

ASIA RESEARCH CENTRE

WORKING PAPERS

**Effects of Migration, Socioeconomic Status
and Population Policy on Reproductive
Behaviour**

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**EFFECTS OF MIGRATION, SOCIOECONOMIC STATUS AND POPULATION POLICY
ON REPRODUCTIVE BEHAVIOUR:
A Comparison of Indian Muslim Immigrants in Southern Pakistan and their Counterparts in
North-Central Indian States**

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Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

INTRODUCTION

In non-industrial societies, cultural practices and religious beliefs are often considered as important determinants of reproductive behaviour. Consequently, in demographic literature, it is a common practice to use cross-cultural comparisons to explain fertility patterns among sub-groups within a country. Besides other attributes, comparisons have been made between populations adhering to different religious beliefs living in the same country. In particular, the role of religion in fertility decisions and contraceptive use has been widely acknowledged. For example, while reviewing the European Fertility Project, Coale (1973), suggests that the moral acceptance of birth control by the Church was one of the necessary pre-conditions of fertility decline in Europe. Likewise, Caldwell and Caldwell (1987) argue that the resistance to acceptance of small family norms in sub-Saharan Africa, where fertility levels are still substantially high, "have more to do with a religious belief system, that operates directly to sustain high fertility".

The high fertility in countries with a predominantly Muslim population has often been considered the outcome of religious influence, emanating from Islam's emphasis on early and universal marriage of girls and on procreation. Thus, Weeks (1988) in his study *The Demography of Islamic Nations*, although observing noticeable "regional and temporal" diversity in fertility among Muslim countries contends that as a group they are still in early stages of demographic transition and "the single most remarkable demographic aspect of Islamic societies is the nearly universal high level of fertility." Obermeyer (1992), on the other hand, questions the validity of this argument and maintains that "one of the problems with the Islamic explanation [of high fertility] is that it treats as monolithic, a trait that is shared by close to a billion people world-wide, and that has adapted to, and been affected by, diverse regional contexts.... the diversity in the doctrine and the cultural context of Islam calls into question the recourse to Islam as an explanation of demographic trends."

In view of the recent decline in fertility in most countries in the developing world, Freedman (1995), observes the weakening influence of cultural explanations, with clear evidence of fertility decline in countries which have provided effective family planning programmes. He contends also that "ideas and messages transmitted by the international communication or transportation network may be penetrating theoretically the secluded world of women in

Islam". More recently, based on the analysis of data from several Muslim countries from Asia, the Middle East and Africa, this author (Karim, 1997) has demonstrated that by the early 1990's, a majority of these countries had achieved a substantially lower fertility rate and only those which had not been able to implement successful family planning programmes have lagged behind in fertility transition. It is argued that since in Islam "the priest does not play a formal role in the day-to-day life of an individual, decisions regarding reproductive behaviour in Muslim countries may follow a secular trend." It is contended, therefore, that as women are exposed to an effective family planning programme, their contraceptive use increases. That use is further enhanced if they have had the opportunity to obtain education. Bangladesh and Indonesia are cited as examples in the first category and Tunisia and Turkey in the second.

Those studies which have examined the religious factor in differentials in fertility in Asia and Africa, therefore, remain inconclusive, and have largely been unable to demonstrate a clear relationship between religious belief and fertility. In a review of such studies conducted in different parts of the world, Kollehlon (1994) reports that fertility levels among Muslim as against non-Muslim populations provide contradictory evidence. For example, while earlier studies had reported Muslim fertility to be higher in Israel, the former Soviet Union, Jordan, India and tropical Africa, lower fertility levels were witnessed among Muslims in Cameroon, Ghana, Nigeria, West Africa and Sub-Saharan Africa. In his own study conducted in Liberia, Kollehlon reports Muslim fertility to be only slightly higher than that of Catholics and Protestants. Differences were found mainly due to socio-economic and demographic characteristics of the women and not to their religious beliefs.

Earlier studies conducted in India had also shown a higher fertility among Muslims, but when controlled for socio-economic status, the differences almost disappeared. For example, Chaudhry (1982), argues that the lower socio-economic status of the Muslim population in India is the major contributing factor in their higher fertility, while Bose (1989), in a review of 13 major studies of fertility based on religion in India concludes "that we do not know whether or not Muslim fertility is higher than Hindu fertility". However, the Indian National Family Healthy Survey reports higher fertility among Muslims than Hindus within each educational category (International Institute for Populations Sciences, 1995). The Hindu-Muslim difference in contraceptive use remains, even after controlling for education and residence, through a multivariate analysis (Ramesh et al, 1996).

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

As a result of increasing contraceptive use and declining fertility in South Asian countries and differences in regional responses to this change, an interest is emerging in comparing the reproductive behaviour of women who are the followers of the same religion or are from the same ethnic stock, but who live in different countries (see for example, Ramesh, 1996; Karim and Ramesh 1996 and; Kamal, forthcoming).

THEORETICAL FRAMEWORK

The effects of modernisation and innovation on reproductive behaviour have been the topic of discussion in much demographic literature. The classical theory of "demographic transition" (Thompson, 1930), attributes a decline in mortality and fertility to changes in life style, which are presumably the result of industrialisation and urbanisation. Based on the experience of Western countries, there is a general acceptance that as, through socio-economic development, a society is transformed from a more traditional to a modern form, its impact on demographic indicators will be widely demonstrated. Coale (1984), contends that this "transformation is the substitution of slow growth achieved with low fertility and mortality for slow growth maintained with relatively high fertility and mortality rates". Lesthiaghe and Surkyn (1988) have added a micro-economic dimension to the above by arguing that a paradigm shift occurs through economic modernisation leading to individualism and self fulfilment, resulting in affluence, secularisation and lower fertility. That the classical theory of demographic transition is largely applicable to Western countries, but not so in the case of many less developed countries, has been demonstrated by Cleland (1985).

Caldwell (1982), based on his work in West Africa, takes the view that due to nucleation, children (and not parents) are the major beneficiaries of "wealth flows". However, Thornton and Fricke (1987), believe that this theory is not applicable to East Asian countries, where a fertility transition has occurred without many apparent changes in extended family networks. Easterline (1978) adds a sociological dimension to the micro-economic model of fertility decision making, which includes; the supply of children (actual fertility), the demand for children (desired number of living children) and the costs of fertility regulation (including social, psychological and economic costs).

In the case of developing countries, perhaps two theories are most relevant. Davis (1963)

citing the example of Japan in "multiphasic response theory" maintains that families take deliberate decisions to control excessive population growth, through delayed marriage, education and migration. Chamratrithong (1978) applies this theory to the situation in Thailand. Cleland and Wilson (1987) are the proponents of ideational theory, which assigns an important role to the diffusion of information and new social norms about birth control, which result in its wider use. This theory appears relevant in view of the recent fertility decline in Bangladesh (Cleland et al, 1994).

Mason (1997), on the basis of experience of many developing countries, however, argues that each of the above mentioned theories may only be relevant to specific sets of countries or cultures. Thus she postulates that;

1. "fertility transitions occur under a variety of institutional and environmental conditions"
2. "the first countries to undergo a fertility transition are likely to have experienced cultural, social, structural or environmental changes that encourage family limitations."
3. "the spread with which influences travel from one country to another depends upon a variety of factors... [including] ...the extent to which a common language is shared, the nature of informal social networks... and whether State policy promotes birth control."
4. "mortality decline is usually a necessary condition for fertility decline but is not a normally sufficient condition for that decline.."
5. "the number of surviving children that families can accommodate varies across pre-transitional populations"
6. "when the number of surviving children exceeds the family's capacity to accommodate them, parents will resort to some sort of offspring control". These controls may be pre-natal or post-natal. In the absence of family planning, pre-natal controls include such measures as prolonged breast feeding for birth spacing and post-natal controls such as abortion and infanticide.

THE PRESENT STUDY

The sub-continent, home to two major religions and multi-ethnic populations, provides an unique opportunity to test the relevance of some of the above mentioned theories. Following the independence in 1947 and the Partition, many Muslim families migrated to the urban centres of Sindh Province in Pakistan and particularly to Karachi city the then national capital, benefited considerably through availability of better economic opportunities and by attaining higher level of education (particularly by females). Others stayed behind in various parts of India. In this background, this study aims to examine:

- (i) the present socio-economic status of Muslim families living

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

in the urban areas of the six North-Central Indian States, as compared to those who migrated from these states to Pakistan and are now living in the urban areas of Sindh Province.

(ii) how the household economic indicators, women's socio-demographic characteristics and the population policies followed by the two countries have affected the reproductive behaviour of women in the two populations.

We utilise the census data from the two countries to examine the process of immigration from India to Pakistan. In the following section, using identical sample survey data from the two countries, the relationship between socio-economic variables and current use of contraceptives will be examined. Variations in contraceptive use in the two populations will be explained through bi-variate and multi-variate analyses.

The Setting

The demographic standing of India and Pakistan is evident from the fact that their combined populations in 1995 was only 232 million fewer than that of China. The difference narrowed to 134 million in 1997 and, based on current growth rates, it is estimated that by the year 2015 the combined populations of the two countries, will exceed that of China by 17 million (UNDP; 1999). Besides that demographic reality, the political standing of the two countries may be gauged by the fact that Chase et al (1996) have located India and Pakistan among nine "Pivotal States". A Pivotal State is defined as one that not only can "determine the fate of its region, but also affect international stability." The proponents of this hypothesis contend that the threats to these Pivotal States "are not communism or aggression but rather of over population, migration, environmental degradation, ethnic conflict and economic instability."

When seen in the perspective of the above statement, it is apparent that India and Pakistan fit easily into their concerns. Immediately after independence in 1947, both India and Pakistan's demographic potentials were recognised (see Davis, 1951). Since then, in only 30 years India's population almost doubled, from 361 million in 1951 to 683.3 million in 1981 (Visaria and Visaria, 1996). During the same period, the population of Pakistan increased two and a half fold, from 33.7 million to 84.3 million (National Institute of Population Studies, 1987). By mid 1999, the estimated population of the two countries is about one billion and 153

million respectively (UNFPA, 1999).

Muslim Population in India and Pakistan

Between 1951 and 1991, the Muslim population in India has grown gradually from 35 million to 102 million. During 1961-91, their proportion of the total population has increased from 10.7 to 12.1 percent. This increase is largely associated with a higher fertility rate among Muslim women (Visaria and Visaria, forthcoming). Besides, the other important demographic feature of Indian Muslims is their larger presence in the urban areas than that of the general population (34 and 24 percent respectively in 1981). This suggests that Muslims are more prone to migrate from the rural to the urban areas. Since a great majority of them are self employed and are in business and trade (Hasan, 1997), it suits them to live in the urban areas.

Muslims constitute 97 percent of the total population of Pakistan. Their population grew from 33.7 million in 1951 to 81.8 million in 1981, an average growth rate of about 3 percent (National Institute of Population Studies, 1987). In Pakistan, the 1991 Census could not be conducted'. A Census was conducted in 1998, which enumerated a population of 130.6 million. Of these, 126.6 million were Muslims (Government of Pakistan, 1998). Thus, the number of Muslims in Pakistan is only slightly higher than the estimated 120 million Muslim population of India.

Migration of Muslims from India to Pakistan

The events following the partition of the Indian sub-continent into two independent countries of India and Pakistan resulted in a population exchange of over 14 million people (Visaria, 1969). Population movement of such a magnitude, within a year, has not been recorded anywhere else in the human history (Jillani, 1963). The 1951 Census of Pakistan recorded 6.53 million people who were born in India and were living in West Pakistan (Government of Pakistan, 1951). The origins and destinations of the immigrants from India are shown in

It was twice postponed due to political reasons, which included the fear of re-distribution of the National Assembly seats to the fastest growing Province of Sindh in general and Karachi city in particular which has been the recipient of the majority of internal migrants from other provinces. (for details see Karim, 1997a). For the purpose of clarity, prior to the break-up of Pakistan in 1971, the present day Pakistan here is referred as West Pakistan. In 1947 from East Pakistan (which in 1971 became the independent country of Bangladesh) about 2.5 million people had migrated to India and 0.7 migrated there from India (Visaria, 1969)

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

Table 1. Two observations are worth noting. An overwhelming majority of the immigrants (88 per cent) originated in the North-Western zone presently the Indian states of Punjab, Rajasthan and Delhi located to the North-Eastern boarder of Pakistan. About two percent originated in the Western zone, mainly in Bombay State (at present the states of Maharashtra and Gujarat) which had easy access to Pakistan through the Arabian sea. The rest originated in the North-Central and Eastern zones (at present the States of Uttar Pradesh, Madhya Pradesh and Bihar) and the Southern zone, especially the former princely State of Hyderabad (now part of Andhra Pradesh).

After partition, although population movement across the boundaries of India and Pakistan was expected, its magnitude was not foreseen by the political leadership. An estimated 7.2 million Muslims emigrated from India and 5.5 Hindus and Sikhs left West Pakistan (Khosla, 1991). India's Prime Minister Nehru, admitted in a press conference that no one had envisaged a major population transfer between India and Pakistan and that there was "no policy with regard to exchange of population, and there was no talk of it before August 15th" (cited in Sipe, 1976).

According to the 1951 Census of Pakistan, immigrants from India constituted about one fourth of the 33.7 million enumerated population of West Pakistan. These immigrants, especially those who had chosen to settle in Sindh Province, tended to concentrate in its urban areas. In 14 out of 15 towns and cities of Sindh having populations of 75,000 or more, between one third and two thirds of the residents were classified as refugees from India. The city of Karachi, which became the capital of Pakistan and in 1951 had a population of slightly over one million, refugees accounted for 55 per cent of the population.

Table 1
Migration of Indian Muslims to Pakistan during 1947-50

From (Zones of India)	To (Province of Pakistan)			Migrated from	
	Sindh	Punjab	NWFP and Balochistan	Total	
North-East and East	38,800	121,200	24,200	474,200	7.3
Central	69,700	17,200	4,700	91,600	1.4

North-West	588,500	5,146,700	47,900	5,783,100	88.6
West	151,200	5,400	1,400	158,000	2.4
South	18,200	800	400	19,400	0.3
Migrated to:					
Total	1,156,400	5,291,300	78,600	6,526,300	100.0
Percent	17.7	81.1	1.2	100.0	--

Source: Census of Pakistan, 1951

Migration to India from Pakistan was also of a similar magnitude. But due to the much larger population base in India, it was less visible, except in those States in the vicinity of West Pakistan (e.g. Punjab and Delhi) and East Pakistan (Bengal and Assam). In India, a special Census of "displaced persons" (immigrants) from West Pakistan was conducted in 1948, which determined their number as 5 million (Visaria, 1969). However, in his review of the 1951 Indian Census, Visaria found that 4.7 million displaced persons had originated in West Pakistan while an additional 2.5 million had originated in East Pakistan, while 0.05 million did not specify their origin. Thus, the total of about seven million immigrants to India constituted about 2 percent of India's total population in 1951 (of these 1.3 percent had originated in West Pakistan and 0.7 percent in East Pakistan). This compares with about 20 percent of West Pakistan's population which had originated in India. Besides the overall social and political implications of migration between the two countries, it resulted in a sudden jump in the percentage of people living in urban areas, as revealed was from comparing the 1941 and 1951 censuses (see Premi 1981; Khan and Karim, 1984). One of the major reasons for this acceleration in urban growth during this period was the settlement of many immigrants in urban areas of Pakistan (Selier and Karim, 1986). The most affected province was Sindh and the then federal capital, the city of Karachi (which is now the capital of Sindh Province). Within a year, Karachi's population more than doubled.

The available figures on the migration of Indian Muslims to Pakistan after 1951 are somewhat controversial. The International Labour Office (1956) reports migration of 650,000 people to West Pakistan and 500,000 to East Pakistan from India during 1951-56. Visaria (1969), however, questions the validity of continued migration to Pakistan, since it was not corroborated by the 1961 Census of Pakistan figures. However, the 1961 Census (Government of Pakistan, n.d.) includes a statement suggesting migration of some 800,000 people from India to Pakistan during the previous decade. Khaldi (1998), on the other hand,

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

argues that such migration did continue and supports his view citing official correspondence from India's Prime Minister Nehru to the State Chief Ministers indicating concern at the migration of Muslims from India to Pakistan. Khaldi contends it most likely, that they were not identified in the 1961 Census of Pakistan due to the illegal nature of these immigrants. Pakistan's borders had been closed to Indian citizens in 1953 and they could only travel with a passport or migrate to Pakistan through official channels.

Thus, because of the fear of identification as illegal immigrants, they intentionally did not report their Indian origin in the 1961 Census. Khaldi further opines that the migration of Indian Muslims continued until the early 1960's but mostly to East Pakistan. Over half a million then re-migrated to West Pakistan after East Pakistan became the independent state of Bangladesh. However, about 0.3 million (now perhaps over half a million) remained there who claimed to be Pakistanis but have yet to be repatriated to Pakistan (see Newburg, 1991). Immigrants to Pakistan from certain Indian States and territory e.g. UP, CP, Bihar, Rajasthan, Delhi and Hyderabad and their progenies are often referred as ` *Muhajirs* ', an Urdu word for "refugees from India", however, only those are included in this category who consider Urdu language as their mother tongue.

The Urdu-Speaking Population in India and Pakistan

Urdu is an Indo-Iranian language. It derives substantial vocabularies from Arabic Persian, and Turkish languages, and was developed during the 500-year Muslim rule in India. Urdu however, gained popular use and secured the status of a distinguished literary language in the Eighteenth and Nineteenth centuries. Urdu is written in the Arabic script and is closely associated with Islamic culture. Therefore, much of its literature has an Islamic content. It has been the lingua franca of Muslims living mainly in the North-Central Indian States for the past two centuries and in Sindh Province of Pakistan since the past half a century. The World Ethnographic Survey of Muslim People (Weeks, 1985), describes the Urdu-speaking Muslims of India and Pakistan not as a single ethnic group, but as a collection of ethnic groups bonded together by a common language and cultural heritage. Besides the Urdu language, common factors which are reported to tie them together are the Muslim religion, cultural traditions and a sense of supremacy derived from centuries of Muslim rule in India. It is further pointed out, that many Urdu-speakers trace their ancestry to the Muslim Arab immigrants who came to the subcontinent during the Eighth Century. They were followed by Turks, Persians, Afghans and Mughals, who all came as

conquering armies beginning in the Eleventh Century. Subsequently, they established Muslim rule in the region in the Thirteenth Century until India became part of the British Empire. Besides the descendants of immigrants in this group, there are also the descendants of local converts to Islam. Conversions were made from both high caste to the low caste Hindus and Buddhists both from conviction (by sufi saints) convenience (under Muslim rules) as well as through marriage.

Rehman (1956) cites the various contributions of Muslims to Indian society before British colonial rule and maintains that "by the Fourteenth Century India had become a major centre of Islamic learning. What Leonardo da Vinci represents to European Renaissance, Amir Khusrau [a Muslim sufi] represents to Indian renaissance. His contributions besides in the field of music, were in poetry and literature through which he exuded his philosophy of life. ... his ideas about developing a new culture, through intermingling of various traditions of India as well as through a new language *Hindvi* [the forerunner of Urdu language]. Mixing Persian couplets with *Hindvi* he indicates more clearly the evolution of a new culture."

With the downfall of the Moghal Empire and the traumatic period after the first war of Independence in 1857, Muslims who had fought against the British were dejected and had withdrawn from political resistance. This was also the period, however, when Urdu became the language of the masses in North-Central India as well as the language of the Court of the last Moghal Emperor, Bahadur Shah Zafar. Mirza Ghalib, who was a courtier in the last Emperor's court is considered the greatest Urdu poet. After the British had quelled the resistance movement against them, the Emperor was exiled to Burma where he later died. Mirza Ghalib on the other hand, along with many other Muslims was charged with treason against the British crown. While in prison or under constant stress, he composed some of the best poems in Urdu. These are still revered by those who speak Urdu in India as well as in Pakistan.

According to the 1991 Census of India, Urdu is one of the 18 languages listed in the category of mother tongues in India. In the total population, 43.4 million (over 5%) reported Urdu as their mother tongue. Thus, Urdu was ranked 6th after those who reported Hindi (40.0%), Bengali (8.3%), Telgu (7.9%), Marathi (7.5%) and Tamil (6.3%) as their mother tongue. Those who claimed Urdu as their mother tongue were found in almost all the States and territories and was reported as the most widely spoken language after Hindi (Government of

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

India, 1998). However, as shown in table 2, the highest concentration of Urdu-speaking people was in Uttar Pradesh, followed by Bihar; the two together accounting for over 50 percent of all those who reported Urdu as their mother tongue.³

Veer (1994) points out that, in India, Hindi has emerged as "the language of the Hindu nation" and "Urdu the language of the Muslim nation". He also recognises the similarity between the two, with two major exceptions - unlike Hindi, Urdu is written in the Arabic script and uses Persian and Arabic words, while the former derives words from Sanskrit. It is also important to note that Urdu is more of an urban language in India, which is a predominantly rural society. In 1991, while only 28 percent of the total population lived in urban areas, 54 percent of those who reported Urdu as their mother tongue lived in urban areas (Government of India, 1998). In the six Indian States which are the focus of this study, between two to ten percent of the total population reported Urdu as its mother tongue. These States, contain 67 percent of all Urdu-speaking people enumerated in India in the 1991 Census. When the 44.3 million Urdu-speaking population of 1991 is projected at an average growth rate of 2.2 percent, the estimated population of Urdu-speaking persons in 1999 in India would be in excess of 51 million.

³ In North-Central India in general and UP and Bihar in particular, Urdu is often mixed with Hindi since the two languages are spoken similarly. Due to the emphasis on education in Hindi, now among many Muslim families, there is a trend to read and write in Hindi rather than in Urdu. Therefore, the number of Urdu-speaking population may be much higher than reported in the 1991 Census. Perhaps many report their mother tongue as Hindi. Breton (1997) in his illustrative volume *Atlas of the languages and Ethnic communities of South Asia* argues that "within the Hindi Belt, or within the linguistic Hindustan, an excess of up to 50 percent of Muslims compared to Urdu-speakers can usually be found, which means that one Muslim out of three states Hindi or one of its local dialects as his mother tongue." (p.38)

Table2**Distribution of persons who reported Urdu as their mother tongue in the six States, India, 1991**

State	Number	% of the Total Population	% of those who reported Urdu as their mother tongue	% who live in Urban areas within the State
Andhra Pradesh	5,560,154	8.4	12.6	60.3
Bihar	8,542,463	10.0	19.4	18.7
Delhi	512,990	5.5	1.2	95.8
Madhya Pradesh	1,227,672	1.9	2.8	83.3
Rajasthan	953,497	2.2	2.2	82.2
Uttar Pradesh	12,492,927	9.0	28.4	53.8
Total of six States	29,289,703	-	66.6	-
All other States	14,718,037	-	33.4	-
Total All India	44,007,740	5.5	100.0	53.8

Source: 1991 Census of India

The three previous censuses of Pakistan had treated the question related to language differently. The 1961 Census recorded the mother tongue of each individual in each household. In the 1972 Census, the question on language was not included and in the 1981 Census, a question was asked about the most common language spoken in each household. The Census conducted in 1998 included a similar question as asked in the 1961 Census. However, to date, the 1998 Census results on mother tongue have not been released. The distribution of population by mother tongue as recorded in the 1961 Census is shown in Table 3. Overall, about 8 percent of the population reported Urdu as their mother tongue, about six-tenths of them lived in Sindh, constituting 21 percent of the Province's population. On the basis of migration of Urdu-speaking people from former East Pakistan in the early 1970s and applying a similar population growth rate among the Urdu-speaking people as the national average, it is estimated that today approximately 12 to 13 million people in Pakistan could be classified as "Urdu-speaking".

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

Table 3

Distribution of persons who reported Urdu as their mother tongue in Pakistan, 1961

Province	Number	of the total population of Pakistan	% of those who reported Urdu as their mother tongue
Sindh	1,757,261	4.5	58.8
Other Provinces	1,230,565	3.1	41.2
Total	2,987,826'	7.6	100.0

In addition, 310,628 persons reported Urdu as their mother tongue, lived in East Pakistan.

Source: 1961 Census of Pakistan

DATA AND METHOD

This paper utilises two sets of data from the two countries. The data pertaining to Indian Muslims is taken from the National Family Health Survey (NHSF) which was conducted in India during 1992-93 (International Institute of Population Sciences, 1995). The survey covered 88,620 households in all the States of the Union, except the Kashmir valley in the State of Jammu and Kahsmir. A set of questions relating to household assets, religious affiliation, women and their husbands' level of education and the demographic characteristics of married women below the age of 50, including their reproductive behaviour, were posed. A somewhat identical Maternal & Infant Mortality Survey (MIMS) was conducted in the Sindh Province of Pakistan in 1994 which covered 37,000 households (Karim et al, 1998). Besides information similar to that in the Indian NFHS, the mother tongue of the respondents was also ascertained. Due to the comparative nature of this paper, only Muslim households and currently married women in the six North-Central Indian States and households which reported Urdu as their mother tongue in Sindh are included. Since Urdu-speaking households are only found in the urban areas of Sindh, only urban households from the six Indian States are included in this analysis. The relationship between household economic indicators and characteristic of women with their reproductive behaviour are first examined through bi-variate analyses. Since the outcome variable (current use of contraceptives) is dichotomous (user/non-user), therefore, logistic regression is applied to explain the effects of household economic indicator and socio-demographic characteristics of women on their reproductive behaviour.

MAJOR FINDINGS

In this section, the major findings relating to the characteristics of the sampled households and socio-economic characteristics of currently married women in reproductive age groups are discussed.

Household Economic Indicators

The households where the two groups, namely Indian Muslims and Urdu-speaking families in Sindh reside appear quite different. For comparative purposes the household assets of other sub-groups in the two geographic areas are also shown in Table 4. It is evident that while Muslims in the six Indian States are economically behind the followers of other religions, the Urdu-speaking households in urban Sindh on the other hand have the best economic indicators as compared to all the other three groups.

Table 4**Percentage distribution of households by the ownership of assets, Muslims in urban areas of the six Indian States* and urban areas of Sindh, Pakistan, 1992-94**

Household Assets	Six Indian States Religion		Muslims in Urban Sindh Mother Tongue	
	Non- Muslims	Muslims	Urdu	Other
Radio	67.2	48.2	77.7	62.5
Television set	68.0	44.7	86.0	68.2
Refrigerator	32.1	17.2	57.0	35.1
Sewing Machine	52.3	53.3	85.7	63.3
Motorcycle	29.9	16.1	21.5	23.1
Motor Car	5.1	2.5	11.2	5.2

Andhra Pradesh, Bihar, Delhi, Madhya Pradesh, Rajasthan and Uttar Pradesh
National Family Health Survey, 1992-93.
Maternal and Infant Mortality Survey, 1994.

The most striking difference is observed in the ownership of television set, which exposes families to the modern world. While only 44 percent of Indian Muslim households own a television set, almost twice as many own a television set among the Urdu-speaking households in Sindh, Pakistan. On the other hand, about two-thirds of the households of the

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

other religious groups in the six Indian States and those speaking other languages in Sindh, Pakistan, own television set. Similarly, although car ownership is fairly low among all the four sub-groups, over four times as many Urdu-speaking households in Sindh report to ownership of a car compared to the Muslim households in the six Indian States, and more than half as many as in the other two categories.

Characteristics of Currently Married Women and their Husbands

In terms of educational achievements, Urdu-speaking women living in urban Sindh have done fairly well as compared to their Muslim counterparts in India (figure 3). Although over two fifths of Urdu-speaking women in urban Sindh and seven-tenths of Muslim women living in the urban areas of the six Indian States did not attend School, the difference is astonishing when post-secondary education is considered; about 40 percent of the former and less than 4 percent of the latter report education beyond secondary (10+ years) level. The value of female education is well recognised for its effects on fertility and is often considered as the single most important variable causing fertility decline (see Cocbrane, 1979; Sathar 1993; Parasuraman, 1999).

Likewise Urdu-speaking men in urban Sindh show a substantial advantage in education over Muslim men living in the urban areas of the six Indian States (Figure 4). While about one-fourth of the former and about one-third of the latter have not had any schooling, however about six-tenths of the former and only one-tenth of the latter had received post-secondary education. This difference in educational attainment among husbands of currently married women could have important implications for their reproductive behaviour.

As respondents in the two surveys were married women only, the Indian Muslims women had a younger age profile than Urdu-speaking women in Sindh, primarily due to a higher age of marriage among the latter (Table 5). About 30 percent of Indian Muslim women were married at the age of 16 or younger as compared to about 23 percent of Urdu-speaking women in Sindh. The most striking difference is to be found among those who married at the age of 22 or later. Only about 7 percent of Indian Muslim women married that late but among Urdu-speaking women in Sindh, the percentage was almost three times as many. Consequently, the mean age of marriage is over a year higher among the latter category. Most interestingly, while those in both groups who had married 30 years earlier had the same mean age of marriage (15 years), among the recently married cohort, the urban Indian

Muslims women on an average married at age 18.5 years as compared to an average age of marriage of 20.5 years among Urdu- speaking women in urban Sindh. Thus within a generation, the gap has widened substantially. It appears that Urdu-speaking women in Sindh have followed a trend of an increasing age of marriage which started in Pakistan in the early 1960's (Sadiq, 1965; Sathar and Kiani, 1986). It has been argued that the age at marriage in Pakistan has been increasing mainly due to the "family law ordinance" promulgated by President Ayub Khan immediately after he took office in 1958 (Karim, 1984). The ordinance raised the minimum legal age of marriage for women to 16 years. Although the average age at marriage for females in India began to show an upward trend in the 1960's (see Talwar and Seal, 1974) and has continued in the 70's and the 80's (Indian Institute of Population Sciences, 1995), apparently urban Muslim women in India have not followed the same trend as their counterparts in urban Sindh.

The contribution of a delayed age of marriage in reducing fertility is well documented even before overall fertility had started declining in the two countries (see, for example, Agarwala, 1963; De Tray 1976; Karim, 1979; Talwar and Seal, 1979). The contribution of delayed age at marriage to female autonomy is also recognised (Jejeebhoy, 1995). Consequently it is maintained that "a shift in age at marriage is an important cultural change, a change in traditional behaviour relating to one of the most fundamental institutions in the society. It is likely to be indicative of other changes in attitudes towards marriage, as well as reproductive behaviour." (Karim, 1979).

**Effects of Migration, Socioeconomic Status and Population Policy on
Reproductive Behaviour**

Table 5

Demographic Characteristics of Currently Married Women

	Indian Muslim Women (Living in the urban areas of six Indian States*)	Urdu-Speaking Women (Living in the urban areas of Sindh, Pakistan)
Age Profile (percent)		
Under 20 years	8.4	2.6
20-29	42.0	38.9
30-39	32.6	35.8
40-49	17.0	22.7
Mean	30.3	31.7
Age at Marriage (percent)		
Under 16 years	29.8	22.7
16-17	26.3	18.8
18-19	25.0	21.4
20-21	11.6	18.0
22 and over	7.3	19.1
Mean	17.2	18.5
Age at Marriage by Duration of Marriage (Mean)		
30 years or more	15.0	15.0
25-29	16.1	16.7
20-24	16.4	17.6
15-19	17.0	17.7
10-14	17.0	18.4
5-9	17.7	19.4
Less than 5 years	18.5	20.8
Number of Women	1571	7056

Andhra Pradesh, Bihar, Delhi, Madhya Pradesh, Rajasthan and Uttar Pradesh
National Family Health Survey, 1992-93.
Maternal and Infant Mortality Survey, 1994.

Fertility Patterns

In recent years, fertility in India in general and in its urban areas in particular has declined as NHSF reports total fertility rates of 2.7 in urban areas and 3.7 in rural areas (International Institute of Population Sciences, 1995). Total fertility rates in the urban areas of the six

Indian States on the other hand have varied between 2.4 in Andhra Pradesh to 3.6 in Uttar Pradesh. Among Muslims, the lowest total fertility rate of 2.8 is recorded in Andhra Pradesh and the highest of 4.8 in Uttar Pradesh. Similarly, fertility in Pakistan's urban areas has also declined in recent years (Hakim et al, 1998). The differences are more prominent in Sindh, where a total fertility rate of 3.7 has been recorded in the urban areas and 5.3 in the rural areas (Karim et al, 1998).

Due to the non-availability of NFHS household age distribution by religion, total fertility rates for women living in the urban areas of the six Indian States could not be calculated. However, as shown in figure 5, when the marital age-specific fertility rates of Muslim women living in the urban areas of the six Indian States are plotted against those of Urdu-speaking women living in the urban areas of Sindh, after age 24, they appear quite identical. It is apparent that the patterns of child bearing among women in the two populations are quite similar.

Another indicator of fertility, i.e, children born to women according to their current age shows almost similar patterns (figure 6). However, towards the end of their reproductive period an average Muslim woman living in the urban areas of the six Indian States reported an excess of about half child over Urdu-speaking woman in urban Sindh. Figure 7 suggests that perhaps the current fertility levels in the two populations are quite similar, as the percentage of those reported currently pregnant are identical, except in the age group 15-19. The age-standardised pregnancy rates are quite identical also (about 10%) in both the populations.

Contraceptive Use

Since according to their socio-economic status, Urdu-speaking women in urban Sindh are relatively better off than their Muslim counterparts in the six Indian States, and despite a higher age at marriage among the former, what factors could be responsible for a similar fertility level among the two? To examine this similarity, we look at the knowledge and patterns of past, and current use of contraception among women in the two populations. As shown in table 6, while knowledge about contraception is almost universal among Muslim women in the urban areas of the six Indian states, it is lower among the Urdu-speaking women in urban Sindh. Similarly, past use is somewhat higher among the former than the latter. However, over half in the former indicated intention to use, as compared to two fifths

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

among the latter. Perhaps past use and future intentions are reflections of a greater exposure to, and consequently knowledge of contraception among urban Indian Muslim women. The reasons for this will be dealt with later in the next section.

The percentage of current users of contraceptives is almost identical in the two populations, which is indeed low given that these women are living in the urban areas and the majority of them especially in urban Sindh, are exposed to the modern means of communication. The two populations however, differ substantially in terms of methods of contraceptive usage. For example, about half of Indian Muslim couples who are current users, are sterilised, which means that their preference apparently is not for the postponement of pregnancies. On the other hand, about half of the current users in urban Sindh, report using condoms and withdrawal - the two male methods - an indication of greater control of involvement of husbands in family planning decision making.

Table 6

Percent of Currently Married Women 15-49 who have Knowledge of Contraceptives, have Used in the Past, Intend to Use in Future and are Currently Using by Method

	Indian Muslim Women (Living in the urban areas of six Indian States*)	Urdu-Speaking Women (Living in the urban areas of Sindh, Pakistan)
Have Knowledge of any Method	97.1	84.2
Used in the Past	42.0	38.3
Intend Using	50.1	40.2
Currently Using	31.8	32.4
Number of Women	1571	7056
Method Currently Using (only current users N =)	499	2287
Pills	7.8	8.6
IUD	8.6	10.9
Injection	0.4	4.2
Condom	28.7	37.4
Female Sterlization	45.1	22.9
Male Sterlization	3.6	0.1
Abstinence	3.8	5.3
Withdrawal	1.2	9.4
Other	0.8	1.2
Total	100.00	100.00

Andhra Pradesh, Bihar, Delhi, Madhya Pradesh, Rajashthan and Uttar Pradesh
National Family Health Survey, 1992-93.
Maternal and Infant Mortality Survey, 1994.

POPULATION POLICIES IN INDIA AND PAKISTAN.

The population policies in two countries have revolved around government sponsored family planning programmes with support from NGOs. Nonetheless, each programme has had its own ups and downs as described below.

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

India's Family Planning Programme:

I India was the first country to launch family planning programme in 1952. Since its inception, the programme has changed several times due to various reasons. The main emphasis of population policy however, has been to reduce the birth rate to the extent necessary to stabilize the population at a level consistent with the requirements of the national economy (Agarwal, 1992).

The First Five Year Plan (1951-56) identified the need for limiting family size and spacing child-birth for the improved health of the mother and children. During the Second Five Year Plan period (1956-61), a Central Family Planning Board was established to strengthen the family planning programme. With an emphasis on a clinical approach, by the end of Second Plan, several clinics were established which stressed providing contraceptive services for women through trained female workers (UN ESCAP, 1990). The Third Five Year Plan (1961-66) accorded a very high priority to family planning. During this period, the strategy was to reach people with the help of mass media, group meetings and individual contacts. Thus, a shift was made from the "clinic-based approach" to the "extension approach". The objectives of the extension approach were: (i) creation of the norm of a small family by educating and involving opinion leaders and; (ii) providing information to all eligible couples about every contraceptive method available in the programme. Although the programme advocated a cafeteria approach, in practice the main emphasis was on sterilisation. Incentives were given to motivators, doctors and acceptors of sterilisation. Subsequently in the Fourth Five Year Plan (1969-1974), the tempo of sterilisation was further accelerated. High targets were set and additional attention was given to the "camp approach" for conducting sterilisation. A mass vasectomy campaign was launched and to offset the cost of time lost from work, vasectomy acceptors were given monetary compensation which acted partly as an incentive. At the end of the Plan period, the same was replaced by a "mini-camp approach" wherein each camp dealt with only 25 sterilisation.

I The Fifth Five Year Plan (1974-79) witnessed first a dramatic rise and later fall of family planning acceptance. After the declaration of an emergency by Prime Minister Mrs. Indra Gandhi, an aggressive family planning programme was launched during the year 1976-77

which placed further emphasis on sterilisation with a total of 8.26 million sterilisation performed within a year (UN ESCAP, 1990). During the emergency period, several time-bound coercive measures were taken to realise the targets. However, with the change of government after the elections of 1977, the programme became a victim of political controversy and almost completely collapsed. Thus, in 1977-78 less than one million sterilisation were performed. A new population policy was adopted with emphasis on the increase in age at marriage from 15 to 18 for females and from 18 to 21 for males. Other special features of the policy included women's education, an increase in compensation for sterilisation acceptors and other incentives like preferential allotment of house and loans for family planning acceptors.

In the Sixth Five Year Plan (1980-85), clear demographic targets were identified, such as reduction of net reproduction rate to one by 1996 for the country as a whole and by 2001 for all states. In 1983, in the new National Health Policy, the Family Planning Programme was viewed as a part of the total national effort for providing a better life to the people. The name of the programme was changed from "Family Planning" to "Family Welfare" but there was virtually no change in programme strategies (Raina, 1989).

The Seventh Five Year Plan (1986-90) emphasised the structural integration of health, family planning, nutrition and mother and child welfare activities. The most significant event during this period was the introduction of the Revised Strategy for the National Family Welfare Programme. The specific objectives set to be achieved by 1990 included an increase in female age at marriage to over 20 years, the promotion of a two child family norm and an increase in contraceptive prevalence to 42 percent. The Sixth and Seventh Plans viewed demographic goals in a wider perspective. It was realised that a low birth rate cannot be achieved without concomitant improvements in conditions of life. In the Eighth Five Year Plan (1992-97), due attention was given to increasing female literacy, raising the female age at marriage, creating employment opportunities for women and raising their status in the society. The recommendations of the National Development Council include improvements in family welfare programmes by removing the backlog and strengthening health care infrastructure; establishing sterilisation and medical termination of pregnancy facilities at each Primary Health Care centres and sub-divisional hospitals; strengthening of pre-service and in-service training of family welfare staff by involving national and regional institutions and; carrying out family welfare programmes as part of overall development programme by

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

integrated co-ordination at grass root level.

Nation-wide surveys of contraceptive prevalence conducted in India since the early 1970s until the mid 90s indicate that during the period, the contraceptive prevalence rate increased three fold, from 14 to 41 percent. However, there is considerable inter-state variation in India in contraceptive prevalence rates. The family planning programme made spectacular progress in Kerala, Maharashtra, Punjab, Haryana and Tamil Nadu while its performance has been far below target in Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh (Agarwal, 1992). Thus, the more populous northern states with poor performances lagged behind considerably as compared to the southern states. This led the Department of Family Welfare to identify 90 poor performing districts (83 of them in Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) needing special inputs through the "Social Safety Net Programme". Other important initiatives include a seven-year "Child Survival and Safe Motherhood Programme" launched in 51 districts in 1992-93. It was extended to other 103 districts in 1993-94. Steps were also taken to involve and intensify the participation of NGOs and private sector in the promotion of family welfare programme.

The swings in the population policy of India were due to various reasons such as lack of stipulation of clear targets and time span for reduction in birth rate. The current policy of the government is to reduce dependence on sterilisation and to broaden the choices available. The family planning programme in India has been considered purely a central government programme. Therefore, some of the states governments do not fully appreciate the problem and the issues involved, since they are wholly dependent on funds provided by the federal Government.

Now many NGOs have started taking an interest in the family welfare programme and some of them have received grants from the Ministry of Health and Family Welfare to undertake family planning activities. According to one estimate, there are currently about 300 voluntary organisations which receive assistance from the government for health and family welfare programmes. Among various NGOs, the Family Planning Association of India is the pioneer organisation which has played a crucial role in initiating and promoting family planning services in the country.

In India, although continuous efforts have been made during the last four decades by the

Government and NGOs through experiment and research, inadequate measures in regulating the major determinants of high fertility, such as low status of woman and poor infrastructure facilities, especially in the northern states, have adversely affected the programme.

Pakistan's Family Planning Programme:

Over the past 40 years, Pakistan's population programme has emerged considerably from an NGO driven to a government supported programme. More than 40 years ago, the Family Planning Association of Pakistan started limited services in large cities. In 1962, the government included family planning services as a component of its health programme. An ambitious family planning programme was launched in 1965 by the government which aimed to cover the entire country. It was a target oriented approach with reliance on *Dais* (illiterate and untrained traditional birth attendants). They were primarily the promoter of IUD and for each insertions, they along with medical officers and clients were given financial incentives. However, the organisational set-up of the programme was entirely bureaucratic, without involving community leaders or the religious groups who were quite vocal against the programme (Rukunuddin and Hardee-Cleveland, 1992). Due to a combination of factors, such as, mis-management of funds and strong political opposition, with the removal of General Ayub Khan as President of Pakistan, who was a staunch supporter of family planning, the programme almost collapsed in 1969. For the next 20 years, political support for the programme was quite negligible. It also suffered substantially from frequent changes in programme strategies.

During the 1970s, female family planing workers were recruited, given training and posted at rural clinics in order to avoid shortage of medical personnel. Male and female workers were engaged to spread information on family planning services and contraceptives. Arrangements were also made to make contraceptives widely available throughout the country. During 1973-76, the Continuous Motivation System (CMS) was adopted while the *Dais* scheme which was introduced previously was regarded as a failure and abandoned. The official programme reached a standstill due to political disturbances during 1976-78 and remained almost suspended until the early 1980s.

In 1982, the programme was brought under the Population Welfare Division of the federal government and about 1,000 existing family welfare centres were required to provide mother

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

and child health care as well as to administer contraception. In 1990 a full-fledged Ministry of Population Welfare was set up at the federal level. Thus, during the decade only administrative changes had been introduced and, in the absence of a proper delivery systems through proper outreach mechanisms, contraceptive prevalence rate increased minimally from 5 percent in 1974-75 to 12 percent in 1990-91.

The latest strategy of population welfare programme has been based on a multi-sectoral approach whereby birth control activities are intertwined with the provision of mother and child health care through Family Welfare Centres (FWC) and Reproductive Health Centres (RHC) which deal with delivery of contraceptives. Some improvements in contraceptive prevalence rate has occurred which reached 18 percent in 1995 (Hakim and Miller, 1996).

Overall, Pakistan's family planning programme's impact on fertility has been negligible. The failure of the family planning programmes in Pakistan is not only due to the lack of any family planning programme effort but also to the poor attention given to the social sector such as primary education and primary health care. Their relative stagnation also had a negative effect on the family planning programme. The lower level of female education in Pakistan, along with relatively high infant and child mortality has led to increasing resistance to birth control. Besides, in rural and low income urban areas the influence of religious leadership is also strong who due to their non-involvement have deliberately opposed the family planning programme. Thus, the overall fertility rate has remained high despite the existence of an official programme since 1965. Its lack of success is further compounded by an inadequate supply of information and services to the couples. Above all, until recently, there has been a complete absence of strong political support.

DISCUSSION

It is apparent that similar to the general population, Muslim women in India are better exposed to family planning services as compared to women living in Pakistan. In a comparative analysis, the effectiveness of the family planning programme in India was considered as the key factor associated with a rapid decline in fertility (Karim, 1998). Similarly Ross and Mauldin (1996) have shown that fertility decline in India has been caused mainly by a high family planning effort score of 78 percent. This compares with a relatively low score of 48 percent for Pakistan, resulting in negligible fertility decline.

The Muslim women living in urban areas of the six Indian states are socio-economically behind the Urdu-speaking women living in the urban areas of Sindh, Pakistan, but in terms of their reproductive behaviour they are quite similar. This could be mainly due to a more aggressive and efficient public policy viz-a-viz family planning which has been followed by the Indian Government from which Muslim women have also benefited. On the other hand, the Urdu-speaking women living in urban Sindh, Pakistan due to their socially and economically privileged position, in the absence of any effective family planning programme, have adopted birth control practices perhaps on their own initiative.

The question arises as to what would have happened if Pakistan's family planning programme would not have suffered due to the absence of proper public policy and political support. If the family planning programme had been effective, would the contraceptive prevalence rate be higher in Pakistan in general and among the Urdu-speaking women in particular, mainly due to a higher level of education among them. To answer this counter-factual question, we shall utilise the results from the logistics regression analysis. For the purpose the final model in the logit form is given as follows:

$$\text{Log}(p/1-p) = \beta_{00} + \beta_{11}(\text{AGE1}) + \beta_{12}(\text{AGE2}) + \beta_{021}(\text{CHALIVE1}) + \beta_{22}(\text{CHALIVE2}) + \beta_{23}(\text{CHALIVE3}) + \beta_{31}(\text{SES1}) + \beta_{32}(\text{SES2}) + \beta_{41}(\text{EDUC1}) + \beta_{42}(\text{EDUC2}) + \beta_{43}(\text{EDUC3})$$

Where, AGE 1 and AGE2 are the two dummy variables for age of woman, (with age 20-29 as the reference category); CHALIVE1, CHALIVE2 and CHALIVE3 are the three dummy variables for the number of living children (with less than 3 living children as the reference category); SES 1 and SES2 are the two dummy variables for the household's economic status (with low SES as the reference category) and; EDUC1, EDUC2 and EDUC3 are the three dummy variables for the education level of woman (with no schooling as the reference category).

In the above model the log odds of currently using contraceptives is the function of current age of woman, number of living children, household's economic status and level of woman's education.

**Effects of Migration, Socioeconomic Status and Population Policy on
Reproductive Behaviour**

Table 7

Current Use of Contraceptives by Currently Married Women 20-49 with One or More Living Children: Results of Logistic Regression Analyses, Unadjusted Odds Ratios

	Indian Muslim Women (Living in the urban areas of six Indian States*)			Urdu-Speaking Women (Living in the urban areas of Sindh, Pakistan)		
	% of women using Contraceptives	Unadjusted Odds Ratios	95% Confidence Interval	% of women using Contraceptives	Unadjusted Odds Ratios	95% Confidence Interval
Age-croup						
20-29 [Reference]	26.1	1.00	- -	-	1.00	- -
30-39	43.8	2.00	1.56 - 2.58	41.1	1.74	1.54 - 1.96
40-49	35.2	1.38	1.01 - 1.88	32.8	1.88	1.03 - 1.36
Number of Living Children						
1-2 [Reference]	27.0	1.00	- -	27.2	1.00	- -
3-4	43.0	1.84	- -	42.1	1.88	1.64 - 2.16
5-6	37.9	1.40	- -	38.5	1.61	1.61 - 2.29
7 or more	32.1	1.15	1.38 - 2.43	33.7	1.32	1.12 - 1.54
Economic Status'						
Low [Reference]	23.0	1.00	1.01 - 1.94	21.8	1.00	- -
Middle	38.4	2.27	.79 - 1.67	25.4	1.12	1.00 - 1.47
High	48.2	3.62		38.9	2.42	2.02 - 2.89
Education						
None [Reference]	25.5	1.00	1.76 - 2.92	23.5	1.00	- -
Primary	40.9	2.33	2.59 - 5.07	29.6	1.37	1.13 - 1.67
Secondary	45.7	2.64		36.9	1.91	1.59 - 2.28
Higher	53.6	3.63		41.0	2.54	2.26 - 2.86
Number of Women		1331			6306	
			1.76 - 2.92			
			1.94 - 3.60			
			1.99 - 6.62			

* Andhra Pradesh, Bihar, Delhi, Madhya Pradesh, Rajasthan and Uttar Pradesh

1. If neither TV or Refrigerator available = Low, If one available = Middle, If both available =High

The results of multi-variate analyses presented in table 8, demonstrate that after controlling for women's age, the number of living children and their economic status, among Indian Muslim women the rate of current contraceptive use more than doubles when they attain a primary level of education. The use rate among them increases gradually for each category of higher education. On the other hand, among Urdu-speaking women in Sindh, primary education helps only a little while secondary and post-secondary education have more significant impact on contraceptive use.

**Effects of Migration, Socioeconomic Status and Population Policy on
Reproductive Behaviour**

Table 8

**Current Use of Contraceptives by Currently Married Women 20-49 with One or More Living Children after Controlling for their Demographic, Social and Economic Characteristics: Results of Logistic Regression Analyses
Adjusted Odds Ratios**

	Indian Muslim Women (Living in the urban areas of six Indian Sates*)		Urdu-Speaking Women (Living in the urban areas of Sindh, Pakistan)	
	Adjusted Confidence Odds Ratios	95% Interval	Adjusted confidence Odds Ratios	95% Interval
Age-group				
20-29 [Reference]				
30-39	1.00		1.00	
40-49	2.14***	1.59 - 2.90	1.50***	1.30 - 1.71
	1.56	1.07 - 2.29	1.02	.87 - 1.21
Number of Living Children				
1-2 [Reference]	1.00		1.00	
3-4	1.80*	1.30 - 2.48	1.92***	1.65 - 2.23
5-6	1.42	.96 - 2.11	1.92***	1.61 - 2.29
7 or more	1.10	.69 - 1.74	1.90***	1.55 - 2.31
Economic Status'				
Low [Reference]	1.00		1.00	
Middle	1.92***	1.47 - 2.52	1.12	.93 - 1.37
High	2.53***	1.70 - 3.78	1.74***	1.44 - 2.11
Education				
None [Reference]	1.00		1.00	
Primary	2.04***	1.42 - 2.91	1.39**	1.14 - 1.70
Secondary	2.14***	1.47 - 3.11	1.90***	1.58 - 2.29
Higher	2.67**	1.35 - 5.31	2.46***	2.13 - 2.82
Number of Women	1331		6306	

- Andhra Pradesh, Bihar, Delhi, Madhya Pradesh, Rajasthan and Uttar Pradesh
- 1. If neither TV or Refrigerator available = Low, If one available = Middle, If both available =High

* P <.05

** p <.01

*** <.001

The results of multi-variate analyses presented in table 8, demonstrate that after controlling for women's age, the number of living children and their economic status, among Indian Muslim women the rate of current contraceptive use more than doubles when they attain a primary level of education. The use rate among them increases gradually for each category of higher education. On the other hand, among Urdu-speaking women in Sindh, primary education helps only a little while secondary and post-secondary education have more significant impact on contraceptive use.

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Using the adjusted odds ratios from table 9, population attributable risks were computed as proposed by Hobcraft (1994) and Greenland and Drescher (1993). The results as reported in table 10 indicate, what would have been the contraceptive prevalence rate (CPR) among the Urdu-speaking women living in urban Sindh, for each category of education, if they would have had similar kind of exposure as Muslim women in the urban areas of the six Indian States have had. The results suggest that women with a primary level of education would have had a CPR of 39.4 percent (about 10% points higher) followed closely by women with secondary level of education who would have had experienced a gain of 9 percent. However, women with post-secondary education would have benefited marginally. This is perhaps for the reason that women with post-secondary education are themselves well aware of the benefits of contraceptive use, and therefore, have already achieved a threshold of use. In combination with a higher level of education, a higher economic status and delayed age of marriage, they are able to restrict their family size.

Effects of Migration, Socioeconomic Status and Population Policy on Reproductive Behaviour

Table 9

Expected Gains in contraceptive use, in each category of education among Urdu-speaking women living in urban Sindh, Pakistan if they would have had a similar exposure as Muslim women living in the urban areas of the six Indian States have had

Level of Education	Actual use rate <i>in ercent</i>	Expected gain in Contraceptive use <i>in ercent</i>	Expected use rate <i>in rercent</i>
Primary	29.6	9.8	39.4
Secondary	36.9	8.9	45.8
Post-secondary	41.0	3.2	44.2

Sources: Table 7 and 8.

SUMMARY AND CONCLUSIONS

This paper has compared the socio-economic and demographic situation of Urdu-speaking Muslim-women whose parents had migrated from the six North-Central Indian States during the past 50 years and are now living in the urban areas of Sindh Province in Pakistan with that of those of their counterparts in India. The results suggest that while socio-economically, the progenies of immigrants are enjoying considerably higher socio-economic status and are far better off in educational attainment than those who are now living in India, the reproductive behaviour of women in the two groups are quite similar. We suggest that this similarity is due to the more effective family planning programme in India on the one hand and poor programme performance in Pakistan on the other, rather than to any ethnic similarities between the two groups that have lived in isolation from one another for the past 50 years.

The most interesting finding of this research is that although educational attainment among women is of fundamental importance in shaping their reproductive behaviour, in the absence of an effective public policy aiming at provision of contraceptives to women, the role of primary education is insufficient in itself. Fertility is expected to decline considerably if investment in female education were to be accompanied by a sound population policy reaching women from each strata. In this respect, India has done much better than Pakistan.

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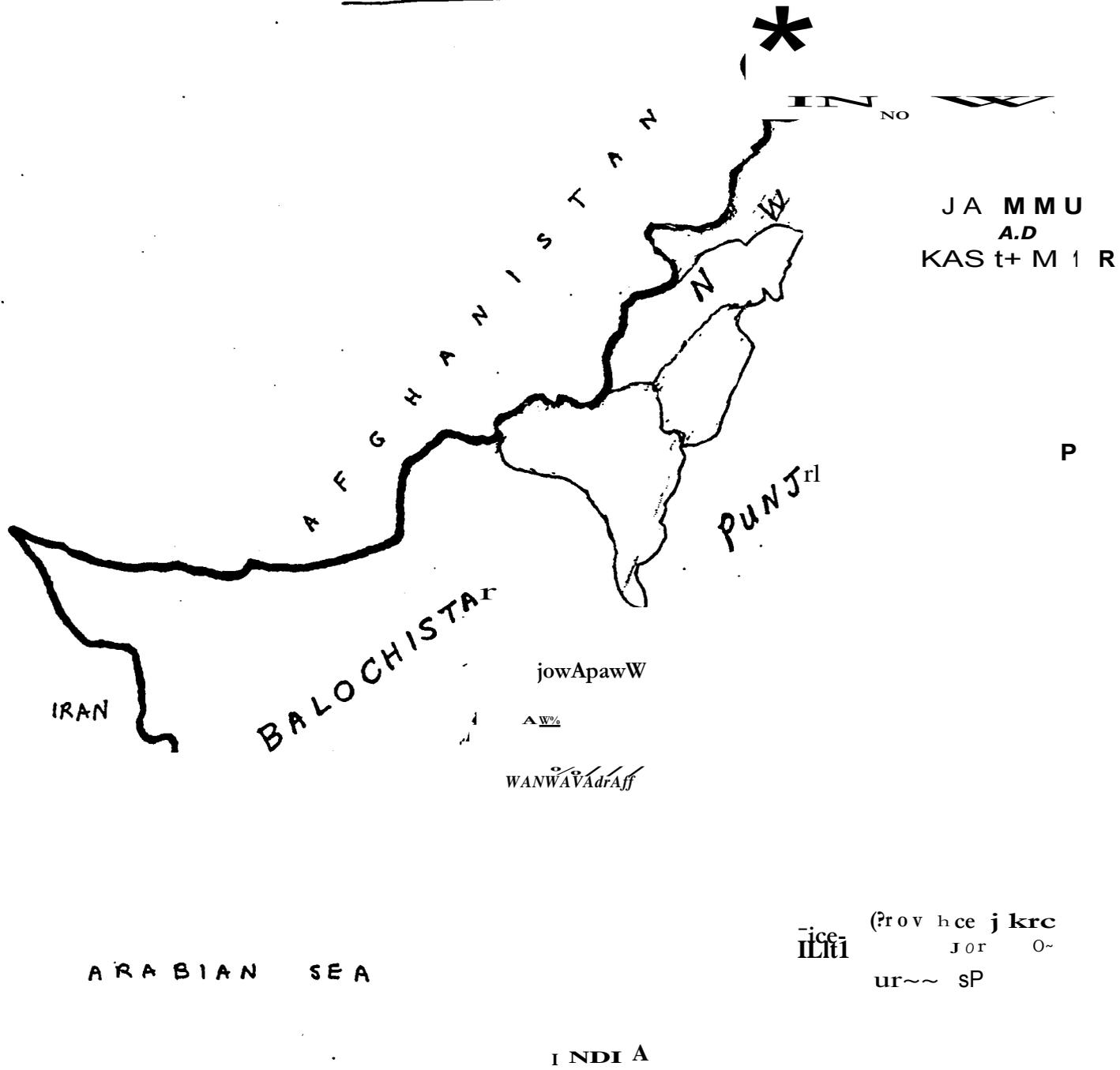
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FIGURE 2

PAKISTAN

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Figure 3: Level of Education of Married Adult Women Under 50 Years of Age

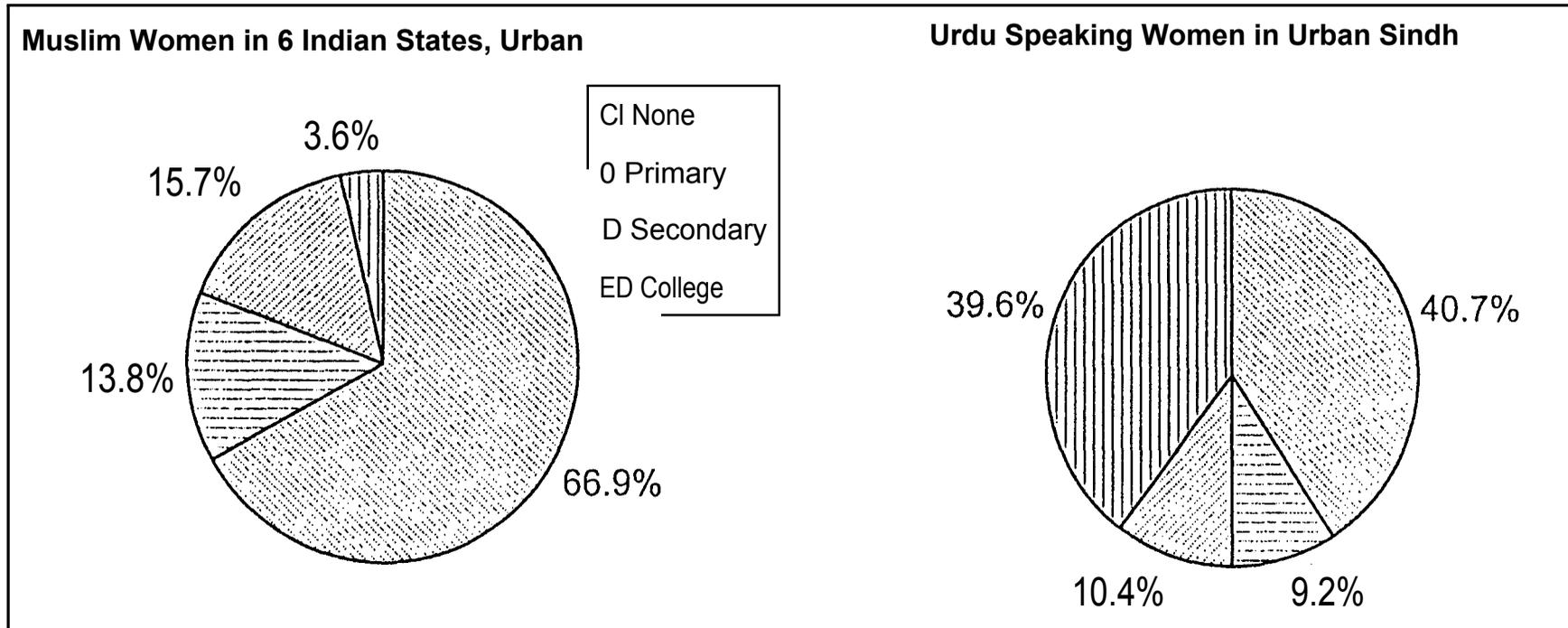
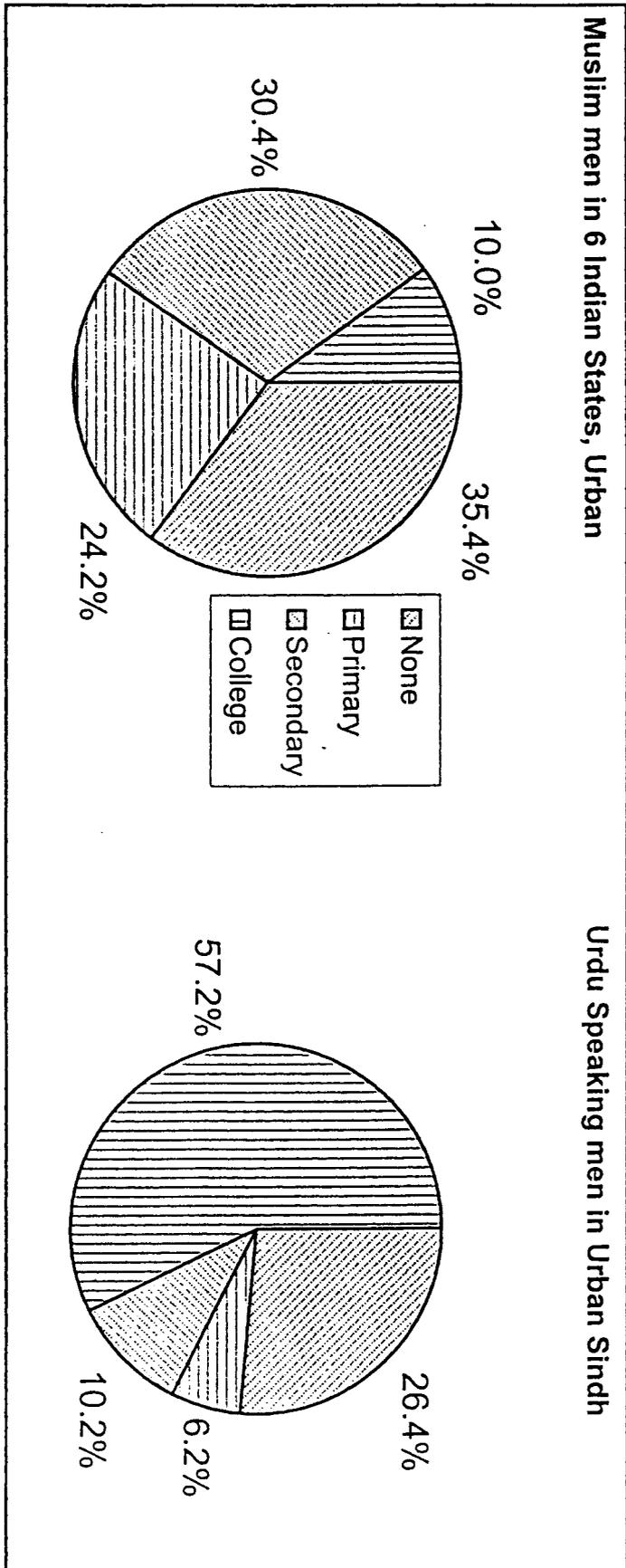
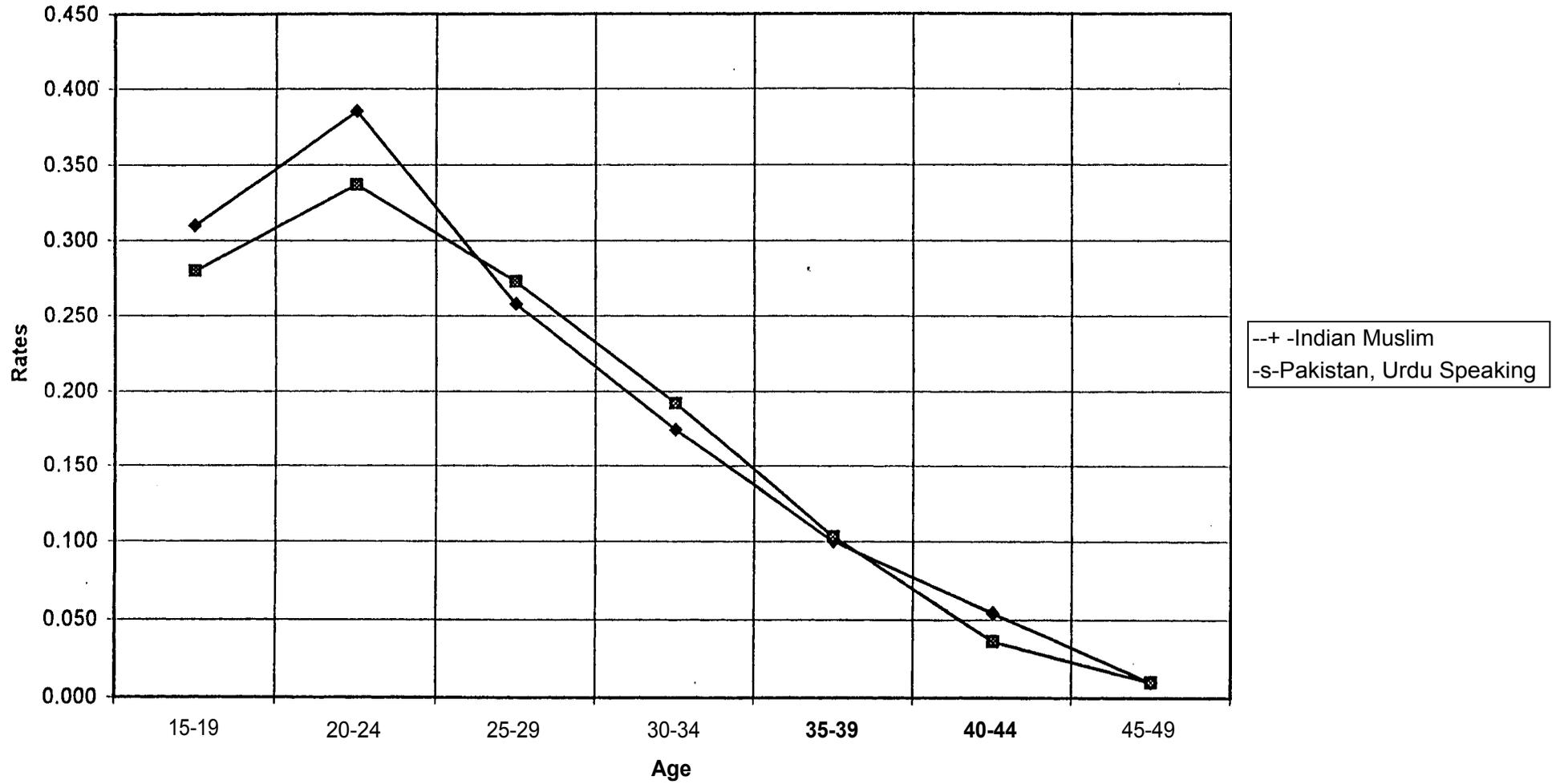


Figure 4: Level of Education of Adult Men



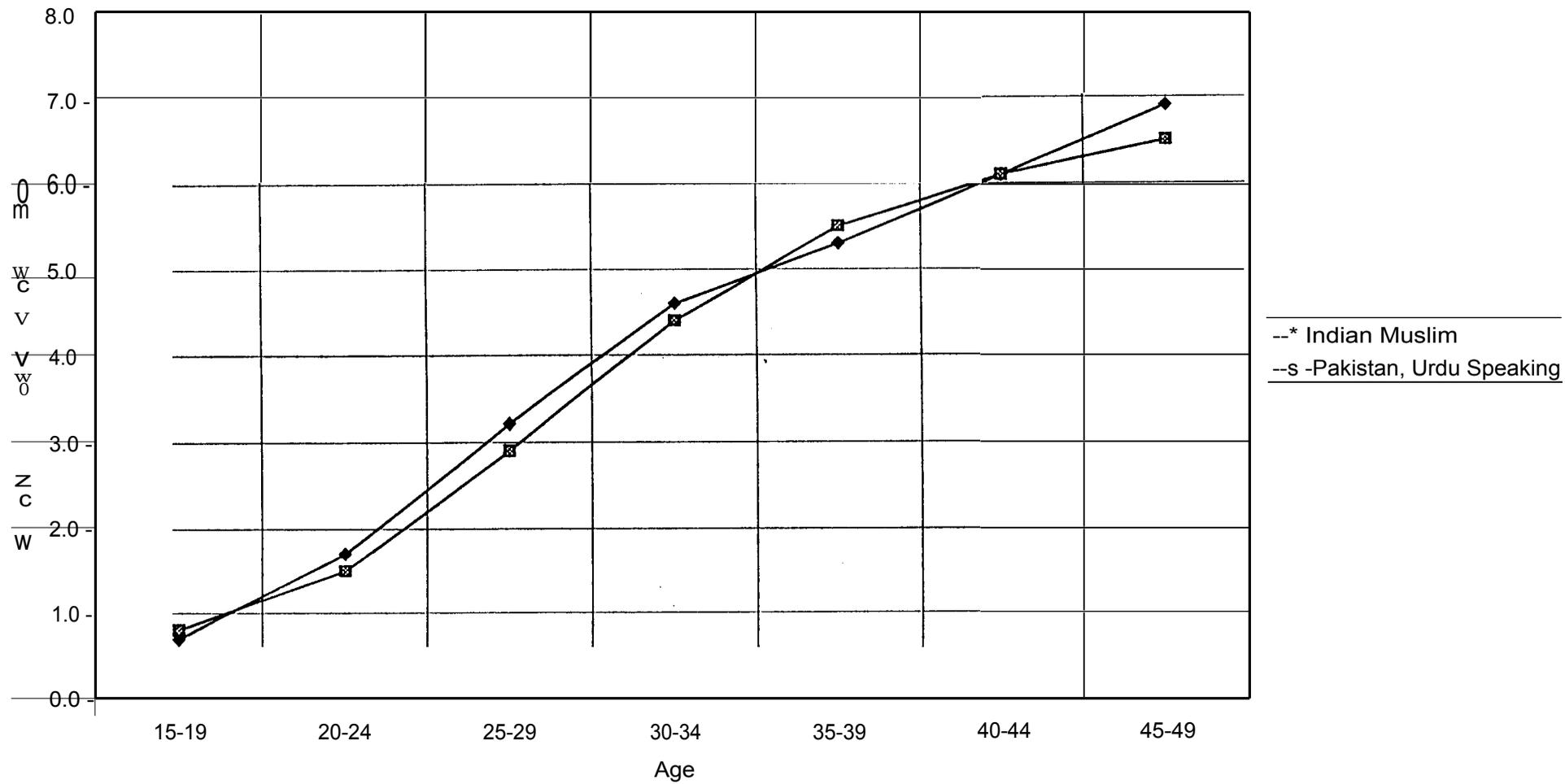
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Marital Age-specific Fertility Rates



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Mean Number of Children Ever Born



Percent of Currently Married Women Reported Pregnant

