FERTILITY DIFFERENTIALS IN INDIA

EVIDENCE FROM A RURAL BACKGROUND

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THE study of fertility differentials is of special significance in view of economic development and national planning. Its importance lies in the clues it may yield regarding future trends in the birth rate. For this reason, quite a few fertility studies have recently been carried out in various parts of India. Though the results are far from conclusive, they all point to the fact that the stage of controlled fertility leading to wide fertility differentials has not quite begun in India. The present paper is an attempt to bring additional evidence to bear on this question.

Source Material. The data presented here are based on a fertility survey conducted in 1956 in certain rural areas in the Banaras Tehsil of the State of Uttar Pradesh in India. The selection of the households for the survey was made by a two-

stage sampling procedure. All the inhabited villages in the Tehsil, around 1,200 in number, were first classified into three categories according to their population size, and about 5 per cent of the villages were randomly selected from each of the categories. This yielded 60 villages, from each of which a sample of 22.5 per cent of the households was drawn at random for the purposes of the survey. Thus the sample represented about 1.125 per cent of the total rural households in Tehsil. Interview schedules were completed for 1,197 households which gave information for 2,380 couples.

Analytical Categories. The basic information used for analysis here is the number of children ever born by effective marriage duration. The effective marriage duration has been defined as the difference between the age of the wife at the consummation of marriage, or "return marriage," and her age at the time of the survey, or at the termination of the marriage in cases of broken marriage. The intervals outside the age-range 14–45 were excluded in arriving at the effective marriage durations.

The couples in the sample were first divided into four social classes, on the basis of caste,—or occupation if caste was not known. Class I includes higher castes such as Brahmins and Kshatriyas. Class II embraces Hindu castes of intermediate social status, and Class III has both lower Hindu castes and scheduled castes. All non-Hindus, virtually all of whom are Muslims, make up Class IV. There were not sufficient numbers of Muslims to permit a breakdown of this group into upper, middle and lower classes, as was done with the Hindus.

Among the distinguishing characteristics of the four classes are the following: male literacy is 82 per cent in Class I, 30 per cent in Class II, 19 per cent in Class III and 36 per cent in Class IV. Status differences among the three Hindu classes are also evident in the incidence of vegetarianism. In Class I, where Brahmins are required by their religion to abstain from eating meat or fish, 52 per cent of the men are vegetarians, as compared to 43 per cent in Class II and 16 per cent in Class III.

Effective Marriage Duration (Years)	Average Number of Children Ever Born per Woman				Number of Women			
	Social Class				Social Class			
	I	II	III	IV	I	II	III	IV
0–4	0.45	0.29	0.45	0.47	83	174	89	40
5–9	1.68	1.69	1.58	1.81	73	155	99	26
10–14	3.54	3.44	3.43	3.16	54	157	92	19
15–19	4.31	4.75	5.00	5.47	51	129	101	17
20–24	4.80	5.78	6.30	6.73	49	138	67	15
25–29	6.15	6.99	7.07	7.19	68	112	83	27
30+	5.74	7.57	6.93	7.57	53	173	107	21

Table 1. Average number of children ever born per woman by effective marriage duration and social class.

There are no vegetarians in Class IV. The occupational differences among the four classes are also striking. Agricultural owners make up 67 per cent of the males in Class I, 60 per cent in Class II, 36 per cent in Class III, and 16 per cent in Class IV, while the per cent in agricultural labor runs in almost the reverse direction, *viz.* 1 per cent, 7 per cent, 25 per cent and 4 per cent respectively. The remainder in each class are engaged in non-agricultural occupations. The percentages in the category of health, education and administration are 9, 2, 1 and 2 respectively.

Fertility Differentials by Class

The social classes as described above differ also in their fertility performance. The average number of children ever born per woman by effective duration of marriage for the four social classes is given in Table 1, and is also shown in Fig. 1. As can readily be seen, fertility differentials are almost absent for marriage durations up to 15 years. However, for later durations the differentials are rather marked. Fertility is the lowest in Class I, rises progressively through Classes II and III, and is highest in Class IV.[1]

[1] Davis, Kingsley: The Population of India and Pakistan, Princeton, 1951, pp. 73–82, using the index of child-woman ratio, arrives at a similar conclusion

(Continued on page 186)

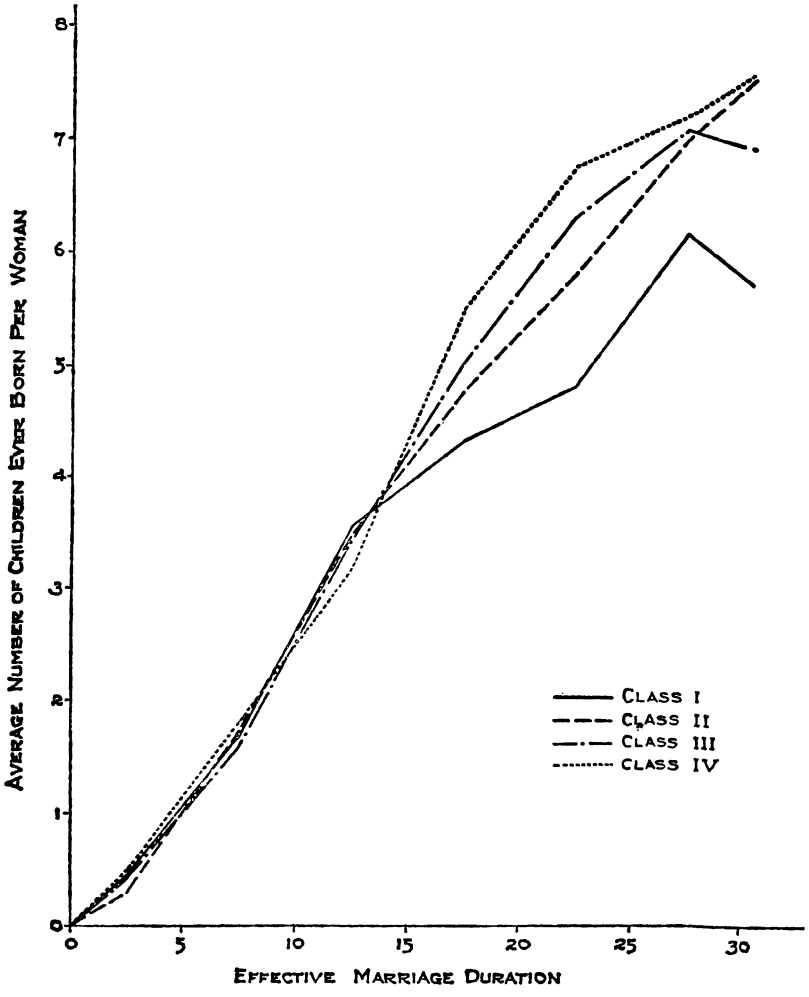

Figure 1. Average number of children even born per woman by effective marriage duration and social class.

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that the fertility is inversely related to class status based on caste among Hindus, Muslims having a higher fertility. The primary, though not the sole, cause of this differential is found to be greater taboo on widow re-marriage among higher classes. Sinha, J. N., *in* Differential Fertility and Family Limitation in an Urban Community of Uttar Pradesh, *Population Studies,* November 1957, 11: 157–169, is in agreement that the high caste Hindus have a lower fertility than the low caste Hindus, the latter having fertility comparable to that of Muslims. This is based on the completed fertility of couples where both husband and wife were living at the time of the survey.

Social Class	Number of Couples	Couples with Terminated Marriages	Percentage of Couples with Terminated Marriages
I	431	149	34.6
II	1038	246	23.7
III	638	176	27.6
IV	165	38	23.0

Table 2. The proportion of couples with terminated marriages by social class.

Fertility and Mortality. Mortality, like fertility, may well be expected to differ among the classes. This is examined by comparing the number of children born with the number of children surviving for different marriage durations. In so doing, however, it is necessary to eliminate broken marriages from the analysis because, for a given duration of marriage, the children of a union terminated some time before the survey would be older on the average than children of an unbroken marriage. And since they are older, the children of broken marriages would have less chance of survival than the younger children of current marriages. Moreover, the four social classes exhibit differences in the proportion of terminated marriages, as is seen in Table 2. Such variations could arise out of differences in tolerance of widow remarriage in the four classes, and may not be taken to signify mortality differences.

When the analysis is confined to couples with both the husband and the wife living, the pattern of fertilty differentials among the four classes still persists, though the differentials are now slightly reduced and the fertility levels are higher (Fig. 2). This implies that for a given marriage duration the fertility of couples with terminated marriages was lower than for those with unbroken marriages. It may be mentioned in this context that the couples with terminated marriages are likely to belong to a different and older cohort, that one of the partners may have suffered from ill health, and that, since the marriage existed some time back, there may be memory loss and hence under-reporting of children.

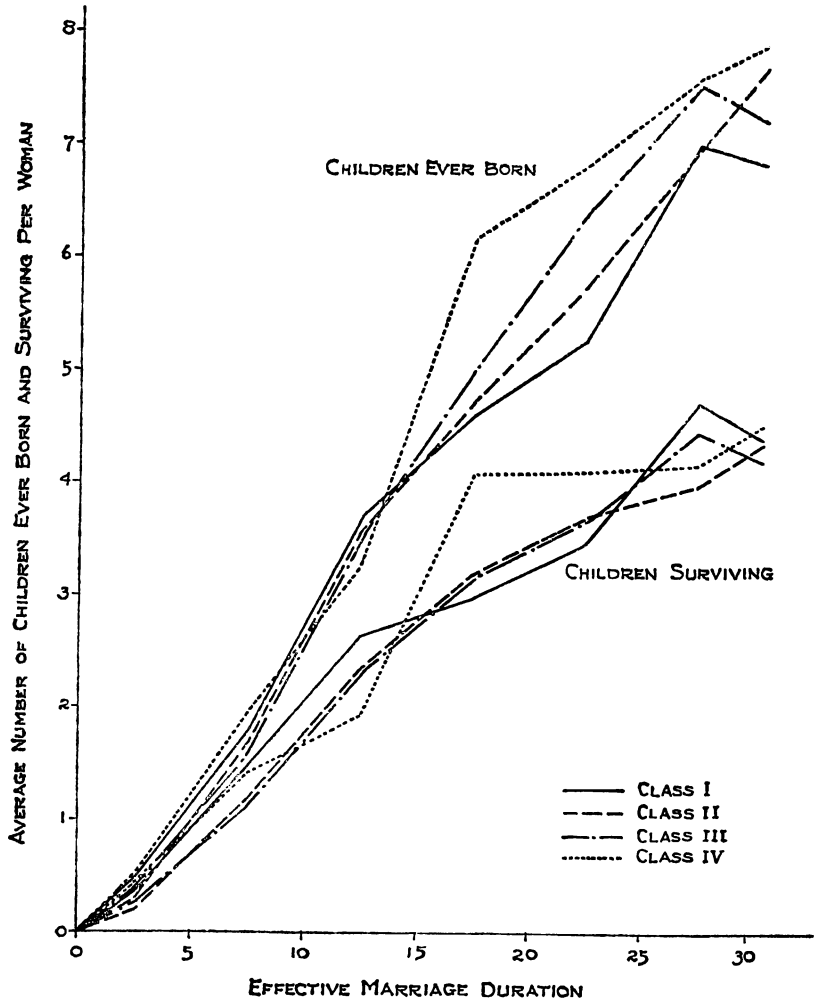

Figure 2. Average number of children ever born and children surviving per woman by effective marriage duration and social class. (Couples with both husband and wife living.)

The number of children surviving per woman by duration of marriage for the four social classes are also shown in Fig. 2, side by side with the number of children ever born. The curves for the number of living children show wide fluctuations and the differentials are no longer apparent. It would thus appear that the higher fertility of the lower classes works to compen-

sate for the higher mortality which leaves the number of children living at about the same level for all the four classes.

According to this reasoning, the proportion of children surviving would vary over the four social classes, and would be highest in Class I. A precise quantitative measurement of this is attempted in Table 3. The table shows the percentage of children surviving by marriage duration for the four classes. The proportion is expected to be a declining function of the marriage duration simply because, with more years of life for the children, the chances of death are greater. This apparently is not strictly observed for individual social classes, although it is according to expectation for all classes pooled together. This renders comparison between social classes difficult. At the outset the overall percentage surviving, for all marriage durations together, is highest in Class I, and progressively diminishes through Classes II, III and IV, though the latter three classes show very narrow differences. Evidently it is necessary to standardize this percentage for marriage duration, which is related to the average duration of exposure to death for the children born. Since the proportion of children surviving by marriage duration is unstable for individual classes, indirect standardization is preferred; this uses the percentage of children surviving among children born for all classes, with the number of children ever born for individual classes, by marriage duration.[2] The standardized percentages, also shown in the table, are very close to the crude percentages already discussed. That is, even after standardizing for marriage dura-

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[2] The indirect standardizations for individual social classes, shown in Table 3, are obtained as follows:
(i) Multiply the *percentage of children surviving* for all marriage durations in the given social class by the corresponding figure for *all classes* (e.g., 68.4 × 62.6 for Class I).
(ii) Obtain the cumulative multiplication, for corresponding marriage durations, of *number of children ever born* for the given social class by the *percentage of children surviving* for *all classes*. Divide this sum of products by the total of the *number of children ever born* for all marriage durations in the given social class (e.g., 65938.0/1046 = 63.0 for Class I).
(iii) The indirect standardized rate for the given social class is obtained by dividing (i) by (ii). (e.g., 68.4 × 62.6/63.0 = 68.0 for Class I).

Social Class	Effective Marriage Duration (Years)	No. of Women	No. of Children Ever Born	No. of Children Surviving	Children Born per Woman	Children Surviving per Woman	Percentage of Children Surviving
I	0–4	62	30	24	0.48	0.39	80.0
	5–9	50	89	74	1.78	1.48	83.1
	10–14	39	144	103	3.69	2.64	71.5
	15–19	37	170	110	4.59	2.97	64.7
	20–24	22	116	76	5.27	3.45	65.5
	25–29	40	279	188	6.97	4.70	67.4
	30+	32	218	140	6.81	4.37	64.2
	All	282	1046	715	3.71	2.54	68.4
	All (STD)						68.0
II	0–4	152	44	32	0.29	0.21	72.7
	5–9	126	212	149	1.68	1.18	70.3
	10–14	120	425	278	3.54	2.32	65.4
	15–19	93	437	295	4.70	3.17	67.5
	20–24	100	573	367	5.73	3.67	64.0
	25–29	79	550	312	6.96	3.95	56.7
	30+	122	934	530	7.66	4.34	56.7
	All	792	3175	1963	4.01	2.48	61.8
	All (STD)						62.0
III	0–4	72	28	20	0.39	0.28	71.4
	5–9	83	131	93	1.58	1.12	71.0
	10–14	74	262	173	3.54	2.34	66.0
	15–19	68	338	216	4.97	3.18	63.9
	20–24	51	326	187	6.39	3.67	57.4
	25–29	53	398	235	7.51	4.43	59.0
	30+	61	439	255	7.20	4.18	58.1
	All	462	1922	1179	4.16	2.55	61.4
	All (STD)						61.2
IV	0–4	35	18	15	0.51	0.43	83.3
	5–9	21	41	30	1.95	1.43	73.2
	10–14	15	49	29	3.27	1.93	59.2
	15–19	13	80	53	6.15	4.08	66.2
	20–24	10	68	41	6.80	4.10	60.3
	25–29	19	144	79	7.58	4.16	54.9
	30+	14	110	63	7.86	4.50	57.3
	All	127	510	310	4.02	2.44	60.8
	All (STD)						60.6
All Classes	0–4	321	120	91	0.37	0.28	75.8
	5–9	280	473	346	1.69	1.24	73.2
	10–14	248	880	583	3.55	2.35	66.2
	15–19	211	1025	674	4.86	3.19	65.8
	20–24	183	1083	671	5.92	3.67	62.0
	25–29	191	1371	814	7.18	4.26	59.4
	30+	229	1701	988	7.43	4.31	58.1
	All	1663	6653	4167	4.00	2.51	62.6
	All (STD)						62.6

Table 3. The number and per cent of children surviving by social class and effective marriage duration. (Couples with both husband and wife living).

tion, which in effect is related to the average duration of exposure to death for the children born, our earlier finding holds that the percentage of children surviving is the highest in Class I. The percentage diminishes progressively in Classes II, III and IV, though these latter differences are narrow.

Other Variables

In studying the fertility differentials in relation to other variables, it is necessary to take marriage duration into account. Since the differentials do not appear for shorter durations, the comparison of the average number of children born per woman may be confined only to marriage durations 15 years and over, using the sub-divisions 15–24 and 25 +. The differences among the social classes necessitate dichotomizing the class variable, separating social Class I from Classes II, III and IV. Couples with terminated marriages are also included to minimize difficulties with small numbers arising out of these sub-divisions. To arrive at a single index for comparison, we standardize for the duration of marriage and social class. Because of the small number of women in certain cells, where the number of children born per woman is likely to be statistically unstable, indirect standardization is preferred, which uses the number of children born per woman in the marginal or total category as standard with the number of women in the individual categories of the variables under study.

The exploratory variables tested for fertility differentials are the literacy of the husband and wife, vegetarianism of the husband and wife, occupation of the husband and occupational composition of the household, place of work of the husband, year of return marriage of the couple, position of the couple in the household (head of household or other), and attitude toward birth control. These will be discussed in subsequent paragraphs, and the results are shown in Table 4. There is a substantial amount of non-response in certain categories, which, however, is related most often to couples with terminated marriages, and does not pose a serious problem. For instance, when

Table 4. The number of children ever born per woman by test variables, by effective marriage duration, and by social class.

Variable	All Classes Marriage Duration		Class I Marriage Duration		Classes II, III, IV Marriage Duration		All Classes and Marriage Durations	
	15–24	25+	15–24	25+	15–24	25+	Crude	Standardized[a]
All Couples	5.27 (567)	6.98 (645)	4.55 (100)	5.97 (121)	5.42 (467)	7.23 (524)	6.18	6.18
1. Literacy of Husband								
Literate	5.20 (170)	6.88 (139)	4.49 (57)	6.29 (69)	5.56 (113)	7.47 (70)	5.96	6.36
Illiterate	5.31 (291)	7.23 (353)	4.80 (15)	6.43 (21)	5.34 (276)	7.28 (332)	6.36	6.19
Not Available	5.26 (106)	6.54 (153)	4.54 (28)	4.94 (31)	5.53 (78)	6.94 (122)	6.02	5.96
2. Literacy of Wife								
Literate	3.67 (12)	6.17 (12)	3.60 (10)	6.33 (9)	4.00 (2)	5.67 (3)	4.92	5.54
Illiterate	5.38 (480)	7.10 (556)	4.87 (76)	6.12 (94)	5.48 (404)	7.30 (462)	6.30	6.27
Not Available	4.81 (75)	6.32 (77)	3.50 (14)	5.00 (18)	5.11 (61)	6.73 (59)	5.58	5.64
3. Vegetarianism of Husband								
Vegetarian	5.18 (163)	7.06 (194)	4.97 (36)	6.71 (55)	5.24 (127)	7.20 (139)	6.20	6.26
Non-Vegetarian	5.31 (300)	7.21 (295)	4.14 (36)	6.00 (34)	5.47 (264)	7.36 (261)	6.25	6.24
Not Available	5.28 (104)	6.49 (156)	4.54 (28)	4.66 (32)	5.55 (76)	6.96 (124)	6.00	5.92
4. Vegetarianism of Wife								
Vegetarian	5.01 (210)	6.91 (270)	4.71 (58)	6.24 (78)	5.12 (152)	7.18 (192)	6.08	6.13
Non-Vegetarian	5.58 (285)	7.25 (299)	4.75 (28)	6.12 (26)	5.67 (257)	7.36 (273)	6.43	6.36
Not Available	4.81 (72)	6.25 (76)	3.50 (14)	4.47 (17)	5.12 (58)	6.76 (59)	5.55	5.60
5. Occupation of Husband								
Agricultural	5.28 (311)	7.03 (354)	5.06 (47)	6.44 (77)	5.31 (264)	7.19 (277)	6.21	6.21
Non-Agricultural	5.24 (141)	7.53 (116)	3.68 (25)	6.37 (8)	5.58 (116)	7.61 (108)	6.27	6.34
Not Available	5.28 (115)	6.56 (175)	4.46 (28)	4.86 (36)	5.54 (87)	7.00 (139)	6.05	5.96
6. Occup. Comp. of Household								
All Agricultural	5.26 (291)	6.66 (319)	4.84 (51)	5.75 (67)	5.35 (240)	6.91 (252)	6.00	6.02
Some Agricultural	5.39 (157)	7.36 (180)	4.08 (37)	6.37 (46)	5.47 (210)	7.70 (134)	6.33	6.39
All Non-Agricultural	5.40 (110)	7.28 (137)	4.44 (9)	6.40 (5)	5.49 (101)	7.31 (132)	6.44	6.25
Not Available	5.89 (9)	6.67 (9)	5.67 (3)	4.00 (3)	6.00 (6)	8.00 (6)	6.28	6.50

Table 4. *Continued*

Variable	All Classes Marriage Duration		Class I Marriage Duration		Classes II, III, IV Marriage Duration		All Classes and Marriage Durations	
	15–24	25+	15–24	25+	15–24	25+	Crude	Standardized[a]
7. Place of Work of Husband								
Local	5.35 (373)	7.19 (447)	4.84 (50)	6.47 (80)	5.43 (323)	7.35 (367)	6.36	6.31
Non-Local	4.91 (87)	6.84 (43)	3.85 (20)	6.11 (9)	5.22 (67)	7.03 (34)	5.55	5.91
Not Available	5.26 (107)	6.45 (155)	4.53 (30)	4.66 (32)	5.55 (77)	6.91 (123)	5.96	5.90
8. Year of Return Marriage								
Up to 1930	5.20 (168)	6.97 (619)	3.93 (30)	5.88 (116)	5.48 (138)	7.22 (503)	6.59	6.15
After 1930	5.29 (398)	7.38 (26)	4.81 (70)	8.00 (5)	5.39 (328)	7.24 (21)	5.42	6.24
Not Available	(1)	—	—	—	(1)	—		
9. Head of Household								
Head	5.66 (310)	7.31 (437)	5.24 (38)	6.50 (70)	5.72 (272)	7.47 (367)	6.63	6.48
Others	4.49 (156)	5.84 (56)	3.89 (35)	6.21 (19)	4.66 (121)	5.65 (37)	4.84	5.30
Not Available	5.28 (101)	6.48 (152)	4.44 (27)	4.66 (32)	5.58 (74)	6.97 (120)	6.00	5.92
10. Attitude on Birth Control								
Approve	5.88 (17)	7.07 (27)	4.60 (5)	6.30 (10)	6.42 (12)	7.53 (17)	6.61	6.64
Indifferent	5.21 (144)	7.13 (184)	4.64 (14)	6.43 (21)	5.27 (130)	7.22 (163)	6.29	6.15
Disapprove	5.06 (85)	7.07 (72)	4.44 (16)	5.62 (8)	5.20 (69)	7.25 (64)	5.98	6.06
Not Available	5.32 (321)	6.90 (362)	4.55 (65)	5.84 (82)	5.51 (256)	7.20 (280)	6.15	6.18
11. Couple Status								
Unbroken Marriage	5.35 (394)	7.31 (420)	4.85 (59)	6.90 (72)	5.44 (335)	7.40 (348)	6.36	6.36
Terminated Marriage	5.08 (173)	6.38 (225)	4.12 (41)	4.59 (49)	5.38 (132)	6.88 (176)	5.82	5.80

The figures in parentheses refer to the number of women.
[a] Indirect Standardization for effective marriage duration and social class.

dealing with a variable explaining some characteristic of the husband, the non-response for the most part includes couples with husband dead and wife living. A similar situation is true for the wife.

Literacy. Out of 1212 couples in the sample with an effective marriage duration of 15 years and over, the husband was reported literate in 309 cases and illiterate in 644; 259 cases gave no information. The fertility differential by literacy of the husband is hardly significant. However, a few observations can be made. For both marriage durations, literates show slightly lower fertility. This is partly because 40.8 per cent of literates are from Class I while only 5.6 per cent of the illiterates are from this class. When class is controlled, literacy still has a negative association with fertility in Class I, but in the remaining classes the direction is reversed. Illiteracy in Classes II, III and IV is likely to be associated with a very low level of living and poorer health, which may have some dampening effect on fertility.[3] When standardized for both the marriage duration and social class, the illiterates seem to have a slightly lower fertility.

Literacy of the wife seems to be more directly associated with lower fertility. Here we are faced with the problem of small numbers; only 24 wives reported literate among the 1060 that gave information about literacy. However, the observed relationship of lower fertility of literate wives is supported by other studies.[4] Generally, literacy of the wife is likely to be associated with a somewhat higher level of education of the husband. Also, compared to other classes, husband's literacy would probably mean a somewhat higher level of education in

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[3] Although the possibility that illiterates are more likely than literates to under-report births cannot be ruled out, the available evidence suggests that such differential under-reporting cannot be of any significant magnitude. If this difference in recall of births existed, the *true* fertility differentials, both by social class and by literacy in Class I, would be even greater than those obtained in the sample.

[4] Chandrasekaran, C.: Fertility Trends in India, *in* PROCEEDINGS OF THE WORLD POPULATION CONFERENCE, Rome, 1954, p. 835, relates evidence of a significant negative relationship between fertility and educational status of women in urban areas in the Mysore study.

Class I, where the literates reveal a slightly lower fertility than the illiterates. This suggests that the inverse relationship of fertility with husband's education may start at a level of education higher than mere literacy would imply.

Vegetarianism. Vegetarianism, either of the husband or the wife, does not show any marked relation to fertility. Among social Classes II, III and IV, vegetarians show a somewhat lower fertility than non-vegetarians. On the other hand, the fertility of vegetarian husbands in Class I is high in comparison with the non-vegetarians in the same group. There is, however, one difference. The vegetarians in Class I are composed mostly of Brahmins. Vegetarians in the other classes exhibit no such caste homogeneity.

Occupation. The factor of occupation can be viewed from two standpoints—occupation of the husband and occupational composition of the household. In both approaches we use a dichotomy of agricultural vs. non-agricultural occupations. Husbands in agricultural occupations show a higher fertility than those in the non-agricultural in Class I, while in Classes II, III and IV the relationship is reversed. The two categories, however, differed on the score that the percentage of agricultural owners within the agricultural group is higher in Class I (98.2 per cent), compared to Classes II, III and IV (78.6 per cent). Similarly, within the non-agricultural group, white collar occupations constitute a higher proportion in Class I (54.0 per cent), compared to the other classes (19.7 per cent), where manual occupations account for the major proportion. Generally, the lowest strata in the village consist of agricultural laborers, who also do other menial jobs during off seasons. Falling into this category could also be some of the petty farmers having insufficient holdings, requiring them to seek other supplementary jobs. Thus in Classes II, III and IV, the same kind of reasoning which seems to account for the comparatively lower fertility of illiterates appears to be operating. When the occupational composition of the household is considered, the fertility in households with all working members in agriculture

is lower than those with either some or all in non-agriculture.[5]

Place of Work. The relationship of the place of work of the husband with fertility is more marked. The fertility of couples with the husband working in non-local areas is lower than that of couples working locally. This holds consistently for both social class divisions. Of those employed non-locally, 67 per cent worked in the cities of Banaras, Calcutta and Bombay (individual percentages being 35, 19 and 13 per cent respectively), and another 20 per cent in the non-local areas of Banaras district other than Banaras city. To some extent lower fertility of these couples can thus be accounted for by the non-residence of the husband in the village in at least 32 per cent of the cases.

Year of Return Marriage. In order to compare the fertility of older marriage cohorts with that of more recent ones, we made a more or less arbitrary division on the basis of return marriage before or after 1930. It can be seen that in Class I the couples with return marriage after 1930 exhibited higher fertility than those married prior to 1930. This could be due either to recall lapse, which is likely to affect the older marriage cohorts more than the recent ones, or to an increased fertility of the more recently married couples.[6] However, it was surprising that such a difference in fertility was not evident in Classes II, III, and IV, where recall lapse may be expected to play a more serious role. It may be remarked in connection with this analysis that couples with return marriage after 1930 could not have a marriage duration of more than 25 years at the time of the survey and some of these women could still have incompleted fertility. Also, the women with return marriage up to 1930 and marriage duration 15–24 must either be

[5] Census of India, Paper No. 1 (1955): *Sample Census of Births and Deaths, 1953–54,* Uttar Pradesh, p. 26, finds that the completed fertility of women aged 45 and over is 5.63 for agricultural laborers, 6.14 for agricultural land-holders and tenants, and 6.31 for non-agricultural.

[6] An evidence of a progressive increase in couple fertility over time in India by marriage duration has been provided by Das Gupta, Ajit *et al.,* COUPLE-FERTILITY, National Sample Survey No. 7, Department of Economic Affairs, Ministry of Finance, Government of India, December 1955, p. 7.

at least 21 years at return marriage or have a terminated marriage.

Heads of Households. The household heads in the sample exhibited distinctly higher fertility compared to others. This was so for all marriage durations as well as social classes. The heads of the household are generally the eldest sons in their parental family, who are more likely to inherit the family occupation with the extra stability and security it affords. This sense of security may be responsible for their higher fertility. There is, however, one caution necessary in interpreting these results. A man with few children is more likely to stay and be tolerated in a joint family of which he is not the head. If he has many children, the adjustments within the household become more difficult, and this increases the chances of his establishing a separate household, of which he becomes the head.

Attitude Toward Birth Control. The survey included one question about the attitude toward birth control of the head of the household. The high non-response to this question was partly due to the fact that the investigators did not make a serious attempt to get the information. Out of the 1212 couples analyzed with marriage durations of 15 + years, information was available for only 529, or 43.6 per cent. Among those for whom the information was available, only 8.3 per cent approve birth control, 62.0 per cent are indifferent and 29.7 per cent disapprove.

There is some evidence of an association of fertility with the attitude of the household head toward birth control. Generally it appears that fertility is lower for couples with the head of the household disapproving of birth control. In rural India, where few couples use birth control whether they approve or not, a favorable attitude toward birth control has no means of lowering fertility. On the other hand, a high fertility at this stage may cause couples to view birth control favorably.[7]

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[7] Driver, Edwin D.: Fertility Differentials Among Economic Strata in Central India, *Eugenics Quarterly,* June, 1960, 7: 77–85. In this study conducted in the

(Continued on page 198)

Conclusions

Of all the variables examined in this study, social class was found to have the greatest effect on fertility. The upper class Hindus have substantially lower fertility than Hindus in the lower class, with the middle class falling in between. Fertility is the highest in the fourth class, consisting mostly of Muslims. These differences in fertility are apparent only after 15 years of effective marriage duration.

There is some evidence of a balance between fertility and mortality within the classes. Mortality is the lowest in Class I where fertility is also the lowest. As a result the number of living children per woman by marriage duration shows no real variation between the social classes.

What makes fertility differ among the social classes is a difficult question to answer. A part of the explanation lies in the difference in the proportions of terminated marriages in the four classes, which is the result of the variation in the tolerance of widow-remarriage rather than differential mortality. Couples with terminated marriages are found to have lower fertility than couples who remain married with the same marriage duration, presumably because of failing health or hardships suffered prior to a death. Since broken marriages comprise a higher proportion in Class I, their presence widens the fertility difference between Class I and other classes. However, the difference in fertility persists, although to a lesser degree, when the analysis is confined to couples with both husband and wife living.

One interesting aspect of the findings is the fact that the relationship of certain variables to fertility is dependent on the

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rural and urban areas of Nagpur district, India, the author finds that only 25 per cent of the rural couples knew any method—deliberate abstinence, contracaptives, abortion, sterilization—of limiting family size, and only 3.8 per cent had employed a technique at any time during their marital life. Of equal significance was a slightly higher fertility among couples who had attempted to limit their fertility. The author concludes, "This rather unusual situation probably stems from the fact that deliberate controls are not employed until the couple has had an excessive number of children." Virtually all studies show that there is a higher fertility among users of birth control prior to or in the absence of such use than there is among non-users.

class context. This is true of literacy, vegeterianism, and occupation of the husband. Whereas the literate, non-agricultural and non-vegetarian husbands have lower fertility in Class I, the relationship is reversed in other classes. This may be partly due to incomparability of these characteristics among classes. Literates in Class I are likely to include people with a level of education generally higher than the literates in other classes. Similarly, non-agricultural workers in Class I are predominantly of white-collar occupations far removed from the manual occupations of the non-agricultural workers in Class III.

The lower fertility among illiterates and agriculturists in Classes II, III and IV suggests the presence of some kind of involuntary control on fertility under extremely poor living conditions. Since the living conditions are, in general, better in Class I, here the reverse relationship is found which is more consistent with the universal phenomenon of fertility declines as a result of industrialization. The higher fertility of literates and non-agriculturists in Classes II, III and IV seems to indicate the potentiality for an initial temporary rise in fertility with the rise in the level of living and other anticipated changes accompanying economic development.

The evidence suggests that marital fertility in Class I will tend to decline, because of the lower fertility in this class among literates, non-vegetarians, non-agriculturists, and persons employed non-locally, and the expected increases of proportions in these categories. However, a fall in the incidence of widowhood and an increased rate of widow re-marriage can potentially have an opposite effect on the overall class fertility.

Thus it appears that there exist in rural India some factors capable of future reductions in fertility, while there are others which will tend to increase fertility temporarily with the initial rise in the level of living and the disintegration of the age-old institutional controls on fertility. The future course of fertility will be the net result of these opposing forces, which are related to the future rates of economic and social development.