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CONTENTS

THE POPULATION POLICY IMPERATIVES: THE PAKISTAN EXPERIENCE

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The concern for population policy in the context of development in Pakistan has been traced to as far back as the First Five Year Plan 1955-1960. The examination shows that the political support and strategies have been flickering and changing frequently which among other factors have adversely affected the family planning programme. While allocation of funds for the programme have increased from one plan period to the other, its performance has not been able to make an impact commensurate with its size and expenditure. Inadequate coverage of population and lack of systematic approach have been among the major factors. The recent developments in taking more effective measures for improving the coverage and implementation of the Population Welfare Programme as well as other programmes in the social sector is an effort towards meeting the target of an appreciably low annual rate of growth of population by 2000.

Developing countries particularly those following planned development may be divided into two categories. The first category follows a conscious population policy, while the second adopts implicit policies affecting fertility, mortality and migration through development of various sectors of the economy.

The developing countries, especially in Asia, suffer from serious danger of over-population due to high initial fertility rate. The developments after the second world war encouraged this trend. The mortality was reduced due to the discovery of anti-biotics, other life saving drugs and widespread knowledge of preventive health practices. In addition, infant mortality has recently started declining rather sharply due to mass immunization programmes and a growing consciousness of child health.

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Fertility, however, continued unabated, and might have even risen, with the first doses of higher incomes. It is only at later stages of development that fertility starts recording a decline. The studies, however, indicate that the decline in fertility generally follow a decline in mortality by about 15 to 20 years [1].

The population growth rates as such continue to be high in the first decade or two of planned economic development. It is only in later years that population growth rates start declining.

Population policies as a conscious decision of national government are designed to influence the rate of growth and distribution of population. Confined to rudimentary implications, population policy includes the steps taken to lower fertility, reduce mortality especially among specific groups like infants, children, women, the less developed populations, and controlling the flow of populations. However, population policy should not and cannot be confined to these specific variables.

Population policy has to be integrated with the overall national development policies in the context of aspirations, values and traditions of society. The steps needed to improve the quality of life of the population include improvement in education, health, housing and other social services which would lead to a happier family life. The population policy has to be formulated within the framework of these objectives.

The so called centrally planned economies in the beginning, chose to concentrate on the development of the productive sectors of the economy postponing the improvement in social services already available to the population or the provision of new ones. The philosophy behind this thinking was that social sectors based on sound industrial and agriculture sectors and a well developed economic base would be self sustaining and effective than ad-hoc doses of welfare. This involved a sacrifice on the part of the living population made with the hope of ensuring a more comfortable life for the future generations.

Planned development in the non-totalitarian economies, however, does not favour the denial of some prosperity to the current population. The development plans in these economies try to achieve balanced development of the productive

sectors for the generation of income and social sectors to develop human resources. This provides an amount of comforts to the existing population and create the infrastructure needed by the economy for off-take.

It will be a safe statement to make that the first one to two decades of planned development in various countries were more or less experimental. There were periods of spectacular achievement and spells of dismal failure. Since most of the developing countries had gained their independence only a few years before planned development was started, political, social and the extraneous economic factors played an important role in plan formulation and implementation. Financial resources, trained manpower, communication facilities, and most of all a positive attitude towards development were all in short supply. It was only with the arrival of a crop of young and well trained technocrats that economic and social development as a planned activity started taking shape.

It is in this context that the beginnings of a population policy should be traced. The problem of over-population was noticed practically by every developing country even if there were ample natural resources at the disposal of the nation. It was generally so because economic growth was directly competing with population growth and the latter took away a good portion of the additional economic gains thus limiting the scope of any appreciable increase in economic and social welfare.

It is rather remarkable that even at a time when the population growth rates were rather low due to very high mortality, there did exist a realisation of the economic consequences of a rapid population growth in the years to come. Late Zahid Hussain, first chairman of the Planning Board of Pakistan, as early as in 1955 stated:

> Our goal must be to double our per capita income in about 30 years, which under a proper size investment programme backed by dynamic policies under co-ordinated administration should not be unattainable provided the rate of population growth does not show a marked increase [2].

Zahid Hussain's fears, however proved to be correct as the population growth rate rose from 2.4 percent per annum during 1951-1961 to around 3 percent per annum there after. If Pakistan has managed to record high economic growth

rates, it is inspite of this rapid population growth rate. If population growth rate had not accelerated, the level of prosperity brought by high economic growth would have been far higher than what it is today. Mahbub ul Haq stated in 1985 that the economy was supporting actually three Pakistans rather than one [3]. He was of course referring to the size of the Pakistan population which had almost tripled by then.

The ingredients of a population policy extend from fertility, mortality and migration to economic and social variables affecting the quality of life which in turn affect the demographic variables in a vicious circle. In order to narrow it down one may define it as population and development interaction. As a consequence of this interaction, social and economic development affects fertility, mortality and migration which in turn affect the age composition, dependency status, and labour force participation of the population [4]. Until 1960s, most of the developing countries did not have a real population policy in this context inspite of an early consciousness about the impact of population size, composition and rate of growth on development; the plans only pointed out the implications of a rapid population growth.

However, a semblance of a population policy started emerging as a result of greater familiarity with development models and the trial and error learning process for the first few development plans. By 1970, at least 16 developing countries of Asia had a definite policy towards limiting family size and all of them had active family planning programmes in the public sector [5].

The family planning programme in Pakistan was included in the Second Five Year Plan 1960-65. Since then, with the exception of a few years, it has continued to be a large programme. It is a different matter that it did not have a significant impact on the fertility rate of the country. This point is elaborated later in this paper. Of immediate concern are the factors in the evolution of the policy which recognized the importance of population in the development process and it makes an interesting study to identify the factors which impeded the success of the policy. An ironic aspect of this programme has been the fact that all the strategies and projects of the programme in Pakistan could not yield desirable effects but when applied in other countries they were highly successful.

Pakistan emerged as an independent state in 1947 and the first population census was held in 1951 followed by censuses in 1961, 1972 and the latest was conducted in 1981. The fifth census which was due in 1991 has been postponed. The vital rates estimated from these censuses and various surveys indicate that the growth rate which was 1.4 percent during 1941-51 had risen to an inter-censal growth rate of 3.1 percent during 1972-81 and there after, as such it has been assumed that 3.1 percent per annum continued until 1990. The assumption for the period 1990-1995 is 2.9 percent per annum. However, the debate with regards to the actual rate of growth is still continuing, in academic quarters.

I. FIRST FIVE YEAR PLAN 1955-1960

The consequences of such a high population growth had been pointed out by economic planners at the time of the launching of the First Five Year Plan [6,pp.121-22]. With every successive plan, there grew the concern for rapid population growth.

The First Five Year Plan (1955-60) did not make any specific recommendation to start family planning programme in Pakistan. It however, recognized the consequences of the rate of population growth for economic development. In the Plan it was considered that a rate higher than 1.4 percent would seriously jeopardize the prospects of development in the years to come. The statement from the Plan is a good example of the dangers felt by economic planners:

> The country appreciate that population growth is a rock on which all hopes of improved conditions of living may flounder. It admits of no approach except that the rate of growth must be low [6,pp.121-122].

The Plan took into consideration the effect of population growth on age distribution, labour force, occupational distribution and manpower needs of the economy which was rather a progressive and enlightened step at that stage of the art. The Plan was formulated on the basis of the needs of the economy in terms of the development of various sectors and did make an effort to relate these sectors with the changes in population.

Priority in the Plan was given to water and power, and transport and communication followed by agriculture and industry. Housing and settlement also

received considerable importance as almost 10 million refugees compared with about 7 million leaving the country were roaming around the country and desperately needed housing for settlement. A tribute is due to the authors of the First Five Year Plan for realising the importance of education and training as an important feature in social and economic development. One could expect that had there been a sound store of knowledge of family planning at that point of time, it would have been included in the First Plan as a separate sector of development.

II. SECOND FIVE YEAR PLAN 1960-1965

The Second Five Year Plan (1960-65) which was later heralded as one of the most successful development Plans in the world, attached special importance to population policy. The Plan noted:

> Since population growth can threaten to wipe out the gains of development, the Plan clearly recognizes the paramount need for a conscious population policy and its implementation [7,p.334].

The precise reason for the inclusion of a population policy in the Plan was a continuous increase in population due to the high fertility rate and a declining mortality rate. Other developing countries of Asia also started moving in the direction of restrictive population policies in order to minimize their consumption needs and to divert resources to the so called productive sectors and the needed infrastructure. The Plan stressed the need for an understanding of the problem by the people themselves and the development of education, food, housing and welfare. In fact, the outline of a clear strategy for population control were spelled out in the Plan. Emphasis on education particularly the education of women, literacy and employment opportunities for women were planks of a policy for popularizing family planning as a means of raising the standard of living of the population and their children [7,p.35].

The First and Second Five Year Plans consciously emphasized programmes which would discourage migration from rural to urban areas. At the time of independence, only 10 percent of the population of Pakistan lived in urban areas. This percentage started rising very sharply as the majority of the refugees coming from India had the tendency to settle in the urban areas thus taxing facilities in the towns and cities in the country. The gap created by the departure of population from

urban areas to India at the time of independence, had also triggered the movement from rural to urban areas even among the non-refugees [8].

The experience of other developing countries in Asia and elsewhere had also underscored the importance of population size and rate of growth for development. At least 16 developing countries of Asia had adopted active family planning programmes by 1960. The Pakistan programme started taking shape in the beginning of 1960's and a separate department was established in 1956 [9].

III. THIRD FIVE YEAR PLAN 1965-1970

The Third Five Year Plan (1965-70) included a larger programme of population control as one of nine main objectives:

> TO arrest the menacing growth of population by taking steps towards population control [10,p.39].

The long-term Perspective Plan (1965-1985) formulated alongwith the Third Five Year Plan had set ambitious objectives related to gross national product, full employment, universal literacy and several others which were strongly conditioned by the stability in population growth rate if not a decline. The Third Five Year Plan was the first Plan document to have a separate chapter on family planning giving strategy for the implementation of the programme. Other sectors of the economy, particularly the social sectors, also reflected the development of factors which could contribute to the cause of family planning in the country. In fact, the programmes associated with family planning made impressive gains during the Second and the Third Five Year Plan periods especially the infrastructure of family planning programme.

IV. FOURTH FIVE YEAR PLAN 1970-1975

The Fourth Five Year Plan (1970-75) was a very bold document which was preceded by an extremely candid document, "The Socio Economic Objectives of the Fourth Five Year Plan". The objectives of this document were based on an evaluation of the Third Five Year Plan [11].

Apart from the Planning Commission, evaluation of the programme had also been carried out by individual departments and outside donors. Some of them were

published while the others remained classified thus hidden from the public eye. Any way, they provided the planners with details of the successes and failures of the Third Plan thus encouraging them to make a bold plan for the next five years.

The Fourth Five Year Plan, apart from laying down policies for social justice and equal distribution of income, emphasized three aspects of the economy which were directly related with population policies i.e. family planning, education and rural development. Problems of health were already receiving attention as a regular development sector.

The Fourth Plan document also had a separate chapter on social policy which discussed the plight of the social sectors and made a strong case for higher allocations for education, health and social welfare [11].

By this time a widespread consciousness about the role of social sector development in population dynamics had emerged. However, the pressure of the so called productive sectors was so over-whelming that the social sectors trailed far behind the productive sectors in terms of plan allocations and were far short of the needs for achievement of various targets.

V. NON-PLAN PERIOD 1970-1978 AND FIFTH FIVE YEAR PLAN 1978-1983

Due to the separation of then East Pakistan in 1971 the Fourth Five Year Plan became redundant and the period between 1970 and 1978 was marked by the non-existence of a plan. The Fifth Five Year Plan was launched after this "Non-Plan" period [12].

VI. SIXTH FIVE YEAR PLAN 1983-1988

The Sixth Five Year Plan (1983-88) came out as a stronger plan document. It provided for the development of those sectors of the economy which either had a crucial role in development in the given circumstances or those areas which were being neglected.

The population policy for the Sixth Five Year Plan which aimed at bringing a behavioural change towards a small family norm, contains seven statements:

1. population policy is a national responsibility;

2. it aims at behavioural change favouring the small family norm within an acceptable socio-cultural framework;
3. construct a programme based on local needs by enlisting community participation and devolving responsibility and authority;
4. solicit involvement of a range of target groups and NGOs for expanded coverage;
5. seeks integration of activities with the programme of other departments for diversification;
6. make women the participants and beneficiaries of the programme; and
7. devises a communication strategy to remove public misgivings, to create demand and to promote the above approaches [13].

Apart from a clear cut policy towards population, the plan document very succinctly admits the failure to determine or pursue an effective population policy in the past. It also admits the meagre efforts made in improving social services which were lost in the avalanche of continuous increase in population.

While the Fifth Five Year Plan, completed in June 1983, succeeded in meeting some of the plan targets, it still left much to be desired as far as long term investment in human resources development was concerned. From the point of view of a social or population policy, education, literacy and health facilities continued to be the most backward sectors of the economy.

The Sixth Plan thus paid special attention to bridge the gaps in some of the social sectors alongwith infrastructure which is reflected by targets fixed for the Sixth Plan.

As a result of this renewed attention, the programme in the Sixth Plan picked up momentum. Steps were taken to strengthen administrative controls, ensure the supply of contraceptives, revamp the service delivery system and new initiatives were taken to establish the programme on a permanent basis.

TABLE 1

QUALITY OF LIFE INDICES

	1960-61	1982-83	1987-88 (Target)
1. Literacy Percentage	15.0	23.5	48.0
2. Primary Education Percentage of Primary Age Population:			
Total	30	48	75
Boys	44	63	90
Girls	11	32	60
3. Infant Mortality (age 0-1) (per thousands)	162	100	60
4. Life Expectancy (number of years)	43	55	60
5. Access to Clean Water			
a. Percent of Total Population	NA	38	60
b. Percent of Rural Population	NA	22	45
c. Percent of Urban Population	NA	77	90
6. Access to Sewerage Facilities Percent of Total Population	NA	16	26
7. Availability of Electricity Percent of Total Population	5.4	35.5	53.3

Source: The Sixth Five Year Plan 1983-88 [13].

A social marketing system was introduced in the private sector to ensure the availability of the most popular contraceptives in the market; a national council of NGOs (NGOCC) for population welfare was created so that the delivery outlets of NGOs could be used for population activities; the National Institute of Population Studies was established to undertake research in population problems, provide

policy guidelines for solution of problems and to undertake independent evaluation of the population welfare programme; a comprehensive communications policy was adopted to make the message of population welfare more effective. An objective assessment of the situation showed clear signs of some decline in the level of fertility.

In addition, all sectors of the economy which are closely related to population changes were paid special attention as a matter of policy. The education sector was supported by Iqra surcharge of 5 percent on all imports to Pakistan. Adult literacy and programmes for drop-outs were given a new life by adopting a new approach to literacy. Primary Education, specially female education, was given priority.

On the eve of the new year 1986, the Prime Minister announced a Five Points Programme for development which aimed at uplift of the masses and transform the country into a development-oriented society. Specific targets included the electrification of 90 percent of the villages by 1990, construction of a network of rural and farm-to-market roads, provision for the enrollment of about half a million children of the primary age group, establishment of 22,000 Nai Roshni (New Light) schools for drop out children, basic health units, rural health centres, clean potable water, anti water-logging and salinity measures, slum eradication through the transfer of proprietary rights and the generation of employment opportunities through Prime Minister's Special Employment Programme [14]. These targets bring out some major areas of social policy which can be summarized as under:

1. An emphasis on education and literacy to generate employment particularly for the educated unemployed;
2. Provision of basic health facilities to larger population;
3. Improvement in living conditions in the rural area through water supply, sanitation and improved productivity of land and the supply of electricity to rural areas; and
4. Uplift of slum dwellers.

The allocations during the fiscal year 1986-87 over 1985-86 show an increase of 1043 percent in case of mass literacy, 236 percent in rural roads, 160 percent in rural water supply and sanitation, 111 percent in rural electrification, 99 percent in rural health and 74 percent in rural education. The shift in priorities of the Sixth

Five Year Plan are reflective of the outlines of social policy which are closely related to population policy parameters. They can be summarized as under:

1. Am emphasis on education and literacy which would help the population understand the implications of rapid population growth and use family planning measures more effectively;
2. Employment generation for an increasing number of unemployed persons who are the product of the failure of some of the Programmes in the past plans;
3. Improvement of living conditions in the rural areas to retain rural population in the villages thus easing pressure on the urban areas; and
4. Improvement of living conditions in the urban areas so that the population already living there could lead a more wholesome life.

It goes without saying that the emphasis on population welfare programme continued.

VII. SEVENTH FIVE YEAR PLAN 1988-1993

The focus of the Seventh Five Year Plan, 1988-1993 is on achieving efficient economic growth with sustained development and improving the quality of life of the people [15]. This is being achieved on the one hand through the policy of privatization, liberalization and deregulation and on the other, through providing infrastructure in rural areas, developing public services including education and health services, providing employment opportunities and taking family planning services to the door steps of the people.

In 1992, the Government introduced a "Social Action Programme" which focuses on six major social problems including primary health, primary education, nutrition, population control, drinking water and sanitation. Special funds have been allocated for achieving higher quality of life through these measures.

Several employment schemes have been introduced to overcome the problem of unemployment. Special loan schemes have been introduced to promote self-employment. Building of roads and development of communication system are the schemes which are meant to uplift the economy, meet the demands and generate employment for unskilled, skilled and the educated.

Privatization, liberalization and deregulation policies aim at improving industrialization through encouraging local and foreign investment. The object is to bring stability to the economy and achieve sustained development.

These measures along with an accelerated population welfare programme introduced in 1991 provide a new beginning to bring the population growth rate in harmony with the social and economic development.

The main features of the accelerated programme include:

1. Increasing the budget to meet the additional requirements of the accelerated programme;
2. Increasing the rural coverage from five per cent to 25 per cent by introducing family planning component in all those 7804 rural health outlets where a female para-medic or a lady doctor was present;
3. Training of lady doctors at district and tehsil levels in contraceptive surgery with provision of mini-lap kits and other equipment;
4. Increasing regular contraceptive surgery centres from 34 to 70 and setting 130 Mobile Service Units to cover greater number of villages where no health or family planning services existed;
5. Involving 25 Union Councils on a pilot basis with the support of concerned Member of the National Assembly for the introduction of family planning on an experimental basis;
6. Ensuring effective use of communication by adopting disaggregated approach and designing suitable material for various segments of the society such as rural area, labour class and educated persons;
7. Ensuring visible and sustained political support by reactivizing the National and Provincial Population Welfare Councils;
8. Improving the functional efficiency of the programme by making all the Provincial Population Welfare set-up as full fledged independent departments, and
9. Creating divisional and tehsil tiers for strengthening the supervision and monitoring of the programme at implementation level.

In addition, it is planned to increase the number of Family Welfare Centres, NGO's outlets, Reproductive Health Centres, health outlets, mobile service units,

outlets of other departments, involvement of private medical practitioners and clinics to provide family planning services.

A major innovative pilot study of community based family planning workers is being launched during 1992-1993 in selected districts of the country to strengthen inter-personnel motivation and improve service delivery in the rural areas. The experience gained through this study would be used in the expansion of service delivery in the rural areas during the Eighth Plan 1993-1998.

These measures are being undertaken to accelerate the progress of the programme during the remaining period of the Seventh Five Year Plan and to expand the service delivery in the rural areas during the Eighth Plan.

The allocation for the programme in the Seventh Plan period increased to Rs.3500.00 million as compared to Rs.2300.00 for the Sixth Plan period and Rs.600.00 million for the Fifth Plan period. It will be interesting to note that this allocation was Rs.9.00 million for the Second Plan (1960-65), Rs.145.00 million for the Third Plan (1965-70) and Rs.685.00 million for the Fourth Plan Period (1970-75)

VIII. FINANCIAL ALLOCATION FOR SOCIAL SECTORS IN DEVELOPMENT PLANS

Table 2 shows that in the First Plan the largest allocation of Rs.505 million was made to physical planning and housing sector followed by Rs.232.00 million to education and Rs.76.0 million to health. Only half a million rupees were allocated to population welfare. In the Second Plan, the allocations were increased for all the sectors but the pattern of distribution remained the same. In the Third Plan also allocations increased for all sectors but for population welfare; it exceeded the allocation for physical planning and housing. Since then the pattern of distribution among sectors has not changed, although amounts have increased progressively for all social sectors.

TABLE 2

ALLOCATION FOR SOCIAL SECTORS IN DEVELOPMENT PLANS OF PAKISTAN

(Million Rs.)

	Education and Manpower	Health	Social Welfare	Physical Planning and Housing	Population Welfare Programme
First Plan	232	76	19	505	0.5
Second Plan	463	174	56	951	9
Third Plan	563	281	65	688	145
Fourth Plan	3,805	2,445	210	3,795	695
Fifth Plan	5,644	4,584	210	8,999	600
Sixth Plan	19,850	13,000	550	14,500	2,300
Seventh Plan	25,100	13,400	900	20,000	3,500

Source: Planning Commission, Government of Pakistan. [11,13&15].

IX. SUMMARY AND CONCLUSION

An assessment of the situation during 38 years of planned development in Pakistan brings out certain important factors. First, the planners in Pakistan had been alive to the alarming situation which can be created by rapid population growth. This concern found expression in the plans as early as in 1955 and started taking a concrete shape in the 1960's.

Second, the population control programme gathered momentum with the passage of time and by 1993 had developed into a huge programme aiming at covering the entire country. The set-back suffered in the late 1970's and the beginning of 1980's had been overcome mainly through stronger leadership at the political as well as at the administrative levels.

Third, the programme has not been able to make an impact commensurate with its size and expenditure (Rs.6 billion +) due mainly to the absence of a systematic approach which could overcome the social, economic, cultural and political obstacles.

These are basically macro considerations. If one goes into difficulties at the grass root level, the main problem comes out to be the lack of political will and low profile of the programme during the past decades. The situation led to a degree of lethargy and demoralisation among the corps of Population Welfare Workers affecting the programme performance adversely. The direction of change and the determination of the Government to bring it about is reflected in outlays for various development plans (table 2).

To summarise, the factors for framing a population policy for economic and social development are given below:

1. Differentials in fertility and mortality rates which tend to produce larger families in poorer segments of society.
2. A very slow progress of education and literacy especially in the rural areas and women making them more vulnerable to the perpetuation of their present economic and social conditions.
3. Lack of employment opportunities for women which keeps their status low, their voice muted and their power of decision making in family matters to a minimum.
4. Rapid population growth has produced a huge fund of unemployed and under-employmed population including sizeable educated unemployed youth.
5. Health facilities are inadequate especially in rural areas and poorer parts of population [16].
6. The number of child - survivors is increasing due to an effective immunization programme.
7. Migration from rural to urban areas is evident from the very high urban growth rates indicating the need for economic and social uplift of rural areas.
8. Population welfare programme needs to be made more acceptable and effective especially among the target populations.
9. There is a serious housing shortage in both the rural and urban areas which is an impediment to family happiness and well being.
10. Integrated development programmes with direct and quick benefits to the population are an effective way to achieve development goals.

These imperatives have led to the formulation of policies, but they will continue to be implemented with varying intensity for some years to come. At the current rate of growth, the population of Pakistan is projected to grow from the current 123 million to 150 million by the end of the present century [17]. This underscores the urgency of the situation and the need to intensify the endeavours already being made in this direction.

It is expected that the measures being taken in the current Seventh Five Year Plan 1988-1993 and those proposed for the Eighth Five Year Plan 1993-1998, particularly pertaining to the coverage of population and provision of family planning services at the door steps of the people may accelerate the progress toward achieving the objective of annual rate of population growth of 2.5 percent by 2000.

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SHY/SILENT CONTRACEPTIVE USERS: FURTHER EVIDENCE

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TAUSEEF AHMED

On the basis of 1984/1985 Pakistan Contraceptive Prevalence Survey, it was deduced from the data that there were 5.9 percent of currently married women 15-49 years of age who were shy silent contraceptive users. The analysis of 1990/1991 Pakistan Demographic and Health Survey data provide a corresponding estimate of 11.9 percent, inspite of further refinement of the procedure used for the determination of the shy/silent users who were defined as currently married women had no birth during the last five or more years preceding the survey, were not sterile or menopaused, were reportedly not using contraceptive method, had at least produced one live birth since marriage, were less than 45 years of age and their ability to conceive had not been impaired. The analysis shows that due to the impact of shy/silent users not counted as users and other reasons, the contraceptive prevalence is far more under reported than the level of fertility.

INTRODUCTION

The 1990/1991 Pakistan Demographic and Health Survey (PDHS) reported a contraceptive prevalence rate (CPR) of 11.8 percent and a total fertility rate (TFR) of 5.2-5.4 per women. These rates show an improvement over the corresponding CPR of 7.6 percent and a TFR of 5.95 per woman obtained in the 1984/1985 Pakistan Contraceptive Prevalence Survey (PCPS).

Although the reported CPRs are low and the TFRs are high by the standard of world or of developing countries, the change over a period of six years is sometimes viewed with skepticism. In particular, it is argued that if the CPRs are so low, the TFRs must be higher than the reported ones. In other words, it is being assumed that reported CPR is more reliable than the reported TFR but the analysis shows, it is not tenable.

On the basis of 1984/1985 Pakistan Contraceptive Prevalence Survey (PCPS) data, it was deduced that 5.9 percent of the currently married women 15-49 years of

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age, were shy to report that they were using contraceptive methods due mainly to cultural reasons. Also, a hypothesis was advanced that due to the same reason contraceptive use is more under-reported than births which results in disparity between the observed TFR and CPR [1,pp.55 and 77] and [2]. Thus shyness was one of the major factors contributing to the under reporting of CPR. Also shyness might have contributed to the non-use of contraception.

Using the, 1990/1991 Pakistan Demographic and Health Survey (PDHS) data, the object of this article is to verify this hypothesis and to throw more light on the prevalence of shyness in reporting the contraceptive use. In this analysis more refined and elaborate procedure is used to determine the prevalence of shy users than was employed in the analysis of the PCPS data.

PAKISTAN DEMOGRAPHIC AND HEALTH SURVEY, 1990-1991

The PDHS, which is the major source for this article, was undertaken during the period December 1990 and May 1991, by the National Institute of Population Studies (NIPS) in collaboration with the Institute of Resource Development (IRD)/Macro International Inc. Columbia, Maryland USA. It was based on a nationally representative sample survey of 6611 ever-married women, 15-49 years of age [3]. A summary of findings and statistical results of PDHS appear in this issue.

Excluding the widowed and divorced, there were 6364 or 96.3 percent (of the ever married women 15-49) currently married women 15-49 years of age out of which 5373 or 84.5 percent were currently not pregnant. Of all the currently married, 751 or 11.8 percent were current users of contraceptive methods and of all the non-pregnant non-users 44.1 percent had no births during the five year period preceding the survey. This percentage (44.1) is too large to assume that they were infertile.

DETERMINANTS OF SHY/SILENT USERS

The shy/silent users from the 1990/1991, PDHS data have been determined by using the same binary technique which was applied to the 1984/1985 PCPS data but was further refined. The results are presented in Table 1 and Figure 1. As will be noted, in determining the number of shy/silent users, it was ensured that the respondents were fertile and had produced at least one child, were under 45 years of age and were not experiencing secondary sterility. These refinements were not fully

considered while determining shy/silent users from 1984/1985 PCPS data. The other difference is that "desire for no more children" which was used in the 1984/1985 PCPS analysis, has not been introduced in the present analysis so as to include birth spacers who could also be shy/silent users.

TABLE 1

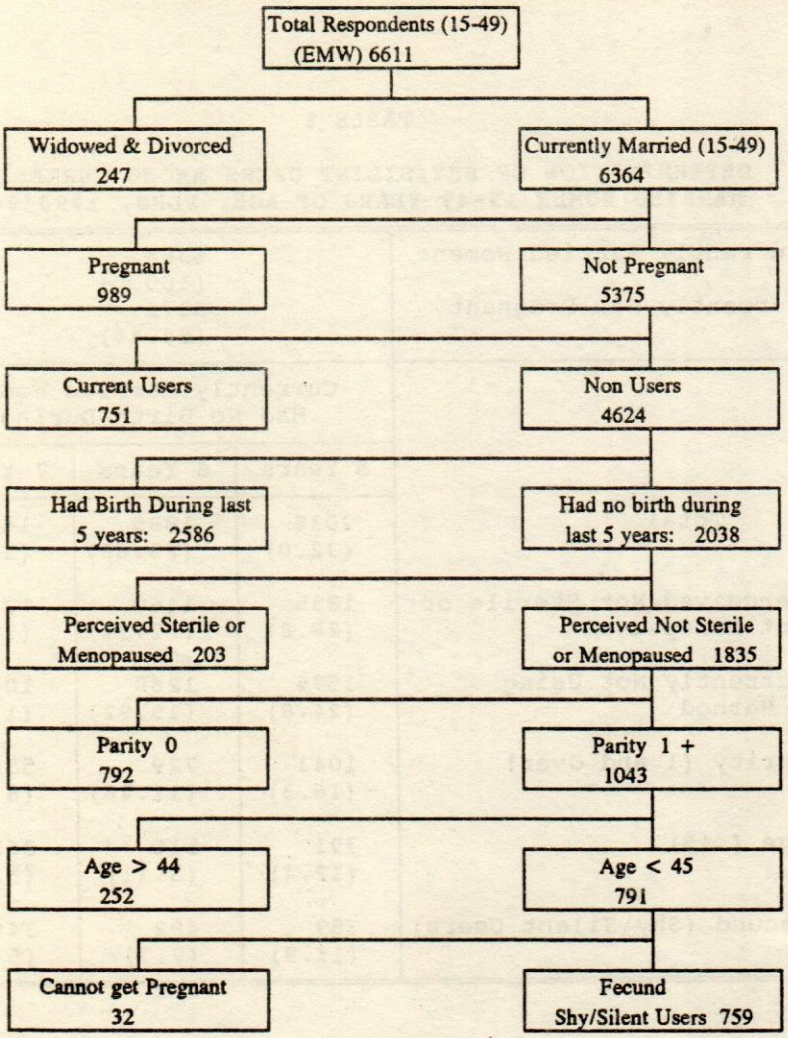
DETERMINATION OF SHY/SILENT USERS AMONG CURRENTLY MARRIED WOMEN 15-49 YEARS OF AGE, PDHS, 1990/991

Currently Married Women	6364 (100.0)		
Currently Not Pregnant	5375 (84.46)		
	Currently Married Women Had No Birth During		
	5 Years	6 Years	7 Years
Total	2038 (32.0)	1889 (29.68)	1629 (25.60)
Perceived Not Sterile or Not Menopaused	1835 (28.8)	1460 (22.94)	1236 (19.42)
Currently Not Using a Method	1576 (24.8)	1268 (19.92)	1088 (17.09)
Parity (1 and Over)	1043 (16.3)	729 (11.46)	555 (8.72)
Age (<45)	791 (12.4)	516 (8.11)	365 (5.74)
Fecund (Shy\Silent Users)	759 (11.9)	492 (7.7)	346 (5.4)

Currently married women who had no birth during the last five/six/seven years, were not sterile or menopaused, were reportedly not using any contraceptive method, had atleast produced one live birth since marriage, were less than 45 years of age and their ability to conceive was not impaired, were considered shy/silent users.

FIGURE I

DETERMINATION OF SHY/SILENT USERS OF CONTRACEPTIVE METHODS AMONG CURRENTLY MARRIED WOMEN, PDHS 1990/1991



Source: PDHS 1990/1991.
Estimates:
Shy/Silent Users = 759 or 11.9 percent of All Currently Married Women 15-49 Years of Age (6364).
Reported Current Users = 751 or 11.8 percent of All Currently Married Women 15-49 Years of Age.
Total Users = 1510 or 23.7 percent of All Currently Married Women 15-49 Years of Age.

The results presented in Figure I and Table 1 show that the percentages of the shy/silent users observed from the PDHS data are 11.9 percent in the first category, 7.7 percent in the second category and 5.4 percent in the third category of the currently married women. These three categories are of shy contraceptive users who had no birth during the past five/six/seven years respectively.

This implies that the actual CPR could have been 23.7 percent or 19.5 percent or 17.2 percent depending on the category used. The percentage in the first category which is considered more plausible than the other two is almost of the same magnitute as the reported CPR of 11.8 percent, implying that around half of the total users were shy to report that they were users.

This revised level of CPR of 23.7 percent in Pakistan as of 1990/1991 is still far lower than levels in several South and South Asian countries. For example, the reported levels for the recent year varying between 1987-1990 are 49 percent in India, 31 percent in Bangladesh, 62 percent in Sri Lanka, 50 percent in Indonesia, 51 percent in Malaysia, 36 percent in the Philippines, 66 percent in Thailand and 53 percent in Vietnam [4] and [5, Table 22]. The latest levels in these countries might even be higher.

The analysis using 1984-85 PCPS was more restrictive as it was confined to women who wanted no more children. The estimated shy/silent users was only 5.9 percent which when combined with the reported CPR of 7.6 percent (based on all currently married women 15-49 years of age) provided a CPR of 13.3 percent for 1984/1985.

Table 2 provides age breakdown of the shy/silent contraceptive users in the PDHS' three categories. The average ages in these categories are 37.1, 37.7 and 38.3 years respectively which show small differences. However, further analysis is confined to the first category i.e. those who had no birth during the past five years preceding the survey. It is noted that one third of all shy/silent users in this category were less than 35 years of age and two fifth were in age groups 40-44 years. Although, inspite of all the refinements which have been made in determining the shy/silent users, it can be argued that the level of fertility slows down with increase in age of women but it can also be argued that shyness also increases with age particularly when stranger young women interview them.

TABLE 2

PERCENTAGE DISTRIBUTION BY AGE, SHY/SILENT CONTRACEPTIVE USERS WHO DID NOT HAVE A BIRTH IN THE LAST 5, 6, AND 7 YEARS, PDHS, 1990/1991

Age	5 Years	6 Years	7 Years
<20	--	--	--
20-24	1.7	1.7	0.6
25-29	11.1	9.0	7.9
30-34	20.6	18.6	17.0
35-39	26.0	26.2	25.0
40-44	40.6	44.6	49.6
Total	100.0	100.0	100.0
Average Age	37.1	37.7	38.3
Cases	(791)	(516)	(365)

Other things being reasonably equal, contraceptive use is considered as the main proximate determinant of fertility change for the developing countries [6,p.133] and [7,p.555]. Based on this premise, several attempts have been made to evaluate the level of TFR, given the CPR by using the regression analysis.

For example, Bongaart using the data of 74 countries showed high correlation (r=0.92) between the TFR and the CPR [8,pp.341-352]. On the basis of simple regression, he estimated an average TFR of 6.83 (intercept) in the absence of contraception and a regression coefficient of 0.062.

If Bongaart's regression equation is used, the TFR of Pakistan is estimated by using the reported CPR and the revised (including the shy users) CPR from the 1990/1991 PDHS.

Using reported CPR of 11.8 percent:

TFR = 6.83 - (0.062 X 11.8)

TFR = 6.1

Using revised CPR of 23.7 percent:

TFR = 6.83 - (0.062 X 23.7)

TFR = 5.4

Another equation based on the data of 104 countries obtained by Weinberger also provides a high correlation (r=0.93), an intercept of 7.37 and a regression coefficient of 0.074 [7]. If this is applied to the PDHS reported and revised CPR, the following levels of TFR are obtained.

Using reported CPR of 11.8 percent:

TFR = 7.37 - (0.074 X 11.8)

TFR = 6.5

Using revised CPR of 23.7 percent:

TFR = 7.37 - (0.074 X 23.7)

TFR = 5.6

Still another equation based on the data of 40 World Fertility Survey (WFS) countries, Hashmi calculated a correlation coefficient (r) of 0.76, an intercept of 7.028 and a regression coefficient of 0.0536 [9]. If this regression equation is applied to the PDHS reported and revised CPR, the following levels of TFR are obtained [9].

Using reported CPR of 11.8 percent:

TFR = 7.028 - (0.0536 X 11.8)

TFR = 6.4

Using revised CPR of 23.7 percent:

TFR = 7.028 - (0.0536 X 23.7)

TFR = 5.8

Similar regression equation by Mauldin based on a large number of surveys also provides a high correlation coefficient (r = 0.92), an intercept of 7.03 and a regression coefficient of 0.0662 [10,pp.12-13]. If these values are applied to the PDHS reported and revised CPRs, the following levels of TFR are obtained.

Using reported CPR of 11.8 percent:

TFR = 7.03 - (0.0662 X 11.8)

TFR = 6.2

Using revised CPR of 23.7 percent:

TFR = 7.03 - (0.0662 X 23.7)

TFR = 5.5

The consolidated results of expected and reported TFRs are presented in Table 3.

TABLE 3

EXPECTED TFRs FROM 1990/1991 PDHS BASED ON REPORTED AND REVISED CPRs USING SELECTED REGRESSION EQUATIONS

Author of Regression Equation	Expected TFR for 0 CPR	Regression Coefficient	Expected TFR for		Reported TFR (PDHS)	Reference
			Reported CPR 11.8%	Revised CPR 23.7%		
Bongaart	6.83	-0.062	6.1	5.4	5.2 - 5.4	[6]
Wienberger	7.37	-0.074	6.5	5.6	5.2 - 5.4	[7]
Hashmi	7.028	-0.0536	6.4	5.8	5.2 - 5.4	[9]
Mauldin	7.03	-0.0662	6.2	5.5	5.2 - 5.4	[10]

The reported TFR, based on the birth data of past six years is 5.4 per woman, while for births which occurred during the 12 months preceding the survey, the TFR is 5.2 per woman. Given the reported CPR (11.8 percent), both these levels of TFR are obviously far lower than the expected levels obtained from the regression equations. But using the revised CPR (23.7 percent) that includes the shy/silent users, better consistency is achieved between the reported TFR (5.2 - 5.4) and the revised CPR (23.7 percent).

But, it is noted that the expected TFRs, given the revised CPR of 23.7 percent, are still higher (varying between 5.4 and 5.8) than the reported TFRs (5.2 and 5.4) which show that TFRs reported in the 1990/1991 PDHS were also under reported but to a much smaller extent than the CPR.

It, should be cautioned that in using the simple regression in determining the level of TFR as a function of CPR only, has a limitation as there are other factors besides the contraceptive use which influence the level of TFR. The main ones including age at marriage, breastfeeding practices, and abortion\induced menstruation influence both the TFR and CPR. Also, the use of natural methods to avoid pregnancy might not have been reported adequately. If these factors were accounted for or the impact of these factors was considered and partialed out, the extent of relationship between TFR and CPR would be less stronger. However, inspite of these limitations, CPR still emerges as the major factor influencing TFR [9].

RELIABILITY OF CPR VERSUS TFR

This exercise shows that reported TFR has been treated as more dependable in terms of reliability than the reported CPR. While, there is a possibility that both these indicators might have been under-reported, the analysis shows that information on reported births is more reliable than the data on reported contraceptive use for several reasons.

The data on births in the PDHS was obtained through the birth histories of the respondents. For obtaining complete information women were asked to report about children living at home, living elsewhere and those who died. Information on the sex, date of birth and survival status of each child was also obtained.

The interviewers who were females, well qualified academically, were given intensive training, and could speak the local language, were specifically instructed to probe, if the birth interval was three or more years [11,P.35]. However, the latest births which occurred during the past twelve months period preceding the survey were less likely to be omitted as about 90 percent of the total who were born were alive, were present in the house most probably in the lap of the mother being interviewed and could be seen by the interviewer.

Of the remaining ten percent also most should have been reported as it is evident from the infant mortality rate (IMR) estimated from the PDHS data which is around 94.0 infant deaths per thousand births for the total, 74.6 for urban and 102.2 for rural areas [12,pp.112-114]. The level of these IMRs compared with other developing countries though on the high side, seems to be quite reasonable. Also, there are rituals involved when birth occurs or an infant dies which make the birth and death events more conspicuous and public.

Inspite of the precautions, consistency checks and the nature of vital events, it may still be possible that reporting of births, particularly, in a society in which most of the respondents are illiterate, was not complete to a certain extent. Some of the events might have been displaced in terms of the time reference and some births followed by deaths might not have been reported.

On the other hand, inspite of great deal of precautions and probing, the magnitude of omission of contraceptive use as shown in Table 1 appears to be quite significant. Contraceptive use is a personal matter and the women in Pakistan, are culturally inhibited to talk about such matters freely and openly and in particular to strangers and when other members of the family, relatives or friends are present at the time of interview.

In addition, examination of the data of 40 developing countries which participated in the World Fertility Survey conducted during the 1970s and in which standardized procedures were used, show a far greater variation in the reported CPRs than reported TFRs. While the reported TFRs for these 40 countries showed a mean TFR of 5.6, standard deviation of 1.26 and a coefficient of variation of 22.5 percent, the observed CPRs provided a mean CPR of 26.3, standard deviation of 17.9 and a coefficient of variation of 68.1 percent. In other words, the variation in the CPR was more than three times the variation in the TFR which reflects on the quality of data which were used to compute CPR. This large difference between the coefficients of variation implies that the two sets of data which were obtained from the same sources using standardised procedures, had different levels of quality and reliability.

CHARACTERISTICS OF SHY/SILENT USERS

In previous studies based on 1984/1985 PCPS data several points were raised on the method of identification of shy/silent users [13] and [14]. In addition to several refinements made in the procedure and method of identification as already indicated, further analysis based on selected characteristics of the shy/silent users and comparison with the corresponding characteristics of reported current users throws more light on the issue and provides further evidence that there was an element of shyness among the respondents in reporting the knowledge and use of contraception.

The variables considered in this analysis included age, difference between the ages of husband and wife, duration of marriage, level of education, place of residence, province of residence, occupation of husband, knowledge of contraceptive methods, knowledge about the source of supply of contraceptive methods, communication between husband and wife, presence of adults at the time of interview, consanguinity between husband and wife, number of children ever born, ideal family size, desire for more births, exposure to modern media, approval of family planning methods, husband's approval for using contraception and respondent's access to health facility. The results are summarized in Table 4.

Age Composition and Spousal Age Differences

The comparison of age compositions of shy/silent users and the reported current users shows that the average age of the former was 37.1 years as compared to 34.8 years of the latter. In other words, shy/silent users were older than the reported or the stated current users by 2.3 years. In terms of proportion, one third of shy/silent users were less than 35 years of age as compared to about one half of reported current users. However, as shown earlier in computing the rate for shy/silent users those who were in age group 45-49 years were excluded. Also the shy/silent users included those who had no birth during five years as well as more years preceding the survey. In terms of difference between the ages of husbands and wives, the two groups were more or less similar. The index of dissimilarity computed for the spousal age differences of shy/silent users and reported current users was only 5.1 implying no significant differences. However, there was some tendency among respondents to be shy if husband was older by five or more years.

TABLE 4

PERCENTAGE DISTRIBUTION OF SILENT USERS AND CURRENT USERS BY SELECTED CHARACTERISTICS, PDHS, 1990-91

	Shy User	Current User
Age of Respondent		
<20	--	1.4
20-24	1.7	8.7
25-29	11.1	18.5
30-34	20.6	20.4
35-39	26.0	25.2
40-44	40.6	16.8
45-49	--	9.0
Total	100.0	100.0
Average Age	37.1	34.8
Age Difference Between Husband & Wife		
Husband same age or younger	9.2	9.2
Husband older 1-2 years	9.9	14.0
" 3-4 "	14.4	15.2
" 5-7 "	29.4	24.8
" 8+ "	37.1	36.8
Duration of Marriage		
<5 years	--	5.6
5-9 years	5.2	18.0
10-14 years	20.0	21.7
15-19 years	24.5	21.4
20+ years	50.3	33.4
Level of Education		
No Education	83.5	52.0
Primary	7.0	13.5
Middle	3.7	10.9
Secondary & Above	5.8	23.6
Place of Residence		
Major City	15.4	45.2
Other Urban	13.6	20.8
Rural	70.9	34.1

	Shy User	Current User
Province		
Punjab	52.1	65.1
Sindh	32.3	24.5
NWFP	10.9	9.7
Balochistan	4.8	0.7
Total	100.0	100.0
Husband's Occupation		
Professional & Technical	6.1	8.8
Administrative & Management	1.2	3.0
Clerical	3.4	7.3
Sales	12.5	21.3
Service	6.6	8.3
Agriculture	35.2	12.2
Production related	17.8	26.2
Labour not classified	11.2	8.8
Unemployment	6.1	4.5
Knowledge of at Least One Contraceptive Method		
No	41.1	11.5
Yes	58.9	88.5
Knowledge about Source of Contraceptive		
No	73.8	35.7
Yes	26.2	64.3
Talked to Husband about FP in the Past Year		
Never	83.7	25.3
Once or Twice	12.2	33.4
More Often	4.0	11.0
Sterilized	--	30.2
Presence of Adults During Interview		
No	41.4	45.1
Yes	58.6	54.9

	Shy User	Current User
Relationship With Husband		
1st Cousin - Father side	31.9	21.4
" - Mother side	19.8	18.0
2nd Cousin	10.1	12.9
Other relatives	1.0	0.9
Non relative	36.6	46.8
No. of Children Ever Born		
1-2	19.4	12.5
3-4	28.2	29.3
5-6	24.2	28.8
7+	28.2	29.2
Ideal Family Size		
<3	10.2	23.5
4	15.5	35.3
5+	8.1	11.2
Depends on Allah	66.2	30.0
Desire for Birth		
Want More	31.7	14.5
Want no More	49.4	52.4
Upto Allah	16.8	2.1
Undecided or DK	2.1	0.6
(Sterilized)	--	30.4
Exposure to Modern Media		
No	60.4	26.0
Yes	39.6	74.0
Acceptability of FP Messages on Radio/TV		
No	23.4	4.1
Yes	36.4	86.8
DK	40.2	9.1

	Shy User	Current User
Respondent Approves of Couples Using FP Methods		
Yes	44.2	94.2
No	55.8	5.8
Husband Approves of Couples Using FP Methods		
Yes	21.1	57.4
No	40.9	7.2
DK	38.0	35.3
Go to a Health Facility		
Could go by Self	25.4	50.4
Would need tobe Accompanied	71.4	45.5
It Depends	3.4	4.2
Total	759	751

Duration of Marriage

In terms of marriage shy/silent users had longer duration than the reported current users. The index of dissimilarity was as high as 20.7. In other words, there seems to be a positive association between shyness in reporting contraceptive use and the duration of marriage. It means that shy/silent users had longer duration of exposure.

Educational Level

There were significant differences in the level of education as most (83.5 percent) of shy/silent users as compared to 52.0 percent of reported current users, were illiterate or had no formal education. In general, shyness seems to have negative association with the level of education but it is surprising that the percentage (5.8) of shy/silent users who had secondary and more education was higher than those who had middle level education (3.7 percent). Also, the percentage of shy/silent users who had secondary or higher education was not much

different from the corresponding percentage (7.3) of all respondents [3,p.32]. This implies that highly educated women also tend to be shy/silent users.

Residence

By the place of residence most (70.9 percent) of the shy/silent users lived in rural settings as compared to only 34.1 percent of reported current users. Also, some (15.4 percent) shy/silent users lived in major cities where as 45.2 percent of stated current users were residing in major urban cities.

By province of residence over half (52.1 percent) of the shy/silent users lived in Punjab, 32.3 percent in Sindh, 10.9 percent in NWFP and 4.8 percent in Balochistan. But the percentage of shy users in the currently married women by province showed a different pattern. In Punjab which has the largest population in the country, 10.5 percent of currently married women were shy/silent users, as compared to 16.5 percent in Sindh, 9.7 percent in NWFP and 14.2 percent in Balochistan. This means that in relative terms women in Sindh followed by Balochistan were more shy to talk about contraceptive use than in other provinces.

Husband's Occupation

Further examination by occupation of husband shows largest concentration (35.2 percent) of shy/silent users in the category of agriculture and second largest in the production related occupations. The largest concentration of the reported current users (26.2 percent) is in the production related occupations followed by (21.3 percent) sales occupations. This is consistent with the above finding that most shy/silent users were rural residents.

Knowledge of Modern Contraceptive Method and Source

Majority (58.9 percent) of shy/silent users indicated that they had the knowledge of at least one modern method, while a larger proportion (88.5 percent) of stated current users, as expected, reported that they had the corresponding knowledge. On the other hand, about three-fourth (74.0 percent) of shy/silent users stated that they had no knowledge about the source of supply of modern contraceptive methods, while majority (64.3 percent) of reported current users knew the source. In other words, over one fourth of shy/silent users knew the place to get a modern method and the remaining were either shy to report or were using traditional methods.

Husband-Wife Communication

Again significant difference is noted on this aspect. Most of shy users (about 84 percent) never talked to their husbands during the year preceding the survey about family planning. On the other hand, only one fourth of those who reported current use had never talked to their husbands. This shows the extent of shyness of the shy/silent users which was far greater than those who were reported current users. It appears that not only shy/silent users were shy to communicate with their husbands, over one fourth (25.3 percent) of reported current users also had never talked to their husbands about family planning during the year preceding the survey.

Presence of Others During Interview

It is argued that respondents are more shy if questions about sexuality or use of contraception are posed while other members of the household, friends or neighbours are present at the time of interview. The data show that in case of shy users, adults were present in 58.6 percent of the cases, while corresponding percentage for reported current users was 54.9. Although the difference is small but it shows that this factor might also have contributed to the shyness in reporting the contraceptive use. This is unavoidable as in the cultural setting of the country, it is difficult to ask those who are present to leave, which could create suspicion among other members of the household particularly, the elders about the survey.

Consanguinity Among Couples

The data show that around two third (63.4 percent) of shy users were married to their cousin or relative as compared to over one half (53.2 percent) of reported current users. Does it mean that endogamy contributes to the shyness in reporting the use of contraception? More evidence is needed to substantiate this association.

Number of Children Ever Born

It is interesting to note that shy/silent users on the average had slightly lower average number (4.72) of children ever born than reported current users (4.99). Although the difference is small but it may be that the former are more effective users than the latter who in turn, may also be more recent users.

Ideal Family Size

The data show that shy/silent users seem to have a stronger belief than reported current users that all events including number of children are

predetermined. Two third of shy/silent users as compared to less than one third of reported current users believed that the size of family depends on Allah.

Desire for More Births

Higher percentage (31.7) of shy/silent users than (14.5 percent) of reported current users wanted more births. These are mainly women who are young and have not completed their ideal family size. On the other hand about half (49.4 percent) of shy/silent users and slightly more than half (52.4 percent) of reported current users did not want any more births. The difference between the two groups is minor and the shy/silent users are more candid on this issue than on the ideal family size.

Exposure to Modern Media

It is noted that majority (60.4 percent) of the shy/silent users as compared to 26.0 percent of reported current users had no exposure to modern media. In response to the question on acceptability of family planning messages on radio\TV only 36.4 percent of shy\silent users as compared to 86.8 percent of reported current users said "yes". In addition 40.2 percent of shy\silent users as compared to only 9.1 percent of reported current users did not know about such messages mainly as most of the former had no exposure to radio\TV.

Approval of Couples Using Family Planning Methods

Only 44.2 percent of shy\silent users as compared to 94.2 percent of reported contraceptive users responded positively to this question. It seems that most (55.8 percent) shy\silent users responded negatively perhaps in order to rationalize their shy behaviour. In addition, only one fifth (21.1 percent) of shy\silent users as compared to 57.4 percent of reported current users indicated that their husbands approved couples using FP methods. This is in agreement with the earlier finding that most (84 percent) of the shy\silent users never talked to their husbands about family planning.

Accessibility to Health Facility

From the foregoing analysis, it is noted that most (84.0 percent) shy/silent users had never communicated with their husbands about family planning. From this, it can be construed that this group of women suffer from cultural inhibition and are less independent in their thoughts and actions. Table 4 shows that only one fourth shy/silent users as compared to one half of reported current users could go

by themselves to visit health facilities and for that matter, the family planning outlets to obtain services.

MAIN CONCLUSIONS

On the basis of the analysis of 1984/1985 Pakistan Contraceptive Prevalence Survey (PCPS) data it was determined that 5.9 percent of currently married women, 15-49 years of age were shy to report that they were using contraception or doing something to prevent births. The reported Current Prevalence Rate (CPR) obtained from that survey was 7.6 percent of currently married women, 15-49 years of age. If shy users were included the CPR rose to 13.3 percent.

Using more elaborate and refined procedure than was used for the 1984/1985 PCPS data, attempt is made to estimate shy/silent users of contraception from the 1990/1991 Pakistan Demographic and Health Survey (PDHS) data.

The analysis shows that there were 11.9 percent of the currently married women 15-49 years of age who were shy/silent users. The reported CPR from this survey was 11.8 percent. If shy/silent users are included, the CPR increases to 23.7 percent. The revised or adjusted CPR by including shy users, is found to be more consistent with the TFRs of 5.2 and 5.4 reported in the 1990/1991 PDHS, although these TFRs are among the highest in the major developing countries of the world.

Another important conclusion is that measurement of contraceptive prevalence suffers far more from under reporting than the measurement of fertility. The results imply that TFRs were also under reported but to a much lesser extent than the CPRs.

Inspite of including the shy users, the level of revised CPR (23.7 percent) is still far lower than the reported levels of several developing countries in Asia. For example, these levels for the recent years varying between 1987-1990 were 49 percent in India, 31 percent in Bangladesh, 62 percent in Sri Lanka, 50 percent in Indonesia, 51 percent in Malaysia, 36 percent in the Philippines, 66 percent in Thailand and 53 percent in Vietnam.

The analysis of characteristics show some significant differences between the shy/silent users and the reported current users. On the average shy/silent users were older than the reported current users by 2.3 years. There were minor variations between the two groups in respect of difference between the ages of husbands and wives. The shy/silent users, inspite of eliminating currently married women 45-49 years of age from the former, had longer duration of marriage than reported current users.

Most of shy/silent users were illiterate but the percentage of all educated among the shy users was not much different than the corresponding percentage of educated among all the respondents.

Most of the shy/silent users lived in the rural settings where family planning services were scarce. Majority of them reported that they had no knowledge of modern contraceptive methods and most of them never talked to their husbands about family planning.

The difference in the number of children ever born between the two groups was not significant. But shy users had slightly fewer children. On the ideal family size majority of shy/silent users showed dependence on "Allah" but in respect of desire for more births, they were more specific. About half of them reported that they did not want any more births. Which is an indication that they were equally motivated as the reported current users to check the burden of childbearing.

Only one fifth of shy/silent users as compared to 57 percent of reported current users assumed that their husbands approve couples using contraception. Also one fourth of shy users as compared to one half of reported current users could go to visit health facilities and for that matter family planning services centre by themselves.

These and other factors seems to have contributed to the shyness in reporting the use of contraception. The size and percentage of shy/silent users are quite substantial. It is possible that most of the shy/silent users might not be using modern contraceptive methods. But they were doing some thing to prevent births. They may

be using traditional methods as well as induced abortion. Further research is needed to probe into the matter to find out more precisely what measures they use.

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PATTERN OF DEMAND FOR CHILDREN IN PAKISTAN

TAUSEEF AHMED*

High fertility in Pakistan is normally associated with high demand for children in Pakistan. This analysis tests this hypothesis using data from Pakistan Contraceptive Prevalence Survey 1984-85. The demand for children was conceived in a much broader sense by including the wantedness of last birth and the timing of last birth. This analysis showed presence of unwanted pregnancies mostly associated with timing of birth and higher parity. This high degree of unwantedness of pregnancies bear serious implications for Pakistan's family planning programme, especially its service delivery component. Surely, this analysis indirectly supports the existence of high unmet need for contraception in Pakistan.

I. INTRODUCTION

Pakistan has maintained a profile of high fertility which is a consequence of uncontrolled supply of children. However, the demand aspect of fertility has not been given due consideration. The demand for children precedes the reproductive process but in a vague manner. With the advent of family formation and the possibility of accomplishing lower parities, demand for children would reshape itself and would determine the future direction of the reproductive behaviour. This calls for a sequential analysis to examine how would Pakistani mothers prefer to reshape their reproductive behaviour. In the absence of a longitudinal or retrospective data on family formation and ideal family size, this article focuses on data from a cross-sectional survey to examine women's desires for reproduction and how would their desires for additional births affect overall fertility level. The sequential nature of their behaviour is examined through duration of marriage and parity of the women. The main objective of this article is to examine fertility behaviour with a view to determine pattern of demand and make suggestions for the promotion of small family norm and to reduce the unmet need for contraception of women who do not want any more children.

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Results from the 1975 Pakistan Fertility Survey show that among the currently married women, (pregnant and fecund) 49 percent did not want another child [1]. Furthermore, a fair number of women reported experiencing unwanted births. This is further substantiated by the contraceptive prevalence rate (CPR) that had remained between five and nine percent [2,p.84], although Pakistan was rated to be second among Asian nations in spending money on various family planning programmes [3,pp.2-8]. One of the major reasons for the low CPR has been the inadequate coverage by the programme. Thus a large number of women end up with unwanted pregnancies.

Pullum [4,pp.1-12] notes that there is a great deal of variation among Pakistani women regarding ideal family size. This variation can partly be explained by the tendency of women to rationalize their actual fertility behaviour and report the number of their births or living children as their ideal family size. On the other hand, a substantial proportion (58 percent) of married women of reproductive age do not want any more children or they wish to space their births. This implies a fall in the demand for children or an outright desire to avoid unwanted fertility. This change in the desire for fertility may become more prominent over the years to come. Therefore, the need exists to observe the demand for children and whether any transition could be expected among women at various levels of family formation.

While women have shown high ideal family size, they have also exhibited their desires to space and limit their births. Attempt is made to deal with several issues in this context. The issues addressed in this article concerns the number of children a woman desires to have in comparison with the number of children she reproduced or is expected to reproduce. Whether the high level of fertility in Pakistan is an outcome of demand for children or unwanted pregnancies? Is demand for children unrestricted or controlled? What pattern of demand for children exists in Pakistan and how does it differ for women at various stages of family building? Do women change their pattern over time? The overall objective of the study is to identify possible high risk groups for policy makers to devise innovative approaches for motivation, education and outreach programmes. The exploration of the demand for children is urgently needed not only to evolve the population welfare programmes but also to achieve its objectives and targets.

BACKGROUND EVIDENCE

A large part of the studies done in the developing countries show that actual fertility behavior has been treated as the dependent variable. It is only in the past decade or so that demand for fertility is also examined in terms of fertility desires and aspirations, especially using the World Fertility Survey data. The concept of demand for children is broader than the ideal family size. It is more concerned about incremental births and is assumed to be reflective of family's socioeconomic circumstances at a specific stage of family formation. In general, demand for children per se may not have any relationship with the ability of women (fecundity) to fulfill their desires.

The concept of demand for children has been broadened in its scope to include the wantedness of last birth and the timing of next birth. By doing so, the extent of demand for children is measured whether last birth to a woman was beyond her ideal or was it mistimed, and whether the following birth is desired soon or the women would prefer to wait. This concept goes beyond mere numbers and focuses more on an implicit issue that women always wanted to reveal. Asking about wantedness and timing of births entails a woman's authority in decision making regarding fertility matters and overlooks the fatalistic attitude a woman may have. Women weary of reproduction do not hesitate to stick to their fertility decision and make the demand for children acceptable.

Results from a number of studies depict not only that fertility level has fallen but also a large proportion of women do not desire additional children or wished to delay their next birth. This was true even when currently non-contracepting women were considered. The delay to acquire next birth was found to be substantial, long enough that most women might likely desire not to have that child anymore [5].

Closely associated to delayed birth is the issue of unintended conception. This reflection of unwantedness of births can be either in terms of timeliness or ideal family size. A fairly high proportion of women in developing countries who were married for more than 10 years reported at least one such birth [6,pp.43-52]. In cultures where sex preference is high, women may depict higher desires for additional births and also be reluctant to label such births as unwanted [7,pp.288-343]. High association between number desired and number living [8,pp.344-368]

may be attributed to high desires for children and lack of appropriate probing in surveys to differentiate such births.

This exercise focuses on individual level demand for children to see how women at different stages of reproduction make decisions about their desired fertility. The reason to focus on desire for birth is manifold. Firstly, demand for children is perceived as an intention rather than a behavior. Prior research has found desired family size or intentions for additional birth(s) not only closely related but also most important factors explaining additional fertility [9,10,7,11]. Second, desires are not confounded by biological effects as in the case of actual fertility [12,pp.129-136]. Third, desire for additional births may take different meaning for women at various stages of reproductive career. For newly wed the desire for children is the main source of prestige and honour while the desire at higher parity may be related to replacing any loss or the fulfillment of a social obligation of reproduction. Fourth, desire for additional birth or specific family size can provide the basis to foresee rather than speculate the fertility trends. Finally, by using the desire for children, the possibility of errors associated with reporting on fertility behavior like recall lapse, misplacement or mistiming of events, is reduced.

It is contended that fertility decisions are more an effect of social normative pressure in early stages of reproduction, while conscious efforts may be made once lower level of parities are achieved. A woman experiencing unwanted birth beyond her ideal family size is likely not to desire more children. It is also expected that closer to the desired number of children, lesser additional children are demanded. The intensity of desire is lowered at higher parity and birth intervals are prolonged. In this case, Hermalin et al. found that marital duration is the most important factor affecting the desire for additional children [9,pp.75-95]. Longer the marital duration, couples have more time to fulfill their desires for family size.

SOURCE OF DATA

The main source of data for this article is the Pakistan Contraception Prevalence Survey (PCPS) which was conducted during Oct. 1984 through March 1985. The Survey covered a national sample of 7405 currently married women aged 15-49. The sample based on a two stage stratified random technique, covered the four provinces of Pakistan. Female interviewers conducted the survey in regional

languages. The PCPS is a unique source of information for such studies as it collected data on the desirability of the last birth, and the timing of next birth. This information is used in the analysis to provide understanding of excess or unwanted pregnancies or births and the significance of demand for children.

DESIRE FOR CHILDREN IN PAKISTAN

Pakistan is a traditional society with strong patriarchal family system. Bonding of families, strengthening and consolidating filial wealth and power dictate the norm of social control and procreation. Within this realm, strength of extended kinship is the main emphasis in all relationships, especially for the marriage of a daughter. Marriage is the most important event in a woman's life , as it is through marriage that a woman acquires social status, and can bring prestige and honour to her family [13]. Marriage is almost universal phenomenon in Pakistan but a typical woman marries to exhibit her fertility permanence and the alliance of two families [14,pp.156-161]. Any delay or an inability to achieve pregnancy or first birth may force husband into a second marriage, so that the perpetuation of the lineage may be assured [15].

There exists a high degree of modesty surrounding matters of sex and cohabitation, and accordingly most girls are socialized to be modest, docile, and obedient to male members of the family [13]. A woman's status as a mother and a wife is bound by her procreation. Though a small number of girls go through any formal education, yet the female social status and its enhancement after marriage is associated with her internalized desires for procreation, evidence of fecundity and especially in producing a male heir [16]. All births in Pakistan take place within marriage. In the early stages of reproductive career most just happen and may be unplanned events. Preference for male child emerges as a strong factor in case of all female births or due to the loss of sons.

Research evidence reveals that women from rural and urban lower class usually procreate continuously three to four children in early years of marriage [17] before they could seek any information for controlling their reproduction [16]. Keeping this in view, it is reasonable to assume that women in Pakistan desire to reproduce conforming to the prevailing norm of fertility. In terms of completed fertility, a fairly large proportion of women in ages 35 and above have produced

more children than what they had desired for. Therefore, a marginal increase in fertility observed in analysis of four surveys [18,pp.1-10] may be interpreted as inaccessibility of the means to fulfill their desire.

A fair number of married Pakistani women follow a natural fertility pattern with intense and prolonged breast-feeding providing the natural protection against next pregnancy. Evidence from focused surveys reveal that these are mainly the educated women from urban areas who deliberately try to avoid their second conception after their first livebirth [17]. Prior research reveals that currently exposed women who reached their ideal family size, about 90 percent of them did not want any more children [19,pp.143-150]. Furthermore, they found that women who have passed their ideal family size had, on average, an excess of 2.5 children. Women at various stages of reproductive career, started to realize the cost relating to childbearing and rearing process. Therefore, for them regulating reproductive events became growingly meaningful. These costs are not constant rather are cumulative and increasing overtime given their limited household income and resources. It is in this context that a woman could decide about the timing of her future births and the number of additional children desired.

In order to capture the nature of real demand for children the Pakistan Contraceptive Prevalence Survey added two major questions. The desire for more births was addressed to women with atleast one live birth. For women who expressed for not wanting more births, a measure focused on whether their excess fertility was a result of their desire or an unwanted birth? In the PCPS following question was posed, "Before your last child, did you want to have more children?" On the other hand, women who explicitly desired to have more children (in addition to the one thy were expecting) were asked, "How many more do you want to have in future?" And, "if it were entirely up to you, when would you prefer to have your next child?" The idea was to see if there was any change in the total demand for children and if these women were interested and willing to control their next pregnancy.

These measures are displayed in a diagram dividing all fecund (ever-pregnant) and non-sterilized women (total 6655) by their desirability for next and last birth (Figure 1). It appears that about 48 percent of all currently married women who ever were pregnant wanted to discontinue their childbearing. On the contrary, only 47 percent were sure to proceed with their reproduction. Two groups

of women should be of particular interest to policy makers, those who wanted to delay their next childbearing atleast by two years (18 percent) and those who desired no more children and that their last pregnancy was also not desired (20 percent)[1]. The lower level of desirability or a significant per cent exhibiting unwantedness for the last birth are new dimensions that highlight the significance of unmet need for contraception. Non-decision, uncertainty or fatalistic attitude regarding fertility also emerge as a prominent component in the desire for more children. Aggregating various aspects, about 17 percent of all women comprise of this segment. Women not desiring more children are in older cohorts and have already, on average, given birth to 6-8 children over their reproductive cycle. On the other hand, women who wanted more children are mostly young and have lesser number of living children than their ideal family size.

This short analysis depicts that women categorized by their desire would show differential in the actual fertility and their desire for children. The status of desire for children will be henceforth used as a controlling factor.

The demand for children variable has a broad based focus. This concept includes number of current living children, the number additional desired and whether the last birth was a desired pregnancy. Lightbourne asserts about good face validity of responses on not desiring additional children as an indicator of demand for children [5]. Dependent variable is formulated by adding number of currently living children to the number of additional births they desired to have. Furthermore, if the last pregnancy was reported to be unwanted one, then subtracting one birth from the number of living children would indicate the actual demand for children. This variable by aggregating both the aspects of fertility behaviour is labeled as 'total demand for children' in this analysis. Women not stating a number were allocated the average number of children desired by the rest of women.

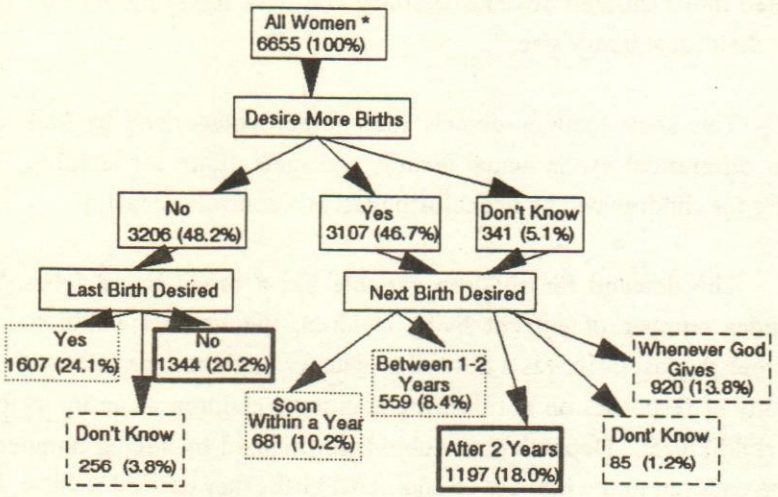
FERTILITY PATTERN BY DESIRE FOR CHILDREN:

Indirect fertility estimates are reproduced in Table 1 for women at various stages of family formation. These estimates were arrived at by using Arriaga's technique based on children ever born data by various five year age groups [20]. The technique

1 The latter could be higher if the survey had included the timing aspect of the last birth.

Figure 1

Distribution of All Women by Their Desire for Children



*Excludes infecund and sterilized women.

uses the average number of children ever born to obtain a set of age specific fertility rates. The technique implicitly assumes that fertility changes will produce a linear change in the average number of children ever born per woman at each age. The technique can adjust the fertility pattern to the level obtained from cumulative fertility rates upto age 35 and younger.

TABLE 1

INDIRECT ESTIMATES OF TOTAL FERTILITY RATE FOR CURRENTLY MARRIED WOMEN (AGE 15-49) BY THEIR STATUS ON DESIRE FOR MORE CHILDREN PCPS 1984-85

	Indirect Measure based on CEB *		
		Total Demand**	Difference
All Women	7.9	7.8	0.1
Desire More			
Within a Year	5.7	8.1	2.4
Between 1-2 Years	5.5	8.5	3.0
After 2 Years	6.3	7.7	1.4
Don't Know When	6.8	9.4	2.6
Desire No More	8.3	6.1	-2.2

* Using Arriage's Method (Based on Fecund and non-sterilized women). These were reached by using the subroutine FERTCB of MORTPAK-LITE [22].

** Total Demand for Children is calculated as follows:
If more desired (Living children+ no. wanted more).
If last child not desired (Living children - 1).

The first column of Table 1 utilizes the same by examining across women's desire about future reproduction. The second column is a simulation exercise based on total demand for children arrived at by, adding the number of desired children to respondent's number of living children and by deleting one parity from the living children in case the last birth was not desired at the time of pregnancy.

These estimates are on the higher side. The overall estimates exhibit high fertility (7.9 births/ woman) but estimates for various subgroups of women desiring more births are much higher and vary between 7.7 and 9.4 births. These high

estimates could be mainly because of misreporting of children ever born especially at 15-19 age group or under statement of ages of mothers. In contrast, women not desiring more children depict a fertility rate of 6.1, an excess of 2.2 births over the indirect estimates based on children everborn data. These estimates exhibit a wide differential in demand for children. This is a typical situation of a developing society depicting high unwanted births. In this case of excess fertility, a reversal in decision over one's reproductive career is due to the burden associated with child bearing and rearing process.

The objective of the exercise in obtaining these estimates is not to examine the level but to see the pattern of reproduction. The overall difference between the two estimates presented for all women in the last column of Table 1 is small but for other groups these are worth noting. Women desiring to have their next birth soon or were undecided about it have high demand for children and are estimated to reproduce two or more births beyond what they would reproduce otherwise in their group. Women who desire next birth delayed by more than 2 years would have at least one birth more.

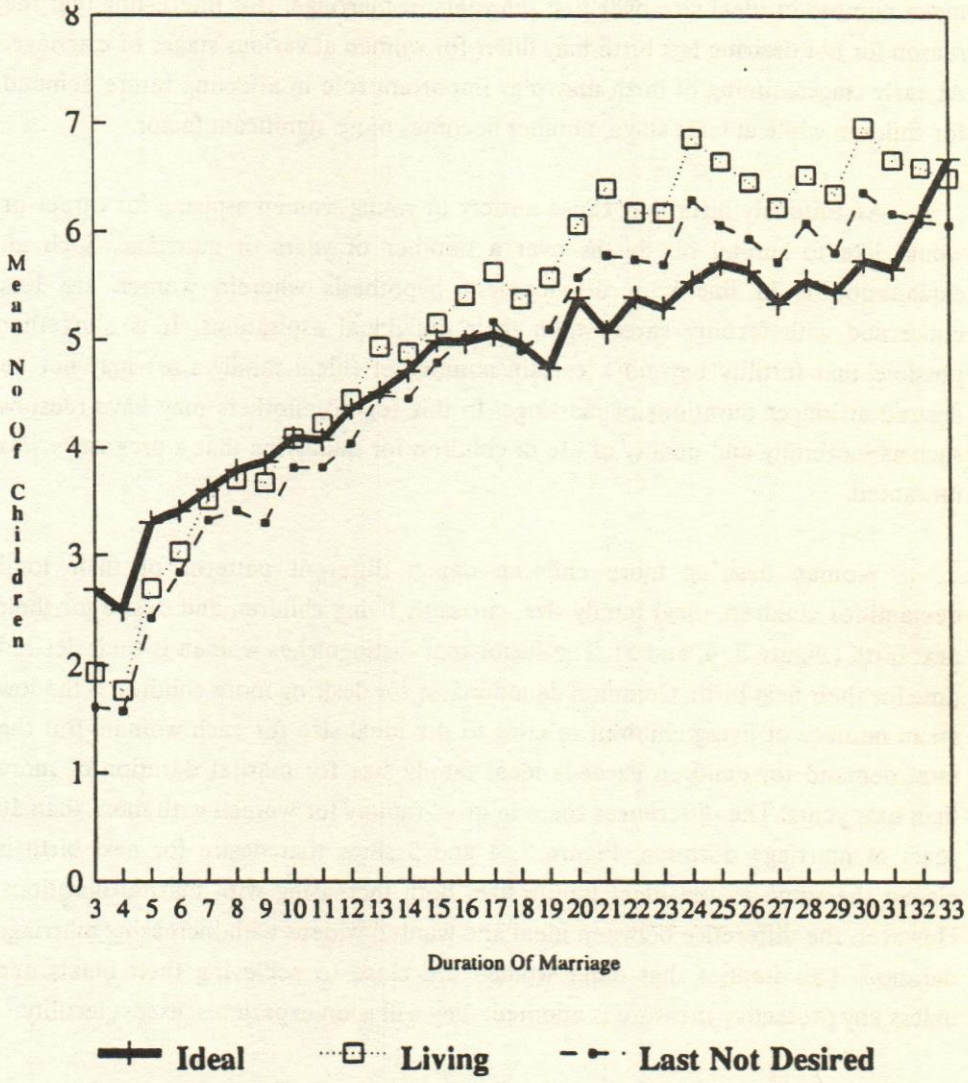
In contrast, is the group of women not desiring more births who exhibit more than two births beyond what they exhibit as total demand towards the end of their reproductive career. This seems to be a reversal in the pattern and implies ex-post facto realization of high parity reproduction and not being able to regulate their fertility. More than two births in life time over and above one's demand shows the presence of significant number of unwanted pregnancies in Pakistan. On the other hand, there is a group desiring more children whose total demand for children is much higher than the group of women not desiring more children. The presence of unwanted births is still not accounted for by the high fertility demand.

Is their demand for more children due to their fatalistic attitude or is it an expression of normative pressure? What factors are associated with excess fertility behavior? These questions are dealt with in the following section.

The demand for children and related variables are examined over the duration of marriage to see at what stage differences emerge between the desired, living and ideal size. Preliminary examination of demand for children for women not desiring another birth exhibited distinct pattern when we compare their

Figure 2

Currently Married Women Not Desiring
Another Child



reported living and ideal number of children. Figure 2 vividly points out that such women who are married for more than 15 years consistently show excess fertility pattern (living children > ideal family size). This gap widens with duration of marriage and is distinctly marked by the presence of unwanted births over the ideal size. Furthermore, women not desiring their last birth distinctly depict higher mean number of ideal size over first ten years of marriage. It is interesting that the reason for not desiring last birth may differ for women at various stages of marriage. At early stages, timing of birth may play important role in affecting future demand for children while at later stage, number becomes more significant factor.

An untimely birth may cause anxiety to young women aspiring for career or would like to spread out births over a number of years of marriage. Such an explanation is in line with development hypothesis wherein women are less concerned with fertility career than their individual aspirations. It is altogether possible that fertility beyond a certain number of (ideal family size) may not be desired at longer durations of marriage. In this regard, mothers may have reasons such as morbidity and quality of life of children for qualifying that a pregnancy was unwanted.

Women desiring more children depict different patterns of their total demand for children, ideal family size, currently living children and desire for their next birth (Figure 3, 4, and 5). The factor that distinguishes women is their desired time for their next birth. Common denominator for desiring more children is the low mean number of living children relative to the ideal size for each woman. But the total demand for children exceeds ideal family size for marital duration of more than four years. The differences seem to grow rapidly for women with more than 10 years of marriage duration. Figure 3, 4 and 5 show that desire for next birth is almost the same as the ideal family size, both increasing with marital durations. However, the difference between ideal and wanted widens with increasing marriage duration. This implies that older women are close to achieving their ideals and unless any protective measure is adopted, they will soon experience excess fertility.

Has there been a change in ideal family size? Figure 2 shows that ideal family size is positively related with duration of marriage implying that women tend to justify previous births by upward movement of ideal size over longer duration of marriage. In Figures 3, 4, and 5 the relationship of ideal size with duration of

Figure 3

Currently Married Women Desiring
Their Next Child Late

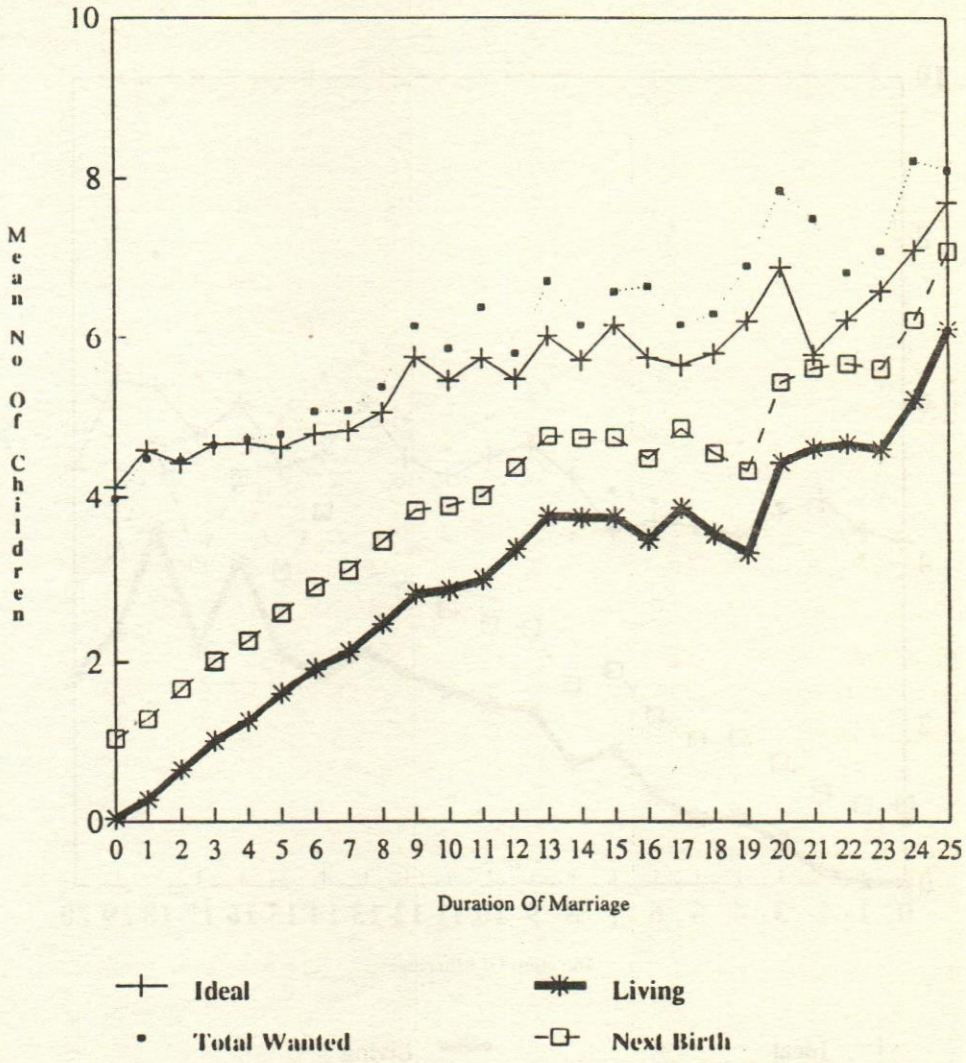


Figure 4

Currently Married Women Desiring
Their Next Child Soon

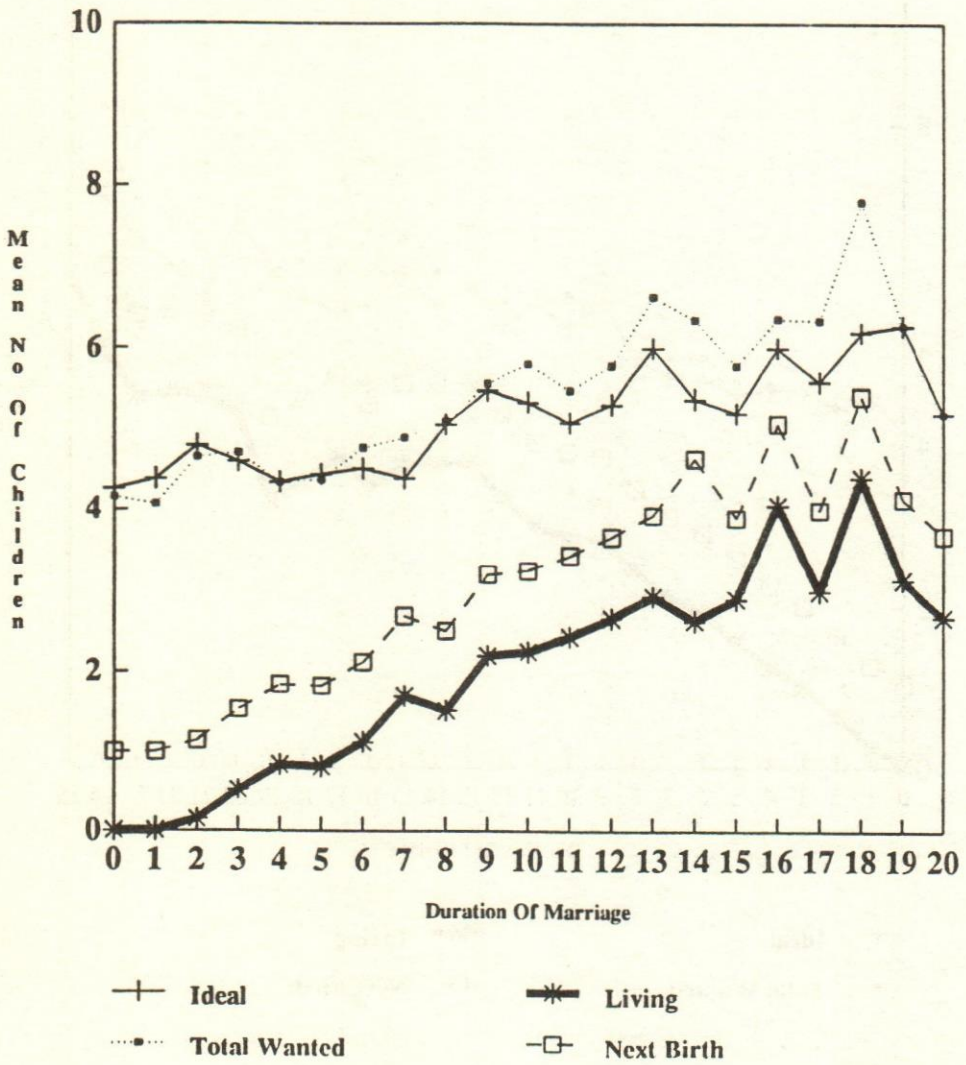
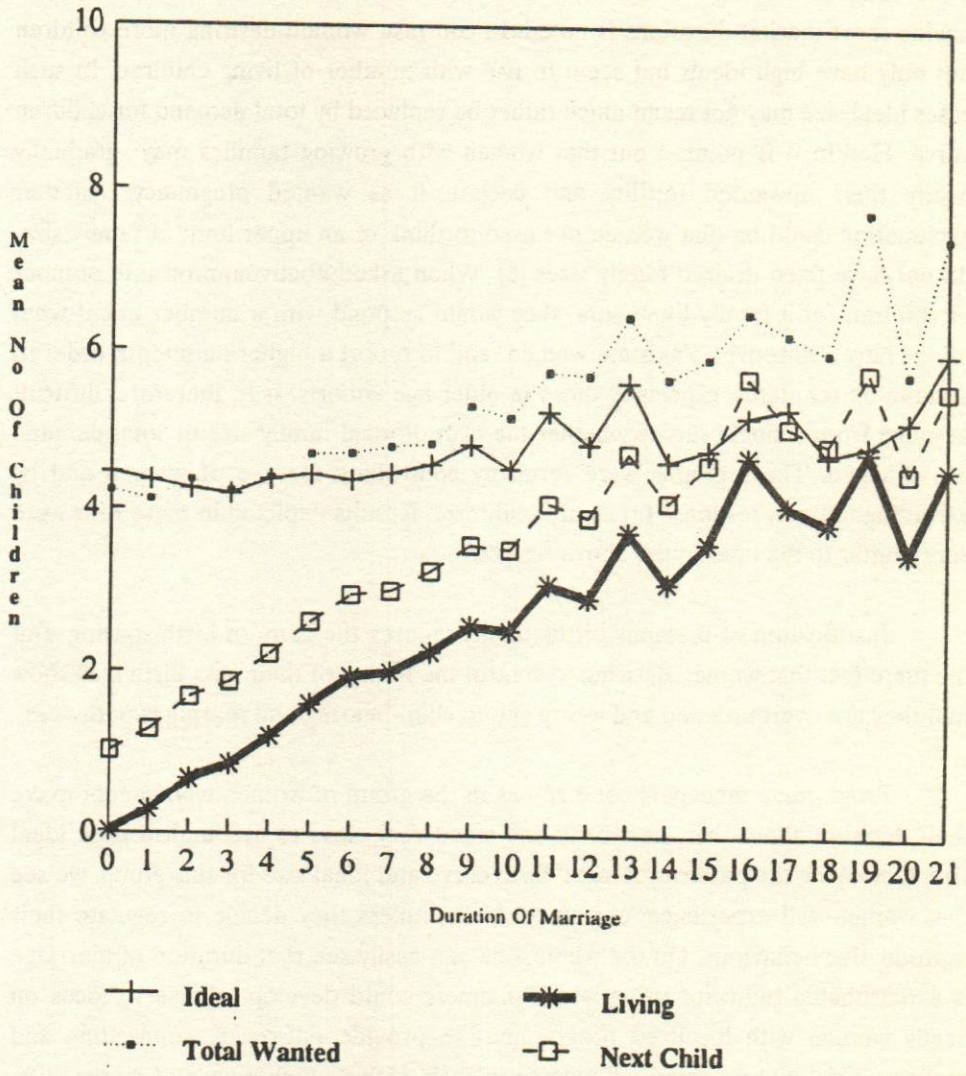


Figure 5

Currently Married Women Desiring More
Children But Not Sure When Do They Want



marriage is positive but show low association implying a relatively smoother increase in demand for children over marital duration. If ideal family size is taken as a perception that creates self imposed targets, then women reporting no desire for more children may take it more seriously. The low levels of ideal size for women having short marital durations is noted. In contrast, women desiring more children not only have high ideals but seem to rise with number of living children. In such cases ideal size may not mean much rather be replaced by total demand for children curve. Herein it is pointed out that women with growing families may gradually justify their unwanted fertility and declare it as wanted pregnancy. Another explanation could be that women not used to think of an upper limit of family size, do not have fixed desired family sizes [5]. When asked about "appropriate number of children for a family like yours" they would respond with a number about what others have. Moreover, Pakistani women tend to report a higher number in order to acclaim better status, especially those in older age cohorts. It is, therefore, difficult to judge from a single survey whether the overall ideal family size or total demand has changed. These graphs were rerun by controlling for age of women and by excluding the non-response on ideal family size. Results depicted in these runs were very similar to the ones in the above figures.

Justification of previous births totally ignores the issue of birth spacing. But the mere fact that women desiring to control the timing of their next birth may show that they are overburdened and weary due to child-bearing and rearing experiences.

Programme managers concern lies in the group of women who cannot make their decision about their next birth and stand very close to accomplish their ideal size. Observing the patterns of 'next' birth curve and ideal size for this group, we see that women will experience 'unwanted' births unless they decide to regulate their reproductive behaviour. On the whole, one can easily see that duration of marriage is a reasonable indicator using which planners could develop criteria to focus on needy women with localized programmes to provide out-reach, counselling and services. This analysis shows all women in their 15th or higher year of marital life, must be reached and motivated to initiate fertility control to possibly avoid unwanted pregnancies.

Desire for Children as a Function of Time Elapsed since Last Birth/Marriage and Parity Level

Literature distinctly points out level of parity as a major factor related to desire for more children. Furthermore, duration of open interval is a period of child-rearing wherein burden/costs are estimated and evaluation made for additional births. Experience of Pakistani woman shows the occurrences of increased spacing between births only after she has reproduced three to four children. It may be expected that at higher parity women with longer open intervals have greater chance to postpone or prevent the next birth.

Observing only the behavioral pattern, a prolonged open interval could be either a conscious effort to avoid pregnancy or an unconscious delay because of subfecundity or separation. Our interest lies in the pattern of desire for more births over open interval followed by women at various parities.

Crosstabulating parity by open interval a process wherein women depict gradual decline in their desire for more children is noted (Table 2). This decline in demand for children at higher parity could be an outcome of rational decision weighing child-bearing and rearing pressures relative to other options. A large percentage of women at parity four exhibit their desire for additional child. The decline in percentage over increased open interval and parity is observed. Similarly, women with six live births and with four or more years of open interval show considerable decline in demand for children.

TABLE 2

PERCENTAGE OF WOMEN WHO REPORTED A DESIRE FOR MORE CHILDREN BY PARITY AND OPEN BIRTH INTERVAL

	Segments of Open Birth Interval (in Months)					
Parity	<=11	12-23	24-35	36-47	48-59	60+
0	99.2	98.6	99.2	100.0	100.0	97.1
1	96.6	96.1	95.1	100.0	100.0	88.9
2	91.2	82.7	88.6	86.7	81.0	67.9
3	78.3	73.6	67.3	74.6	59.5	45.0
4	65.3	57.4	58.6	60.3	53.4	22.6
5	39.0	45.5	50.0	36.9	40.0	20.0
6	41.4	30.4	36.8	34.7	19.6	19.8
7+	21.5	22.0	18.0	19.2	8.0	6.4

For a finer analysis, life table technique was used to reach at proportion of women wishing to avoid more children at different parities. The decision not to have more children could be related to childbearing experiences, husband-wife relations, self perception of infecundity, and other factors. This decision can be given more credence than the response of women regarding number of desired children because of their determined belief to do so. In order to satisfy the life table technique we assume that the decision to have a birth is made around the time of the survey.

The results obtained from the life table procedure for various parities show the proportion of women wanting not to have more births at various durations of open interval (Table 3). The median value is the duration of open interval at which fifty percent of women report wanting to continue their child-bearing. We observe a systematic relationship between duration and proportion not wanting more children. Among all women with one parity, 95 percent reported their desire to have more children within, on average, 17.8 months of open interval. Furthermore, at the end of fifth year of the open interval about 16 percent do not desire to continue

TABLE 3

PROPORTION OF CURRENTLY MARRIED WOMEN WHO DESIRE NO MORE CHILDREN BY NUMBER OF MONTHS ELAPSED SINCE LAST BIRTH AND PARITY PAKISTAN 1984-85

Number of Months	PARITY						
	1	2	3	4	5	6	7+
0-<1	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1-<6	0.977	0.969	0.979	0.992	0.990	0.991	0.999
6-<12	0.818	0.835	0.863	0.929	0.950	0.959	0.978
12-<18	0.662	0.701	0.776	0.871	0.904	0.921	0.957
18-<24	0.495	0.549	0.659	0.756	0.846	0.857	0.929
24-<36	0.435	0.484	0.612	0.722	0.816	0.846	0.893
36-<48	0.234	0.286	0.426	0.556	0.702	0.784	0.863
48-<60	0.162	0.211	0.340	0.479	0.628	0.766	0.851
60-<72	0.112	0.161	0.275	0.422	0.596	0.723	0.845
72-<96	0.084	0.132	0.250	0.400	0.574	0.715	0.845
96-<108	0.053	0.100	0.203	0.360	0.543	0.691	0.845
108-<120	0.043	0.090	0.187	0.355	0.531	0.691	0.845
120-<132	0.042	0.084	0.173	0.349	0.515	0.691	0.845
132-<144	0.036	0.074	0.168	0.341	0.515	0.657	0.845
144+	0.035	0.072	0.168	0.341	0.515	0.657	0.845

childbearing. The longer duration of open birth interval could be due to subfecundity or infertility to women marrying at early ages.[2] Conversely, a consequence of this subfecundity for longer duration could affect a woman's desire for children. Women with one live birth maintain a strong demand for more children across all durations of open interval. On the other hand, rising median values over higher parities imply larger proportion of women not desiring more children. This also imply that women can and do extend their birth intervals at higher parities. For instance, at parity 5, we observe that more than half do not desire more births and have really long open birth intervals.

In order to understand these data better, all values were plotted for each parity (Figure 6). Each curve shows the proportion of women demanding more children at each segment of open interval. For instance, curve for parity three is distinctly higher than the curve for parity two, implying that at higher parity the demand for additional births is lesser at various segments of open interval. Another important thing to note is the flattened curve towards the tail end at higher parities. This implies a statusquo in demand for children, especially for women at parity 5 and above and that they have five years or more of open interval.

Though 70-90 percent of all women having 5 or more live births reported no desire for more children, yet those who do desire more were quite persistent in their demand. In other words, desire for children may take different meaning at different levels of parity and duration of open interval. It needs to be clarified here that even when women may report to desire more and to achieve higher parity, they may not be able to do so, thus prolonging their open interval.

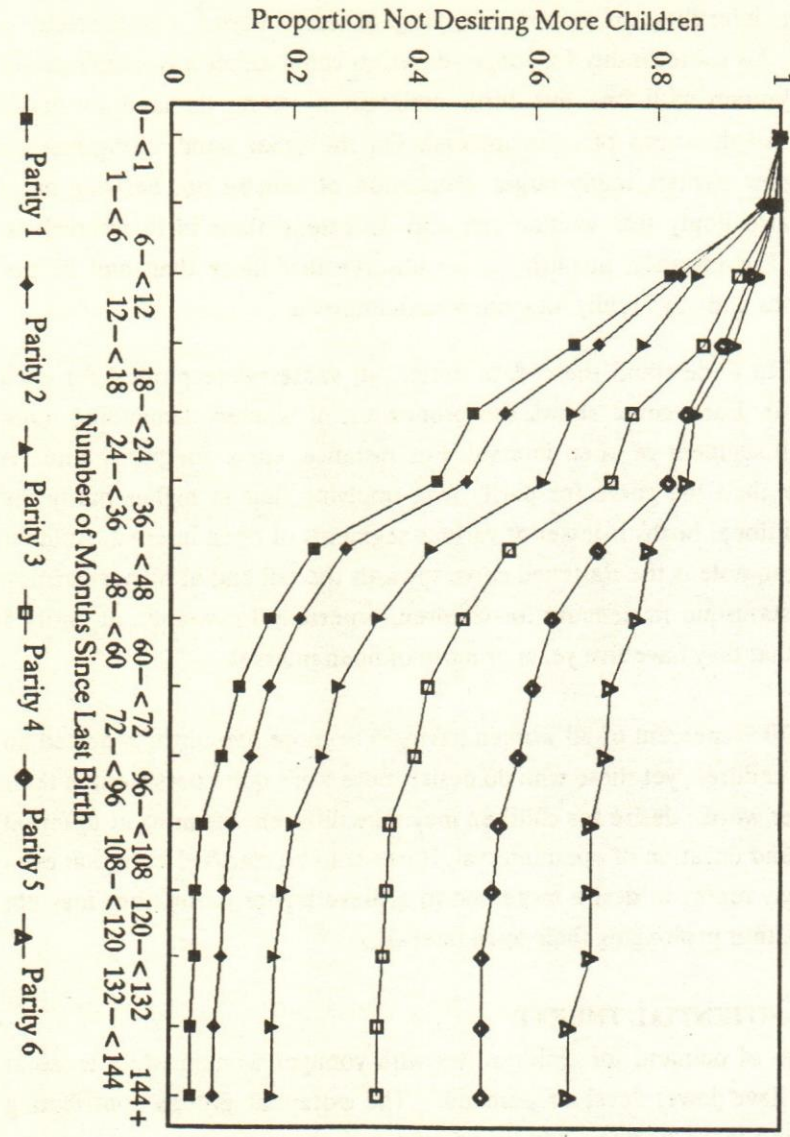
REGULATING POTENTIAL THREAT

The surge of demand for children lies with younger women while those at higher parities have lower level of demand. The potential groups contributing excess fertility and those likely to add births over and above what we may refer as 'rational' level lie with women desiring to extend their families. For such women, children may still bring social status to them and they perceive marginal costs associated with additional birth to be minimal. The issue of timing of next birth becomes important at higher parity and for those women whose time-cost is higher

2 This is substantiated by Census 1981 results that about 20.9 per cent of all ever married women in Pakistan experience childlessness [21]. The rate of childlessness is very high among younger women.

Figure 6

Proportion of Currently Married Women Wanting to Avoid More Children by Number of Months Since Last Birth and by Parity



is higher than before. Therefore, untimely pregnancy could bring both tremendous psychological pressure and increased health risks to mothers and infants. The occurrence of unintended pregnancy could easily affect total demand for children.

Fertility regulation especially conscious efforts to delay next pregnancy or totally limit reproduction comes into effect when women are weary and want to avoid psychological and health related risks associated with such events. When demand for children is observed with respect to the number of living children, Table 4 shows that among currently married non-sterlized women who have larger number of living children than their demand, are more likely to use contraception than other women. When asked about their future use, about 20 percent of non-users declared their consent to use in future, with highest percent response coming from women whose demand for children was lower than their actual number of living children. It is quite clear from Table 4 that potential demand for contraception exists for both birth spacing and limiting. The results point towards an important service delivery component of making accessibility easier and convenient for the potential users. The magnitude of potential use of contraception is such that women do seem to desire to curtail risks of unintended pregnancies. This is substantiated by the fact that three out of four non-user women preferred modern methods (at all parities) over traditional methods. The consciousness of fertility regulation on the part of these women can only be translated into real demand for children if accessibility of contraception is made according to the needs, and follow-up visits of users to ensure continuity of use.

TABLE 4

PERCENTAGE OF CURRENTLY MARRIED WOMEN USING CONTRACEPTION AND NON-USERS WHO PLAN TO USE IN FUTURE BY THEIR DEMAND FOR CHILDREN

Demand for Children	Current Use	Future use	(No. of Cases)
Demand > No. Living	2.8	20.7	3006
Demand = No. Living	7.1	16.6	2225
Demand < No. Living	11.6	22.5	1344
Total	6.0	19.5	

DISCUSSION

This analysis shows that demand for children varies in magnitude relative to ones actual fertility behaviour. Demand for children assumes a dynamic nature over different age-groups. Pakistani women who have longer duration of marriage may seek status and prestige through fertility to the extent that she totally ignores her own health. Also demand for children, tends to rise with marital duration, depicting births that may have 'unwanted' connotation associated with it.

Women who clearly and openly desire to stop child bearing do so because of their need to enhance their health so that they could attend to increased demand for their time and attention. She may have already over reproduced and in most cases still exposed to the risk of getting pregnant. Women deciding to delay next birth by atleast two years is an important group to be focused by the planners in Pakistan. These women, especially those with three to four children could be helped in selecting appropriate contraceptive and may even be motivated to delay their next birth to an extent to avoid it completely. This consciousness of delay in part reflects the desire not to have more births and provide better life chances to those already in the family. Contrary to it is the group of women with excess fertility who are exposed to the risk of pregnancy and are not willing to avoid more pregnancies. Special enquiry is needed to out more about this hard core group of women. Educating and convincing these women about possible ways to avoid a pregnancy would help ensure their safety from puerperal risks.

This study highlights three main areas of concern. First, there is high prevalence of unintended births. Second, women tend to rationalize their high parity behaviour which is translated into demand for children. Third, there is potential demand for contraception for spacing or limiting births.

It is concluded from this analysis that the main population pressure is not because of real demand for children but it is due to the larger number of births women never desired to conceive. Therefore, the major task for family planning programme is to focus on identification of high risk women, who contribute to unwanted births and to motivate them to use contraception for their own health sake and that of their children. The reduction in the unwanted pregnancies would

not only bring reduction in the demand for children but also it will enhance the survival and the overall quality of life of women and children.

Reduction of unwanted births would bring down the total fertility rate which in turn would make a dent in the population growth rate. The focus of the Population Welfare Programme on elimination of the risk of unwanted pregnancies is expected to contribute towards facilitating and achieving the desired goal of small family norm faster.

As large family size is still perceived by many women as economically and socially beneficial, there is an urgent need to approach these women through a carefully planned IEC approach. Unless these perceptions are changed through special education the high demand for children may continue to prevail.

In order to have an effect on population growth, immediate change towards longer birth intervals at all parities is a corrective course. Such a change is closely associated with higher female education especially regarding benefits of birth spacing at lower parities. This awareness of benefits could entail enhanced quality of life for mothers and survival chances of infants. In terms of programme implementation, contraception needs of women must be matched with supplies of appropriate methods for effectively birth prevention. In this case, service delivery and out-reach system of Population Welfare Programme needs thorough over-hauling so as to make it an efficient process of door step delivery.

The supply oriented population planning programme of Pakistan needs to focus on demand generation through direct contact and indirect social recognition. Non-users need to be properly informed about contraception in order to shun their fears and misinformation about various methods. Married men is another neglected target group that has great influence in the formulation of high demand for children and non-use of contraception. Men need to be motivated, educated and followed-up with regard to practicing small family norm, birth spacing, maternal and child health care, and contraceptive use.

One could easily argue that high demand for children in Pakistan and excess fertility are a consequence of the dilemma of poverty and economic disparity. Prominence of high female illiteracy, low health status, lack of education and

vocational training and absence of job opportunities for females altogether perpetuate the sex inequalities and the overall status of woman. These call for a programme where health, education and training and employment generation needs for Pakistanis females are recognised as an integrated part of multisectoral approach. Unless the status of woman is raised through such an approach, the success of family planning programme cannot be ensured. In order to substantiate any decline in unwanted fertility and the overall demand for children, economic realities have to be properly placed in perspective to raise the quality of life index especially that of women.

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SOCIO-ECONOMIC FACTORS, PERSONAL ILLNESS CONTROL AND INFANT AND CHILD MORTALITY IN PAKISTAN

MUHAMMAD ARSHAD MAHMOOD*

The hypothesis of the inverse relationship of socio-economic status of the parents and child infant mortality rates has been retested by introducing "personal illness control" as an intervening variable. The data obtained in the 1984/1985 Pakistan Contraceptive Prevalence Survey have been used. The infant and child mortality rates have been estimated by using indirect techniques. The results of the analysis are in consonance with the expectation.

The inverse relationship between socio-economic variables of the parents and infant and child mortality is well established [1;2;3;4;5;6;7;8] and it has also been found to occur irrespective of the overall level of mortality in the national populations [9]. Father's education, mother's education and their work status each have independent effects upon child survival in developing countries [4;10]. Another important factor influencing levels of infant and child mortality in developing countries is the current place of residence of the parents [1,pp.202-204;2,p.423].

Knowledge of the levels and differentials of infant and child mortality are required in planning programmes to improve child survival and health facilities. The preferred way of obtaining these levels and differentials is from a vital registration data. In Pakistan, as in most developing countries, there is an official vital registration system but its coverage is so incomplete that practically no attempt has been made to tabulate these data. This lack of vital statistics has been compensated by several national socio-demographic sample surveys that have been undertaken since the early 1960s. In recent years, a number of indirect techniques for estimating

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infant and child mortality from such surveys have been developed, firstly by Brass [11] and then modified by Trussell [12] and Feeney [13;14]. These techniques require data on children ever born and surviving by five-year age group of mothers. The development of these techniques is based on the fact that the proportions dead among children ever born are an indication of child mortality and can therefore be used to produce robust estimates of child mortality provided the input data are of useable quality. The estimates derived by using these methods have been found to be fairly reliable [15].

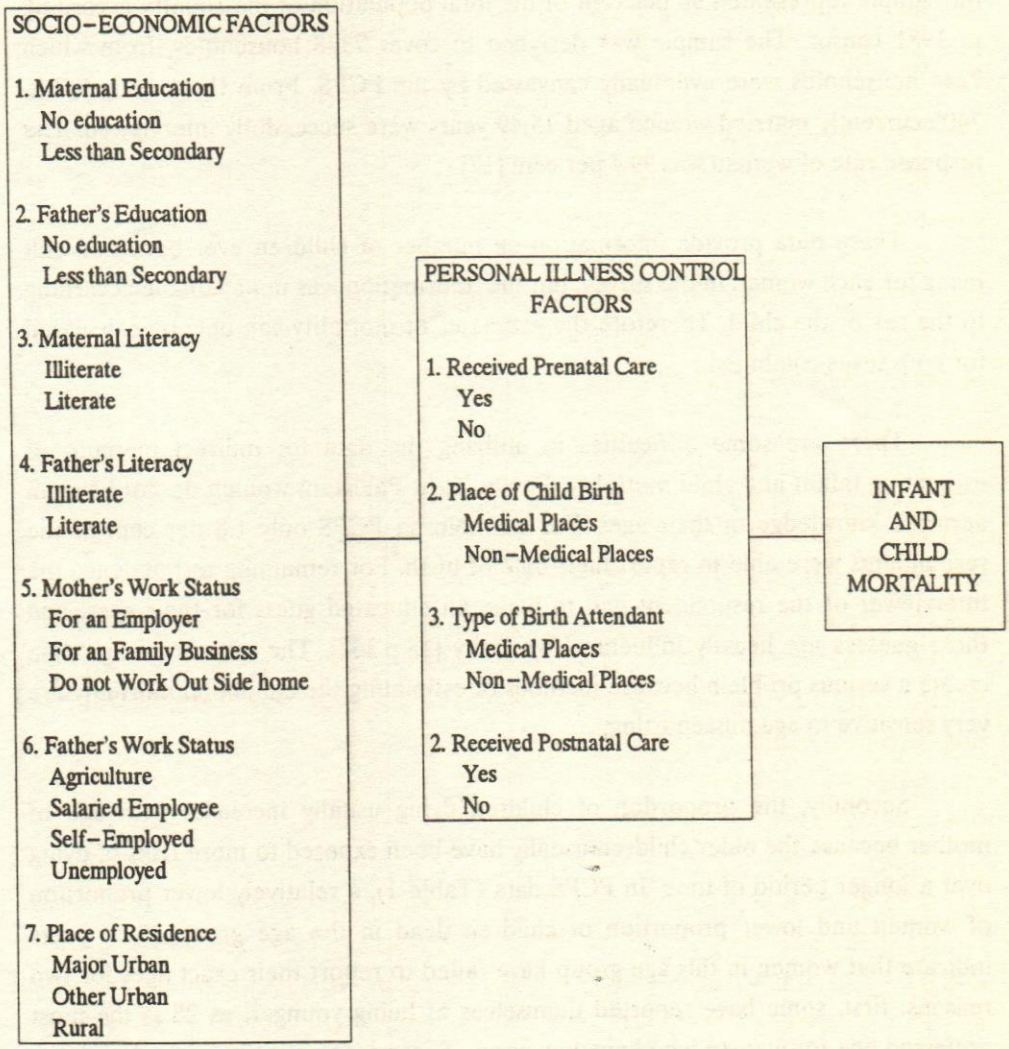
The main objective of this paper is to examine some differentials of infant and child mortality risks based on socio-economic characteristics such as the education, literacy and work status of the mother and her husband. According to the Mosley and Chen framework [16] of child survival, all the socio-economic variables work through five proximate determinants: maternal factors; environmental factors; nutritional factors; injury; and personal illness control. In this paper, one of these determinants, personal illness control, will be explored.

Personal illness control is an important determinant among the five proximate determinants because it influences both the rate of illness through preventive measures and the rate of recovery through treatment, whereas the other proximate determinants only influence the rate of shift of healthy individuals toward sickness [16,p.28]. Preventive measures include immunization against diseases or malaria prophylaxis, whereas curative measures include the care and types of treatment taken for specific conditions, both modern and traditional [16,p.28]. The preventive measures can be quantified by indicators, such as type of care during pregnancy and child birth, type of delivery attendant, place of delivery, and postnatal care received. The Model is presented in Figure-1.

In this paper an attempt has been made to understand how the socio-economic factors work through the preventive measures of disease control to affect infant and child mortality. It should be pointed out here that the infant and child mortality is estimated by indirect techniques, whereas the information on preventive measures of disease control are restricted to the live births which occurred during the last three years before the survey.

FIGURE–1

MODEL ADOPTED FOR THE STUDY OF INFANT AND CHILD MORTALITY FOR PAKISTAN



DATA QUALITY AND SOURCE

This article is based on estimates derived from the Pakistan Contraceptive Prevalence Survey (PCPS) data. The PCPS was conducted from October 1984 to February 1985 by the Population Welfare Division in collaboration with Federal Bureau of Statistics. Sparsely populated or highly inaccessible areas, tribal and military restricted areas were excluded from the survey. The population covered by the sample represented 96 per cent of the total population of the country according to 1981 census. The sample was designed to cover 7398 households, from which 7244 households were eventually canvassed by the PCPS. From these households, 7405 currently married women aged 15-49 years were successfully interviewed. The response rate of woman was 99.4 per cent [17].

These data provide information on number of children ever born and still living for each woman in the survey, but the information was not available according to the sex of the child. Therefore the estimates of mortality can only be calculated for both sexes combined.

There are some difficulties in utilizing the data for indirect methods of estimating infant and child mortality. Firstly, most Pakistani women do not have an accurate knowledge of their ages. For example, in PCPS only 1.8 per cent of the respondents were able to report their date of birth. For remaining respondents, the interviewer or the respondent had to make an educated guess for their ages, and these guesses are heavily influenced by parity [18,p.262]. The inaccurate age data create a serious problem because methods of estimating the childhood mortality are very sensitive to age misreporting.

Secondly, the proportion of children dying usually increases with age of mother because the older children usually have been exposed to more risks of dying over a longer period of time. In PCPS data (Table-1), a relatively lower proportion of women and lower proportion of children dead in the age group 30-34 years indicate that women in this age group have failed to report their exact ages for two reasons: first, some have reported themselves as being younger, as 25 is the most preferred age for women who have low parity. Second, some women who belong to this age group and have achieved high parity have probably reported themselves as being older than their actual age. Hashmi and Alam [19,p. A1.55] found in the Pakistan Growth Estimation Experiment that 20.7 per cent of women who reported

their ages at over 40 years in the first round reported their ages at under thirty years in the second round conducted three years later. On the other hand, 5.9 per cent of women who were under 30 years in the first round were reported as 40 years and over after a period of three years. However, the consistent increase in mean parities with the age of mother show that data are of useable quality (Table 1).

TABLE 1

MEAN NUMBER OF CHILDREN EVER BORN, LIVING CHILDREN, AND PROPORTION DEAD BY AGE OF MOTHER, PCPS, 1984-85

AGE OF WOMEN	NUMBER OF WOMEN	MCEB	MLC	PROPORTION DEAD
15-19	569	0.63	0.56	0.124
20-24	1420	1.79	1.52	0.150
25-29	1675	3.36	2.82	0.160
30-34	1154	4.99	4.20	0.158
35-39	1155	6.13	5.10	0.169
40-44	863	7.01	5.52	0.213
45-59	569	7.53	5.69	0.244

Note: MCEB Stands for mean number of children ever born.
LC: Stands for mean living children.

ESTIMATES OF INFANT AND CHILD MORTALITY FROM PCPS DATA

An attempt has been made to measure the differentials of infant and child mortality on the basis of children ever born and children surviving classified by age of mother by applying Mortpak-lite programme [20]. This programme requires the selection of an appropriate model life table, and this was done by matching the available age specific death rates from the Pakistan Growth Survey 1976-79 [21] with the Coale and Demeny [22] model life tables. On this basis, the South Model Life Table was selected for this study.

It is important to note that the Brass and Trussell methods of estimating infant and child mortality are based on the assumption that fertility and childhood mortality remained constant in the recent past. In Pakistan, fertility during the

recent years has declined moderately but mortality has been declining faster. Thus, using the time reference estimates, the impact of changes will be negligible.

Originally, Brass suggested three possible location factors: P1/P2, P2/P3, and m (where P1, P2 and P3 are the mean parities of women aged 15-19, 20-24 and 25-29, respectively and m is the mean age at childbearing). Brass [11,p.54] advised the use of P2/P3 since P1 was found to be sensitive both to age reporting errors at the time of childbearing and to sampling fluctuations due to relatively small numbers of births.

Trussell [12] generated a different set of multipliers from the model fertility schedules developed by the Coal and Trussel and the regional model life tables developed by Coale and Demeny [22]. Trussell's multiplying factor is obtained by: $K(i) = A(i) + B(i) \times P1/P2 + C(i) \times P2/P3$. Where A(i), B(i) and C(i) are regression coefficients for age group (i) and P1, P2 and P3 are the mean parities for the age groups 15-19, 20-24 and 25-29, respectively.

The q(x) estimates derived by Trussell's method depict the mortality on a cohort rather than cross-sectional basis. Therefore, these estimates suggest the average mortality experience by the children of women in different cohorts at various points in time.

TABLE 2

CORRESPONDING INFANT MORTALITY RATES AND REFERENCE DATE BASED ON TRUSSELL METHOD ON PROPORTION DEAD AMONG CHILDREN EVER BORN TO CURRENTLY MARRIED WOMEN, PCPS, 1984-85

AGE OF MOTHER	x	q(x)	IMR	REFERENCE DATE
15-19	1	0.059	59	NOV., 1983
20-24	2	0.136	108	JUNE, 1981
25-29	3	0.161	115	NOVEMBER, 1980
30-34	5	0.165	110	MARCH, 1978
35-39	10	0.182	112	JULY, 1976
40-44	15	0.225	127	JULY, 1974
45-59	20	0.253	133	OCTOBER, 1971

An estimate of the number of years before the survey, t(x), to which the estimates refer is obtained from the equation: $t(x) = A(x) + B(x) \times P1/P2 + C(x) \times P2/P3$, where A(x), B(x) and C(x) are regression coefficients and P1, P2 and P3 are the mean parities for the age groups 15-19, 20-24 and 25-29 respectively.

Table-2 depicts the IMRs corresponding to the childhood mortality rates and calendar year referring to the rates obtained from the Trussell's method for data based on age of mother and using the South Model Life Table. As mentioned earlier the q(1) values are not reliable and are generally disregarded. If the estimates of infant mortality during the period prior to 1982 is taken into consideration, there is a declining trend from 1971 to 1981 except the q(3) value. Besides the underlying assumptions of the Trussell's method, infant mortality rates are highly influenced by the age misreporting as well as the mortality pattern of the Model Life Table selected. This paper used the mortality rates derived from the q(2) values, based on mothers aged 20-24 years as these are less affected by age reporting errors and the under reporting of children ever born and deceased. The reference date of infant and child mortality is thus June, 1981. It is worth mentioning here that the differentials of infant and child mortality are more important than levels for this exercise of indirect estimates of infant and child mortality.

SOCIO-ECONOMIC FACTORS AND INFANT AND CHILD MORTALITY

Place of Residence

The level of infant mortality in rural areas in 1981 was still very high. The advantage of living in urban areas is very clear as depicted in Table 3. It shows that the mortality rates are lowest in major urban areas, intermediate in other urban and highest in rural areas.

The differentials by place of residence may also be an artifact of the differences in standard of living, access to health facilities and economic factors. The type of health care and environmental sanitation available to a woman at the time of delivery are important factors in infant and child mortality. For instance, in rural areas 97 per cent of live births occurred in a non-medical institution and 96 per cent were attended by the untrained Dai or TBA (Traditional Birth Attendant) or some relative of the mother, whereas in urban areas 38 per cent of child deliveries were attended by trained medical personnel. Untrained persons are often

TABLE 3

INFANT AND CHILD MORTALITY AND PERCENTAGE OF WOMEN WHO RECEIVED PRE-NATAL AND POST-NATAL CARE AND LOCATION OF LAST BIRTH BY PLACE OF RESIDENCE, PCPS,1984-85

PLACE OF RESIDENCE	IMR	CMR 1-4	PRE NATAL CARE	LAST DELIVERY		POST NATAL CARE
				AT HOSP	ATTENDED BY M/P	
PAKISTAN	108	61	26	8	10	15
MAJOR URBAN	77	28	50	34	38	25
OTHER URBAN	100	52	35	8	13	21
RURAL	115	69	20	3	4	13

responsible for infant deaths because of their use of unsterilized instruments to cut the umbilical cord and other practices which can cause infections in the newborn infants.

In rural areas the pattern of mortality is still dominated by communicable diseases, with most illness caused by poor sanitation, lack of clean drinking water and lack of immunization. Although, the health facilities in Pakistan indicate rapid growth since independence in 1947 [23,p.151], they are still inadequate to meet the health needs of the current population. There have been improvements in health facilities and related manpower, but the health coverage is far greater in urban than rural areas.

Table 4 shows that health facilities were heavily concentrated in the urban areas, only 13 per cent of the total hospital beds were located in rural areas where 72 per cent of the population lived. Although the residents of rural areas can utilize the urban health facilities, on average a patient in rural areas had to travel 35 kilometers to reach a hospital and 16 kilometers for a medical dispensary, whereas these facilities in urban areas are on average only 7 and 3 kilometers away from the residents respectively (Table 4).

TABLE 4

HEALTH FACILITIES AVAILABLE AND AVERAGE DISTANCE FOR URBAN AND RURAL RESIDENTS, PAKISTAN, 1982-83

	HOSPITAL	RHC	BHU	DISPEN-SARIES	MCH CENTRES
NUMBER OF HOSPITAL BEDS					
URBAN	48362	-	-	1664	563
RURAL	3032	374	1715	1611	304
MEDICAL FACILITIES BY AVERAGE DISTANCE (KILOMETERS)					
URBAN	6.9	-	-	2.7	4.0
RURAL	34.8	18.2	13.4	15.9	29.1

Note: RHC stands for Rural Health Centres and
BHU stands for Basic Health Units
Source:[33].

In Pakistan all the sophisticated medical institutions are located at major urban areas, therefore, their is a great contrast in the medical facilities available in major urban areas and health facilities provided in other urban and rural areas. It is thus not surprising to find that infant mortality in major urban areas is 50 per cent lower than in rural areas and 30 per cent lower than in other urban areas. Alam and Cleland [24,p.205] argued that the greater availability of maternity services to the urban population may be the key factor for lowering the infant and child mortality in Pakistan.

Although infant mortality is much higher in rural areas than in major urban and other urban areas, the differentials of child mortality are even more pronounced by place of residence. Child mortality presumably reflect lower health care and nutritional level of children. Seventy three per cent of the under five deaths occurred in the first year of the life in major urban areas, whereas this proportion in other urban and rural areas is 66 per cent and 63 per cent respectively.

Maternal Education

Among the socio-economic factors, mother's education has been found in some developing countries to have greater impact upon infant and child mortality than those of father, since mothers normally have more direct responsibility for

TABLE 5

INFANT AND CHILD MORTALITY RATES BY MATERNAL LITERACY AND EDUCATIONAL LEVEL AND PERCENTAGE OF WOMEN WHO RECEIVED SELECTED HEALTH SERVICES, PAKISTAN CONTRACEPTIVE PREVALENCE SURVEY, 1984–1985

Education/ Literacy	Infant Mortality Rate	Child Mortality Rate	Frequency (N)	Received Prenatal Care (%)	Last Birth		Received Postnatal Care (%)	Frequency (N)
					At Hospital (%)	Delivered By M.P* (%)		
Maternal Literacy								
Pakistan								
Illeterate	112	65	6396	20	4	6	13	3857
Literate	91	41	1009	54	30	36	31	604
Major Urban								
Illeterate	88	39	669	38	23	28	20	394
Literate	67	20	430	70	52	57	35	229
Other Urban								
Illeterate	103	55	798	30	5	7	17	452
Literate	93	43	225	52	19	30	34	137
Rural								
Illeterate	116	71	4929	19	2	6	12	3012
Literate	107	60	354	40	15	36	25	239
Maternal Educational Level								
Pakistan								
No Education	113	67	6259	22	4	6	13	3784
Less Than Secondary	92	43	846	44	19	24	24	511
Secondary And Above	66	19	300	75	53	64	43	166
Major Urban								
No Education	91	41	645	38	23	27	18	377
Less Than Secondary	77	28	275	59	40	46	31	154
Secondary And Above	50	10	179	82	68	74	42	92
Other Urban								
No Education	104	57	774	30	5	7	17	439
Less Than Secondary	90	41	171	41	11	17	20	104
Secondary And Above	87	38	78	70	36	54	54	46
Rural								
No Education	117	72	4840	19	2	6	12	2968
Less Than Secondary	101	52	400	36	9	24	22	253
Secondary And Above	83	34	44	62	37	64	32	28

* From Medical Personnal

child care [4;25;26]. However, in some Asian and Pacific countries, father's education was also significant in reducing infant and child mortality [27,p.32;28,p.26]. Caldwell [4,p.410] and Caldwell and McDonald [26] suggested that maternal education is linked with lower infant and child mortality through a reduction in fatalism in the face of a child's illness and a change in the traditional balance of family relationship that gives the mother more influence in decision making about child care and treatment in care of illness. Maternal education also helps in understanding the 'modern world', such as the choices which she may make in obtaining health care, in nutritional practices, and in preventive care and disease treatment [4,pp.408-412]. Ware [29,pp.194-195) however, has argued that it is difficult to separate the effect of income and education in matters of child care. She pointed out that in a situation where there is enough food to go around, the decisions, irrespective of mother's education, will be different from those in a situation where difficult choices have to be made about who will get how much from the very limited food available.

Maternal education clearly is also an important factor in reducing infant and child mortality in Pakistan. Table-5 shows that infant and child mortality rates of children of literate mothers are lower than those of illiterate mothers. For all of the country, the difference is nearly 21 per cent, and the difference is greater in major urban areas than other urban and rural areas.

Evidence of an inverse relationship between level of education achieved by mother and the mortality experience of the child was also observed in several studies conducted in Pakistan [1;2;6;24;30;31] indicating that the risk of death of a child decreases as the education of the mother increases. The same pattern is found from the PCPS data: the risk of infant deaths is much higher for mothers with no education and is least for those with secondary and above education (Table 5). Similar differentials are also indicated for major urban, other urban and rural areas of the country but such differentials are greater for major urban areas due to the availability of more health services than other urban and rural areas.

The PCPS data show that the educated mothers are more likely to go to prenatal and antenatal clinics and also to have a trained medical person attend her and her child during and after birth. Table 5 shows that a much larger proportion of

women with secondary and above education have delivered their last child in a medical institutions or have had their last baby delivered by a trained medical person. For example, only one fifth of the women with less than secondary education had their last child delivered in a hospital compared to more than half of those with secondary and above education. Only one out of 25 women with no education had their last child delivered in a hospital. It is clear from this analysis that mothers education has a strong positive relation with utilization of health services which directly affect infant and child mortality.

Father's Education

The educational differentials by fathers education followed the same pattern of infant and child mortality as observed for mothers education at country level, but the magnitude of the difference is less pronounced. The pattern of the relationship of educational level and infant mortality in major urban and rural areas is not exactly the same as observed for the whole country or other urban areas (Table-6). In the major urban areas, the infant and child mortality for those whose fathers have less than secondary education is somewhat higher than those whose fathers have no education, whereas in rural areas fathers education of more than secondary and less than secondary are the same and both are better than no education category. A comparative study based on data from the World Fertility Surveys, which included Pakistan, revealed that a father's education of less than six grades had no effect on infant and child mortality in Pakistan [2,pp.425]. In another study in rural Nepal, Gubhaju [32] found that father's education was not statistically significant in determining infant and child mortality. However, in Pakistan, the infant and child mortality of literate fathers conforms to the expected pattern, that is, the children of literate fathers are less likely to die than the children whose fathers are illiterate.

The pattern of increasing medical care by husband's educational level is observed for major urban, other urban and rural areas. Furthermore, due to the availability of more medical services, the levels in the major urban areas are significantly higher than the corresponding levels in other urban and rural areas, resulting in a lower level of infant and child mortality in major urban areas.

Table 6 shows that the wives of men who have secondary and above education received prenatal care twice as much as wives of husbands who have no

TABLE 6

INFANT AND CHILD MORTALITY RATES BY FATHER'S LITERACY AND EDUCATIONAL LEVEL AND PERCENTAGE OF WOMEN WHO RECEIVED SELECTED HEALTH SERVICES, PAKISTAN CONTRACEPTIVE PREVALENCE SURVEY, 1984–1985

Education/ Literacy	Infant Mortality Rate	Child Mortality Rate	Frequency (N)	Received Prenatal Care (%)	Last Birth		Received Postnatal Care (%)	Frequency (N)
					At Hospital (%)	Delivered By M.P* (%)		
Maternal Literacy								
Pakistan								
Illeterate	116	70	3449	20	4	5	12	2381
Literate	100	52	3956	33	12	16	20	2080
Major Urban								
Illeterate	98	49	361	36	23	27	19	208
Literate	68	21	731	57	40	44	17	415
Other Urban								
Illeterate	120	76	406	29	6	7	16	223
Literate	97	48	606	39	10	17	24	365
Rural								
Illeterate	118	74	3189	18	2	5	10	1960
Literate	110	63	2094	24	4	16	16	1300
Maternal Educational Level								
Pakistan								
No Education	116	71	3857	21	4	5	12	2316
Less Than Secondary	103	56	2132	26	8	9	17	1295
Secondary And Above	81	31	1415	43	20	25	24	850
Major Urban								
No Education	97	49	362	35	20	24	18	203
Less Than Secondary	101	53	299	44	34	38	24	173
Secondary And Above	39	6	437	66	45	51	31	247
Other Urban								
No Education	114	68	396	30	5	7	15	213
Less Than Secondary	101	53	358	31	6	9	20	214
Secondary And Above	72	24	298	46	16	25	30	162
Rural								
No Education	118	74	3098	18	2	5	10	1901
Less Than Secondary	104	57	1496	21	3	9	15	908
Secondary And Above	104	56	690	29	7	25	18	441

* From Medical Personnal

education. One out of five women whose husbands have secondary and above education delivered their child in hospital while only one out of 25 women whose husbands have no education have given birth in hospital. This pattern confirms that if the delivery is taken place in hospital the chances of child survival are better. The situation with regard to the postnatal care received by the level of husband's education is similar to that observed for the prenatal care resulting in the higher chances of survival of children of educated fathers.

Parental Work Status

Differences in infant and child mortality between categories of work status are also significant as shown in Table-7. Those mothers who worked as employees show the lowest infant mortality of 49 deaths per 1000 live births. This rate is almost half the rate for those working at home and nearly one third the rate of self-employed mothers. Work status of the women may indicate the amount of time they can devote to child care. The self-employed category mainly consisted of women who were working on their own farms. Thus they are mainly from rural areas. The higher rate of infant and child mortality observed for these women for rural areas is mainly due to the lack of proper feeding, particularly breastfeeding, early in life, as well as the non availability of medical services in rural areas. The self-employed in urban areas are mainly working in the modern sector which probably increase chances of child survival. The analysis of Pakistan Labour Force and Migration Survey, 1979, shows that the children of employed mothers are exposed to lower risk of mortality in both urban and rural areas [31,p.640].

Father's work status has also had a pronounced impact on the infant and child mortality. Children of those who are working in agriculture have the highest mortality of 118 deaths per thousand live births and the salaried employees have the lowest infant mortality rate of 97 deaths followed by self-employed who have 107 deaths per thousand live births.

The differences due to work status of the parents in getting health services are not as much pronounced as differences due to education level of mothers. However, a negative relationship between utilizing the health services and the level of infant and child mortality is noticed in both the work status of mothers and fathers.

TABLE 7

INFANT AND CHILD MORTALITY RATES BY PARENTS WORK STATUS AND PERCENTAGE OF WOMEN WHO RECEIVED SELECTED HEALTH SERVICES, PAKISTAN CONTRACEPTIVE PREVALENCE SURVEY, 1984–1985

Education/ Literacy	Infant Mortality Rate	Child Mortality Rate	Frequency (N)	Received Prenatal Care (%)	Last Birth		Received Postnatal Care (%)	Frequency (N)
					At Hospital (%)	Delivered By M.P* (%)		
Mother's Work Status								
Pakistan								
For An Employer	49	9	118	22	13	16	18	67
For A Family Business	133	93	1347	16	2	3	8	777
Do Not work Out Side Home	103	55	5924	29	9	12	17	3605
Major Urban								
For An Employer	--	--	23	37	38	42	26	7
For A Family Business	--	--	41	27	4	4	8	22
Do Not work Out Side Home	79	30	1033	51	35	40	25	593
Other Urban								
For An Employer	--	--	24	22	18	18	37	14
For A Family Business	--	--	79	23	4	11	7	39
Do Not work Out Side Home	106	59	920	36	9	13	21	536
Rural								
For An Employer	51	10	71	20	7	16	11	46
For A Family Business	141	104	1226	16	2	3	8	716
Do Not work Out Side Home	107	60	3970	22	3	12	14	2476
Father's Work Status								
Pakistan								
Agriculture	118	74	2549	20	2	3	13	1506
Salaried Employee	97	47	2312	32	13	17	18	1447
Self–Employed	107	60	2212	28	9	11	15	1356
Unemployed	66	20	315	20	7	8	16	143
Major Urban								
Agriculture	--	--	25	46	48	48	27	12
Salaried Employee	63	17	600	54	36	41	26	344
Self–Employed	89	39	430	45	30	33	24	251
Unemployed	--	--	42	36	31	31	6	16
Other Urban								
Agriculture	--	--	93	27	3	5	22	45
Salaried Employee	84	35	404	39	10	17	23	251
Self–Employed	111	65	462	33	8	11	18	267
Unemployed	--	--	59	31	3	4	19	25
Rural								
Agriculture	120	76	2432	20	2	3	12	1449
Salaried Employee	110	63	1309	20	5	17	14	853
Self–Employed	110	64	1320	22	3	11	12	839
Unemployed	72	24	214	15	4	8	16	102

* From Medical Personnal

CONCLUSION

The important conclusion from this exercise of differentials in infant and child mortality is that mothers' education and residence in major urban areas are strongly related to reduction in infant and child mortality. The children of educated mothers experience lower infant and child mortality than those of no education. These educational differentials are higher in major urban areas than other urban and rural areas. The effect of fathers' education on infant and child mortality by place of residence is less pronounced. The analysis suggests that although health care improves with husbands education, this relationship is further strengthened, when the wife herself has some education. This is probably because she is more knowledgeable and has confidence in getting medical care before and after delivery as well as in delivering her child in hospital.

Parents work status also affects infant and child mortality. Children of parents who work in agriculture and live in rural areas as compared to those in urban setting, have the highest infant mortality of 141 deaths per thousand live births as well as child mortality of 104 deaths per thousand children between age one and four. This implies that every fourth child born in rural areas and whose mother works in agriculture dies before reaching his/her fifth birth day.

This analysis shows that these socio-economic factors and in particular, education of mother do contribute to the reductions of infant and child mortality through promoting preventive measures. The higher the utilization of health services by the mothers during pregnancies and after delivery of the child, the lower is the infant and child mortality rate. The analysis suggests that mothers with higher socio-economic status have higher chances of delivering their children at hospitals or being attended by a trained medical person, factors which are largely responsible for lowering levels of infant and child mortality in Pakistan.

Thus a two-pronged approach is needed for improving the health conditions of children in the country. First, to improve the literacy and educational status of the

population in general and of females in particular and second, to make the health services accessible and supplies available, in general, and in rural areas in particular.

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MARRIAGE DELAYS IN PAKISTAN: ANALYSIS OF SELECTED VIEW POINTS

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Studies based on demographic data show a systematic increasing trends in the average age at first marriage of both males and females in Pakistan. The content analysis of anecdotal data obtained from urban respondents shows the importance of socio-economic and cultural factors for the increase in age at marriage. Attempt is also made to analyse suggestions made by the respondents to over-come the delay.

INTRODUCTION:

Much of the demographic data from Pakistan attest to the hypothesis that marriage used to take place at a fairly early stage [1]. However, an upward trend in singulate mean age at marriage for both sexes has been observed since 1961 [2,p.96]. For females, the average age at marriage has risen from 17.6 years in 1961 [2,p.96] to 20.5 years in 1987 [3]. For the same period, percentage never married females age 20-24 has increased from 6 percent in 1961 to 26.5 percent in 1987 [3]. For urban Pakistan, age at marriage for females is about a little less than two years above the national average [4].

In traditional societies such as Pakistan, where values and social customs strongly favour early marriages, delay in marriage or prolonged single status is booked upon with a surprise. This is particularly true for a female as delay in her marriage could jeopardise her future marriage opportunities.

Using anecdotal data from urban Pakistan, an attempt is made in this paper to analyse the perceived reasons that cause delay in marriage as well as some suggestions made by the respondents of this study to overcome the delay if

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necessary. In perusing this objective, regional and gender variations with regard to reasons and suggestions are discussed.

Material and Methods

One of the National language (Urdu) weekly magazine (Akhbar-e-Jahan) in Pakistan invited the readership to express opinion on the topic "Late marriage .... Why?" Responses in the forms of letters were published regularly in the issues from 16-22 January, 1984 through 6-12 August, 1984. All such letters were collected and contents of each were systematically sorted out alongwith the name and the place of residence of the author. A coding scheme was prepared for the reasons, suggestions, sex and place of residence of the author. From the names and place, we did not have any difficulty in identifying sex and the city/ province of the author.

The contents dealt mostly with two major aspects of the topic: 1) perceived major reasons causing delay in marriage, and 2) the suggestions made to avoid the delay. All reasons and suggestions for each of the letters in exact wordings of the author were noted, resulting in 23 reasons for the late marriage and 25 suggestions to improve the situation. In all, there were 101 letters published. Of these, five were duplications. For duplicate letters, only the additional reasons and/or suggestions mentioned in the second letters were included in the data file. One letter that did not contain any reasons or suggestion relevant to the topic was excluded from the study population. Thus, our study population is restricted to 95 cases.

For meaningful analysis, it is imperative to limit the number of categories for the reasons and the suggestions. A panel of three judges with Pakistani background was asked to categorise reasons and suggestions into groups in term of the similarity of their contents. This resulted in seven groups each for the reasons and the suggestions. A separate computer file was created using the various groupings. In case, where more than one reason/ suggestion by a respondent overlapped it was counted as one.

From the examination of within groups response items, it appears that some apparently similar reasons or suggestions have different connotation for males than females. For example, higher education for males is based on the notion of economic well-being. On the other hand, higher education may well be considered as having negative influence on the female opportunities in the marriage market.

In sum there are 16 individual reasons and 13 individual suggestions emerging out of the content analysis of the 95 letters.

Analysis of Reasons For Delay in Marriage

Table 1 shows the distribution of the respondents by sex and the place of residence. Of all the respondents, 47.4 percent were from Sindh, 28.4 percent from Punjab, and 12.6 percent were Pakistanis working abroad. The rest were from other areas in Pakistan. The sex ratio of the total respondents was 126 males per 100 females and by residence, province of Punjab and Sindh show somewhat more balanced representation of both sexes.

TABLE 1

DISTRIBUTION OF RESPONDENTS BY PROVINCE OF RESIDENCE AND SEX, PAKISTAN

Province	Male	Female	Both	Percent Distribution
Punjab	14	13	27	28.42
Sindh	20	25	45	47.37
Other Areas in Pakistan	9	0	9	10.48
Other Countries*	10	2	12	12.63
Total	53	42	95	100.0

* Mainly from Arabian Gulf States. Also, there were two female respondents whose origin was unknown.

The single most significant problem causing delay in marriage is stated as dowry (29 percent in table 2). Dowry is the tradition of assistance in the form of money and materials, given by the bride's parents to the newly weds. Respondents tend to suggest that dowry is often used as an economic incentive to attract eligible boys who are educated, professional and technocrats. Where money acquired through illegitimate means such as bribery, smuggling and commissions has become a norm, respondents suggest that the rate and volume of dowry has also spiralled.

TABLE 2

FREQUENCY DISTRIBUTION OF REASONS FOR DELAY IN MARRIAGE

Group	Reasons	Frequency	%
1.	Dowry	72	29.27
	i) Dowry	71	28.86
	ii) Dower	1	0.41
2.	Customs and Traditions	45	18.29
	i) Family values and traditions	22	8.94
	ii) Caste/baradari system	23	9.35
3.	Preferred Personal Characteristics of Spouse (mostly Physical)	46	18.71
	i) Ideal partner	19	7.72
	ii) Physical Attraction	22	8.54
	iii) Other*	5	2.04
4.	Sysbolic Status Equivalents (Acquired or Achieved)	23	9.35
	i) Wealth, social and Economic Status	17	6.91
	ii) Better level of living	2	0.81
	iii) Female labour force participation	4	1.63
5.	Economic Reasons (such as expense, unemployment, lack of accommodation)	13	5.28
6.	Higher Education**	35	14.24
	i) Higher education for females	29	11.80
	ii) Higher education for males	6	2.44
7.	Religious ambivalence	12	4.87
	i) Away from religion	5	2.03
	ii) Contradiction between belief and action	2	0.81
	iii) Copying West	5	2.03
	Grand Total	246	100.00

* Includes courtship and impact of T.V. and V.C.R.

** While in females, higher education represents a negative influence with respect to marriage, in males higher education is perceived to be positive.

The educated, middle class boys tend to marry girls of rich families for gaining economic freedom immediately after the marriage. It has created non-availability of the marriage partner for daughters of middle class parents who cannot afford expensive dowry.

Customs and traditions are also cited by about one fifth (18.3 percent) respondents as an important reason for delayed marriage. Other factor cited in this context is the traditions, which prescribe endogenous marriage i.e. marrying one's own cousin or relative. Where eligible partners are not available from among one's kin group, as is often the case in urban areas, marriage may be delayed. In addition, tradition of long term engagements, priority to daughters over sons marriage by parents or the family, preference of elders are also cited as major reasons causing delay in marriage.

Another major reason for marriage delay is thought to be search for preferred personal characteristics of the spouse. This, in the case of girls refers to her beauty, appearance, manners, skill and poise which are considered as ideal qualities. Moreover, her level of education and rich family background are considered additional qualities of an ideal wife. For an ideal husband, the boy who is handsome, rich and who owns a house and a car is considered ideal. Some of the respondents mentioned allegiance to wife as a qualification for preferred husband.

These sentiments are, according to the respondents, reinforced by the influence of the third party in marriage i.e. the parents or the sisters of the boy. They look for an ideal girl who should be beautiful, educated, expert in the household work, and obedient as well as respectful to her in-laws.

Desire for symbolic status equivalents such as wealth, and social/economic status are stated as major factors for delay in marriages. For both sexes, perception about present and future status and standard of living appears to be a dominant factor. It is generally believed that the boys or girls from urban middle class families are upwardly mobile and are keen on, going for higher education. As a result, marriage and family building are delayed for quite some time which affects the marriage especially for girls. In some cases, working daughters are considered source of regular income by their families and as such may not get married.

Economic reasons are also cited for delay in marriage. In urban areas where accommodation is expensive and the employment opportunities are not adequate or the remunerations are meagre, the problem has a direct bearing on marriage time. In general, marriage is an expensive proposition in the urban centres. A person with meagre income and no savings will prefer to delay marriage.

Higher education of females is another factor in delaying their marriage. This is because age at marriage increases with higher education. Second, contrary to many males, highly educated females in general, do not marry less educated males or males from lower social stratum. Rather females keep on looking for partners who are better qualified than they are or belong to higher social class. There is also a third possibility that girls, who have had more education, are probably considered too independent who may not be able to provide necessary allegiance and respect to the in-laws. This might proscribe their chances of findings suitable partners and hence delay marriage.

Perceived Suggestions for Overcoming Delay

To overcome the problems of delayed marriage, the suggestions by the study population are given in table 3. As evident, adherence to religion is the foremost suggestion given by one fourth of the respondents for avoiding delays. Islamic education, and following religious teaching and practices by the Prophet appear to overshadow other measures. Adherence to religion is followed by socio-legal action as suggestion given by 24 percent of the respondents to avoid the delay. About one third in this category suggest that there should be some sort of legal action against factors such as dowry. Also that, government should formulate some legislation in this regard. The other two-third in this group emphasise social control and/or community education against those traditions causing delay in marriage.

There are at least 17 percent of the respondents who also believe that practicing austerity will overcome the problem of delayed marriage. Within this group, a good majority advocates promoting values such as simplicity in marriage and marrying lower class boys. Other measures suggested relate to expenses, dowry and materialism.

TABLE 3

FREQUENCY DISTRIBUTION OF SUGGESTIONS FOR AVOIDING DELAY IN MARRIAGE

Group	Suggestion	Frequency	%
1.	Adherence to Religion	38	26.03
	i) Follow Religion (Sunnah)	36	24.66
	ii) Islamic Education	2	1.37
2.	Socio-Legal Action	35	23.96
	i) Legal/Government Action	13	8.90
	ii) Community Action	22	15.06
3.	Improved Economic Conditions	7	4.70
4.	Adoption of Austerity Measures	25	17.11
	i) Simplicity	16	10.95
	ii) Compromise on expenses by both families	6	4.11
	iii) Marry boys from lower class	3	2.05
5.	Promote or Stick to Traditions	23	17.12
	i) Emphasis on Character	18	12.33
	ii) Marry within family	2	1.37
	iii) Marry while young	3	2.05
6.	Others	18	12.31
	i) Breaking away from Traditions	13	8.89
	ii) Miscellaneous	5	3.42
	Grand Total	146	100.00

The suggestion of promotion or sticking to traditions that favour chastity, endogenous marriage and early marriages constitute 17 percent of the suggestions. Within this group values such as preference of character (chastity) are dominant; marrying early and marrying within family are preferred by only a few paradoxically. About 9 percent of the respondents advocate breaking away from the existing traditions. They suggest such things as marriages of Western style or marriage by choice as the basis for overcoming delays in marriage. Provision of low cost housing and employment generation are also suggested. Within these suggestions, the emphasis is more on employment than housing.

Sex and Regional Differences

Table 4 shows distribution of reasons of delay in marriage by sex and province/place of residence of respondents. It is evident from table 4 that dowry remains the most frequently stated reason by both sexes of all areas. However, regional differences by sex remain apparent. In Punjab and other areas, higher proportion of males than females perceive dowry as the most important reason while in urban Sindh, it is the other way around.

Customs and traditions are cited as the second most important reason for delay in marriage by both males and females in all areas with the exception of Sindh in which personal characteristics is the second most important reason. For Punjab, the proportion of respondents citing customs and traditions as an important reason is higher than it is for other areas.

Preferred personal characteristics (PPC) is the third most frequently cited reason with the exception of Sindh. More females than males feel PPC as a major reason for delay in marriage in all areas.

In general, higher percentage of males than females stated "symbolic status equivalents" as the reason for delay in marriage. The gap between percentages of males and females is less in Punjab than in Sindh. Higher education is cited another important reason more often by females than males for all areas. More males than females in Sindh and Punjab, and more females than males in other areas give economic reasons for delay in marriage.

Table 5 shows the distribution of suggestions to overcome delay in marriage. Adherence to religion is frequently cited suggestion by males (32.7 percent) and females (19 percent). Community actions against customs and traditions is most frequently cited in Punjab by both sexes while promoting or sticking to traditions is advocated by respondents of both sexes in Sindh. Females are predominantly more in favour of adoption of austerity measures than males irrespective of the region.

TABLE 4

PERCENTAGE DISTRIBUTIONS OF REASONS FOR LATE MARRIAGES BY RESPONDENTS, SEX AND AREA

REASONS	PUNJAB			SINDH			OTHER			ALL AREAS		
	Male	Females	Both	Male	Females	Both	Male	Females	Both	Male	Females	Both
1. Dowry	36.4	30.2	33.0	23.9	32.9	28.2	39.7	16.7	34.6	31.7	30.1	31.0
2. Customs and Traditions	22.7	28.3	25.8	13.0	11.0	12.1	28.6	11.1	24.7	20.1	17.0	18.8
3. Preferred P. Characteristics	15.9	18.9	17.5	18.5	23.2	20.7	4.8	22.2	8.6	13.6	21.6	17.0
4. Symbolic Status Equivalents	13.3	9.4	11.3	16.3	7.3	12.1	9.5	16.7	11.1	13.6	9.2	11.6
5. Economic Reasons	4.5	1.9	3.1	14.1	0.0	7.5	1.6	11.1	3.7	8.0	2.0	5.4
6. Higher Education	6.8	11.3	9.3	9.8	19.5	14.4	4.8	22.2	8.6	7.5	17.0	11.6
7. Religious Ambivalence	0.0	0.0	0.0	4.3	6.1	5.2	11.1	0.0	8.6	5.5	3.3	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Number too small

TABLE 5

PERCENTAGE DISTRIBUTIONS OF SUGGESTIONS TO AVOID DELAY IN MARRIAGES, MODE BY RESPONDENTS BY SEX AND PROVINCE OF RESIDENCE

SUGGESTIONS	PUNJAB			SINDH			OTHER			ALL AREAS		
	Male	Females	Both	Male	Females	Both	Male	Females	Both	Male	Females	Both
Adherence to Religion	27.3	18.9	22.7	32.6	19.5	26.4	36.5	16.7	32.1	32.7	19.0	26.7
Socio–legal Action	45.5	35.8	40.2	18.5	22.0	20.1	9.5	16.7	11.1	21.6	26.1	23.6
Improved Economic Conditions	0.0	3.8	2.1	7.6	0.0	4.0	6.3	16.7	8.6	5.5	3.3	4.5
Adoption of Austerity Measures	9.1	24.5	17.5	13.0	20.7	16.7	17.5	16.7	17.3	13.6	21.6	17.0
Promoting or Sticking to Traditions Others	6.8	3.8	5.2	23.9	20.7	22.4	17.5	33.3	21.0	18.1	16.3	17.3
Others	11.4	13.2	12.4	4.3	17.1	10.3	12.7	0.0	9.9	8.5	13.7	10.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Number too small

Discussion:

Kinship structures such as those in Pakistan often place greater emphasis on consanguinity with affinal ties often play an important role in the selection of marriage partners. Besides customs and conventions regarding timing and choice of marriage partners and values such as lineage, property inheritance and prestige are critical factors which influence decision making. Such a system may promote early marriage as a major instrument of achieving kin solidarity, political clout, and consequently status legitimacy.

Yet the norm of early marriage, especially in urban Pakistan has undergone a change. Content analysis of selected letters written by Pakistanis in a national weekly magazine confirms this assumptions. Analysis of the reasons and suggestions relative to delayed marriages further reveals both regional and gender variations. Customs and traditions, for example, appear to be more dominant reasons of delay in Punjab than in Sindh. Preferred Personal Characteristics and female higher education are relatively more important reasons in Sindh, as well as among females. Desire for upward mobility is cited more by males than females, and economic reasons are cited mostly by males from Sindh.

Regional and sex differences also permeate with regard to proposed suggestions to overcome delay in marriage. Proportionately greater number of respondents from Punjab cite socio-legal action as a possible solution while those from Sindh and other areas cite adherence to religion more frequently as a solution. Significantly, more males and relatively more females indicate adherence to religion and socio-legal action respectively as the most important mechanism of avoiding marriage delay. Females, however, overwhelmingly vouchsafe austerity measures as significant solution.

Close to 19 percent of the respondents mention customs and traditions as a major reason of late marriages. Yet, a little over 17 percent also indicate that sticking to these traditions is one major way to avoid delay in marriages. These paradoxical responses are quite significant as they bring into sharp focus the value chasm that generally characterises the Pakistan urban society. It is a classic representation of the often quoted secular versus sacred, liberal versus conservative clash of view points. Obviously even with regard to overcoming marriage delays, as in case of other problems, Pakistani society has sharply differentiated opinions.

From a larger perspective, these data indicate an over arching societal dilemma; that is, people's ambivalence toward modernity. Such ambivalence continues to permeate the society and is responsible for not only late marriages but even other familial patterns such as marriage outside kin group. These raise other important questions. Is there a relationship between this ambivalence and new patterns of family ties, based as these are, on ethnicity and lingual affinity?

Furthermore, an expanding urban economic order with its emphasis on individual personal control, consumerism and money - both legitimate and illegitimate which has proliferated over the last decade, may well have brought changes in values connected with marriage and family. For example, under endogenous marriage system, dowry has played an important, indeed a vital role for conjugal bonding. However, in an urban milieu with its emphasis on egalitarianism, families might find it inconvenient of even outright oppressive to invest large amounts of money on dowry. This may well in turn delay the incidence of marriages.

Late marriages, obviously, are connected with these larger issues. In a society where early marriage is expected to be the norm, systematic increase in age at marriage is surprising. As indicated there are several factors involved. Besides education, dowry, customs and traditions, preferred personal characteristics and social and economic status appear to be important factors. This shows that increase in age at marriage of both males and females, is intricately related to socio-economic and cultural factors requiring more intensive analysis based on more representative data.

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RESEARCH NOTES AND COMMENTS

A SUMMARY OF THE PAKISTAN DEMOGRAPHIC AND HEALTH SURVEY 1990/1991

The Pakistan demographic and Health Survey (PDHS) was fielded on a national basis between the months of December 1990 and May 1991. The survey was carried out by the National Institute of Population Studies with the objective of assisting the Ministry of Population Welfare to evaluate the Population Welfare Programme and maternal and child health services. The PDHS is the latest in a series of surveys, making it possible to evaluate changes in the demographic status of the population and in health conditions nationwide. Earlier survey include the Pakistan Contraceptive Prevalence Survey (PCPS) 1984-85 and the Pakistan Fertility Survey of (PFS) 1974/1975.

Untile recently, fertility rates had remained high with little evidence of any sustained fertility decline. In recent years, however, fertility has begun to decline due to a rapid increase in the age at marriage and to a modest rise in the prevalence of contraceptive use. The total fertility rate is estimated to have fallen from a level of 6.3 children according to 1974-75 PFS to 6.0 children according to 1984-85 PCPS and to 5.2-5.4 according to 1990-91 PDHS. The exact magnitude of the change is in dispute and will be the subject of further research Important differentials of fertility include the degree of urbanisation and the level of women's education. In the PDHS the total fertility rate is estimated to be nearly one child lower in major cities(4.7) than in rural areas (5.6). Women with no formal education.

There is wide disparity between women's knowledge and use of contraceptives in Pakistan. While 78 percent of currently married women report knowing at least one method of contraception, only 21 percent have ever used a method, and only 12 percent are currently doing so. three-fourths of current users are using a modern method and one-fourth a traditional method. the two most commonly used methods are female sterilization (4 percent) and the condom (3 percent). Despite the relatively low level of contraceptive use, the gain over time has been significant. Among married non-pregnant women, contraceptive use has

almost tripled in 15 years, from 5 percent in 1974-75 14 percent in 1990-91. The contraceptive prevalence among women with secondary education is 38 percent, and among women with no schooling it is only 8 percent. Nearly one-third of women in major cities are current users of contraception, but contraceptive use is still rare in rural areas (6 percent)

The Government of Pakistan plays a major role in providing family planning services. Eighty-five percent of sterilized women and 81 percent of IUD users obtained services from the public sector. Condoms, however, were supplied primarily through the social marketing programme.

The use of contraceptives depends on many factors, including the degree of acceptability of the concept of family planning. Among currently married women who know of a contraceptive method, 62 percent approve of family planning. There appears to be a considerable amount of consensus between husbands and wives about family planning use: one-third of female respondents reported that both they and their husbands approve of family planning, while slightly more than one-fifth said they both disapprove. The latter couples constitute a group for which family planning acceptance will require concerted motivational efforts.

The educational levels attained by Pakistani women remain low: 79 percent of women have had no formal education, 14 percent have studied at the primary or middle school level, and only 7 percent have attended at least some secondary schooling. The traditional social structure of Pakistan supports a natural fertility pattern in which the majority of women do not use any means of fertility regulation. In such population, the proximate determinants of fertility (other then contraception) are crucial in determining fertility levels. these include age at marriage, breastfeeding, and the duration of postpartum amenorthoea and abstinence.

The mean age at marriage has risen sharply over the past few decades, from under 17 years in the 1950s to 21.7 years in 1991. Despite this rise, marriage remains virtually universal: among women over the age of 35, only 2 percent have never married. Marriage patterns in Pakistan are characterised by an unusually high degree of consanguinity. Half of all women are married to their first cousin and an additional 11 percent are married to their second cousin.

Breastfeeding is important because of the natural immune protection it provides to babies, and the protection against pregnancy it gives to mothers. Women in Pakistan breastfeed their children for an average of 20 months. The mean duration of postpartum amenorrhoea is slightly more than 9 months After the birth of a child, women abstain from sexual relations for an average of 5 months. Because of differentials in the duration of breastfeeding and abstinence, the median duration of insusceptibility varies widely: from 4 months from 4 months for women with at least some secondary education to 9 months for women with no schooling; and from 5 months for women residing in major cities to 9 months for women in rural areas.

In the PDHS, women were asked about their desire for additional sons and daughters. Overall, 40 percent of currently married women do not want to have any more children. This figure increases rapidly depending on the number of children a woman has: from 17 percent for women with two living children, to 52 percent for women with four children, to 71 percent for women with six children. The desire to stop childbearing varies widely across cultural grouping. For example, among women with four living children, the percentage who want no more varies from 47 percent for women with no education to 84 percent for those with at least some secondary education.

Gender preference continues to be widespread in Pakistan. Among currently married non-pregnant women who want another child, 49 percent would prefer to have a boy and only 5 percent would prefer a girl, while 46 percent say it would make no difference.

The need of family planning services, as measured in the PDHS, takes into account women's statements concerning recent and future intended childbearing and their use of contraceptives. It is estimated that 25 percent of currently married women have a need for family planning to stop childbearing and an additional 12 percent are in need of family planning for spacing children. Thus, the total need for family planning equals 37 percent, while only 12 percent of women are currently using contraception. The result is an unmet need for family planning services consisting of 25 percent of currently married women. This gap present both an opportunity and a challenge to the Population Welfare Programme.

Nearly one-tenth of children in Pakistan die before reaching their first birthday. The infant mortality rate during the six years preceding the survey is estimated to be 91 per thousand live births; the under-five mortality rate is 117 per thousands. The under-five mortality rates vary from 92 per thousand for major cities to 132 for rural areas; and from 50 per thousand for women with at least some secondary education to 128 for those with no education.

The level of infant mortality is influenced by biological factors such as mothers age at birth, order and, most importantly, the length of the preceding birth interval. Children born less than two years after their next oldest sibling are subject to an infant mortality rate of 133 per thousand, compared to 65 for those spaced two to three years apart, and 30 for those born at least four years after their older brother or sister.

One of the priorities of the Government of Pakistan is to provide medical are during pregnancy and at the time of delivery, both of which are essential for infant and child survival and safe motherhood. Looking at children born in the five years preceding the survey, antenatal care was received during pregnancy for only 30 percent of these births. In rural areas, only 17 percent of births benefited form antenatal care, compared to 71 percent in major cities. Educational differentials in antenatal care are also striking: 22 percent of births of mothers with no education received antenatal care, compared to 85 percent of births of mothers with at least some secondary education.

Tetanus, a major cause of neonatal death in Pakistan, can be prevented by immunization of the mother during pregnancy. For 30 percent of all births in the five years prior to the survey, the mother received a tetanus toxoid vaccination. The differentials are about the some as those for antenatal care generally.

Eighty-five percent of the births occurring during the five years preceding the survey were delivered at home. Sixty-nine percent of all births were attended by traditional or trained birth attendants, while 19 percent were assisted by a doctor or nurse.

The Expanded Programme on Immunization in Pakistan has met with considerable success. Among children 12 to 23 months of age, 70 percent had received a BCG vaccination, 50 percent a measles vaccination, and 43 percent had received all three doses of DPT and polio vaccine. Only 35 percent, however, had received all of the recommended vaccinations, while 28 percent had received none at all. thirty-nine percent of boys were fully protected, compared to 31 percent of girls.

Sixteen percent of children under the age of five had been ill with a cough accompanied by rapid breathing during the two week preceding the survey. Children 6-11 months old were most prone to acute respiratory infections (23 percent). tow-thirds (66 percent) of children who were sick were taken to a health facility or provider. All but 15 percent of the sick children received some kind of treatment.

About the same proportion of children(15 percent) had suffered from diarrhoea in the two week preceding the survey, with the highest incidence among children under two years of age. Nearly half (48 percent) were taken to a health facility or provider. About two of five (39 percent) children with diarrhoea were treated with oral rehydration solution prepared form ORS packets. Knowledge of oral rehydration therapy is widespread: 90 percent of mothers recognise ORS packets. Nearly two-thirds (63 percent) of mothers have used ORS packets at some time three-quarters had mixed the solution correctly the last time they prepared it.

Thirty percent of children had suffered from fever in the two weeks preceding the survey. Those most prone to illness were age 6 to 11 months Two-thirds of children with fever were take to a health facility or provider.

Inadequate nutrition continues to be a serious problem in Pakistan. Fifty percent of children under five years of age suffer from stunting (an indicator of chronic undernutrition), as measured by height for age. The prevalence of stunting increases with age, form 16 percent for children under 6 months to 63 percent of four-year olds. The lowest prevalence is found in Punjab (44 percent), and the highest in Balochistan (71 percent). The mother's level of education is an important

factor, the prevalence of stunting varies form 18 percent for mothers with some secondary education to 56 percent for mothers with no education.

Acute undernutrition, low weight for height, is less of a problem in Pakistan then chronic undernutrition. Nine percent of children suffer from acute undernutrition (wasting). The prevalence of wasting does not vary substantially between geographic. The largest differential is for mother's education: 4 percent of children of mothers with some secondary school or higher education are wasted, compared to 10 percent of children of mothers with no schooling.

A systematic subsample of households in the women's survey was selected to obtain information form the husbands of currently married women. The focus was on obtaining information about attitudes, behaviour, and the role of husbands regarding family planning. Husbands's responses concerning knowledge and use of contraception were remarkably similar to women's responses: about four-fifths knew of at least one method, two-thirds knew of a source of supply, one-fourth reported that they and their spouses had used contraception sometime in the past, and about one-seventh were current users.

Although a majority of husbands (56 percent) approve of family planning, wives are more likely to favour family planning than their husbands. Since husbands usually have a predominant role in family decision making, the family planning programme should increase efforts to educate and motivate husbands.

Some salient statistics obtained in the PDHS are presented in the following data sheet.

Sample Population	
Ever-married women age 15-49	6,611
Husbands of interviewed women	1,354
Background Characteristics of Women Interviewed	
Percent urban	30.5
Percent with no education	79.2
Percent attended secondary	7.3
Marriage and Other Fertility Determinants	
Percent of Women 15-49 currently married[1]	71.1
Percent of women 15-49 ever married[1]	73.8
Singulate mean age at marriage for females (in years)	21.7
Singulate mean age at marriage for females (in years)	26.5
Percent of women married to first cousin[2]	50.3
Median age at first marriage among women age 25-49	18.6
Median duration of breastfeeding (in months)[3]	19.9
Median duration of postpartum amenorrhoea (in months)[3]	6.5
Median duration of postpartum abstinence (in months)[3]	2.3
Fertility	
Total fertility rate[4]	5.4
Mean number of children ever born to women age 45-49[1]	6.4
Desire for Children	
Percent of currently married women who:	
Want no more children	36.4
Want to delay their next birth at least 2 years	17.6
Mean ideal number of children among women 15-49[5]	4.1
Percent of women giving a non-numeric response to ideal family size	60.8
Percent of births in the last 5 years which were:	
Unwanted	13.0
Mistimed	8.4
Knowledge and Use of Family Planning	
Percent of currently married women:	
Knowing any method	77.9
Knowing a modern method	77.2
Knowing a modern method and knowing a source for the method	44.9
Had ever used any method	20.7
Currently using any method	11.8
Percent of currently married women currently using	
Pill	0.7
IUD	1.3
Injection	0.8
Condom	2.7
Female sterilisation	3.5
Periodic abstinence	1.3
Withdrawal	1.2
Other traditional	0.3

Mortality and health	
Infant mortality rarte[6]	90.5
Under-five mortality rate[6]	117.4
Percent of births[7] whose mothers:	
Received antenatal care from a doctor or nurse[8]	25.6
Received 2 or more tetanus toxoid injections	23.3
Percent of births[7] whose mothers were assisted at deliver by:	
Doctor or nurse[8]	18.8
Trained birth attendant	16.6
Traditional birth attendant	52.2
Percent of children 0-1 month who are breastfeeding	90.0
Percent of children 4-5 months who are breastfeeding	88.4
Percent of children 10-11 months who are breastfeeding	73.9
Percent of children 12-23 months who received:[9]	
BCG	69.7
DPT (THREE DOSES)	42.7
Polio (three doses)	42.9
Measles	50.2
All vaccinations	35.1
Percent of children under 5 years[10] who:	
Had diarrohoea in the 2 weeks preceding the survey	14.5
Had a cough accompanied by rapid breathing in the 2 weeks preceding the survey	16.0
Had a fever in the 2 weeks preceding the survey	30.1
Are chronically undernourished (stunted)[11]	50.0
Are acutely undernourished (wasted)[11]	9.2

1. Based on all women
2. Based on ever-married women
3. Current status estimate based on births during the 36 months preceding the survey
4. Based on births to women 15-49 years during the period 0-5 years preceding the survey
5. Based on ever-married women. Excludes women who gave a non-numeric response to ideal family size (61 percent of women 15-49)
6. Rates are for the period 0-5 years preceding the survey (early 1985 to early 1991)
7. Figure includes births in the period 1-59 months preceding the survey
8. Includes Lady Health Visitor or Family Welfare Worker
9. Based on information from vaccination cards and mothers' reports
10. Figures include children born in the period 1-59 months preceding the survey
11. Stunting assessed by height- for age, wasting assessed by weight for height; the percent undernourished are those below 2 SD from the median of the international reference population, as defined by the U.S. National Centre for health Statistics, and recommended by the World Health Organisation.

A NOTE ON THE USE OF ILO'S MODULE ON POPULATION AND LABOUR FORCE PROJECTIONS

Mohammad Rafiq Shah*

INTRODUCTION

The development of computer software designed specifically for demographic work is useful for theoretical insights and for understanding the interaction of population with other variables used in the process of socio-economic development. A case in point is the population projections that are commonly used for integrating population factor into socio-economic planning. In such planning, a stage is reached when one needs the projected age-sex structures of the school age population aged 5-24, the population of youth aged 15-24, elderly population aged 65 and over, those employed and unemployed, and for many other uses in development planning.

Although population projection is a time consuming task requiring thoughtful consideration regarding past demographic trends and various scenarios according to the prevailing situation, the calculation of required numbers and distributions could be made without loss of time with the help of personal computers and appropriate micro-computer software. In this note emphasis is placed on the use of micro computer software by describing in short, step-wise procedure required for population and labour force projections. The note is based on the background paper[1], published by the International Labour Office for training in population, human resources, and development planning. The step-wise procedure noted here has been tested for projecting the population and labour force in Pakistan which is likely to appear in another article.

The note is composed of four parts. Part 1 is an introductory statement on basic requirements and the installation of the programme diskettes. Instructions given in Part 2 are used for entering base year statistics on population and labour

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force. Part 3 deals with steps required for data entry according to specified assumptions on mortality and fertility. Printing of results on Lotus format are described in Part 4.

This note is expected to be useful for those concerned with the preparation of population and labour force projections for carrying out the desired objectives of adding the demographic dimension in the process of planning for development. Furthermore, the ease of its use will stimulate interest in micro-computer software applications and their modifications according to specific needs and requirements.

Part 1

Basic Requirements and Installation

a. Basic Requirements:

(i) IBM or a compatible personal computer (PC) having hard disk of at least 320K memory and a floppy disk drive.

(ii) PC-Dos or MS-Dos version 2.0 or higher

(iii) Lotus 123 version 2.2 or higher

(iv) Printer

(v) ILO's Programme diskettes used for projecting population and labour force copied on a floppy diskette (3.5").

b. Installation:

Place the programme diskette (3.5") in the floppy disk drive and copy its files in the directory of Lotus 123; i.e,

c:> copy a:*.* c:\123

Enter the Lotus directory by pressing 123 or any other command made available in the setup programme of Lotus. The file that appears on the screen is the spread sheet AUTO123 showing steps required for projecting population and labour force. The following ones are noted for ready reference.

PART 2

Data Entry - The AUTO123 File

Write name of the country and the base year in cells C62 and C64 respectively. Enter population figures in 5 year age groups on cell addresses B68.....B84 for males, and on C68...C84 for females. The available data should be upto age 80+. It is, however, possible to use the data available in any other age group ending before the year 80+ according to the given instructions.

Smoothing of the data, if desired, could be made by pressing Alt K. Results of smoothed data are stored in cells corresponding to the already recorded age groups under columns M, N and O for males, females and both sexes respectively. A print out of the smoothed age-sex distribution could be obtained according to the steps as noted in Part IV.

If smoothed data are not satisfactory and further smoothing is required, the smoothed data so obtained could be used as an input to the age-sex distribution in the data entry statements as described above.

To complete the AUTO123 file the base year labour force participation rates by 5 year age-sex groups are required to be entered in cells under B145..C157, covering age groups 10-14 to 65+, if these rates are assumed to remain constant in the projection period. It is also possible to enter various projected rates assumed to vary in the specified period. By pressing Alt X the file regarding mortality assumption appears on the screen.

Part 3

Mortality and Fertility Assumptions

a. Mortality File

Press Alt L to choose a model life table among Coale-Demeny (D) or UN (U) model life table systems. For example, place the cursor on U to select the UN system of life tables. Like Coal-Demney's regional life tables of East, West, North and South, the UN system of life tables for various regions of the world are available, and a choice could be made according to the prevailing mortality situation

in the country. This is done by pressing enter after placing cursor on the initial letter of the available system of the life tables. For instance, in case of Pakistan, after selecting U (the UN system of life tables) one could move the cursor to S (The South Asian System-SAS) and press enter in order to use the South Asian pattern of mortality for the assumed pattern of mortality in Pakistan. The expectation of life at birth for both males and females are required to be entered either in the base year only by assuming constant quinquennial increase of the expectation of life at birth for the projection period, or by entering the projected values for each interval of the projection period.

Pressing Alt Z calculates survival ratios required. As soon as the calculation of survival ratios comes to an end, the file regarding fertility assumption appears on the screen.

b. Fertility File

At this stage, it is advisable to save the earlier entries and calculations by pressing Alt S.

Press Alt L to choose among fertility indices expected to be used in the projections. A choice could be made among TFRs (Total Fertility Rates), ASFRs (Age Specific Fertility Rates), and GFRs (General Fertility Rates). Select one of the indices by moving the cursor and pressing enter. The selected index file appears on the screen.

Assumption about fertility trends could be entered either as percentage decline/rise of the selected index or by entering the projected values for each projection interval.

Press Alt X to get the main projection file (Main.wks). Press Alt M to combine the results of work sheets prepared so far. Projections of population and labour force are made after answering questions regarding the index used in the fertility file.

Press Alt S to save the projected population and labour force in the file named MAIN.WK1. The rural-urban file could be retrieved if projections by age, sex and rural/urban areas is required.

Part-4

Menu of Lotus is secured by pressing (/). Select Print by pressing (P) and then select the desired Range. The Range could be selected according to the entries shown in the MAIN.WK1 file on the screen. For example the range for smoothed data is M62..O86. The ranges of projected population and other necessary statistics, single year age distributions between ages 5-24, and projected labour force could be easily seen and entered as required in cells under N41 to V106. After necessary specifications press enter to go to the Print Menu. Press A (Align) and then G(Go) to get the desired printed output. Be sure, however, that printer is on the line and other options are correct.

REFERENCE

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COST EFFECTIVENESS STUDY OF FAMILY PLANNING COMPONENT OF POPULATION WELFARE PROGRAMME: A District Level Study

Khaleda Manzoor*

NIPS is conducting a district level study on "Cost Effectiveness of Family Planning Component of the Population Welfare Programme".

A Cost Effectiveness (CE) Methodology Manual (Lee and Paton, 1988) and subsequently a "model" was developed in Microsoft Excel software to analyze family planning services in Pakistan. Before applying the model to the national level, it was considered necessary to check its operational feasibility at the district level which is the basic objective of the present study.

The model will provide the programme managers and planners in the Ministry of Population Welfare and related organizations a management tool for resource allocation and performance monitoring by signalling how and how well family planning services are being provided in different types of service outlets or geographical location.

The primary concern of Cost Effectiveness Analysis (CEA) is to estimate the demographic impact and the costs of family planning. These have been estimated for Sheikhupura district for the fiscal year 1991-1992 for various types of services i.e. Family Welfare Centres (FWCs), Mobile Service Units (MSUs), Reproductive Health Service Centres (RHSCs) and for providing different methods of contraceptions. CEA measure is estimated by combining the impact and cost measures and extending the analysis to the components of the programme. Two measures of impact have been used (i) births averted and (ii) couple years of protection provided - the outcome of the FP Programme.

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Data on costs for Sheikhupura were collected from the district, provincial and federal headquarters' expenditure statements with appropriate adjustments wherever required for Family Welfare Centres (FWCs), Mobile Service Units (MSUs) and the headquarters' costs. Cost data on Reproductive Health Services (RHSs) were collected and estimated from the expenditure statements of the District and Tehsil headquarter hospitals with appropriate apportionment.

The total programme (administrative) costs for federal, provincial and district headquarters have been estimated and apportioned to family planning and its methods for different service outlets. The output data (units of contraceptives sold) have also been adjusted to avoid over-reporting.

The total cost of family planning is apportioned to various methods on the basis of the results obtained from the "Functional Task Analysis of Family Welfare Centres" another study that was conducted simultaneously to assess the pattern of utilizations of the service outlets.

The study gives estimates of cost effectiveness measures for various types of services being provided and for various family planning methods for tehsil and district level.

This Cost Effectiveness model will be applied to other districts and provinces in future. NIPS will act as the master trainer and provide technical assistance to the Ministry of Population Welfare, Provincial and District Population Offices in building the model in their Management Information System and its application as a regular exercise for policy feedback.

BOOK REVIEW

CULTURE, CLASS AND DEVELOPMENT IN PAKISTAN - THE EMERGENCE OF AN INDUSTRIAL BOURGEOISIE IN PUNJAB
Anita M. Weiss
Oxford, USA,
p.207

The book presents an interesting exposition on the relationship between indigenous sociocultural orientation, class formation and development process in Punjab. It is based on data obtained through interviews with leading Punjabi industrialists and observations and case studies of fifty indigenous factories in pharmaceutical, steel re-rolling and sporting goods manufacturing industries. Considering several factors, it seeks to explain changing lifestyles of individuals from traditional to modern forms of industry by taking the mantle of a modern bourgeois class. The book focuses primarily on the development process in the last four decades after independence, yet provides a historical analysis of the colonial period in terms of the metamorphosis of the economic, political and social conditions. The emergence and development process of the above mentioned three major industries have been described in some details.

The line of action and strategies adopted by the members of each industry have been well explained in view of their perceptions about their business aims and work organization. When faced with a crisis, either concerning acquisition of raw materials, labour relations, access to markets and the like, each group discovered certain set parameters within which they could respond. These parameters are essentially a culmination of traditional orientations, government policies, transnational corporate influence and the international economy.

Industrial development though limited and still in its infancy, this class and its actions mark the forefront of a new era. The impact of this process of industrialization and class formation is reverberating throughout Pakistani society, concomitant with demands for political and social reforms. Whether it be at the level of additional product availability and usage, union mobilization or factory

ownership, traditional orientations and social relationships have become significantly transformed, resulting in a new "culture of development" in Punjab.

While cultural variables alone do not explain a country or region's development position, neither do economic transformations occur in a social vacuum. Rather, both internal and external social factors may exert a great deal of influence on how a state's economy and related institutions will develop, expand, and satisfy the needs of its people. This is especially true in the extent to which new groups of economic actors in this case, the middle level Punjabi bourgeoisie can overcome obstructions imposed by established local elites, policies of state, and other external limitations, and the way cultural identity is either reaffirmed or redefined.

The process of institutional transformation in Pakistan, as in other Third World countries, has been shown to be a complex, multi-dimensional feat. In some instances, this movement may be developmental (as in the pharmaceutical industry), linear (as in the case of the steel re-rolling industry), or oriented towards foreign markets (as in the sporting goods industry). The actions of those who promote this movement are critical variables, but they are also constrained by social mores, political circumstances and economic intrigues. This has resulted in the emergence of a segmented bourgeoisie which is still undergoing the process of class formation.

The three industries under analysis here are not only examples of the kinds of industries being established in Punjab import sub-stitution, basic manufacturing, and export oriented manufacturing but also provide us with example of the ways in which discourse about the process of development has progressed in the postcolonial era.

The impact of the emergence of the industrial bourgeoisie on the feudal agrarian setup is not well analysed. The book does not give an analysis of the social class and gender relations in the process of transformation and the role of state and religion in this context. It also does not analyze the impact of the structural transformation on social attitudes, behaviour and value system.

Overall, the book is an appreciable academic effort in identifying and explaining the emergence of an industrial bourgeoisie in Punjab which is a major and significant structural development in the last four decades after independence.

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HABITAT, ECONOMY AND SOCIETY
Forde C.D.,
London, 1990,
pp.479.

The author in this book divides people into several provisional groups on the basis of economic and social life of diverse levels of cultural achievement in different regions of the world. Broad features of economic patterns and their relations to physical environment, social organization and to major factors in the growth of civilization are discussed. The author emphasizing salient characteristics, concentrates on aspects of economic and social life and attempts to convey something of the special genius with a focus on Tundra culture. The book is divided into four parts along with introduction and conclusion which give an overview of the categories in which the people of Tundra have been divided and provides the reader with a background against which the categories are made.

The people studied in the first part are grouped into three broad categories as food gatherers, cultivators and pastoralists. Every part is subdivided into chapters. Each chapter on a particular people has been made as self-contained. The titles of the chapters are aptly given and their contents disclose the genius of the author who is an anthropologist.

The great differences in economic patterns and social organizations within each of these provisional groupings have been high lighted which reveal that there is little homogeneity within them.

Food gatherers are found in every type of climate and vegetation region from the equatorial forests to the Tundra. By no means, they are in a uniform condition, as they display great diversity. So wide are the varieties and combinations of economic patterns that it is hard to find in conclusive terms which one exclusively embrace the hunters, fishermen and collectors. The term Food Gatherer is most generally used, though it does not convey the active pursuits of the more specialized hunter and fishermen, yet it is not possible to classify the specialized economics of the food gatherers according to broad climatic and vegetation regions, for it is not general but special character of particular environment that is important. It is

further impossible to regard the economics and material culture of the food gatherer, as arranged in a sequence dependent on general favourableness of environment.

In second part, a number of cultivating people in various types of countries and raising different crops by various methods are considered in chapters of this part. Attention in these chapters is mainly directed to the relatively simpler societies. The range of economic and social variations among cultivators is greater than that among food gatherers.

This variability is not related in any simple way with physical conditions. It exists not only in the nature of crops grown and technological methods of production used but also in the social uses to which the production is put and the political organization developed therefrom.

In this part economic and social life of the Boro, Yoruba Boloki, Hopi and the Yuma tribes of Tundra region are discussed.

The cultivation methods of simple people (often referred to as migratory), is hoe tillage but under favourable physical conditions some of them are not migratory. The author notes that cultivation by these people is more intensive and adapted as a male task.

In third part, a number of pastoral peoples are considered. Their range of movement extends from the equator to the Arctic circle and they depend primarily on different animals for food and travel. They in terms of their physical, social and economic conditions are termed as "pastoralist". Pastoralism is a predominant way of life in such parts of the Old World. The pastoral region ranges from the Tundra through rich uplands, forests and marginal grasslands to severely arid desert. This geographic pattern shaper the economic, social and political organizations among these people although they rely on live stock but their livelihood varies as widely as among cultivators.

In the earlier parts of the book, comparison between societies in generally similar habitats or adjacent regions has afforded some of comparative bases while in later part, an attempt has been made to review the conditions found among the

particular people against a broader geographical and historical background. But the argument of author is that the essential economies may in the broadest way be termed as collecting, hunting, fishing, cultivating and live stock rearing but the adaptation and practice of any one does not imply or necessitates the complete abandonment of the other. Nor has any people been known to rely exclusively on one pattern alone.

Neither the world distribution of the various economies nor their development and relative importance among particular groups can be regarded as simple functions and of physical conditions and natural resources. Although the adaptation of culture and particularly crafts and economy to the habitat exists every where, the whole complex of the physical conditions does not affect human activity in any single and comprehensive way.

Broad general classifications of climatic or vegetation regions are inadequate for the analysis of cultural possibilities and the occupants of regions similar in their geographical conditions. They show great divergencies in cultural achievements. Likewise economic determinism is equally inadequate in accounting social and political organizations and the religious beliefs. which may be found in the culture based on different economic patterns.

Economic and social activities of any community are the products of long and intricate processes of cultural accumulation and integration. So the main emphasis is on comparative and historical studies as they are essential for the elucidation of different aspects of culture.

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Nawazish Ali Asim

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