Afghan Migrants in Mashad/Iran: Fertility, Family Planning & Social Factors

Poster displayed at the XXVth IUSSP International Population Conference, Tours, France 18-23 July 2005

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March, 2004

Correlates of Reproductive Behavior: the case of Afghan Migrants in Iran

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ABSTRACT

This study examines the effect of socio-cultural factors on fertility among Afghan migrant women in Mashad. 503 samples of all married women in reproductive age 15-49 were interviewed during February 2004. The information collected related to children ever born, age at first marriage and contraceptive use, besides general socio-cultural and background variables. The findings of the study reveal that fertility in target population is directly determined by age, age at marriage, contraceptive use, desired fertility and duration of migration. Fertility is also influenced by age difference of spouses, education and duration of migration indirectly through contraceptive use and age at marriage. Causal modeling (LISREL) shows that socio-cultural and demographic factors mainly influence fertility through contraceptive use. Thus, fertility decline in target population occurs within nuptiality. Regarding the findings of the present study and reviewing fertility trends of the study population, it is concluded that Afghan migrants are about to experience a fertility transition.

INTRODUCTION

While the overall fertility rate in Asia and Pacific has declined at a remarkable pace, some countries in the region continue to have high fertility. In Afghanistan which is categorized by United Nations as one of the seven countries with high fertility, the limited information available shows that population growth rate is 3.48%, birth rate is 41.42 births/1,000 of population, death rate is 17.72 deaths/1,000 of population, and its age composition indicates that 42.2% of population is under age 14 years (World Factbook: 2003, 2001 est.).

Afghan migrants in Iran have also a high fertility level. Mamoori et al (1999) reported 5.4 total fertility rate for Afghan migrants in Mashad, which is in conformity with the rate of total fertility in Afghanistan, 5.79 (World Factbook: 2003, 2001 est.). The Natural growth rate of target population also shown a value of 2.4 percent that is near to the value of 2.5 percent from entire country reported by WHO.

In recent years, there is some evidence in Afghan migrant society that fertility is declining. For example fertility related findings of an anthropological study conducted on Afghan migrant women in Mashad indicated that they have started to question the benefits of having many children (Hoodfar, 2004). It was also reported that migrant women incline to practice birth control when after they have three or more children, including two sons. In terms of marriage age, majority of respondents in Hoodfar's study married under age 18, but they mostly expressed that ideal marriage age is 18 to 20.

So this is a question that while the host society has experienced a considerable fertility decline in recent decades (Abbasi-Shavazi, 2002) why migrants have not followed up the decline too, and if they are following the decline why so late? In this regard the present study designed up to go in depth into the socio- cultural factors which may affect their fertility. The study utilized a multidimensional framework adapted from recent studies on fertility determinants. The questionnaire developed was comprised of 19 factors anticipated to contribute to fertility.

Fertility differential literature indicates that reproductive behavior is influenced by a combination of conditions and characteristics in women or in their family. As Davis and Blake (1956) pointed out that cultural, social, and economic settings impinge on fertility through the intermediate fertility variables: the exposure to intercourse, the successful conception, gestation and parturition. There could be biological or behavioral factors that determine exposure to sexual intercourse and hence to child bearing. The relative importance of each variable may differ from one society to another. In particular, fertility is directly determined by intermediate variables.

The indirect determinants include socio-economic, cultural and environmental variables. The proximate variables provide a link between social, cultural and economic factors on the one hand, and the physiological process which ultimately determines fertility on the other. As noted by Freedman, 'the proximate variables stand between fertility and all other proceeding variables. They immediately determine fertility, and all other variables act through combinations of them' (Freedman, 1986:773).

The World Fertility Survey (1977) has produced a list of explanatory variables in a simple framework for fertility analysis including:

- the socio-economic structure (health and education levels and facilities),
- the environment (regional and geographical differences),
- the socio-economic and cultural characteristics (migration status, religion, ethnicity, education and income),
- and the biosocial characteristics (nutrition and health, as well as infant and childhood mortality).

These variables affect fertility indirectly through the intermediate fertility variables named above. The intermediate fertility variables examined in this study are one duration variable measured in terms of the time passed from the first entry to sexual union and one exposure variable measured in terms of use or not using contraception. This study therefore, deals with three models. The first model treats contraceptive use as a dependent variable. Age at first marriage similarly is treated as a dependent variable in the second model. The third model is on fertility or rather the number of children ever born which is taken to be a dependent variable.

There are many determinants of the use of contraception including socio-cultural and background variables which determine the decision to control fertility. The decision consists of motivation to control fertility and the cost of regulation. At any given point, motivation is regarded as a function of the interaction between the supply of children (actual number of surviving children) and the demand for children (number of children desired). The cost of regulation includes economic costs (money and time), social costs (the outcome of transgressing social norms favoring child bearing), and health and psychological costs (the consequences of experimenting with something new that may be risky or unpleasant), all of which considered as socio-cultural variables. Some background variables are considered as factors through which socio-cultural variables affect use of contraception.

Contraceptive prevalence among Afghan migrants in Mashad is 55.3% (Mamoori et al, 1999). As contraception is not widespread, fertility could, among other factors, be mostly determined by age at first marriage. The rise of age at first marriage in Afghan migrants can be attributed to several factors; among them is the changing educational attainment of girls which is now one of the family's concerns like was for boys in the past. Dealing with Iranian marriage norms is changing migrant's attitude towards early marriage. This is measured by duration of migration to Iran, controlling for age. Other factors that may also play a key role in determining age at marriage is level of education, religion, ethnicity, and place of birth.

DATA AND METHOD

Setting

The city of Mashad is in the eastern- north of the country near the Afghanistan's borders. This is a large urban center with a concentrated number of migrants counted by 239522 people (Bureau of Alien and Foreign Immigrant Affairs, 2003). Mashad has the most Afghan migrants in Iran after Zahedan. Given that no specific ethnic group dominates, and migrants somehow are free to communicate with Iranian dwellers, Mashad is an excellent case study for the analysis of determinants and characteristics of Afghan migrant's fertility.

Sample

According to information derived from BAFIA report (2003) a total of 52,359 migrant women in the reproductive age of 15 to 49 years reside in Mashad. For 95 percent confidence interval and for 5 percent of reliability, while parameter in population assumed to be 50 percent, the sample size estimated 383 samples (Lin, N 1978). However 120 samples added to this number in order to compensate for missing data and ensure about the generalization of the study. Hence a total of 503 samples of all married women in reproductive age 15-49 years old were selected.

For purpose of this study stratified sampling method employed. Since Afghan migrants are scattered in the city, first the most concentrated areas were recognized. Then, regarding the proportion of population in each stratum, samples were selected from a sampling frame prepared by asking door by door to cover all Afghan families in the area. Additional 30 samples were interviewed in non- concentrated areas of the city through quota sampling method.

Procedure

Data were collected through interview by 5 trained Afghan interviewers. A pilot study of 50 convenient cases was carried out to examine the questionnaire. Female interviewers visited homes and, after explaining the general purpose of the survey, interviewed the sample women. Women were reassured that the questionnaire was voluntary and anonymous.

MEASURES

Each informant interviewed through a questionnaire that included some single items as well as groups of items to be combined for creating scale variables. The scale variables are indicators of "perception about having many children"," son

preference"," perception about contraception side effects" and" decision-making authority".

Total number of children alive a woman got birth (CEB) is the dependent variable. Age at marriage is the age of first entry into marriage life, when women begin socially accepted sexual intercourse. Contraceptive use is defined as ever use of at least one method of contraceptives by the couple during married life. Abortion includes either deliberate or accidental ending of the pregnancy. Desired fertility is the number of children a woman wants to have. Family system means the type of the family including nuclear and extended family. Proportion of girls is calculated by dividing total girls a woman has to total sons multiply by 100. Age differential of spouses means the number of year interval between the couple's age. It is calculated by subtracting age of woman from age of her husband. Sexual authority is regarded as woman's eligibility in preventing her husband from intercourse when after husband offends her. It is a measure of frequency of intercourse in absence of direct question. Income is defined all the money that women's procreation family receives monthly. It was found, through preliminary interviews, that monthly income can hardly be reliable, because women often do not know how much money their husbands are paid each month. Sometimes it is not actually predictable for their husbands themselves that how much they will earn during the next month. In addition some of them receive yearly or occasionally payments from their relatives who live abroad. All of these make it preferable to consider properties they own rather than monthly income. Properties owned constitutes of a list containing colored T.V, refrigerator, Video/ VCD, carpet, telephone line, electronic broom, a set of gold jewelry, owned house, motorcycle, washing machine, mobile phone, owned land and car. These properties were combined together after they were weighted. Place of birth in this study includes rural- urban areas of either Iran or Afghanistan. Education is defined the number of years women attained in formal education. Duration of migration is the number of years women reside in Iran. Religion in this study means the two main branches of Islam including Shi'a and Sonni. Ethnicity is considered the ethnic group women assert to belong.

To examine perception about contraceptive use the respondents were asked 4 sentences, such as, "It is harmful to women's body" These statements were rated on a 3- point scale, where high ratings include disagreement with the perception reflected in the statement. To examine perception about having many children, women responded to each 16 items on a (1) agree (2) I don't know (3) disagree response scale. Cronbach's alpha coefficient for this scale was 0.83. The responses for son preference scale with 7 items were also rated from 1 to 3 like the previous scale. Cronbach's alpha coefficient for the total scale was 0.79. The scale of women's authority in decision making was rated from 1 to 3. Women responded to each 6 items on a (1) always I decide (2) together with husband (3) always my husband decides response scale. Cronbach's alpha coefficient for this scale was 0.64.

All the items of the scales above were drawn out from the research literatures (Aghajanian, 1963; Abbasi- shavazi et al, 2003), and from Preliminary interviews through which the surroundings, interests, ideas and knowledge of the study population discovered and some of the items of the questionnaire were realized.

FINDINGS

According to the study's finding average CEB in the study population is 3.9. CEB increases as age of women increases (Table 1). Women started to give birth before age 19, and a woman in age 45-49 has on average 8.29 children alive. Younger women experienced fewer children lost. They have also experienced less abortion. Younger women's average literacy level is considerably higher than older women. Older women perceive having many children more valuable. Women in age 44-49 desire 5.4 children which is twice more than that of women in age 15-19. Husband's desired number of children is more than their wives in older women, but it is fewer in younger women. There is not a noticeable difference in women's age at marriage. Properties owned by women's procreation family also don't show an ordered variation according to age.

Table 1. Summary Information by Current Age

	15-19	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*
CEB	.59	1.77	3.12	4.87	6.13	6.57	8.29
Children dead	.03	.11	.23	.55	.67	.59	1.71
Abortion	.07	.28	.38	.44	.53	.72	1.00
Literacy level	5.72	4.59	4.46	3.05	2.40	3.77	1.50
Values of having many children	26.22	24.99	24.93	26.21	28.29	26.63	31.72
Age at marriage	16.25	16.72	16.83	16.07	16.05	16.29	16.61
Respondent's desired number of children	2.46	2.53	3.16	4.05	3.51	4.38	5.43
Husband's desired number of children	2.29	3.14	3.55	4.41	5.42	5.45	7.50
Properties owned by women's family	7.41	6.71	8.10	7.19	7.32	11.33	6.83

Properties owned ranges 0 to 27
Value of having many children ranges 15 to 45

More than 82 percent of women ever used at least one method of contraceptives and 18 percent of them have never used. Although only 8.2 percent of those who never used contraceptives were sexually active and have some children, while 2.8 percent of them were sexually inactive due to being divorced, widowed, absent husband (prior to one year), and untraceable husband because of war, and 7 percent of them were recently married young women who have not children. However 15.2 percent of women are sexually active and still don't use contraceptives. 3.2 percent of respondents used contraceptives before the first pregnancy.

Figure 1. Percentage Distribution of Contraceptive Method ever Used

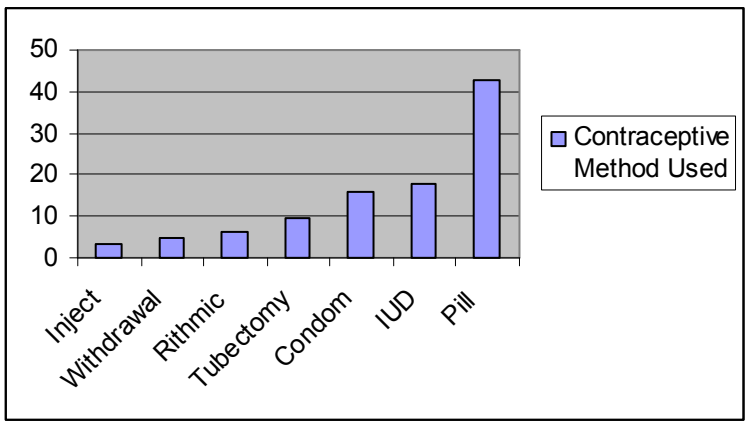


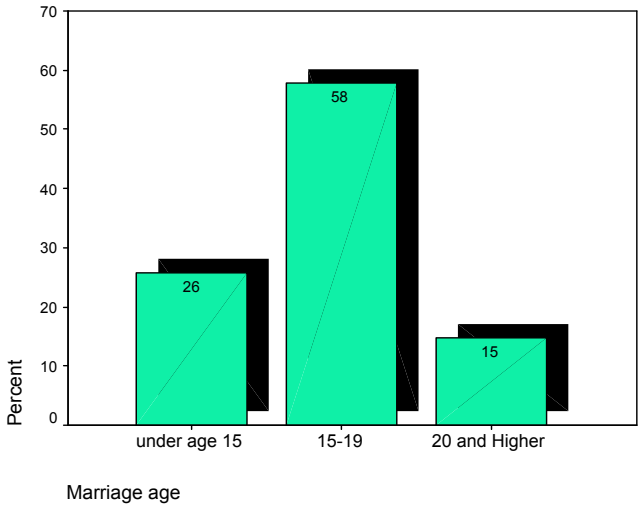
Figure 1 shows percentage of contraceptive methods used. Pill is the most frequent method (%42.6). IUD with %17.6 and condom with %16.1 percent place in second and third orders respectively.

Table 2. Summary Information by Contraceptive Ever Used

	Contraceptive ever used	
	Non-useres	***Users***
Fertility	3.78	4.02
Children dead	.75	.34
Abortion	.51	.41
Literacy level	2.78	3.98
Age at marriage	16.57	16.42
Respondent's desired number of children	3.63	3.26
Husband's desired number of children	4.89	3.77
Values of having many children	28.70	25.71
Properties owned by women's family	6.07	8.04
Current Age	30.29	29.97
Women's duration of migration to Iran	16.17	17.39

Summary information by contraceptive use indicates that, there are some differences in characteristics of women who use/don't use contraceptives (Table 2). For example contraceptive users have more CEB than non-users. They experienced fewer abortion and child loss. In addition, they are one year more educated than non-users. Women who don't use contraceptives attribute more value to having many children. It can bee seen that contraceptive users are wealthier than non-users. They have exceeded both theirs and their husbands desire number of children (achieved number= 4.02, women's desire= 3.26 and husband's desire= 3.7) contrary to contraceptive non-users that have not achieved theirs and their husband's desire. Noticeably, couple's desired fertility is more in contraceptive non-users than that of contraceptive users. Comparing marriage age and current age of the two groups, there is not a noticeable difference, but duration of migration is one year more in contraceptive users.

Figure 2. Percentage Distribution of Age at Marriage



According to the findings of the study 25 percent of respondents married under age 15 and majority of them married in age 15 to 19 (58 percent). Only 15 percent of women married over age 20 (Figure 2). The average marriage age of women is 16.44 years.

Average CEB drops within three groups of age at marriage (Table 3). Women who married at lower ages have more children. They also experienced more child loss and abortion. As age of marriage increases, couple's desire for fertility decreases. The gap between women and their husband's desired fertility is more extensive in women who married before age 15. There is also a wide gap between achieved and desired fertility in this group. In addition, literacy level of women increases as their age of marriage increases. Women who married at lower ages see having many children more valuable, and women who married at higher ages are wealthier. There seems not an ordered variation in current age as well as duration of migration to Iran.

Table 3. Summary Information by Age at Marriage

	Marriage age		
	under age 15	***15-19***	***20 and Higher***
Fertility	5.26	3.71	2.72
Children dead	.65	.37	.15
Abortion	.48	.41	.37
Literacy level	2.42	3.98	5.40
Respondent's desired number of children	3.65	3.34	2.80
Husband's desired number of children	5.08	3.66	3.40
Values of having many children	28.14	25.83	24.31
Properties owned by women's family	6.06	7.99	9.41
Current Age	31.15	29.40	30.51
Women's duration of migration to Iran	18.05	16.83	17.05

16 statements were set out to measure perception about having many children. There were several dimensions considered in the statements (Table 4). Some of the statements which were highly disagreed:

Birth control is interference in god's affairs.
Having many children leads to family stability
More children more money for family in future
Parents should have more children to compensate for the death
If parents are rich no problem to have many children
God determines the number of children each family have
Prophet Mohammad has advised to have many children
Having many children may strengthen family

Those statements which were highly agreed:

Having many children makes troubles for parents
More children more quarrel and disturbance
It is difficult to train many children
Having many children makes family affluent
More children more monetary cost for parents

More children is equal to unhappiness of parents in life
People ridicule if one has many children

Table 4. Percentage Distribution of Women's CEB by Responses to Statements on Values of Having Many Children

Statements	Responses		
	Not-specified %	Disagree %	Agree %
Birth control is interference in god's affairs	21.7	36.8	41.6
Having many children leads to family stability	12.1	52.9	35
More children more money for family in future	3.6	60.8	35.7
Having many children makes troubles for parents	3.0	25.4	71.6
Having many children may strengthen family	10.3	37%	52.7
Parents should have more children to compensate for the death	10.7	46.7	42.5
More children more quarrel and disturbance	1.2	11.3	87.5
It is difficult to train many children	0.8	4.2	95
Having many children makes family affluent	19.1	24.7	86.3
More children more monetary cost for parents	3.2	3.6	93.2
If parents are rich no problem to have many children	4.2	44.5	51.3
More children is equal to unhappiness of parents in life	7.0	24.9	67.8
God determines the number of children each family have	3.8	38.6	57.6
Prophet Mohammad has advised to have many children	12.3	40.0	47.7
People ridicule if one has many children	3.8	13.7	82.5
The less the number of children the more the probability of polygamy	8.0	33.8	58.3

The statements which "no comment" responses were more frequently recorded than the other statements:
Birth control is interference in god's affairs
Having many children leads to family stability
Having many children may strengthen family
Parents should have more children to compensate for the death
Having many children makes family affluent
Prophet Mohammad has advised to have many children

Despite high agreeing with approximately all of the statements, are more sensitive towards social and economic disvalues of having many children, rather than

religious and cultural traditions. Although traditional believes do exist around the ideal family size, but they are not as strong as social and economic values.

Other Summaries

Children lost (under age 5): 9 percent
Abortion (out of total complete delivery): 11 percent

Fertility preference:

- Average number of women's desire of children: 3.3
- Average number of women's husband desire of children: 3.9
- About 32 percent of informants are not sure about the number of children they wanted at the beginning of marriage.
- About 37 percent of informants don't know how many children their husbands wanted to have at the beginning of marriage.
- Are more children better or less? More: 7.7 Less: 92.3
- Meaning of more children: mean=5.4, min=1, max= 5
- Meaning of less: mean: 2.7, min=0, max=8

Marital characteristics:

- Polygyny: 8.4 percent
- Endogamy: 48.1 percent
- One time married: 96 percent
- Two times married: 4 percent
- Average husband's age at first marriage: 24.2
- Average years of difference between women and their husband's age at first marriage: 7.8

Marital status:

- Living with husband: 90.8 percent
- Widowed: 3.4 percent
- Divorced: 0.4 percent
- Husband untraceable: 0.6 percent
- Husband has traveled for more than one year: 2.4 percent
- Husband live with his other wife: 1.6 percent

Family system:

- Nuclear family (husband, wife, single children): 67 percent
- Living with husband's relatives: 26 percent
- Living with wife's relatives: 6 percent
- Living with some of both husband and wife's relatives:1 percent

Religious branch:

- Shi'a: 95 percent
- Sonni: 5 percent

Average procreation family income: 95820 Toonams
Average properties owned: 7.7, out of max 27 and min 0.

RESULTS

Of the 503 respondents 67 percent were in nuclear family system. Average CEB within nuclear families was 4.74 and it was 3.74 within extended families. These two means differ significantly from each other (Table 6). It means that women in nuclear families have more children. The difference of average CEB in religious branches, Shi'a and Sonni, is not statistically significant. That is, religion has not impact on fertility. It was expected that women who use contraceptives have fewer children. The result shows that on average women who ever used contraceptives have given birth about 0.5 children more than the comparison group, and they vary a little more around their average. But the difference is not statistically significant. We explored factor which confounds the expectation. The following plots show the percentage of variations of CEB in women who use and women who don't use contraception. As it is seen the largest percents of non-using contraception belongs to childless women.

Figure 3. Plot of Contraceptive Use on CEB

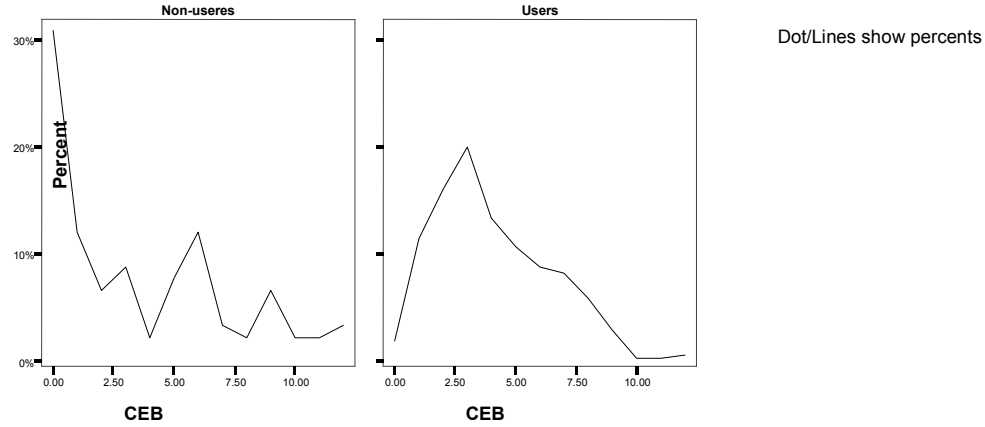


Figure 4 epitomizes that there is interaction between age and contraceptive use. It is interpreted that young women don't use contraceptives in order to reach their ideal number of children. They start using contraceptives when they have some children and decide to limit rather than to space childbearing.

Figure 4. Estimated Marginal Means of CEB According to Age and Contraceptive Use

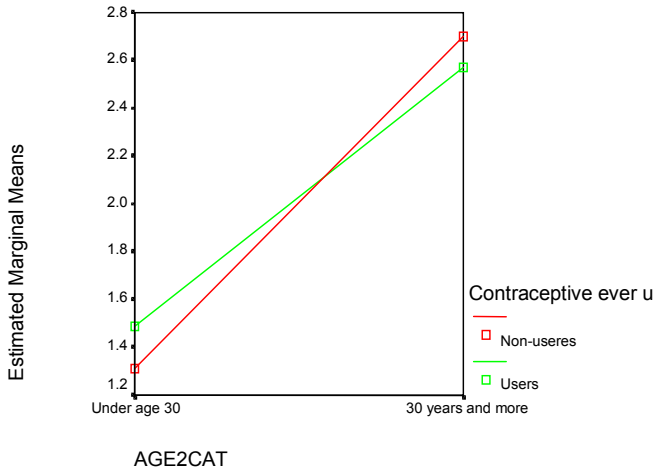


Table 6. Estimation of Relationship between CEB and Family System, Religion, and ever Use of Contraceptives

Variable	Mean	t	Sig	Df	Std. Err
Family System		3.649	0.009	490	0.27545
Nuclear	4.74				
Extended	3.74				
Religion		1.091	0.276	488	0.61741
Shi'a	4.45				
Sonni	3.78				
Contraceptive ever used		0.616	0.648	98	0.34466
Use	4.03				
Not-use	3.57				

Fertility is higher in cases that couple desire more children. Women who, prefer son, married older men, perceive that having many children is valuable, and attained fewer years in formal education have more children (Table 7).

Decision-making authority has not an impact on fertility level except within the family system (Figure 5). That is, women with less decision-making authority who live within the extended families have more children.

There is not a significant relationship between CEB and the amount of wealth a family has.

Duration of migration is positively correlated to CEB. Controlling for age (statistics not shown), it was found that younger women's CEB is negatively associated with the number of years they reside in Iran but CEB of older women is positively correlated to the number of years they migrated to Iran (Figure 6). Because age refers to the time-span, the result discussed means that reproductive behavior of Afghan migrants is recently influenced by the host society's circumstance, while it has not been influenced in the past time.

Table 7. Demographic and Socio-Cultural Correlates of CEB

Variable	Coefficient	Variable	Coefficient
Age at marriage	-0.331**	Age differential of spouses	0.243**
Women's desired number of children	0.413**	Decision-making authority	0.102
Husband's desired number of children	0.451**	Properties owned	0.114
Son preference	0.271**	Education	-0.379**
Perception about having many children	0.261**	Duration of migration	0.144**

**P<.01, confidence interval

Figure 5. Estimated Marginal Means of CEB According to Family System

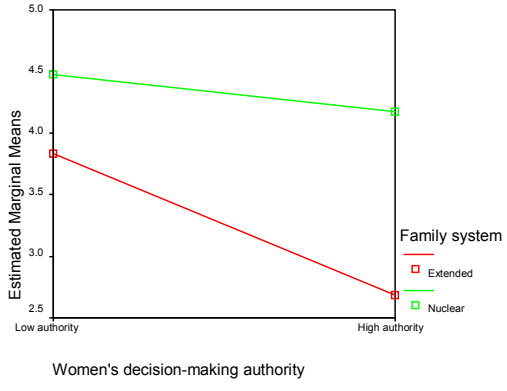
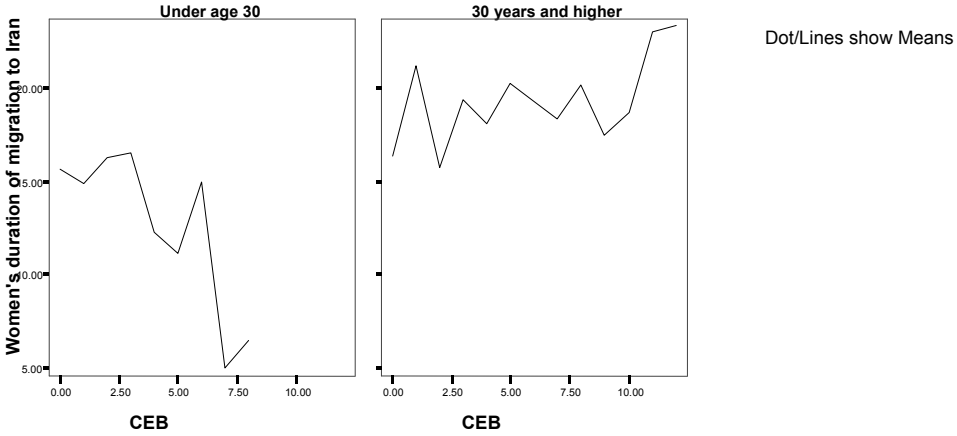


Figure 6. Plot of Duration of Migration and CEB According to Age



Variation in contraceptive use is mainly explained by age differential of spouses and education (Table 8). The more age differences results in less probability of using contraception, and more educated women are more likely to use contraception.

Table 8. Measure of Logistic Regression for Independent Variables and Contraceptive Use

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	AGDIF	*-.146*	*.046*	*9.960*	*1*	*.002*	*.864*
	Constant	*3.382*	*.574*	*34.780*	*1*	*.000*	*29.438*
Step 2[b]	X61	*.384*	*.149*	*6.680*	*1*	*.010*	*1.468*
	AGDIF	*-.097*	*.048*	*4.070*	*1*	*.044*	*.908*
	Constant	*1.893*	*.660*	*8.220*	*1*	*.004*	*6.641*

a. Variable(s) entered on step 1: AGDIF.

b. Variable(s) entered on step 2: X61.

Explanatory factors of variations of age at marriage are education and duration of migration (Table 9). Women with higher degrees of education have married at upper ages. Duration of migration is negatively associated with age at marriage. It means that the more years residing in Iran, the lower age at the time of first marriage.

Table 9. Measure of Multiple Regression for Background variables and Age at Marriage

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	*15.399*	*.208*		*73.873*	*.000*
	Literacy level	*.258*	*.042*	*.324*	*6.203*	*.000*
	Women's duration of migration to Iran					
2	(Constant)	*16.259*	*.349*		*46.573*	*.000*
	Literacy level	*.275*	*.041*	*.345*	*6.638*	*.000*
	Women's duration of migration to Iran	*-.056*	*.018*	*-.159*	*-3.050*	*.002*

a. Dependent Variable: Age at marriage

Variation in CEB is explained by 5 variables out of 19 independent variables in the model (Table 10). Current age of women is responsible for 43 percent of the

variations in fertility all other variables remain the same. Successive variables are age at marriage, women's desired fertility, contraceptive use, and finally duration of migration, all of which explain 72.9 percent of the entire variations in fertility together with current age.

Table 10. Measure of Multiple Regression for Independent Variables and CEB

Coefficients[a]

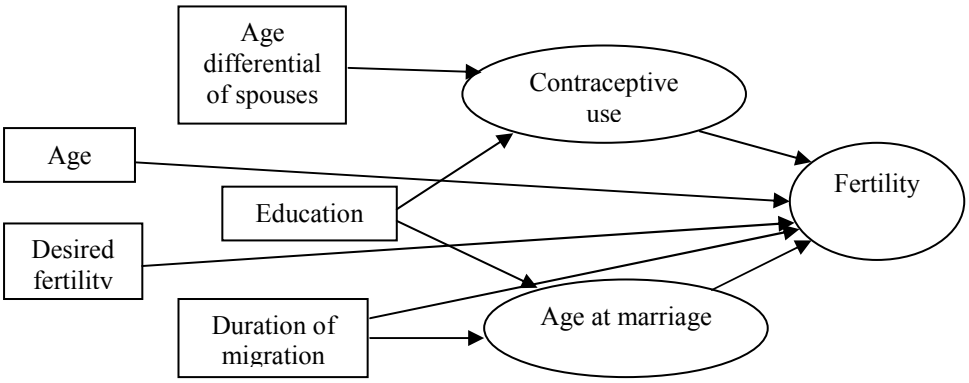
Model		Unstandardized Coefficients		tandardized Coefficients			Correlations			ollinearity Statisti	
		B	td. Erro	Beta	t	Sig.	ero-orde	Partial	Part	Tolerance	VIF
1	(Constant)	-2.699	.956		-2.822	.006					
	Current age	.225	.031	.656	7.318	.000	.656	.656	.656	1.000	1.000
	Age at marriage										
	Women's desired of children										
	Women's duration migration to Iran										
	Contraceptive eve										
2	(Constant)	2.916	1.223		2.383	.020					
	Current age	.253	.026	.737	9.872	.000	.656	.763	.725	.967	1.035
	Age at marriage	-.392	.066	-.446	-5.977	.000	-.312	-.581	-.439	.967	1.035
	Women's desired of children										
	Women's duration migration to Iran										
	Contraceptive eve										
3	(Constant)	1.269	1.244		1.020	.311					
	Current age	.232	.025	.677	9.389	.000	.656	.749	.644	.906	1.104
	Age at marriage	-.331	.064	-.377	-5.177	.000	-.312	-.529	-.355	.888	1.126
	Women's desired of children	.364	.109	.245	3.354	.001	.468	.374	.230	.883	1.132
	Women's duration migration to Iran										
	Contraceptive eve										
4	(Constant)	1.811	1.221		1.484	.143					
	Current age	.240	.024	.700	9.971	.000	.656	.771	.660	.888	1.126
	Age at marriage	-.318	.062	-.362	-5.138	.000	-.312	-.529	-.340	.882	1.134
	Women's desired of children	.355	.105	.238	3.383	.001	.468	.380	.224	.882	1.134
	Women's duration migration to Iran	-.057	.023	-.165	-2.456	.017	-.111	-.285	-.163	.966	1.035
	Contraceptive eve										
5	(Constant)	.483	1.279		.378	.707					
	Current age	.261	.024	.761	10.665	.000	.656	.793	.678	.795	1.258
	Age at marriage	-.355	.061	-.405	-5.810	.000	-.312	-.579	-.369	.834	1.200
	Women's desired of children	.423	.104	.284	4.064	.000	.468	.445	.258	.826	1.211
	Women's duration migration to Iran	-.060	.022	-.174	-2.686	.009	-.111	-.312	-.171	.964	1.038
	Contraceptive eve	1.351	.520	.189	2.598	.012	-.252	.303	.165	.760	1.316

a. Dependent Variable: CEB

For all predictors, the values of the partial and part correlations go up from the zero-order correlation (Table 10). This means that the amount of variance in CEB that is explained by each independent variable is not explained by other variables. The large

tolerances[1] show that 4%-24% of the variance in a given predictor can be explained by the other predictors. Thus, there is low multicollinearity, and the standard error of the regression coefficients will not be inflated. Variance inflation factor (VIF) in all predictors in the coefficient table is smaller than 2[2]. It means that the predictors of CEB are not intercorrelated.

Figure 7. Simplified Model of Determinants of Fertility



A simplified model is redrawn in Figure 7. The zero-order correlation (LISREL) matrix shown in Table 11 indicates several significant bivariate relationships between the determinants and fertility. Consistent with the model, all variables had significant associations with fertility. Thus fertility is low when couple don't use contraception, women marry at higher ages, they are younger, desire fewer children, the difference between ages of couple is small, women's education is high, and duration of migration is short.

Table 11. Standardized Coefficients (LISREL) for Determinants of Fertility

	FERTILIT	CONTUSE	AGMAR	AGE	DESIR	AGDIF	EDUC	DUR
FERTILIT	1.00							
CONTUSE	0.08**	1.00						
AGMAR	-0.30**	0.07	1.00					
AGE	0.76**	-0.05	0.02	1.00				
DESIR	0.39**	-0.07	-0.08**	0.36**	1.00			
AGDIF	0.21**	-0.20**	-0.23**	0.18**	0.19**	1.00		
EDUC	-0.32**	0.13**	0.30**	-0.18**	-0.31**	-0.19**	1.00	
DUR	0.17**	0.02	-0.05	0.26**	0.00	-0.01	0.19**	1.00

N=495

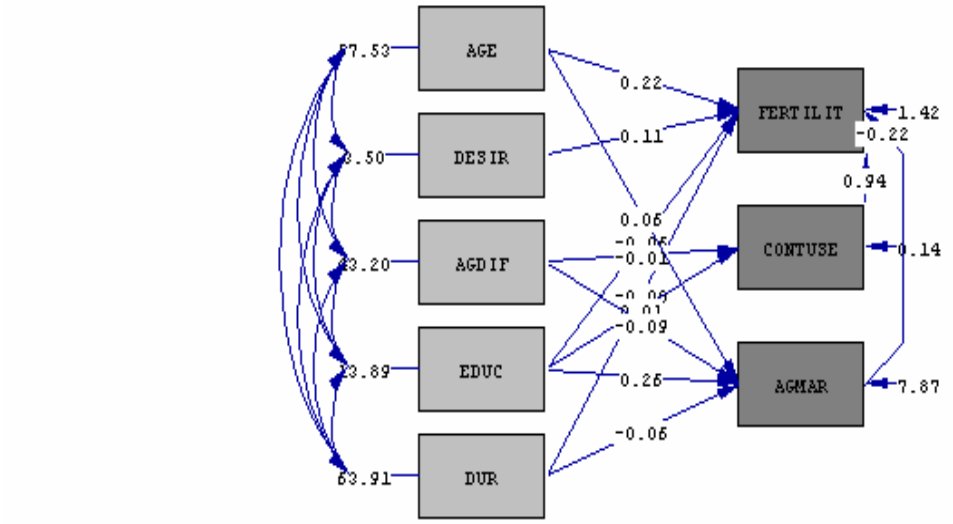
**P<.01, confidence interval

Causal modeling (LISREL) demonstrated that all paths are statistically significant and in the hypothesized direction except duration of migration which is non-significant and negatively related to fertility (Figure 8). Through modifications new paths added: from education to fertility, from age differential to age at marriage, and from age to age at marriage.

1 . The tolerance is the percentage of the variance in a given predictor that cannot be explained by the other predictors.

2 . A variance inflation factor greater than 2 is usually considered problematic.

Figure 8. Modified Model of Determinants of Fertility (LISREL)



Chi-Square=10.18, df=6, P-value=0.11746, RMSEA=0.037

-2ln (L) for the saturated model = 18569.693

-2ln (L) for the fitted model = 18579.869

The decomposition of direct, indirect, and total effects of the determinants of fertility are contained in Tables 12 to 14. In relation to the significant total effects of the determinants of fertility, the rank order of variables is as follows: age (0.69), age at marriage (-0.29), education (-0.17), contraceptive use (0.16), desired fertility (0.09), and duration of migration (0.03).

Tables 12. Standardized Total Effects of X on Y

	AGE	DESIR	AGDIF	EDUC	DUR
FERTILIT	0.69	0.09	0.03	-0.17	0.03
CONTUSE	- -	- -	-0.18	0.10	- -
AGMAR	0.15	- -	-0.20	0.32	-0.15

Tables 13. Standardized Indirect Effects of X on Y

	AGE	DESIR	AGDIF	EDUC	DUR
FERTILIT	-0.04	- -	0.03	-0.08	0.04
CONTUSE	- -	- -	- -	- -	- -
AGMAR	- -	- -	- -	- -	- -

Tables 14. Standardized Total Effects of Y on Y

	FERTILIT	CONTUSE	AGMAR
FERTILIT	- -	0.16	-0.29
CONTUSE	- -	- -	- -
AGMAR	- -	- -	- -

Total effects of age at marriage (-0.29) on fertility is approximately the same as its direct effect (-0.30), but contraceptive use has greater total impacts (0.16) compared to its direct impact (0.08) on fertility suggesting that age at marriage has been stable in different situations but contraceptive use is influenced by the life issues. Thus, fertility decline in target population occurs within the nuptiality.

DISCUSSION

Implications from Theories of Fertility Decline

The study revealed that average CEB in target population is 3.9 children which is well fewer than it was found in the literature. In addition, the demand for children has also decreased. Reduced demand for and supply of children is explained by several approaches. For example, through the study it was deducted that infant and child mortality has decreased. The decline of infant and child mortality is one of factors that lower fertility level. This is an implication to the classical theory of fertility transition.

Also, according to the study's findings, majority of Afghan women have not a clear mind in terms of values and disvalues of children. They agreed a mixture of statements which some of them contrast to another. This reveals that traditional props of large families do exist and birth control is not a rational choice. They do not make calculation about their fertility behavior, and do not perceive the advantages of birth control. However, they have access to family planning services and use them broadly. Therefore the firs two preconditions of fertility decline introduced by Ansly Coal have been not met.

The flow of wealth in Afghan migrants seems to be from older to younger generation. As expressed by women, having many children is not economically advantageous anymore.

It was also demonstrated that while not sure about its side effects, majority of women use contraceptives as an innovative means of family planning. Given the point that about 82 percent of respondents stated that people ridicule if one has many children, the norm of small family seems to have diffused to them and mad them to limit their fertility.

Comparison of Fertility Trends in I. R of Iran and Afghan Migrant Society

Afghan migrants experienced a decline in their fertility like did the host country. Despite existence of some similarities, the two society's fertility decline differs from each other in terms of the speed and the time of decline. When fertility was high in Iran, migrant's fertility was high too. When Iran experienced its dramatic decline, migrant's fertility decreased as well, but either later and much lower than the host society's fertility decline, because most of migrant girls still marry under age 18 and the number of years they attain school is quiet fewer than that of their Iranian counterparts. They still challenge with traditional props of large families, and there is a wide gap between women and their husband's desired fertility.

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