ECON 340: Economics of the Family
TA Session 2

Vaidehi Parameswaran (Northwestern Economics)

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Today

▶ The Economics of Dowry and Brideprice

▶ Bride Price and Female Education — Ashraf et al., 2020

Prevalence of Marriage Payments

- Bride price—dates back to 3000 BCE in Egyptian, Mesopotamian, Hebrew, Aztec, and Inca civilizations.
- Dowry—dates back to Greco-Roman times.
    - In contemporary times, it is most extensively documented in India.
- Payments are often very large relative to income.

Magnitude of Marriage Payments

Table 3
Marriage Transfers from the Groom's Side

Society	Time period	Average payments	Magnitude of average payments
Germanic Tribes:			
Visogoths (Spain)	9th century		1/10 husband's wealth (Quale, 1988)
Lombards (Italy)	9th century		1/4 husband's wealth (Quale, 1988)
Franks (France)	9th century		1/3 husband's wealth (Quale, 1988)
Asia:			
Rural interior provinces (China)	1960–2000	538 yuan (1985)	82% of value of household durables (Brown, 2003)
Rural south west (China)	1983–1987	700 yuan (1987)	1.1 × per capita annual income (Harrell, 1992)
Rural east Szechwan	1966–1981	109 yuan (1980)	1 × per capita annual income (Lavely, 1988)
Middle East:			
Palestine	1920s	£49 (1925)	8 years of income for landless agricultural laborer (Papps, 1983)
Urban Iran	1971–1991	1,807,200 Iranian rials (1980)	$7059 (Habibi, 1997)
Sub-Saharan Africa:			
Rural Zimbabwe	1940–1995	8–9 cattle	2–4 × gross household annual income (Dekker and Hoogeveen, 2002)
Bantu tribe (southern Africa)	1955	100 goats	Larger than average herd size per household (Gray, 1960)
East African herders	1940–1978	15–50 large stock	12–20 × per capita holdings of large stock (Turton, 1980)
Uganda	1960–2001	872,601 shillings (2000)	14% of household income (Bishai and Grossbard, 2006)

Notes: In the China cases, a proportion of the brideprice is returned to the groom's household in the form of a dowry property for daughters. In the Brown (2003) study, average brideprices are equal to 2.2 times average dowries. Similar proportions follow for Harrell (1992) and Lavely (1988).

Magnitude of Marriage Payments

Table 4

Marriage Transfers from the Bride's Side

Society	Time period	Average payments	Magnitude of average payments
Historical Europe:			
Athens	6th Century BC		10% bride's father's wealth (Quale, 1988)
Mediterranean Jews	969–1250	150–1500 dinars	800 dinars could maintain a family for 30 years (Goiten, 1978)
Tuscany	1415–1436	125.5 florins	20% bride's household wealth (Botticini, 1999)
Urban Tuscany	1420–1436	1507.7 lire	6× annual wage of skilled worker (Botticini and Siow, 2003)
Florence	1475–1499	1430 florins	3× average fiscal wealth per household (Molho, 1994)
Colonial Latin America:			
Mexico	1640–1790	1000–5000 pesos	Equal to the cost of 3–16 slaves (Lavrin and Couturier, 1979)
South Asia:			
Rural Karnataka (India)	1960–1995	66,322 Rupees (1995)	6× annual village male wage (Rahman and Rao, 2004)
Rural Uttar Pradesh (India)	1960–1995	46,096 Rupees (1995)	3× annual village male wage (Rahman and Rao, 2004)
Rural south-central India	1920s–1980s	4,792 Rupees (1983)	68% of total household assets before marriage (Rao, 1993)
Rural Uttar Pradesh (India)	1970–1994	$700	7× per capita annual income (Jejeebhoy and Sathar, 2001)
Rural Tamil Nadu (India)	1970–1994	$769	8× per capita annual income (Jejeebhoy and Sathar, 2001)
Delhi (India)	1920–1984	>50,000 Rupees (1984)	4× annual male income (Paul, 1986)

Today

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Overview

- ▶ Culture is important for economic development.
- ▶ Much more needs to be done to understand the role of traditional practices in development policy.
- ▶ This paper revisits well-studied school construction programs in Indonesia and Zambia.
- ▶ In particular, it aims to understand how bride price impacts the effects of these programs.

Overview of the Model

- ▶ Imperfectly altruistic parents decide on investments in their children's education.
- ▶ After children become adults, there is a matching market for marriage and education is complementary in the marriage market.
- ▶ Bride price is the marital transfer to the bride that is appropriated by the bride's parents.
- ▶ Thus, in equilibrium, the bride price is increasing in the education of the bride.
- ▶ Bride price provides an additional monetary incentive for parents to invest in their daughters' education.
- ▶ When female education rates are low, a decline in the cost of schooling increases education more for girls from bride-price ethnic groups than for girls from non–bride-price ethnic groups.

TABLE 1
DISTRIBUTION OF MARRIAGE CUSTOMS

| | INDONESIA | | | | ZAMBIA | | | |
| | Ethnographic Atlas Only (1) | | All Sources (2) | | Ethnographic Atlas Only (3) | | All Sources (4) | |
	Number	Share	Number	Share	Number	Share	Number	Share
Bride price	14	.48	23	.52	8	.38	11	.37
Bride service	2	.07	4	.09	7	.33	12	.40
Token bride price	2	.07	2	.05	6	.29	7	.23
Gift exchange	3	.10	4	.09	0	.00	0	.00
Female relative exchange	4	.14	4	.09	0	.00	0	.00
Absence of consideration	4	.14	7	.16	0	.00	0	.00
Dowry	0	.00	0	.00	0	.00	0	.00
Total	29	1.00	44	1.00	21	1.00	30	1.00

NOTE.—This table reports the number of ethnicities that practice different traditional marriage customs within Indonesia and Zambia. In cols. 1 and 3, the data on traditional marriage practices are from the *Ethnographic Atlas* (Murdock 1967). In col. 2, the data are from Murdock (1967) and LeBar (1972). In col. 4, the data are from Whiteley and Slaski (1950), Schapera (1953), Willis (1966), and Murdock (1967).
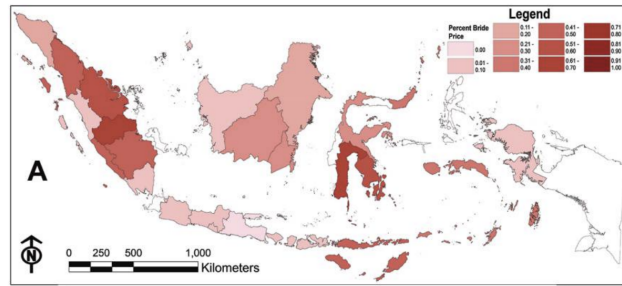
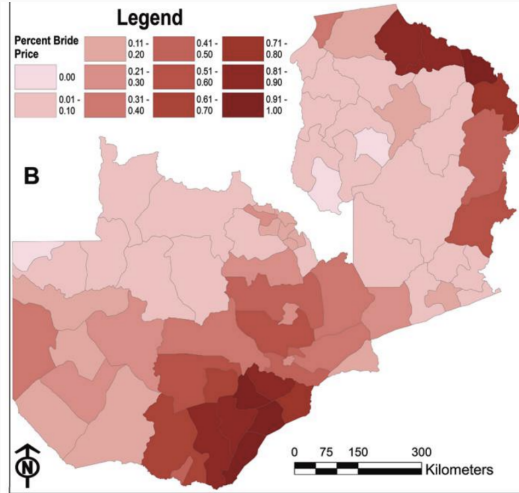**Figure 1:** Bride price in Indonesia

Figure 2: Bride price in Zambia

Prediction 1: Is Matching Assortative by Education?

TABLE 3

DEGREE OF ASSORTATIVE MATCHING IN INDONESIA AND ZAMBIA (Dependent Variable: Indicator Variable for Husband Completed Primary)

	INDONESIA INTERCENSUS		IFLS		ZAMBIA POOLED DHS	
	(1)	(2)	(3)	(4)	(5)	(6)
$I_i^{Wife\ Primary}$	.466***	.460***	.445***	.440***	.534***	.510***
	(.005)	(.016)	(.021)	(.021)	(.016)	(.018)
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]
$I_i^{Wife\ Primary} \times I_e^{BridePrice}$	.022	.022	−.041	−.042	−.006	.004
	(.024)	(.020)	(.031)	(.030)	(.023)	(.019)
	[.424]	[.376]	[.204]	[.186]	[.870]	[.850]
Baseline covariates	Yes	Yes	Yes	Yes	Yes	Yes
Wife Muslim controls	No	Yes	No	Yes	No	Yes
Ethnicity interaction controls	No	Yes	No	Yes	No	Yes
Polygynous marriage controls	NA	NA	No	Yes	No	Yes
Mean of dependent variable	.653	.653	.655	.659	.565	.571
Standard deviation of dependent variable	.476	.476	.475	.474	.496	.495
Observations	107,338	107,338	4,847	4,785	22,793	18,574
Clusters	40	40	17	17	29	29
Adjusted R^2	.367	.367	.338	.336	.348	.336

Figure 3: Assortative Matching

TABLE 4
DETERMINANTS OF BRIDE PRICE PAYMENT AMOUNTS (Dependent Variable: Log Bride Price Amount)

	INDONESIA (IFLS)					2SLS	ZAMBIA (ZFPS)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Wife's education:											
$I_i^{Primary}$	.615***	.579***	.366***	.373***	.285**	2.329**	.002	.023	−.015	−.008	−.027
	(.066)	(.071)	(.077)	(.078)	(.111)	(1.173)	(.137)	(.142)	(.141)	(.141)	(.141)
$I_i^{JuniorSecondary}$	.658***	.672***	.471***	.456***	.391***		.134	.258*	.255*	.279**	.289**
	(.066)	(.070)	(.074)	(.074)	(.097)		(.137)	(.137)	(.142)	(.142)	(.143)
$I_i^{SeniorSecondary}$	.865***	.857***	.468***	.457***	.306***		.384***	.391***	.398**	.396**	.358**
	(.077)	(.078)	(.089)	(.091)	(.115)		(.131)	(.147)	(.153)	(.153)	(.154)
Husband's education:											
$I_i^{H:Primary}$			.237***	.212**	.175				.230	.239	.270
			(.084)	(.084)	(.118)				(.197)	(.197)	(.196)
$I_i^{H:JuniorSecondary}$			.414***	.439***	.470***				.173	.176	.158
			(.077)	(.079)	(.103)				(.164)	(.164)	(.163)
$I_i^{H:SeniorSecondary}$			.532***	.540***	.427***				−.080	−.079	−.070
			(.090)	(.090)	(.114)				(.130)	(.130)	(.129)
F-test for first stage						3.04					
Baseline covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wife marriage age controls	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Husband marriage age controls	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes
Wife's premarital wealth	No	No	No	No	Yes	No	No	No	No	No	Yes
Wife Muslim	No	No	No	No	Yes	No	NA	NA	NA	NA	NA
Polygynous marriage	No	No	No	No	Yes	No	NA	NA	NA	NA	NA

Prediction 3: Do Bride-Price Groups Have Higher Rates of Female Education?

TABLE 5
RELATIONSHIP BETWEEN BRIDE PRICE, FEMALE ENROLLMENT, AND TEST SCORES IN INDONESIA AND ZAMBIA

| | INDONESIA | | | | ZAMBIA | | | | |
| | 1995 Intercensal Survey: Currently Enrolled in School | | IFLS: Standardized Test Score | | Pooled DHS: Currently Enrolled in School | | | ZFPS: Primary School Completion | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$I_e^{BridePrice}$	.041***	.049**	−.126**	−.128	.017	.021***	.012*	.077	.045
	(.014)	(.011)	(.048)	(.061)	(.014)	(.007)	(.006)	(.042)	(.042)
	[.006]	[.026]	[.026]	[.132]	[.260]	[.022]	[.086]	[.146]	[.410]
Age of sample (years)	5–22	5–22	All	All	5–22	5–22	5–22	All	All
Baseline covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Census cluster × survey year fixed effects	NA	NA	NA	NA	No	No	Yes	NA	NA
District fixed effects	Yes	Yes	No	No	Yes	Yes	NA	NA	NA
Ethnicity controls	No	Yes	No	Yes	No	Yes	Yes	No	Yes
Muslim	No	Yes	No	Yes	No	Yes	Yes	NA	NA
Polygynous household	No	Yes	NA	NA	No	Yes	Yes	NA	NA
Mean of dependent variable	.578	.578	.036	.036	.552	.552	.539	.625	.625
Standard deviation of dependent variable	.494	.494	1.023	1.023	.497	.497	.498	.485	.485
Observations	107,994	107,994	2,926	2,926	42,252	42,306	31,212	706	706
Clusters	39	39	17	17	29	29	29	23	23
Adjusted R^2	.405	.407	.088	.086	.349	.393	.412	.028	.028

Prediction 4: Differential Effects of Education Policies

$$y_{iedk} = \beta_1 \, I_k^{Post} \times Intensity_d \times I_e^{NoBridePrice} + \beta_2 \, I_k^{Post} \times Intensity_d \times I_e^{BridePrice}$$

$$+ \alpha_k I_e^{NoBridePrice} + \alpha_k I_e^{BridePrice} + \alpha_e + \alpha_e I_k^{Post} + \alpha_e Intensity_d + \alpha_d I_e^{NoBridePrice}$$

$$+ \alpha_d I_e^{BridePrice} + I_e^{NoBridePrice} \sum_j X'_d I_k^j \Gamma_j + I_e^{BridePrice} \sum_j X'_d I_k^j \Upsilon_j + \varepsilon_{iedk},$$

$$(8)$$

- ▶ A difference-in-differences setup (as in Duflo, 2001).
- ▶ Heterogeneity by the bride-price custom.

TABLE 6

BRIDE PRICE STATUS AND INPRES SCHOOL EXPANSION IN 1995 INDONESIA INTERCENSAL SURVEY (Dependent Variable: Indicator Variable for Completion of Primary School)

	Females (1)	Females (2)	Bride Price Females (3)	Non–Bride Price Females (4)	Females (5)	Females (6)
$I_k^{Post} \times Intensity_d$	−.002 (.007) {.009}		.025** (.013) {.011}	−.001 (.010) {.008}		
$I_k^{Post} \times Intensity_d \times I_e^{BridePrice}$		.025** (.012) {.011}			.035*** (.011) {.010}	.034*** (.011) {.010}
$I_k^{Post} \times Intensity_d \times I_e^{NoBridePrice}$		−.001 (.010) {.008}			.003 (.009) {.006}	.004 (.009) {.007}
Baseline covariates	Yes	Yes	Yes	Yes	Yes	Yes
Ethnicity fixed effects	No	Yes	Yes	Yes	Yes	Yes
Ethnicity fixed effects × I_k^{Post}	No	Yes	Yes	Yes	Yes	Yes
Ethnicity fixed effects × $Intensity_d$	No	Yes	Yes	Yes	Yes	Yes
District fixed effects × $I^{BridePrice}$	No	Yes	No	No	Yes	Yes
Duflo controls × $I_e^{BridePrice}$	No	Yes	No	No	Yes	Yes
Cohort fixed effects × $I_e^{BridePrice}$	No	Yes	No	No	Yes	Yes
Muslim controls	No	No	No	No	Yes	Yes
Ethnicity controls interactions	No	No	No	No	No	Yes

Figure 4: Main Prediction

What the Authors Find

- ▶ Girls belonging to bride-price ethnic groups are more likely to be educated.
- ▶ Bride-price ethnic groups are more responsive to policies aimed at increasing female education.
- ▶ In both Indonesia and Zambia:
  - ▷ For bride-price ethnic groups, the increased supply of schools resulted in a significant increase in female education.
  - ▷ For those without the bride-price custom, the program had no effect on female education.
- ▶ In the context of educational policies, it is not immediately obvious that marriage customs would play a role.
- ▶ A lesson to be learned: culture matters for policy!

See you next time!