age 12 is an indicator variable equal to 1 if the respondent lived in a city or town at age 12 and 0 if the respondent lived in a village. The year of first marriage is calculated from marriage histories. Ethnicity is assigned to respondents based on the reported ethnicity of the respondent's current household. Ethnicity is then used to assign adat norms to individual respondents.

To capture marriage norms as specified in adat law, we create four variables from the adat expert responses. The first two measures are the expected age of marriage for men and for women. A third categorical variable captures the expectation for post-marital residence of the couple: the couple lives with one or other set of parents, the couple establishes its own residence, or there are no rules or expectations for post-marital residence. The fourth adat variable is the adat experts' assessment of

the importance of adat law to the community as of 1997. We categorize this assssment into “almost never broken,” “sometimes broken,” and “often broken or not known.” Each of the adat variables was constructed by taking the modal response for all adat experts in a given ethnic group and assigning that value to all individual respondents in that ethnic group. Note that all adat expert interviews took place in 1997; however, we assign these adat norm variables to respondents who married over three decades. We address this problem in two ways. First, for every question posed to the adat experts, the experts provided two responses: how people traditionally behaved, and how people behave currently. We use only the traditional responses. Second, we include in some of our models the measure of importance of adat law (as assessed by the adat experts in 1997) to control for changes in adherence to adat law over time.

METHODS

To estimate the odds of transitions into first marriages, we generate person-year records for each respondent from age 12 (the earliest exposure to hazard of marriage in our sample) until the first marriage occurs or until the respondent is censored in 1999. For example, a woman who is 35 in 2000 and married at age 24 will have 13 observations: one for each year from ages 12 to 24. Our final sample includes 117,271 person-year records from 10,743 individuals ages 20-49 in 2000.

We create time-varying measures of respondent’s age and calendar year as well as time-invariant measures of adat marriage norms, whether the respondent started secondary school, urban residence at age 12, and parent’s education. Using a discrete-time hazard framework, we estimate logistic binary regression models on pooled person-year observations (Allison, 1982). Let P_{it} be the conditional probability that individual *i* marries at time *t,* given that individual *i* was not married earlier than time *t.* Then, we estimate:

$$\ln\left(\frac{P_{it}}{1-P_{it}}\right) = \alpha_t + \beta X_{it} + \gamma Y_i$$

where *X* is the vector of time-varying covariates, *Y* is the vector of time-invariant covariates, and α, β and γ are parameters to be estimated. We estimate separate models by gender because of previous research demonstrating important differences in the process of marriage entry for men and women in Indonesia (e.g., Jones, 1994; Malhotra, 1997). We estimate robust standard errors by adjusting for clustering at the community level.

Our preliminary analysis includes eight regression models for women only. First we model the hazard of marriage as a function of the ethnic-specific traditional age at marriage for women, plus a set of controls including age and age squared, year, parental education, and urban residence at age 12. Province and urban residence at the time of interview are included to adjust for the IFLS sampling scheme. Next we include two additional terms: whether the respondent completed any secondary school, and the interaction of the traditional age at marriage and the secondary schooling variable. This second model allow us to test whether education moderates the relationship between traditional ethnic marriage norms and marriage hazard. To examine this relationship over time, we next stratify the sample into three birth cohorts: 1951-1960, 1961-1970, and 1971-1980. This allows the effects of both the focal variables (traditional age at

marriage, secondary schooling, and their interaction) and the other control variables to vary by cohort. We then repeat both of the analyses described above for each cohort.

PRELIMINARY RESULTS

Results for the eight preliminary models are presented in Table 2. Model 1 suggests that a higher traditional age of marriage for women is associated with a lower hazard of marriage. Each additional year reduces the hazard by seven percent. This effect is robust to the addition of the secondary schooling variable and the schooling * age at marriage interaction in Model 2. Secondary schooling considerably reduces the hazard of marriage for this sample, but schooling does not appear to condition the relationship between the ethnic norm for marriage age and marriage hazard. Columns 3-8 present results for cohort-specific models. The oldest cohort, born 1951-1960, shows no significant associations of either traditional age at marriage or education with marriage hazard. This cohort passed through its peak marriage years in the 1970s, before the significant expansion of secondary education and before economic development exerted a strong downward pull on marriage rates. The results are consistent with the idea that age at marriage was universally low for this cohort and not responsive to either to ethnic-based norms or to the ideational or other effects of secondary education.

Columns 5 and 6 show results for the middle cohort, born 1961-1970 and marrying primarily in the 1980s. Here we note that traditional age at marriage is still not significantly associated with marriage hazard, but secondary schooling is. This cohort witnessed rapidly increasing rates of secondary education, and these results suggest that those who did pursue secondary education experienced a very different entry into marriage than those who did not. Our results are not able to distinguish whether this association is causal (i.e. secondary education led directly to delays in marriage) or whether girls who pursued education in this period were a selective group who would also delay marriage for other reasons.

The final two columns reveal that the youngest cohort in our analysis, born 1971-1989 and marrying during the 1990s, experienced yet another relationship between ethnic marriage norms, education and marriage hazard. Here the traditional at marriage is significant in both models, reducing the hazard of marriage by more than 10 percent for each additional year. Secondary schooling is not significant, though it is interesting to note that this is the only cohort for whom mother's secondary schooling is significant, also reducing the hazard of marriage considerably. What conclusions can we draw from this cohort? Results are consistent with a growing influence of cultural norms for younger marriage as real age of marriage and educational attainment for women increase. In earlier cohorts, differences in traditional age at marriage made little difference as marriage was universal and fairly early for women. As marriages are delayed as a consequence of economic development and modernization, each woman's hazard of marriage is more susceptible to ethnic-based expectations.

FUTURE WORK

Several extensions and refinements of this study are planned. We will extend the analysis presented here on marriage hazard to men. We will also conduct a separate set of analyses looking at the relationship between adat norms for post-marriage residence and actual post-marriage residence. As with the analyses presented here, we

will investigate the role of education in moderating this relationship over time. We will then link these analyses to determine whether expectations for post-marriage residence predict marriage timing through the mechanism of relative marriage costs. Finally, we plan to incorporate the measure of adat law importance to more accurately capture the role that ideational factors may play in the changing relationship between ethnic-based nuptial regimes and marriage behaviors in Indonesia.

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Table 1: Responses of community adat experts on norms related to importance of adat (traditional) law and marriage customs, by selected ethnic groups, 1997 (N=192).

	Javanese	Sundanese	Balinese	Banjar	Batak
Adat law is very important and rarely broken	31%	18%	18%	45%	0%
Where does couple live after wedding?					
With bride's family	47%	44%	0%	100%	20%
With groom's family	11%	5%	73%	0%	70%
On their own	11%	18%	7%	0%	0%
No rules, depends on circumstances	31%	33%	20%	0%	10%
How long does couple live with parents?					
Couple does not live with parents	42%	53%	27%	0%	10%
A specific amount of time	19%	11%	7%	0%	10%
Until couple can afford own household	28%	18%	40%	55%	10%
No rules, depends on circumstances	21%	18%	27%	45%	70%
Number of adat expert respondents	117	39	15	11	10

Source: Indonesia Family Life Survey, Wave 2 (1997)

Table 2. Odds ratios from discrete time hazard models predicting entry into first marriage, Indonesian women born 1951-1980 [N=53,570].

	All respondents		1951-1960 Birth Cohort		1961-1970 Birth Cohort		1971-1980 Birth Cohort	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Traditional age at marriage for women	0.933	0.939	0.958	0.978	0.94	0.946	0.887	0.865
	[2.78]**	[2.21]*	[0.82]	[0.37]	[1.39]	[0.93]	[2.02]*	[2.01]*
Some secondary schooling		0.334		2.109		0.173		0.167
		[2.62]**		[1.01]		[2.34]*		[1.74]
Secondary schooling * Traditional age at marriage		1.041		0.947		1.077		1.073
		[1.61]		[1.26]		[1.65]		[1.14]
Year	0.984	0.99	1.003	1.002	0.989	1.002	0.955	0.966
	[5.64]**	[3.43]**	[0.24]	[0.20]	[1.15]	[0.18]	[3.88]**	[2.86]**
Age	2.069	2.095	1.641	1.649	2.152	2.181	3.861	3.931
	[24.71]**	[24.72]**	[11.98]**	[11.97]**	[16.90]**	[16.83]**	[13.92]**	[13.96]**
Age squared	0.986	0.986	0.99	0.99	0.985	0.984	0.972	0.972
	[22.27]**	[22.49]**	[11.56]**	[11.57]**	[15.84]**	[16.04]**	[11.40]**	[11.46]**
Urban residence at age 12	0.849	0.892	0.824	0.838	0.883	0.938	0.863	0.919
	[3.47]**	[2.40]*	[2.72]**	[2.45]*	[1.92]	[1.01]	[1.44]	[0.82]
Mother: at least some secondary school	0.743	0.784	0.835	0.854	0.855	0.936	0.67	0.723
	[4.56]**	[3.68]**	[1.61]	[1.33]	[1.70]	[0.71]	[3.50]**	[2.83]**
Father: at least some secondary school	0.693	0.788	0.764	0.803	0.683	0.794	0.64	0.761
	[6.60]**	[4.32]**	[2.85]**	[2.28]*	[4.85]**	[2.79]**	[4.43]**	[2.69]**
Observations	53750	53750	14911	14911	20108	20108	18731	18731

Robust z statistics in brackets

* significant at 5%; ** significant at 1%

Models also control urban residence at time of interview and province to account for the IFLS sampling scheme.