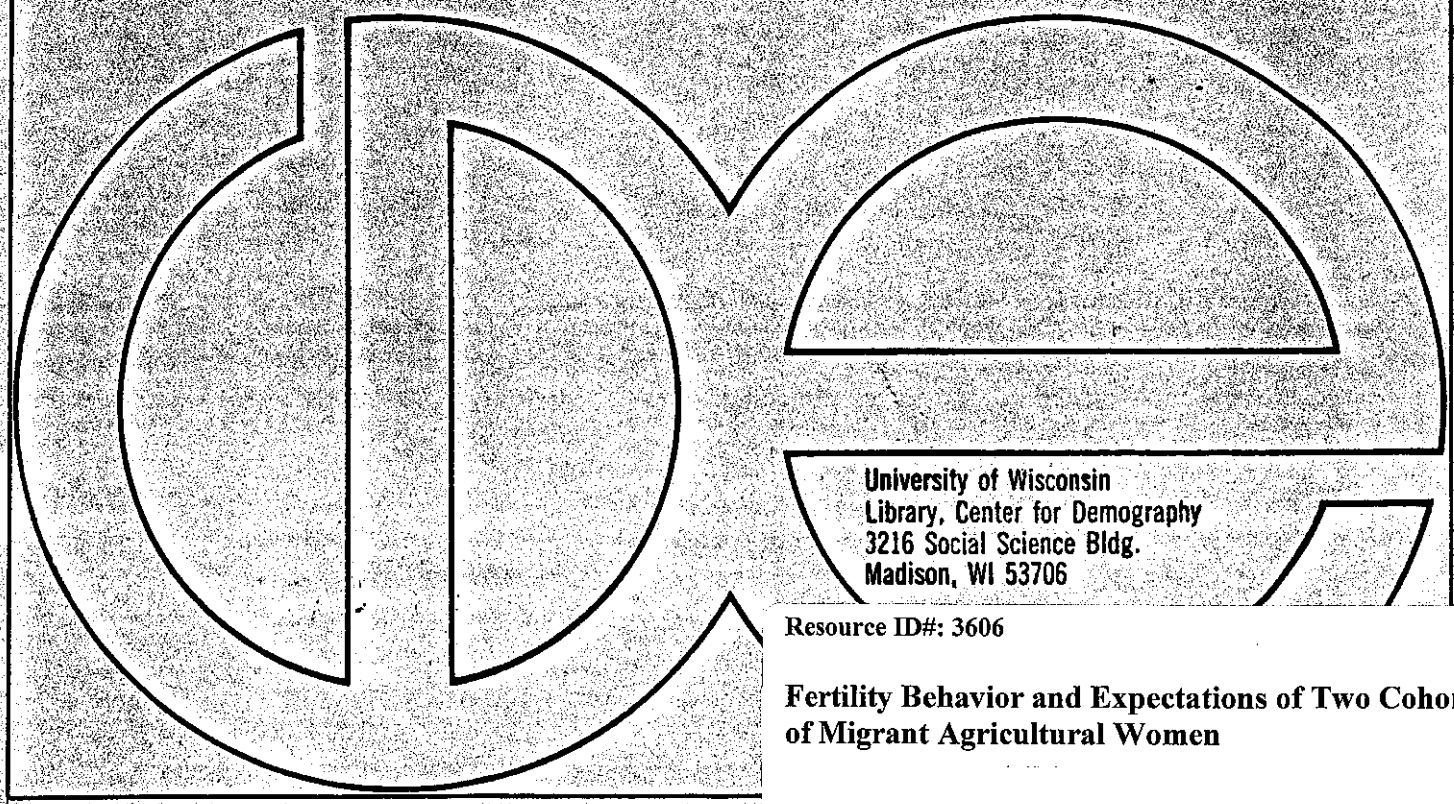# Center For Demography And Ecology
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FERTILITY BEHAVIOR AND EXPECTATIONS OF TWO COHORTS

OF MIGRANT AGRICULTURAL WOMEN

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ABSTRACT

Fertility Behavior and Expectations of Two Cohorts of Migrant
Agricultural Women

Hispanic women who are currently in the migrant agricultural stream
have had, and continue to have, greater numbers of children than other
women in the United States. A stratified random sample survey of Hispanic
farmworkers and their families was conducted in Wisconsin in 1978.
Educational level of the woman appears to be the key to explaining the
variation in number of live births and expected number of children by
age 50, even when statistically controlling for the age of the woman.
There is some evidence that younger women are obtaining more education.
However, even for women under 30, a small proportion have completed
high school. Thus, there is little difference in fertility behavior
between older and younger women. Over one-third of the women both under
and over 30 had their first birth at age 18 or younger. The average
spacing interval between births is about 2 1/2 years for both cohorts.
Contraceptive use is only slightly greater for younger than older women,
and does not correlate significantly with number of live births nor
expected completed family size. Bilingualism of the women was also
examined, but because it is highly correlated with educational level, it
did not have a significant relationship with live births nor expected
completed family size.

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Fertility Behavior and Expectations of Two Cohorts

of Migrant Agricultural Women

Children and the family are highly valued in Mexican culture. Children traditionally have been very important because their labor has been essential to the economic well-being of the family. Until recently most Hispanic families derived their living from family-oriented agricultural enterprises. This agrarian economic base required the labor of many children in order for a family's economic position to improve. Also, in societies without institutionalized systems of social security, children were expected to provide support and sustenance to aging family members. In addition, since infant mortality rates were extremely high, it has been suggested that numerous children were procreated in order to assure the survival of at least a few.

Although many families of Mexican descent have recently joined the migration to urban centers, the traditional rural family orientation remains strong and large numbers of children are still prized. Similar to other immigrant groups in the United States, the burden of a large family in an urbanized setting will no doubt soon be felt, and a commensurate decline in fertility will probably appear in the Hispanic population. Whereas much of the rural-urban differential in fertility among Anglo populations has diminished, we suggest that migrants will probably be among the last groups to adapt to lower fertility norms.

This paper compares the childbearing history and family planning practice of two groups of Hispanic women in migrant farmworker families--those under 30 years and those 30 years and older. We hypothesize that the younger women will be more likely to reflect the current American norms of lower fertility.

Sample of Migrant Women

In the summer of 1978, a survey of migrant farmworkers in Wisconsin was undertaken. Approximately 90% of these workers were of Hispanic heritage. A 10% stratified random sample of all workers was obtained from every employer in the state known to employ migrant workers. This list was obtained from the Job Service unit of the Department of Industry, Labor and Human Relations and from regional area workers who were familiar with local farmers, producers, and processors. Details of the sampling methodology are described in Slesinger and Cautley. [1]

For this analysis, only women under age 50 who were married or living in a married state ("juntado") are included. Of the 262 workers interviewed in the 10 percent random sample, 46 were married women under 50. An additional 99 women living in the households of sampled workers were interviewed. Thus, in all, there were 145 women who are the subject of analysis and who represent married women of childbearing age traveling in the migrant agricultural stream.

The multiplicity method of sampling was chosen for selecting the subsample of married migrant women. When a complete roster of a population is not available for sampling, such as in the case of married migrant women, the researcher may select a sub-sample of a probability sample of a related population for which the list of the population is available. With this procedure, it is necessary to adjust the distribution of married migrant women by properly weighting each observation for the chances of falling into the original sample. Thus, multiplicity weights were calculated as the product of (1) the inverse of the sampling probability used for selecting migrant workers, and (2) the inverse of the total number of married migrant women that could have been selected in the sample. This weighting factor allows

the estimation of the population distribution of married migrant women from the probability sample of migrant workers. (For details, see Okada and Slesinger, 1981).[2]

In addition, a weight based on the county of residence was also calculated in order to adjust for non-response in the sample of migrant workers. Thus, this study involved two sets of weights: 1) multiplicity weights and 2) county weights. As a result, the total sample size is inflated from 145 to 921. However, the conservative procedure of calculating tests of statistical significance on the unweighted numbers was utilized.

Some Demographic Characteristics

About one-third of the migrant women in the childbearing years were 15 to 29 years old, and two-thirds were 30 to 49 years. This is a relatively old population of childbearing-age women. Over three-fourths of the women were wives of the head of the household, with the remainder being children of the head or married to the children of the head. Seven percent were women who headed their own households. About three out of four of the women were employed full-time in agricultural work. None of the women were attending school when interviewed, and less than three percent attended school the previous winter.

The educational attainment of the women was low. Six percent had not attended school, and 29 percent had completed four or fewer years of schooling. This means that 35 percent of the women were functionally illiterate, using the definition applied by the federal government. However, the educational attainment of the women 30 and older was much poorer than that of the younger women. For example, 45 percent of the older women were functionally illiterate, while only 15 percent of the younger women were at this level. Only

three percent of the older women had graduated from high school compared with 12 percent of the younger group.

Eighty-four percent of the women said that their primary spoken language was Spanish. Of those, 13 percent were unable to write Spanish. About half of the women spoke only Spanish, and half spoke both Spanish and English. Spanish monolingual women were older, on the average, than bilingual women.

Childbearing History

The number of live births experienced by these women ranged from none to 15; the average number of births to date was 4.3 (see Table 1).

Table 1. Number of Live Births by Age of Women

Live Births		Age		
		15-29	30-49	Total
None		18.7%	5.3%	9.8%
1		25.3	3.7	10.9
2		36.2	5.4	15.7
3		8.3	8.1	8.2
4		8.7	18.3	15.1
5		2.7	14.7	10.7
6		0.0	12.0	8.0
7-9		0.0	18.2	12.1
10-15		0.0	14.2	9.5
	Total (%)	100.0	100.0	100.0
	(Weighted N)	306	615	921
	Mean	1.7	5.7	4.3
	S.D.	1.3	3.4	3.5

Migrant women who spoke only Spanish had borne one more child, on the average, than women who were bilingual (5.3 compared to 4.0). This contrasts with the much lower figure of 1.9 children born to wives aged 14 to 39 which was obtained in a national survey.[3] The average interval between all births was calculated for women with two or more live births. For women 30 and older, the average interval was 34 months; for 30, it was 26 months (statistically

significant in difference of means t-test). However, this was not surprising in that spacing intervals between children generally increase as women get older. About one-third of women both under and over 30 had borne their first child before they were 19 years old.

The women were asked how many children they expect to have by the time they are 50 years old. This question takes into account the number that they have already borne. The average number for the women who answered the question was 4.9, as contrasted with an average of 2.4 for American wives 14-39 in a national survey[4] and 3.4 for married women 15-44 of Spanish origin or descent from the 1973 National Survey of Family Growth.[5] Table 2 shows the distribution of number of children expected when childbearing is completed. Migrant women under 30 expect 3.5 children on the average, while migrant women 30 and over expect to have 5.6 children.* Most of the women who spoke only Spanish have already had the children they expect to have (5.3 children) because they are in the older cohort, where bilingual women expect to have 4.0 children, and have had 2.9 to date.

Sixty-two percent of the women expected to have no more children. On the other hand, eight percent were pregnant, and an additional twelve percent expected to have their next child within a year. Child mortality experience was considerable: 15 percent of the women had experienced a death to one or more live births. Eighty-one women experienced one death, 29 women two deaths each, 25 women three deaths each, and three women six deaths each.

Each woman was asked whether each of her births took place in a hospital. About 50 percent of the women who had given birth had borne at least one child out of the hospital. This compares with a figure of only one percent of births in the U.S. today.[6] For the Hispanic women under 30, 28.5 percent, compared with 59.1 percent of women 30 and over, had at least one child

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Table 2. Number of Children Expected by Age 50

Expected Number of Children	Age 15-29	30-49	Total
0-1	3.6%	5.1%	4.6%
2-3	44.8	13.4	23.9
4-5	29.2	31.5	30.7
6-9	12.7	28.2	23.0
10-13	0.0	11.1	7.4
Don't know; God's will	9.7	7.2	8.1
No answer	0.0	3.5	2.3
Total (%)	100.0	100.0	100.0
(Weighted N)	306	615	921
Mean Number Expected	3.5	5.6	4.9
S.D.	1.5	2.9	2.7

born out of the hospital. Monolingual women were twice as likely to have had a birth out of the hospital as bilingual women. The range of numbers of children borne out of the hospital was very large: 132 women had one child born out of the hospital, whereas 73 women had six or more births out of the hospital.

Family Planning

Women were asked a series of questions about family planning. The first question was: "If you were interested in getting information on how to keep from getting pregnant, with whom would you first discuss it?" Table 3 indicates that the most likely person the migrant woman would talk to about family planning information was her husband. There was surprisingly little difference between the younger and older women. This distribution however, is in sharp contrast to results when a group of Anglo women were asked the same question. For example, in a sample of rural Anglo married women in

Wisconsin, 86 percent said they would first discuss it with their doctor, and only 6 percent said their husband.[7]

Table 3.   Person with Whom Women Would First Discuss

Information on Contraception

	Total
Doctor	23.4
Family planning clinic	13.4
Public health nurse	8.1
Husband	39.4
Friend or neighbor	3.0
Other	6.3
No information	6.4
Total (%)	100.0
(Weighted N)	921

In the migrant group, over one-third of the women had never used any contraceptive method. Table 4 shows the distribution of women by contraceptive practice. A slightly larger, but statistically insignificant, proportion of younger women was using contraception (44 percent) compared with older women (40 percent). About 60 percent of women under 30 and 40 percent of women 30 to 44 reported using contraception in the 1976 National Survey of Family Growth.[8]   Thus a smaller proportion of the younger Hispanic women were using contraception than a national sample of similar-aged women. But in the U.S. data, a much larger proportion of women were surgically or non-surgically sterile (19%) compared with the migrant group (5%).

The methods used by the migrant women practicing contraception are shown in Table 5. Over half the women were using oral contraceptives (Pill), and 29 percent had an intrauterine device (IUD) in place. These figures

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Table 4. Utilization of Contraception

Utilization	Age 15-29	Age 30-49	Total
Using contraception now	44.4	40.5	41.8
Used contraception before but not now	14.3	19.8	18.0
Never used contraception	38.4	30.7	33.2
Sterilized	2.9	6.6	5.4
No information	0.0	2.3	1.6
Total (%)	100.0	100.0	100.0
(Weighted N)	306	615	921

contrast with the latest figures from the 1976 National Survey of
Family Growth, which indicate that of those using contraception, 46 percent
of the women were using the Pill and 13 percent, IUDs.[9]

Table 5. Contraceptive Methods Currently Used by Women

Method	Percent
Pill	54.0
IUD	28.8
Foam	6.8
Condom	1.4
Rhythm	0.9
Withdrawal	1.0
Douching	6.6
Other	0.5
Total (%)	100.0
(Weighted N)	435

Women were also asked if they had heard of eleven different birth control methods. About nine out of ten women had heard of the Pill. This was followed by about 50 percent familiar with the condom, IUD, foam, and female sterilization. In other surveys where this question is asked, a minimum of two-thirds of the women are usually familiar with these methods. Migrant women have much less knowledge of these techniques than other women.

An attempt to find out whether the women wanted more information about family planning was made by giving each woman three alternative statements

from which to choose. Table 6 shows the number of women who agreed with each statement. Fewer than one out of five women said they would like more information about family planning, even though 33 percent have never used it. Many of the women who had never used contraception said they did not want to, had no need, or wanted to get pregnant. There were no differences in responses among the younger or older women.

Table 6. Interest in Family Planning Information

	Percent Answering "Yes"
I would like more information made available to me	18.1
I am satisfied with my present knowledge	54.6
I do not desire to use birth control	14.7
Other statement	6.6
No information	6.0
Total (%)	100.0
(Weighted N)	921

Multivariate Analysis

In order to determine whether age, education, or bilingualism was the crucial factor distinguishing those with highest fertility, some regression analyses were performed. The zero order correlations (see Table 7) indicate that age and education were equally important in explaining live births, but educational attainment appeared to be slightly stronger than age in explaining variation in expected number of children (-.460 and .354 respectively).

Table 7. Zero Order Correlations Among Variables

	Live Births	Expected Number
Age	.590***	.354***
Education	-.587***	-.460***
Bilingualism	-.427***	-.288***

***P ≤ .001

Use of contraception was also examined with respect to live births and expected completed family size. It was not significantly related to either variable.

Since age, education, and bilingualism are highly correlated with each other, regression analyses were conducted in order to find the magnitudes of their direct effects on the number of live births and the expected number of children. Table 8 presents the results of these equations. For number of live births, age has the greatest direct effect (standardized coefficient = .383), followed closely by education (standardized coefficient = -.339). Bilingualism tends to have far less effect than age and education (standardized coefficient = -.094). By contrast, for expected number of children, education has the strongest effect (standardized coefficient = -.365), and age has far less effect than education (standardized coefficient = .159). The effect of bilingualism is not significant. These three variables explain 46.4% of the variance in the number of live births and 23.1% of variance in the expected number of live births. Thus, we find that age and education are equally important factors in determining the number of live births, while educational attainment is stronger   in determining the expected number of children.

Summary and Discussion

Hispanic women who are currently in the migrant agricultural stream have had, and continue to have, greater numbers of children than other women in the United States. This group of women in general is older than other groups of women in the childbearing years. We anticipated that age would be related to number of live births. This turned out to be the case. However, when age was statistically controlled, education appeared to be even stronger in explaining the variation in number of live births and expected completed

Table 8. Effects of Age, Education, and Bilingualism on Number
of Live births and Expected Number of Children (N=723)

Dependent Variable	Independent Variables			R^2
	Age	Education	Bi-lingualism	
Number of Live Births				
Standardized coefficient (b)	.383*	-.339*	-.094*	.464
Unstandardized coefficient (Beta)	.128	-1.022	-.560	
Standard error of Beta	(.011)	(.108)	(.198)	
Expected Number of Children				
Standardized coefficient (b)	.159*	-.365*	-.024	.231
Unstandardized coefficient (Beta)	.043	-.900	-.119	
Standard error of Beta	(.010)	(.106)	(.193)	

*Significant at $\alpha = .05$

family size. There is some evidence that younger women have obtained more education than the older women. However, even for younger women, a small proportion have completed high school. Thus, to date, we see little difference in fertility behavior between the older and younger cohorts. First births still occur at a young age; over one-third of women both under and over 30 had their first birth at age 18 or younger. Contraceptive use is only slightly greater for younger than older women, and does not correlate significantly with number of live births nor expected completed family size.

Because sociologists regard educational level as representing a host of other life-style and well-being characteristics that accompany level of living, it is likely that an investment in the educational attainment of Hispanic female children will pay off in numerous ways--not only in fewer births as a parent, but also in other positive aspects attributed to education, which includes increased exposure to varied employment opportunities, heightened self-awareness, and greater interest in community and social participation outside the family.

Education for migrant children merits a study dedicated to this topic. The children of migrant agricultural workers have myriads of problems in obtaining schooling--not the least of which is success in obtaining a coherent educational program due to their many geographic moves within a calendar year. This problem is being addressed by special-interest organizations such as the Texas Migrant Council and other federally funded organizations. However, the problem is ours. The future of our society rests on our children, and investments in them give adults incalculable return in future years.

Footnote

*One may note that women 30-49 have had 5.7 births to date, and yet expect
to have 5.6 children by the time they are 50. This puzzling finding was
examined in detail.

At first, women who expressed "It's God's will" or "Don't know" to the
question of expectations were removed from the calculations of live births to
date. This was based on the assumption that those with higher numbers of live
births were more likely to respond that their completed family size was "up to
God." However, this did not explain the difference. Then each individual case
was examined where the total expected number of children was less than the
number of live births. Here we found that in every case, the woman had borne
one or more children who had died. This illustrates, again, the unusual nature
of this group of childbearing women.

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