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ON THE MALAYSIAN FAMILY LIFE SURVEY

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PREFACE

This Note was prepared with support from Grant 1744 from the Office of Program, Planning, and Coordination of the Agency for International Development. The Note presents several cross-tabulations based on data from the Malaysian Family Life Survey. The purpose is to explore whether migration data collected in a survey that is mainly concerned with fertility can be used to yield insights into the relationship between migration and fertility.

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INTRODUCTION

The full evaluation of interrelations between migration and fertility has been stymied by the lack of adequate data, particularly information on fertility behavior before and after migration.¹ The purpose of this Note, which presents several cross-tabulations based on data from the Malaysian Family Life Survey (MFLS)², is to explore whether migration data collected as part of a survey concerned mainly with fertility can be used to yield insights into the relationship between migration and fertility.³ The tabulations are based on rather small sample sizes and are intended only as an illustration of the types of analysis possible.

The following tables are based on data from the MFLS Female Retrospective Questionnaire (MF2). The questionnaire was administered

¹For example, see Sidney Goldstein and Penporn Tirasawat, *The Fertility of Migrants to Urban Places in Thailand*, Paper #43 of the East-West Population Institute, East-West Center, Honolulu, April 1977, or Alvan Zarate and Alicia Unger de Zarate, "On The Reconciliation of Research Findings on Migrant-Nonmigrant Fertility Differentials in Urban Areas," International Migration Review, Vol. 9, No. 2, Summer 1975.

²The MFLS was funded by the U.S. Agency for International Development. It was conducted by William P. Butz and Julie DaVanzo of The Rand Corporation in collaboration with, initially, personnel of the Department of Statistics of the Government of Malaysia, and subsequently, personnel at Survey Research Malaysia, who did the field work. The MFLS consisted of eleven questionnaires administered once or several times during a three-round survey conducted over the period August 1976 to August 1977 to over 1200 households in Peninsular Malaysia. The MFLS was designed primarily to provide data for estimating the magnitude of key economic and biomedical relationships affecting birthspacing, contraceptive use, and breastfeeding patterns of families in Peninsular Malaysia. For more information about the survey, see William P. Butz and Julie DaVanzo, *The Malaysian Family Life Survey: Summary Report*, The Rand Corporation, R-2351-AID, March 1978.

³In fact, without retrospective residence or migration information, one can not even investigate the effect of area of residence (e.g., urban, rural) on previous fertility decisions.

to all selected ever-married women less than 50 years old. It elicited a life history of pregnancies, contraceptive use, marital status changes, and migration.⁴

The tables that follow are based on a somewhat arbitrarily chosen subsample from the MFLS sample. From the more than 1200 ever-married women represented in the MFLS, we selected the 275 women who were aged 20-29⁵ on January 1, 1971, and who were married throughout the period January 1, 1971 to January 1, 1974. We have categorized these women into nonmigrants and migrants--women who changed the district⁶ of their residence between January 1, 1971 and January 1, 1974. We consider below how migration rates vary by beginning-of-interval fertility and how beginning-of-interval fertility differs between migrants and nonmigrants--two alternative approaches to investigating whether fertility affects migration and whether migration selects women of different fertilities. We then compare migrants' and nonmigrants' fertility in the interval January 1, 1971 to January 1, 1974 to see whether fertility *during* this interval differs for migrants and nonmigrants. Finally, we compare contraceptive usage rates for migrants and nonmigrants, for both the beginning and end of the migration interval.

⁴The MF2 questionnaire also collected retrospective data (not used in this Note) on breastfeeding, first postpartum menstruations, house characteristics and household composition, help with children, and education and training of each respondent, as well as a work history that includes occupation, amount of time worked for each job held, and earnings at intervals of not more than three years. All information in MF2 is documented from age 15, age of first marriage, or age of first pregnancy, whichever is earliest.

The interview procedures for MF2 emphasize cross-referencing dates and respondent ages across events in different life areas. This technique helps determine the dates of particular events and facilitates checking the consistency of the life history over time and across life areas. Such cross-checking during the interview is greatly aided by the accurate birth registration records kept by virtually all mothers as part of the Malaysian vital statistics and citizen identification systems.

The MF2 questionnaire is reproduced in William P. Butz, Julie DaVanzo, Dorothy Z. Fernandez, Robert Jones, and Nyle Spoelstra, *The Malaysian Family Life Survey: Appendix A, Questionnaires and Interviewer Instructions*, R-2351/1-AID, March 1978. The data were prepared for analysis using the computer program described in Iva MacLennan, *RETRO: A Computer Program for Processing Life History Data*, R-2363-AID/RF, March 1978.

⁵We chose to focus on the 20-29 age group since it is generally the one with highest migration propensities.

⁶Peninsular Malaysia comprises about 70 districts.

PRE-MIGRATION FERTILITY

The 1971-74 migration rate of women aged 20-29, shown in Table 1, is inversely related to the number of children they had given birth to as of 1971. Women with no children in 1971 were more than three times as likely to migrate between 1971 and 1974 as women with two or more children in 1971.

The last two lines of Table 1 show that the migration rate for women aged 20-24 is nearly double that for women aged 25-29 (the difference is statistically significant). This negative relation between age and migration propensities is consistent with the findings of numerous other migration analyses.

Table 1

1971-74 MIGRATION RATES, BY NUMBER OF CHILDREN
EVER BORN (1971), FOR A SAMPLE OF WOMEN AGED
20-29 IN 1971 WHO WERE CONTINUOUSLY
MARRIED BETWEEN 1971 AND 1974

No. of Children Ever Born, 1971	Migration Rate, 1971-74	Sample Size
0	23%	48
1	13%	49
2	7%	68
3	9%	46
4+	6%	64
All parities	11%	275
Age 20-24	15%	122
Age 25-29	8%	153

FERTILITY DURING AND AFTER THE MIGRATION INTERVAL

In Tables 2 and 3 we look at additions to fertility between 1971 and 1974 for migrants and nonmigrants. Although the cell sizes are small for migrants, the data in Table 2 do suggest that, at each 1971 parity, 1971-74 migrants were less likely to have one or more children between 1971 and 1974 than were women of the same parity who did not move between 1971 and 1974 (the differences are significant for parities of zero and one). When we aggregate across parities, we see that

Table 2

PERCENT OF WOMEN AGED 20-29 IN 1971 WHO HAD
AT LEAST ONE CHILD BETWEEN 1971 AND 1974
BY 1971 PARITY AND AGE: MIGRANTS
VERSUS NONMIGRANTS

(Sample sizes in parentheses)

1971 Parity	Migrants	Nonmigrants
0	0% (11)	8% (37)
1	50% (6)	79% (43)
2	60% (5)	67% (63)
3	75% (4)	79% (42)
4	75% (4)	90% (60)
All parities	40% (30)	64% (245)
Aged 20-24	28% (18)	56% (104)
Aged 25-29	58% (12)	71% (141)

this is true for both component five-year age groups; i.e., for both women aged 20-24 and those aged 25-29, migrants were less likely to have a child between 1971 and 1974 than were nonmigrants. The difference is statistically significant for women aged 20-24 (where nonmigrants were twice as likely as migrants to have a child in the interval), but is smaller and is not significant for women aged 25-29.

Another approach to this issue, considered in Table 3, is to look at the average number of children born between 1971 and 1974 to migrants and nonmigrants. Here, too, we see that migrants were less fertile in this interval than nonmigrants. Looking at the 20-29 age group, we see that migrants, who started out with an average of 1.47 children ever born as of January 1971, had an average of 0.43 children between January 1971 and January 1974, for a total of 1.90 children per woman by January 1974. All numbers for nonmigrants are higher: They average 2.37 children ever born in 1971 and 0.70 between 1971-74, for a total of 3.07 children per woman in 1974. By all three measures, nonmigrants'

Table 3

AVERAGE 1971 AND 1974 PARITIES AND 1971-74 ADDITIONS TO
FERTILITY BY AGE: MIGRANTS VERSUS NONMIGRANTS

Item	Age 20-24		Age 25-29		Age 20-29	
	Migrants	Non-migrants	Migrants	Non-migrants	Migrants	Non-migrants
Average 1971 parity	0.67	1.41	2.67	3.09	1.47	2.37
Average addition to fertility, 1971-1974	0.39	0.68	0.50	0.72	0.43	0.70
Average 1974 parity	1.06	2.09	3.17	3.81	1.90	3.07

fertility exceeds that of migrants by 60 percent. Similar conclusions follow for the two component age groups, although differences between migrants and nonmigrants are larger, both in relative and absolute terms, for the 20-24 year olds than for 25-29 year olds. For the younger group, nonmigrants' fertility is twice that of migrants.⁷

⁷We have also looked at additions to fertility between 1971 and 1976, so that the period over which we are measuring fertility change includes at least two years unambiguously after migration. For these comparisons we have restricted the sample to women continuously married between 1971 and 1976, and have restricted nonmigrants to those who did not move between 1974 and 1976 either. The migrant category again refers to those who moved between 1971 and 1974 (they may or may not have moved between 1974 and 1976). These subsamples have larger numbers of children ever born as of 1971, compared with those we just considered, and the differences between migrants and nonmigrants are less marked. Again we find that nonmigrants were more likely to have had a child in the interval than migrants, although the differences are not as large as for the 1971-74 interval. (The differences are not statistically significant for either age group separately, but are significant at the 10-percent level when the two age groups are combined.) Further research should seek to clearly distinguish premigration fertility from postmigration fertility. This can be easily done with the MFLS data.

CONTRACEPTIVE USE BEFORE AND AFTER MIGRATION

Surprisingly, migrants are less likely to practice contraception than nonmigrants (see Table 4). This was true in both 1971 and 1974 (and, in disaggregations not shown here, for both women aged 20-24 and those aged 25-29). Fully 63 percent of migrants reported using no contraceptive method in 1971, compared with 42 percent for nonmigrants. The percentage of women not using contraceptives drops for both migrants and nonmigrants (and for both age groups) between 1971 and 1974, and the relative difference between the two groups diminishes slightly, but is still sizable: 53 percent vs. 37 percent. Migrants, however, were more likely than nonmigrants to be using modern methods of contraception. In both 1971 and 1974, most nonmigrant contraceptors were using traditional methods: abstinence, rhythm, withdrawal, breastfeeding, or folk

Table 4

CONTRACEPTIVE USE IN JANUARY 1971 AND JANUARY 1974
BY WOMEN AGED 20-29 IN 1971: MIGRANTS
VERSUS NONMIGRANTS

Type of Contraception	% in 1971		% in 1974	
	Migrants	Nonmigrants	Migrants	Nonmigrants
None ^a	63	42	53	37
Traditional ^b	7	40	13	37
Pill	17	16	23	20
Other modern ^c	13	3	10	7
(n)	(30)	(245)	(30)	(245)

NOTE: Percentages may not add to 100 because of rounding.

^a Includes women who are pregnant.

^b Abstinence, rhythm, withdrawal, breastfeeding, or folk methods.

^c Female or male sterilization, IUD, injection, diaphragm, other female methods (e.g., cream, jelly), or condom.

methods. Fully 81 percent of migrants who used some form of contraception (30 percent of all migrants) were using a modern contraceptive method in 1971, in contrast to 32 percent of nonmigrants practicing contraception (19 percent of all nonmigrants). The comparable figures for 1974 are 72 (33) percent for migrants and 42 (27) percent for nonmigrants.

Table 5 shows the changes in contraceptive methods used between 1971 and 1974 for migrants and nonmigrants aged 20-29. Of migrants

Table 5

CHANGES IN CONTRACEPTIVE USE BETWEEN JANUARY 1971 AND
JANUARY 1974 FOR WOMEN AGED 20-29:
MIGRANTS VERSUS NONMIGRANTS

Type of Contraception Used in 1971	Type of Contraception Used in 1974				
	None	Traditional	Pill	Other Modern	Total
<i>Migrants (n = 30)</i>					
None ^a	50%	10%	3%	0%	63%
Traditional ^b	3%	3%	0%	0%	7%
Pill	0%	0%	17%	0%	17%
Other modern ^c	0%	0%	3%	10%	13%
Total	53%	13%	23%	10%	100%
<i>Nonmigrants (n = 245)</i>					
None	34%	2%	4%	2%	42%
Traditional	2%	33%	4%	1%	40%
Pill	1%	1%	12%	1%	16%
Other modern	0%	0%	0%	3%	3%
Total	37%	37%	20%	7%	100%

NOTE: Numbers may not total exactly because of rounding.

^a Includes women who are pregnant.

^b Abstinence, rhythm, withdrawal, breastfeeding, or folk methods.

^c Female or male sterilization, IUD, injection, diaphragm, other female methods (e.g., cream, jelly), or condom.

not practicing contraception in 1971, 21 percent were contracepting by 1974, the majority of them using traditional methods. The corresponding figure for nonmigrants is similar--19 percent--though the majority of new users adopted modern methods. Also, we see that no migrants who were using traditional methods in 1971 switched to a modern method by 1974, whereas 5 percent of nonmigrants did.

CONCLUSION

The data on contraceptive usage patterns presented in Tables 4 and 5, which show that migrants are less likely to use contraceptives than nonmigrants, are puzzling and on the surface seem inconsistent with the data presented in Tables 1 through 3, which show that migrants have lower fertility than nonmigrants. However, we do find that migrants are more likely than nonmigrants to use modern methods of contraception. Only further research can tell us whether this, or other factors, is the reason for the migrants' lower fertility. Another possibility, suggested by Goldstein's data from Thailand, is that female migrants are more likely than nonmigrants to be separated from their spouses, both before and after migration. This could account for both their lower fertility and their lower contraceptive usage rates. Fortunately, the MFLS data contain information that enables one to investigate these and other hypotheses.

These very preliminary tabulations are based on small samples and obviously do not permit definitive conclusions. They have been presented here merely to illustrate the promise of collecting migration data in a retrospective pregnancy survey. The tabulations presented here only scratch the surface of what the MFLS has to offer for analyses of the relationship between migration and fertility or of other determinants and consequences of migration. This Note has considered only women aged 20-29 in 1971 and only migration between 1971 and 1974. The data permit consideration of much larger sample sizes by broadening the analyses to include other time periods and women of other ages, and enable one to distinguish premigration and postmigration fertility more clearly. Furthermore, because the survey includes information on the main determinants of fertility and migration--e.g., education, wage rates, household structure, areal characteristics, husbands'

characteristics--they are well suited to multivariate analyses of these topics and to comparisons of migrants with the people the left behind and the people they joined.

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