SOCIAL AND PSYCHOLOGICAL FACTORS AFFECTING FERTILITY

XXII. THE INTERRELATION OF FERTILITY, FERTILITY PLANNING, AND INTERGENERATIONAL SOCIAL MOBILITY

JOHN F. KANTNER AND CLYDE V. KISER[1]

STUDENTS of human fertility have long suspected some relationship between social mobility and reproduction. This hypothesis has been associated with the name of Arsène Dumont for over fifty years but not until recently has it been studied inductively.[2] The data gathered in the Indianapolis Study make it possible to examine the relationship of intergenerational social mobility to both fertility and fertility planning.

The present hypothesis was not one of those formulated by the Indianapolis Study Committee. Consequently the data at hand for its investigation are less adequate than they might have been had the investigation of this problem been planned at the outset.

Definitions. When the terms "social mobility," "mobile couples," "mobility groups," etc. are used in this analysis they refer to *intergenerational* social mobility. Social mobility refers to a change in one's social position and thus the study deals with changes in the relative social positions of parents and their

[1] This is the twenty-second of a series of reports on a study conducted by the Committee on Social and Psychological Factors Affecting Fertility, sponsored by the Milbank Memorial Fund with grants from the Carnegie Corporation of New York. The Committee consists of Lowell J. Reed, Chairman; Daniel Katz; E. Lowell Kelly; C. V. Kiser; Frank Lorimer; Frank W. Notestein; Frederick Osborn; S. A. Switzer; Warren S. Thompson; and P. K. Whelpton.

[2] *See* Berent, Jerzy: Fertility and Social Mobility. *Population Studies,* March 1952, v, No. 3, pp. 244–260.

Bresard, Marcel: Mobilité Sociale et Dimension de la Famille. *Population,* July–September, 1950, v, No. 3, pp. 533–566.

Baltzell, E. Digby: Social Mobility and Fertility Within an Elite Group. The Milbank Memorial Fund *Quarterly,* October, 1953, XXXI, No. 4, pp. 411–420.

An analysis of the relationship between intragenerational social mobility and fertility, using Indianapolis Study data, is being carried out by Ruth Riemer of the University of California.

offspring. The offspring[3] in this case are the Indianapolis couples from whom the data were obtained and whose reproductive behavior is assumed to be the dependent variable. Two types of intergenerational social mobility are considered—occupational and educational.

Occupational mobility is indicated by a difference in the occupational class of father and son and also, in some cases, father and daughter with the daughter's occupational classification being derived from her husband's.[4] The husband's longest occupation was used in establishing a couple's present position. The original status level was determined from the father's occupation during the period when the son or daughter was "growing up" (6 to 16 years of age).[5] The conventional occupational classifications developed by the Bureau of the Census were used.

Educational mobility is indicated from a comparison of the educational levels achieved by parents and offspring.[6] Although chief attention is given to the husbands' educational mobility, certain tabulations consider jointly the educational mobility of husband and wife. Unlike her occupational classification, the

[3] Referred to as "husband" (or "wife"), "son" (or "daughter") depending on context. Their parents are referred to as "parents" or as "father" or "mother."

[4] This procedure is followed even if the wife herself has an occupation. The fact that a wife works is certainly relevant to her reproductive behavior but it is usually her husband's status that is of major importance in defining her social position.

[5] For more refined measures of intergenerational occupational mobility, stricter comparability of the age of father and son would be required. Thus the occupational class of the son should be compared with occupational class of the father at the same age. As indicated above, the paternal occupational class is the one observed when the son (husband in the present Study) was 6–16 years of age. Furthermore, by virtue of the eligibility requirements in the present Study there is a marked concentration of husbands in the 35–39 category.

If there were no control over age whatsoever one might expect the "upwardly mobile" husbands to be older on the average than the "downwardly mobile" husbands since they had longer opportunity to "better" the occupational class of fathers. Likewise, one might expect the father-son differences in ages to be wider on the average among the "upwardly mobile" than among the "downwardly mobile" group. Actually, no systematic differences of this type were found in the present Study.

[6] Educational level is determined by the highest grade completed. The educational categories are not strictly equivalent for the two generations but rough equivalents can be employed.

wife's educational classification is made on the basis of her own educational attainment, not that of her husband.

Although the present hypothesis says nothing about the direction of mobility, the data distinguish between upward and downward mobility. This is fairly straightforward in the case of educational mobility.[7] With respect to occupational mobility it was assumed that the Census classification represents an approximate rank ordering in terms of descending degrees of prestige for both generations. Data collected by the National Opinion Research Center[8] in general support this assumption. With some combining below the semi-skilled level, the classes are as follows: Professional and Semi-Professional; Proprietors, Managers, and Officials; Clerical; Skilled; Semi-Skilled; and Unskilled. Sons of farmers[9] were treated as upwardly mobile if they belonged to one of the upper three occupational classes; downwardly mobile if they were unskilled workers.

Fertility Planning. The categories are those that have been used throughout the Idianapolis Study.[10] In order of descending degree of success in fertility planning they are as follows: "number and spacing planned," "number planned," "quasi-planned," and "excess fertility."[11] Of these four only the number

[7] There is the problem of an upward secular trend in educational level which makes it difficult to set up equivalent educational levels for the two generations. By defining educational nonmobility in terms of formally equivalent categories, e.g., Father High School 4—Son High School 4, we err on the side of conservatism, for the mobile group will contain couples who are regarded, by informal considerations, as nonmobile. If social mobility is a significant principle of classification, such a procedure decreases the chances that such an assumption will be borne out. It should be noted that an attempt to allow for the upward trend by dealing with relative positions in the educational distribution made no difference in the conclusions reached. Because of its clumsiness this procedure was abandoned for the simpler device of formal equivalents.

[8] "Jobs and Occuptaions: A Popular Evaluation." *Opinion News,* IX (September 1, 1947), No. 4.

[9] It was the intention to keep farm laborers out of this classification. Tabulations made by Dr. Gerhard Lenski of the University of Michigan suggest that this aim was not always achieved. Farm laborers are classified with unskilled workers.

[10] *See,* for example, Kiser, C. V. and Whelpton, P. K.: Social and Psychological Factors Affecting Fertility. IX. Fertility Planning and Fertility by Socio-Economic Status. The Milbank Memorial Fund *Quarterly,* April, 1949, XXVII, No. 2, pp. 210–211 (Reprint pp. 381–382).

[11] The four categories may be summarized as follows:

"*Number and Spacing of Pregnancies Planned.* The 403 couples in this group

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and spacing planned category refers to a strictly uniform character of fertility planning throughout the entire period of married life.

Fertility. The measure of fertility employed throughout is the number of children ever born per 100 couples. This is not standardized for age because the Indianapolis Study was restricted to couples married 12–15 years and with the wife under 30 and the husband under 40 at the time of marriage. Nevertheless, it is well to establish at the outset the virtual similarity of the mobile and nonmobile groups with respect to wife's age and age at marriage.

Age of Wife. The median age of wife at interview (as of last birthday) is 32.5 for the occupationally mobile wives and 32.3 for the nonmobile wives. The mean ages are 33.4 and 33.0, respectively.

Age of Wife at Marriage. Since the couples studied were restricted to those married during 1927–1929 (interviewed in 1941), similarity in age would also mean similarity in age at marriage as between the mobile and nonmobile groups. However, small differences in age at marriage by mobility status are found within certain subgroups by fertility-planning status of the couples and by occupational class of the husband. In all but three instances the mean age at marriage of nomobile wives

exhibit the most complete planning of fertility in that they had no pregnancies that were not deliberately planned by stopping contraception in order to conceive. The group consists of two major subdivisions: (a) 121 couples practicing contraception regularly and continuously and having no pregnancy, and (b) 282 couples whose every pregnancy was deliberately planned by interrupting contraception in order to conceive.

Number Planned. This group of 205 couples consists mainly of those whose *last* pregnancy was deliberately planned by stopping contraception in order to conceive but who had one or more previous pregnancies under other circumstances. Because of this, the couples are regarded as having planned the number but not the spacing of their pregnancies.

Quasi-Planned. This group includes 454 couples who did not deliberately plan the last pregnancy in the manner described above but who either wanted the last pregnancy or wanted another pregnancy.

Excess Fertility. This group is composed of 382 couples classified as least successful in planning size of family because they neither wanted the last pregnancy nor another."

Kiser, Clyde V. and Whelpton, P. K.: Social and Psychological Factors Affecting Fertility. IX. Fertility Planning and Fertility Rates by Socio-Economic Status. The Milbank Memorial Fund *Quarterly*, April, 1949, XXVII, No. 2, p. 211 (Reprint p. 382).

is less than that of mobile wives.[12] These differences are so slight, however, that it is doubtful that they have any substantial effect on fertility. This conclusion seems justified especially when it is recalled that all couples have been married 12–15 years during which period the effect of small differences in age at marriage on fertility would tend to be dissipated.

The Sample. The sample and sampling procedures have been described in earlier reports.[13] This analysis is concerned only with "relatively fecund"[14] couples. As indicated in the tables, in some instances the "inflated" sample of 1,444 couples is used, in others, the noninflated sample of 860 couples. This latter group consists of all the "relatively fecund" couples for whom schedules were completed. Since this group is unduly weighted with large families the inflation was adopted as a convenient way to restore proportionality to the sample. For purposes of this study either group can be used. The magnitudes of the rates and percentages are more valid in the inflated than in the

[12] The data on the average age of marriage of the wife are given below:

Fertility Planning Status	Occupationally Mobile		Occupationally Nonmobile
	Up	Down	
Number and Spacing Planned	22.3	21.5	21.1
Number Planned	20.2	19.8	19.5
Quasi-Planned	21.3	20.2	19.4
Excess Fertility	20.6	19.6	20.8
Occupational Class			
Professional	21.6	**	20.7
Proprietary	22.2	21.6	22.0
Clerical	20.9	21.2	20.8
Skilled	20.2	20.4	20.3
Semiskilled	*	19.8	18.9

** No cases, by definition.
* Figures not shown if base is less than 20.

[13] Whelpton, P. K. and Kiser, Clyde V.: Social and Psychological Factors Affecting Fertility. v. The Sampling Plan, Selection, and Representativeness of Couples in the Inflated Sample. The Milbank Memorial Fund *Quarterly*, January, 1945, xxiv, No. 1, pp. 49–93 (Reprint pp. 163–207).

[14] For definition, see *Ibid.*, pp. 50–51 (Reprint pp. 164–165).

noninflated sample but the chief purpose of the present study is that of exhibiting *differentials* in rates and percentages by mobility status. It is also apparent that the application of tests of significance is simpler for the noninflated than for the inflated samples.

The Hypotheses. The following three hypotheses will be investigated:

Hypothesis *a*—The families of socially mobile couples are smaller than those of socially nonmobile couples of comparable status.

Hypothesis *b*—The planned families of socially mobile couples are smaller than the planned families of socially nonmobile couples of comparable status.

Hypothesis *c*—Socially mobile couples are more effective in fertility planning than socially nonmobile couples of comparable status.

It seems desirable to formulate three hypotheses even though the one labeled *b* may appear to be merely a refined test of the one labeled *a*.[15] Hypothesis *a* might be true because *b* and *c* are true. However, hypothesis *a* could also be true even though *b* and *c* were not true. The latter situation could arise, for example, if intergenerational mobility reduced the number of exposures to pregnancy or perhaps increased the intensity of relatively inefficient contraceptive usage.

The chief aim of this study is to determine whether intergenerational social mobility is a significant principle of classification in the consideration of reproductive behavior. It will not be possible to specify the causal mechanisms involved even if the hypotheses are confirmed in this limited sense. The mobility experience *per se*, the operation of selective factors, differential patterns of association (as between mobile and nonmobile couples) after mobility is formally completed . . . all of these and others might be the areas for study in the future in order to understand why social mobility has certain correlates. An attempt will be made to narrow the search for a causal connection,

[15] In the analysis of fertility differentials the Indianapolis Study has been chiefly concerned with the size of planned families.

to either the effects of mobility or to the operation of selective factors by controlling, as precisely as possible, certain differences in the roles of mobile and nonmobile couples. The items chosen to achieve this control include the husband's occupation, his education, net worth of the couple, a general index of socioeconomic status and the amount of intragenerational occupational mobility. All of these control items cannot be applied at the same time, but in some cases simultaneous control on four is achieved. In some comparisons, age of wife at marriage and fertility-planning status are also treated as controls in addition to three or four of the more directly role-related variables.

Social Mobility and Fertility

Hypothesis a—Size of Family. Fullest perspective on the relationship between social mobility and fertility is achieved if the fertility of socially mobile couples is compared with two different types of nonmobile control groups. One of these consists of nonmobile couples having the same occupational (educational) position that the socially mobile couples had prior to mobility. We call these control groups "origin" groups. A second type consists of nonmobile couples of the same occupational (educational) class as that achieved by the mobile couples. Such nonmobile groups are referred to as "destination" groups.

Tables 1 and 2 present data from which comparisons of the fertility of mobile couples and "origin" groups can be made. The rates for nonmobile "origin" couples fall on the diagonal running from the upper left to the lower right hand corner of the table (upper deck). To the right of the diagonal in any row are the rates for couples of downward mobility, and to the left are the rates for couples of upward mobility. To make comparisons with "origin" couples the tables should be read horizontally.

In Table 1, mobile couples, regardless of direction of mobility, generally have lower birth rates than their "origin" controls, i.e., the nonmobile couples of similar status at "origin." This is

not surprising with respect to upwardly mobile couples because their fertility is perhaps a function of the higher status they have achieved. The lower rates for the downwardly mobile couples are worthy of note but these may be chance results. Comparisons between educationally mobile and "origin" couples are more difficult to make because of the lack of exact correspondence in educational categories. The data in Table 2 indicate, however, that husbands who rose above their fathers' educational levels have lower birth rates than those whose educational attainment was the same as that of their fathers'. An adequate test of the relation of intergenerational lowering of educational attainment to fertility cannot be made, but the few cases available fail to confirm the tendency, noted in Table

Table 1. Births per 100 couples by occupation of father and son.

Occupation of Father	Occupation of Son						
	Prof.	Prop.	Clerical	Skilled	Semi-skilled	Unskilled	Farmer
	Births per 100 couples						
Professional	*162*	175	145	*	*	*	*
Proprietary	145	*207*	184	202	176	*	*
Clerical	*	*	*144*	*	180	*	*
Skilled	237	196	160	*253*	218	*	*
Semiskilled	*	*	145	221	*256*	*	*
Unskilled	*	*	221	212	*	*310*[a]	*
Farm Owner or Manager	150	147	182	206	217	*	*312*[b]
	Number of couples						
Professional	26	24	20	11	13	2	1
Proprietary	42	54	84	43	38	5	1
Clerical	14	18	39	14	20	2	0
Skilled	24	28	65	77	99	14	0
Semiskilled	5	10	44	47	69	15	0
Unskilled	4	7	24	25	13	8	0
Farm Owner or Manager	28	32	62	62	106	16	1

[a] Average of all relatively fecund unskilled workers.
[b] Children ever born per 100 wives of Farmer and Farm managers, wife age 30–34; North Central states, 1940.
* Rate not shown if based on fewer than twenty cases.

1, for couples of lower status than their parents to have lower fertility rates than couples of the same status as their parents. For example, sons with either a "Grade School 8" or "High School 1–3" education and whose fathers were High School graduates or better have *higher* fertility rates than their "origin" groups, i.e., sons who, like their fathers, were High School graduates or better. No other instance of educationally downward mobility appears in Table 2.

By reading Table 1 vertically (within columns) the fertility of occupationally mobile couples can be compared with that of their "destination" controls. The rates above the diagonal are those for couples of downward mobility; those below the diagonal are for upwardly moble couples; the rates on the diagonal are for the nonmobile "destination" groups. These data show that except within the Clerical column,[16] the rates of

Table 2. Births per 100 couples by education of father and son.

Education of Father	Education of Son				
	College 3–4	College 1–2	High School 4	High School 1–3	Grade School 8
	Births per 100 couples				
College 1–4	*193*	204	*	257	225
High School 4	152		*203*	250	
High School 1–3	191	*	164	*214*	
Grade School 8	162	152	174	216	*221*
Grade School 6–7	162	*	185	194	188
Grade School 5 or Less		*	215	217	252
	Number of couples				
College 1–4	42	49	17	28	20
High School 4	27		34	22	
High School 1–3	23	3	25	22	
Grade School 8	58	56	109	187	135
Grade School 6–7	34	11	34	53	49
Grade School 5 or Less		2	46	52	61

* Rate not shown if based on fewer than twenty cases.

[16] To explain this exception involves accounting for the low fertility of non-

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both up and down mobile couples are generally lower than those of nonmobile couples of similar occupations.

Reading Table 2 vertically provides a test of Hypothesis *a* with respect to educational mobility. Ten out of fourteen comparisons are consistent with the hypothesis that the families of upwardly mobile couples are smaller than those of socially nonmobile couples of similar status. Most of the exceptions occur among couples in which the husband failed to complete high school.[17] Couples of downward educational mobility have higher rates than their "destination" controls in the three comparisons that can be made.

Except among clerical couples there is a reliable tendency for upwardly mobile couples to have smaller families than their "destination" controls. Twenty-one of twenty-eight comparisons in Tables 1 and 2 are consistent with Hypothesis *a*. One would expect this to result from chance only five per cent of the time.[18] The inclusion of clerical couples increases the number of comparisons to 34 without adding to the number that are consistent with the hypothesis.[19]

Confidence in Hypothesis *a* is increased somewhat by the findings in Tables 3 and 4 where classifications are based upon the mobility of both husband and wife. The rates for nonmobile "destination" control groups are given in the left hand column.

mobile clerical couples as much as for the higher rates of mobile couples. Such an explanation evidently could not be given in terms of differential success in fertility planning, since similar differences are found among planned families (using a very loose definition of planned family: all couples exclusive of those classified as Excess Fertility). Socially mobile clerical couples whose families are planned in this broad sense have a birth rate of 152; clerical nonmobile of similar planning status have a rate of 111. This difference is significant at the 1 per cent level.

[17] The question of what are the critical breaking points on the scale of educational attainment has been inadequately investigated. There is little doubt that our thinking about educational attainment is in terms of certain blocks of education, e.g., grammar school, high school, college, rather than in terms of units of one year. Certain general and changing norms function as criteria of success or failure within the educational rank system. It seems unlikely, for example, that a young adult classified in 1940 as having less than a high school education would perceive himself or be perceived as upwardly mobile even though his father had had only a grammar school education.

[18] Probabilities were determined from the Statistical Sign Test. *See* Dixon, W. J. and Mood, A. M., The Statistical Sign Test. *Journal of the American Statistical Association*, 41, no. 236, December, 1946, pp. 557–566.

[19] P in this case = .25.

Index of Socio-Economic Status	Mobility Status of Husband and Wife		
	Nonmobile "Destination"	Upward Mobility	Downward Mobility
	BIRTHS PER 100 COUPLES		
(High)			
I	205[a]	187	*
II	187	158	170[c]
III	225	212	175
IV	246[a]	214	209
(Low)			
V	340	304[b]	344
	NUMBER OF COUPLES		
(High)			
I	21[a]	40	0
II	24	36	24[c]
III	20	42	40
IV	25[a]	35	57
(Low)			
V	37	25[b]	64

Table 3. Births per 100 couples by occupational mobility of the husband and wife and by index of socio-economic status of the couple.

[a] Excluding intergenerationally nonmobile couples having some career mobility.
[b] Includes some couples with only one member of upward mobility.
[c] Includes some couples with only one member of downward mobility.
* Rate not shown if based on fewer than twenty cases.

The columns to the right give the rates of couples of upward and downward mobility. Considering upward mobility alone, fifteen out of seventeen comparisons are consistent with Hypothesis *a*. If the downwardly mobile couples are included, nineteen of twenty-three comparisons are consistent. These results would be expected 1 per cent of the time if chance alone were operating.[20]

Mobility in Relation to Number of Siblings. It is reasonable

[20] The nonmobile couples in Table 3 generally exceed mobile couples in amount of intragenerational mobility, if disparity between the husband's first and longest occupation is a valid index. Where possible (Socio-economic Status groups I and IV) nonmobile couples, in which the husband could be classified as *intra*generationally mobile, were eliminated. In the three remaining socio-economic groups in which this kind of control could not be applied, due to large numbers of intragenerationally mobile couples, the extent of intragenerational mobility is greater among nonmobile couples than among couples of upward or downward mobility.

to suppose that children in small families tend to have better opportunities for schooling and more "advantages" in general than do children in larger families of roughly the same economic level. It may, therefore, seem reasonable also to suppose that the tendency for sons to rise above the occupational levels of their fathers is inversely related to the number of brothers and sisters of the "son." However, this assumption is not borne out by the data for the Indianapolis couples. In Appendix I, the percentage distributions of husbands by intergenerational mobility status are shown by number of "biological" and "sociological" siblings of the husband. The data are shown for the total group and for two subdivisions by occupational class of the father.

Hypothesis b—Size of Planned Families. The fact that mo-

Table 4. Births per 100 couples by educational mobility status of the husband and wife and by index of socio-economic status of the couple.

Index of Socio-Economic Status	Mobility Status of Husband and Wife				
	Husband & Wife Nonmobile "Destination"	Husband & Wife Up Mobile	Husband Up Wife Non-mobile	Wife Up Husband Nonmobile	Husband & Wife Down Mobile[1]
	(1)	(2)	(3)	(4)	(5)
	Births per 100 couples				
(High)					
I and II	173	174	180	165	180
III	239	177	184	191	230
IV	229	190	220[a]	222	268
V	335	310	308[a]	291	404
	Number of couples				
(High)					
I and II	26	87	40	26	30
III	28	35	25	35	20
IV	42	30	49[a]	32	25
(Low)					
V	36	19	35[a]	23	24

[1] Includes any instance of down mobility regardless of mobility of spouse.
[a] Columns 3 and 4 combined.

Index of Socio-Economic Status of the Couple	Nonmobile "Destination"	Mobile	
		Upward	Downward
	Births per 100 couples		
(High)			
0–19	147	144	*
20–39	92	84	114
(Low)			
40 and Over	126	96	84
	Number of couples		
0–19	32	55	15
20–39	26	76	65
40 and Over	27	29	51

Table 5. Births per 100 couples of "number and spacing planned" status, by intergenerational occupational mobility of the husband and index of socio-economic status of the couple.

* Rate not shown if based on fewer than twenty cases.

bile couples have been found to have a lower overall fertility rate than the nonmobile couples does not necessarily mean that a similar situation will hold for planned families alone. Table 5 is restricted to "number and spacing planned" couples and fertility rates of mobile couples are compared with those of nonmobile couples of the same general socio-economic level. The differences observed are small but they are consistent with Hypothesis *b* when upwardly mobile couples are considered. When downwardly mobile couples are taken into consideration, four of the five comparisons are consistent with Hypothesis *b*.[21]

Several other approaches to the problem of the relationship between mobility and size of planned family are presented in

[21] If comparisons are made within each of five socio-economic levels it is necessary to expand the definition of "planned" families to include all couples in the first three planning groups if excessive unreliability in rates is to be avoided. Doing this reveals that seven out of ten comparisons are consistent with Hypothesis *b*. The major exceptions are found within the second highest socio-economic level (20–29). As in the case of nonmobile clerical workers, these exceptions are due in large part to the unusually low rates of nonmobile couples rather than to above average fertility on the part of mobile couples.

Fertility-Planning Status	Births Per 100 Couples		Number of Couples	
	Nonmobile "Destination"	Upwardly Mobile	Nonmobile "Destination"	Upwardly Mobile
Number and Spacing Planned	122	108	77	192
Quasi-Planned	215	183	57	215

Table 6. Occupation standardized birth rates for upward mobile and nonmobile couples, by fertility-planning status.

Tables 6–8. In Table 6 fertility rates for different mobility groups are presented for the "number and spacing planned," and the "quasi-planned" groups[22] with control for occupation achieved through standardization. The differences found are again consistent with Hypothesis *b*. Table 7 shows the average number of children living at the time of the last intentional pregnancy, by mobility status and occupation of the husband.[23] Although there is probably a *post factum* tendency to report as "intentional" pregnancies that really were not planned, it is only the comparative and not the absolute size of the intended families that is of concern. Among professionals and proprietors the comparisons are consistent with Hypothesis *b* but this is not the case among clerical and skilled couples.[24]

On the assumption that the relationship between fertility and

[22] Rates for "number planned" couples are not given because of the small number of couples on which the occupation specific rates would have to be based. Throughout the Indianapolis Study it has been the practice not to report rates where N is less than 20.

[23] The distribution of all couples in relation to numbers shown in Table 7 is as follows:

Total Couples Shown in Table 7	368
Couples Having no "Intentional" Pregnancies	389
Down-Mobile Couples (Not Shown)	420
Father Farmer and Son Skilled or Semi-Skilled	168
Unskilled Nonmobile	8
No Father or Father's Occupation Unknown	88
Son: Farmer	3
Total	1,444

[24] Among the thirty-one skilled upwardly mobile couples was one with eleven children. This happened to be a couple for which a duplicate card was prepared for the inflated sample. Were it not for this couple, there would be no difference in the figures for mobile and nonmobile couples in which the husband is a skilled worker.

Occupation of Husband	Children Per 100 Couples		Number of Couples	
	Nonmobile "Destination"	Upwardly Mobile	Nonmobile "Destination"	Upwardly Mobile
Professional	67	58	21	64
Proprietor	83	65	36	49
Clerical	23	51	22	92
Skilled	64	97	28	31
Semiskilled	80	*	25	*

Table 7. Mean number of children living at time of last intentional pregnancy per 100 couples, by mobility status and by occupation of husband.
* Rate not shown if based on fewer than twenty cases.

social mobility is linear, the extent of childlessness among "relatively fecund" couples may also be taken as a partial index of

Table 8. Per cent childless by occupational and educational mobility status of the husband and wife, and by socio-economic status of the couple.

Index of Socio-Economic Status	Occupational Mobility Status			Educational Mobility Status		
	Upward Mobility	Downward Mobility	Nonmobile "Destination"	Upward Mobility	Downward Mobility	Nonmobile "Destination"
	PER CENT CHILDLESS					
(High) I	10.0	*	9.5[c]	17.2	13.3	15.4
II	27.8	*	12.5			
III	11.9	12.5	10.0	17.1	5.0	3.6
IV	11.4	8.8	0.0[c]	10.0	8.0	9.5
(Low) V	4.0	3.1	0.0	*	0.0	2.8
	NUMBER OF COUPLES					
(High) I	40	0	21[c]	87	30	26
II	36	24[b]	24			
III	42	40	20	35	20	28
IV	35	57	25[c]	30	25	42
(Low) V	25[a]	64	37	19	24	36

[a] Includes some couples with only one member of upward mobility.
[b] Includes some couples with only one member of downward mobility.
[c] Excluding intergenerationally nonmobile couples having some career mobility.
* Rate not shown if based on fewer than twenty cases.

the size of planned families and one that is relatively free of the bias due to rationalization described above. In Table 8 the per cent childless is shown for various mobility groups classified by the Index of Socio-Economic Status. Twelve of fifteen comparisons are consistent with Hypothesis *b*.

If Tables 5–8 are taken together as somewhat different tests of Hypothesis *b*, their overall consistency can again be measured by the sign test. Out of twenty-six possible comparisons, twenty are consistent with the hypothesis. This would be expected to result from chance only one per cent of the time. The exceptions occur primarily in connection with downward mobility and within the clerical and skilled occupational groups. Thus, with the exceptions noted, it may be concluded that the data indicate a tendency for mobile couples to have smaller planned families than nonmobile couples of comparable socio-economic status.[25]

Occupational and Physical Mobility in Relation to Fertility. Although the preceding materials indicate that mobility and fertility are inversely associated, there are several exceptions and in numerous instances the differences are small. Basically, an interest in social mobility as an independent variable is an interest in the effects on fertility of a change in social milieu. If this interpretation is correct, any manipulation of the data that exaggerates the differences between mobile and nonmobile couples with respect to extent of change in social milieu, should result in more distinct fertility differentials between these groups. Such is the reasoning that led to the joint consideration of occupational and physical mobility. In Table 9 the fertility of couples who are both occupationally and physically nonmobile is compared with that of couples who have experienced both types of mobility. The number of residential moves

[25] It might be objected that the data in Table 8 do not provide a test of the size of planned families unless fertility planning status is also considered. If, in Table 8, only those comparisons are made where nonmobile couples are at least as effective as mobile couples with respect to fertility planning, five out of seven are consistent with Hypothesis *b*. This means that thirteen of eighteen possible comparisons are consistent with Hypothesis *b*, a result that might occur ten times out of 100 as the result of chance. If only upwardly mobile couples are considered, $P = .05$.

Index	Occupationally Nonmobile		Occupationally Mobile	
	0 Moves After Marriage	1 or More Moves After Marriage	0 Moves After Marriage	1 or More Moves After Marriage
Births Per 100 Couples	221	211	193	179
Per Cent Childless	3.1	7.4	8.3	13.0
Number of Couples	131	54	300	138

Table 9. Births per 100 couples and per cent childless by occupational and physical mobility: mobile and nonmobile matched for husband's occupation.

since marriage is the measure of physical mobility. An earlier study[26] found no relationship between physical mobility, measured in this way, and either size of family or fertility planning. Thus any relationship which may emerge will be attributable to the combined effects of both types of mobility.

Table 9 presents birth rates by four different mobility categories. In order to retain a control for socio-economic status, mobile and nonmobile couples were matched[27] for occupation. Both a *t* test and a test by means of chi square indicate that the

[26] Kantner, J. F. and Whelpton, P. K., Social and Psychological Factors Affecting Fertility, XVI. Fertility Rates and Fertility Planning by Character of Migration, Milbank Memorial Fund *Quarterly,* XXX, No. 2, April, 1952, pp. 152–187 (Reprint pp. 705–740).

[27] This was done by frequency distributions. The average age of wife at marriage for the occupationally mobile couples is 21.1 years; for occupationally nonmobile, 20.4 years. The matching was done by giving each group a similar occupational distribution. The percentage distribution by occupation is as follows:

	Per Cent
Professional	14.0
Proprietor	16.0
Clerical	21.0
Skilled	25.0
Semi-skilled	24.0
	100.0

These percentages were obtained by making those adjustments in the mobile and nonmobile distributions that would involve the least number of discarded cases. When the percentage distribution was determined, the punched cards for the groups from which cases were to be dropped were randomized and the required number of cases selected for discard by picking every *n*th card. The distribution by live births of the discarded and retained cards were then compared as a check on the procedure. No important differences were found.

Mobility Status	Births Per 100 Couples		Number of Couples	
	Test Group	Nonmobile "Destination" Control	Test Group	Nonmobile "Destination" Control
Upward Mobility	86	110	42	42
Downward Mobility	105	110	38	38

Table 10. Births per 100 "number and spacing planned" couples by occupational and physical mobility status: mobile and nonmobile couples matched for occupation of husband.

differences in the fertility of extreme mobility groups are significant at probabilities below the 5 per cent level.[28]

A comparison of the extent of childlessness among these same groups (Table 9) again suggests that differences in size of planned families may be significant. Chance differences as large as those between extreme mobility groups in Table 9[29] would occur only once in every 100 samples. A more direct method of determining whether differences in size of planned families exist is employed in Table 10. Among "number and spacing planned" couples, the smallest families are those of upwardly mobile couples, followed in order of increasing size by downwardly mobile and nonmobile couples. As before, these groups are matched for the husband's occupation.[30]

Fertility Comparisons with Greater Control for Socio-Economic Status. Thus far the data have been consistent, in general, with Hypotheses *a* and *b*. However, the controls for socio-economic status were such that the possibility of a certain amount of variation in this respect still existed. In this section the fertility of mobile and nonmobile couples, matched more precisely for differences in socio-economic status, will be com-

[28] In making both tests Ns were reduced by the ratio of the uninflated to the inflated sample. The degree of relationship, as indicated by a Coefficient of Contingency (corrected for number of cells), is −.33.

[29] If differences in extent of childlessness for extreme mobility groups classified as "number and spacing planned" are considered, the percentages are as follows: Nonmobile 16.7 per cent; Mobile 45.2 per cent.

[30] Nonmobile couples were matched twice—once against upwardly mobile couples and again with downwardly mobile couples. The matching was by frequency distribution. Both occupational and physical mobility were employed as criteria of classification.

	Upwardly Mobile[1]	Nonmobile "Destination"[2]
Births Per 100 Couples	181	205
Birth Rate Standardized for Net Worth	181*	203
Number of Couples	37	37

Table 11. Crude and net worth standardized birth rates by occupational and physical mobility status of couples matched for occupation of husband and index of socio-economic status.

* Upwardly Mobile Couples used as standard.
[1] Husband upwardly mobile, two or more moves since marriage.
[2] Husband occupationally nonmobile, no physical mobility since marriage.

pared. Since the number of couples who survive the matching procedures is usually small, the comparisons must be confined, for the most part, to the size of families rather than to the size of planned families.

One procedure followed was that of selecting a number of couples representing extremes of mobility (occupationally and physically nonmobile vs. occupationally and physically[31] mobile), to match by occupation within socio-economic groups,[32] and finally to standardize the rates for the couple's net worth.[33] Table 11 presents both crude rates and rates standardized for net worth for the two groups. Socially mobile couples are seen to have lower fertility rates. This would not seem to be due to superior effectiveness in fertility planning for as may be seen in Table 12 these mobile couples may be even less effective in fertility planning.

To increase the precision of the controls for socio-economic status still more it was necessary to abandon the subclassification by physical mobility.[34] By comparing couples who differed

[31] Two or more moves after marriage.

[32] Groups established by Index of Socio-economic Status.

[33] "This term, as in business and financial usage, relates to the difference between assets and liabilities. It is the sum of each savings, market values of equities in real property, investments, business enterprises, and insurance policies, minus debts outstanding. Net worth was not asked as a single question but was computed on the basis of component data collected specifically for . . . such (a) computation." (Kiser, C. V. and Whelpton, P. K., IX, op. cit.)

[34] As noted above, the use of physical mobility as a criterion of classification, as in Table 11, was for the purpose of maximizing the variation to be explained. This was thought to be desirable in view of the homogeneity of the sample and the crudeness of measurement of the independent variable.

Fertility Planning Status	Upwardly Mobile[2]	Nonmobile "Destination"[3]
Number and Spacing Planned	28.6	38.9
Number Planned	14.3	5.6
Quasi-Planned	31.4	25.0
Excess Fertility	25.7	30.6
Total[1]	100.0	100.1

Table 12. Per cent distribution by fertility planning status of upwardly mobile and nonmobile couples matched for occupation of husband and for index of socio-economic status.

[1] Percentages based on thirty-seven cases (See Table 11).
[2] Husband upwardly mobile, two or more moves since marriage.
[3] Husband occupationally nonmobile, no moves since marriage.

only in terms of occupational mobility it was possible to apply additional controls. Individual matching[35] on three factors (occupation of husband, education of husband, and couple's net worth) was tried first. The rates for the mobility group thus matched are given in the first row of Table 13. The differences, expected on the basis of chance less than four per cent of the time, are consistent with Hypothesis *a*. Adding a fourth control (age of wife) does not change this conclusion. The same is true when control for a fifth factor, extent of career mobility,[36] is undertaken (row 3 of Table 13), although the groups are quite small. The rates in row 3 are for couples classified as having some career mobility.[37]

These data, then, support Hypothesis *a*. To test Hypothesis *b* in the same way involves even smaller numbers than those already encountered. Being aware then of the probable unreliability of the rates, we may note that the mobile couples again

[35] Because of great anticipated shrinkage, matching was begun with the inflated sample. After matching by occupation, education and net worth, the occupational distribution of both mobile and nonmobile groups is as follows: Professional, 14 per cent; Proprietor, 24 per cent; Clerical, 20 per cent; Skilled, 40 per cent; Semi-skilled, 2 per cent. Only up-mobile couples are considered.

[36] A couple is counted as having some career mobility if the husband's first and longest occupational class differ.

[37] It would have been preferable to compare matched couples having no career mobility. Because of the smaller number of couples in this category such comparison could be made only by giving up some of the socio-economic controls. Eliminating the control for net worth and adding a control for "no career mobility" yields two small groups of twenty-five each. The intergenerationally mobile couples continue to have lower rates but the difference is small (184 vs. 196) and not reliable.

Factors Matched	Births Per 100 Couples		Number of Couples	
	Upward Occupational Mobility	Nonmobile "Destination"	Upward Occupational Mobility	Nonmobile "Destination"
1. Occupation of Husband 2. Education of Husband 3. Net Worth	174	205	81	81
1, 2, and 3 Plus 4. Age of Wife at Marriage	177	219	65	65
1, 2, 3, and 4 Plus 5. Some Career Mobility[1]	159	195	22	22
1, 2, and 3 Plus 6. Fertility-Planning Status	176	186	21	21

Table 13. Births per 100 couples by mobility status and type of matching.

[1] Husband's first and longest occupation differ.

have smaller families when differences in fertility-planning status[38] are taken into account (row 4 of Table 13). This is not an adequately refined test of Hypothesis *b*,[39] but the findings do increase confidence in the differences found under various forms of matching and this is perhaps the chief contribution of Table 13.

In general then, the further testing of Hypothesis *a* and to some extent Hypothesis *b* by the application of refined control procedures, has tended to increase rather than decrease, our confidence in these hypotheses. That the differences diminish

[38] It was impossible to consider differences between "number and spacing planned" couples alone, although more matches were found in this category than in any other, i.e., the modal fertility planning category in these groups is "number and spacing planned."

[39] Since later on we find only negligible differences in fertility planning status between various mobility groups, one might say that Hypothesis *b* has been repeatedly confirmed (as a relative but not as an absolute proposition concerning differences in family size in the absence of fertility planning differentials) by the data which supported Hypothesis *a*.

in size under such treatment may of course indicate the diminished importance of social mobility as a causal variable. It is important to realize however that this may also indicate a reduction in the variation between groups in degree of social mobility. The fact that social mobility is being measured nonquantitatively does not mean that we are not dealing with an underlying quantitative continuum. Matching may tend to move couples together on this continuum and thus to limit the amount of variation in behavior related to social mobility. This, of course, is merely a statement of the logic of tests of significance involving matched groups.

The Pattern of Family Growth. It is of interest to inquire at what period of the married life the previously observed fertility differentials emerge.[40] Table 14 indicates that, except where the husband is classified as a clerical worker, the percentage of couples refraining from reproduction in the first four years of married life is as great among upwardly mobile as among nonmobile couples of similar occupation. In Table 15, where a more stringent definition of mobility is employed, the association between social mobility and family limitation in this early period of family life is more clearly evident. Thus social mobility appears to be an important principle of classification, where fertility is being considered, at the onset of married life as well as after 12–15 years of marriage.

[40] An intimation of the answer to this question has already been given in the data on the extent of childlessness (Tables 8 and). There it will be recalled upward mobility was associated with family limitation. An interesting point, consistent with Hypothesis *a* but not previously mentioned, is that relatively more upwardly mobile couples than nonmobile couples who have no children during the early years of marriage, remain childless throughout subsequent periods. This is shown in the following table which shows for each mobility status and by occupation, the per cent of couples, childless during the first four years of married life, who remain childless:

Occupation of Husband	Nonmobile "Destination"	Upwardly Mobile
Professional	0.0	28.5
Proprietary	33.3	41.9
Clerical	27.3	41.3
Skilled	11.1	34.8

Number of Births	Husband's Occupation							
	Professional		Proprietor		Clerical		Skilled	
	Upward Mobility	Nonmobile	Upward Mobility	Nonmobile	Upward Mobility	Nonmobile	Upward Mobility	Nonmobile
0	40.2	30.8	32.6	33.3	32.3	56.4	31.9	23.4
1	47.0	69.2	52.6	33.3	50.8	30.8	31.9	44.2
2 or More	12.8	0.0	14.7	33.3	16.9	12.8	36.1	32.5
Total Per Cent	100.0	100.0	99.9	99.9	100.0	100.0	99.9	100.1
Total Couples	117	26	95	54	195	39	72	77

Table 14. Fertility during the first four years of marriage by mobility status and husband's occupation.

Hypothesis c—Social Mobility and Effectiveness in Fertility Planning. As previously indicated, the last hypothesis to be considered in the present analysis is that "socially mobile couples are more effective in fertility planning than socially nonmobile couples of comparable status."

Throughout the Indianapolis Study the relationship of effectiveness of contraceptive practice to given variables has been tested by (a) classifying couples according to the variable considered and (b) comparing the resulting classes with respect to distributions by fertility-planning status. The categories

Table 15. Fertility during the first four years of marriage by occupational and physical mobility status: up mobile and nonmobile couples matched for husband's occupation.

Number of Births	Occupationally Nonmobile		Occupationally Up Mobility	
	0 Moves After Marriage	1 or More Moves After Marriage	0 Moves After Marriage	1 or More Moves After Marriage
0	28.3	31.5	32.0	38.4
1	47.3	37.2	44.4	42.0
2 or More	24.4	31.4	23.7	19.6
Total Per Cent	100.0	100.1	100.1	100.0
Total Couples	131	54	300	138

Occupation of:		Number of Couples	Per Cent Distribution by Fertility Planning Status				
Father	Son		Total	Number and Spacing Planned	Number Planned	Quasi-Planned	Excess Fertility
Prof.	Prof.	26	100	50.0	15.4	30.8	3.8
Prop.	Prof.	42	100	42.8	2.4	52.4	2.4
Skilled	Prof.	24	100	37.5	25.0	8.3	29.2
Farmer	Prof.	28	100	50.0	7.1	21.4	21.4
Prof.	Prop.	24	100	37.5	33.3	12.5	16.7
Prop.	Prop.	54	100	44.4	16.7	16.7	22.2
Skilled	Prop.	28	100	32.1	14.3	28.6	25.0
Farmer	Prop.	32	100	31.2	9.4	43.8	15.6
Prof.	Clerical	20	100	25.0	25.0	20.0	30.0
Prop.	Clerical	84	100	26.2	20.2	35.7	17.8
Clerical	Clerical	39	100	41.0	10.3	25.6	23.1
Skilled	Clerical	65	100	30.8	16.9	27.8	24.6
Semisk.	Clerical	44	100	31.8	4.5	31.8	31.8
Unskilled	Clerical	24	100	4.2	12.5	45.8	37.5
Farmer	Clerical	62	100	35.5	6.4	32.2	25.8
Prop.	Skilled	43	100	27.9	9.3	23.2	39.5
Skilled	Skilled	77	100	24.7	11.7	18.2	45.4
Semisk.	Skilled	47	100	38.3	10.6	36.2	14.9
Unskilled	Skilled	25	100	24.0	0.0	64.0	12.0
Farmer	Skilled	62	100	24.2	12.9	41.9	21.0
Prop.	Semisk.	38	100	31.6	10.5	34.2	23.7
Clerical	Semisk.	20	100	25.0	0.0	45.0	30.0
Skilled	Semisk.	99	100	12.1	16.2	36.4	35.4
Semisk.	Semisk.	69	100	14.5	18.8	26.1	40.6
Farmer	Semisk.	106	100	20.8	15.1	37.7	26.4

Table 16. Fertility planning status by occupation of father and son.

relating to fertility-planning status are "number and spacing planned," "number planned," "quasi-planned," and "excess fertility."[41]

This procedure has been followed in the presentation of the basic data in Tables 16 and 17. However, in order to facilitate comparisons of the effectiveness of fertility control of the two types of socially mobile couples with the nonmobile couples of

[41] The four categories have been described in footnote 11.

Education of		Number of Couples	Per Cent Distribution by Fertility Planning Status				
Father	Son		Total	Number and Spacing Planned	Number Planned	Quasi-Planned	Excess Fertility
Col. 1-4	Col. 3-4	42	100	35.7	16.7	31.0	16.7
H.S. 4	Col. 3-4	27	100	44.4	11.1	33.3	11.1
H.S. 1-3	Col. 3-4	23	100	34.8	17.4	39.1	8.7
G.S. 8	Col. 3-4	58	100	53.4	6.9	15.5	24.1
G.S. < 6	Col. 3-4	34	100	41.2	20.6	38.2	0.0
Col. 1-4	Col. 1-2	35	100	45.7	8.6	28.6	17.1
G.S. (any)	Col. 1-2	69	100	46.4	7.2	27.5	18.8
H.S. 4	H.S. 4	34	100	20.6	17.6	32.4	29.4
H.S. 1-3	H.S. 4	25	100	16.0	16.0	40.0	28.0
G.S. 8	H.S. 4	109	100	36.7	15.6	31.2	16.5
G.S. 6-7	H.S. 4	34	100	32.4	23.5	38.2	5.9
G.S. < 6	H.S. 4	46	100	13.0	15.2	52.2	19.6
Col. 1-4	H.S. 1-3	28	100	14.3	28.6	28.6	28.6
H.S. 4	H.S. 1-3	22	100	13.6	0.0	40.9	45.4
H.S. 1-3	H.S. 1-3	22	100	0.0	9.1	63.6	27.3
G.S. 8	H.S. 1-3	187	100	19.8	15.0	37.4	27.8
G.S. 6-7	H.S. 1-3	53	100	22.6	17.0	24.5	35.8
G.S. < 6	H.S. 1-3	52	100	25.0	9.6	21.2	44.2
H.S. 1+	G.S. 8	20	100	35.0	10.0	10.0	45.0
G.S. 8	G.S. 8	135	100	28.9	8.1	34.8	28.1
G.S. 6-7	G.S. 8	49	100	16.4	18.0	21.3	44.3
G.S. < 6	G.S. 8	61	100	22.4	10.2	20.4	46.9

Table 17. Fertility planning status by education of father and son.
Col.—College
H.S.—High School
G.S.—Grade School

similar status at destination or origin, considerable reliance has been placed on the proportion of couples classified as "number and spacing planned" as an index of effectiveness, Tables 18 and 19.

The structure of Tables 18 and 19 is precisely similar to that of Tables 1 and 2. The italicized figures along the diagonal represent the proportions of couples classified as "number and spacing planned" (or as "planned families") among the non-mobile couples of given status. These italicized figures are the

Occupation of Father	Occupation of Son				
	Professional	Proprietary	Clerical	Skilled	Semi-skilled
	Number and Spacing Planned				
Professional	*50.0*	37.5	25.0	*	*
Proprietary	42.8	*44.4*	26.2	27.9	31.6
Clerical	*	*	*41.0*	*	25.0
Skilled	37.5	32.1	30.8	*24.7*	12.1
Semi-skilled	*	*	31.8	38.3	*14.5*
Unskilled	*	*	4.2	24.0	*
Farmer	50.0	31.2	35.5	24.2	20.8
	Total planned families (number and spacing planned and number planned)				
Professional	*65.4*	70.8	50.0	*	*
Proprietary	45.2	*61.1*	46.4	37.2	42.1
Clerical	*	*	*51.3*	*	25.0
Skilled	62.5	46.4	47.7	*36.4*	28.3
Semi-skilled	*	*	36.3	48.9	*33.3*
Unskilled	*	*	16.7	24.0	*
Farmer	57.1	40.6	41.9	37.1	35.9

Table 18. Per cent of families that are planned by occupation of father and son.

* Rate not shown if base is less than twenty.

"destination controls" for vertical comparisons (within the columns). They are the "origin controls" for horizontal comparisons (within the rows). Within the columns the figures above the diagonal are those for couples of downward mobility and the figures under the diagonal are those for couples of upward mobility.[42] Within the lines or rows, the figures at the left of the diagonal are those for couples of upward mobility and those at the right are for couples of downward mobility.

In the first place it may be noted that according to Table 18, couples of intergenerationally upward occupational mobility do *not* tend to be more effective in fertility planning than nonmobile couples of the same occupational class. In nine of ten

[42] Again attention should be called to the fact that sons of farm owners are regarded as being of upward mobility if they attained professional, proprietary, or clerical status; nonmobile if they attained skilled or semi-skilled status; and of downward mobility if they became unskilled laborers.

Education of Father	Education of Son				
	Col. 3–4	Col. 1–2	H. S. 4	H. S. 1–3	G. S. 8
	NUMBER AND SPACING PLANNED				
College 1–4	*35.7*	*45.7*	*	14.3	
High School 4	44.4	*	*20.6*	13.6	35.0
High School 1–3	34.8	*	16.0	*0.0*	
Grade School 8	53.4		36.7	19.8	*28.9*
Grade School 6–7	*	46.4	32.4	22.6	16.4
Grade School < 6	41.2		13.0	25.0	22.4
	TOTAL PLANNED FAMILIES (NUMBER AND SPACING PLANNED AND NUMBER PLANNED)				
College 1–4	*52.4*	*54.3*	*	42.9	
High School 4	55.5	*	*38.2*	13.6	45.0
High School 1–3	52.2	*	32.0	*9.1*	
Grade School 8	60.3		52.3	34.8	*37.0*
Grade School 6–7	*	53.6	55.9	39.6	34.4
Grade School < 6	61.8		28.2	34.6	32.6

Table 19. Per cent of families that are planned by education of father and son.

* Rate not shown if base is less than twenty.

comparisons[43] the proportion of couples classified as "number and spacing planned" is lower for couples of upward occupational mobility than for the nonmobile control groups of similar status at destination. This type of result is contrary to the hypothesis. Ten of the eleven comparisons are in the same direction when proportions classified as "planned families" are considered.

Only slightly greater consistency with Hypothesis *c* is achieved when occupational mobility[44] statuses of husband and

[43] One tie not counted. It may appear from Table 16 that some support of Hypothesis *b* is to be found among skilled workers, primarily because of large differences in percentages of "excess fertility" couples. However this may represent merely a shift between the "quasi-planned" and "excess fertility" categories which in turn may represent differences in the definition of the situation (different tolerance limits for given family sizes, differences in post factum tendencies to rationalize behavior, etc.) as much as differences in effectiveness.

[44] As previously indicated the wife's occupational mobility is derived by comparison of *her* father's occupational class (while *she* was 6–16) with her husband's occupational class at interview.

wife are jointly considered and index of socio-economic status is held constant (Table 20).

Table 20. Fertility planning status, by mobility status of husband and wife and by index of socio-economic status.[1]

Fertility Planning Status and Index of Socio-Economic Status	Occupational Mobility Status			Educational Mobility Status		
	Non-mobile "Destination"	Upward Mobility	Downward Mobility	Non-mobile "Destination"	Upward Mobility	Downward Mobility
Number and Spacing Planned						
I[a] and II	43.2	42.1	54.2	26.9	46.5	44.8
III	26.3	20.0	25.0	18.5	23.5	25.0
IV[a]	16.0	26.5	21.0	21.4	36.7	8.0
V	0.0	8.7	11.1	8.3	5.6	4.5
Number Planned						
I[a] and II	20.4	7.9	12.5	26.9	15.1	31.0
III	10.5	17.5	10.0	18.5	14.7	20.0
IV[a]	8.0	11.8	12.3	14.3	3.3	8.0
V	22.2	17.4	11.1	8.3	22.2	13.6
Quasi-Planned						
I[a] and II	22.7	34.2	29.2	30.8	27.9	6.9
III	26.3	25.0	45.0	37.0	32.4	35.0
IV[a]	28.0	26.5	38.6	33.3	20.0	40.0
V	27.8	30.4	20.6	33.3	27.8	13.6
Excess Fertility						
I[a] and II	13.6	15.8	4.2	15.4	10.5	17.2
III	36.8	37.5	20.0	25.9	29.4	20.0
IV[a]	48.0	35.3	28.1	31.0	40.0	44.0
V	50.0	43.5	57.1	50.0	44.4	68.2
Total Number of Couples						
I[a] and II	44	76	24[c]	26	86	29
III	20	40	40	27	34	25
IV[a]	25	34	57	42	30	25
V	36	23[b]	63	36	18	22

[1] The small numbers of couples represented in this table result from: (a) the exclusion, except where noted, of couples in which the mobility status of husband and wife differ; and (b) the fact that these data are from the uninflated sample.

[a] Excluding intergenerationally nonmobile couples that are intragenerationally mobile.

[b] Includes some couples with only one member of upward mobility.

[c] Includes some couples with only one member of downward mobility.

Hypothesis *c* receives greater support with reference to intergenerationally upward mobility by education than by occupation. Nine of the fourteen comparisons in the upper section of Table 19 are consistent with the hypothesis that fertility planning status is more effective among couples exhibiting upward educational mobility than among nonmobile couples of comparable educational attainment. The data in Table 20, in which couples are classified by the joint mobility status of the husband and wife, are generally consistent with the hypothesis. It should be noted, however, that of the eighteen comparisons between mobile and nonmobile couples in Tables 19 and 20, only twelve are consistent with Hypothesis *c,* a result that might occur by chance 25 per cent of the time.

Thus, when nonmobile couples of similar status at "destination" are used as controls, the relationship of fertility-planning effectiveness is found to be closer to upward educational mobility than to upward occupational mobility. However, even with respect to upward educational mobility, the reliability of the results is low.

It is possible that the lack of positive results in the occupational data arises partly from the indeterminate comparability of ages of fathers and sons. The lack of stronger relationships than those actually found in the educational data may suggest that even if mobility stimulates fertility-planning effectiveness, an *inertia* of certain habits may prevent socially mobile couples from overtaking their destination controls with respect to fertility planning.

There is little doubt, however, about the couples of upward mobility (occupationally or educationally) being more effective in fertility planning than are nonmobile couples of similar origin. This is apparent by horizontal comparisons in Tables 18 and 19. (In any given row the figures at the left of the italicized diagonal tend to be higher than the italicized figure.) Thus, among sons of skilled workers, the proportion classified as number and spacing planned extends from about 31 to 38 per cent for those who advanced to higher occupational levels, as

compared with 25 per cent for those who duplicated their father's occupational class. Altogether, thirteen of fifteen comparisons[45] of this type in Tables 18 and 19 are consistent with the hypothesis. This might occur as the result of chance only 1 per cent of the time.

Nevertheless, it is important to emphasize that comparisons of the above type do not really afford much support to any hypothesis on social mobility. These comparisons simply reaffirm, with some refinement, the traditional direct relation of fertility-planning status to occupational or educational attainment. They permit us to say that *among couples whose parents were of similar occupational or educational attainment* fertility-planning status varies directly with occupational or educational status of the couples.

Downward Mobility. There is some tendency, by no means universal, for the fertility planning effectiveness of couples of downward social mobility to fall between that of their origin and destination groups. This is illustrated by the following, derived from Tables 18 and 19. Couples of downward mobility

Occupation of		Per Cent Classified	
Father	Son	Number and Spacing Planned	Number Planned
Proprietor	Proprietor	44.4	61.1
Proprietor	Skilled	27.9	37.2
Skilled	Skilled	24.7	36.4
H.S. 4	H.S. 4	20.6	38.2
H.S. 4	H.S. 1–3	13.6	13.6
H.S. 1–3	H.S. 1–3	0.0	9.1

are clearly less effective fertility planners than their origin groups.[46] Only 1 per cent of the time would we expect these

[45] Counting father G.S. 6–7 and son G.S. 8 as nonmobile relative to cases with father G.S. 6–7 and son H.S. 1–3 or above.

[46] Couples in which the husband is Grade School 8 and College 1–2 and whose fathers were respectively "High School 1 and above" and "College 1–4" are actually more effective than their origin groups. These cases are not included in the tally because of doubt that the latter category represents downward mobility, and because of the small number of couples involved in the former.

Fertility Planning Status	Occupationally Nonmobile		Occupationally Mobile	
	0 Moves After Marriage	1 or More Moves After Marriage	0 Moves After Marriage	1 or More Moves After Marriage
Number and Spacing Planned	29.9	30.0	29.0	36.0
Number Planned	13.2	22.0	14.1	11.0
Quasi-Planned	20.5	26.0	34.7	36.7
Excess Fertility	36.3	22.0	22.2	16.2
Total	99.9	100.0	100.0	99.9

Table 21. Per cent distribution by fertility planning status by occupational and physical mobility of husband.[1]

[1] For totals on which percentages are based see Table 9.

results—nine out of nine comparisons—to be due to chance. When comparisons are made with destination groups we do not find that couples of downward mobility plan fertility more effectively. Only eleven of eighteen comparisons in Tables 18, 19, and 20 are consistent with Hypothesis *c* as it relates to downward mobility.

Occupational Mobility, Physical Mobility, and Fertility Planning. Since the sharpest fertility differentials were found in conjunction with the consideration of both occupational and physical mobility, it was decided to examine Hypothesis *c* in a similar way. The results of this procedure are presented in Table 21, control for socio-economic status being achieved through matching for occupation.[47] These data are consistent with Hypothesis *c*. However, if chi square is reduced by the ratio of the uninflated to the inflated sample, these differences might be expected to occur through chance between five and ten per cent of the time. Even so, one might be reluctant to dismiss these results if it were not for the fact that the greatest contributions to chi square come from the discrepancies between observed and expected frequencies within the "quasi-planned" and "excess fertility" groups. As suggested previously, this might be as much a matter of how the family size situation

[47] *See* footnote 27.

Table 22. Regularity of contraception during months in which conceptions occurred, by occupation and mobility status of husband.

Regularity of Contraception	Occupation of Husband							
	Professional		Proprietary		Clerical		Skilled	
	Upward Mobility	Nonmobile "Destination"	Upward Mobility	Nonmobile "Destination"	Upward Mobility	Nonmobile "Destination"	Upward Mobility	Nonmobile "Destination"
"Always" or "Usually"	34.8	0.0	42.5	20.0	30.5	19.1	37.4	26.7
"Sometimes" or Irregular	58.0	84.7	50.0	73.3	65.2	61.8	54.2	63.3
No Contraception	5.8	15.2	7.6	6.7	4.3	19.1	8.3	6.7
Other	1.4	—	—	—	—	—	—	3.3
Total	100.0	99.9	100.1	100.0	100.0	100.0	99.9	100.0
Number of Couples[1]	69	13	66	30	138	23	48	60

[1] Never pregnant couples, number and spacing planned couples, and couples classified as unknown with respect to contraceptive regularity excluded.

is defined as an indication of differences in effectiveness. Thus we must conclude that no statistically reliable evidence for Hypothesis *c* has been found.

Regularity of Contraception. The conclusion that couples of upward mobility are not more effective in fertility planning than their nomobile "destination" controls is strengthened by showing that couples of upward mobility appear to have employed contraception with greater regularity than nonmobile couples during months in which conceptions have occurred. This is, obviously, an additional indication of ineffective planning,[48] since pregnancies occurring despite contraceptive practice are accidental. Table 22 contains data that reveal marked differences between upwardly and nonmobile couples in contraceptive regularity during months in which conceptions have occurred.

The data in Table 22 are susceptible to further interpretation if one assumes that for couples who use contraceptives ineffectively, contraceptive regularity during the months sampled is representative of general contraceptive practice. If this is accepted we have a clue to the fact that upwardly mobile couples have smaller families in spite of their showing no demonstrable superiority in fertility planning status. In addition to a tendency for mobile couples to have smaller planned families it seems likely that persistent, though partially unsuccessful, contraception may be a factor in the lower birth rates of mobile couples. Regularity is, perhaps, an initial phase in the development of effective fertility management.

Summary

The answer to two of the general questions of this analysis seems clear: social mobility, especially upward mobility, is a significant principle of classification with respect to size of family and size of planned families.

Although exceptions have been noted, the data support Hy-

[48] This assumes no greater candor in responding to this question on the part of upwardly mobile couples whose pregnancies were not planned.

pothesis *a* in that families exhibiting intergenerational upward mobility tend to be smaller than nonmobile couples of comparable status. Within the same limits they support Hypothesis *b* in that similar results are found when the analysis is restricted to planned families.

Hypothesis *c* was not confirmed as originally stated. However, at least in the case of upward mobility, the data are not inconsistent with the view that mobility partially overcomes resistances to contraception, giving upwardly mobile couples a position intermediate in fertility planning effectiveness between the levels of effectiveness of origin and destination groups. Consistent with this view also is the greater regularity of contraception among upwardly mobile couples. This is taken as an indication of the desire to regulate reproduction but a desire that apparently is handicapped by relatively ineffective practice.

Appendix I. Percentage distribution of husbands by intergenerational occupational mobility status, according to number of husband's "biological" and "sociological" siblings, and by broad occupational class of the father.

Intergenerational Occupational Mobility Status of Husband	All Couples[a]	Number of Siblings of the Husband					
		"Biological"[b]			"Sociological"[b]		
		0	1–2	3+	0	1–2	3+
Total Group							
Number (Percentage Base)	1,353	138	496	719	165	592	588
Per Cent:							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.1
Upward Mobility	32.6	27.5	36.9	30.6	30.3	35.3	30.8
Nonmobile	38.4	41.3	37.3	38.7	36.4	38.2	39.5
Downward Mobility	29.0	31.2	25.8	30.7	33.3	26.5	29.8
Father "White-Collar Worker"							
Number (Percentage Base)	469	60	201	208	77	227	160
Per Cent:							
Total	99.9	100.0	100.0	100.0	100.0	100.0	100.1
Upward Mobility	6.8	8.3	7.5	5.8	7.8	6.6	6.9
Nonmobile	39.4	51.7	41.3	34.1	41.6	43.2	34.4
Downward Mobility	53.7	40.0	51.2	60.1	50.6	50.2	58.8
Father "Manual Worker" or Farmer							
Number (Percentage Base)	884	78	295	511	88	365	428
Per Cent:							
Total	100.0	100.0	100.0	100.0	100.0	100.1	100.0
Upward Mobility	46.3	42.3	56.9	40.7	50.0	53.1	39.7
Nonmobile	37.9	33.3	34.6	40.5	31.8	35.2	41.4
Downward Mobility	15.8	24.4	8.5	18.8	18.2	11.8	18.9

[a] Relates to inflated sample but excludes (a) eighty-one cases in which husband had no father while he was 6–16, and (b) ten cases of unknown occupation of the father or son. Total includes eight unknowns with reference to "sociological" sibs.

[b] As defined in the Study, "biological sibs" are all full brothers and sisters; "sociological sibs" are brothers and sisters (full, step, adopted) sharing the individual's household while the individual was 6–16 years of age.