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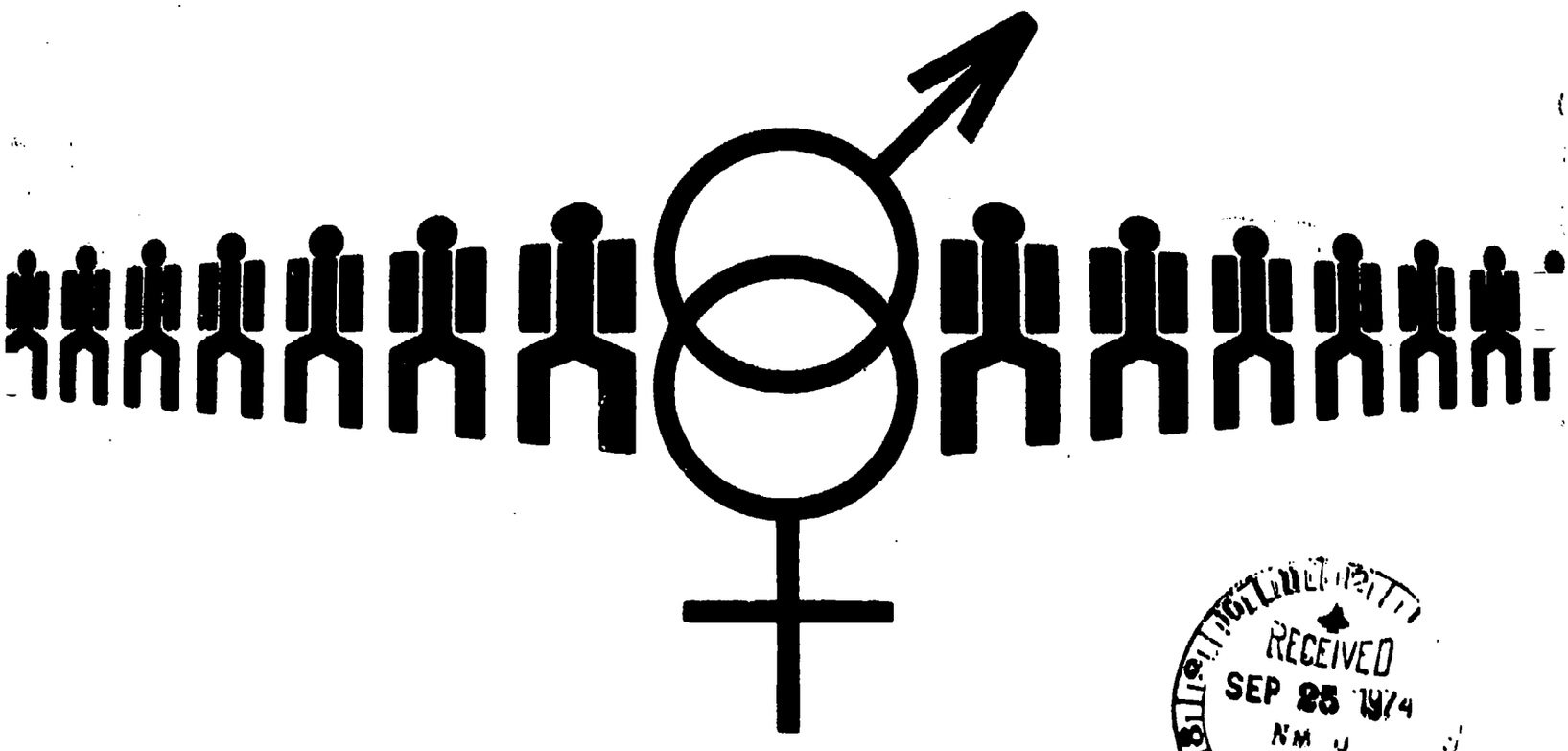
ABSTRACT

Child bearing is probably one of the most important functions of the family in American society today. This study identified and investigated the (1) reasons for the existing differentials in fertility behavior (preferences, contraceptive use and effectiveness, and actual fertility) of white, black, and American Indian groups in a low income predominantly rural county and (2) potential problem areas in the development and implementation of fertility control programs among each of these groups. A tri-racial group of male and female interviewers from Robeson County, North Carolina (locus of the research) mostly questioned respondents of their own race. Pre-interviews determined eligible females and couples (females had to be between 18 and 49 and if without a spouse, have at least one child) and their race. The 695 interviews examined the total number of live births, family size preferences, and socioeconomic status. Data were analyzed, for the most part, using descriptive statistical measures (e.g., the arithmetical mean and percentage distributions). Control variables considered major variants were race, age, socioeconomic status, years married, and age at first marriage. Survey results were presented for the total sample and for various subgroups. Some findings were: (1) 73.4 percent of the wives approved of family planning; (2) when race is controlled, more whites approved of family planning than blacks; and (3) more blacks approved than Indians. (NQ)

Project Report

Fertility Behavior in a Tri-Racial, Low-Income, Rural County



Department of Sociology and Anthropology,
North Carolina State University,
Raleigh, North Carolina 1974

PROJECT REPORT

FERTILITY BEHAVIOR IN A TRI-RACIAL, LOW INCOME RURAL COUNTY

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The work is a result of the joint efforts of the following co-investigators:
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INTRODUCTION

The bearing of children is probably one of the most important functions of the family in American society today. That there are wide differences in outlooks and behaviors associated with this function is sufficiently well known to require little elaboration. In recent years, significant efforts have been made in identifying a number of variables associated with differential fertility.[1] The basic problem remains to explain the basis for the differentials rather than to indicate correlates of it. In this study we approach the differential patterns of fertility behavior as behaviors grounded in attitudes and role relationships. In general, this approach seeks to understand behavior by understanding the set of ideas, goals, attitudes, values, and social relationships on which the behavior is based.

The specific purposes of this research are:

1. To identify and investigate the reasons for the existing differentials in fertility behavior (preferences, contraceptive use and effectiveness, and actual fertility) found among white, black, and Indian groups in a low-income predominantly rural county.

2. To identify potential problem areas in the development and implementation of fertility control programs among each of the three racial groups.

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[1] Partly as a result of these efforts, a number of approaches toward increased fertility control are currently undergoing testing and implementation. However, a basic disparity in investigation and implementation seems to be that while most survey research in fertility has focused primarily on white urban populations, current efforts at implementation most frequently focus on the urban underprivileged who are often Negro.

Background and Rationale

One of the dominant trends of recent years has been the increased concern expressed about the rapid population growth in the United States which has occurred over the past twenty years. Concomitantly, there has been an increasing acceptability of family planning while poverty has become more intolerable. These facts are attested to by the plethora of literature in the area of fertility behavior.[2]

The chief sources of social and psychological research directly related to family planning and poverty are found, primarily, in four major kinds of investigations: (a) studies of knowledge, attitudes, and practices (so-called KAP studies) regarding family planning,[3] (b) analysis of census data,[4] (c) anthropological studies of an in-depth nature,[5] and (d) experimental action studies.[6]

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[2] A number of excellent summaries and bibliographies exist. Attention is called to the following: Ronald Freedman, "The Sociology of Human Fertility," Current Sociology, X/XI (1961-62); Clyde V. Kiser, Ed., Research in Family Planning (Princeton, New Jersey: Princeton University Press, 1962); Mendal C. Sheps and Jeanne Clare Ridley, Public Health and Population Change (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1965); "Family Planning and Fertility Control," Journal of Marriage and the Family, XXX (May 1968), entire issue; "Progress and Problems of Fertility Control Around the World," Demography, V (1968), entire issue; and "Family Planning in Cross-National Perspective," The Journal of Social Issues, XXIII (October 1967), entire issue.

[3] See for example: Clyde V. Kiser and P. K. Whelpton, Social and Psychological Factors Affecting Fertility, Vol. V (New York, New York: Milbank Memorial Fund, 1958); Charles F. Westoff, et al., The Third Child (Princeton, New Jersey: Princeton University Press, 1964); Charles F. Westoff, et al., Family Growth in Metropolitan America (Princeton, New Jersey: Princeton University Press, 1961); and Pascal K. Whelpton, et al., Fertility and Family Planning in the United States (Princeton, New Jersey: Princeton University Press, 1966.

[4] The following are representative of studies relying heavily on census data: George Wilber, "Fertility and the Need for Family Planning among the Rural Poor in the United States," Demography, V (1968), 894-909; and Arthur A. Campbell, "The Role of Family Planning in the Reduction of Poverty," Journal of Marriage and the Family, XXX (1968), 236-245.

All of these studies provide helpful information. But, each presents certain limitations in terms of providing a current picture of family-planning knowledge, attitudes, and practices of all relevant segments of the population.[7] Most critically, these studies have concentrated on certain populations and left others unexplored.

In addition to the above, there is a paucity of information concerning several other important areas. Among these is a concern with the way or ways in which the various "correlative" variables work in affecting behaviors.[8] For example: How does socioeconomic status produce the differences that have been noted? Apparently some factor or factors associated with categorical membership operate to produce differences in fertility behavior. Thus, the basic problem is what leads people of one category to prefer smaller families, to practice limitation and practice it more faithfully, and to have smaller families than those of another category.

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5 See for example: Lee Rainwater, Family Design (Chicago, Illinois: Aldine Publishing Co., 1965) and Lee Rainwater and Karol K. Weinstein, And The Poor Get Children (Chicago, Illinois: Quadrangle Books, 1960).

6 See for example: Donald J. Bogue, Ed., Sociological Contributions to Family Planning Research (Chicago, Illinois: University of Chicago Press, 1967); Bernard Berelson, et al., Eds., Family Planning and Population Programs (Chicago, Illinois: University of Chicago Press, 1966); and Clyde V. Kiser, et al., Research in Family Planning (Princeton, New Jersey: Princeton University Press, 1962).

7 For a detailed discussion of the limitations see Catherine S. Chilman,"Fertility and Poverty in the United States: Some Implications for Family Planning Programs, Evaluation, and Research," Journal of Marriage and the Family, XXX (May 1968), 207-227.

8 Two recent efforts to understand the intricacies of these relationships are: William B. Clifford, "Variations in Value Orientations and Fertility: A Study in Social Demography" (Unpublished Ph. D. Dissertation, University of Kentucky, 1969) and C. Shannon Stokes, "Family Structure and Fertility: A Social Demographic Study" (Unpublished Ph. D. Dissertation, University of Kentucky, 1969).

Many studies have indicated the importance of rural background in urban fertility differentials.[9] However, there still is little information about fertility behavior among the rural elements of the population. Some of the studies deal primarily with census-based information and indicate the high rates of rural poverty and fertility. Others have demonstrated the importance of the rural migrant in the traditionally inverse relation between socioeconomic status and fertility in urban areas. However, few attempts have dealt specifically with knowledge, attitudes, and practices of rural persons but have used this variable in understanding urban populations. Because of the importance of rural background, more information is needed specifically about fertility behavior in this sector of the population.

As mentioned above, the influence of the categorical variables -- rural residence, race, socioeconomic status, etc. -- have stimulated interest in the nature and kind of factors which mediate between them and different approaches to fertility control. Fertility behavior, and other behavior, is influenced by both individual and social factors. The goals of the individuals, the social systems of which they are part, and the cultural ethos to which they are exposed all play a part in influencing their behavior. It would appear that the complex of residence and socioeconomic status exert their influence through the determination and reinforcement of certain goals, values,

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[9] See: David Goldberg, "Another Look at the Indianapolis Fertility Data," Milbank Memorial Fund Quarterly, XXXVIII (January 1960), 23-36; David Goldberg, "The Fertility of Two-Generation Urbanities," Population Studies, XII (March 1959), 214-222; Ronald Freedman and Doris Slesinger, "Fertility Differentials for the Indigenous Nonfarm Population of the United States," Population Studies, XV (November 1961), 161-173; and Ronald Freedman and Deborah Freedman, "Farm-Reared Elements in the Nonfarm Population," Rural Sociology, XXI (March 1956), 50-61.

and family role relationships which lead persons to make decisions which are expressed in different patterns of fertility. Fertility, then, is seen as the consequence of acts made within the context of goals, norms, values, and ideas of individuals who are in turn strongly influenced by the social and cultural configurations of which they are a part.

Robeson County, locus of this research, is a low income, rural, tri-racial county in North Carolina. In 1969 the median family income was $5,675 and 31.6 percent of the families had incomes lower than the poverty level. Six and a half percent of all families had incomes of $15,000 or more. The median family income for blacks in 1969 was $3,552 and 42.2 percent of the black families had incomes lower than $3,000.

The population of Robeson County was predominantly rural with only 27.3 percent classified as urban in 1970. This is an increase over the 20.3 percent reported in 1960. Few of the nonwhite population were classified as urban in 1970. Ninety-three point seven percent of the Robeson County Indians and 70.9 percent of the blacks lived in rural areas in 1970. By contrast, 59.2 percent of the whites lived in rural areas. The County's population consisted of 42.7 percent white, 30.6 percent Indian, and 26.7 percent black persons.

There was a relatively high fertility pattern with a child-woman ratio of 430 and white, black, and Indian ratios of 322, 525, and 506 respectively in 1970. In 1970 the crude birth rate for the County was 26.4 with rates of 17.7, 32.0, and 33.6 for whites, blacks, and

Indians respectively. The color differential in crude birth rates was even more pronounced in Lumberton, the only large urban place, with a total rate of 23.9, but white, nonwhite rates of 17.5 and 37.4 respectively.

Of particular interest is the fact that only 12.8 percent of the nonwhite births occurred in urban places in 1970. The importance of the color differential is evident in the rate of natural increase in Robeson County for 1970. Rates of 7.0 percent for whites and 23.6 percent for nonwhites are evident. The rate of increase for the County in 1970 was 16.5 percent. Equally important, 16.0 percent of the births in 1970 were to unwed mothers. Ninety-three point eight percent of these births were to nonwhites.

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METHODS AND CONCEPTS

Study and Sample Design

The basic design of this study was cross-sectional calling for an area probability sample of households in the County.

All the housing units in Robeson County were listed by Enumeration District using the 1970 Census material which was available on computer tapes. The total of 24,093 housing units in the County was subdivided into 2,409 area segments. Each segment, on the average, should contain ten housing units. A cluster of ten housing units was used to cut down on the travel cost of interviewers.

County census figures indicate that approximately 43 percent of the population is white, 26 percent black, and 31 percent Indian. Using a total sample size of 1,000, it was thought that enough interviews could be obtained for each of the three racial groups.

Repeated Systematic Sampling was used as the sample design. This design gives the flexibility that additional samples can be added until the needed number of interviews in each racial group is satisfied. Ten random numbers between 1 and 2,409 were selected without replacement. This gave the random start for ten independent random samples. After the random start, 240.9 was repeatedly added and rounded to the nearest whole number to give the selected area segments in each sample. Each independent random sample contains ten area segments, and each area segment contains, on the average, 10 housing units for a total of about 100 interviews expected in each sample.

Since fewer women in the child bearing ages were found than expected, ten additional samples were taken. Again, these were selected systematically with a random start.

Data Collection Procedures

Male and female interviewers from Robeson County were selected and trained to use a structured interview schedule. A tri-racial group of interviewers was utilized, and, for the most part, each race interviewed those respondents in their own racial category. Pre-interviews were conducted in the sample areas. Pre-interviewing was utilized to determine those females and couples who were eligible, i. e., the female had to be between the ages of 18 and 49 and if without a spouse, have at least one child. Also, the pre-interview was used to note the race of the interviewees and whether or not they agreed to be interviewed. (Copies of the interviewing schedules are available on request.)

Through the use of the pre-interview, 1,787 households were contacted. Of those contacted, 1,004 were eligible to be interviewed. Of those eligible to be interviewed, 55 refused, while 949 agreed and made appointments for further contact.

Interviewers were sent in couples to the 949 households, after being as closely matched as possible in terms of race and age. In cases where there was only a female, a female interviewer of the approximate age and race of the respondent was sent to administer the interview. A total of 695 complete interviews were obtained. Attrition was due primarily to persons not being at home or moved, unable to locate, urban renewal, and refusal to participate.

Table 2.1 Distribution of Completed Interviews by Race

Race	Interviews: Female only	Interviews: Male and female	Total
White	61	144	205
Black	63	139	202
Indian	45	243	288
Total	169	526	695

Data Reduction Techniques

Data from completed schedules were coded and then transferred to optical scanning sheets. Then, data were read from the op scan sheets and written on standard computer tape. Basic analysis was performed using the tape and disk files of the 360-175 computing facility.

Analysis of Data

Data presented in this report are analyzed, for the most part, using descriptive statistical measures, e. g., the arithemetical mean and percentage distributions. To measure and assess the relative importance of the analytical framework, zero-order correlation coefficients were computed. In the case of multivariate analysis, the techniques employed were contingency table, percentage distribution, and mean analyses utilizing tabular control of third variables. Preliminary path analyses and multiple regression analysis were not fruitful and not continued because of the low association among the independent variables and between the independent and dependent variables.

Concepts and Measurement

Live Births

The total number of live births was obtained by asking each female respondent to reconstruct her pregnancy history.

Family Size Preferences

Respondents were asked three questions regarding their preferred family size:

"What do you think is the ideal number of children for the average American family?"

"How many children would you like to have?"

"How many children do you expect to have altogether when you complete your childbearing?"

Respondents interviewed were asked to give a numerical reply to the questions. The questions on ideals were designed to elicit more generalized attitudes toward family size, as contrasted with their personal expectations.

Socioeconomic Status

Socioeconomic status was measured using a composite scale based on the individual indicators of education, occupation, and income. Distribution of data for each variable was standardized using the following formula:

$$Z = \frac{X-\bar{X}}{s} + 50$$

The three standardized scores were summed for each individual.

Value Orientations

Value orientations arise out of man's efforts to solve five basic problems that are common to all human groups. Those which are particularly pertinent to this study concern: (1) the accepted approach for mastering one's physical and social environment, (2) the time dimension, (3) the dominant relationship of the individual to his kin, (4) the modality of human activity, and (5) the character of innate human nature -- the relevance of which is expressed through an orientation toward sex as good or evil.

It is contended that the value orientations with which specific patterns of fertility are associated tend to occur together. In other words, different value orientations are associated with different probabilities of expected family size, birth control effectiveness, and live births. Successful family limitation should be associated with orientation of mastery over the outcome of events, long-range rational planning, positive view of sex relations, behavior directed toward the realization of objective goals, and the privacy of the conjugal pair -- the so-called modern orientation.

In contrast, family size expectations, unplanned pregnancies, and live births should be associated with orientations of fatalistic resignation, inability to link immediate experience with future consequences, negative perception of sex relations, primacy of goals, and welfare of the extended family group and so on. Thus, for those with traditional orientations, the high fertility pattern may result from the operation of chance occurrences, "luck" and failure to engage in long-range, rational planning.

A further assumption about value orientations is that they tend to be reflected as part of the differences in the system of social stratification. That is, people who belong to various strata adhere to certain values and perceive their life circumstances in ways which lead them to different patterns of fertility. Specifically, high status people with modern value orientations are generally characterized by a pattern of low fertility, whereas low status people with traditional orientations will tend to have high fertility.

A Guttman Scale comprised of twelve items was developed to measure value orientations of respondents. Examples of items that respondents were asked to indicate their agreement or disagreement with were:

> When you are in trouble, only relatives can be depended upon to help you out.
>
> When a man is born, the success he is going to have is already in the cards, so he might as well accept it.
>
> Children should be taught that sex is bad.
>
> The future is too uncertain for a person to plan.
>
> One should always try to be the best in whatever one does.

The Coefficient of Reproducibility was .89 and the Minimum Marginal Reproducibility was .77.

Value of Children

Another concern involves the social-psychological motivations for childbearing. Perhaps central to the social psychological aspects of childbearing are the attitudes and personal values associated with contraception, marriage, and children.

Parental perception of the worth of children is a motivational factor assumed to be involved in family goals and actual fertility behavior. In other words, it is expected that the motivation to have children and a family of a certain size will vary according to an individual's perception of the value of children. Values which support large families emphasize that children not only contribute to family welfare by lessening workloads around the home and promoting wholesome personality development and happiness among family members, but they also contribute to marriage adjustment. On the other hand, small families are encouraged by attitudes which associate few children with greater companionship, less familial tension, more individually-oriented children, greater wealth to be shared among family members, and more leisure time for the husband and wife. Thus, the more an individual disregards the costs and problems of rearing a large family and emphasizes the emotional benefits attributed to large families, the more likely he (she) will expect and have a large number of children.

Respondents' attitudes concerning the value of children were measured using five items as determined by Guttman Scaling procedures. Individuals were asked to respond to the following items:

A marriage without children is likely to be unhappy.

Couple who decides not to have any children even when they can is selfish.

Happiest family is one with many children.

Cost of raising children makes it hard to support a large family.

Raising many children is just as easy as raising a few.

The Coefficient of Reproducibility was .81 and the Minimum Marginal Reproducibility was .60.

Family Role Priorities

Men and women face a number of role choices in their married life which have implications for family patterns. The changing status of women -- in educational, economic, legal and political affairs -- has increased the role options not only for the single woman, but for the married woman as well. Males face role choices as a result of the differentiation and specialization in American society which have separated work place from residence and contributed to a decline in the patriarchal authority system in the family. Thus, a married man must decide how much time and energy he will invest in extra-familial pursuits, relative to family involvements, and whether he should act as an authority figure or companion to his wife. As a consequence of the interplay between internal family demands and external societal forces, the norms and guidelines of marital roles have become sufficiently ill-defined so as to make it necessary for each individual to work out his (her) role priorities in accordance with personal orientations and expectations of the spouse.

The point is, that, when role specifications are vague, individual role priorities will show some variation and the variations are likely to contribute to differences in family formation and design. In this regard, it is likely that role priorities which stress internal family roles over external role obligations would be associated with higher fertility and fertility preferences than would role priorities showing the reverse pattern.

A scale was developed to assess the individual role priorities of men and women. Male respondents were asked to rank the following five role choices in order of importance to them:

Do a lot of things together with the children
See that the wife is happy
Stand by friends and parents
Spend most of the time working
Take part in community activities

Likewise, females were asked to rank order the following role choices:

Do a lot of things together with the children
See that the husband is happy
Keep a nice and clean house
Be a good daughter to her parents
Takes time to do the things she likes to do

Each respondent's rank ordering was compared with the ideal rankings -- which are specified above -- that stressed nuclear family role obligations before external role responsibilities. The correlation (based upon a Spearman Rho Rank Correlation Coefficient) between the ideal and actual rank ordering indicated the degree to which a respondent's role priorities corresponded to an emphasis on internal family roles. High scores represented an internal or family orientation in role specifications.

Ideal Types of Marriage

Various types of marriages have been identified which, in an ideal sense, reflect different forms of role organization between husband and wife. Among the three most common types of marriages, to which a couple might aspire, are patriarchal, partnership, and companionate marriages. A patriarchal form of organization represents the traditional orientation toward marriage in which the husband-father is the undisputed head of the family in whom all authority and power are vested.

The wife-mother assumes a subordinate role to the husband. In this type of marriage role segregation is pronounced and the woman's concerns are confined to domestic matters and childcare. Partnership and companionate orientations stress more equalitarian relations between the spouses, although more role segregation and autonomy are apparent in the former case than in the latter.

Leanings in the direction of the patriarchal ideal are likely to influence a couple's feelings about family size and actual fertility. The implied division of labor and the unequal authority system within this kind of marriage are likely to encourage large families because of the importance of children to the female function in the family. We would expect then, that the more that spouses aspire to the patriarchal ideal of marriage, the more likely they will prefer larger families on the average.

A Guttman Scale comprised of the three items was constructed to measure orientations toward the patriarchal organization of marriage. Respondents were asked to indicate the importance of the following three factors in their marriage:

The husband be the boss
The wife be mainly interested in her home and family
The wife should vote like her husband tells her to

The Coefficient of Reproducibility for the Scale was .93 and the Minimum Marginal Reproducibility was .70.

Family Structure

Family structure is viewed as falling along a continuum from joint conjugal relationships to highly segregated relationships. Joint relationships are those in which both husband and wife share

most activities and decisions with each other. Segregated relationships are those in which the husband and wife lead separate lives, each with activities and decisions which are carried out independently of the other.

It has been widely argued that a mixing of familial roles (joint conjugal relationship) leads to better communication between husband and wife and greater success in fertility planning. Traditional husband-wife roles are viewed as erecting barriers to effective interspousal communication and family planning. Thus, jointly organized couples should be more efficient contraceptive users than segregated couples.

Moreover, women in jointly organized families share more interests with their spouses than women in segregated relationships, and these common interests and activities are incompatible with large families. Women in segregated relationships do not share this type of relationship with their husbands, thus, a large family may not be incompatible with their style of life. Thus, wives in jointly organized families will have lower fertility expectation and actual fertility than wives in segregated families.

A summated scale procedure was utilized to assign family structure scores to couples. Division of labor and decision-making items were coded to reflect whether: (1) wife or husband always did the task, (2) wife or husband sometimes did the task, or (3) both did the task or made the decision. Family structure scores were obtained by summing coded responses for the eighteen items in the survey.

Planned and Unplanned Pregnancies

Pregnancies are classified as planned or unplanned under the following circumstances:

Planned Pregnancy:

1. The pregnancy occurred when contraception was deliberately stopped in order to have a child.

2. Contraceptive use was not initiated until after the occurrence of one or more pregnancies and the pregnancy was wanted as soon as possible.

3. Contraception was never used.

Unplanned Pregnancy:

1. The pregnancy occurred while contraception was being regularly practiced These pregnancies are often referred to as "accidental" pregnancies.

2. The pregnancy occurred when contraception was stopped for reasons other than to have a child. This includes stopping for health reasons, side effects, or running out of supplies.

3. The pregnancy occurred before the use of contraception and it was not wanted as soon as possible.

It is recognized that this procedure considers those not using any contraceptive methods along with those who did as planners. As Westoff, et al. note, a couple who did not use any contraceptive method prior to the first or later conceptions because they desired a baby as soon as possible reflects just as successful planning from one point of view as a pregnancy following the deliberate interruption of contraception for that purpose (1961, p. 13).

Planning Status

Fertility planning status was assessed by determining the planned-unplanned status of pregnancies based on the classification scheme first

developed in the GAF Studies (Freedman, et al., 1959, pp. 57-99 and Whelpton, et al., 1966, pp. 221-274). The planning status groups are briefly defined as follows:

> Completely Planned: Users with no pregnancies and other users who stopped using contraception in order to conceive before every pregnancy.
>
> Partly Planned: Couples who had one or more conceptions before starting to use contraception because they wanted these conceptions as soon as possible. Any conception after use began occurred when contraception was stopped in order to conceive.
>
> Partly Unplanned: Couples who have had one or more "unplanned" pregnancies, but have not had more pregnancies than wanted.
>
> Excess Fertility: Either the men or the women or both did not want another child at the time of the last conception.

Contraceptive Effectiveness

The protection which women receive from contraception was calculated as the number of pregnancies per time unit o contraceptive exposure. The measure of effectiveness used in this study was the number of failures per 100 years of contraceptive exposure.

FERTILITY BEHAVIOR

Survey results with respect to fertility behavior are presented in this chapter for the total sample and for various subgroups of the sample.

Actual fertility performance is assessed using live births as the indicator of this behavior. Variations in magnitude and differentials in live births are delineated using a series of control variables. For purposes of this study, race, SES, age, years married, and age at first marriage are considered the major sources of variations. Attention is also directed to the prevalence of fertility impairments among the sample.

Fertility preferences as indicated by the number of children thought to be ideal, desired, and expected are presented in section two of this chapter. In addition to the description of variations utilizing the above control variables, preferences of husbands and wives are compared.

Use and effectiveness of contraception is treated in the final section of the chapter. Use of contraception by type of method is presented and a measure of effectiveness, i. e. a failure rate, is computed for contraceptive users in the sample. Couples are categorized by pregnancy planning statuses. Variations in planning statuses among respondents are described using the control variables of race, age, SES, years married, and age at first marriage. Planning statuses are also related to preference variables.

Live Births

The fertility patterns of the women in the Robeson County sample vary according to two basic demographic factors, racial identification and the current socioeconomic status of the family. These two factors are related to fertility differentials even when age at first marriage, length of marriage, and current age of the wife are considered.

Table 3.1 presents the average number of live births for women in the three racial groups. As a group blacks have, on the average, more children than whites or Indians. The relatively large size of black families is readily apparent in the distribution of women by number of births, i. e. 30 percent of the black women have had 6 or more live births, as compared with 20 percent of the Indian women and 9 percent of the white women. The fertility picture is complicated somewhat by the information on pregnancy wastage (Table 3.2). A larger proportion of white women (26 percent) show pregnancy loss through miscarriages and abortions than do black and Indian women (17 percent and 18 percent, respectively). It is possible that a significant part of the pregnancy loss for white women is due to abortions. Although, information on induced abortions was obtained separately from information on spontaneous miscarriages in the interview situation, the health of the white women and their greater accessibility to medical care would theoretically indicate fewer miscarriages for this group if all pregnancy losses were miscarriages.

The number of live births for all the women in the sample varies by the age of the women (Table 3.3). However, the racial identification of the women is related to the degree of variation in the average

number of births for each age category. Between ages 18 and 29, blacks have on the average one more child than whites and a fraction more than Indians. Within the next ten-year cohort whites average three children, while both the blacks and the Indians average slightly over four children. The greatest difference in number of live births can be seen for those women, over 39 years old, who are close to the end of their childbearing years; for black and Indian women in this age category, the majority have had at least five live births whereas white women of this age group show a fairly equal distribution of live births.

Comparable to the effects of age, relative exposure to impregnation in terms of years married produces similar differentials in the incidence of live births among the racial groups (Table 3.4). For women who have been married at least 15 years, whites have almost two children less than do blacks and Indians. The birth differential between whites and the other two racial groups narrows as marriages of shorter duration are considered.

Exposure to pregnancy, of course, is influenced by the age of the woman at first marriage. Table 3.5 indicates that age at first marriage is an important factor contributing to high fertility among all women, but especially among blacks. The critical point of demarcation between high and low fertility for blacks and whites seems to depend upon whether marriage occurred before or after the wife's eighteenth birthday. Wives who marry before the age of 18 show much higher fertility (almost two additional births, in the case of blacks) than women who marry by the time they are twenty-one. It is likely that teenage marriages for many of these women represent either a

forced circumstance due to a premarital conception or a desired alternative to living at home. In either case, a familial orientation is likely to be established early in marriage as a consequence of an unplanned birth or the need to confirm one's marital status. For Indians the demarcation is not as clear. In the case of these women, later marriage contributes to a gradual rather than an abrupt decrease in the average number of live births. The fertility patterns of Indian women may be less subject to the timing of marriage and more influenced by extended family norms than is true of the other two racial groups.

The racial groups differ in the degree to which fertility impairment characterizes their reproductive histories. This difference could account, in part, for variations in the average number of live births among the three racial groups. According to Table 3.6, proportionately more sterilization operations occur among the whites than among the other two racial groups, and the majority of those operations are female operations (tubal ligations and hysterectomies). The difference between the racial groups should be viewed with some skepticism because the level of reporting varies considerably. Conceivably, however, black women may have little access to clinics and medical personnel and, as a consequence, gynecologic and contraceptive problems go unattended. It is interesting that by far the major form of fertility impairment among Indians is due to tubal ligations. This suggests a tendency on the part of Indian women to control family size through voluntary sterilization.

Examination of Table 3.7 reveals that the differentials in live births among the three racial groups is mainly due to the difference in socioeconomic composition of the three groups. There is a sharp increase in average number of births from high to low socioeconomic status within all three racial groups. However, at the lower socioeconomic levels, some of the variation in fertility can be attributed to racial membership. Perhaps life style differences among the races are more apparent at the lower socioeconomic levels than among the highest status group.

The fertility differences between socioeconomic groups widen with increasing length of marriage (Table 3.8). Although social status differences in average number of live births are apparent for each marriage cohort, the differences are magnified among those who have been married at least 15 years. The birth differentials for each period may be indicative of relative changes in family size over the family life cycle or they may reflect historical differences between the four socioeconomic groups that may or may not be projected into future fertility patterns. Since at the national level there is evidence that general fertility levels are decreasing and socioeconomic differences in fertility patterns are converging, the latter picture is probably the more accurate interpretation of the findings in Table 3.8, i. e. the large status differences in average number of live births for those in the middle years of marriage represent historical patterns rather than future trends.

The findings presented in this section have revealed considerable variation in average number of live births by socioeconomic status and racial membership. Although the age of the female and

length of marriage and age at first marriage for ever-married women contribute to fertility differentials, these basic demographic facts do not totally account for the differences among the racial and socioeconomic groups. In fact, it was found that much of the fertility variation among racial groups could be attributed to differences in the general socioeconomic status of blacks, whites, and Indians.

Family Size Preferences

Family size preferences are of prime importance in determining average family size in a country like the United States where family planning is such a widely accepted part of married life. For this reason, the respondents were questioned not only about the number of children they expected but also about their views on ideal family size and the number of children they actually wanted.

It is obvious that discrepancies occur between the number of children expected and the number preferred. This is not surprising because the decision making process is influenced by such factors as income, ability to care for children, fecundity impairments, unwillingness or inability to prevent unwanted conceptions and so on.

In this section, we present data on the number of children the respondents, both males and females, considered ideal for the average American family, and the number they wanted and expected. A comparison is made of expectations and preferences. Differences in family size ideals, desires and expectations that are associated with age and other demographic variables such as color, age at marriage, duration of marriage, and the number of births by the time of the interview are examined. Finally, socioeconomic differentials will be considered.

Measurement

The respondents were asked three questions regarding their preferred family size:

"What do you think is the ideal number of children for the average American family?"

"How many children would you like to have?"

"How many children do you expect to have altogether when you complete your childbearing?"

The respondents interviewed were asked to give a numerical reply to the questions. The questions on ideals and desires were designed to elicit more generalized attitudes toward family size, as contrasted with their personal expectations.

Ideal Family Size

For 8 out of 10 women the ideal number of children for the average American family ranged between 2 and 4 children, with four clearly being the most popular number (Table 3.9). Only 1 percent of the respondents stated an ideal of less than two children. At the other extreme, 17 percent said that the average American family should ideally include five or more children.

Averages are higher for nonwhites (3.8) than whites (2.8) because of the large proportion of nonwhite women expressing an ideal in excess of four children. Over 20 percent of Indian and black women stated an ideal of 5 or more children while only 3 percent of the white women responded in a similar manner. Nevertheless, the strong consensus on an ideal of two to four children was shared by white, black and Indian women. In interpreting the data on family size ideals, it should be remembered that although many of the wives were probably projecting their own personal values to some extent, they were answering questions posed in terms of a general ideal for the total population and not for themselves.

Desired Family Size

Possibly more realistic replies concerning attitudes toward family size were obtained when the women were asked about the total number of children they themselves actually wanted at the time of the interview. As a group, they said they wanted an average of 3.8 children. This figure is somewhat larger than the number the women said they considered ideal for the average American family. Exactly 70 percent of the women wanted a total from two to four children, with two being the most popular minimum and four the most popular maximum. Very few (4 percent) said they wanted a maximum of one child, and only 1 percent said they wanted no children at all. It is interesting to note that 25 percent indicated a preference for families that included at least five or more children.

Closer inspection of Table 3.10 reveals some rather striking differences between the color groups. The most popular minimum for all three groups is two children, but about 40 percent of the white women said they wanted two children whereas only 24 percent of the blacks and 28 percent of the Indians wanted the same number. Moreover, the average number desired by whites (3.1) is roughly one child less than the average number desired by blacks (4.1) and Indians (4.0). This is due to the larger proportion of black and Indian women desiring 5 or more children. Finally, the majority of these women want between two to four children but a larger proportion of white women (81 percent) fall within this range than either black (65 percent) or Indian (66 percent) women.

Expected Family Size

All women were also asked a question concerning the total number of children they actually expected to have when their childbearing was com-

pleted. This is a much more realistic indicator of size of completed family than either the number of children wanted or the ideal number.

By the time of the interview, the women had been married over a decade and had had 3.4 births on the average. Thus, a significant number of these women had a considerable amount of experience with childbearing and family planning. As a result, a realistic balance should exist between the number of children they would try to have and their ability to achieve such a goal. Of course, not all women will have the number of children expected. Some revisions in the expected number will occur, but the aggregate expectations are generally reliable as indicators of completed fertility.

The distribution of women by expected number of births in Table 3.11 indicates that a large majority -- 6 out of 10 -- thought they would have a total of two, three or four births. It is also interesting to note that 30 percent of the women expect to have 5 or more children. This figure is higher than that reported for either desired family size or ideal family size and may reflect an inability or unwillingness on the part of some women to prevent unwanted pregnancies.

When expectations for the racial subgroups are considered, similar patterns prevail. The majority in each group expects between two to four children and the proportions expecting 5 or more children increased. As with ideal and desired number of children, blacks and Indians expect more children than whites. The distribution of black and Indian women by expected number of births in Table 3.11 shows a much larger proportion expecting 5 or more, as well as a smaller proportion expecting fewer than two. Only 52 percent of the black women and 58 of the Indian women

thought they would have two to four births as compared with 68 percent of the white women. The higher percentage of nonwhite women (especially blacks) anticipating large families can apparently be attributed mainly to their more frequent failures to prevent unwanted conceptions.

Husband-Wife Preferences

As noted in an earlier chapter, the husbands of currently married females were interviewed. This permits a comparison of husband and wife fertility preferences. The questions on ideal, desired and expected family size were identical for both husbands and wives. The data presented in Tables 3.12 and 3.13 obviously exclude those women not currently married and subsequently reduces the sample size to 526 couples.

As shown in Table 3.12, the preferences of husbands, as a group, are about the same as the average number considered ideal, desired and expected by the wives. It appears that the closest correspondence between husbands and wives' preferences occurs for expected number of children. Roughly 14 percent of the wives expected fewer children than their husbands, and 14 percent definitely expected more (Table 3.13). In 72 percent of the cases, however, the wife expected the same number as the husband. As would be anticipated the greatest disagreement (lack of consensus) occurred in the case of ideal family size with desired family size occupying an intermediate position. A similar pattern obtains when racial subgroups are considered. However, it is also apparent that greater consensus exists among whites than among blacks and Indians regardless of the preference variables.

In summary, it appears that husbands and wives agree substantially about their family size preferences. Moreover, this apparent agreement be-

tween spouses is not likely the product of collusions, since husbands and wives were interviewed separately and simultaneously. In a few instances, the husband was interviewed at another time but this should not distort the comparison of degrees of consensus found among the subgroups.

Interrelations of Fertility Preferences

In Tables 3.9, 3.10 and 3.11 we present the distribution of women by fertility preferences. Note first that the means for all three are practically identical, but that the distributions differ considerably. Secondly, the similarity of the means for ideal, desired and expected parity conceals considerable variety in the patterning of each variable when considered separately for racial subgroups.

The average number of children the women consider ideal for the average American family is slightly smaller than the number they want or expect to have. About 8 out of 10 women considered two to four children to be ideal for the average American family, 7 out of 10 said they wanted to have a number within this range and 6 of 10 expected to have this many. Although the proportion of women actually expecting to have from two to four children is less than the proportion wanting a number within this range, the average most likely expected number is identical to the average number wanted.

Although the average preferences for each of the racial subgroups follows the above pattern, it is readily apparent that white women prefer smaller families than either black or Indian women. Moreover, when considering average number expected, the order from lowest to highest is white (3.1), Indian (3.9) and black (4.4). In the case of ideals and desires there is virtually no difference between Indians and blacks.

Table 3.14 presents the intercorrelations between live births, ideal and desired number of children and expectations. There is a strong relationship between expected and current parity. There is also a moderately strong relationship between ideal and desired parity, and between desired and expected parity. Although these indicators of fertility are correlated, the responses to "ideal," "desired" and "expected" number of children obviously reflect different meanings associated with family size goals.

Expected Family Size by Selected Demographic Variables

Expected family size varies significantly with age of women. As shown in Table 3.15, the average expected total number of births is lowest for the youngest and highest for the oldest. The difference between the average number of births expected by women who were 18 - 29 and those who were 40 and over (3.0 vs. 4.7) is nearly two children. The lower expectations of the younger women may reflect a shift toward small families in this rural county.

A similar pattern in the average expected family size by age is observable in all three color groups. However, some significant variation between these groups is evident. For example, white women 18 - 29 years of age expect to have 2.6 children on the average while blacks and Indians in the same age category expect to have 3.4 and 2.9 children respectively. Even more striking differences are found in the age category 40 and over. Blacks expect to have two children more and Indians one and a half more than whites.

The distribution of women by expected number of births in Table 3.15 shows that a majority of the women in the age categories 18 - 29 and 30 - 39 expected two, three and four births, with the proportion declining from 86 percent at ages 18 - 29 to 54 percent at ages 30 - 39. Slightly more than 50 percent of the women 40 years of age and over expect to have 5 or more children.

Whether such a large percentage of the younger women will actually have two to four births is questionable due to the fact that fecundity impairments may prevent their having as many children as they expected and others will have more than they expected because of family planning failures.

When considering racial subgroups, considerable variety in the distributions is evident. A majority of white women at all ages expect to have between two to four children while only 18 - 29 years old black and Indian women expect to have a number within this range. Exactly 60 percent of the Indian women 40 years of age and over expect to have 5 or more children whereas only 35 percent of the white women of comparable age expect to have that many children.

Table 3.16 shows that the average expected total number of births declines as the woman's age at first marriage rises. Women who married before they were 18 expected an average of 4.5 births, or about one-fourth more than the 3.4 expected by the 184 women who married after they were 21. This difference between the youngest and oldest age-at-marriage groups is not extreme since both groups expected moderately sized families.

Expected number of births varies by length of marriage considerably more than by age at marriage. As length of marriage increases, the average number of expected births increases (Table 3.17). This pattern holds for all racial subgroups. However, the range in the number expected between those married less than 6 years and those married 15 years and over varies considerably among the three racial groups -- 2.4 to 3.6 for whites, 3.2 to 5.3 for blacks and 2.9 to 5.4 for Indians respectively.

There appears to be a very strong direct relationship between the number of children born by 1972 and the number of children expected. As shown in Table 3.18, the average expected number of births increases from 2.2 for women with two or less births to 3.6 for those with three or four

births, and then rises to 6.5 for those with five or more. The high expectations of women with 5 or more births can be attributed to the fact that this group primarily represents couples that wanted large families or had been unwilling or unable to prevent unwanted births. A similar pattern is evident for each of the three racial groups but the range in variation is greater for blacks than it is for whites or Indians.

Ideal and Desired Family Size by Selected Demographic Variables

Two other principal measures of attitudes toward family size included in this study -- ideal and desired number of children -- tend to be higher for older women than younger women, regardless of race (Tables 3.19, 3.20). Averages for these measures tend to be lower than the average number of expected children. As shown in Tables 3.15, 3.16, 3.19 and 3.20, family-size ideals, desires, and expectations are related to duration of marriage and woman's age in virtually the same ways.

There appears to be little, if any, relation between the age at which women marry and the number of children they consider ideal or want to have themselves (Table 3.16). As noted earlier, however, there is an inverse relationship between woman's age at marriage and the number of children expected. Thus, women who marry at early ages are likely to expect more children than they want.

Among women with any number of births by 1972, there is a direct relation between the number of children they had already borne and the numbers they considered ideal and actually wanted to have (Table 3.18). However, for women with 2 or less births the average number of children expected is smaller than the average number of children wanted and the number wanted is smaller than the ideal number; the reverse relationship between expected, desired and ideal family size occurs

for those with 5 or more children. This pattern obtains for all racial subgroups.

Family Size Preferences and Socioeconomic Status

Differences in the number of children couples want and differences in their willingness and ability to control fertility are largely responsible for the variation in fertility of socioeconomic groups.

Other factors, such as differences in fecundity and age at marriage, are of much less importance.

The relationship between the number of expected births and socioeconomic status tends to be negative, with significantly larger families being anticipated by low status women (Table 3.21). Women in the lowest status category, on the average, expect to have 4.7 children while women in the highest status category expect 2.7 children. There is almost no difference in the number expected between the two lowest status groups. In fact, the average for these two groups are reversed from that expected.

Average expectations by racial subgroups follows a similar pattern. However, some interesting variations are evident. In virtually all comparisons of the three racial groups, white women, regardless of socioeconomic status, expect smaller families than either black or Indian women. For example, white women in the lowest status category expect to have 3.6 children whereas comparable black and Indian women expect to have 5.2 and 4.5 children respectively. It should also be noted that the number expected by black and Indian women varies considerably from one status category to another when comparing these two groups. However, the relationship between socioeconomic status and expected number of births tends to be negative for both but possibly more so for blacks. (A word of caution

should be made at this point. Some of the averages presented in the tables of this section are statistically unreliable due to the paucity of cases. Therefore, the interpretation of results must be viewed as tentative.)

The socioeconomic differences in attitudes toward ideal and desired family size generally follow about the same pattern as those in expected family size, but they tend to be smaller. The number of children the women considered ideal for the average American family and the number they actually wanted to have at the time of the interview all tend to be higher for women in the lowest status category than for those in the higher status categories (Table 3.22, 3.23). This same relationship also holds, for the most part, for each racial subgroup. However, it is interesting to note that there is virtually no difference in the number of children considered ideal among white women of different socioeconomic groups. Moreover, white women favor smaller families than either black or Indian women regardless of socioeconomic level.

Some of the observed socioeconomic differentials may be due, in part, to the fact that low status respondents already had substantially more children than those occupying a higher status at the time of the interview and were thus more likely to have exaggerated their responses to the question about family size ideals and desires in order to avoid admitting that any of their children were unwanted or that they had ever had a family planning failure.

A question may be raised as to whether the socioeconomic differentials in family-size preferences are due to variations in length of exposure to pregnancy. Tables 3.24, 3.25 and 3.26 present data on the relationship between socioeconomic status and the family size preference

variables controlling for years married. It is readily apparent that within socioeconomic categories as the number of years married increases the average ideal, desired and expected number of children rises. However, the data also show that within categories of years married, socioeconomic differentials in family size preferences still persist. For example, for women married 15 years and over, those in the highest status category expect to have 3.0 children whereas those in the lowest status group expect 6.0 children. It would seem reasonable to conclude that socioeconomic status influences family size preferences independent of years married.

Use and Effectiveness of Contraception and Family Planning

Attempts to use contraception are not invariably successful. The failure to control fertility is reflected in many couples having more children than wanted, having children sooner than wanted, or both. The threefold purpose of this section is to identify: (1) the proportion of respondents who attempt to control their fertility by using contraception, (2) how contraception is used to plan family growth, and (3) the methods and effectiveness of contraception.

Contraception, as used in this report, refers to any method used with the intention of preventing conception, with the exception of a sterilizing operation. The methods include all of the mechanical and chemical methods as well as abstinence, rhythm, and withdrawal.

Since attitudes are important to the understanding of behavior, a description of the respondents' attitudes toward the practice of family planning (the use of methods to delay or prevent pregnancy) will be presented. Next, consideration will be given to the proportion of respondents who have used contraception and the variation in prevalence of use by race. As will be shown, such variations result primarily from differences in timing of contraceptive use.

Attitude

The widespread practice of family planning in the United States is supported by attitudes sanctioning and encouraging such behavior. In this study a relatively high proportion of respondents (73.4 percent of the wives, 65.4 percent of the husbands, and 74.7 percent of the not currently married women) indicated that they approved of couples trying

to delay or prevent a pregnancy. Of the remaining respondents, however, more disapproved than were neutral to the use of birth control. Only a small minority (5.7 percent of the wives, 9.7 percent of the husbands, and 6.0 percent of the not currently married women) said they were neutral to the use of methods of contraception to limit family size and space births. It should also be noted that more wives appear to have favorable attitudes toward the practice of family planning than husbands.

Some significant racial variations in attitudes toward fertility control are evident in Tables 3.27, 3.28, and 3.29. Although the majority in each racial subgroup favor fertility control, it is apparent that more white respondents favor fertility control than either black or Indian respondents. In addition, for each of the three racial groups, more wives approve of the practice of family planning than husbands. Of particular significance is the fact that only 58 percent of Indian husbands, 65 percent of Indian wives, and 56 percent of not currently married Indian women have favorable attitudes toward fertility control. This is probably consistent with the general "identity crisis" of the Indians in the county in that many feel that there is strength in numbers and thus do not favor any form of fertility control.

The Proportion of R's Who Use Contraception

One of the striking findings of this survey is that a large majority of these respondents do not try to control the number of children they have by using some form of contraception. Only 44 percent of the women indicatd that they had ever used contraception by the time of the interview. Among white women 18 to 49 years old, 58 percent had used contraception by 1972, while only 43 percent of the black women and 36 percent of the Indian women had done so (Table 3.30).

As just seen, the proportion who have ever used contraception varies between racial groups. Some of this variation can be accounted for by different practices regarding timing of first use. As shown in Table 3.31, white women begin use earliest and Indian women latest with black women in an intermediate position. The widest differences in the timing of first use are for the proportion who began before the first pregnancy. Among these women, for example, the proportion who used contraception before the first pregnancy was 47 percent for whites, 30 percent for blacks, and 20 percent for Indians. There is a tendency for racial differences in the use of contraception to narrow somewhat as more children are born. However, the proportion of users among Indians and blacks never quite reaches the proportion attained by the whites. It is necessary to point out that the differences with respect to when use begins are due mainly to differences in the proportion who want children as soon as possible. Data not presented in this report indicate that roughly half of the women apparently did not use contraception because they wanted their children as soon as possible.

Methods and Effectiveness of Contraception

In this section brief consideration is given to the methods of contraception used by respondents and to the effectiveness of use. The distribution of methods used (Table 3.32) indicates that the condom, the most popular method, accounts for about two-fifths of all use. The pill is a close second and accounts for about two-fifths. The remaining nine categories each claim from 1 to 14 percent of total use. Most of the time a single method is used otherwise, two or more methods are combined or alternated.

If no attention is paid to use of multiple methods as such, but merely to the frequency with which each single method is reported, the following order from most popular to least popular among the five most frequently mentioned methods is obtained: condom, pill, withdrawal, rhythm, and douche.

It appears that the three racial groups exhibit somewhat different method preferences (Table 3.32). Relatively more whites than blacks and more blacks than Indians used the condom. In the case of the pill, relatively more whites than either blacks or Indians used this method, with virtually no difference between blacks and Indians. It will be recalled that fewer Indians have ever used contraception than either blacks or whites. This pattern is reflected in these data. With only two of the methods (rhythm and withdrawal) does the proportion of Indian users exceed the proportions of both whites and blacks. Another interesting finding is that relatively more blacks (15 percent) have used the IUD than whites (1 percent) or Indians (4 percent). This is apparently due to the fact that more blacks than whites or Indians attend the family planning clinic in the county. As will be shown later, the clinic prescribes the IUD almost exclusively. It is also evident that relatively more blacks than whites or Indians have used a greater variety of contraceptive methods, many of which are not reliable.

The protection which women receive from contraception can be measured absolutely by calculating numbers of pregnancies per time unit of contraceptive exposure. The measure of contraceptive effectiveness utilized in this report is the number of failures per 100 years of contraceptive exposure. The failure rate shown in Table 3.33 relates only to failures and

contraceptive exposure in the first 12 months of the interpregnancy intervals in order to minimize the bias that results from the fact that failure rates can be affected by the length of the intended interval. (For a more detailed discussion of this measure of contraceptive effectiveness, see: GAF, Princeton, and the National Fertility Studies.)

In the interval following marriage, these women exhibit a contraceptive failure rate of 38.2 pregnancies per 100 years of exposure. The failure rate for the second interval (first to second pregnancies) is 27.5. It is interesting to note that these failure rates are remarkably close to comparable rates reported in the 1960 GAF and Princeton Study, although they are slightly higher. Moreover, they also appear to be higher for all other interpregnancy intervals. When compared to the rates reported in the 1965 National Fertility Study, they are lower. The rates may differ from the national surveys because the present study is of a tri-racial group of people residing in a low-income, rural county, while the others were nationwide but limited to couples living in the largest metropolitan areas of the country.

Turning again to the data presented in Table 3.33, we note that the failure rates for whites are lower than the rates for Indians and blacks. This situation holds throughout all interpregnancy intervals. From marriage to first pregnancy, the failure rates for Indians, blacks, and whites are 68.5, 54.0, and 20.6 respectively. The failure rates for the fifth interval are 12.7 for whites, 25.3 for Indians, and 28.1 for blacks. It is important to note at this point that some of these rates are distorted due to the small numbers employed in the calculations. For this reason, these data must be viewed with caution and the interpretation of results viewed as tentative. Nevertheless, the general

pattern appears to be one of higher failure rates for blacks and Indians than for whites.

Family Planning

Most respondents, regardless of their race, feel that it is desirable to control fertility. Yet, the majority, at the time of interview, had not used contraception -- white women are an exception. The variations observed are, in part, due to the timing of first use of contraception and to the desire to have children as soon as possible after marriage. Of course, much greater variation is found in the way in which contraception is used to plan family size as will be shown below. There is a wide variety of family planning patterns ranging from those who plan each birth by stopping contraception in order to conceive to those who wait until they have too many children and then attempt to keep from having more. The following is a description of these patterns and their relationship to various demographic and socio-economic variables.

Completely Planned Fertility

Couples classified as having Completely Planned Fertility have used contraceptive measures continuously, omitting them only to have a child. These couples generally exert a great deal of care and deliberation in planning the number and timing of their births.

In our sample, only a minority of women (14.5 percent) are classified as having Completely Planned Fertility (Table 3.34). Most of these women had relatively few births by the time of the interview; the average was 1.8 (compared with 3.4 for all women). While 54 percent of all women had had 3 or more births, only 24 percent of the Completely Planned

group had reached this parity level. One might argue that these differences are due to variations in years married. However, duration of marriage accounts for these differences in only a minor degree since respondents with Completely Planned Fertility were married only a relatively shorter period of time than all women, 10.5 years and 13.3 years, respectively. It is apparent that much of the difference is due to different family planning practice and to the fact they want and expect fewer children than do other women (Table 3.35).

It is not necessary conceptually that women classified in the Completely Planned group want or expect smaller families. In fact, 44 percent of them expect to have 3 or more children. It is obvious that these women could plan each conception by stopping contraception and still have as many as, or more children than, other couples. However, they usually do not, as shown in Table 3.35. These women want and expect fewer children than other women. On the average, they expect 2.4 births, which is well below the 3.8 births expected by all women and below the expectations of women in the other pregnancy planning categories. It is also evident from other comparisons in Table 3.35, that they desire smaller families than other women.

As will be shown later in more detail, not all women who begin marriage with Completely Planned Fertility remain in this category throughout the childbearing years. The proportion who drop out increases with age and duration of marriage, due largely to the lengthening exposure to risk of unplanned pregnancies.

At this point, a few comments are in order concerning racial variations. As shown in Table 3.34, significantly more white women (28 percent) are classified as having Completely Planned Fertility than either black (8 percent) or Indian women (9 percent). It is also interesting to note that white and Indian women had relatively few births by 1972 but black women had significantly more -- the averages were 1.6 for whites, 1.5 for Indians, and 3.1 for blacks. Since whites had been married, on the average, two years more than had blacks, and Indians only three years less, length of marriage probably does not account for this variation in births. Even though these racial differences exist within the Completely Planned Fertility category, all three racial groups generally have lower fertility than their counterparts in the other planning categories. This difference may be due both to different planning practices as well as to shorter duration of marriage among the Completely Planned group (Table 3.35).

Partly Planned Fertility

The Partly Planned Fertility category includes women who did not begin using contraception at marriage because they wanted a pregnancy(s) as soon as possible, while others had reached the desired number and had begun contraception but did not have any accidental or unplanned pregnancies.

Nearly 30 percent of the women in this sample had Partly Planned Fertility. The data in Table 3.35 show that these women want more children than those with Completely Planned Fertility (an average of 4.3, rather than 2.8) and expect more births (4.0, rather than 2.8).

A similar pattern exists for each of the three racial groups but relatively more Indian women (34 percent) and black women (28 percent) had Partly Planned Fertility than white women (21 percent). Moreover, each of

these racial groups of women with Partly Planned Fertility want and expect to have more children than their counterparts with Completely Planned Fertility. Yet, some racial variation exists within the Partly Planned group. White women want and expect fewer births than black women with the Indian women intermediate between them. In the case of live births, whites and Indians had 3.5 births, on the average, while blacks had 4.7. A significant number of these women, and expecially black women, want large families and want them as soon as possible (Table 3.35).

Partly Unplanned Fertility

Women were classified as having Partly Unplanned Fertility if they had had at least one accidental or other unplanned conception, but still did not have more children than desired. That is, one or more of their pregnancies had occurred sooner than planned or while contraception was being used, but their desired family size had not been reached.

Women with Partly Unplanned Fertility represent the largest single planning group (37 percent)(Table 3.34). On the average, they wanted (3.4) and expected (3.4) to have less children than all women (3.8 for both desired and expected number) (Table 3.35). It is also interesting to note that their family size preferences are lower than those with Partly Planned Fertility and Excess Fertility but higher than those with Completely Planned Fertility. By 1972, these women had had 3.0 births. It is apparent that these women are careless in the use of contraceptives, but not to the point of having too many children. Many would be classified in the excess fertility category were it not for the fact they want many births (Table 3.35).

In general, the patterns discussed above with regard to births and fertility preferences for all women hold in the case of each racial subgroup.

Their preferences are either lower or nearly identical to those with Partly Planned Fertility. One striking feature of these data is the fact that black women with Partly Unplanned Fertility had had only 2.8 births at the time of interview. Apparently, their sporadic use of contraceptives has had the effect of keeping their fertility in line with their preferences. This also appears to be the case for white women but Indian women have already had more births than they prefer.

Excess Fertility

Three conditions must be met for women to be placed in this category: (1) no respondent really wanted another child at the time of the last conception; (2) the women had had two or more births; and (3) the last conception did not occur after stopping contraception in order to conceive.

About 20 percent of the women are classified as having Excess Fertility (Table 3.34). These women had 5.4 births, on the average, and expected 5.3 altogether. These averages exceed those for women in the other planning categories. Obviously, not all women classified as Excess Fertility have or expect to have unusually large numbers of births; 4 percent have two births, and 34 percent have three or four. In terms of expectations, 4 percent expect two births and 33 percent expect three or four. However, a majority has or expect to have five or more births. It is obvious that many of these women are unable to limit their fertility to the extent desired. Of course some of the observed differences are probably the result of differential exposure to the risk of pregnancy since women with Excess Fertility have been married longer and are older than women in the other planning categories (Table 3.35).

A comparison of the three racial subgroups reveals that relatively more black women (27 percent) had Excess Fertility than either white (18 percent) or Indian (16 percent) women. As in the case of all women, the average number of births to women in each racial subgroup with Excess Fertility exceeded the average for comparable women in the other planning categories. For the most part, fertility preferences followed the same pattern (Table 3.35).

One important finding is that the racial variation in live births and fertility preferences found within the other planning categories are absent in the Excess Fertility category. That is, each of the three racial groups have had and expect to have similar numbers of children.

Family Planning by Selected Demographic Variables

As noted earlier, women do not necessarily remain in the same fertility planning group through their married lives. The change tends to be from a higher level of success to a lower level as marriage progresses. These changes in planning status are illustrated indirectly in Tables 3.36, 3.37, 3.38, and 3.39 for length of marriage categories. Most of the women who have been married less than six years have Completely or Partly Planned Fertility. These proportions drop rapidly for those married six to fourteen years, and women with Partly Unplanned or Excess Fertility become more common. Among women married fifteen or more years, however, length of marriage appears to have a negligible effect on planning status. The distributions are nearly alike for those married 6-14 years as they are for those married 15 or more years.

A comparison of the three racial subgroups reveals essentially the same pattern as that observed for all women save a few exceptions. The majority of Indian and white women married less than 6 years have

Completely Planned or Partly Planned Fertility but this is not the case for black women. Only 42 percent of the black women have Completely Planned or Partly Planned Fertility while over 75 percent of the white women and 55 percent of the Indian women married a comparable period of time are so classified. It is also interesting to note that relatively more white women (65 percent) married 15 years or longer had Partly Unplanned or Excess Fertility than either Indian (59 percent) or black (52 percent) women married that long.

When women are classified by age the same tendencies appear as for length of marriage. The majority of women in the youngest age category (18-29) have Completely Planned or Partly Planned Fertility (Table 3.40). These proportions drop rapidly as age increases, with larger proportions of women classified as having Partly Unplanned and Excess Fertility. As shown in Tables 3.41, 3.42, and 3.43, variations in planning status for each racial group parrallel those found for duration of marriage. It is necessary to point out that these data may indicate a trend toward more successful family planning among the young, but it is more likely that the variations between age groups are due to longer exposure to the risk of unplanned conceptions.

When women are classified according to the various planning statuses, it is readily apparent that those in the Completely Planned category have smaller families than those with Excess Fertility (Table 3.44). In the former group over 75 percent of the women have less than three children, while in the latter group over 60 percent have 5 or more children. The gradation in number of live births according to planning categories is more apparent among the whites (Table 3.45) and the Indians (Table 3.46)

than among the blacks (Table 3.47). Among black women with Partly Unplanned Fertility the occasional use of contraception seems to have had the effect of limiting their births to a comparable extent of that found among black women with Completely Planned Fertility.

Examination of the ideal, desired and expected number of children for women in each planning category reveals a number of patterns. The ideal number of children for all for planning groups tend to cluster between one and four children, although more than a quarter of the women in the Partly Planned category see large families (5 or more children) as ideal (Table 3.48). The desired (Table 3.49) and expected number of children (Table 3.50) for the Completely Planned group are more or less consistent with the size family they considered ideal; these findings would seem to suggest that this group has the capacity to actualize their family size goals. Women in the Partly Planned and Partly Unplanned groups estimate their desired and expected family size to be somewhat higher than their view of the ideal size for the average American family. Actually the desires and expectations of the women in the middle two planning categories reflect fairly equal distributions among small, medium and large size families. The women in the Excess Planning category obviously deviate the most in their preferences and birth expectations from what they considered the ideal family size. Since a greater proportion of women in the Excess Fertility category expect larger families than they as a group desire, it is likely that they have been unable to bring their fertility under control.

Given the preceding relationship it is also important to note that when women are classified by the number of births at the time of the interview, the propensity to shift toward less successful family planning can be seen clearly. As shown in Table 3.51,[1] as the number of births increases, the proportion of women with Completely Planned Fertility decreases. The proportion with Completely Planned Fertility declines drastically from 52 percent for women with no births to 4 percent for women with 5 or more births. This same inverse pattern between the proportion of women with Completely Planned Fertility and number of births obtains for each racial subgroup (Tables 3.52, 3.53, and 3.54).

For all women, the proportion with Partly Planned Fertility also declines as the number of births rises. Because those with Partly Planned Fertility want more children than do those with Completely Planned Fertility, neither is the decline as regular nor is it as steep as it is for the proportion with Completely Planned Fertility. This general pattern can be observed for white as well as Indian women but not for black women. For black women, the relationship tends to be direct rather than inverse.

The proportion of women with Partly Unplanned Fertility declines from 51 percent for women with one or two births to 24 percent for women with 5 or more births. The same basic pattern can be observed for each of the racial categories.

Women with Excess Fertility increased sharply after the second birth. Among women with three or four births, over one-fourth have Excess Fertility. The proportion increases to 41 percent of those with five or more

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[1] Some of these distributions are based on a rather small number of cases. Therefore, the results should be viewed as tentative.

births. A comparison of racial categories indicates that Indian women generally have a lower prevalence of Excess Fertility than either black or white women.

The data in Tables 3.55 and 3.56 reveal that the tendency to move toward less successful planning as the number of births increases also extends to desired and expected number of children. In fact, the distributions are strikingly similar except for those who desire and expect no children; however, in the latter cases the distributions are based on relatively few cases. In general, the above pattern holds for each racial group.

Family Planning and Socioeconomic Status

In this section data are presented on how the different socioeconomic groups are distributed by planning status. Among the highest status women, 30 percent have Completely Planned Fertility; the proportion dwindles to 2 percent for the lowest status group. Also, roughly 50 percent of the highest status group had no unplanned pregnancies, as compared with 41 percent of the lowest status group. Another meaningful difference is in the proportion with Excess Fertility: 12 percent for the highest status group and 23 percent for the lowest status group (Table 3.57).

The extent to which whites differ from Indians and blacks in their family planning practices can be seen when the different socioeconomic groups are compared (Tables 3.58, 3.59, and 3.60). In those instances where the number of cases is sufficiently large for meaningful comparisons, white women have shown more success in family planning than either black or Indian women regardless of socioeconomic level. Their proportion with Completely Planned Fertility is higher, and their proportion with Excess Fertility is lower.

Table 3.1. Number of Live Births and Percent Distribution by Live Births, for Women by Race.

Racial Category	Number of Women	Average Number of Live Births	Percent Distribution by Live Births							
			None	1	2	3	4	5	6 or more	Total
Total	694	3.4	8	18	20	15	10	10	19	100
White	205	2.8	10	18	23	18	12	10	9	100
Black	201	4.1	6	16	17	13	10	8	30	100
Indian	288	3.4	8	19	21	14	8	10	20	100

Table 3.2. Percent Distribution by Pregnancy Wastage, for Women by Race.

Racial Category	Number of Women	Percent Distribution by Pregnancy Wastage						
		None	1	2	3	4	5 or more	Total
Total	688	80	14	3	2	0	1	100
White	205	74	19	2	4	0	1	100
Black	200	83	12	4	1	0	0	100
Indian	283	82	12	4	1	0	1	100

Table 3.3. Number of Live Births and Percent Distribution by Live Births, for Women, by Race and Age.

Race and Age	Number of Women	Average Number of Live Births	Percent Distribution by Live Births							
			None	1	2	3	4	5	6 or more	Total
Total										
18-29	266	2.1	12	29	27	18	7	2	5	100
30-39	192	3.9	4	10	21	17	13	13	22	100
40 +	218	4.8	6	10	12	8	11	17	36	100
White										
18-29	62	1.7	20	29	22	23	5	0	1	100
30-39	64	3.0	5	8	36	19	16	11	5	100
40 +	74	3.7	5	16	13	13	16	18	19	100
Black										
18-29	73	2.5	7	25	29	14	13	3	9	100
30-39	52	4.5	2	17	9	17	8	8	39	100
40 +	70	5.4	7	7	10	8	10	14	44	100
Indian										
18-29	131	2.0	11	31	28	18	5	2	5	100
30-39	76	4.2	4	8	16	15	14	19	24	100
40 +	72	5.3	7	8	12	4	8	17	44	100

Table 3.4. Number of Live Births for Women by Years Married and Race.*

Years Married	Total Women		White Women		Black Women		Indian Women	
	Number	Average Number of Live Births	Number	Average Number of Live Births	Number	Average Number of Live Births	Number	Average Number of Live Births
Less than 6	169	1.6	41	1.1	44	2.0	84	1.6
6 - 14	218	3.2	64	2.7	55	3.5	99	3.3
15 +	274	4.8	95	3.6	86	5.5	93	5.3

*Women never married have been excluded from this table.

Table 3.5. Number of Live Births for Women, by Age at First Marriage and Race.*

Age at First Marriage	Total Women		White Women		Black Women		Indian Women	
	Number	Average Number of Live Births	Number	Average Number of Live Births	Number	Average Number of Live Births	Number	Average Number of Live Births
Under 18	209	4.3	60	3.5	61	5.4	88	4.0
18 - 20	271	3.2	96	2.6	62	3.6	113	3.4
21 +	184	3.0	46	2.3	62	3.4	76	3.0

*Women never married have been excluded from this table.

Table 3.6. Per Cent Distribution by Type of Operation, for Total Sample by Race.

Type of Operation	All Couples		White Couples		Black Couples		Indian Couples	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No operation	474	68.2	132	64.4	157	77.7	185	64.2
Total operations	174	25.0	69	33.7	32	15.8	73	25.3
Removal of ovaries or hysterectomy	72	41.4	29	42.0	16	50.0	27	37.0
Tubal ligation	91	52.3	32	46.4	16	50.0	43	58.9
Vasectomy	11	6.3	8	11.6	0	0.0	3	4.1
Don't know, no information	47	6.8	4	1.9	13	6.5	30	10.5
Total	695	100.0	205	100.0	202	100.0	288	100.0

Table 3 7. Number of Live Births for Women, by Race and Socioeconomic Status.

Socioeconomic Status	Total Women		White Women		Black Women		Indian Women	
	Number of Women	Average Number of Live Births	Number of Women	Average Number of Live Births	Number of men	Average Number of Live Births	Number of Women	Average Number of Live Births
Low I	105	4.8	9	3.8	45	5.2	51	4.6
II	144	4.5	27	4.0	49	4.7	68	4.6
III	306	3.1	93	3.0	82	3.7	131	2.7
High IV	140	2.2	76	2.1	26	2.2	38	2.4

Table 3.8. Number of Live Births for Women, by Years Married and Socioeconomic Status.*

Socioeconomic Status	Years Married: Under 6 years		6 - 14 years		15 years and over	
	Number of Women	Average Number of Live Births	Number of Women	Average Number of Live Births	Number of Women	Average Number of Live Births
Low I	17	2.1	22	3.8	51	6.4
II	26	2.1	45	3.9	63	5.9
III	92	1.6	94	3.2	112	4.2
High IV	34	1.0	57	2.3	48	2.9

*Women never married have been excluded from this table.

Table 3.9. Number of Children Considered Ideal for the Average American Family and Per Cent Distribution by Number Considered Ideal, for Women, by Race.

Racial Category	Number of Women	Average Number of Children Considered Ideal	Per Cent Distribution by Number Considered Ideal: None	1	2	3	4	5	6+	Total
Total	685	3.5	0	1	29	17	36	7	10	100
White	201	2.8	1	2	46	22	26	1	2	100
Black	198	3.8	0	1	20	18	39	9	13	100
Indian	286	3.8	0	1	22	13	42	9	13	100

Table 3.10. Number of Children Desired and Per Cent Distribution by Number Wanted, for Women, by Race.

Racial Category	Number of Women	Average Number of Children Wanted at Interview	Per Cent Distribution by Number Wanted at Interview						
			None	1	2	3	4	5	6+	Total
Total	689	3.8	1	4	30	17	23	8	17	100
White	203	3.1	2	5	40	19	22	7	5	100
Black	202	4.1	2	4	24	18	23	6	23	100
Indian	284	4.0	0	3	28	15	23	11	20	100

Table 3.11. Number of Births Expected and Per Cent Distribution by Number Expected, for Women, by Race.

Racial Category	Number of Women	Average Number of Children Expected	Per Cent Distribution by Number Expected						
			None	1	2	3	4	5	6+	Total
Total	676	3.8	3	7	26	17	17	9	21	100
White	202	3.1	4	8	33	19	16	9	11	100
Black	195	4.4	2	7	17	20	15	8	31	100
Indian	279	3.9	3	6	26	13	19	11	22	100

Table 3.12. Number of Children Considered Ideal for the Average American Family, Desired, and Expected by Wife and by Husband, by Race.

Category	Total	Average Number of Children Ideal	Desired	Expected
Wives	526	3.5	3.7	3.8
White	144	2.7	2.9	3.0
Black	139	3.9	4.2	4.4
Indian	243	3.8	3.9	3.9
Husbands	526	3.4	3.9	3.8
White	144	2.8	3.2	3.0
Black	139	3.6	4.0	4.3
Indian	243	3.7	4.2	4.0

Table 3.13. Comparison of Husband and Wife Consensus on Ideal, Desired, and Expected Number of Children by Race.

Comparison	Total Percent	White Percent	Black Percent	Indian Percent
Wife Ideal:				
fewer	23.4	26.4	20.1	23.5
same	50.0	54.2	48.2	48.6
more	26.6	19.4	31.7	28.0
Total	100.0	100.0	100.0	100.0
Number of cases	526	144	139	243
Wife Wanted:				
fewer	20.3	11.8	20.1	21.4
same	61.2	69.4	56.8	58.8
more	18.4	18.8	23.0	19.8
Total	100.0	100.0	100.0	100.0
Number of cases	526	144	139	243
Wife Expected:				
fewer	14.3	9.0	15.8	16.5
same	72.2	81.9	66.9	69.5
more	13.5	9.0	17.3	14.0
Total	100.0	100.0	100.0	100.0
Number of cases	526	144	139	243

Table 3.14. Correlational Matrix (Product Moment) of Fertility Behavior Measures, for Women.

Fertility Behavior Measure	Ideal	Desired	Expected	Live Births
Ideal	--	.55	.38	.40
Desired	.55	--	.66	.65
Expected	.38	.66	--	.87
Live Births	.40	.65	.87	--

Table 3.15. Number of Births Expected and Per Cent Distribution by Number Expected, for Women by Age and Race

Racial and Age Categories	Number of Women	Average Number Expected	Percent Distribution by Number Expected							
			None	1	2	3	4	5	6+	Total
Total										
18-29	266	3.0	1	5	41	21	24	3	5	100
30-39	192	4.0	3	7	20	20	14	14	22	100
40+	218	4.7	6	10	12	10	11	13	38	100
White										
18-29	62	2.6	2	5	56	11	24	0	2	100
30-39	64	3.0	5	5	31	31	11	9	8	100
40+	74	3.6	5	14	16	16	14	16	19	100
Black										
18-29	73	3.4	0	1	29	30	25	4	11	100
30-39	52	4.3	2	14	14	19	8	10	33	100
40+	70	5.6	4	7	9	10	10	10	50	100
Indian										
18-29	131	2.9	1	8	40	20	24	3	4	100
30-39	76	4.5	1	4	16	10	20	21	28	100
40+	72	5.1	10	7	12	3	8	14	46	100

Table 3.16. Number of Children Considered Ideal for the Average American Family, Desired and Expected, for Women by Age at First Marriage and Race.

Race and Age at First Marriage	Number of Women	Average Number of Children		
		Ideal	Desired	Expected
Total				
under 18	209	3.8	4.4	4.5
18-20	271	3.4	3.5	3.6
21+	184	3.4	3.5	3.4
White				
under 18	60	2.8	3.4	3.6
18-20	96	2.9	3.0	3.0
21+	46	2.5	2.6	2.6
Black				
under 18	61	4.3	5.3	5.5
18-20	62	3.5	3.6	4.2
21+	62	3.6	3.7	3.7
Indian				
under 18	88	4.1	4.4	4.4
18-20	113	3.7	3.8	3.9
21+	76	3.7	3.9	3.5

Table 3.17. Number of Children Considered Ideal for the Average American Family, Desired and Expected, for Women by Years Married and Race.

Race and Years Married	Number of Women	Average Number of Children Ideal	Desired	Expected
Total				
less than 6 years	169	3.1	2.9	2.8
6-14	218	3.4	3.5	3.5
15 and over	274	3.8	4.6	4.7
White				
less than 6 years	41	2.6	2.6	2.4
6-14	64	2.6	2.8	2.8
15 and over	95	3.0	3.4	3.6
Black				
less than 6 years	44	3.2	3.0	3.2
6-14	55	3.7	3.7	4.0
15 and over	86	4.2	5.0	5.3
Indian				
less than 6 years	84	3.3	3.0	2.9
6-14	99	3.8	3.8	3.6
15 and over	93	4.3	5.3	5.4

Table 3.18. Number of Children Considered Ideal for the Average American Family, Desired and Expected for Women by Number of Births by 1972 and Race.

Race and Number of Births by 1972	Number of Women	Average Number of Children		
		Ideal	Desired	Expected
Total				
0-2	319	3.0	2.6	2.2
3-4	172	3.5	3.6	3.6
5+	204	4.3	5.6	6.5
White				
0-2	103	2.5	2.3	1.9
3-4	62	3.0	3.3	3.4
5+	40	3.3	4.6	5.9
Black				
0-2	79	3.2	2.7	2.4
3-4	47	3.8	3.6	3.6
5+	76	4.4	5.9	7.0
Indian				
0-2	137	3.3	2.9	2.4
3-4	63	3.8	3.9	3.9
5+	88	4.6	5.9	6.5

Table 3.19. Number of Children Considered Ideal for the Average American Family and Per Cent Distribution by Number Considered Ideal for Women, by Age and Race.

Racial and Age Categories	Number of Women	Average Number of Children Considered Ideal	Per Cent Distribution by Number Considered Ideal							
			None	1	2	3	4	5	6+	Total
Total										
18-29	266	3.2	0	2	37	19	34	4	4	100
30-39	192	3.6	1	1	30	17	28	8	15	100
40+	218	3.9	0	1	18	14	46	9	12	100
White										
18-29	62	2.6	0	3	55	21	21	0	0	100
30-39	64	2.5	3	0	58	23	14	0	2	100
40+	74	3.3	0	1	28	23	40	3	5	100
Black										
18-29	73	3.4	0	1	26	24	39	5	5	100
30-39	52	4.0	0	2	19	14	33	14	18	100
40+	70	4.1	0	0	15	14	43	10	18	100
Indian										
18-29	131	3.3	0	1	34	16	38	6	5	100
30-39	76	4.2	0	1	14	14	37	12	22	100
40+	72	4.3	0	0	11	7	53	13	16	100

Table 3.20. Number of Children Desired and Per Cent Distribution by Number Wanted for Women, by Age and Race.

Racial and Age Cate-gories	Number of Women	Average Number of Children Wanted at Interview	Per Cent Distribution by Number Wanted at Interview							
			None	1	2	3	4	5	6+	Total
Total										
18-29	266	3.0	1	2	43	20	26	2	6	100
30-39	192	3.8	2	5	24	20	18	13	18	100
40+	218	4.6	1	4	20	11	22	12	30	100
White										
18-29	62	2.6	0	2	63	9	26	0	0	100
30-39	64	2.9	3	3	41	30	14	6	3	100
40+	74	3.6	1	10	20	18	24	14	13	100
Black										
18-29	73	3.2	1	1	34	25	28	3	8	100
30-39	52	4.1	2	9	17	15	19	11	27	100
40+	70	5.1	1	1	18	14	22	6	38	100
Indian										
18-29	131	3.1	1	3	39	22	26	3	6	100
30-39	76	4.4	0	4	15	15	20	19	27	100
40+	72	5.1	0	1	21	1	21	18	38	100

Table 3.21. Number of Births Expected for Women, by Race and Socioeconomic Status

Socio-economic Status	Total Number of Women	Total Average Number Expected	White Number of Women	White Average Number Expected	Black Number of Women	Black Average Number Expected	Indian Number of Women	Indian Average Number Expected
Low I	105	4.7	9	3.6	45	5.2	51	4.5
II	144	4.9	27	4.2	49	5.0	68	5.2
III	306	3.5	93	3.3	82	4.1	131	3.3
High IV	140	2.7	76	2.5	26	2.9	38	3.1

Table 3.22. Number of Children Considered Ideal for the Average American Family for Women, by Race and Socioeconomic Status

Socio-economic Status	Total Number of Women	Total Average Number of Children Considered Ideal	White Number of Women	White Average Number of Children Considered Ideal	Black Number of Women	Black Average Number of Children Considered Ideal	Indian Number of Women	Indian Average Number of Children Considered Ideal
Low I	105	4.0	9	2.9	45	3.9	51	4.2
II	144	3.9	27	2.9	49	4.1	68	4.1
III	306	3.4	93	2.9	82	3.7	131	3.7
High IV	140	2.9	76	2.6	26	3.4	38	3.1

Table 3.23. Number of Children Desired For Women, by Race and Socioeconomic Status

Socioeconomic Status	Total		White		Black		Indian	
	Number of Women	Average Number of Children Wanted	Number of Women	Average Number of Children Wanted	Number of Women	Average Number of Children Wanted	Number of Women	Average Number of Children Wanted
Low I	105	4.6	9	2.6	45	4.8	51	4.9
II	144	4.4	27	3.5	49	4.8	68	4.5
III	306	3.5	93	3.3	82	3.7	131	3.5
High IV	140	2.9	76	2.6	26	3.0	38	3.4

Table 3.24. Number of Children Considered Ideal For the Average American Family For Women, by Years Married and Socioeconomic Status

Socioeconomic Status	Years Married					
	Under 6 Years		6-14 Years		15 Years and Over	
	Number of Women	Average Number of Children Considered Ideal	Number of Women	Average Number of Children Considered Ideal	Number of Women	Average Number of Children Considered Ideal
Low I	17	3.2	22	4.0	51	4.4
II	26	3.5	45	3.9	63	4.0
III	92	3.1	94	3.4	112	3.7
High IV	34	2.7	57	2.9	48	3.1

Table 3.25. Number of Children Desired For Women, by Years Married and Socioeconomic Status

Socio-economic Status	Years Married: Under 6 Years Number of Women	Under 6 Years Average Number of Children Wanted	6-14 Years Number of Women	6-14 Years Average Number of Children Wanted	15 Years and over Number of Women	15 Years and over Average Number of Children Wanted
Low I	17	3.1	22	4.3	51	5.7
II	26	3.0	45	4.1	63	5.1
III	92	2.9	94	3.4	112	4.2
High IV	34	2.6	57	2.8	48	3.4

Table 3.26. Number of Births Expected For Women, by Years Married and Socioeconomic Status

Socio-economic Status	Years Married: Under 6 Years Number of Women	Under 6 Years Average Number Expected	6-14 Years Number of Women	6-14 Years Average Number Expected	15 Years and over Number of Women	15 Years and over Average Number Expected
Low I	17	2.9	22	4.2	51	6.0
II	26	3.2	45	4.3	63	6.1
III	92	2.9	94	3.4	112	4.2
High IV	34	2.5	57	2.7	48	3.0

Table 3.27. Husband's Attitude Toward the Practice of Family Planning by Race.

Race	Number of Husbands	Total	Attitude Toward the Practice of Family Planning			
			Approve	Disapproves, Qualified*	Disapprove	Neutral
Total	526	100	65.4	13.5	11.4	9.7
White	144	100	73.6	10.4	4.2	11.8
Black	139	100	70.5	7.2	12.9	9.4
Indian	243	100	57.6	18.9	14.8	8.6

*Disapprove unless: parent cannot take care of more children, health of wife is in danger, financial conditions do not permit a larger family, religion permits, contraceptive method is satisfactory, to space children, to keep from having too many children.

Table 3.28. Wife's Attitude Toward the Practice of Family Planning by Race.

Race	Number of Wives	Total	Attitude Toward the Practice of Family Planning			
			Approve	Disapproves, Qualified*	Disapprove	Neutral
Total	526	100	73.4	5.3	15.6	5.7
White	144	100	86.8	4.2	1.4	7.6
Black	139	100	73.4	3.6	15.8	7.2
Indian	243	100	65.4	7.0	23.9	3.7

*Disapprove unless: parent cannot take care of more children, health of wife is in danger, financial conditions do not permit a larger family, religion permits, contraceptive method is satisfactory, to space children, to keep from having too many children.

Table 3.29. The Attitudes of Women Not Currently Married Toward the Practice of Family Planning by Race.

Race	Women	Total	Attitude Toward the Practice of Family Planning			
			Approve	Disapprove, Qualified*	Disapprove	Neutral
Total	166	100	74.7	5.4	13.9	6.0
White	61	100	93.4	3.3	1.6	1.6
Black	62	100	69.4	6.5	11.3	12.9
Indian	43	100	55.8	7.0	34.9	2.3

*Disapprove unless: parent cannot take care of more children, health of wife is in danger, financial conditions do not permit a larger family, religion permits, contraceptive method is satisfactory to space children, to keep from having too many children.

Table 3.30. Percentage of Respondents Who Have Used or Never Used Contraception by Race.

Race	Number Women	Have Used	Never Used
Total	695	44.5	55.5
White	205	58.0	42.0
Black	202	42.6	57.4
Indian	288	36.1	63.9

Table 3.31. Cumulative Percentage of Respondents Who Used Contraception before Specified Pregnancy, by Race.

Race	Number of Women	Percent of Users	When Contraception Was First Used: Before First Pregnancy	2nd	3rd	4th	5th	6+
Total	695	44	31	39	41	42	43	44
White	205	58	47	54	56	56	57	58
Black	202	43	30	37	39	41	41	43
Indian	288	36	20	29	32	34	35	36

Table 3.32. Percentage of Users Who Have Used Specified Method of Contraception, for All Women by Color.

Method	Total	White	Black	Indian
Number of Users	309	119	86	104
Percentage Reporting				
Condom	42.4	52.9	41.9	30.8
Pill	39.2	46.2	34.9	34.6
Withdrawal	13.6	10.1	15.1	16.4
Rhythm	12.6	9.2	8.1	20.2
Douche	12.6	8.4	22.1	9.6
Jelly	8.4	7.6	14.0	4.8
Diaphragm	6.5	13.4	2.3	1.9
Foam	5.8	3.4	14.0	1.9
IUD	5.8	.8	15.1	3.9
Suppository	3.2	2.5	7.0	1.0
Sponge, Tampon	.7	0.0	2.3	0.0
Total*	150.8	154.5	176.8	125.1

*The total exceeds 100 because many couples used two or more methods.

Table 3.33. Number of Contraceptive Failures Per 100 Years of Contraceptive Exposure During the First 12 Months of the Specified Interpregnancy Interval, For Couples Using Contraception During the Specified Interval, by Interval of Use.

Interpregnancy Interval	Total	White	Black	Indian
1st - 5th	26.2	17.9	32.6	31.2
1st	38.2	20.6	54.0	68.5
2nd	27.5	17.0	37.0	32.9
3rd	22.2	18.0	20.6	29.0
4th	24.2	19.6	40.8	17.3
5th	21.8	12.7	28.1	25.3

Table 3.34. Percentage of Women by Pregnancy Planning Status, by Race.

Race	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	682	100	14.5	28.6	37.0	19.9
White	201	100	27.9	20.9	33.3	17.9
Black	199	100	8.5	28.1	36.2	27.1
Indian	282	100	9.2	34.4	40.1	16.3

Table 3.35. Distribution of Means of Live Births, Desired and Expected Family Size, Age, Age at Marriage, Years Married, for all Women, by Pregnancy Planning Status and Race.

Variable	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
All Women (Number)	99	195	252	136
Mean Live Births	1.8	3.6	3.0	5.4
Mean Years Married	10.5	13.5	12.4	16.2
Mean Age	29.4	34.1	32.4	37.0
Mean Age at First Marriage	20.3	19.1	19.1	19.0
Mean Desired	2.8	4.3	3.4	4.2
Mean Expected	2.8	4.0	3.4	5.3
White Women (Number)	56	42	67	36
Mean Live Births	1.6	3.5	3.0	5.2
Mean Years Married	12.3	13.0	15.3	17.7
Mean Age	30.6	35.7	36.1	37.9
Mean Age at First Marriage	19.6	19.7	18.8	18.1
Mean Desired	2.5	3.0	3.1	4.1
Mean Expected	2.4	2.8	3.0	5.2
Black Women (Number)	17	56	72	54
Mean Live Births	3.1	4.7	2.8	5.6
Mean Years Married	10.0	16.2	11.0	15.4
Mean Age	29.9	36.6	31.0	36.9
Mean Age at First Marriage	20.3	19.3	19.5	19.5
Mean Desired	4.0	5.0	3.4	4.3
Mean Expected	4.1	4.9	3.4	5.4
Indian Women (Number)	26	97	113	46
Mean Live Births	1.5	3.5	4.1	5.2
Mean Years Married	7.1	12.1	11.5	15.8
Mean Age	26.5	32.0	31.2	36.4
Mean Age at First Marriage	21.9	18.8	19.1	19.2
Mean Desired	2.8	3.4	3.6	4.3
Mean Expected	3.0	4.1	3.6	5.3

Table 3.36. Percentage of Women by Pregnancy Planning Status, by Years Married.

Years Married	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	649	100	14.9	29.1	36.8	19.1
Less than 6 Years	166	100	27.1	30.1	37.3	5.4
6 - 14	216	100	12.0	25.9	40.3	21.8
15 and Over	267	100	9.7	31.1	33.7	25.5

Table 3.37. Percentage of White Women by Pregnancy Planning Status, by Years Married.

Years Married	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	196	100	28.1	20.4	33.7	17.9
Less than 6 Years	40	100	55.0	22.5	22.5	0.0
6 - 14	63	100	25.4	25.4	30.2	19.0
15 and Over	93	100	18.3	16.1	40.9	24.7

Table 3.38. Percentage of Black Women by Pregnancy Planning Status, by Years Married.

Years Married	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	182	100	8.8	30.8	35.7	24.7
Less than 6 Years	43	100	16.3	25.6	48.8	9.3
6 - 14	55	100	7.3	18.2	43.6	30.9
15 and Over	84	100	6.0	41.7	23.8	28.6

Table 3.39. Percentage of Indian Women by Pregnancy Planning Status, by Years Married.

Years Married	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	271	100	9.6	34.3	39.9	16.2
Less than 6 Years	83	100	19.3	36.1	38.6	6.0
6 - 14	98	100	6.1	30.6	44.9	18.4
15 and Over	90	100	4.4	36.7	35.6	23.3

Table 3.40. Percentage of Women by Pregnancy Planning Status, by Age.

Age	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	682	100	14.5	28.6	37.0	19.9
18 - 29	271	100	21.8	25.8	41.0	11.4
30 - 39	196	100	11.7	29.6	36.7	21.9
40+	215	100	7.9	31.2	32.1	28.8

Table 3.41. Percentage of White Women by Pregnancy Planning Status, by Age.

Age	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	201	100	27.9	20.9	33.3	17.9
18 - 29	64	100	45.3	20.3	25.0	9.4
30 - 39	64	100	25.0	20.3	35.9	18.8
40+	73	100	15.1	21.9	38.4	24.7

Table 3.42. Percentage of Black Women by Pregnancy Planning Status, by Age.

Age	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	199	100	8.5	28.1	36.2	27.1
18 - 29	75	100	13.3	21.3	49.3	16.0
30 - 39	53	100	7.5	24.5	35.8	32.1
40+	71	100	4.2	38.0	22.5	35.2

Table 3.43. Percentage of Indian Women by Pregnancy Planning Status, by Age.

Age	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	282	100	9.2	34.4	40.	16.3
18 - 29	132	100	15.2	31.1	43.9	9.8
30 - 39	79	100	3.8	40.5	38.0	17.7
40+	71	100	4.2	33.8	35.2	26.8

Table 3.44. Percentage of All Women by Number of Births and Pregn Planning Status

Number of Births	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	44	23.2	9.3	1.2	0.0
1 - 2	264	52 5	37.3	52.8	4.4
3 - 4	172	17.2	21.3	26.6	34.1
5 or More	201	7.1	32.1	19.4	61.5
Total	681	100.0	100.0	100.0	100.0

Table 3.45. Percentage of White Women by Number of Births and Pregnancy Planning Status

Number of Births	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	16	19.7	11.9	0.0	0.0
1 - 2	83	57 1	45.2	47.8	0.0
3 - 4	62	21.4	26.2	37.3	38.9
5 or More	40	1 8	16.7	14.9	61.1
Total	201	100.0	100.0	100 0	100.0

Table 3.46. Percentage of Indian Women by Number of Births and Pregnancy Planning Status

Number of Births	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	19	23.1	11.3	1.8	[illegible]
1 - 2	114	61.5	38.1	50.0	8.9
3 - 4	63	11.5	18.6	26.3	26.7
5 or More	86	3.9	32.0	21.9	64.4
Total	282	100.0	100.0	100.0	100.0

Table 3.47. Percentage of Black Women by Number of Births and Pregnancy Planning Status

Number of Births	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	9	35.3	3.6	1.4	0.0
1 - 2	67	23.5	29.1	62.5	3.7
3 - 4	47	11.8	23.6	16.7	37.0
5 or More	75	29.4	43.7	19.4	59.3
Total	198	100.0	100.0	100.0	100.0

Table 3.48. Percentage of All Women by Number of Children Considered Ideal for the Average American Family by Pregnancy Planning Status

Number Considered Ideal	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	2	1.0	0.0	0.4	0.0
1 - 2	200	46.4	24.9	32.1	20.3
3 - 4	360	49.5	49.2	53.8	62.4
5 or More	110	3.1	25.9	13.7	17.3
Total	672	100.0	100.0	100.0	100.0

Table 3.49. Percentage of All Women by Number of Children Desired and Pregnancy Planning Status

Number of Children Desired	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	7	1.0	1.0	1.6	0.0
1 - 2	227	53.1	29.5	38.8	14.5
3 - 4	272	38.8	36.8	40.4	45.8
5 or More	171	7.1	32.7	19.2	39.7
Total	677	100.0	100.0	100.0	100.0

Table 3.50. Percentage of All Women by Number of Births Expected and Pregnancy Planning Status

Number of Births Expected	Number of Women	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	14	2.1	4.8	1.2	0.0
1 - 2	219	53.7	31.2	41.9	4.5
3 - 4	228	36.8	30.7	36.6	33.6
5 or More	203	7.4	33.3	20.3	61.9
Total	664	100.0	100.0	100.0	100.0

Table 3.51. Percentage of All Women by Pregnancy Planning Status and Number of Live Births

Number of Births	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	44	100	52.3	40.9	6.8	0.0
1 - 2	264	100	19.7	27.3	50.8	2.3
3 - 4	172	100	9.9	24.0	39.0	26.7
5 or More	201	100	3.5	30.8	24.4	41.3
Total	681	100	14.5	28.5	37.0	20.0

Table 3.52. Percentage of White Women by Pregnancy Planning Status and Number of Live Births.

Number of Births	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	201	100	27.9	20.9	33.3	17.9
None	16	100	68.8	31.3	0.0	0.0
1 - 2	83	100	38.6	22.9	38.6	0.0
3 - 4	62	100	19.4	17.7	40.3	22.6
5 or More	40	100	2.5	17.5	25.0	55.0

Table 3.53. Percentage of Indian Women by Pregnancy Planning Status and Number of Live Births.

Number of Births	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	282	100	9.2	34.4	40.1	16.3
None	19	100	31.6	57.9	10.6	0.0
1 - 2	114	100	14.0	32.5	50.0	3.5
3 - 4	63	100	4.8	28.6	47.6	19.0
5 or More	86	100	1.2	36.0	29.1	33.7

Table 3.54. Percentage of Black Women by Pregnancy Planning Status and Number of Live Births.

Number of Births	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	199	100	8.6	27.8	36.4	27.1
None	9	100	66.7	22.2	11.1	0.0
1 - 2	67	100	6.0	23.9	67.2	3.0
3 - 4	47	100	4.3	27.7	25.5	42.6
5 or More	75	100	6.7	32.0	18.7	42.7

Table 3.55. Percentage of All Women by Pregnancy Planning Status and Number of Children Desired.

Number of Children Desired	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Total	677	100	14.5	28.5	37.1	19.9
None	7	100	14.3	28.6	57.1	0.0
1 - 2	227	100	22.9	25.1	43.6	8.4
3 - 4	272	100	14.0	26.1	37.9	22.1
5 or More	171	100	4.1	36.8	28.7	30.4

Table 3.56. Percentage of All Women by Pregnancy Planning Status and Number of Births Expected

Number of Births Expected	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
None	14	100	14.3	64.3	21.4	0.0
1 - 2	219	100	23.3	26.9	47.0	2.7
3 - 4	228	100	15.4	25.4	39.5	19.7
5 or More	203	100	3.4	31.0	24.6	40.9
Total	644	100	14.3	28.5	36.9	20.3

Table 3.57. Percentage of All Women by Pregnancy Planning Status and Socioeconomic Status

Socio-economic Status	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Low I	102	100	2.0	39.2	36.3	22.5
II	140	100	6.4	32.9	35.7	25.0
III	301	100	15.6	26.9	36.9	20.6
High IV	139	100	29.5	20.1	38.8	11.5
Total	682	100	14.5	28.6	37.0	19.9

Table 3.58. Percentage of White Women by Pregnancy Planning Status and Socioeconomic Status

Socio-economic Status	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Low I	8	100	0.0	25.0	25.0	50.0
II	25	100	8.0	28.0	48.0	16.0
III	93	100	24.7	20.4	33.3	21.5
High IV	75	100	41.3	18.7	29.3	10.7
Total	201	100	27.9	20.9	33.3	17.9

Table 3.59. Percentage of Black Women by Pregnancy Planning Status and Socioeconomic Status

Socio-economic Status	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Low I	43	100	0.0	37.2	32.6	30.2
II	49	100	8.2	38.8	34.7	18.4
III	81	100	11.1	17.3	37.0	34.6
High IV	26	100	15.4	26.9	42.3	15.4
Total	199	100	8.5	28.1	36.2	27.1

Table 3.60. Percentage of Indian Women by Pregnancy Planning Status and Socioeconomic Status

Socio-economic Status	Number of Women	Total	Completely Planned	Partly Planned	Partly Unplanned	Excess Fertility
Low I	51	100	3.9	43.1	41.2	11.8
II	66	100	4.5	30.3	31.8	33.3
III	127	100	11.8	37.0	39.4	11.0
High IV	38	100	15.8	18.4	55.3	10.5
Total	282	100	9.2	34.4	40.1	16.3

ANALYTICAL FRAMEWORK

As previously indicated in this study, fertility is seen as the consequence of a series of actions taken within the framework of a set of attitudes and values. These attitudes and values vary widely but organize into gestalt-like configurations which reflect different life styles. These organizations of life styles are reflected in the categorical variables of race and socioeconomic status. They are examined as they occur in a basically rural context.

Race

Patterns of behavior reflect different groups' adjustment to their social environment. The term race, in this instance, reflects a set of social definitions about people with relatively identifiable characteristics or a strong identification with a specific socio-cultural history. As such, its use is as a broad categorizing variable reflecting different patterns of socialization and often adjustment to different sets of life's experiences. Race sets the context within which other factors operate when it is a social reality.

Socioeconomic Status

From the sociological point of view, socioeconomic status has long been one of the most important factors in distinguishing differential social behaviors. Position in the status structure has been documented as pervasively influencing such aspects of social existence as values, perceptions, attitudes, life chances and actual behavior. The life styles associated with varying positions in the status structure are dissimilar generating different sets of experiences. Thus, socioeconomic status is a particularly important general aspect of concern in the relationships under examination.

The life styles reflected by the contextual variables of race and SES involve differences in values, attitudes, and behaviors. These three are assumed to affect fertility, although to a different extent.

Values

It is assumed that behaviors are generally guided by values -- both values which are general and pervasive enough to be responsible for orienting the individual to approach his life in a relatively consistent fashion -- and values which operate in a specific behavioral context and define the outcomes of the exchange between two or more persons.

Attitudes

Attitudes are here considered to be specific ideas about social reality which arise within the context of the system of values a person adopts for his own. They are much like values but are more concrete and situation specific.

Behaviors

People act. These acts have consequences either in the sense that they produce a product or a response from other people or some outcome of a series of events, etc. The outcomes of behaviors may be intended or unintended, desired or its opposite. Fertility related behavior such as contraceptive usage, planning behavior, etc. are behaviors having direct and immediate effects on live births.

From the preceding discussion, it may be concluded that this research was guided by the hypothesis that fertility is the result of behavior which operates in an attitudinal, valuational, socio-cultural context. It is assumed that each of these factors has a different valence in its relationship to fertility. The following diagram represents the hypothesized relationships.

Degree of Specificity of Effect of Variables on Family Size

Contextual Variables	Diffuse Effect	Specific Effect
S. E. S.	Value Orientations	
Race	Family Structure Ideal Marriage Role Priorities	
	Value of Children	
	Ideal Number of Children	
	Desired Number of Children	
	Expected Number of Children	
	Unplanned Pregnancies	
		Live Births

Data Results

Data presented in Table 4.1 support the preceding analytical framework. The relationship of each independent variable with the dependent variable of live births increases generally as the degree of specificity increases. The major exception is the relationship between value orientations and live births. It appears that the effects of an individual's value orientations, while diffuse and general, still are important in accounting for considerable variation in the live births of a family.

While the magnitude of the coefficients fit the expected pattern, the significance and direction of the bivariate relationships vary. For example, the relationship between role priorities and live births was not significant for all women. Value orientations and family structure were inversely related to the number of live births, i. e., modernistic value orientations and joint role performance, were related to small family size. Attitudes concerning the value of children, ideal marriage attitudes, general fertility preferences (ideal, desired, and expected number of children), and unplanned pregnancies were directly related to the number of live births.

Results by Color Groups

The above patterns were similar for each color group but with several exceptions. For white women (Table 4.2), a patriarchal orientation toward marriage was not related to live births. For both black and Indian women (Table 4.3 and Table 4.4), family structure was not related to the number of live births.

As previously described, live births differed by color groups with white families having the lowest mean births of 2.8, followed by Indian families with a mean of 3.4, and black families with a mean of 4.1. The relationship between socioeconomic status and live births was inverse for each color group. In fact, the degree of the relationship is quite similar for each group (white -.28, black -.31, and Indian -.29).

Results by SES Categories

When socioeconomic status is introduced as a control variable, several important deviations from the analytical framework are noted. For the lowest SES group of women (Table 4.5), only ideal marriage attitudes, fertility preferences, and unplanned pregnancies are related to live births. For the intermediate status groups (Table 4.6 and Table 4.7) all variables were related to live births except family structure and role priorities. In the case of the highest status women (Table 4.8), only the fertility preference variables and unplanned pregnancies were related to live births. The importance of the diffuse variables is more pronounced for the intermediate status groups than for either the upper or lower status groups.

Results by SES and Color

The joint control of color and SES leads to further d ations from the general analytical framework. For white women in the lowest SES category (Table 4.9), only expected number of children and unplanned pregnancies are related to live births. The preference variables and unplanned pregnancies are statistically significant for the remaining

SES groups of white women (Tables 4.10, 4.11, and Table 4.12). For the third status group (Table 4.11), value of children and family structure are also related.

The preference variables and unplanned pregnancies are statistically related to live births for all SES groups of black women (Tables 4.13, 4.14, 4.15, and 4.16). However, the more diffuse variables are related to the number of live births in different patterns. For the second status group (Table 4.14), value orientations and ideal marriage are related to live births in addition to the variables described above. For the third status groups (Table 4.15), value of children attitudes and role priorities are related to live births. For the highest status groups of black women (Table 4.16), value orientations were highly correlated with the number of live births. In fact, this relationship between value orientations and live births is the strongest for any group.

For all status groups of Indian women (Tables 4.17, 4.18, 4.19, and 4.20), fertility preference variables and unplanned pregnancies are related to live births. For the lowest status group (Table 4.17), ideal marriage attitudes are also statistically related to live births. For the second status group (Table 4.18), attitudes concerning the value of children and role priorities are related to the dependent variable. For the third status group of Indian women (Table 4.19), all variables except family structure and role priorities are related to live births. For the highest status group (Table 4 20), none of the diffuse variables were related to the number of live births.

All of the specific fertility behavior variables (ideal-desired-expected number of children, and unplanned pregnancies) were statistically related to the number of live births. While the contextual variables of SES and color were important in accounting for the variation in live births, the diffuse variables (value orientations, value of children, ideal marriage, family structure, and role priorities) were not.

A multiple-partial correlation analysis was conducted to ascertain if any of the independent variables singly or in combination greatly affected the relationship between SES and live births. The following test variables were included: value orientation, value of children, ideal marriage, family structure, and role priorities. The original relationship persisted from the first to the fifth order of correlational analysis.

Thus, based on the correlational analyses, it is apparent that none of the diffuse variables are consistently related to live births among all socio-cultural groups. The strength and pattern of relationships between the diffuse variables and fertility varies so greatly within groups, that we are forced to conclude that socioeconomic status and racial category membership were the only two variables which had any consistent degree of explanatory power.

Nevertheless, the diffuse-specific continuum idea does appear relevant for the understanding of differential fertility. Additional specificatory variables would appear necessary in order to add to the predictability of this approach.

Table 4.1 Interrelationship of Major Variables, All Women

	Live Births	SES	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	# Unplanned Pregnancies
Live Births	1.00	-.32	-.26	-.08	.18	-.02*	.23	.40	.65	.87	.84
SES		1.00	.37	.12	-.14	.07	-.32	-.27	-.28	-.30	-.29
Value Orientations				.15	-.22	.17	-.37	-.24	-.22	-.26	-.27
Family Structure				1.00	-.04*	.01*	-.09	-.09	-.08	-.04*	-.10
Ideal Marriage					1.00	.04*	.20	.21	.19	.20	.13
Role Priorities						1.00	.00*	.00*	-.02*	-.03*	-.08*
Value of Children							1.00	.25	.20	.24	.17
Ideal # Children								1.00	.55	.38	.27
Desired # Children									1.00	.66	.50
Expected # Children										1.00	.78
# Unplanned Pregnancies											1.00

*P > .05

Table 4.2. Interrelationship of Major Variables, White Women.

	Live Births	SES	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.28	-.17	-.18	.06*	-.02*	.18	.32	.57	.92	.83
SES		1.00	.33	.15	-.27	-.09*	-.30	-.11*	-.16	-.27	-.29
Value Orientations			1.00	.10*	-.26	.07*	-.34	-.09*	-.08*	-.13	-.31
Family Structure				1.00	-.08*	.01*	-.07*	-.07*	-.17	-.14	-.27
Ideal Marriage					1.00	-.01*	.21	.05*	.08*	.06*	.06*
Role Priorities	1.00	.13	.04*	-.03*	-.04*	-.20					
Value of Children		1.00	.26	.14	.13	.20					
Ideal # Children			1.00	.56	.36	.28					
Desired # Children				1.00	.60	.35					
Expected # Children					1.00	.82					
# Unplanned Pregnancies						1.00					

*P>.05

Table 4.3. Interrelationship of Major Variables, Black Women.

	Live Births	SES	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	# Unplanned Pregnancies
Live Births	1.00	-.31	-.26	-.08*	.21	.11*	.18	.37	.75	.90	.86
SES		1.00	.37	.05*	.01*	.06*	-.13	-.15	-.26	-.27	-.30
Value Orientation			1.00	.07*	-.24	.16	-.30	-.18	-.24	-.23	-.25
Family Structure				1.00	.00*	.03*	-.12*	.15	.02*	-.05*	-.08*
Ideal Marriage					1.00	.11*	.10*	.24	.17	.22	.15
Role Priorities						1.00	.00*	.16	.10*	.04*	.03*
Value of Children							1.00	.13	.10*	.14	.07*
Ideal # Children								1.00	.49	.34	.13*
Desired # Children									1.00	.78	.66
Expected # Children										1.00	.78
# Unplanned Pregnancies											1.00

*p > 05

Table 4.4 Interrelationship of Major Variables, Indian Women.

	Live Births	SES	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	# Unplanned Pregnancies
Live Births	1.00	-.29	-.22	-.02*	.18	-.09*	.25	.41	.59	.82	.83
SES		1.00	.26	.07*	-.03*	.14	-.30	-.24	-.23	-.24	-.26
Value Orientation			1.00	.18	-.09*	.20	-.31	-.20	-.18	-.26	-.25
Family Structure				1.00	.01*	.01*	-.02*	-.17	-.05*	.04*	.00*
Ideal Marriage					1.00	.05*	.18	.15	.19	.21	.15
Role Priorities						1.00	-.04*	-.10	-.07*	-.03*	-.08*
Value of Children							1.00	.18	.21	.29	.22
Ideal # Children								1.00	.55	.34	.40
Desired # Children									1.00	.56	.42
Expected # Children										1.00	.74
# Unplanned Pregnancies											1.00

*P<.05

Table 4.5 Interrelationship of Major Variables, Level I SES**, All Women.

	Live Births	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.10*	-.16	.19	-.01	-.05*	-.40	.69	.85	.87
Value Orientation		1.00	.15*	-.20	.14*	-.32	.07*	-.12*	-.12*	-.16*
Family Structure			1.00	.05*	-.02*	.01*	-.16*	.04*	.02*	-.19*
Ideal Marriage				1.00	.28	.25	.21	.22	.24	.21*
Role Priorities					1.00	.13*	.14*	-.02*	-.01*	-.01*
Value of Children						1.00	-.01*	-.09*	.07*	-.04*
Ideal # Children							1.00	.45	.34	.22
Desired # Children								1.00	.81	.46
Expected # Children									1.00	.82
#Unplanned Pregnancies										1.00

*P > .05

**Level I is the lowest SES category.

Table 4.6. Interrelationship of Major Variables, Level II SES, All Women.

	Live Births	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.18	.06*	.16	-.07*	.18	.27	.64	.86	.90
Value Orientation		1.00	.10*	-.12*	.12*	-.19	-.17	-.13*	-.19*	-.20
Family Structure			1.00	-.01*	.00*	-.01*	.00*	-.10*	-.04*	.05*
Ideal Marriage				1.00	-.07*	.08*	.07*	.15	.15	.12*
Role Priorities			1.00	-.03*	.01*	.02*	-.07*	.01*		
Value of Children				1.00	.14	.12*	.21	.22		
Ideal # Children					1.00	.44	.18	.15*		
Desired # Children						1.00	.57	.55		
Expected # Children							1.00	.81		
# Unplanned Pregnancies								1.00		

*P>.05

Table 4.7 Interrelationship of Major Variables, Level III SES, All Women.

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.21	-.05*	.16	.04*	.20	.36	.53	.88	.80
Value Orientations		1.00	.09*	-.21	.21	-.30	-.20	-.19	-.22	-.23
Family Structure			1.00	.02*	.05*	-.07*	-.04*	-.07*	-.01*	-.06*
Ideal Marriage				1.00	.00*	.08*	.20	.17	.17	.09*
Role Priorities			1.00	.00*	.00*	.02*	.10*	-.14		
Value of Children				1.00	.23	.17	.18	.15		
Ideal # Children					1.00	.62	.39	.28		
Desired # Children						1.00	.51	.42		
Expected # Children							1.00	.75		
# Unplanned Pregnancies								1.00		

*P≥.05

Table 4.8 Interrelationship of Major Variables, Level 4 SES, All Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	.02*	-.04*	.08*	.13*	-.08*	.32	.71	.80	.58
Value Orientations		1.00	.15	-.23*	.01*	-.39	-.24	-.02*	-.07*	-.12*
Family Structure			1.00	-.14	-.05*	-.12*	-.08*	-.02*	-.01*	.01*
Ideal Marriage				1.00	.06*	.33	.23	.11*	.15	.08*
Role Priorities					1.00	.04*	-.04*	.02*	.13*	.17*
Value of Children						1.00	.30	.09*	.12*	-.01*
Ideal # Children							1.00	.47	.44	.21
Desired # Children								1.00	.78	.56
Expected # Children									1.00	.48
# Unplanned Pregnancies										1.00

*P>.05

Table 4.9 Interrelationship of Major Variables, Level I SES, White Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	.24*	-.61*	-.12*	.03*	.18*	.38*	.31*	.97	.99
Value Orientations		1.00	-.61*	-.03*	.29*	.16*	.11*	.37*	.16*	.23*
Family Structure			1.00	-.36*	-.60*	.61*	-.77	-.87	-.71	-.54*
Ideal Marriage				1.00	.80	.86	.10*	-.05*	.04*	.05*
Role Priorities					1.00	.77	.05*	.05*	.20*	.22*
Value of Children						1.00	.32*	.13*	.32*	.26*
Ideal # Children							1.00	.74*	.43*	.57*
Desired # Children								1.00	.34*	.06*
Expected # Children									1.00	.94
# Unplanned Pregnancies										1.00

*P>.05

Table 4.10 Interrelationship of Major Variables, Level II, SES, White Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.25*	.10*	-.03*	.06*	.12*	.36	.50	.97	.95
Value Orientations		1.00	.35	-.43*	.23*	-.15*	-.28*	-.30*	-.18*	-.32*
Family Structure			1.00	-.06*	.15*	-.20*	-.28*	-.15*	.04*	-.02*
Ideal Marriage				1.00	-.43*	.23*	.01*	.05*	-.08*	-.08*
Role Priorities					1.00	-.25*	-.09*	.08*	.08*	-.11*
Value of Children						1.00	.04*	.05*	.09*	.21*
Ideal # Children							1.00	.59	.35	.59
Desired # Children								1.00	.46	.38*
Expected # Children									1.00	.95
# Unplanned Pregnancies										1.00

*P> .05

Table 4.11 Interrelationship of Major Variables, Level III, SES, White Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.17*	-.19	.00*	-.11*	.19	.28	.58	.89	.75
Value Orientations		1.00	-.04*	-.24	.11*	-.23	.01*	-.15*	-.15*	-.17*
Family Structure			1.00	-.03*	.06*	.04*	.11*	-.09*	-.07*	-.24*
Ideal Marriage				1.00	-.01*	-.03*	.08*	.08*	-.04*	-.09*
Role Priorities					1.00	.14*	.05*	-.11*	-.23	-.46
Value of Children						1.00	.29	.19	.07*	.11*
Ideal # Children							1.00	.57	.34	.06*
Desired # Children								1.00	.62	.35
Expected # Children									1.00	.72
# Unplanned Pregnancies										1.00

*P>.05

Table 4.12 Interrelationship of Major Variables, Level IV, SES, White Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	.13*	-.16*	-.05*	-.02*	-.04*	.32	.72	.83	.69
Value Orientations		1.00	.14*	-.07*	.02*	-.37*	-.16*	.18*	.16*	-.15*
Family Structure			1.00	.00*	-.04*	-.04*	-.16*	-.22	-.14*	-.34
Ideal Marriage				1.00	-.01*	.24*	-.07*	-.01*	.01*	.15*
Role Priorities	1.00	.20	.06*	.06*	.07*	.17*				
Vale of Children		1.00	.28	.00*	-.05*	-.03*				
Ideal # Children			1.00	.48	.37	.50				
Desired # Children				1.00	.81	.79				
Expected # Children					1.00	.75				
# Unplanned Pregnancies						1.00				

*P>.05

Table 4.13 The Interrelationship of Major Variables, Level I SES, Black Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.01*	-.07*	.22*	.02*	.10*	.38	.79	.91	.85
Value Orientations		1.00	.05*	-.15*	.18*	-.35	.12*	.07*	.00*	-.17*
Family Structure			1.00	-.03*	-.13*	.15*	.10*	.21*	.04*	-.14*
Ideal Marriage				1.00	.35	.18*	.17*	.08*	.21*	.17*
Role Priorities			1.00	.03*	.36	-.02*	-.03*	-.04*		
Value of Childen				1.00	.14	.04*	.09*	-.04*		
Ideal of Children					1.00	.36	.27	.18*		
Desired # Children						1.00	.90	.69		
Expected # Children							1.00	.86		
# Unplanned Pregnancies								1.00		

*P>.05

Table 4.14 Interrelationship of Major Variables, Level II SES, Black Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	# Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.25	-.16*	.36	.12*	.10*	.28	.79	.86	.96
Value Orientations		1.00	-.18*	.39	.11*	-.13*	-.12*	-.27	-.08*	-.41
Family Structure			1.00	-.14*	-.07*	.04*	.25*	-.25*	-.32	-.32*
Ideal Marriage				1.00	.03*	-.03*	.20*	.31	.37	.32*
Role Priorities			1.00	.08*	.16*	.10*	.02*	.17*		
Value of Children				1.00	.03*	.10*	.13*	.19*		
Ideal # Children					1.00	.52	.21	.01*		
Desired # Children						1.00	.72	.84		
Expected # Children							1.00	.76		
# Unplanned Pregnancies								1.00		

*P>.05

Table 4.15. Interrelationship of Major Variables, Level III SES, Black Women.

	Live Births	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.18*	.02*	.18*	.23	.21	.40	.61	.94	.78
Value Orientations		1.00	.13*	-.19*	.18*	-.25	-.24	-.31	-.25	-.09*
Family Structure			1.00	.22*	.16*	-.26	.17*	.12*	.10*	.16*
Ideal Marriage				1.00	.00*	-.05*	.22	.21	.17*	.12*
Role Priorities			1.00	.02*	.22	.31	.19	.13*		
Value of Children				1.00	.10*	.11*	.16*	.11*		
Ideal # Children					1.00	.56	.42	.17*		
Desired # Children						1.00	.63	.44		
Expected # Children							1.00	.73		
# Unplanned Pregnancies								1.00		

*P>.05

Table 4.16. Interrelationship of Major Variables, Level IV SES, Black Women.

	Live Births	Value Orientations	Family Structure	Ideal Marraige	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	-.51	-.09*	.19*	.31*	.21*	.34	.76	.69	.90
Value Orientations		1.00	.19*	-.53	.03*	-.58	-.25*	-.36	-.50	.01*
Family Structure			1.00	-.25*	.09*	-.35	.08*	.05*	.11*	-.05*
Ideal Marriage				1.00	.01*	.55	.52	.23*	.21*	.07*
Role Priorities			1.00	-.22*	-.18*	.17*	.15*	.33*		
Value of Children				1.00	.26*	.05*	.02*	.09*		
Ideal # Children					1.00	.56	.52	.02*		
Desired # Children						1.00	.78	.71		
Expected # Children							1.00	.30*		
# Unplanned Pregnancies								1.00		

*P>.05

Table 4.17. Interrelationship of Major Variables, Level I SES, Indian Women.

	Live Births	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	# Unplanned Pregnancies
Live Births	1.00	-.19*	-.20*	.25*	-.01*	-.01*	.43	.63	.75	.86
Value Orientation		1.00	.28*	-.26*	.14*	-.36*	.00	-.34*	-.25*	-.14*
Family Structure			1.00	.13*	.13*	-.04*	-.24*	-.02*	.09*	-.24*
Ideal Marriage				1.00	.12*	.26*	.29*	.45*	.35*	.26*
Role Priorities			1.00	.19*	-.02*	-.02*	.03*	.02*		
Value of Children				1.00	-.15*	.20*	.07*	-.08*		
Ideal # Children					1.00	.48*	.39*	.34*		
Desired # Children						1.00	.75*	.30*		
Expected # Children							1.00	.75*		
# Unplanned Pregnancies								1.00		

*P>.05

Table 4.18. Interrelationship of Major Variables, Level II SES, Indian Women.

	Live Births	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	# Unplanned Pregnancies
Live Births	1.00	-.11*	.19*	.07*	-.26	.29	.23	.57	.82	.83
Value Orientation		1.00	.15*	.17*	.09*	-.24	-.14*	.03*	-.25	.00*
Family Structure			1.00	.09*	.02*	.08*	-.05*	.02*	.11*	.30
Ideal Marriage				1.00	-.07*	.05*	-.10*	.03*	.07*	.08*
Role Priorities					1.00	-.04*	-.01*	.00	-.21*	-.10*
Value of Children						1.00	.18*	.10*	.31	.30
Ideal # Children							1.00	.23	.03*	.10*
Desired # Children								1.00	.48	.40
Expected # Children									1.00	.76
# Unplanned Pregnancies										1.00

*P > .05

Table 4.19. Interrelationship of Major Variables, Level III SES, Indian Women.

	Live Births	Value Orientation	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	# Unplanned Pregnancies
Live Births	1.00	-.25	-.06*	.25	.02*	.21	.41	.46	.83	.88
Value Orientation		1.00	.14*	-.11*	.30	-.26	-.18	-.13*	-.21	-.38
Family Structure			1.00	-.05*	-.03*	-.02*	-.19	-.16	.02*	-.09*
Ideal Marriage				1.00	.03*	.16	.18	.17	.28	.23
Role Priorities					1.00	-.10*	-.13*	-.06*	.06*	-.10*
Value of Children						1.00	.16	.16	.23	.21
Ideal # Children							1.00	.71	.39	.50
Desired # Children								1.00	.37	.54
Expected # Children									1.00	.77
# Unplanned Pregnancies										1.00

*P>.05

Table 4.20 Interrelationship of Major Variables, Level IV SES, Indian Women

	Live Births	Value Orientations	Family Structure	Ideal Marriage	Role Priorities	Value of Children	Ideal # Children	#Desired Children	#Expected Children	#Unplanned Pregnancies
Live Births	1.00	.17*	.15*	.17*	.19*	.20*	.36	.68	.84	.38
Value Orientations		1.00	.06*	-.12*	.01*	-.16*	-.23*	.08*	.01*	-.31*
Family Structure			1.00	-.14*	-.14*	-.01*	-.07*	.25*	.15*	.34
Ideal Marriage				1.00	.19*	.24*	.16*	.01*	.16*	.05*
Role Priorities			1.00	-.05*	.01*	-.16*	.19*	.09*		
Value of Children				1.00	.25*	.21*	.41	.00*		
Ideal # Children					1.00	.37	.44	.11*		
Desired # Children						1.00	.72	.35		
Expected # Children							1.00	.32*		
# Unplanned Pregnancies								1.00		

*P > .05

FAMILY PLANNING

Introduction

A number of studies have found that a substantial proportion of births to married couples were accidental or unwanted pregnancies (Freedman, 1962; Westoff, 1969) and, further, that the prevention of unwanted fertility would have a substantial impact on the United States' birth rate.[1] The incidence of unwanted births varies inversely with income, and Westoff (1969) estimated that 17 percent of the births to non-poor, 26 percent of the births to near-poor, and 42 percent of the births to poor families were unwanted. If all unplanned births were averted, the economic, social, and medical strains imposed on families by additional, unplanned children would be lessened. Family limitation could not only result in improvements in maternal and child health, but also in greater economic well-being among families with low incomes. Thus, the goal of voluntary fertility control, if successfully attained, would reduce the discrepancy between desired and experienced pregnancies.

Family Planning and Poverty

The association of large family size with many of the ills connected with poverty is well-recognized. Despite family size aspirations comparable to other economic groups, low-income couples have

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[1] Although the extent of unwanted fertility is still a debatable issue (see Blake, 1971), the incidence of any unwanted births in a society having the means to prevent them is justification for an organized effort to offer contraception to couples who desire it.

larger families than others in society, and have them earlier and at closer intervals than others in society (Varky et al., 1968). Since the poor and near-poor constitute only one-quarter of the population, it is evident that their higher fertility is not the major factor responsible for the United States' population growth. However, "the importance of high fertility among the underprivileged lies not so much in its contribution to the national birth rate as in the difficulties that excessive fertility imposes on the impoverished themselves" (National Academy of Sciences, in Jaffe and Guttmacher, 1968; p. 911). And, while family planning cannot be considered a cure-all for poverty, it can contribute much toward the alleviation and prevention of poverty.

Rural Fertility and Family Planning

Every county in the United States is now required by law to offer some sort of family planning service (Gustaveson, 1970). While some kind of contraceptive service is generally available everywhere, the major thrust of subsidized programs has been aimed at low-income urban areas (Wilber, 1968). Family planning efforts in rural areas have received much less attention.

Rural people exhibit higher fertility levels than urban people, although there is some evidence that traditional fertility differentials are narrowing (Wilber, 1968; Beegle, 1968; Kiser, 1968). Rural wives begin their families at an earlier age (Wilber, 1968) and maintain a higher fertility rate at all age groups (Beegle, 1968). Rural farm birth rates are generally considerably above rural nonfarm rates (Beegle, 1968).

As with low-income families, most rural families express a preference for four or fewer children (Jaffe, 1968) and further, this consensus includes all subgroups -- economic, geographic, educational, and ethnic (Jaffe, 1968). Although in rural areas the use of contraceptives has recently increased in the lower socio-economic groups, there remain significant differences in employment of the most effective methods (Jaffe, 1968). Low-income rural whites and non-whites, often without ready access to private medical services, rely more often on douche, withdrawal, and suppositories to limit their family size. Jaffe (1968) concludes that:

> . . . poor farm couples have substantially the same family size desires and interest in practicing family planning as other younger couples regardless of farm residence or income. Within the poverty group, farm couples with wives under 30 want roughly the same number of children as younger couples and have used or expect to use contraception in approximately the same proportion (p. 371).

Rural couples do not have more children than urban couples simply because they want more. Their lack of fertility control results, at least partly, because they are deprived of birth control knowledge and services available in more urban areas and thus do not use contraception regularly and effectively (Shlakman, 1968).

The potential need for effective family planning services in rural areas is quite clear. The high incidence of unwanted fertility and a disproportionate amount of poverty point to a need for adequate family planning programs. Past research has demonstrated that couples in rural areas want small families (Jaffe, 1968) and are willing to adopt and practice family planning techniques (Corkey, 1964; Bogue, 1968; and Sikes, 1970), yet rural family planning programs are less well de-

veloped , have little attention from health professionals, and receive scant allocations of public health funds (Jaffe, 1969). Over 700,000 women receive family planning services from public and private sources combined, but most of these women live in urban areas (Wilbur, 1968). While the concentration of services in urban areas is certainly justified, the need for subsidized family planning is just as urgent in rural areas, since "rural America, with 29 percent of the population, accounts for 43 percent of the nation's poverty and 37 percent of the family planning need" (Jaffe, 1968, p. 370).

Family Planning Program

Social Context of the Program

Historically, North Carolina has played a pioneering role in the area of fertility control, first making contraceptive services available in 1937, as a regular part of its public health services (Berelson, 1970). As such, it was one of only seven states to include family planning prior to the American Public Health Association's 1959 policy statement declaring population problems a major public health concern (Berelson, 1970). The North Carolina State Health Department officially sponsored the 1937 birth control program, whose objectives included:

1. To reduce the high infant death rate and loss of mothers' lives.

2. To curb the high birth rate among dependent families and create an awareness of the importance of proper spacing of all future children of the state as the prerequisite for healthful and happy family life (Pratt, quoted in Measham, 1970).

The relative acceptance of these early programs is illustrated by the fact that by 1946, 84 out of 93 counties with organized public health services were participating in family planning activities. Despite its excellent beginnings, however, North Carolina has not maintained its early momentum. In a recent survey of the extent to which the need for subsidized family planning services was being met in the United States, North Carolina ranked twenty-first (Office of Economic Opportunity, 1969). In addition, it was recently estimated that in North Carolina, "36.6 percent of the 1966 births were excessive, and most of them were probably unwanted by the parents" (Hamilton, 1968).

From its inception, family planning in North Carolina has been conceived as a health program, concerned with the need to improve maternal and child health. As such, the statewide family planning efforts are channeled through the county health departments, and are administered by the local Board of Health. Although the State Department of Health exerts influence on local health work by allocating funds and conducting training programs, it does not directly control or supervise the work of the county health agencies. Thus, each of North Carolina's hundred counties enjoys a large measure of autonomy, which results in wide program variety.

The subject of this analysis is the family planning program of Robeson County. In response to excessive fertility, widespread poverty, and high infant mortality, Robeson County initiated its family planning program in May, 1963, in connection with the

Robeson County Health Department. It shares several features with other clinics throughout the State: (1) it is administered as part of the regular maternal health services; (2) it is available primarily to low-income families; (3) professional services are provided largely by qualified physicians and nurses; and (4) it is funded by local sources and enjoys a large measure of autonomy. It is distinctive in that (1) it serves a tri-racial, low-income, largely rural population with high fertility; (2) it has been in operation a relatively short time when compared to other state family planning programs; and (3) except for the clinic staff, it receives little support and/or cooperation from the local medical community.

Historical Background

At least ten years before the formal establishment of a family planning program, the Robeson County Health Department offered family planning services in conjunction with the monthly prenatal clinics, held periodically in Lumberton and in other satellite towns in the County (Fairmont, Red Springs, St. Pauls). Local physicians staffed the clinics, offering counseling and distributing contraceptives to patients who requested the service. Available contraceptive methods were generally limited to foams and/or spermicidal creams and jellies, although the diaphragm was offered to a limited extent. These early efforts were extremely limited in scope, and generally felt to be highly ineffective in preventing unwanted pregnancies. The first report available on contraceptive use, in 1956, indicated that only 31 patients received contraceptive services through the Health Department clinics that year (Table 5.1).

Later in the 1950's maternal health clinic services were centralized in Lumberton, and local physicians continued to staff the clinic weekly on a rotating schedule. In addition, the University of North Carolina Medical School furnished several physicians to assist with obstetrical and family planning services in the clinic and in the hospital as part of their medical residency at Chapel Hill. There was, however, no organized family planning program until 1963.

In an attempt to determine the feasibility of intrauterine device clinics in North Carolina, Dr. Ann Huizinga from the North Carolina State Board of Health chose Robeson County as the setting for a pilot study in family planning. She established the family planning clinic in May, 1963, as a distinctive program apart from other maternal health services, and together with the Chapel Hill physicians, began to offer intrauterine contraceptive devices to patients desiring contraceptives. Most of the clinic personnel still staffing the program in 1972 received their initial training in family planning under Dr. Huizinga during this period.

In 1967, Chapel Hill withdrew the medical students from the clinic, and as local physicians were no longer willing to serve the clinic, the program was forced to refer its patients to the care of private physicians In the same year, however, a new public health physician took over the directorship of the Health Department, and the family planning program was reactivated. In order to expand the family planning services, a retired gynecologist-obstetrician was hired on a permanent basis to operate the weekly clinic.

Since 1969, the clinic has seen a gradual but steady rise in annual attendance (Table 5.1). In 1972, 713 patients were participating in the family planning program, 239 of whom were new patients. There were a total of 1,141 patient-visits made to the 49 clinic sessions held during the year, an average of 23 visits per session.[2]

County Medical Resources

The total medical resources of Robeson County are extremely limited. There is only one hospital, and the nine gynecologist-obstetricians, are all located in Lumberton The county's physician shortage (the doctor-patient ratio is 1:1631) is complicated by the concentration of medical resources in Lumberton, leaving outlying areas with few or no health personnel.

Public Health Facilities and Economic Resources

The Robeson County Health Department is located on the outskirts of Lumberton in a large building which it shares with the North Carolina Cancer Institute, and with the Robeson County Department of Social Services. It appears that the existing facilities are being utilized at a maximal level, however, an additional structure is under construction which will house the Health Department

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2 In an effort to ascertain the number of women receiving private contraceptive care, the director mailed questionnaires to all the Robeson County physicians, with the exception of pediatricians. These questionnaires requested each doctor to submit the number of private contraceptive patients he served. All but three doctors responded, indicating 4,294 patients receiving private care in 1971. Together with the estimated 600 women receiving clinic services, approximately 28 percent of the county's 17,510 women of childbearing age (15-44) were receiving contraceptive services in 1971.

The Robeson County Board of Health operated on a budget of $289,013 for the fiscal year 1972-73. Roughly 80 percent ($230,034) of the funds were county funds, coming from local revenue. The remaining funds, ($48,479), were state and federal funds, with a small percentage coming from other specialized sources, such as the State Department of Vital Statistics. Local funds are administered by the County Commissioners, who are responsible for allocating revenue funds within the county. Expansion of facilities is thus dependent on the approval of the County Commissioners, as is the creation of any new personnel positions.

The Health Director reports that although there seems to be widespread concern among the Commissioners about the county's high birth rate, numerous demands for funds from other local programs makes it more difficult to fully support the family planning program financially. The allocation of additional funds to the family planning program could only be accomplished by curtailing support to some other county program. There is some concern that this could create public resentment, or could result in making family planning a political issue in the county.

The salaries of Health Department personnel claim 74 percent of the annual budget. This includes, of course, the salaries for sanitarians, clerical, and janitorial staff, who have no direct input into the family planning program. The County Health Director estimates that between $35,000 and $40,000 (12-15 percent) is spent yearly on the family planning services alone. Included in this estimate are salaries for personnel involved in the program, supplies, and the clinician's

fee. The clinician receives support from the State Maternal and Child Health Fund (M. C. H. Fund) on the order of $35 per hour, thereby guaranteeing him $100 for each weekly clinic. M. C. H. also has provided equal funds for a second clinician, should the clinic request his services.

Some additional monetary support for the family planning program comes from the Aid to Families With Dependent Children Program (A.F.D.C.), within the Department of Social Services. For treating women receiving benefits from this program, the clinic receives $16.56 for a first visit or annual checkup, and $12.42 for a return visit, in addition to whatever contraceptive costs are involved. During 1972-73, A.F.D.C. funds accounted for $5,800 in receipts to the clinic program.

Since patients are not charged for services, the Health Department budget must absorb all other clinic expenses.

Administrative Structure

Each county's health department operates under the auspices of the County Board of Health, composed of three or more ex-officio members and four public members. This Board, together with the Public Health Director, is responsible for making most of the policy decisions concerning family planning services offered by the program. Robeson County does not have a local Advisory Board, as do some other counties, but operates solely with the County Board of Health, and indirectly under the State Board of Health. Figure 5.1 shows the organizational structure for the Robeson County Health Department.

The family planning services of Robeson County, as well as all other public health services (tuberculosis clinic, eye clinic, maternal and child care programs, orthopedic clinic) are under the direct supervision of the Public Health Director. The Public Health Director of Robeson County is a physician, appointed by the County Board of Health, and is responsible for all administrative and most policy decisions.

Decisions concerning the Robeson County Health Department are usually made by the director only after consultation with the other staff members. Weekly nurses' conferences provide a forum for staff input, and enable the director to gather information from several staff perspectives.

Organization Personnel

Approximately 74 percent of the 1972-73 budget was spent on salaries for the 29 staff members employed by the Health Department, including a public health physician, nine public health nurses, a licensed practical nurse, eight sanitarians, a health educator, an X-ray technician, six clerical and secretarial positions, and two janitorial staff members. Of these, all but the sanitarians have time allocations for the family planning program.

Clerical and secretarial staff maintain registration information on each family planning patient, issue appointment cards, and take basic information for patients' history records. In addition, they maintain a registry of all patients attending the clinic, assist with evaluation of the family planning clinic each week, and prepare follow-up reminders for delinquent patients. Roughly 37 percent of their working time is committed to the Maternal Health and Family Planning Programs.

Public Health Nurses assume major responsibility for both Maternal Health and Family Planning Programs. As a routine part of postpartum and antepartum care, they counsel each patient concerning management of fertility (both child spacing and family size limitation) and the basic contraceptive methods available through the clinic. Within six weeks after delivery, a home visit is made to each patient by a public health nurse, to encourage participation in the family planning program offered by the clinic. Additional home visits may be made if the patient is delinquent in returning to the clinic for routine checkups. In addition to routine counseling and home visits, she is expected to seek out patients for the planned parenthood program. Approximately 25 percent of her time is spent with this program.

Special training in the area of family planning is offered to clinic personnel by the State in the form of seminars and special training sessions Several public health nurses from Robeson County have participated in these sessions, which combine theory with observation in an attempt to introduce new techniques and more effective methods of reaching target populations

Clinic Procedures

The Health Department reserves Tuesday of each week exclusively for prenatal, postpartum, and family planning patients. The clinic meets regularly from 10:00 a.m. until 4:00 p.m However, patient load is such that registration often begins as early as 8:30 a.m., and frequently the last patient is not seen until 4:30 or 5:00 p m. Attendance at each clinic session during 1972 averaged 23 patients, excluding prenatal and postpartum patients

Although new patients may attend the clinic without an appointment, returning patients are requested to schedule their visits. This policy is flexible, however, and no patient is refused for lack of appointment. Patients having intrauterine devices are encouraged to return two months after insertion for a routine check, and whenever they experience side effects or have complaints.

Upon arrival at the clinic, each patient is registered and referred to a public health nurse, who takes a medical history, does routine laboratory tests, and takes the patient's blood pressure, height, and weight. The patient is then counseled individually by the nurse, who discusses fertility management and, if necessary, explains basic reproductive physiology and anatomy to the patient. The patient is shown an intrauterine device, learns what to expect when it is inserted, and is told of possible side effects. A consent form is then signed in the presence of a Health Department witness, and the patient is referred to the physician for physical examination and insertion. Figure 5 2 illustrates this process.

There is no charge to patients for any clinic service. Although the prenatal clinic only accepts women who have no hospitalization insurance, the family planning clinic serves all applicants, regardless of income. Cost of the family planning program is partially deferred by the Department of Social Services, as described previously; the Health Department assumes all other costs

No special provisions are made to make the program services available to employed women, who may be required to work during clinic hours. Local manufacturing mills employing women from the surrounding

area cooperate with the Public Health Department by providing the leave time necessary to attend the clinic. Clinic staff members do not perceive female employment to be a deterring factor to clinic attendance and program participation.

Dissemination of Information

The Family Planning Program provides only limited educational services to the community. Aside from the individual counseling done by public health nurses, there is little effort made to disseminate information about the positive aspects of spacing and limitation. Public health nurses and the Public Health Director periodically visit the County's high schools and talk with students during assembly programs, but these talks focus primarily on venereal disease, and other health problems, and deal with contraception only incidentally during question and answer periods. Occasionally, school programs will include films made available by the State Board of Health.

There is little use made of the local news media, although the editor of THE ROBESONIAN, the County's major newspaper, has run several favorable editorals on the issue of population control, and seems to be receptive to the idea of family planning.

Printed material, in the form of pamphlets or booklets, is scarce. Only one pamphlet was available in the clinic during the period of data-gathering.

Sources of Referral

Most of the effort in the Robeson County Family Planning Program has been directed toward making family planning services available to

those who are already motivated to control their fertility. Of the clinic's patients, 26.8 percent come voluntarily to the clinic to request contraceptive services (Table 5.2). By concentrating on women who are already "sold" on family planning, communication between patient and staff is much easier. It is felt that the highly motivated user is most often an effective and satisfied user, who becomes a valuable source of publicity for recruiting new acceptors. This is crucial to the Robeson County program, since word-of-mouth is heavily relied upon for referrals

The most important source of referral comes from the Health Department's prenatal and postpartum clinics Immediately following delivery, at a time when the subject of contraception is especially salient, a home visit is made to the new mother by a public health nurse. These visits accounted for 32.4 percent of the family planning clinic referrals.

The second most frequent source of referral is from the Department of Social Services. All recipients of Social Service Benefits, and especially women who receive A F D.C benefits, are encouraged to attend the family planning clinic to receive contraception instruction. While attendance at the clinic is not a requirement for receipt of funds, clients are strongly urged to participate in the program. Social Services referred 14.5 percent of the family planning clients in 1972.

Although the cooperation of high school guidance counselors has never been explicity solicited, high school personnel are aware of the program's willingness to prescribe contraceptives to young, single females. Generally, however, it is felt that referrals are limited to tudents who are perceived to be "promiscuous", or at least sexually active.

Referrals from private physicians accounted for 9.5 percent of the total clientele in 1972.

Contraceptive Services Offered to Clientele

The intrauterine device (IUD) is the contraceptive method prescribed almost exclusively by the clinic. Since the family planning program was organized in 1963 to explore IUD feasibility, all other contraceptive methods have played only an incidental role in clinic services. Oral contraceptives, more frequently prescribed during the early years of the program (1963-1969), are now used only as a temporary measure, while foam, jellies, and diaphragms, also utilized earlier in the program, have been eliminated altogether. Withdrawal, rhythm, and condoms have never been recommended. All contraceptives distributed by the clinic are obtained at wholesale prices through a pharmaceutical company, and are distributed without charge.

Experimental research in rural areas, especially in other countries, indicates the IUD is the most highly favored contraceptive for mass programs. The advantages which make it practical for less sophisticated populations are well recognized: a single decision is required on the part of the women, continued use is not jeopardized for lack of supplies, it does not interfere with sexual relations, it is easily administered, and highly effective. In addition, the IUD remains the only known cheap and reversible method which does not require any further contraceptive measures after insertion.

Although its advantages are recognized by administration and staff, the explanation for the sole emphasis on the IUD in the Robeson

County Program lies primarily with the family planning clinician. Suspicious of oral contraceptives because of their possible side effects, and believing them to have been widely misused, he prefers to rely on the IUD for the majority of cases, prescribing pills occasionally for regulatory reasons, or as a temporary measure only. The Lippes loop, in a size suited to the individual, is most often selected, because it is the least expensive of the various models available. In cases where the Lippes loop has been expelled, or has proved unsatisfactory, the more expensive safety coil is substituted.

There is some concern among the public health director and clinic personnel that the clinician's refusal to prescribe oral contraceptives, even to women who request the method exclusively, is causing the clinic to lose potential patients. Patients who refuse an IUD insertion are referred to a private physician, who, in most cases they cannot afford. Although there is no way to determine the actual number of patients lost, the clinic would appear to turn away many highly motivated clients because they do not offer a choice of methods. Future projections anticipate the possible addition of another clinician, who would offer oral contraceptives and other methods to patients who desire them.

The IUD is by far the most common method in use at the present time, prescribed in 99.6 percent of the cases (Table 5.3). Oral contraceptives were used for less than one percent of the patients seen by the clinic. The undisputed effectiveness of the IUD is illustrated by the fact that in 1972, only 21 IUD patients out of 697

(three percent) became pregnant while active in the family planning program. Only one of these pregnancies occurred with the IUD in situ; an undetected expulsion had occurred in the other twenty cases.

The program reports referring "a great many" patients to the local hospital for sterilization, although there are no records kept by which the exact number may be ascertained. The clinician recommends sterilization when a woman has had about four live births, although his recommendation may vary according to the health of the mother, living conditions in the home and other factors which he considers important. The cost to the patient is approximately $300, which she is expected to pay unless the sterilization is deemed necessary for medical reasons. The sterilization procedure recommended is a tubal ligation in most cases.

Recordkeeping, Evaluation, and Follow-up Procedures

Upon arrival at the clinic, a medical history is taken on each new patient. This form includes basic demographic characteristics, as well as previous contraceptive use, reason for referral, satisfaction with previous methods, and source of referral. This form, used statewide, together with consent forms and physician's notes, compile the patient's file. Each patient is required to register on each visit to the clinic, and this listing is used to compile annual reports and self-evaluation summaries.

The North Carolina State Board of Health is in the process of reworking the recordkeeping procedures for all health departments. Soon, detailed family planning records will be kept on standardized forms,

pre-coded for computer analysis, which will be forwarded to Raleigh, along with all other county records, for storage in a centralized data bank. Summaries will be returned to the county, to be used for purposes of self-evaluation.

The program's self-evaluation procedures consist primarily of summaries prepared annually by clinic staff. These reports include total visits, new patients, methods prescribed, dropouts, and reasons for discontinuing the program.

Files are kept on all patients who are active in the family planning program until (1) the patient moves outside the county; (2) the patient becomes pregnant; (3) the patient becomes sterile; or (4) the patient expels the IUD, or has it removed, and does not desire reinsertion. If an active patient misses an appointment, she receives a letter from the clinic as a reminder. When two or three letters do not successfully prompt the patient to return, a visit is made to the patient's home by a public health nurse. If the patient no longer desires clinic services, the case is closed.

Attempting to follow-up all missed appointments is a difficult and time-consuming procedure. During 1972, there were 561 missed appointments. As there are few telephones in outlying areas, home visits to inaccessible areas may take several hours to accomplish. Frequent address changes pose special problems for clerical staff. The primary problem is lack of personnel to promptly contact patients who become delinquent in their visits. There were 127 women lost to follow-up during 1972.

Dropouts

The Robeson County Program lost 176 women who dropped out of the program during 1972. Most of the dropouts (40.9 percent) requested that the IUD be removed, either by the clinic or by a private physician, usually due to undesirable side effects. An additional 7.9 percent expelled the device.

Of the total dropouts, 20.5 percent had moved outside the county; eleven point four percent had transferred to the care of a private physician, and 11.5 percent had become pregnant (Table 5.4).

Factors Affecting Program Operation

Responsibility for administering the existing services rests with one individual: the County Health Director. It is he who decides the direction the program will take, and he is the only person having the authority to initiate changes of any kind in the program.

The most important factor affecting the director's ability to expand the program or to make changes of any kind, is the County Commission, which controls the local revenue funds which account for 80 percent of the Health Department budget. The Commissioners appear to be interested in family planning, although most of that interest seems to stem from a concern that the relatively high crude birth rate in Robeson County will reflect badly on county's image. The major concern seems to be with lowering fertility rates, rather than in the medical, social, and economic benefits which family limitation might have for the county's low-income families. In addition, there appears to be a fear that heavy financial support to the family

planning program might be interpreted as an effort to curb the birth rate in selected ethnic or racial groups.

The Robeson County program has no clearly defined program objectives, nor does it have a specified target group. The program's only objective appears to be to serve all those who request service. There are no explicit goals, stated in terms of attendance or acceptance rates, or in terms of the number of the county's families who have been found to be in need of services. Unofficially, the target group appears to be all low-income women of reproductive age, and it seems to be expected that most clients will be non-white. There is, however, no outreach program organized to reach these women.

There is agreement among administration and staff that the family planning services offered by the clinic are common knowledge among the county population, thus the lack of publicity does not cause much concern. Most feel that everyone is aware of the program, and would participate "if they wanted to." There is no active recruiting program, except among the prenatal patients, and in general it is felt that the clinic must wait passively for clients to come voluntarily, seeking contraceptive services.

The remedy for the county's high rate of unwanted pregnancy is sought in the intrauterine device and sterilization -- highly effective methods which require little continued responsibility on the part of the user. The program operates on the assumption that the average patient is either not intelligent enough or not conscientious enough to use most other methods effectively. Little attempt is made to change attitudes toward family planning -- concerning either

spacing or limitation. There is a belief that, especially among the Indian groups, the cultural barriers are insurmountable.

The Health Department personnel perceive no organized opposition to the program at this time. However, since anyone may enroll in clinic services regardless of income, local doctors seem to regard the program as somewhat of a threat. Several years ago, local doctors complained that the Health Department was usurping prenatal patients who could afford private care, and requested that some restrictions be made on client selection. Referrals from private physicians are scarce, and cooperation seems to be at a minimal level.

The major problems of the program are fourfold:

1. Funds. The program cannot create new positions necessary to expand the program until funds are allocated by the County Commission. Proposed expansion of existing services without the additional staff positions has received resistance from the public health nurse staff, who feel they could not effectively handle the additional case load.

2. Space. Clinic facilities at this time are being utilized at maximal levels. The new building should alleviate this problem by providing additional clerical, examination, and laboratory space, as well as an auditorium suited for group teaching and educational programs.

3. Follow-up. The shortage of trained personnel, as well as the geographical limitations of the county make prompt follow-ups impossible. Reaching women in outlying, isolated areas is time-consuming and difficult.

4. Transportation. There is no public transportation system in Robeson County. A public bus system connecting major towns was tried several years ago, but did not draw enough passengers to make the venture worthwhile. Clinic patients must arrange for their own transportation to and from the clinic, and staff members suspect that some clients may have dropped the program because of the difficulties involved in finding transportation, especially during harvest time.

Major assets of the program include a lack of opposition to the program, an active and effective IUD program, and incorporation with other maternal and child health services. The program derives several benefits from being an integral part of the Maternal and Child Health System of the Public Health Department. Recruitment is handled through prenatal and postpartum clinics, as part of a comprehensive program of maternal care. Women who might be suspicious of a program whose only aim is contraception are more easily reached in this manner. Contraception, when presented as part of prenatal care, is more clearly understood as an integral part of favorable health practices. Considering the county's transportation difficulties, it is advantageous for patients to receive maternal and contraceptive services from the same location. Education of personnel for both maternal health and family planning can be done simultaneously, since they have many subjects in common, thus limited staff members can be most efficiently used.

In conclusion, it has been seen that the Robeson County Health Department offers family planning services as one of many health services provided to County residents. The program does not have its own

budget, nor are there any full-time staff members devoted exclusively to the family planning efforts. While there are no stated objectives, the program seeks to offer services primarily to low-income, non-white women of reproductive age on a purely voluntary basis. The clinic does not offer a variety of contraceptive methods from which the client may choose, but offers intrauterine devices and sterilization as the only options. The program operates under a network of limitations, including local funding controlled by the County Commission, inadequate space for existing services, lack of personnel, and transportation difficulties.

Actual Clientele

Sex, Race, and Residence

During 1972, 713 clients, all female, were active in the family planning program of Robeson County. Of the total clientele, 239 were new to the program. No attempt is made to recruit male participation in the program, and no male has ever requested services of any kind.

Of 695 clients for whom race is indicated, 335 (48.2 percent) were black, 268 (38.6 percent) were Indian, and 92 (13.2 percent) were white. Lumberton residents accounted for 30.5 percent of the clients, but almost 70 percent of the clients receiving services in Lumberton resided in other areas of the County (Figure 5.3).

Marital Status

Of the active clients, 58.7 percent were currently married; an additional 7.2 percent had been married at some time, and 34.1 percent were single when enrolled in the clinic program.

Most white patients (66.3 percent) and Indian patients (71.5 percent) were currently married (Table 5.5). An even larger proportion (78.3 percent of the whites and 76.8 percent of the Indians) had been married at some time, while only 53.1 percent of the black clients had ever been married. Although not shown in the table, 65.7 percent of the single clients were black, compared to 8.4 percent white and twenty-five point nine percent Indian.

As might be expected, single clients tended to be younger than married clients (Table 5.6). Approximately 50 percent of all single clients were 20 years old or younger, and approximately 90 percent were under 30. Single women outnumbered ever-married women only in the youngest age group.

Age

The age of clients receiving contraceptive services in 1972 ranged from 13 to 58; the mean age was 26 years old. Table 5.7 showing the age distribution for all patients, illustrates clearly the concentration of young patients participating in the program. Of the total clientele, 57.4 percent are 25 years old or younger, and 75 percent are under 30 years old.

Blacks account for the largest proportion (59.7 percent) of the program participants 25 years old or younger (Table 5.7). Young blacks and Indians (25 or younger) together account for 52.9 percent of the program's total participation.

Black participants tend to be younger than the other two groups, and whites show greater attendance at ages over 30. Indians appear to be representative of the overall age distribution pattern.

Education

Of all women attending the family planning clinic, 68.8 percent had at least one year of high school, and almost 25 percent were high school graduates. Thirty percent had no high school education, and only 2.1 percent reported any educational experience beyond the high school level, including technical or vocational training.

As shown in Table 5.8, educational attainment generally did not vary appreciably by race, although a slightly higher proportion of blacks had graduated from high school.

Parity

Of all women active in the program, 72.9 percent had four or fewer pregnancies; 20.6 percent had over five pregnancies; and the mean number of pregnancies per client was 3.5. The mean number of pregnancies was 4.2 for whites, 3.2 for blacks, and 3.6 for Indians.

Among non-white clients, 4.8 percent of the black women and 4.9 percent of the Indian women had had no pregnancies at all, but 7.6 percent of the white women had never been pregnant. Considerably more (48.5 percent) of the blacks had experienced only one or two pregnancies, as compared to whites (25.0 percent) and Indians (37.2 percent), (Table 5.9).

At the middle parity levels (3-5 pregnancies) there are no apparent racial differentials, but at the higher levels, racial differences again appear. Of the white clients, 33.7 percent have 6 or more pregnancies,

compared to 17.5 percent of the blacks, and 19.9 percent of the Indian women.

Controlling total number of pregnancies by age results in the expected pattern: younger women having fewer pregnancies, and most multiparous women found in the older age groups (Table 5.10), and further this relationship holds among all three racial groups of clients.

When total pregnancies are controlled by educational level, (Table 5.11), few differences are observed. Women who had attended high school but never graduated accounted for the greatest percentage of pregnancies in each category, except for the highest category of eleven or more children.

Of the single women participating in the program, 53.9 percent had experienced only one pregnancy or none at all. Married women had more often experienced two or more pregnancies (86.3 percent). Ever-married women dominated the higher parity levels (two or more pregnancies); single women comprised the greatest number of participants having one pregnancy or none at all (Table 5.12).

Contraceptive History

Of all program participants, 59.1 percent indicated that they had never used any contraceptive before coming to the clinic. No contraceptive experience was reported by 40.7 percent of the whites, 66.7 percent of the blacks, and 54.9 percent of the Indians (Table 5.13).

Although not shown in Table 5.13, of those women who indicated previous contraceptive use, 84 percent were currently married, or had been married at some time.

Controlling for education, it is apparent that, at least for this group of clinic participants, educational attainment had little effect on contraceptive use (Table 5.14).

Of the 219 women who indicated previous contraceptive use, the oral pill was by far the most frequently mentioned method. Of the former users, 55.7 percent reported using oral contraceptives; 18.3 percent had previous experience with intrauterine devices. Five percent had used foam, 5.9 percent had used condoms, and 10.0 percent reported using some combination of methods. Other methods mentioned included jelly (1.4 percent) and diaphragm (0.5 percent).

Table 5.15 indicates that oral contraceptives were the most frequently used method among all three racial groups, and that the IUD among blacks and Indians was the next most popular.

Of all women previously using contraceptives, 74 reported satisfaction with the method used, 127 indicated dissatisfaction, and 18 said they were neither satisfied nor dissatisfied. Table 5.16 shows degree of satisfaction by method used.

Roughly 80 percent of the oral pill users were dissatisfied, and 77.8 percent of the condom users were dissatisfied. By contrast, only 20.5 percent of IUD users, and only 40 percent of foam users were dissatisfied. Most women who reported using a combination of methods indicated satisfaction with the method chosen.

Source of Referral

Of the 587 women reporting a specific source of referral, two-fifths (40.3 percent) cited the clinic itself as the source of referral. Prenatal

and postpartum clinics accounted for 31.9 percent, and public health nurse counseling added an additional 6.8 percent. It would appear that most of the family planning clients first attended the health clinic for some other reason.

Many of the clients (31.7 percent) stated that they had come to the clinic on their own initiative, or on advice from friends, neighbors, or relatives. Social Services caseworkers and high school counselors referred 18.9 percent of the clients, and private physicians and hospitals referred only 10.7 percent of the total clientele.

It may be seen in Table 5.17 that clinic referrals are distributed in roughly the same proportions (11.0 percent, 55.5 percent, and 33.5 percent) as total attendance by race (13.2 percent, 48.2 percent, and 38.6 percent), indicating no differential referral behavior by race. Clinic referrals accounted for the largest number of referrals in each category.

Roughly 90 percent of self-referrals, and 80 percent of the referrals from Social Services were non-white. Referrals from private physicians accounted for the smallest proportion of referrals among all three races. Whites, however, seemed slightly more likely to be referred by hospital staff or private physician than non-whites.

Family Planning: Survey Results

The general social environment in which the Robeson County Family Planning Clinic operates has immediate bearing on the relative success of its programs. Data from the County fertility survey were used to assess the receptivity of County residents to family planning ideas

and the acceptability of public sponsorship of family planning programs. Information was gathered about attitudes toward family planning, knowledge of and use of the clinic, and extent of perceived need for family planning education and more clinic facilities. The response from the 695 women in the survey sample are presented in this section.

Attitude Toward Family Planning

Respondents were interviewed on a number of subjects concerning attitudes about family planning as well as contraceptive behavior. When asked whether or not they approved of family planning, 73.4 percent stated that they approved unconditionally. Only 15.1 percent stated unequivocal disapproval (Table 5.18).

When race is controlled, it becomes apparent that more whites stated approval of family planning than blacks, and more blacks indicated approval than Indians (Table 5.19). While 89.3 percent of the whites approved of family planning, only 72.5 percent of the blacks, and 63.6 percent of the Indians approved of contraception. Of the Indians, 25.9 percent felt that it was wrong to practice contraception under any circumstances, while only 1.4 percent of the whites interviewed disapproved of family planning under any circumstances. Furthermore, Table 5.20 indicates a similarity in pattern of approval and disapproval among the young and older categories of those respondents. This would seem to suggest that approval of family planning is not age-specific.

Knowledge of Clinic

When asked whether they knew of a family planning clinic in the area, 424 (61.0 percent) replied that they had no knowledge of the clinic. Of the 45 percent who had heard of the clinic, most had received their information from friends or relatives (18.3 percent) (Table 5.21). The rest had heard about the clinic from their private physician (5.3 percent), public health nurse (8.8 percent), and through the media (3.7 percent).

More black women (47.8 percent) had knowledge of the clinic facilities than either whites (28.5 percent) or Indians (40.2 percent), and among all three racial groups, knowledge came most often from friends or relatives (Table 5.22).

Discussion About Clinic

The 270 women who stated they knew about clinic facilities were asked to estimate the amount of discussion they heard about the clinic. Most reported (64.7 percent) very little to moderate discussion; 27.9 percent reported a lot of discussion, and only 7.8 percent reported none at all (Table 5.23).

The subjects perceived this discussion to be mostly favorable to the family planning clinic (65.4 percent). Only 4.1 percent felt the discussion to be mostly unfavorable; the rest reported about an equal amount of favorable and unfavorable comments (Table 5.24).

Attendance at the Clinic

Of the 270 women who knew of a family planning clinic, only 106 had ever attended any family planning clinic. Ninety of those women (33.3 percent) had attended the clinic in Robeson County; the rest had received services at other clinics throughout the State, or in clinics in other states. Non-whites accounted for most of the clinic attendance and only 8.9 percent of those attending the clinic were white (Table 5.25). Roughly 41.7 percent of the blacks and 35.9 percent of the Indians having knowledge of the clinic had received services there at some time.

The 90 women who had attended the clinic were then asked to evaluate the services they had received. Most evaluated the service favorably: 44.4 percent said the services were excellent, 47.8 percent said they were adequate but not outstanding, 5.6 percent reported poor service, and only one woman (1.1 percent) rated the service as very bad (Table 5.26). Eighty-seven point five percent of whites rated the services at least adequate. Ninety-two point five percent of black and Indian respondents rated the services at least adequate.

Interest in Learning More About Family Planning

Of all women interviewed, 50.5 percent stated that they had no desire to learn more about family planning (Table 5.27). Blacks more than any other group expressed an interest in learning more about family planning. In most of the cases, sterility and contentment with present method were the reasons most often given for lack of interest (Table 5.28).

Perceived Need for More Clinics

Of all women interviewed, 59.2 percent felt that more clinic facilities were needed in the Robeson County area. Only 6.9 percent believed the present facilities to be adequate, and 33.9 percent had no opinion either way (Table 5.29). A slightly larger percentage of whites than blacks and Indians expressed a need for more clinics.

Summary and Conclusions

Data from the family planning clinic show that the clinic is serving 713 women from an estimated 4,187 in need of subsidized family planning services. The average family planning clinic patient active in the program in 1972 was a non-white, currently married female, 26 years old. She attended high school, and had experienced 3.5 pregnancies. She had never used any form of contraception prior to coming to the clinic, and first attended the clinic not for contraceptive purposes, but for other health reasons.

The clinic serves disproportionately more blacks and Indians in relation to the County's population. While 42.7 percent of the population is white, only 13.2 percent of the clinic patients are white. Moreover, 26.7 percent are black, but 48.2 percent of the clientele is black. Only Indians are being served in approximately the same proportions as their numbers in the population: 30.6 percent of the population, and 38.6 percent of the clientele is Indian.

The mean number of pregnancies among white family planning clinic clients was the highest of all three groups, while in the County population, whites had the lowest mean number of pregnancies. It has been

seen, however, that most of the racial differential in number of pregnancies may be explained by the age distribution of clients. Young blacks, on the other hand, seem more likely to attend the clinic before excessive births have occurred, sometimes requesting contraceptives even before their first pregnancy.

It is likely that the racial differential is the result of self-selection, and not due to biased recruitment procedures on the part of the clinic personnel. This differential may exist due to several factors. White clients may perceive the program to be aimed mostly at non-whites, or prefer not to be associated with a "welfare" or "charity" program. In addition, more whites can afford private care, and probably receive contraceptive services from local physicians.

Survey data from the population of Robeson County indicate a receptive locale for a large-scale family program. Women in the child-bearing years among all three racial groups generally approve of family planning. Roughly half expressed interest in learning more about family planning. High fertility, a large number of women in the childbearing years, high infant mortality, and a high degree of poverty indicate the need for contraceptive services to be made readily available to women who desire them

Despite the belief of clinic personnel that knowledge of clinic services is universal, survey findings indicate that less than half of the women interviewed had ever heard of a family planning clinic in Robeson County. This suggests that some use of local media (television, radio, billboards, newspapers) might be very helpful in making the clinic available to those women who are already motivated to use it.

The clinic does not seem to be a topic for widespread discussion, since 56.1 percent of the women interviewed in the survey reported hearing very little or no discussion about family planning clinics in the area. Most of the discussion that does occur, however, appears favorable.

Of all women interviewed, most felt that more clinic facilities were needed in the Robeson County area. Possibly due to ignorance of existing facilities, almost 34 percent expressed no opinion.

In conclusion, it has been seen that the women of Robeson County approve of family planning, express an interest in learning more about contraception, but are largely unaware of the existing services in the area. Conditions within the County are favorable to the operation of a family planning program: there does not appear to be organized opposition to the program, the majority of women approve of family planning, County Commissioners are sympathetic to the program's efforts, and staff members are able to establish a good rapport with clientele.

The program is offering very limited contraceptive services to 716 women of childbearing age, mostly non-white, and presumably low-income, most of whom seem to be using the clinic to space births and limit family size before excessive births become problematic.

The inclusion of even a small-scale publicity program might reach many women who are already motivated to practice contraception, but who cannot afford private care and/or are not aware of clinic facilities.

Implications

In order to facilitate meaningful interpretation of findings in this study, it may prove helpful to examine results obtained in this analysis with respect to an abstracted ideal model, indicating where problematic areas occur.

Past family planning research has stressed a number of areas which have proved vital to an effective program (Berelson, 1969):

1. A statement of explicit goals, about which the program formulates policies, targets, and actions

2. Flexible organizational structure which provides for prompt decision-making and insures free flow of communication between administrators and staff

3. Continuous personnel training programs to insure competent staff

4. Effective communication with the community, through media which are trusted by the target population, and through community leaders. All communicative efforts should be designed not to offend religious or moral values

5. Services made readily available to the target population and vigorous outreach and follow-up procedures

6. "Cafeteria Approach" to offering contraceptives: making available a variety of methods so that couples may choose the one best suited to their requirements

7. Self-evaluation

8. Cooperation with other agencies which might prove useful in referring patients to the program.

The Robeson County program has no clearly defined program objectives, and appears to have a narrowly defined target group. The program's only objective appears to be to serve all those who request service. There are no explicit goals, stated in terms of attendance or acceptance rates, or in terms of the number of the County's families who have been found to be in need of services.

One of the long-range goals of any family planning program, is to encourage more women to plan births, spacing their births, and effectively limiting their family size rather than utilizing clinic services only after several excessive births have occurred. In short, then, the aim is to reach women early in their childbearing years, at low parity levels, and to furnish contraceptive services as a preventive measure rather than as a last resort. The Robeson County program has partially achieved this goal by reaching many young women (25 years old or younger) at low parity levels (0-2 pregnancies), both married and single. A relatively small proportion has experienced more than six pregnancies.

The organizational structure of the Robeson County program provides for sole authority vested in the County Health Director, who makes all policy and implementation decisions. He encourages free communication between staff and administration, so that decisions are usually reached after discussion with appropriate personnel. Free communicative exchange is not, however, inherent in the organizational structure, but rather exists because of the present director's preference for staff input.

The family planning program of Robeson County is only one of many health programs offered by the Public Health Department. As such, it has no distinct budget or staff, and does not receive the sole attention of any administrative personnel. Assigning responsibility for the program to an individual other than the County Health Director might result in a more vigorous program.

The Robeson County clinic has a sporadic training program, and very little communication with the target population. Local media are not utilized at all to disseminate information about the clinic, and because of the ethnic composition of the County, any future efforts must be undertaken carefully, in order to inform without offending.

Services are not readily available to the potential clientele. Lack of transportation makes attendance at the clinic difficult, and the limited weekday schedule may prohibit employed women from attending. The program is most limited by the amount of time devoted to family planning. One day per week is not sufficient to handle the case load being carried by the program. While an additional afternoon each week would be ideal, even two extra sessions during the month, perhaps on Saturdays or evenings, would allow personnel to spend more time with each client. In addition, evening sessions or weekend clinics would enable working women, or women with transportation problems on workdays, to attend the clinic, and would facilitate the participation of husbands as well. Major objection to expanding the program in this way comes from the public health nurses, who feel that they are operating at maximum capacity at this time. Thus, the addition of more staff positions seems mandatory before the program can expand family planning services appreciably.

The program is also hindered by the narrow choice of contraceptive techniques being offered. Although the IUD is undoubtedly an inexpensive and highly effective method, and although it has gained widespread acceptance in the Robeson County area, research in family

planning indicates that the more effective programs offer several alternative methods, allowing the client to choose the method which seems most compatible with her own sexual behavior, personal preferences, and value system. When a client refuses IUD insertion out of fear, or when side effects prove too unpleasant, the clinic is forced to close the case, since no other methods are regularly offered. Expansion of the program might be simply accomplished by merely introducing alternative methods into the program.

The clinic is making little effort to recruit and motivate potential clients to receive services. Proceeding on the assumption that everyone knows of the clinic, the personnel operate no active outreach program by which to contact the population in need of contraceptive services. In addition, since the program is already serving all the clients possible under the existing schedule, additional clientele would only impose a hardship on the staff. Thus, until the program has been expanded, either by schedule revision or by the creation of new personnel positions, there is little interest in recruiting more clients.

Current self-evaluation procedures consist mainly of summaries, complied annually, showing total attendance, new patients, and drop-outs. Evaluative efforts are limited by a lack of specific goals. Once program goals have been established, self-evaluation procedures should be instituted in order to reflect the progress being made by the program. In this way, constant re-evaluation would enable the program to modify techniques which proved ineffective, and to increasingly rely on methods which bring the best results in terms of program goals.

Intraorganizational cooperation seems to be minimal. With the exception of the Department of Social Services, few referrals are received from the other agencies. Referrals from the private physicians are rare, and the relationship between the clinic and local medical community may be characterized as competetive rather than cooperative.

The Robeson County program makes no provisions for male clients. Although it is true that no male has ever requested services from the clinic, it is possible that by working through the wife, the program might take full advantage of opportunities to encourage male participation in the program. Vasectomies are available from local urologists and are far cheaper than tubal ligations, so that couples interested in sterilization might favor a vasectomy, if made available through the clinic.[3] Also, the fact that some women stated that they did not participate in family planning because their husbands disapproved suggests the inclusion of an information program aimed at males as well as females. The indicated male resistance to contraception also suggests a major obstacle to reach all couples of childbearing age.

In conclusion, the Robeson County Family Planning Program has been analyzed as a service organization offering family planning services to a population shown to need contraceptive assistance. The

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[3] The current clinician, in addition to his negative attitude toward oral contraceptives, does not favor vasectomies, either, so that any attempt to recruit male vasectomy prospects into the program would require the services of an additional clinician.

organization is totally dependent on the local community for economic support. In return, the program offers the community services which would improve maternal and child health as well as ease the economic burdens imposed by excessive births. It has been seen, however, that before the program can operate at maximum effectiveness, it must eliminate some of the limitations under which it now operates.

Table 5.1 Number of patients receiving family planning services in Robeson County clinics, by year

Year	New patients	Patients treated previously	Total
1956	14	17	31
1957	15	12	27
1958	21	2	31
1959	5	0	5
1960	13	0	13
1961	5	2	7
1962	17	1	18
1963	101	3	104
1964	128	44	172
1965	246	163	409
1966	202	251	453
1967	121	295	416
1968	207	271	478
1969	143	302	445
1970	240	354	594
1971	264	N.A.*	N.A.*
1972	239	474	713

*Data not available for 1971.

Table 5.2. Source of Referral Reported by Clinic Patients Attending the Robeson County Family Planning Program in 1972.

Source	Number of Patients referred, by source	Percentage
Private physician	65	9.5
Social Services	112	15.9
Health Department prenatal, postpartum clinics	228	32.3
Self-referral	189	26.8
Other (school guidance counselor)	1	.2
No response*	110	15.6
Total	705	100.0

* Clinic staff assumes "No Response" to mean self-referral. Since many clerks share responsibility for obtaining and recording registration information, practices are not consistent. The category of "self-referral" should therefore be regarded as an underestimate, since at least some of the "no response" category should have been included.

Table 5.3. Number of Patients Using Method Prescribed by Clinic, by Year.

Year	Jelly, cream, suppositories	Oral contraceptives	Intrauterine device
1956	31	--	--
1957	27	--	--
1958	31	--	--
1959	5	--	--
1960	13	--	--
1961	7	--	--
1962	18	--	--
1963	47	--	57
1964	64	--	108
1965	28	19	362
1966	15	--	438
1967	--	--	416
1968	--	33	445
1969	--	64	383
1970	--	77	51.7
1971	N.A.*	N.A.*	N.A.*
1972	--	3	696

*Data not available for 1971.

Table 5.4. Number of Patients Dropping Out of the Robeson County Family Planning Program, by Reason Given for Discontinuing Participation, for 1972.

Reasons	Frequency	Percentage
IUD removed - patient did not desire reinsertion	72	40.9
IUD expelled	14	8.0
Patient moved outside Robeson County	36	20.5
Patient referred to care of private physician	20	11.4
Patient became pregnant	21	11.9
Patient became sterile	2	1.1
Patient wished to discontinue contraception altogether	7	4.0
Patient stopped using oral contraception	4	2.2
Total	176	100.0

Table 5.5. Marital Status of Family Planning Clients Visiting the Clinic During 1972, by Race of Client.

Marital Status	Total		White		Black		Indian	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Single	239	34.4	20	21.7	157	46.9	62	23.2
Married	406	58.6	61	66.3	154	46.0	191	71.5
Divorced, Separated	39	5.6	11	12.0	18	5.4	10	3.7
Widowed	10	1.4	0	0.0	6	1.8	4	1.6
Total	694	100.0	92	100.0	335	100.0	267	100.0

Table 5.6. Age of Clients Attending the Robeson County Family Planning Clinic in 1972, by Marital Status of Client.

Age in years	Total Percent	Single Percent	Married Percent	Separated divorced Percent	Widowed Percent
20 or younger	27.3	50.5	16.2	10.0	0.0
21-25	30.3	28.3	31.6	27.5	27.3
26-30	17.6	10.8	22.8	10.0	0.0
31-35	10.1	2.5	13.6	20.0	9.1
36-40	7.1	5.0	7.3	7.5	45.4
40 +	7.7	2.9	8.5	25.0	18.2
Total Number	704	240	413	40	11

Table 5.7. Age of Clinic Participants in 1972, by Race of Patient.

Age in years	Total Number	Total Percent	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent
20 or younger	191	27.5	15	16.3	122	36.4	54	20.1
21-25	209	30.0	18	19.6	116	34.6	75	28.0
26-30	122	17.6	17	18.5	41	12.2	64	23.9
31-35	71	10.2	19	20.6	16	4.8	36	13.4
36-40	48	6.9	9	9.8	19	5.7	20	7.5
40 +	54	7.8	14	15.2	21	6.3	19	7.1
Total	695	100.0	92	100.0	335	100.0	268	100.0

Table 5.8. Educational Attainment Level, In Years School Completed, for Family Planning Clients Attending the Robeson County Clinic during 1972, by Race of Client.

Highest grade completed	Total Number	Total Percent	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent
1-6 years	54	8.1	10	11.2	13	4.1	31	12.2
7-8 years	139	21.1	22	24.7	55	17.4	62	24.4
9-11 years	291	44.1	36	40.5	145	45.7	110	43.3
12 years	163	24.6	18	20.3	99	31.2	46	18.1
Over 12 years	13	2.1	3	3.3	5	1.6	5	2.0
Total	660	100.0	89	100.0	317	100.0	254	100.0

Table 5.9. Total Number of Pregnancies for Women Attending the Family Planning Clinic During 1972, by Race of Client.

Total number of pregnancies	Total		White		Black		Indian	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	36	5.2	7	7.6	16	4.8	13	4.9
One	153	22.2	12	13.0	96	28.9	45	16.9
Two	130	18.8	11	12.0	65	19.6	54	20.3
Three	109	15.8	17	18.5	47	14.2	45	16.9
Four	75	10.9	10	10.9	30	9.0	35	13.2
Five	45	6.5	4	4.3	20	6.0	21	7.9
Six or more	142	20.6	31	33.7	58	17.5	53	19.9
Total	690	100.0	92	100.0	332	100.0	266	100.0

Table 5.10. Percentage Distribution of Women Attending the Clinic During 1972 by Parity, age, and Race.

Age in years	Race	Total Number of Pregnancies							
		None	1	2	3	4	5	6+	Total
Under 21	White	85.7	58.4	18.2	0.0	0.0	0.0	0.0	16.3
	Black	87.5	70.9	36.9	23.4	6.7	5.0	0.0	36.2
	Indian	69.2	51.2	27.8	11.1	2.9	0.0	0.0	19.9
21-25	White	14.3	25.0	63.6	29.4	0.0	0.0	6.5	19.6
	Black	6.2	28.1	52.3	57.4	59.9	30.0	5.2	35.0
	Indian	23.1	31.1	48.0	40.1	25.7	14.2	3.8	28.3
26-30	White	0.0	8.3	18.2	41.2	40.0	25.0	6.5	18.5
	Black	6.2	0.0	10.8	12.8	26.7	15.0	25.9	12.0
	Indian	0.0	11.1	20.4	33.3	39.9	38.1	18.9	23.7
31-35	White	0.0	8.3	0.0	23.5	30.0	50.0	29.0	20.6
	Black	0.0	0.0	0.0	6.4	6.7	25.0	10.3	4.8
	Indian	0.0	2.2	1.9	8.9	20.0	38.1	28.3	13.5
36-40	White	0.0	0.0	0.0	5.9	10.0	25.0	19.4	9.8
	Black	0.0	0.0	0.0	0.0	0.0	15.0	27.6	5.7
	Indian	7.7	2.2	1.9	2.2	8.6	4.8	22.6	7.5
41 +	White	0.0	0.0	0.0	0.0	20.0	0.0	38.6	15.2
	Black	0.0	1.0	0.0	0.0	0.0	10.0	31.0	6.3
	Indian	0.0	2.2	0.0	4.4	2.9	4.8	26.4	7.1
TOTAL	All races	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Number of cases)	White	(7)	(12)	(11)	(17)	(10)	(4)	(30)	(92)
	Black	(16)	(96)	(65)	(47)	(30)	(20)	(58)	(332)
	Indian	(13)	(45)	(54)	(45)	(35)	(21)	(53)	(266)

Table 5.11. Total Number of Pregnancies for Family Planning Clinic Patients, by Years of School Completed.

Total Pregnancies	Years of School Completed 1-6 Percent	7-8 Percent	9-11 Percent	12 Percent	13+ Percent	Total Percent
None	3.5	4.3	5.5	4.3	8.3	4.8
One	7.0	19.9	22.0	28.2	16.7	21.7
Two	3.5	11.3	19.7	30.8	8.3	19.0
Three	17.5	16.3	17.9	14.7	16.7	16.7
Four	10.5	11.3	12.1	9.2	0.0	10.9
Five	14.0	5.7	5.9	6.1	16.7	6.8
Six-Ten	31.7	24.1	15.9	6.7	25.0	16.9
Eleven +	12.3	7.1	1.0	0.0	8.3	3.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
(Number of Cases)	(57)	(141)	(290)	(163)	(12)	(663)

Table 5.12. Parity of Family Planning Patients, by Marital Status of Client.

Total number of pregnancies	Single		Ever-married		Total	
	Number	Percent	Number	Percent	Number	Percent
None	29	12.1	8	1.7	37	5.3
One	100	41.9	53	11.5	153	21.9
Two	44	18.4	88	19.1	132	18.9
Three	30	12.6	84	18.4	114	16.3
Four	11	4.6	64	13.9	75	10.7
Five	8	3.3	38	8.3	46	6.6
Six-ten	15	6.3	106	23.0	121	17.3
Eleven +	2	0.8	19	4.1	21	3.0
Total	239	100.0	460	100.0	699	100.0

Table 5.13. Number of Clients Reporting Contraceptive Use, by Race of Client.

Use	White		Black		Indian		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Had used contraceptives before coming to clinic	35	59.3	85	33.3	92	45.1	212	40.9
No contraceptive experience	24	40.7	170	66.7	112	54.9	306	59.1
Total	59	100.0	255	100.0	204	100.0	518	100.0

Table 5.14. Number of Clients Reporting Previous Contraceptive Use, by Years of School Completed.

Use	Years of school completed 1-6 Percent	7-8 Percent	9-11 Percent	12 Percent	13+ Percent	Total Percent
Had used contraceptives before coming to clinic	40.5	38.8	43.0	40.6	66.7	41.7
No contraceptive experience	59.5	61.2	57.0	59.4	33.3	58.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
(Number of cases)	(42)	(103)	(214)	(133)	(9)	(501)

Table 5.15. Contraceptive Method Previously Used by Clients Attending the Family Planning Clinic, by Race of Client.

Method	Total Number	Total Percent	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent
Oral pills	116	57.1	24	70.6	40	50.6	52	57.8
IUD	40	19.7	1	2.9	23	29.1	16	17.7
Condom	12	5.9	4	11.8	3	3.8	5	5.6
Diaphragm	1	.5	0	0.0	0	0.0	1	1.1
Foam	11	5.4	1	2.9	3	3.8	7	7.8
Jelly, cream	3	1.5	1	2.9	1	1.3	1	1.1
Combination of methods	20	9.9	3	8.9	9	11.4	8	8.9
Total	203	100.0	34	100 0	79	100.0	90	100.0

Table 5.16. Satisfaction with Methods Used by Clinic Participants Prior to Clinic Attendance.

Method	Satisfaction Number	Satisfaction Percent	Dissatisfaction Number	Dissatisfaction Percent	Total Number	Total Percent
Oral pills	23	31.1	94	76.4	117	59.4
IUD	31	41.9	8	6.5	39	19.8
Condom	2	2.7	7	5.7	9	4.6
Diaphragm	0	0.0	1	.8	1	.5
Foam	6	8.1	4	3.3	10	5.1
Jelly, cream	1	1.4	2	1.6	3	1.5
Combination of methods	11	14.8	7	5.7	18	9.1
Total	74	100.0	123	100.0	197	100.0

Table 5.17 Source of Referral to Clinic Reported by Family Planning Clients, by Race of Client.

Source of Referral	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent	Total Number	Total Percent
Private physician, hospital staff	12	15.2	26	9.1	25	11.3	63	10.7
Public health nurse, other health clinics	25	31.6	126	44.0	76	34.2	227	38.7
Social services caseworker, high school counselor	24	30.4	42	14.7	45	20.3	111	18.9
Self, friend relative, neighbor	18	22.8	92	32.2	76	34.2	186	31.7
TOTAL	79	100.0	286	100.0	222	100.0	587	100.0

Table 5.18 Approval of Family Planning Among a Sample of 695 Women Living in Robeson County.

Indicated Approval	Number	Percentage
Disapprove	105	15.1
Disapprove except under certain conditions*	37	5.3
Neutral	39	5.6
Approve	510	73.4
No response	4	.6
TOTAL	695	100.0

*Disapprove unless: parent cannot take care of more children, health of wife is in danger, financial conditions do not permit a larger family, religion permits, contraceptive method is satisfactory, to space children, to keep from having too many children.

Table 5.19. Indicated Approval of Family Planning, by Race of Respondent.

Indicated Approval	Total		White		Black		Indian	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Disapprove	105	15.2	3	1.4	29	14.5	73	25.9
Disapprove except under certain circumstances	37	5.4	8	3.8	9	4.5	20	7.1
Neutral	39	5.6	11	5.3	17	8.5	11	3.9
Approve	510	73.8	183	89.3	145	72.5	182	63.6
Total	691	100.0	205	100.0	200	100.0	286	100.0

Table 5.20. Indicated Approval of Family Planning by Age of Respondent.

Nature of approval	Age												Total	
	20 and under		21-25		26-30		31-35		36-40		41+			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Disapprove	9	18.4	15	12.8	15	11.2	12	13.8	13	12.4	41	20.6	105	15.2
Conditional Disapproval	3	6.1	3	2.6	4	3.0	4	4.6	9	8.6	14	7.0	37	5.4
Neutral	3	6.1	5	4.3	6	4.5	4	4.6	7	6.6	14	7.0	39	5.6
Approve	34	69.4	94	80.3	109	81.3	67	77.0	76	72.4	130	65.4	510	73.8
Total	49	100.0	117	100.0	134	100.0	87	100.0	105	100.0	199	100.0	691	100.0

Table 5.21. Number of Women Aware of Robeson County Family Planning Clinic Facilities.

Knowledge of clinic	Freguency	Percentage
No knowledge of clinic	424	61.1
Knowledge of clinic from private physician	41	5.9
Knowledge of clinic from friend or relative	129	18.6
Knowledge of clinic from public health or social services personnel	61	8.8
Knowledge from media	26	3.7
Knowledge through someone at place of work	9	1.3
Came to know of clinic from some other source	4	0.6
Total	694	100.0

Table 5.22. Number of Women Aware of Family Planning Clinic Facilities, by Race and Source of Referral.

Knowledge	Total		White		Black		Indian	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No knowledge of clinic	424	61.1	146	71.2	171	59.8	105	52.2
Knowledge of clinic from private physician	41	5.9	9	4.4	18	6.4	14	7.0
Knowledge from friend or relative	129	18.6	21	10.1	63	22.0	45	22.4
Knowledge of clinic from public health nurse, or social services personnel	61	8.8	11	5.3	23	8.0	27	13.4
Knowledge from media	26	3.7	12	5.9	7	2.4	7	3.5
Knowledge through someone at place of work	9	1.3	4	2.0	4	1.4	1	.5
Came to know of clinic from some other source	4	.6	2	1.0	0	0.0	2	1.0
Total	694	100.0	205	100.0	286	100.0	201	100.0

Table 5.23. Respondent's Estimate of the Amount of Discussion Heard Concerning the Robeson County Family Planning Clinic.

Discussion	Frequency	Percentage
A lot	75	27.8
Moderate amount	71	26.4
Very little	102	38.0
None	21	7.8
Total	269	100.0

Table 5.24. Amount of Favorable / Unfavorable Discussion Heard About Family Planning Clinic.

Discussion	Frequency	Percentage
Mostly good	161	65.4
Equal amounts of good and bad	75	30.5
Mostly bad	10	4 1
Total	246	100.0

Table 5.25. Number of Clients Attending the Robeson County Family Planning Clinic, by Race of Client.

Attendance	Total Number	Total Percent	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent
Had never attended the Robeson County clinic	183	67.0	52	86.7	75	64.1	56	58.3
Had received services from the Robeson County clinic	90	33 0	8	13.3	42	35.9	40	41.7
Total	273	100.0	60	100.0	117	100.0	96	100.0

Table 5.26. Evaluation of Family Planning Clinic Services, by Those Women Ever Attending the Clinic in Robeson County, by race of Client.

Evaluation	Total Number	Total Percent	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent
Excellant	40	44.4	4	50.0	16	40.0	20	48.8
Adequate but not outstanding	43	47.8	3	37 5	21	52.5	19	46.3
Poor	5	5.6	1	12.5	2	5.0	2	4.9
Very bad	1	1 1	0	0.0	1	2.5	0	0.0
No response	1	1 1						
Total	90	100.0	8	100 0	41	100.0	40	100.0

Table 5.27. Interest Expressed by Respondents in Learning More About Family Planning, by Race of Respondent.

Interest	White No.	White %	Indian No.	Indian %	Black No.	Black %	Total No.	Total %
No interest in learning more about family planning	142	69.3	144	51.1	65	32.2	351	50.5
Undecided	9	4.4	13	4.6	18	8.9	40	5.8
Interest in learning more about family planning	54	26.3	125	44.3	119	58.9	298	42.9
No response							3	.4
TOTAL	205	100.0	282	100.0	202	100.0	695	100.0

Table 5.28. Reasons Given by Respondents for Lack of Interest in Learning More About Family Planning, by Race of Respondent.

Reasons	Total Number	Total Percent	White Number	White Percent	Black Number	Black Percent	Indian Number	Indian Percent
Want more children	36	8.7	5	3.3	8	7.6	23	14.4
Sterility, menopause	149	35.8	56	37.1	26	24.8	67	41.9
Contentment with present method	177	42.5	71	47.0	59	56.2	47	29.4
Religion prohibits use of contraception	6	1.5	1	.7	0	0.0	5	3.1
Knows enough already	28	6.7	12	7.9	6	5.7	10	6.3
Sees family planning as a private matter	3	.7	2	1.3	0	0.0	1	.6
No particular reason	11	2.6	3	2.0	2	1.9	6	3.7
Widowed, separated, single, or divorced	6	1.5	1	.7	4	3.8	1	.6
Total	416	100.0	151	100.0	105	100.0	160	100.0

Table 5.29. Perceived Need for More Clinics Among 695 Robeson County Women of Childbearing Age.

Need	Total		White		Black		Indian	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
More clinics are needed in this area	409	59.2	103	50.2	129	63.9	177	62.3
There are enough clinics now	48	6.9	9	4.4	15	7.4	24	8.5
Don't know	234	33.9	93	45.4	58	28.7	83	29.2
Total	691	100.0	205	100.0	202	100.0	284	100.0

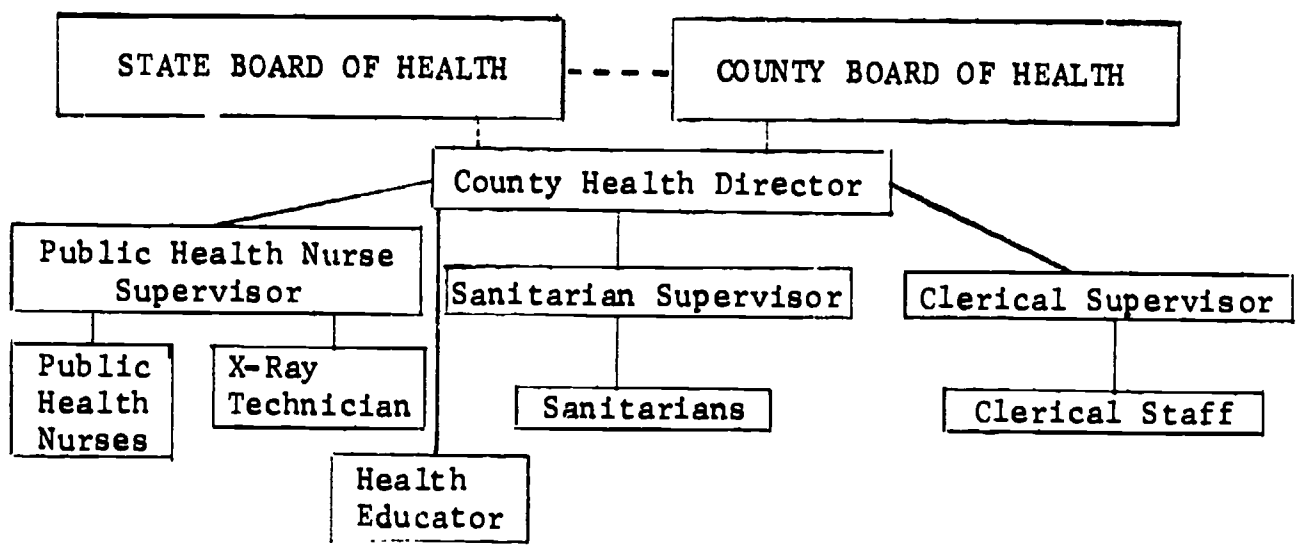

Figure 5.1. The Administrative Organization of the Robeson County Health Department.

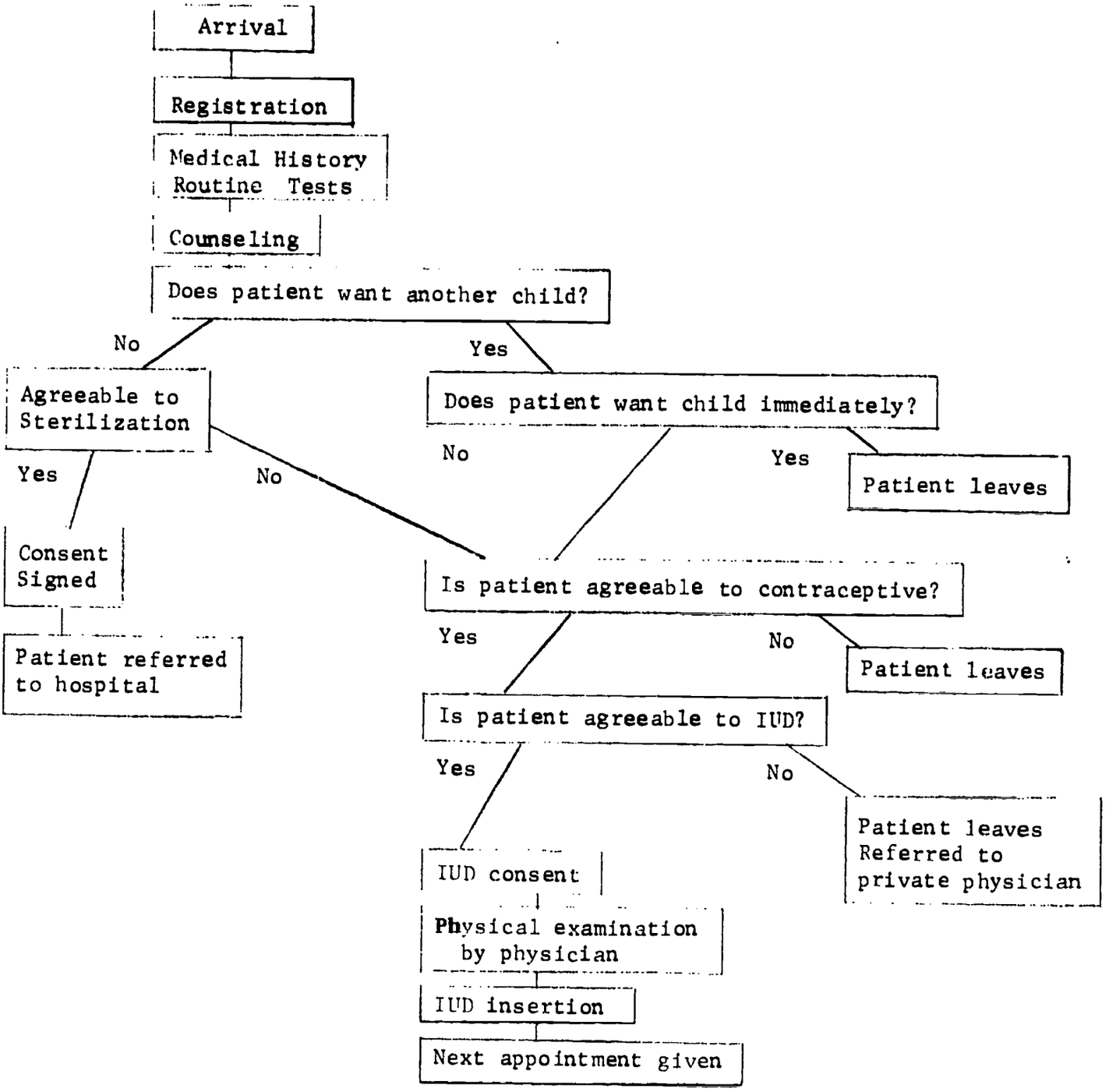

Figure 5.2 Flow Chart Showing Clinic Procedures.

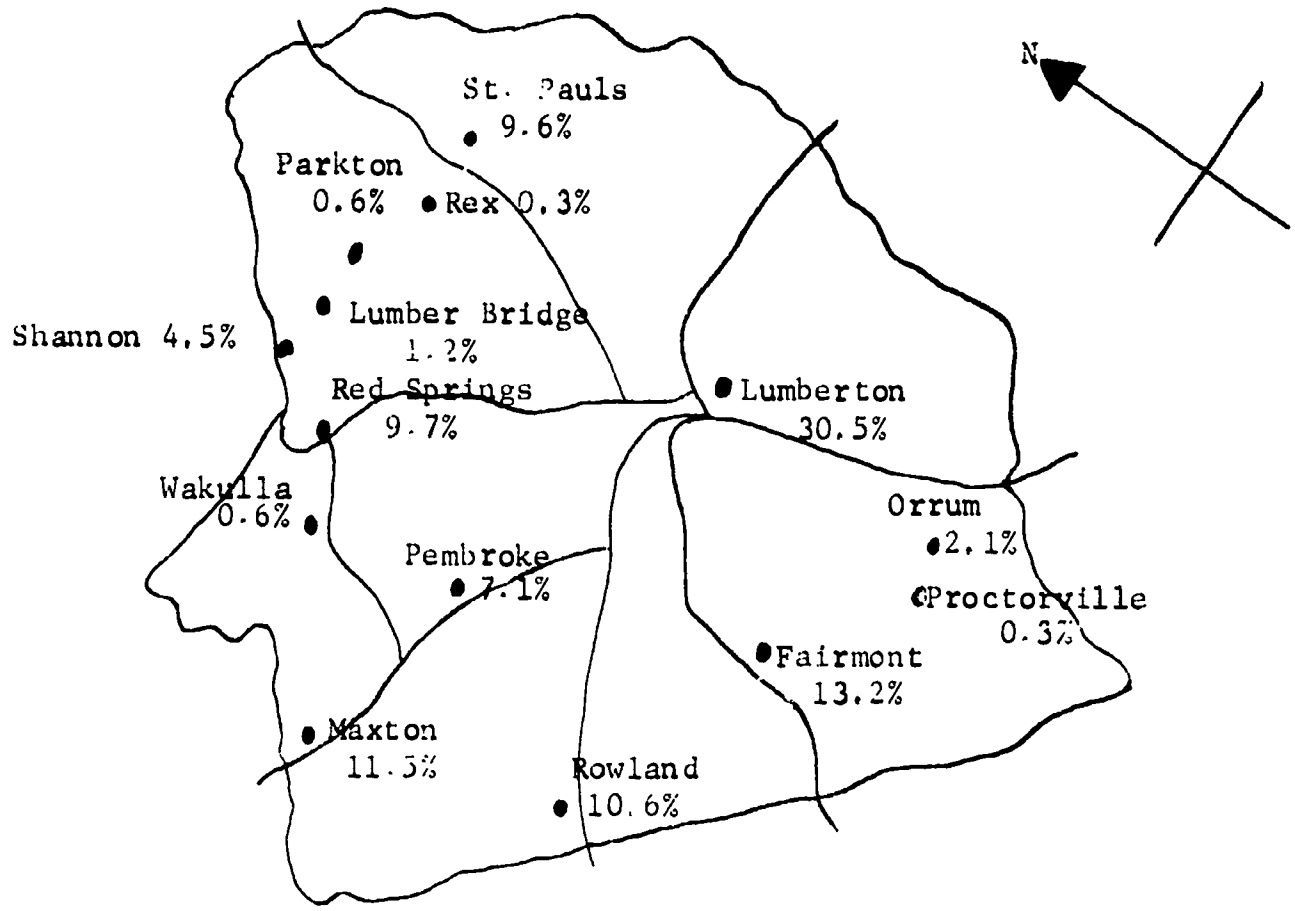

Figure 5.3 Percentage of Total Client Attendance at the Robeson County Family Planning Clinic, in Lumberton, by Area of Residence.

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