台灣人口遷移特性及傾向之性別差異

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一般人口移動之研究分析的對象均以男性為主，或者男女兼顧不分性別。本文假設男性與女性之移動者因情況不一而具有其不同的移動決定過程及型態，以對遷移者性別差異作一初步之研究，由此可估計遷移性別之不同對移出地及目的地之影響，作為決策單位的參考。本研究之資料取自農家查訪之原始資料，樣本數為台灣中部500戶農家，研究對象為長期外移之就業人口，包括男性197人及女性88人，及未遷移而就業者包括男性452人及女性189人。首先將女性及男性遷移者之個人特性（年齡、排行、教育程度、職業、目的地）作一比較，發現男性外移者及女性外移者在年齡分配上差異相當顯著，而教育程度，職業及在家中排行則差異不顯著。遷移者的目的地有很明顯的差異，中部地區的女性大多遷往中部而男性大多遷往北部。遷往南部者男女均少。至於移動傾向，男性及女性遷移者在不同年齡組，家長教育程度及家長職業三個變數有不同傾向，而在排行，教育程度，土地所有權，農家收入及家庭結構方面移動傾向相似。由此分析只可知男性及女性外移者之特徵及移動傾向，至於如何有效的解釋這些差異還須作進一步之研究。

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A Reappraisal of Female Labor Force Participation and Education on Fertility in Taiwan, 1976 *

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1. INTRODUCTION

That labor force participation of women depresses their fertility is one of the most widely held relationships in the study of fertility. It is well-documented that there is a negative relationship between fertility and female employment in the developed countries. For example, Karsada (1971), using census data from 50 nations, indicates that high rate of female labor force participation in non-agricultural activities and low rate of economic activity of children tend to lower a country's fertility level (as measured by the crude birth rate or the child-woman ratio). The research by Stycos and Weller (1967) also points to the same conclusion. But there is contradictory evidence of the impact of female employment on fertility in the less developed areas of the world. Using the one percent sample from the 1960 Census of Thailand, Goldstein (1972) finds that for the kingdom as a whole the fertility level of economically active women is higher than that of housewives. Further analysis reveals that fertility level in Thailand decreases with the degree of urbanization and type of economic function regardless of whether women are in or out of the labor force. Speare and his associates (1973) found that for Taiwanese young women aged 19-29 in 1971, work

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* This paper is based on the survey data of the value of children study in Taiwan (Phase II) which is part of a cross-national research project on the value of children. Co-investigators include: F. Arnold, R. Bulatao, C. Buripakdi, B. Chung, R. K. Darroch, J. Fawcett, C. Kagitcibasi, Sung-Jin Lee, Masri Singarimbun, T. H. Sun, T. S. Wu, Peter Chen, Eddie Kuo, and S. H. Kim

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experience has very little effect on fertility attitudes and acts mainly to delay marriage and to delay childbearing within marriage. Nevertheless, they pointed out, the fact that work experience has not had a greater impact on fertility in Taiwan should not be viewed as in contradiction to studies elsewhere because few of these were able to provide controls for duration of marriage, education, and urbanization, which act together with work experience to influence fertility.

In addition, Ridley (1971) and Weller and Sakoda (1971) in their respective research shared same conclusion that labor force participation per se does not reduce fertility. It is suggested that a series of other variables are associated with female employment which affect fertility levels. One such variable is the role conflict of mother and working wife. Weller (1968) in his study of lower and middle class residents in San Juan finds no such mother-worker role conflict that among Puerto Rican mothers child-care is the job of members of the family: spouse, older children, grand parents or other relatives. Therefore, he theorizes that, the greater the incompatibility between the role of mother and worker, the greater is the differential fertility behavior of workers and women not in the labor force. Naturally one would not hesitate to speculate that this type of incompatibility would be smaller in a rural setting in the less developed countries where working mothers engaged in agriculture do not necessarily have to work too far away from home and furthermore simply because the existence of larger families -- the greater availability of parental surrogates. This leads Gendell and his associates (1970) to postulate that the association of relatively low fertility with labor force participation is widespread in the large urban and presumably more modern sectors of the economy. In their recent undertaking on the design of employment surveys in the less developed countries, Mueller and Freedman (1977) also indicate that work at home is generally regarded as more compatible with childcare than work away from home -- an important element in fertility decisions.

Another important variable which has frequently been shown to

be inversely related to fertility is education. Increased knowledge leads to higher personal tastes and non-familial aspirations, as well as to easier access to contraception facilitating control of births. But Kiser (1969) cautions that the pattern of fertility differentials by education is by no means fixed, as evidenced by the experience of the marked convergence in developed countries in the late 60's. Recent analyses by Anderson (1975) and by Freedman and his colleagues (1977) of Taiwanese fertility data also report the same situation for Taiwanese women above age 30.

The present analysis seeks to unravel the complex dynamics linking education, labor force participation, desired family size, no. of live births, and son preference in Taiwan so as to present a reappraisal of previously established relationship. The research justifies itself to be undertaken in view of the fact that Taiwan has been experiencing all kinds of social change, including educational attainment, work pattern, attitudes towards family norms, practice of family planning, etc., in the midst of rapid modernization process.

2. THE DATA

This study draws data obtained from a Taiwan survey on the Value of Children (VOC) conducted in early 1976. The survey is the second phase of Taiwan part of an international comparative study project supported by the Rockefeller and Ford Foundations. The purpose of the study are to describe and analyze reasons for wanting, or not wanting children, or costs entailed in having children. The 'value' of children refers to a hypothetical net worth of children, with positive values (satisfaction) balanced against negative values (costs). In this research, satisfaction and costs of children are assessed through questions asked in interviews with parents. The emphasis is therefore on perceived satisfactions and costs, and the value of children is directly linked to the needs, attitudes, and values of parents. (Arnold et al. 1975)

The survey includes three types of sample. They are 2,389 wives, 1,203 husbands, and 691 mothers-in-law , each of them was designed to be representative of all such people in Taiwan except for the aborigines living in the mountainous areas (who account for less than 2% of the total population.) A three-stage clustered sample design was used. In the first stage, 56 townships were selected out of the 331 non-aboriginal townships in Taiwan. The sample Lins (neighborhood) were selected within these townships based on Lin size, and all the names of eligible women (currently married, age under 45) registered in the Lin plus their dates of birth and the names of their husbands and mothers-in-law were copied from the household register. Two women were selected randomly from each Lin, and one husband (of the selected women) was selected from the two in the Lin. Two-thirds of the women aged below 30 were selected to interview their mothers-in-law in order to obtain an expected total of 500 completed interviews.

In an attempt to avoid sampling bias, all the sample selected were followed up to the place of current residence, if other than the registered address, instead of substituting by others. The interview was conducted in the first four months in 1976 with the following results:

Type of sample	Sample selected	Interview completed	% completed
Wives	2,389	2,217	92.8
Husbands	1,203	1,023	85.0
Mothers-in-law	691	464	67.2

The response rate is lowest for the mothers-in-law, because in the first place, there is no data concerning the existence of mother-in-law in the household register, therefore there may be some cases that at time of sampling, many of them are already dead. Actually this type of incomplete interviews account for 41.4% of the total 'failures'. Another main reason is that many of mothers-in-law are in the Mainland.

The present paper focuses on data collected from wives, which are believed to be the most recent data source available enabling research-

ers to do detailed assessment of the relationship between SES variables and fertility in Taiwan. As a matter of fact, VOC study is intended to serve as a continuation of the KAP-type series of research in Taiwan dating back to 1965, the last one was carried out in 1973, to provide up-to-date information on related subjects in the broad field of change in fertility behavior and family planning practice of Taiwanese women.

In this analysis three independent variables are considered:

(1) Work experience is defined as years worked after marriage. In Taiwan it is quite common for single women to work for wage, but much less frequent for the married, mainly due to the constrain of childcare. Out of the respondents, 865, or 39%, of them said they never worked after marriage. This measure is same as the 'work index' used by Kupinsky (1971) in his analysis of 1960 Growth of American Family study and the 1960 U. S. Census on non-familial activity and SES differentials in fertility.

(2) Education refers to the highest educational level which the respondent ever attained. In the present article, those wives who have never gone through primary school were classified as having received no formal education, at the lowest step of the education ladder. About one quarter of our respondents fall into this category. Those having received primary school education constitute the majority, with a proportion of 56.5%, followed by junior high school graduates, about one tenth. Standing at the top of the ladder are those who received senior high school education or above. They account for 8.8% of the respondents.

(3) Urban-rural residence is based on response of three questions asked for each respondent, namely, "Have you ever lived in an urban town or city?" "Have you ever lived in a farm or in the country?" and "Was this when you were growing up or later?" Five categories are thus devised to place each respondent along the line of urban-rural continuum:

RURAL -- Now living in rural area, and never lived in urban area.

MOSTLY RURAL -- Now living in rural area, but ever lived in urban area during or after growing up. We expect that this group of women would be of smallest number, since return migrants to the country side tend to be very uncommon.

MIXED -- Now living in rural area, but ever lived in urban area both during and after growing up, or now living in urban area, but ever lived in rural area both during and after growing up. This group of respondents are assumed to have equally been exposed to both urban and rural life style.

MOSTLY URBAN -- Now living in urban area, but ever lived in rural area during or aiter growing up. This group consists mainly of return migrants to the cities, and would be many more than the MOSTLY RURAL in numbers.

URBAN -- Now living in urban area, and never lived in rural area.

The reason why this new measure is employed here is that so far the analysis on urban-rural fertility differentials in Taiwan most often adopts the conventional administrative classification, vis-a-vis, large cities, small cities, urban townships, and rural townships, which by no means is strictly accurate. The following table presents a comparison of distributions of respondents between the conventional and the new classifications:

Distribution of respondents by different classifications of urban-rural residence

New classification (used in the analysis)			Conventional classification (administrative classification)		
	No.	%		No.	%
Rural	827	37.3	Rural towns	736	33.2
Mostly rural	204	9.2	Urban towns	462	20.8
Mixed	377	17.9			
Mostly urban	356	16.1	Small cities	351	15.8
Urban	417	18.8	Large cities	668	30.1
N. A.	16	0.7			
Total	2,217	100.0		2,217	100.0

The main drawback of the conventional classification is that it tells only the type of area the respondent is living at time of interview, without taking into account of her living experience elsewhere in the past. According to the administrative classification 46% of respondents live in urban areas, whereas a bit over one third were so classified, confirming the finding with regard to urban-rural background in Taiwan reported by Speare and his colleagues. (1973)

Speaking of the dependent variables to be examined, one measure on fertility behavior is used -- number of live births, along with three other fertility attitude variables, namely, desired number of children, desired number of sons, and perceived importance of a male heir in the family. Although completed family size is regarded by most researchers as the most accurate measure of fertility, but in a society like Taiwan undergoing changes in fertility is not the most useful because it is not available until long after the changes have taken place. In a sample where both young and middle-aged wives are interviewed, the natural choice of fertility measure is the number of live births, though for women who have not completed childbearing, it may be misleading due to changes in the timing of births.

With regard to fertility attitude measures, Freedman and his colleagues (1972), based on a series of Taiwan KAP studies during 1965-1970, concluded that there is evidence that desired number of children provides a reasonable basis for estimating future behavior for aggregates of women. Furthermore, in a society like Taiwan where traditional son preference has been consistently strong, desired number of sons would be a better indicator. For example, if couples desire three children but insist on having at least two sons, one would predict that they will eventually have on the average four children. In the present analysis, this measure also receives proper treatment, together with the perceived importance of a male heir in the family, which is mentioned most often by the respondents as the first reason for wanting sons. The following table gives the frequency distributions of these four variables by age-group.

Age group	Average no. of live births	Mean desired no. of children	Mean desired no. of sons	% feeling a male heir is important
15-19	0.7 (46)	2.9 (45)	1.4 (43)	60 (43)
20-24	1.5 (372)	2.7 (372)	1.5 (368)	59 (370)
25-29	2.5 (514)	2.7 (513)	1.4 (509)	63 (509)
30-34	3.6 (449)	3.0 (445)	1.6 (443)	70 (449)
35-39	4.2 (446)	3.2 (444)	1.7 (440)	71 (443)
40+	4.8 (388)	3.3 (383)	1.8 (380)	73 (381)
Total	3.3 (2,215)	3.0(2,202)	1.6(2,183)	67(2,201)

Note: Figures in parentheses are numbers of respondents. For each column these numbers do not necessarily add up to the total number of respondents (2,217), because some of them with not ascertained(NA) or unknown answers were excluded from tabulation.

3. EDUCATION AND FERTILITY DIFFERENTIALS

Table 1 presents the relationship between education and fertility behavior and attitudes by controlling age, thus eliminating some of the possible effect of the duration of marriage on fertility, since women of lower education tend to get married earlier than those of the better-educated. The mean number of live births for all respondents is 3.26. For those aged 20-24 who have no formal education, it is 2.1, advancing more than one child in every five years from then on, reaching 3.9 for those aged 30-34, and continues the trend to 5.0 beyond age 40. Primary school graduates, on the other hand, tend to give births later, with the number of births starting from 1.6 at age 20-24, but trailing behind to that of no formal education up to age 40 and over, at 4.8 as compared to 5.0 for the latter.

For each age group, the difference between two extremes of education achievement ranges from 1.2 for the group of 20-24 to 1.6, 1.5, and 1.9 for ages 25-29, 30-34, and 35-39, respectively, indicating that the

education differentials become more pronounced as respondents approaching the stage of completed fertility.

The mean desired number of children for all respondents is 3.0. It increases from 2.7 for those aged 20-29 to 3.3 for the oldest group. It shows that by the time women are 30-34 years old, all women with no exception have excess fertility, as compared to their actual fertility behavior, in terms of number of live births over desired number of children. For example, for those having no formal education, they desire to have 3.3 children, but actually they on the average have already had 3.9 children. This 'excess' becomes greater for women aged beyond 40, where we find a difference of 1.4 and 1.6 children for women with no formal education and primary school graduates, respectively. Cutting across education line, the difference of desired number of children between the lowest and the highest ranges from 0.8 to one child, meaning that the expectation about having children is closer among women of different education backgrounds, regardless of age, than the actual fertility performance.

In Taiwan son preference has always been strong at various social strata, especially among the less-educated. During the period 1965-1973, this number has been around two according to KAP studies. It is now 1.6 for our respondents, indicating that a faster change in the desire of sons has taken place in the last three years -- a decline of 0.3 of a son from 1973's 1.9, as compared to 1965's 2.2 in eight years. Again, when comparing the desired number of children and the desired number of sons,we find that for example couples of age 35-39 desiring 3.5 children but insist on having 1.9 sons for those having no formal education! Obviously they want more sons than daughters. And as noted earlier, they would eventually have to have 3.8 children, instead of the desired 3.5, if 1.9 sons had to be born. Education evidently plays a significant important role in depressing the desire of sons, because as the figures tell us, the difference between different education groups all exceeds 0.6 of a child. This means that the fertility expectation between different education groups

Table 1. Average number of live births, mean desired number of children, mean desired number of sons, and percent of women feeling that a male heir is very important in the family, by age-groups, and educational attainment, for married Taiwanese women, 1976

Education	Age group													
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Average number of live births							Mean desired number of children						
No formal	*	2.1	3.2	3.9	4.8	5.0	4.3	*	3.1	3.1	3.5	3.5	3.6	3.5
Primary	0.7	1.6	2.7	3.6	4.1	4.8	3.1	2.9	2.8	2.8	3.0	3.1	3.2	3.0
Jr. high	*	1.0	2.2	2.9	3.7	3.7	2.6	*	2.6	2.5	2.6	2.8	3.0	2.7
Sr. high +	*	0.9	1.6	2.4	2.9	*	1.9	*	2.3	2.3	2.3	2.5	*	2.4
TOTAL	0.7	1.5	2.5	3.6	4.2	4.8	3.3	2.9	2.7	2.7	3.0	3.2	3.3	3.0
	Number of respondents													
No formal	4	37	51	146	167	146	552	4	37	50	143	167	144	546
Primary	30	253	326	236	216	192	1,252	29	253	326	235	214	189	1,245
Jr. high	10	34	60	35	39	38	216	10	34	60	35	39	38	216
Sr. high +	2	48	77	32	24	12	195	2	48	77	32	24	12	195
TOTAL	46	372	514	449	446	388	2,215	45	372	513	445	444	383	2,202

* Number of respondents smaller than 20.

Table 1. Average number of live births, mean desired number of children, mean desired number of sons, and percent of women feeling that a male heir is very important in the family, by age-groups, and educational attainment, for married Taiwanese women, 1976 (cont'd)

Education	Age group													
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Mean desired number of sons							% feeling male heir very important						
No formal	*	1.8	1.7	1.8	1.9	2.0	1.9	*	59	76	76	77	75	75
Primary	1.5	1.5	1.5	1.6	1.7	1.7	1.6	63	65	66	72	74	74	69
Jr. high	*	1.5	1.2	1.4	1.4	1.5	1.4	*	50	55	51	56	58	54
Sr. high +	*	1.1	1.1	1.1	1.1	*	1.1	*	33	49	41	33	*	43
TOTAL	1.4	1.5	1.4	1.6	1.7	1.8	1.6	61	59	63	70	71	73	67
	Number of respondents													
No formal	4	36	50	143	166	143	543	4	37	51	146	167	146	552
Primary	27	252	324	234	211	188	1,235	30	253	326	236	216	192	1,252
Jr. high	10	33	58	34	39	37	211	10	34	60	35	39	38	216
Sr. high +	2	47	77	32	24	12	194	2	48	77	32	24	12	195
TOTAL	43	368	509	443	440	380	2,183	46	372	514	449	446	388	2,215

* Number of respondents smaller than 20.

becomes wider if the desired number of sons is the only measure being considered. For example, between two extremes of the education line, the difference is 1.0 for desired number of children, but for desired number of sons, it is 0.8 for those aged 35-39.

Looking from a different angle, the perceived importance of a male heir in the family is another indicator of fertility attitude. Three-quarters of no formal education women believe that it is very important to have a male heir, whereas less than half of senior high school graduates and above think so (43%). Controlling for age, this difference between high and low education categories becomes greater for women approaching the stage of completed fertility. For example, the difference is 35% and 44% for those aged 30-34 and 35-39, respectively, in comparison with only 26% for those aged 20-24. It demonstrates that for the two lower-educated groups, the older the women become, the more the perceived importance is. In direct contrast to this, junior high school graduates are quite stable in this regard, while the best-educated do not show any visible pattern. One may speculate that for the better-educated, as time goes, they tend to become more secured in their career so that they do not feel that a son is so important. One may argue with equal plausibility that as long as the better-educated become more secured in their career, they would have a felt-need to pass it on to their children to continue the family line, hence a male heir should be of utmost importance. These two conflicting views require further studies.

4. LABOR FORCE PARTICIPATION AND FERTILITY DIFFERENTIALS

The figures in Table 2 tell us that after controlling for age factor there is not much difference in fertility behavior and fertility attitudes among women of different work experience. Taking the average number of live births, these figures reveal a higher fertility for those who worked longer. For example, for age group 25-29 those who worked less than three years, average number of live births is 2.1, as compared to

2.6 and 3.4 for those who worked 3-5 years and 5-10 years, respectively. For the oldest age group, those who worked more than 15 years even boast the highest number of live births (5.1), among other labor force participants.

With regard to the desired number of children, the difference between workers and non-workers is smaller than those of the mean number of live births just discussed. Again, those who participated in labor force longer demonstrate a higher expectation in every age group. The same situation holds true both for the desired number of sons and the perceived importance of a male heir in the family, with the only exception where women aged beyond 40 who worked 6-10 years have the highest percent, 83%, feeling that it is very important.

Reviewing above figures one may come to a conclusion that, judging from the fact that a very small proportion of women are subfecund and childless, it is quite confusing to find that female labor force participation does not have a negative impact on fertility. The situation seems to point to a non-existence of the problem of childcare.This brings up the question of the availability of parental surrogates for labor force participants. The logical interpretation is that so long as there is parental surrogate, a working mother does not have to worry about her children when she works away from home. As for age-groups 20-24 to 30-34, the figures show that those who do not have parental surrogate do have lower fertility than those who do have. (Table 3) However, the situation for those aged beyond 35 is different, where there is a difference of only 0.1 of a child. This may lead one to interpret that labor force participation will make working wives managed to get their children taken care of by someone else if there is no parental surrogates, sometimes involving pecuniary compensation. In contrast to this, the younger working mothers would realistically simply stop to have many children and avoid to bother someone other than family members to look after children. A statement should be made here is that parental surrogate in the present

Table 2. Average number of live births, mean desired number of children, mean desired number of sons, and percent of women feeling that a male heir is very important in the family, by age-groups, and number of years worked after marriage, for married Taiwanese women, 1976

Years worked after marriage	Age group													
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Average number of live births							Mean desired number of children						
Never worked	0.8	1.4	2.6	3.5	4.4	4.8	3.3	2.9	2.7	2.8	3.1	3.3	3.4	3.0
-3 years	1.7	1.3	2.1	3.5	4.2	4.8	2.6	2.8	2.7	2.6	2.9	3.4	3.4	2.9
3-5 years	*	2.4	2.6	3.4	4.0	4.3	3.3	*	3.0	2.7	3.1	3.0	3.2	3.0
5-10 years	*	*	3.4	3.4	3.5	4.1	3.5	*	*	3.0	3.0	2.9	3.3	3.0
10-15 years	*	*	*	4.1	4.2	4.4	4.2	*	*	*	3.0	3.1	3.2	3.1
15 years +	*	*	*	*	4.6	5.1	4.9	*	*	*	*	3.7	3.4	3.5
TOTAL	0.7	1.5	2.5	3.6	4.2	4.8	3.3	2.9	2.7	2.7	3.0	3.2	3.3	3.0
	Number of respondents													
Never worked	23	169	196	167	161	149	865	22	169	196	164	160	148	859
-3 years	22	178	205	119	97	60	681	22	178	205	118	96	60	679
3-5 years	1	23	71	42	40	39	216	1	23	70	42	40	39	215
5-10 years	0	3	36	59	37	30	165	0	3	36	59	37	30	165
10-15 years	0	0	6	58	61	22	147	0	0	6	58	61	22	147
15 years +	46	373	514	449	446	389	2,217	45	373	513	445	444	384	2,204

* Number of respondents smaller than 20.

* Number of respondents smaller than 20.

Table 2. Average number of live births, mean desired number of children, mean desired number of sons, and percent of women feeling that a male heir is very important in the family, by age-groups, and number of years worked after marriage, for married Taiwanese women, 1976 (cont'd)

Years worked after marriage	Age group													
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Mean desired number of sons							% feeling male heir very important						
Never worked	1.5	1.4	1.5	1.6	1.7	1.8	1.6	48	60	63	69	72	71	66
-3 years	1.2	1.4	1.3	1.6	1.7	1.8	1.5	73	56	60	63	74	70	63
3-5 years	*	1.7	1.4	1.7	1.6	1.8	1.6	*	65	66	71	62	77	68
5-10 years	*	*	1.8	1.6	1.5	1.8	1.7	*	*	78	75	57	83	73
10-15	*	*	*	1.6	1.7	1.6	1.7	*	*	*	78	67	73	72
15 years +	*	*	*	*	2.0	1.8	1.9	*	*	*	*	84	72	76
TOTAL	1.4	1.5	1.4	1.6	1.7	1.8	1.6	61	59	63	70	71	73	67
	Number of respondents													
Never worked	21	167	194	163	160	146	851	23	169	196	167	161	149	865
-3 years	21	176	203	118	92	59	669	22	178	205	119	97	60	681
3-5 years	1	23	70	42	40	39	215	1	23	71	42	40	39	216
5-10 years	0	3	36	58	37	30	164	0	3	36	59	37	30	165
10-15 years	0	0	6	58	61	22	147	0	0	6	58	61	22	147
15 years +	0	0	0	4	50	85	139	0	0	0	4	50	89	143

Table 3. Average number of live births, mean desired number of children, mean desired number of sons, and percent women feeling that a male heir is very important in the family, by age-groups, and the availability of parental surrogate, ror married Taiwanese women, 1976

Availability of parental surrogate	Age group												
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44 Total
	Average number of live births							Mean desired number of children					
Yes	*	1.7	2.6	4.0	4.2	4.7	3.3	*	2.8	2.8	3.1	3.4	3.6 3.1
No	*	1.2	2.3	3.4	4.1	4.8	3.3	*	2.6	2.6	2.8	3.1	3.3 3.0
Inapplicable#	0.9	1.5	2.5	3.6	4.4	4.8	3.3	2.9	2.7	2.8	3.1	3.2	3.3 3.0
Total	0.7	1.5	2.5	3.6	4.3	4.8	3.3	2.9	2.7	2.7	3.0	3.2	3.3 3.0
	Number of respondents												
Yes	5	63	96	67	62	49	342	5	63	96	67	62	47 340
No	12	78	120	111	148	125	594	12	78	119	110	147	123 589
Inapplicable#	29	232	298	271	236	215	1,281	28	232	298	268	235	214 1,275
Total	46	373	514	449	446	389	2,217	45	373	513	445	444	384 2,204

Including those never worked since marriage, NA or unknown answers.
* Number of respondents smaller than 20.

Table 3. Average number of live births, mean desired number of children, mean desired number of sons, and percent women feeling that a male heir is very important in the family, by age-groups, and the availability of parental surrogate, for married Taiwanese women, 1976 (cont'd)

Availability of parental surrogate	Age group												
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Mean desired number of sons							% feeling male heir very important						
Yes	*	1.6	1.4	1.7	1.9	1.9	1.7	*	60	65	79	77	80	77
No	*	1.3	1.3	1.5	1.6	1.7	1.5	*	52	62	66	66	74	65
Inapplicable#	1.4	1.5	1.5	1.6	1.7	1.8	1.6	55	60	63	69	73	70	67
Total	1.4	1.5	1.4	1.6	1.7	1.8	1.6	61	59	63	70	71	73	67
	Number of respondents													
Yes	5	62	95	66	61	47	336	5	63	96	67	62	49	342
No	11	77	119	110	146	122	585	12	78	120	111	148	125	594
Inapplicable#	27	230	295	267	233	212	1,264	29	232	298	271	236	215	1,281
Total	43	369	509	443	440	381	2,185	46	373	514	449	446	389	2,217

Including those who never worked since marriage, NA or unknown answers.
* Number of respondents smaller than 20.

analysis refers to mothers and mothers-in-law only, a slight deviation from the definition made by Weller in his paper on Puerto Rican working mothers. (Weller, 1968)

5. RURAL-URBAN RESIDENCE AND FERTILITY DIFFERENTIALS

Exposure to urban life style is very often concomitant with the increased level of education, since most secondary and higher education facilities in Taiwan are located in the cities. The easier access to mass communications and the crowdiness of urban environment contribute further to the higher awareness of population pressures in leading an urban life. Therefore there is not much to argue with urbanologists when they find the established evidence pointing to the conclusion that increased degree of urbanization depresses human fertility, especially true in the developing countries. (Goldstein, 1972)

Our data support this finding that urban living experience does have an adverse impact either on fertility behavior or on fertility attitudes, with the only exception of the return migrants to the cities, i. e., 'mostly urban' group in the present analysis, acrossing columns in Table 4. For example, average number of live births for those aged 25-29 increases from 2.1 for the 'urban', to 2.8 for the 'rural'. For those aged 35-39, it is from 4.0 to 4.5. In the meantime for each age group, the difference between two ends of the urban-rural continuum is in the range of 0.3 to 0.7.

Speaking of the desired number of children, the difference between 'urban' and 'rural' is 0.5 for both those aged 20-24 and 35-39, with the latter all desiring 0.5 more of a child than the former, along the line of urban-rural continuum. However, as we can see from Tables 1 and 2, the fertility differentials among different social strata are not so remarkable if we characterize women by urban-rural experience as compared to that of education. But, nevertheless, these differentials are a bit more pronounced in comparison with those distinguished by the work experience of women.

Table 4. Average number of live births, mean desired number of children, mean desired number of sons, and percent of women feeling that a male heir is very important in the family, by age-groups, and urban-rural residence, for married Taiwanese women, 1976

Urban-rural residence	Age group													
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Average number of live births							Mean desired number of children						
Rural	*	1.6	2.8	3.9	4.5	5.0	3.8	*	3.0	3.1	3.2	3.5	3.6	3.3
Mostly rural	*	1.5	2.6	3.6	4.4	4.9	2.9	*	2.9	2.9	3.0	3.4	3.1	3.3
Mixed	*	1.5	2.3	3.4	4.4	4.4	3.2	*	2.7	2.6	3.0	3.2	3.1	2.9
Mostly urban	*	1.5	2.5	3.3	3.6	4.5	2.7	*	2.5	2.6	2.8	2.6	3.0	2.7
Urban	*	1.3	2.1	3.2	4.0	4.6	3.0	*	2.5	2.4	2.6	3.0	3.2	2.7
TOTAL	0.7	1.5	2.5	3.6	4.2	4.8	3.3	2.9	2.7	2.7	3.0	3.2	3.3	3.0
	Number of respondents													
Rural	16	102	144	185	188	192	826	16	102	144	183	186	187	817
Mostly rural	8	55	56	40	23	22	205	7	55	56	40	23	22	204
Mixed	3	54	109	91	82	58	397	3	54	109	90	82	58	396
Mostly urban	10	98	92	54	60	42	356	10	98	92	54	60	42	356
Urban	6	61	108	79	90	73	417	6	61	107	78	90	73	415
Total	43	370	509	449	443	387	2,201	42	370	508	445	441	382	2,188

* Number of respondents smaller than 20.

Table 4. Average number of live births, mean desired number of children, mean desired number of sons, and percent of women feeling that a male heir is very important in the family, by age-groups, and urban-rural residence, for married Taiwanese women, 1976 (cont'd)

Urban-rural residence	Age group												
	15-19	20-24	25-29	30-34	35-39	40-44	Total	15-19	20-24	25-29	30-34	35-39	40-44	Total
	Mean desired number of sons							% feeling male heir very important						
Rural	*	1.8	1.7	1.8	1.9	1.9	1.8	*	67	81	78	81	78	77
Mostly rural	*	1.6	1.5	1.6	2.0	1.7	1.7	*	71	73	72	70	86	74
Mixed	*	1.4	1.4	1.5	1.7	1.6	1.5	*	52	55	72	66	69	63
Mostly urban	*	1.3	1.4	1.6	1.3	1.8	1.4	*	54	53	54	53	67	55
Urban	*	1.1	1.2	1.3	1.6	1.6	1.4	*	49	52	57	67	62	57
TOTAL	1.4	1.5	1.4	1.6	1.7	1.8	1.6	60	59	63	70	71	73	67
	Number of respondents													
Rural	15	99	142	183	183	186	807	16	102	144	185	188	192	826
Mostly rural	7	54	55	39	23	22	201	8	55	56	40	23	22	205
Mixed	3	54	108	90	82	57	394	3	54	109	91	82	58	397
Mostly urban	9	98	92	54	60	42	355	10	98	92	54	60	42	356
Urban	6	61	107	77	89	72	412	6	61	108	79	90	73	417
TOTAL	40	366	504	443	437	379	2,169	43	370	509	449	443	387	2,201

* Number of respondents smaller than 20.

The existence in Taiwan of lower-than-average fertility among selected social strata of the population in the midst of rapid process of social change deserves the attention to ascertain the full range of differentials and to assess their significance for development of programs designed to reduce further the still relatively high fertility levels of the population at large, especially in the wake of a second 'baby boom' in the Year of Dragon.

Female labor force participation, education and urbanization have been often cited as the main factors depressing fertility either in the developed or in the developing countries. Previous research findings in Taiwan point to a negative effect of education on fertility, whereas urbanization has little influence and female employment does not show definite adverse influence on fertility. A statement was also made that rural fertility levels have typically equalled urban levels after about six years. (Freedman et al. 1972)

The present analysis attempts to bring up-to-date the pictures portrayed on these subjects. The findings, for the most part, confirm those reported four years ago (Speare et al. 1973), with education remaining the most important factor in suppressing human fertility and fertility attitudes, followed by urban-rural living experience. Thus policies directed at fostering high rates of educational enrollment of women should be considered as part of the program aimed to achieve further reductions in fertility in Taiwan.

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