# Intergenerational Influences on Children's Marriage Timing

Extended Abstract for PAA Submission 26 September 2014

(preliminary results: please do not cite without permission)

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## Abstract

A large body of research, mostly focused on industrialized countries, has documented strong parental influence on children's marital behavior. However, in non-Western, agrarian settings that historically hold more collective orientations emphasizing the family, this effect might be even stronger. This paper investigates intergenerational influences on marital behaviors in a predominantly arranged marriage society that stresses selfless subordination to family and extended kinship: rural Nepal. We construct a new framework– parents' social and human capital as measured in family and nonfamily experiences and household characteristics – specifically designed to extend established frameworks to the study of radically different social and economic contexts. We use unique panel data featuring a representative sample of linked parent-children pairs, with parents' own reports of their behaviors, experiences, and household characteristics, and twelve years of monthly panel data on children's subsequent marital behavior. We further illuminate context-specific mechanisms likely to create important differences between fathers' and mothers' intergenerational influences.

## **INTRODUCTION**

This paper investigates intergenerational influences on marital behaviors in a predominantly arranged marriage society that is currently experiencing dramatic socioeconomic and political changes. Contrary to the prevailing western view of marriage as a private, secular contract based on consent and affection between two autonomous individuals, a large body of research has documented strong parental influence on children's marital behavior (Axinn & Thornton 1992a, 1992b, 1993; Barber 2000, 2001a, 2001b; Bavel & Kok 2009; Buunk, Park & Duncan 2009; Marini 1978; McLanahan & Sandefur 1994; Rindfuss et al. 1984; Thornton, Axinn, & Xie, 2007). This effect has been and continues to be important in all societies. However, it is particularly relevant in non-Western, agrarian settings, such as that of rural Nepal, that emphasize the importance of living parents and dead ancestors, selfless subordination to family and extended kinship, and low personal freedom and independence (Goode 1959; Macfarlane 1986; Buunk and Hupka 1986). Despite this strong intergenerational relationship in this setting, research thus far has focused on Western, industrialized societies that stress individualistic orientations, such as youth independence and personal freedom.

We expect important parental influence in non-western settings for several reasons. First, compared to Western societies, Asian societies historically hold more collective orientations toward social life, emphasizing subordination to senior kin (Goode 1970; Sastry & Ross 1998; Thornton et al. 1994). Second, as Asian societies practice early marriage, the decisions about family formation have historically been considered as too important to be left to the young themselves, making parents important decision makers in their children's family formation behaviors (Gray 1991; Macfarlane 1976, 1986; Watkins 1996; Weiss 1996). Third, in many rural Asian settings parental inheritance is still the primary source of wealth, and young people, particularly sons, continue to reside in the parental household until well into adulthood (Cain 1981a, 1981b; Gertler & Lillard 1994), giving parents a great deal more opportunity to influence their children.

Nevertheless, non-western societies are experiencing dramatic socioeconomic and political changes that are likely to undermine historically held social orientations. These changes have important consequences for both parents and children, and understanding the role of parental influences on children's family formation processes is critical. This is because marriage, as the first step toward family formation, is a key dimension of the transition to adulthood. The timing of marriage has wide-ranging implications for other dimensions of life, affecting subsequent life course decisions, experiences, and well-being of the children (Freedman & Thornton 1979; Furstenberg et al. 1983, 1987; Hayes 1987; Hogan 1981; McLanahan & Sandefur 1994; Rindfuss and Morgan 1983) and the parents as well.

This paper contributes to our understanding of intergenerational influence in three important ways. First, it provides a unique opportunity to investigate the cultural breadth of parental influence on children in a setting that has radically different sociopolitical, economic and cultural context than western settings. Furthermore, the empirical evidence that comes out of this investigation will provide the means to verify the potentially universal nature of this relationship across settings. On the other hand, deviation from what have been observed previously will provide crucial empirical insight into the nature and limits of this mechanism. Second, we construct a new framework for the study of intergenerational influence – parents' social and human capital as measured in family and nonfamily experiences and household characteristics – specifically designed to extend established frameworks to the study of radically different social and economic contexts. Finally, we illuminate context-specific mechanisms likely to create important differences in the consequences of fathers' versus mothers' social and human capital. This juxtaposition is an especially important advancement because the influence of each parent may depend on the role they hold within the family. Identification of context-specific mechanisms in a radically different family context provides an essential contrast to potential parental gender differences in settings such as the United States (Goldstein Schuler & Ross 1983).

These advances are possible because of unique panel data spanning more than a decade that document change and variation in rural Nepal. These data provide an ideal opportunity to investigate parental influences on marriage for two important reasons. One, the setting is currently undergoing rapid socioeconomic changes that shift the organization of individuals' daily activities to outside of the domestic sphere. Two, they feature a representative, general population sample of linked parents-children pairs, with parents' own reports of their marital and childbearing behaviors, non-family experiences, and household characteristics, as well as twelve years of monthly panel data on children's subsequent marital behavior. Together, these measures allow for a more comprehensive examination of intergenerational influences on marriage timing.

## THEORETICAL FRAMEWORK

Children have historically been born into a family where they have been supervised, socialized and raised by parents, thereby obtaining their basic attitudes, beliefs, and approaches to family life from them. Despite the popular sentiment that "individuals are born free and equal" and free to choose their own destiny, a large body of literature from Western settings shows substantial influence of the parental generation on their children. As mentioned above, little is known about these influences in non-Western settings, where these effects are likely to be even stronger. To investigate the intergenerational transmission of marital behavior we draw on two theoretical perspectives: the social learning – socialization and social control – framework (Bandura 1986; Campbell 1969; Chodorow 1978), and the mode of social organization framework (Axinn and Yabiku 2001; Thornton et al., 1994; Thornton and Fricke 1987). *Social learning framework* 

Socialization and social control are two important ways that parents influence their children's behavior. First, through socialization, parents affect their children's behavior by influencing how their children *want* to behave. Here, parents' preferences for their child shape the child's own attitudes, preferences, and intentions. One mechanism producing this result is modeling, in which children's observations of their parents shape the children's own attitudes, preferences, and intentions (Bandura 1986; Campbell 1969; Chodorow 1978). Another mechanism involves active parental socialization techniques, such as support and control (Baumrind 1978; Gecas & Seff 1990; Smith 1988). A third way is through their shared social positions, background, and experiences: children may behave in accordance with their parents' preferences simply because their parents' preferences and their own opportunities were shaped by the same social forces (Bengtson 1975).

Second, in contrast, parents influence their children's behavior *independent* of children's attitudes via social control techniques. Social control refers to parents' attempts to get their children to behave in ways that parents find appropriate, or to children's altering of their behavior simply to please their parents. These influences operate independently of how children themselves might prefer to behave. They affect children's behavior through mechanisms other than children's own attitudes, such as punishment or rewards (Gecas & Seff 1990; Smith 1988). Parental resources are a particularly important source of social control. Parents may use their

resources to subsidize some alternatives, making some behavioral choices easier for children to implement than others (Axinn & Thornton 1992b; Waite & Spitze 1981).

## The organization of social activities in the parental home

The modes of organization framework focuses on the social organization of the family and highlights the ways that families intersect with other institutions to organize the basic social activities of daily life. It places families on a continuum from those in which family social networks organize nearly all of life's daily activities to those in which family social networks organize practically none (Thornton & Fricke 1987; Thornton & Lin 1994). The extent of family organization affects the individuals' social interactions with family and nonfamily members and can motivate differences in family formation behaviors. This framework has proved useful for understanding shifts in family formation behavior in Asian countries (Axinn 1992; Axinn & Yabiku 2001; Thornton & Lin 1994).

Social interaction outside the family in the parental generation is likely to lead to an expanded emphasis on nonfamily institutions and less positive attitudes toward family formation among parents. Previous research shows that nonfamily living arrangements reduce the desire for marriage and for children (Axinn & Barber 1997; Waite et al. 1986). Other nonfamily experiences – including those in work, educational and consumption settings – are all likely to produce similar consequences (Coleman 1990; Thornton & Fricke 1987; Thornton & Lin 1994). Parents with high levels of nonfamily interaction are less likely to emphasize marriage and childbearing and more likely to be open to contraception to delay or stop childbearing. Studies from Asia have shown that children who report that their mothers had high levels of nonfamilial experiences during their children's early childboad have lower rates of marriage and childbearing and higher rates of contraceptive use to stop childbearing (Axinn & Barber 2001; Axinn & Yabiku 2001; Choe et al. 2001, 2005; Satayavada & Adamchak 2000; Suwal 2001).

### **Important Dimensions of the Parental Family**

Building from these overarching theoretical principles, our framework identifies multiple dimensions of the parental family likely to influence children's family formation behaviors, including: (a) parents' family behaviors; (b) the organization of social activities in the parental home (parents' nonfamily experiences); and (c) parents' resources (household characteristics). While the vast majority of evidence of these mechanisms comes from Western settings, we have good theoretical reasons to expect them to be important in rural Asia as well, and the literature from Asian settings is consistent with these expectations.

*Parents' family behaviors*. There is a growing body of research demonstrating intergenerational influences of parental family behavior on children's family formation. One of the most well established of these is the strong positive association between parents' childbearing experiences and their children's childbearing behavior, including both timing of the first birth and completed family size (Anderton et al. 1987; Barber 2004; Duncan et al. 1965; Johnson & Stokes 1976; Kahn & Anderson 1992). Similar associations have been documented between parents' marital experiences and their children's marital behaviors (Axinn & Thornton 1992b; Kobrin & Waite 1984; Thornton 1991). While evidence of these behavioral effects from Asia rarely comes from independent interviews from parents and children, it appears that parental marital and childbearing experiences have similarly strong effects on their children's behavior in these regions as well (Cain et al. 1979; Feng & Quanche 1996; Knodel et al. 1990; Knodel & Wongsith 1991; Thornton et al. 1986; Thornton & Lin 1994).

There is also reason to expect that parental family experiences will influence children across family formation domains. We know from Western settings that parental fertility experiences shape their children's marital behavior, parents' marital experiences shape their children's fertility behavior, and parental divorce experiences shape both children's marital and fertility behaviors (Barber 2000; Barber & Axinn 1998b; Goldscheider & Waite 1991; Hogan & Kitagawa 1985; Kobrin & Waite 1984; McLanahan & Sandefur 1994; Thornton 1991; Wu 1996; Wu & Martinson 1993). In the Nepalese setting such effects across domains are also likely.

Further, Nepal is in the midst of a transition from nearly all marriages being arranged by parents to a substantial fraction of marriages based on young people's own choices (Ghimire et al. 2006). As such, intergenerational influences may vary based on the level of children's participation in spouse choice, as well as the parents' own experiences. Both theory and research suggest that a shift from parent-controlled arranged marriage to individual-choice marriage can bring about a fundamental change in family dynamics and fertility (Caldwell 1982; Goode 1982; MacFarlane 1986; Malhotra 1991; Rindfuss & Morgan 1983; Shorter 1975).

*Parents' nonfamily experiences.* Rural Nepali society is characterized as having a family-centric social life with individuals' daily social activities organized around large families. This is evident in young ages at marriage, high level of parents' involvement in when and to whom their kids should marry, shared family responsibility to raise offspring, and a high degree of family solidarity and loyalty toward seniors. However, the proliferation of nonfamily services and institutions has led to increased time spent outside the family, resulting in new socialization forces (Ghimire et al 2006; Hoelter et al 2004; Waite et al 1986). Research documents the strong effects of two key nonfamily experiences - education and work - on family-related attitudes and behaviors (Caldwell et.al.1983; Macfarlane 1986; Thornton et.al.1994a).

First, education influences marriage timing by shaping associated aspirations and attitudes. The mere exposure to education has been found to alter individuals' educational aspirations by changing how they understand future labor market success, highlighting the idea that educational attainment works to expand occupational options (Sewell and Hauser 1975; Sewell et al 1970). In this case, educated parents aspire for their children to obtain an education as well so as to be more employable in the future. Once in school, then, education itself exposes individuals to a unique social environment supporting individual growth and knowledge accumulation during young adulthood – a highly influential life stage (Alwin et al 1991; Axinn and Yabiku 2001; Krosnick and Alwin 1989). In a setting like Nepal, education also exposes individuals to new ideas due to the origin and nature of educational materials (Caldwell et al 1988; Thornton 2005). These textbooks and syllabi tend to promote attitudes associated with these richer European nations: individualism, smaller families and high educational attainment. Research indicates that this exposure shifts attitudes and expectations away from historical family orientations toward those emphasizing personal development and independence (Waite et al 1986; Goldscheider and Waite 1991; Goldscheider et al 1986). We know from Western settings that highly educated parents have less restrictive attitudes toward divorce and premarital sex and higher ideal ages at marriage for their children (Axinn & Thornton 1992b; Thornton 1985; Thornton & Camburn 1987; Waite & Spitze 1981). Thus, parental education both strengthens these attitudes, as well as weakens those supporting opposite or competing behaviors, such as early transition to marriage (Blossfeld and Huinink 1991; Ikamari 2005).

Second, non-family work experience is another venue of social interaction occurring outside the parental home. These places provide social interaction among young people and open opportunities for the spread of new ideas and the creation of shared experiences, altering the ideas that are shared among individuals and accelerating the diffusion of new or innovative ideas (Festinger 1954; Latane 1981; Bongaarts and Watkins 1996). These non-familial occupational networks tend to emphasize broader ideational domains centered on the individual, rather than the family, such as smaller family size and investment in personal achievement (Axinn and Yabiku 2001; Thornton 2005). Similarly, labor and personal networks have been expanding beyond the local neighborhood, leading to increased travel outside of an individual's immediate network. Travel to more urban areas, such as Kathmandu, may alter individuals' attitudes and values in ways that promote new family formation behavior across generations. Parents exposed to these nonfamily networks through work or travel are, like education, expected to support behaviors promoting more individual development for their children.

**Parents' household characteristics.** Due to a lack of economic opportunities in the nonfamily sphere, young children - particularly sons - become dependent on family inheritance and parents' social capital. Children also spend more time under their parents' roof than in Western settings, as it is typical for offspring to live with their parents at least until marriage. Still, parental inheritance remains a primary source of wealth for young couples in settings like rural Nepal, where there is a strong tendency for married sons to co-reside with parents and obey parents' wishes for a lengthy period of time (Caplan 2000; Gray 1995; Maskey 1996; Regmi 2002; Weiss 1996). As such, the parents' economic status is likely to have a strong influence well beyond the children's adolescent years.

Parental social and economic resources - higher levels of education and income - have been found to both slow down the speed of children's entrance into marriage and childbearing and reduce total family size in the West (Axinn & Thornton 1992a; Callens & Croux 2005; Cochrane 1979; Goldscheider & Waite 1986; Heckman & Walker 1990; Hoem et al. 2006; Marini 1978; McLanahan & Sandefur 1994; Waite & Spitze 1981). As noted above, highly educated parents tend to have higher educational aspirations, which are transmitted to their children, and they may provide more assistance with schoolwork itself (Alwin & Thornton 1984; Duncan et al. 1972; Sewell & Hauser 1975). However, an important factor in children's education is parental financial resources, which in a rural agrarian setting like Nepal tends to represented by structural quality of the house, size of the landholding, and livestock. Parents with more economic resources can also provide their children more assistance with educational expenses – particularly key in settings in which children's schooling expenses are considered quite high. These mechanisms work together so that increases in parental social and economic resources are likely to increase children's educational and occupational attainments, in turn delaying their entrance into marriage.

#### **Gender Differences in Intergenerational Influences**

Although Asian societies are characterized by strong collectivism and intergenerational influences, they are also highly gender stratified, which may make intergenerational relationships more gender specific (Jennings, Axinn and Ghimire 2012). Given the complex nature of gender stratification, the intergenerational influences may operate in multifaceted ways. First, as the daily social activities of the parents themselves are organized strictly along gender lines, parental experiences and achievements are likely to greatly vary by gender. Considering the fact that parents are likely to go through different life experiences and specialize in different areas of social life, fathers and mothers may influence their children behavior differently. Also, parental characteristics may have a stronger influence on young women than on young men because of variations in the nature of parent-child relationships. Previous research has shown that mothers

affect their daughters' behavior more than they affect their sons' behavior (Axinn & Thornton 1993). Unfortunately, relatively little is known about why mothers have a stronger impact on their daughters than on their sons. One possibility is that because the mother-daughter bond is the strongest of family relationships (Rossi & Rossi 1990), daughters are more likely to listen to their mothers and to take their mothers' advice. Conversely, sons may be more influenced by their fathers.

Second, in South Asian settings like Nepal, sons often continue to live with their parents well beyond their marriage, and daughters often move to the homes of their in-laws. As a result, parents have longer periods of opportunity to influence their sons than their daughters. This may give parents a stronger influence on sons than daughters. Third, by contrast, parents may have more influence on daughters than sons because daughters are less independent (Acharya & Bennett 1981; Bennett 1983). If daughters have less independence from their parents than sons, then we might expect that both mothers' and fathers' influences on their daughters would be stronger than their influences on their sons. Finally, intergenerational influences may differ for young men and women because parental preferences are different for sons than they are for daughters (Jennings, Axinn and Ghimire 2012; Thornton and Axinn 1993) (Analysis work for this part is in progress). Of important note, these intergenerational influences of mothers and fathers on sons and daughters have been documented to consist of multiple dimensions, including ideational and financial. Our goal here is to evaluate the role of parental experiences and household characteristics, not parental preferences. As such, we do not divulge on the discussion of the role of parental attitudes, but control for those known to influence children's marriage timing.

### **DATA AND METHODS**

The data used for this analysis come from the Chitwan Valley Family Survey in Chitwan Valley, southern Nepal. Initiated in 1996, the study provides a unique opportunity to study family-related attitudes and behaviors alongside rapid changes in community context. The sample was constructed by first dividing the western Chitwan Valley into a set of mutually exclusive neighborhoods of 5-15 households each. Using a multistage cluster design, 171 neighborhoods were selected on an equal probability basis. The 151 neighborhoods consisted of 1,580 households and 4,446 individuals between the ages of 15 and 59. Life history calendars captured accurate annual data on places of residence, military service, schooling, age, ethnicity, employment, and marital status. Beginning in 1997, monthly follow-up interviews collected information about household members on various demographic events, including marriage. We analyze all unmarried men and women aged 15-24 in 1996 whose mother and/or father were alive and interviewed in 1996 (n = 826 mother/child pairs; n = 650 father/child pairs).

#### Measures

Previous research on the social organization of the parental family was almost entirely limited to measures of parents' experiences obtained from their children, creating substantial limitations. Our analyses use measures of parental experiences from the parents themselves. Measures directly from parents are not only likely to be characterized by less measurement error (both random and systematic), but they also cover more domains in much greater detail than children's reports of their parents' behaviors.

*Marriage timing*. Because remarriage in Nepal is a rare event, we focus our analysis on first marriage (Yabiku 2006). Marriage is coded as 0 for every month in which the respondent is not and has never been married and 1 for months in which the respondent marries.

**Parents' family experiences**. Parents' family experiences are assessed using measures taken from interviews with the parents themselves, with separate measures for each parent. *Age at first marriage* is a continuous variable marking the age at which respondents' mother/father married for the first time. Similarly, *age at first birth* is a continuous variable noting the ages at which respondents' parents experienced the birth of their first child. *Participation in spouse choice* is assessed on a scale ranging from 1 to 5, with 1 indicating the mother/father had no choice in his or her marriage, and 5 indicating the parent had complete choice (Ghimire et al 2006). *Number of live births* is a continuous variable noting the number of births the parent has had by 1996.

**Parents' nonfamily experiences.** Three binary measures assess parents' – again, measured separately for mothers and fathers - nonfamily experiences prior to 1996. *Education* indicates whether the parent ever went to school, with 1 indicating they had gone to school and 0 indicating they did not. Similarly, *work for pay* indicates whether the mother/father ever worked for pay by 1996, with 1 indicating they did and 0 that they did not. *Travel ever to Kathmandu* is also binary, with 1 indicating that the parent ever traveled to Kathmandu prior to 1996 and 0 indicating they had not.

**Parents' household characteristics**. Because much of the Nepalese economy is not monetized and the vast majority of households (over 80%) are primarily engaged in agriculture, our measures of household characteristic focus on two key aspects: house quality and ownership of livestock. Our measures of household characteristics are constructed from the responses to household interviews conducted in 1996. *House quality* comes from the responses to a series of questions that ask about what the house wall, roof, and floor is made up of and how many stories the house has. We summed up the responses into a scale of house quality. Our measure of *livestock* comes from responses to questions that assess how many of each of type of farm animal the household has, including cattle (cows and bullocks), buffalos, sheep, goats, and pigs. Multiplying by a standard conversion factor, the numbers of animals were then converted into a livestock unit.

*Controls.* Analyses include a dummy variable for *female*, with 1 indicating female and 0 as male. Gender inequalities in various domains of social life are deeply rooted in Nepalese society (Morgan and Niraula 1995) and marital experiences are expected to vary by gender, particularly marriage timing. We also include a set of dummy variables corresponding to five broad *ethnicity/caste* categories reflecting meaningful distinctions in Nepalese society: Brahmin/Chhetri, Dalit, Hill Janajati, Newar, and Terai Janajati, with Brahmin/Chhetri treated as the reference category. We include *respondent age* in 1996. Position in the life course has been found to be associated with various important life events and transitions, including marriage (Alwin et al 1991). *Mean number of years of nonfamily services* measures the average number of years that the mother/father had five services (school, health service, market, movie theater, employer) within a 15-minute walk by 1996. Lastly, *distance from Narayanghat* marks the distance to urban center, the closest urban area in 1996, measured in kilometers.

## Analytic approach

We employ discrete time event history analysis to test the effects of parents' family and nonfamily experiences and household characteristics on the hazard of children's first marriage, controlling for key family background characteristics. Person-months are the unit of analysis, with respondents considered to be exposed to the risk of first marriage during any month in which they have never been married. We use multilevel logistic regression to account for the clustering of the sample design at the neighborhood level. We present additive effects on the logodds in tables. A positive coefficient indicates an effect that increases the odds of marriage, while a negative coefficient represents one that decreases them.

## **Preliminary results**

Table 1: Descriptive statistics for variables used in analyses

Table 2: Effects of mothers' family and nonfamily experiences and household quality on children's marriage timing

Table 3: Effects of fathers' family and nonfamily experiences and household quality on children's marriage timing

Table 1: Descriptive statistics for variables used in analyses

	Mothers $(N = 826)$					Fathers ( $N = 650$ )			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max	
Parents' family experiences									
Age at first marriage	15.02	3.4	5	33	19.8	4.13	7	34	
Age at first birth	19.07	3.06	12	34	23.74	4.38	10	38	
Participation in spouse choice	1.52	1.31	1	5	2.18	1.69	1	5	
Number of live births	5.4	2.15	1	13	5.44	2.13	1	14	
Parents' nonfamily experiences									
Education	0.16	0.36	0	1	0.55	0.5	0	1	
Work for pay	0.41	0.49	0	1	0.67	0.47	0	1	
Travel ever to Kathmandu	0.27	0.45	0	1	0.42	0.49	0	1	
Household characteristics									
House quality	2.43	0.58	1	3	2.46	0.57	1	3	
Livestock	3.11	2.2	0	17.92	3.11	2.22	0	17.92	
Controls									
Female	0.48	0.5	0	1	0.48	0.5	0	1	
High-caste Hindu	0.57	0.5	0	1	0.56	0.5	0	1	
Low-caste Hindu	0.08	0.27	0	1	0.09	0.29	0	1	
Hill Tibeto-Burmese	0.12	0.33	0	1	0.11	0.31	0	1	
Newar	0.07	0.26	0	1	0.08	0.27	0	1	
Terai Tibeto-Burmese	0.16	0.37	0	1	0.16	0.37	0	1	
Respondent age	17.61	2.33	15	24	17.45	2.23	15	24	
Mean #years 5 services w/in 15-min walk by 1996	17.24	9.45	0	41.6	17.66	9.41	0	41.6	
Distance from Narayangat	8.37	4.09	0.02	17.7	8.3	4.1	0.02	17.7	

		Mother	
Family experiences (mother)			
Age at first marriage	03*	02+	02+
8	(01)	(02)	(02)
Age at first hirth	03*	02+	02
Age at first onth	(02)	(02)	(02)
Dentisingtion in success above	(.02)	(.02)	(.02)
Participation in spouse choice	.04*	.04	.03
	(.03)	(.03)	(.03)
Number of live births	.02	.01	.01
	(.02)	(.02)	(.02)
Nonfamily experiences (mother)			
Education		28*	30**
		(.12)	(.12)
Work for nav		08	07
work for puy		(09)	(00)
Troval over to KTM		(.0)	(.0))
		02	02
		(.09)	(.09)
Household characteristics (mother)			
House quality			04
			(.07)
Livestock			03+
			(.02)
			· · ·
Controls			
Famala	55***	55***	55***
I childle	(08)	.08)	(08)
	(.08)	(.08)	(.08)
LCH	.14	.05	.02
	(.16)	(.17)	(.17)
HTB	.18	.17	.16
	(.14)	(.15)	(.15)
NEW	05	07	09
	(.18)	(.18)	(.18)
TTB	13	19	18
	(15)	(15)	(15)
Respondent age	11***	11***	11***
Respondent uge	(02)	(02)	(02)
Maan Hugara 5 convises within 15 min wells by 1006	(.02)	(.02)	(.02)
Mean #years 5 services within 15-min walk by 1996	00	00	00
	(.01)	(.01)	(.01)
Distance from Narayangat	.04**	.04**	.04**
	(.01)	(.01)	(.01)
Time	.02***	.02***	.02***
	(.00)	(.00)	(.00)
Time squared	00**	00**	00**
· · <b>I</b> · · · · ·	(00)	(00)	(00)
	-	-	-
Intercent	7 58***	7 50***	7 46***
intercept	(10)	(10)	(52)
N (noncon months)	(.48)	(.48)	(.32)
N (person-months)	58065	38065	58065
N (persons marrying)	145	145	145

Table 2: Effects of mothers' family and nonfamily experiences and household characteristics on children's marriage timing

† p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001; one-tailed tests

Family experiences (father)         -01         -00         -00           Age at first marriage         -01         -00         (02)         (02)           Age at first birth         01         -00         -00           Participation in spouse choice         00         0.01         0.01           Number of live births         -02         -02         (03)           Number of live births         -02         -04+         -03           Mosfamily experiences (father)         -         -         -           Education         -         -         -         -           More for pay         -         -         -         -         -           House quality         -         -         -         -         -         -           House quality         -         01         -			Father	
Age at first marriage $-01$ $-00$ $-00$ Age at first birth $(02)$ $(02)$ $(02)$ Participation in spouse choice $00$ $01$ $-00$ Number of live births $-02$ $-04+$ $-03$ Nonfamily experiences (father) $(02)$ $(02)$ $(02)$ Education $-20*$ $-20*$ Work for pay $-09$ $-11$ Travel ever to KTM $-22**$ $-22**$ House quality $01$ $(11)$ $(11)$ It vestock $-03+$ $(09)$ Livestock $-03+$ $(09)$ LCH $18$ $13$ TB $(17)$ $(17)$ NEW $03$ $-04$ $(17)$ $(17)$ $(17)$ NEW $03$ $-04$ $(10)$ $(10)$ HTB $24+$ $19$ $(17)$ $(17)$ $(17)$ NEW $03$ $-04$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(17)$ $(18)$ $(17)$ $(17)$ $(19)$ $(20)$ $(20)$ $(22)$ $(02)$ $(02)$ $(22)$ $(02)$ $(02)$ $(02)$ $(02)$ $(02)$ $(03)$ $(01)$ $(01)$ $(01)$ $(01)$ $(01)$ $(01)$ $(01)$ $(01)$ $(02)$ $(02)$ $(02)$ $(02)$ $(02)$ $(02)$ <td>Family experiences (father)</td> <td></td> <td></td> <td></td>	Family experiences (father)			
Controls       (.02)       (.02)       (.02)         Participation in spouse choice       .00       .01       .00       .01         Number of live births       .02       .02.       (.03)       (.03)         Nonfamily experiences (father)       .02       .02.       (.03)         Education      03       .02       .02.       (.03)         Nonfamily experiences (father)       .02       .02.       (.03)         Education      03       .00       .11       (.11)         Work for pay       .00       .11       (.11)       (.11)         Travel ever to KTM      22**       .22**       .22**         Household characteristics (father)       .01       .00       .00         House quality       .01       .01       .00       .00         Livestock       .03       .04       .03       .04       .03         LCH       .18       .13       .07       .07       .02       .020       .020         TB       .11**       .11**       .11*       .11*       .11*       .11*       .11*         NEW       .03       .04       .06       .09       .09       .020       .20	Age at first marriage	01	00	00
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Intercept       7.16***       6.65***       6.67***         N (person-months)       (.53)       (.57)       (.62)         N (persons marrying)       140       140       140		-	-	-
(.53)(.57)(.62)N (person-months)473354733547335N (persons marrying)140140140	Intercept	7.16***	6.65***	6.67***
N (person-months)       47335       47335       47335         N (persons marrying)       140       140       140		(.53)	(.57)	(.62)
N (persons marrying) 140 140 140	N (person-months)	47335	47335	47335
	N (persons marrying)	140	140	140

Table 3: Effects of fathers' family and nonfamily experiences and household characteristics on children's marriage timing

† p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001; one-tailed tests

## References

- Acharya, L. B. 1998. "Determinants of Fertility in the 1970s and 1990s in Nepal." <u>Contribution</u> to Nepalese Studies 25 (special issues): 95-108.
- Alwin, Duane F., and Arland Thornton. 1984. "Family Origin and the Schooling Process: Early versus late Influence of Parental Characteristics." <u>American Sociological Review</u> 49: 784-802
- Alwin, D.F., R.L. Cohen, and T.M. Newcomb. 1991. Aging personality and social change: Attitude persistence and change over the life span. Madison: University of Wisconsin Press.
- Anderton, Douglas L., Noriko O. Tsuya, and Lee L. Bean. 1987. "Intergenerational Transmission of Relative Fertility and Life Course Patterns." <u>Demography</u> 24(4):467-480.
- Axinn, William G. 1992. "Family Organization and Fertility Limitation in Nepal." <u>Demography</u> 29(4):503-521.
- Axinn, William G. and Arland Thornton. 1992. "The Influence of Parental Resources on the Timing of the Transition to Marriage." <u>Social Science Research</u> 21:261-285.
- Axinn, W. G., and A. Thornton. 1993. "Mothers, Children, and Cohabitation: The Intergenerational Effects of Attitudes and Behavior." <u>American Sociological Review</u> 58(2): 233-46.
- Axinn, William G. and Scott T. Yabiku. 2001. "Social Change, the Social Organization of Families, and Fertility Limitation." <u>American Journal of Sociology</u> 106 (5): 1219-61
- Axinn, William G. and Jennifer S. Barber. 1997. "Living Arrangements and Family Formation Values in Early Adulthood." Journal of Marriage and the Family. 59(3): 595-611.
- Axinn, William G. and Jennifer S. Barber. 2001. "Mass Education and Fertility Transition." American Sociological Review. 66(4): 481-505.
- Bandura, Albert. 1986. Social Foundation of Thoughts and Actions.
- Barber, Jennifer S. 2004. "Community Social Context and Individualistic Attitudes Toward Marriage." <u>Social Psychology Quarterly</u> 67(3):236-256.
- Barber, Jennifer and William G. Axinn. 1998a. "Gender Role Attitudes and Marriage Timing Among Young Women." <u>The Sociological Quarterly</u> 39(1):11-32.
- Barber, Jennifer S., Susan Murphy, William G. Axinn, and Jerry Maples. 2000. "Discrete-Time Multilevel Hazard Analysis." <u>Sociological Methodology</u> 30:201-235.
- Barber, Jennifer S. 2001a. "Communities and Attitudes: The Influence of Exposure and Experiences on Dispositions Toward Marriage." Working paper. Institute for Social Research, University of Michigan.
- Barber, Jennifer S. 2001. "Ideational Influence on the Transition to Parenthood: Attitudes Toward Childbearing and Competing Alternatives." <u>Social Psychological Quarterly</u> 64(2): 101-27
- Bavel, Jan Van and Jan Kok 2009. "Social Control and the Intergenerational Transmission of Age at Marriage in Rural Holland, 1850-1940" *Population(English Edition)*, 64 (2): 343-360
- Baumrind, Diana. 1978. "Parental Disciplinary Patterns and Social Competence in Children." <u>Youth and Society</u> 9:239-276.
- Bengtson, Vern L. 1975. "Generation and Family Effects in Value Socialization." <u>American</u> <u>Sociological Review</u> 40:358-371.
- Bennett, Lynn. 1983. <u>Dangerous Wives and Sacred Sisters: Social and Symbolic Roles of High</u> <u>Caste Women in Nepal</u>. Columbia University Press, New York.

- Blossfeld, H. P. and J. Huinink. 1991. "Human capital investments or norms of role transition? How women's schooling and career affect the process of family formation." <u>American</u> <u>Journal of Sociology</u> 97:143-168
- Bongaarts, John and Susan C. Watkins. 1996."Social Interaction and Contemporary Fertility Transitions." <u>Population Development Review</u> 22(4): 639-682.
- Buunk, B. P. and R. B. Hupka. 1986. "Autonomy in close relationship: A cross-cultural study." Family Perspective 20, 209-211.
- Buunk, A. P., Park, J. H., & Duncan, L. A. (2010). <u>Cultural variation in parental influence on</u> <u>mate choice</u>. *Cross-Cultural Research*, 44, 23 - 40.
- Cain, Mead. 1981a. Risk and Insurance: Perspective on Fertility and Agrarian Change in India and Bangladesh. Population and Development Review 7(30):435-74.
- Cain, Mead. 1981b. Perspective on Family and Fertility in Developing Countries. <u>Population</u> <u>Studies</u> 36(2):159-75.
- Cain, Mead T., Syeda Rokeya Khanam, and Shamsun Nahar. 1979. "Class, Patriarchy, and Women's Work in Bangladesh." <u>Population Development Review</u> 5:405-438.
- Caldwell, J. C. 1982. Theory of Fertility Decline Academic Press Inc. (London) LTD
- Caldwell, J.C, P.H. Reddy, and P. Caldwell. 1988. <u>The Causes of Demographic Change:</u> <u>Experimental Research in South India.</u> Madison: University of Wisconsin Press.
- Callens, M. and C. Croux. 2005. "The Impact of Education on Third Births. A Multilevel Discrete-Time Hazard Analysis." Journal of Applied Statistics 32(10):1035-50.
- Campbell, Arthur A. 1968. "The Role of family Planning in the Reduction of Poverty." <u>Journal</u> of Marriage and the Family 30:236-245.
- Caplan, Lionel. 2000. <u>Land and Social Change in East Nepal: A Study of Hindu-tribal Relation</u>. 2<sup>nd</sup> Edition Himal Books
- Chodorow, Nancy. 1978. <u>The Reproduction of Mothering</u>. Berkeley, CA: University of California Press.
- Choe, Minja Kim, Shyam Thapa, and Sulistinah I. Achmad. 2001. "Surveys in Indonesia and Nepal Shows Persistence of Early Marriage and Childbearing." <u>Asia-Pacific Population</u> <u>& Policy</u>, No. 58, Honolulu: East-West Center.
- Choe, Minja Kim, Shyam Thapa, and Vinod Mishra. 2005. "Early Marriage and Early Motherhood in Nepal." Journal of Biosocial Science 37(2):143-162.
- Cochrane, Susan Hill. 1979. <u>Fertility and Education: What Do We Really Know?</u> Baltimore: Johns Hopkins Press.
- Coleman, James S. 1990. "Social Capital in the Creation of Human Capital." <u>American Journal</u> of Sociology 94 (supplement):S95-S120.
- Duncan, Otis Dudley, David L. Featherman, and Beverly Duncan. 1972. <u>Socioeconomic</u> Background and Achievement. New York: Seminar Press.
- Duncan, Otis Dudley, Ronald Freedman, J.M. Coble, and D. Slesinger. 1965. "Marital Fertility and Family Size of Orientation." <u>Demography</u> 2:508-515.
- Feng, Wang and Yang Quanche. 1996. "Age at Marriage and the First Birth Interval: The Emerging Change in Sexual Behavior Among Young Couples in China." <u>Population and</u> <u>Development Review</u> 22(2):299-320.
- Festinger, L. (1954). A theory of social comparison processes. Human relations, 7(2), 117-140.
- Freedman, Deborah S. and Arland Thornton. 1979. "The Long-Term Impact of Pregnancy at Marriage on the Family's Economic Circumstances." <u>Family Planning Perspectives</u> 11(1):6-13+18-21.

- Furstenberg, Frank F., Jr., Jeanne Brooks-Gunn, and S. Philip Morgan. 1987. <u>Adolescent</u> <u>Mothers in Later Life</u>. Cambridge: Cambridge Press.
- Furstenberg, Frank F., Jr., Christine Winquist Nord, James L. Peterson, and Nicholas Zill. 1983. "The Life Course of Children of Divorce." American Sociological Review 48:656-67.
- Gecas, Viktor and Monica A. Seff. 1990. "Families and Adolescents: A Review of the 1980s." Journal of Marriage and the Family 52:941-958.
- Gertler, Paul J. and Lee A. Lillard. 1994. "Introduction: The Family and Intergenerational Relations." <u>The Journal of Human Resources</u> 29:(4) Special Issue: The Family and Intergenerational Relations:941-949.
- Ghimire, Dirgha, J., William G. Axinn, Scott A. Yabiku, and Arland Thornton. 2006. "Social Change, Premarital Non-family Experience and Spouse Choice in an Arranged Marriage Society." <u>American Journal of Sociology</u> 111(4):1181-1219.
- Goldscheider, Frances K. and Linda J. Waite. 1986. "Sex Differences in the Entry into Marriage." <u>American Journal of Sociology</u> 92:91-109.
- Goldscheider, Frances K. and Linda J. Waite. 1991. <u>New Families, No Families? The</u> <u>Transformation of the American Home.</u> Berkeley: University of California Press.
- Goldstein, Melvyn, Sidney Schuler and James L. Ross. (1983). Social and Economic Forces Affecting Intergenerational Relations in Extended Families in a Third World Country: A Cautionary Tale from South Asia. *Journal of Gerontology* 38(6):716-724.
- Goode, W. J. 1959. "The theoretical importance of love." *American Sociological Review* 24, 38-47.
- Goode, William J. 1970. World Revolution and Family Patterns. New York: The Free Press.
- Goode, William. 1982. The Family. Englewood Cliffs, NJ: Prentice-Hall.
- Gray, John N. 1991. "Marriage and the Constitution of Hierarchy and Gender in Bhaun-Chhetri Households." <u>Contribution to Nepalese Studies</u> 18(1):53-82.
- Gray, John N. 1995. <u>The Householder's World: Purity, Power and Dominance in a Nepali</u> <u>Village</u>. New Delhi: Oxford University Press.
- Hayes, Cheryl D. (Ed.). 1987. <u>Risking the Future: Adolescent Sexuality, Pregnancy, and</u> <u>Childbearing</u>, Vol. I. Washington, D.C.: National Academy Press.
- Heckman, J. J. and J. R. Walker. 1990. "The Third Birth in Sweden." Journal of Population Economics 3(4):235-275.
- Hoem, J. M., G. Neyer, and G. Andersson. 2006. "Educational Attainment and Ultimate Fertility Among Swedish Women Born in 1955-59." <u>Demographic Research</u> 14:381-403.
- Hogan, Dennis P. 1981. <u>Transitions and Social Change: The Early lives of American Men</u>. New York: Academic Press.
- Hogan, D. and E. M. Kitagawa. 1985. "The Impact of Social Status, Family Structure, and Neighborhood on Fertility of Black Adolescents." <u>American Journal of Sociology</u> 0(4): 825-855
- Hoelter, L. F., Axinn, W. G., & Ghimire, D. J. (2004). Social change, premarital non-family experiences, and marital dynamics. Journal of Marriage and Family, *66*, 1131-1151.
- Ikamari, L. 2005. The effect of education on the timing of marriage in Kenya, Demographic Research 12 (1):1-27.
- Johnson, Nan E. and C. Shannon Stokes. 1976. "Family Size in Successive Generations: The Effect of Birth Order, Intergenerational Change in Lifestyle, and Family Satisfaction." <u>Demography</u> 13(2):175-187.

- Jennings, E., William G. Axinn, and Dirgha J. Ghimire. 2012. "The Effect of Parents' Attitudes on Son's Marriage Timing." <u>American Sociological Review</u> 77(6):923-945.
- Kahn, Joan R. and Kay E. Anderson. 1992. "Intergenerational Patterns of Teenage Fertility." <u>Demography</u> 29(1):39-57.
- Knodel, John D., Napaporn Havanon, and Werasit Sittitrai. 1990. "Family Size and the Education of Children in the Context of Rapid Fertility Decline." <u>Population and Development Review</u> 16:31-62.
- Knodel, John and Malinee Wongsith. 1991. "Family Size and Children's Education in Thailand: Evidence from a National Sample." <u>Demography</u>. 28(1):119-131.
- Kobrin, Frances E. and Linda J. Waite. 1984. "Effects of Childhood Family Structure on the Transition to Marriage." Journal of Marriage and the Family 46:807-816.
- Krosnick, J. A. and D. F. Alwin. 1989. Aging and susceptibility to attitude change. Journal of Personality and Social Psychology, 57, 416-425
- Latané, B. (1981). The psychology of social impact. American Psychologist, 36, 343-356.
- Macfarlane, Alan. 1976. <u>Resources and Population: A Study of the Gurungs of Nepal</u>. Cambridge: Cambridge University Press.
- Macfarlane, Alan.1986. "Who Controls the Marriage Decision?" <u>Marriage and Love in</u> <u>England: Methods of Reproduction</u> Oxford, UK.
- Malhotra, Anju. 1991. "Gender and Changing Generational Relations: Spouse Choice in Indonesia." <u>Demography</u> 28(4): 549-570
- Marini, Margaret M. 1978. "The Transition to Adulthood: Sex Differences in Educational Attainment and Age at Marriage." American Sociological Review 43:483-507.
- Maskey, Govinda. 1996. <u>Social Life of Nepal: From Tradition to Modernity 1001-1925.</u> Anmol Publications Pvt. Ltd New Delhi.
- McLanahan, Sara and Gary Sandefur. 1994. <u>Growing Up with a Single Parent</u>. Cambridge: Harvard University Press.
- Morgan, S.P. and B. Niraula. 1995. "Gender Inequality and Fertility in Two Nepali Villages." Population and Development Review 21 (3): 541-561.
- Regmi, R.R. 1999. <u>Dimensions of Nepali Society and Culture</u>. SAAN Research Institute, Gairidhara, Kathmandu.
- Rindfuss, Ronald R. and Charles Hirschman. 1984. "The Timing of Family Formation: Structural and Societal Factors in the Asian Context." Journal of Marriage and the Family 46(1): 205-214
- Rindfuss Ronald R. and S. P. Morgan. 1983. "Marriage, Sex and First Birth Interval: The Quiet Revolution in Asia." Population and Development Review 9(2): 259-278
- Rossi, Alice S. and Peter H. Rossi. 1990. <u>Of Human Bonding: Parent-Child Relations</u> <u>Across the Life Course.</u> Hawthorne, NY: Walter de Gruyter, Inc.
- Satayavada, A. and Donald J. Adamchak. 2000. "Determinants of Current Use of Contraception and Children Ever Born in Nepal." Social Biology 47(1-2): 51-61.
- Sastry, Jaya and Catherine E. Ross. 1998. "Asian Ethnicity and the Sense of Personal Control." Social Psychological Quarterly 61(2):101-120.
- Sewell, William H., Archibald O. Haller and Alenjandro Portes. 1969. "The Educational and Early Occupational Attainment process." <u>American Sociological Review</u> 34:82-92.
- Sewell, William H. and Robert M. Hauser. 1975. <u>Education, Occupation, and Earnings:</u> <u>Achievement in the Early Career</u>. New York: Academic Press.
- Shorter, Edward. 1975. The Making of the Modern Family. New York: Basic Books.

- Smith, Herbert L. 1989. "Integrating Theory and Research on the Institutional Determinants of Fertility." Demography 26(2): 171-184.
- Suwal, J. V. 2001. "Socio-cultural dynamics of first birth intervals in Nepal." Contribution to Nepalese Studies 28(1): 11-33
- Thornton and Hui-Sheng Lin (eds). 1994. <u>Social Change and the Family in Taiwan.</u> The University of Chicago Press: Chicago.
- Thornton, Arland. 1985. "Changing Attitudes Toward Separation and Divorce: Causes and Consequences." <u>American Sociological Review</u> 90(4):856-872.
- Thornton, Arland and Donald Camburn. 1989. "Religious Participation and Adolescent Sexual Behavior and Attitudes." Journal of Marriage and the Family 51:641-653.
- Thornton, Arland., and Thomas E. Fricke, 1987. "Social Change and the Family: Comparative Perspective from the West, China and South Asia." <u>Sociological Forum</u>, 2(4): 746-72.
- Thornton, A. (2005). <u>Reading history sideways: The fallacy and enduring impact of the</u> developmental paradigm on family life. Chicago: University of Chicago Press.
- Thornton, A., Axinn, W. G., & Xie, Y. (2007). <u>Marriage and cohabitation</u>. Chicago: University of Chicago Press.
- Thornton, Arland. 1991. "Influence of the Marital History of Parents on the Marital and Cohabitational Experience of Children." <u>American Journal of Sociology</u> 96:868-894.
- Thornton, Arland. 2001. "The Development Paradigm, Reading History Sideways and Family Change." <u>Demography</u>. 38 (4): 449-465
- Waite, L. D. and Glenna D. Spitze. 1981. "Young Women's Transition to Marriage." <u>Demography</u> 18(4): 681-694.
- Waite, Linda J., Frances K. Goldscheider, and Christina Witsberger. 1986. "Nonfamily Living and the Erosion of Traditional Family Orientations Among Young Adults." <u>American Sociological Review</u> 51(4): 541-554.
- Watkins, Joanne C. 1996. <u>Spirited Women: Gender, Religion, and Cultural Identity in the Nepal</u> <u>Himalaya</u>. New York: Columbia University Press.
- Weiss, Linda Joan. 1996. <u>Women Alone: The Causes and Consequences of Non-Marriage and</u> <u>Marital disruption among high caste Hindus in Nepal (Brahman, Chetri, Widows)</u>. Unpublished PhD dissertation: Columbia University.
- Wu, Lawrence L. 1996. "Effects of Family Instability, Income, and Income Instability on the Risk of a Premature Birth." <u>American Sociological Review</u> 61:386-406.
- Wu, Lawrence L. and Brian C. Martinson. 1993. "Family Structure and the Risk of a Premature Birth." <u>American Sociological Review</u> 58:210-232.
- Yabiku, S. T. (2004). Marriage timing in Nepal: Organizational effects and individual mechanisms. *Social Forces*, *83*, 559-586.
- Yabiku, S. T. (2005). The effect of non-family experiences on age of marriage in a setting of rapid social change. *Population Studies*, *59*, 339-354.
- Yabiku, S. T. (2006). Land use and marriage timing in Nepal. *Population and Environment, 27,* 445-461
- Yabiku, S.T., William G. Axinn, and Arland Thornton. 1999. "Family Integration and Children's Self-Esteem." <u>American journal of Sociology</u> 104: 1494-1524