

RESEARCH NOTE

Fertility Patterns of Hispanic Migrant Farm Women: Testing the Effect of Assimilation¹

Doris P. Slesinger and Yoshitaka Okada

*Department of Rural Sociology, University of Wisconsin-Madison,
Madison, Wisconsin 53706
Graduate School of International Relations,
International University of Japan,
Niigata 949-72, Japan*

ABSTRACT A 10 percent stratified random sample survey of migrant Hispanic farm women was conducted in 1978 in Wisconsin by bilingual interviewers. Interviews with the women revealed that they have greater numbers of children than other women in the United States. They bear children at younger ages, have greater infant mortality, and use fewer contraceptive techniques. We hypothesize that their fertility behavior is related to age, level of education, and degree of assimilation, the latter measured by bilingualism. Results show that the variable most strongly associated with live births is age; when it is controlled, education is the main predictor. When the effects of both age and education are controlled, bilingual capacity also contributes to explaining births. Education, on the other hand, explains most of the variance in expected number of children. We conclude that high fertility patterns are likely to continue among migrant farm women until level of education improves for the children, thus increasing their bilingual capacity and improving their occupational opportunities.

Introduction

One segment of rural society that has always been among the lowest in earnings, job security, educational attainment, and political power is the migrant agricultural worker (U.S. Senate, 1970). Yet, few rural sociologists have turned their attention to this powerless group. Among the hundreds of articles published in *Rural Sociology* since its inception, less than a half dozen have concerned migrant farm workers (Fasick,

¹ This research was funded by the National Center for Health Services Research, Grant No. 1 R03 HS04368-01. The original study of migrant health needs was funded by United Migrant Opportunity Services, Inc. of Wisconsin; the University of Wisconsin-Madison; Institute for Research on Poverty, the College of Agricultural and Life Sciences, and the Research Committee of the Graduate School; and the University of Wisconsin-Extension. Data processing services were provided by the Center for Demography and Ecology through Grant No. HD05876 from the Center for Population Research, National Institute of Child Health and Human Development. Charles Palit provided consultation on sampling methodology. An earlier version of this paper was presented at the 1983 Population Association of America meeting. We appreciate critical suggestions made by three anonymous reviewers.

Resource ID#: 3604

Fertility Patterns of Hispanic Migrant Farm

Testing the Effect of Assimilation

1967; Gecas, 1980; Rushing, 1968; Snyder and Perry, 1970). In general, these studies document that migrant workers have low socioeconomic status and are clearly "deprived" by objective standards. Also, migrant youths have high educational and occupational aspirations, but they express low levels of expectations about their likely achievements.

It has been suggested that distinctive behavior patterns are, in part, survival mechanisms that are responses to economic and cultural conditions. When the socioeconomic and educational levels reach that of the majority group, these distinctive behavior patterns will change to match those of the majority population. In this article we examine fertility behavior among Hispanic migrant farm women. We hypothesize that the traditionally high fertility patterns of these farm women are directly related to age and inversely related to educational attainment. We also suggest that the degree of assimilation of these women into the majority culture affects their fertility behavior. Thus, those who are more accepting of mainstream cultural norms will have lower fertility than those who are less accepting.

Background

Fertility levels of Mexicans have been high because children and the family are highly valued (Bean and Bradshaw, 1977). Children traditionally have been 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 to improve the family's economic position. Furthermore, in societies without institutionalized systems of social security, children were expected to provide support and sustenance to aging family members. Because of high infant mortality, it has also been suggested that numerous children were procreated to assure the survival of at least a few.

Although most families of Mexican descent in the United States have recently joined the migration to urban centers, the family orientation remains strong and large numbers of children are still prized. However, similar to other immigrant groups in the United States, the burden of a large family in an urbanized setting has been felt, and a commensurate decline in fertility is appearing in the Hispanic population, especially among younger women (U.S. Bureau of the Census, 1979, 1982).

Nonetheless, many Hispanics in the United States are still involved in agricultural pursuits. In 1979, about 27 percent of the approximately 217,000 persons estimated by the U.S. Department of Agriculture to be migratory farm workers were of Hispanic heritage (Smith and Coltrane, 1981).

Based on previous models of predicting fertility (Johnson *et al.*, 1978; Slesinger, 1974), we hypothesize that fertility behavior is related to such demographic characteristics as woman's age and level of educational attainment. We also have identified a measure of assimilation into the majority culture—in this study it is bilingualism. Recently, more proximate factors have been specified that also affect fertility levels, i.e., marriage patterns, frequency of intercourse, and contraceptive use and effectiveness (Bongaarts, 1978). We suggest that younger, better educated, and bilingual women are more likely to marry later, to use contraceptives, and to use more effective methods. This behavior, in turn, will result in lower fertility performance.

Sample of migrant women

The female migrant farm workers examined in this analysis were surveyed in Wisconsin during the 1978 planting and harvesting season. Over 90 percent of Wisconsin's migrant farm workers are of Hispanic heritage, with about half of them born in Mexico and half in the United States. They travel over 4,000 miles from the Rio Grande Valley in Texas each year in pursuit of employment. The number of migrant workers in Wisconsin peaked at about 20,000 in the mid 1950s and has been declining since, due primarily to the development of mechanical harvesters and herbicides (Slesinger and Muirragui, 1981). In 1978, Wisconsin had about 4,100 migrant workers, plus an additional 2,500 nonworkers. Of the 6,600 migrants, about 2,800 were women of childbearing age, and three out of four of these women were employed full time in agricultural work.

A 10 percent 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 Wisconsin Department of Industry, Labor and Human Relations and their personnel who were familiar with local farmers, producers, and processors. Details of the sampling methodology are described in Slesinger and Cautley (1981).

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 age 50. An additional 99 women living in the households of sampled workers were interviewed. Thus, a total of 145 women are the subjects of analysis, representing married women of childbearing age traveling in the migrant agricultural stream.

The multiplicity method of sampling was utilized for selecting the subsample of married migrant women. Two weights, a multiplicity weight and a weight based on the county of residence to adjust for nonresponse in the sample of migrant workers were calculated. (For further details, see Okada and Slesinger, 1982.) For the analysis, the

normalized weighting method was utilized, which results in a weighted sample of approximately the same size as the original.

Some demographic characteristics

About one-third of the migrant women in the childbearing years were 15–29 years old, 30 percent were in their thirties, and 37 percent were in their forties. This is a relatively old population of childbearing-age women compared to a sample of American women (U.S. Bureau of the Census, 1979). Over three-fourths of the migrant 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.

Their educational attainment was low. Six percent had not attended school, and 29 percent had completed four or fewer years of schooling. Thus, using the federal government's definition, 35 percent of the women were functionally illiterate. However, the educational attainment of the women aged 30 and older was much poorer than that of the younger women; 45 percent of the older women were functionally illiterate compared to only 15 percent of the younger ones. Three percent of the older women had graduated from high school compared with 12 percent of the younger group.

Spanish was the primary spoken language for 84 percent of the women. 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. Women 15–29 averaged 1.7 births compared with 5.7 for women 30–49. Migrant women who spoke only Spanish had borne one more child on the average than women who were bilingual (5.3 compared with 4.0). In contrast, 2.0 children were born to American wives aged 15–44—U.S. Bureau of Census, 1979). For Mexican women aged 30 or older with two or more live births, the average spacing interval was 34 months; for under 30, it was 26 months (statistically significant in difference of means *t*-test). This was not surprising because spacing intervals between children generally increase as women age. About one-third of the 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 expected to have by the time they were 50 years old, taking into account the number that they had already borne. The average number for the migrant women was 4.9. Migrant women 15–29 expected 3.5 children on the

Table 1. Person with whom women would first discuss information on contraception

	Hispanic migrant women	Anglo rural women ^a
Doctor	23.4%	85.8%
Family-planning clinic	13.4	1.1
Public health nurse	8.1	0.3
Husband	39.4	6.4
Friend or neighbor	3.0	5.1
Other	6.3	—
No information	6.4	1.3
Total (%)	100.0	100.0
(N)	145	377

^a Source: Ladinsky and Gruchow, 1973.

average, while those 30–49 expected to have 5.6 children.² By comparison, in a national survey, white wives 14–34 expected to have 2.2 births, and Spanish origin wives expected 2.6 (U.S. Bureau of Census, 1979). Most of the migrant women who spoke only Spanish were in the older cohort, and they already had the children they expected to have (5.3 children). Bilingual women expected to have 4.0 children; to date they have had 2.9.

Sixty-two percent of the women expected to have no more children, 8 percent were pregnant, and an additional 12 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.

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 1 indicates that for nearly four out of ten migrant women, this person would be her husband. There was surprisingly little difference between younger and older women. This distribution is in sharp contrast to the results obtained from a sample of rural Anglo married women in Wisconsin. Eighty-six percent said they would first discuss it with their doctor, and only 6 percent named their husband (Ladinsky and Gruchow, 1973).

² One may note that women aged 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 investigated by examining each case where the expected number of children was less than the number of live births. 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.

Table 2. Utilization of contraception

Utilization	Hispanic migrant women			Hispanic urban women ^a
	Total	Age		
		15-29	30-49	
Using contraception now	41.8%	44.4%	40.5%	59.5%
Used contraception before but not now	18.0	14.3	19.8	18.5
Never used contraception	33.2	38.4	30.7	11.0
Sterilized	5.4	2.9	6.6	8.0
No information	1.6	0.0	2.3	3.0
Total (%)	100.0	100.0	100.0	100.0
(N)	145	53	92	348

^a Source: Bean and Bradshaw, 1977, tables 12, 13.

Over one-third of the migrant women had never used any contraceptive method. This contrasts with only 11 percent of Mexican American women in the city of Austin, Texas (Bean and Bradshaw, 1977). Table 2 shows the distribution of Hispanic women by current contraceptive practice. Only a slightly larger proportion of younger women was using contraception (44 percent) compared with older migrant women (40 percent). In the Austin study, about 60 percent of Hispanic women reported using contraception in 1969 (Bean and Bradshaw, 1977). In the 1976 National Survey of Family Growth, about 60 percent of women under 30, and 40 percent of women aged 30-44 reported using contraception (USDHEW, 1978). Thus, a smaller proportion of the younger Hispanic women and the same proportion of older women were using contraception compared to a national sample of similar-aged women. However, a much larger proportion of the American women were surgically or nonsurgically sterile (30 percent) compared with the migrant group (5 percent), indicating that a larger proportion of the migrant women were at risk of becoming pregnant.

Over half the migrant women practicing contraception were using oral contraceptives (Pill), and 29 percent had an intrauterine device (IUD) in place. These figures contrast with data from the 1976 National Survey of Family Growth, which indicated that of women using contraception, 46 percent named the Pill and 13 percent named IUDs (Ford, 1978).

When migrant women were queried whether they wanted more information about family planning, 55 percent were satisfied with their present knowledge. Fewer than 20 percent said they would like more information about family planning, even though 33 percent had never used it. Many of the women who had never used contraception said they did not want to use it, they had no need, or they wanted to get pregnant. No differences in responses occurred be-

tween younger and older women or between bilingual and monolingual women.

Multivariate analysis

Various regression analyses were performed to determine whether age, education, or assimilation³ was the crucial factor distinguishing those with highest fertility.

Live births as a dependent variable measures past performance and thus places more weight on the older women who are more likely to have completed childbearing. These women were more likely to have been born in Mexico and to speak only Spanish. However, the zero order correlations indicate that age ($r = .590$) and education ($r = -.587$) were equally important in explaining live births, followed by bilingualism ($r = -.427$).

More is learned by examining responses concerning the number of children expected by age 50. The correlation between expected number of children and educational attainment ($r = -.460$) was slightly stronger than with age ($r = -.354$). Bilingualism ($r = -.288$) was also significantly correlated with expected number of children ($p \leq .001$ for all correlations).

Use of contraception was not significantly related either to live births, expected completed family size, age, education, or bilingualism.

Since age, education, and bilingualism are highly correlated with each other, additional analyses were conducted to ascertain the magnitude of their unique effects on the number of live births and the expected number of children. Table 3 presents the results of these equations. For number of live births, age has the greatest net effect ($b = .470$), followed by education ($b = -.235$), and bilingualism ($b = -.111$). These three variables explained 46 percent of the variance in live births. By contrast, for expected number of children, education has the strongest effect ($b = -.365$), followed by age ($b = .159$). The effect of bilingualism is not significant. About 23 percent of the variance in the expected number of children was explained. Thus, we find that age and education are important factors in determining the number of live births, while educational attainment is stronger than age in determining the expected number of children. Bilingual ability

³ Other possible measures of assimilation were examined: birthplace within or outside the United States, a combination of Mexican birthplace and bilingualism, and women who stated they would first discuss contraceptive use with their husband versus others. None of these variables performed as well as the bilingual variable. That is, birthplace was highly correlated with bilingualism; the birthplace and language combination variable was weaker than either separately; and the person with whom the woman preferred to discuss contraception was slightly related to her use of contraception, but not to live births, expected number of children, or bilingualism.

Table 3. Effects of age, education, and bilingualism on number of live births and expected number of children

	Number of live births (N = 129)		Expected number of children (N = 114)	
	Standardized coefficient (b)	Unstandardized coefficient (Beta)	Standardized coefficient (b)	Unstandardized coefficient (Beta)
Age	.470	.159** (.026)	.159	.044* (.027)
Education	-.235	-.739** (.261)	-.365	-.900** (.271)
Bilingualism	-.111	-.670* (.476)	-.024	-.119 (.494)
Constant		0.248		4.830
R ²		.458		.232

** $p \leq .01$.* $p \leq .10$.

Note: Standard errors of Beta coefficients appear in parentheses. Tests of significance are based on one-tailed *t*-test because direction was predicted.

appears to be a weak measure in the statistical analysis because much of its effect has already been captured by education.

Summary and discussion

Hispanic women in the migrant agricultural stream have greater numbers of children than do other women in the United States. In general, these women are older than other populations of women in the child-bearing years. As we anticipated, age was related to number of live births. However, when age was statistically controlled, education appeared to be even stronger in explaining the variation in both number of live births and expected completed family size. Although younger women have obtained somewhat more education than have older women, relatively few younger women in our sample have completed high school. Thus, to date, we see little difference in fertility behavior between the older and younger cohorts.

It should be noted that there is a self-selection of persons in migrant agricultural work. Hispanics from the Southwest with minimal educational attainment have few other occupational choices, especially if they come from a rural background. Perhaps, younger Hispanic women currently in the migrant stream are even less representative of Hispanic women than older migrant women, since young women of today are able to obtain more schooling than their mothers were.

Wood and Bean (1977) note that sociologists and economists interpret the value of education differently when explaining fertility

differentials. Sociologists believe that educational level represents various life-style and well-being characteristics that accompany level of living. Thus, sociologists see an investment in the educational attainment of Hispanic children paying off in numerous ways—not only in fewer births as a parent but also in other positive aspects attributed to education, which include increased response to a range of employment opportunities, heightened self-awareness, and greater interest in community and social participation outside the family (Friedl, 1982).

Economists expect education to enhance “opportunity costs” and taste. There are few occupations that pay as poorly and have worse working conditions than migrant farm work (Shenkin, 1974). No doubt, raising the educational level of migrants would result in a change of occupation for those who were able to leave migrant work (Gecas, 1980). This change would both reduce the economic value of having children as a productive unit and increase the costs of raising the child. Under the assumption of “consumer rationality,” one would anticipate a lowering of fertility norms (Blake and Del Pinal, 1982).

However, until the migrant children are *able* to obtain more and higher quality schooling, they probably will continue to follow the occupation of their parents. The children of migrant agricultural workers still have myriads of problems in obtaining schooling just as Fasick (1967) pointed out over 15 years ago—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, we anticipate that high fertility among migrant women is likely to continue, even among the younger cohorts, because those who work in the migrant stream will probably be among the most poorly educated persons in the United States.

References

- Bean, Frank D., and Benjamin S. Bradshaw
1977 “Mexican American fertility.” Pp. 101–30 in C. H. Teller, L. F. Estrada, J. Hernandez, and D. Alvarez (eds.), *Cuantos Somos: A Demographic Study of the Mexican-American Population*. Austin: Center for Mexican American Studies, University of Texas at Austin.
- Blake, Judith, and Jorge Del Pinal
1982 “Educational attainment and reproductive preferences: theory and evidence.” Pp. 59–78 in C. Hohn and R. Mackensen (eds.), *Determinants of Fertility Trends: Theories Re-examined*. Liege, Belgium: Ordina Editions.
- Bongaarts, John
1978 “A framework for analyzing the proximate determinants of fertility.” *Population and Development Review* 4 (1):105–32.
- Fasick, Frank A.
1967 “Educational retardation among children of migratory agricultural workers.” *Rural Sociology* 32 (4):399–413.

- Ford, Kathleen
1978 "Contraceptive use in the United States, 1973-1976." *Family Planning Perspectives* 10 (5):264-69.
- Friedl, John
1982 "Mechanisms of interaction between education and health: discussion." *Health Policy and Education* 3 (May):101-04.
- Gecas, Viktor
1980 "Family and social structural influences on the career orientation of rural Mexican-American youth." *Rural Sociology* 45 (2):272-89.
- Johnson, Nan E., C. Shannon Stokes, and Rex H. Warland
1978 "Farm-nonfarm differentials in fertility: the effect of compositional and sex role factors." *Rural Sociology* 43 (4):671-90.
- Ladinsky, Judith L., and H. William Gruchow
1973 Dane County Health Survey. Madison, Wisconsin: Department of Preventive Medicine, University of Wisconsin-Madison.
- Okada, Yoshitaka, and Doris P. Slesinger
1982 "The use of the multiplicity sampling procedure in a study of migrant agricultural women." Madison, Wisconsin: Working Paper 82-28, Center for Demography and Ecology, University of Wisconsin-Madison.
- Rushing, William A.
1968 "Objective and subjective aspects of deprivation in a rural poverty class." *Rural Sociology* 33 (3):269-84.
- Shenkin, Budd N.
1974 *Health Care for Migrant Workers: Policies and Politics*. Cambridge, Massachusetts: Ballinger Publishing Co.
- Slesinger, Doris P.
1974 "The relationship of fertility to measures of metropolitan dominance: a new look." *Rural Sociology* 39 (3):350-61.
- Slesinger, Doris P., and Eileen Muirragui
1981 "The rise and decline of migrant farmworkers: the case of Wisconsin." Madison, Wisconsin: College of Agricultural and Life Sciences, Research Report R3152.
- Slesinger, Doris P., and Eleanor Cautley
1981 "Medical utilization patterns of Hispanic migrant farmworkers in Wisconsin." *Public Health Reports* 96 (May-June):255-63.
- Smith, Leslie Whitener, and Robert Coltrane
1981 *Hired Farmworkers: Background and Trends for the Eighties*. Washington, D.C.: USDA Economic Research Service, Rural Development Research Report No. 32.
- Snyder, Eldon E., and Joseph B. Perry, Jr.
1970 "Farm employer attitudes toward Mexican-American migrant workers." *Rural Sociology* 35 (2):244-52.
- U.S. Bureau of the Census
1979 "Fertility of American women: June 1978." *Current Population Reports, Series P-20, Number 341*. Washington, D.C.: U.S. Government Printing Office.
1982 "Fertility of American women: June 1980." *Current Population Reports, Series P-20, Number 375*. Washington, D.C.: U.S. Government Printing Office.
- U.S. Department of Health, Education and Welfare (USDHEW), Public Health Service, Vital and Health Statistics
1978 "Contraceptive utilization in the United States: 1973 & 1976." *Advance Data No. 36*, August 18. Washington, D.C.: U.S. Government Printing Office.
- U.S. Senate
1970 Subcommittee on Migratory Labor of the Committee on Labor and Public Welfare: Hearings on "Migrant and Seasonal Farmworker Powerlessness."

91st Congress, 1st and 2nd sessions. Washington, D.C.: U.S. Government Printing Office.

Wood, Charles H., and Frank D. Bean

1977 "Offspring gender and family size: implications from a comparison of Mexican Americans and Anglo Americans." *Journal of Marriage and the Family* 39 (February):129-39.