The 1988 Demographic Survey of Viet Nam

Fertility is still high, but the data indicate it has been decreasing and may be undergoing a phase in which it can be brought down rapidly

By Vu Quy Nhan and R. Hanenberg*

The 1988 Viet Nam Demographic Survey was the first country-wide demographic survey of Viet Nam. The sample was drawn according to the sample design recommended by the World Fertility Survey (WFS).[1/] It was a three-stage random probability sample of 4,800 households in 12 provinces and 151 communes.

As with most of the surveys of the WFS there were two questionnaires: a questionnaire for the members of the household and a questionnaire for all ever-married women aged 15 to 49. The questionnaires were translations of the

* The authors of this article are Vu Quy Nhan, National Committee for Population and Family Planning, Hanoi, and Robert Hanenberg of the Economic and Social Commision for Asia and the Pacific, Bangkok.

latest versions of the questionnaires of the Demographic and Health Survey.[2/]

The survey provides estimates of fertility, infant and child mortality, the use of contraception and the marital status of the population for both the northern and southern regions of the country. It was conducted by the National Committee for Population and Family Planning, with technical assistance from the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). The survey was funded by the United Nations Population Fund (UNFPA). This article presents the principal findings of the survey.

Infant mortality

The survey showed that the infant mortality of the population of Viet Nam is low. The infant mortality rate was 37 per thousand births for the three years 1984-1986 (see table 1).

This low rate appears suspect because Viet Nam is a poor country. However, other poor countries such as China and Sri Lanka have achieved comparable rates of infant mortality. China (the infant mortality rate of which is 33) and Sri Lanka (the infant mortality rate of which is 29 according to United Nations estimates, but even lower according to other estimates) are similar to Viet Nam in that levels of education are high and the distribution of income is fairly even.

Other studies have reported low infant mortality rates in Viet Nam, but analysts have hesitated to accept these results. However, this survey supports the possibility that infant mortality is indeed low.

If mortality is low, part of the reason might be the high level of education

Table 1: Infant mortality rates: average for 1984-1986

Whole country	37	
Northern region	36	
Southern region	38	
No education	63	(76)
Literate	53	(52)
Forms 1-9	31	(30)
Forms 10+	24	(23)

Note: The numbers in parentheses are the rates standardized by the age of the mother at the birth of the child.

Source: 1988 Demographic Survey.

of the respondents. According to table 1, infant mortality was highest among respondents with no education. However, only a small percentage (6 per cent) of the sample population was in this category; most were in the category "literate" (21 per cent) or the category "forms 1-9" of education (57 per cent).

It is quite possible to underestimate mortality in a sample survey; therefore, further studies may show that infant mortality was higher than 37. However, the best estimate currently is that infant mortality is comparatively low. An infant mortality rate of 37 implies an expectation of life at birth of around 68 years during the period 1984-1986.[3/]

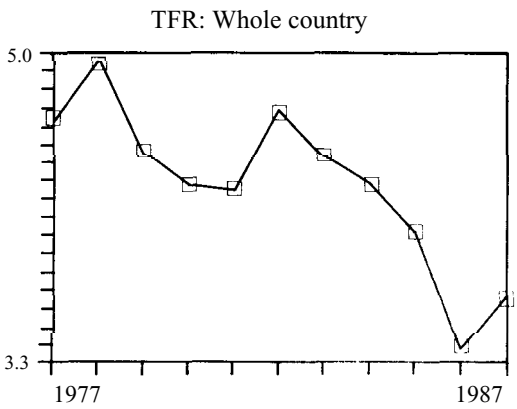
Fertility

The total fertility rate for women aged 15-49 during the period 1985-1987 was 4.06 births per woman: 4.40 for the northern region and 3.60 for the southern region.

Fertility appeared to be declining somewhat, especially in the few years before the survey. Table 2 shows the total fertility rates of women aged 15-39 during the period 1977-1987. (Because of the methodology used in surveys of this kind, it is not possible to tabulate the total fertility rates of women aged 15-49 for this many years back). The general pattern is one of decline, especially in the latter half of the decade. However, it is not uncommon for surveys of this type to show a spurious decline in fertility in the years just before the survey. Thus the most conservative interpretation of these data is simply that the total fertility rate was *at least* 4.1 in 1985-1987.

Table 2: Total fertility rates of women aged 15-39: 1977-1987

	Total	North	South
1977	4.63	4.68	4.56
1978	4.96	4.65	5.31
1979	4.45	4.63	4.24
1980	4.27	4.05	4.58
1981	4.24	4.34	4.13
1982	4.69	4.94	4.39
1983	4.43	4.48	4.34
1984	4.28	4.40	4.08
1985	4.01	4.50	3.38
1986	3.37	3.83	2.75
1987	3.67	3.96	3.29



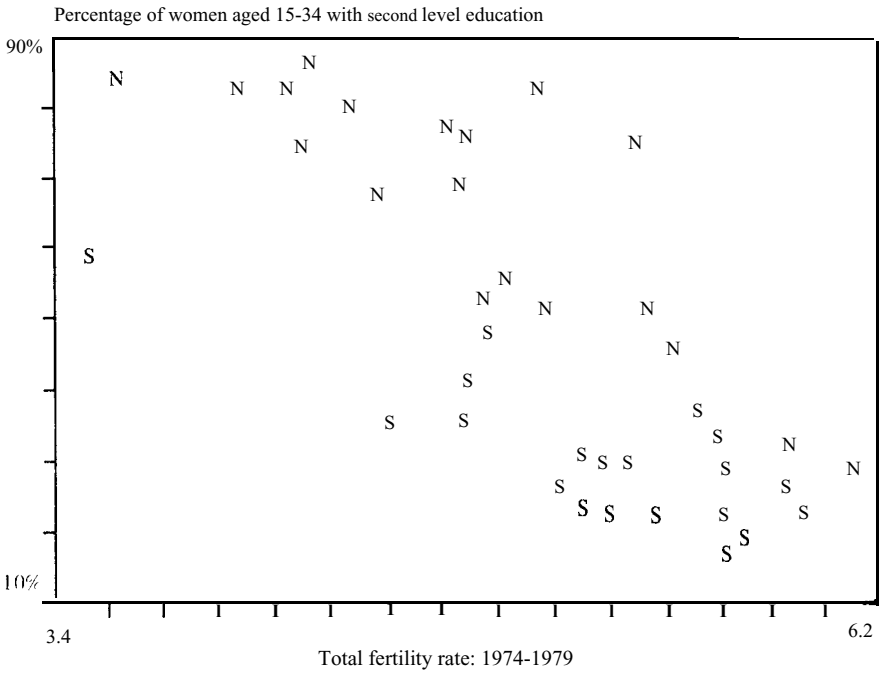
Source: 1988 Demographic Survey.

Although the evidence from only one survey is insufficient to draw firm conclusions, there are grounds for believing that the fertility rates in table 2 are accurate. Viet Nam's population is well educated, which would minimize the misreporting of dates and omission of births.

Moreover, Vietnamese are used to keeping track of dates of birth, each of which is associated with one of 12 animals according to the year of birth. Traditionally, great significance is attached to the date of birth; for example, the dip in fertility in 1986 and the subsequent rise in 1987 was coincident with an inauspicious year: 1986 was the "year of the tiger", during which some parents may have postponed bearing children.

This kind of record keeping, coupled with a high level of education, has contributed to the accuracy of similar survey data in China and the Republic of Korea.

Figure 1: Relationship between female literacy and total fertility rates at the province level: 1979 census



Note: The N's and S's represent northern and southern provinces, respectively.

The trends of fertility reported in this survey confirm the patterns apparent in the 1979 census, which is the only other reliable source of information about the population of Viet Nam.[4/] The census reported the age-sex distribution of each of the 40 provinces. Using indirect techniques of estimation, it is possible to transform child-woman ratios into estimates of the total fertility rates 5-9 and 0-4 years before the census.[5/] An analysis of the 1979 census by ESCAP[6/] concluded that the total fertility rate fell rapidly during the decade before the census (1969-1979), from over six children per woman to perhaps under five. The decline was especially rapid in the southern region of the country.

Throughout the decade 1969-1979, fertility was lowest in the provinces with the highest degree of urbaniztion and education. Figure 1 shows the relationship between the total fertility rates for 1974-1979 and the percentage of women aged 15-34 with second level or higher education for the 40 provinces (the classification of education according to the census was not the same as for the 1988 survey).

The patterns in the 1979 census were puzzling because they seemed to suggest that neither the war nor the different systems of government, nor the different orientations to family planning in the north or the south hindered the decline of fertility during the period 1969-1979. (The country was unified in 1975).

The 1988 survey suggests that the declines continued after the 1979 census (table 3). The rates from the 1979 census and 1988 survey are not completely comparable because the total fertility rates from the census refer to women aged 15-49, while those from the survey refer to women aged 15-39, which tend to be lower by 0.3 to 0.4 births than rates for the normal age group. However, estimates from the census tend to overstate the extent of a decline in fertility; thus, the census estimates for 1974-1979 were also probably too low, perhaps by about the same amount.

Table 3: Total fertility rates from the 1979 census and 1988 survey

Source	Period	Total	North	South
Age groups 15- 49				
1979 census	1969-1974	6.1	5.7	6.6
1979 census	1974-1979	4.8	4.7	5.1
Age groups 15-39				
1988 survey	1978-1982	4.5	4.5	4.5
1988 survey	1983-1987	4.0	4.2	3.6

Allowing for these considerations, it appears that fertility has been declining in Viet Nam for the last 20 years, both in the northern and southern regions of the country. It was lower in the northern than in the southern region until sometime around 1980, when fertility in the south fell below that of the north.

In the northern region, declines in fertility among the older age groups were partially offset by increases among the younger ones (table 4). In the south, fertility declined in all age groups. The reason for the sharp decline in the younger age groups was probably due to a decline in the number of marriages.

Table 4: Age specific fertility rates: 1976-1978 to 1985-1987

	1985-87	1982-84	1979-81	1976-78
Whole country				
15-19	19	30	22	31
20-24	192	205	192	199
25-29	236	279	259	277
30-34	173	227	217	250
35-39	117	153	173	
40-44	57	104		
North				
15-19	25	26	13	24
20-24	226	220	178	194
25-29	268	302	272	299
30-34	186	227	237	249
35-39	113	145	167	
40-44	50	86		
South				
15-19	13	33	35	43
20-24	147	182	212	206
25-29	189	249	244	250
30-34	159	226	192	250
35-39	120	164	179	
40-44	65	125		

Source: 1988 Demographic Survey.

Marriage

Some of the decline of fertility must be attributed to the low prevalence of marriage, especially in the southern region. This survey found the proportion of single women, especially in the south, to be very high (see table 5). At the time of the survey, one of every four women aged 25-29 in the south was still single.

Table 5: Percentage of men and women single, by age

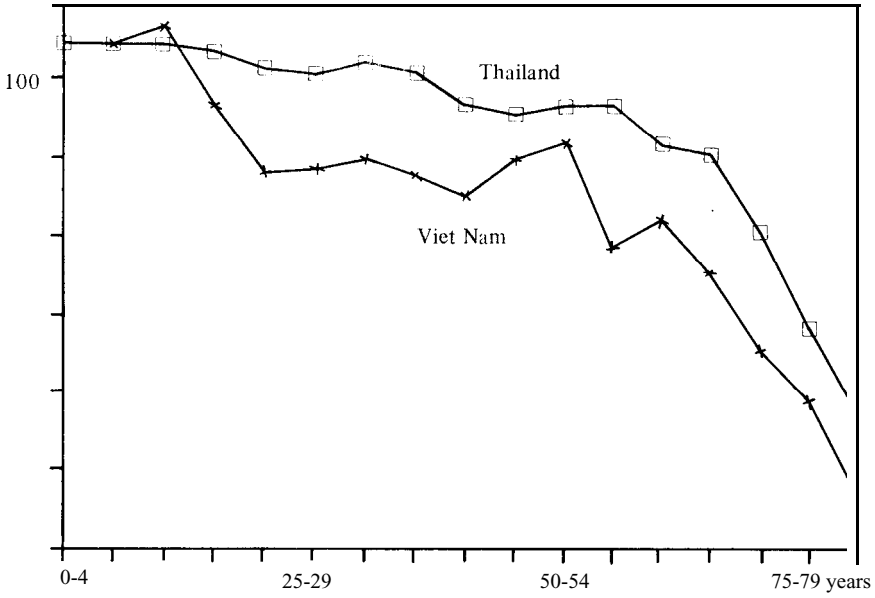
	Men		Women	
	North	South	North	South
15-19	99	99	95	96
20-24	64	76	39	58
25-29	16	34	10	24
30-34	3	12	5	12
35-39	2	7	3	10
40-44	1	3	2	7
45-49	0	2	0	2
50-54	0	0	2	4
Singulate mean age at first marriage	24.2	26.3	22.4	24.6

Source: 1988 Demographic Survey.

It must be remembered that surveys such as this one cover only the population living in households. They exclude institutional populations (e.g., soldiers in camps and workers in building sites, plantations and mines), the members of which tend to be single. Thus, despite the fact that the survey found a very low prevalence of marriage, even this may be understated. The singulate mean age at first marriage (SMAM) for women in the northern region of the country was 22.4 years, which is about average for Asia. However, the mean for women in the south was 24.6, which is relatively high.

Figure 2 compares the sex ratios of Viet Nam and Thailand, according to censuses taken in 1979 and 1980. Evidently, part of the reason for the large number of single women in the southern region of Viet Nam was the loss of men during the war. Another reason for the high proportion of single people in the south might include the sudden economic recession after the artificial war-time prosperity of the 1970s.

Figure 2: Sex ratios of Viet Nam and Thailand



Sources: 1979 census of Viet Nam and 1980 census of Thailand.

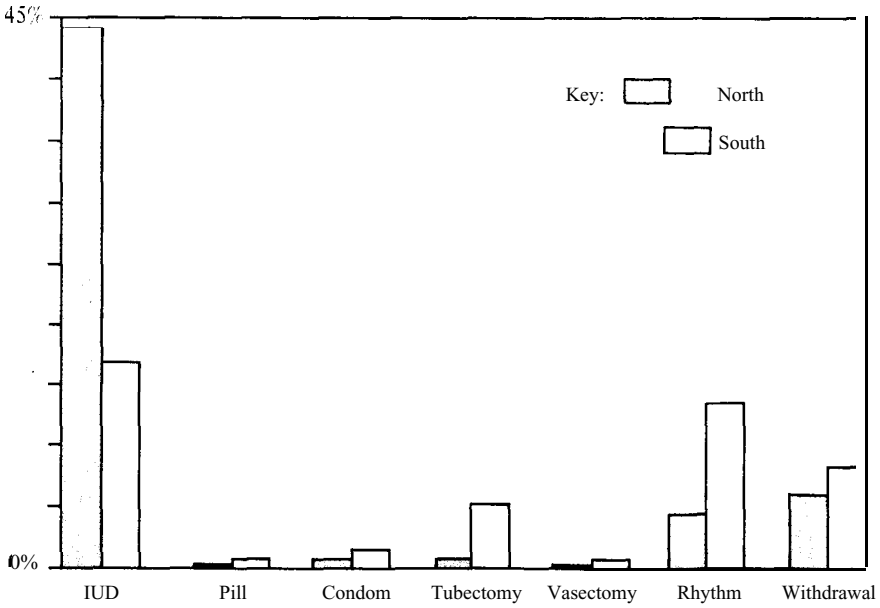
Contraception

The contraceptive prevalence rate (the percentage of married women aged 15-49 currently practising contraception at the time of the survey) was over 50 per cent. From the experience of other countries, a contraceptive prevalence rate of this magnitude is not consistent with a total fertility rate of 4.1,[7/] and is probably explained by the fact that some women over-reported their use of contraceptives.

In Viet Nam, family planning is a state policy, and family planning is popularly associated with the use of the IUD.[8/] Thus, the reported use of the IUD was particularly high, especially in the northern region, which is the more orthodox of the two regions (see figure 3). The same over-reporting of contraception has been found in other surveys in Viet Nam.

Since the data on contraception were probably not accurate, it is difficult to draw useful conclusions from them. It can be inferred, however, that the use of the pill, condom and vasectomy was low. It is also possible that the traditional methods, i.e. rhythm and withdrawal, were widely practised, especially in the southern region.

Figure 3: Percentage of married women aged 15-49 currently using contraceptives, by method and region



Source: 1988 Demographic Survey.

Birth, death and growth rates in 1989

The crude birth and death rates and the growth rate in 1989 can be estimated by surviving the population as enumerated in the 1979 census forward to 1989 using the different combinations of assumptions about fertility and mortality which seem likely according to the 1988 survey. Table 6 shows four projections from 1979 to 1989.[9/] Projections I-III incorporate a series of estimates of fertility and mortality most likely according to the 1988 survey. Projection IV uses a higher rate of mortality. Projections I-III suggest that in 1989 Viet Nam's crude birth rate was on the order of 31-34, its crude death rate around 7-8 and its rate of natural increase around 2.4-2.6.

Implications of the findings

The family planning programme of Viet Nam has been based on the voluntary co-operation of the population (although incentives have been given to some acceptors of some family planning methods). However, during the last

Table 6: Projections of the population of Viet Nam from 1979 to 1989

Assumptions	Projection			
	I	II	III	IV
Total fertility rate				
1979	5.0	5.2	4.8	4.8
1989	4.0	4.2	3.8	3.8
Expectation of life at birth				
1979	60.7	60.7	63.1	55.8
1989	65.1	65.6	68.0	60.7
Results				
Crude birth rate, 1989	32.5	33.7	31.0	31.6
Crude death rate, 1989	7.8	7.8	6.8	10.0
Rate of natural increase, 1989	2.5	2.6	2.4	2.2
Population, 1989*	67.9	68.8	67.8	65.7

**Note:* Does not account for international migration.

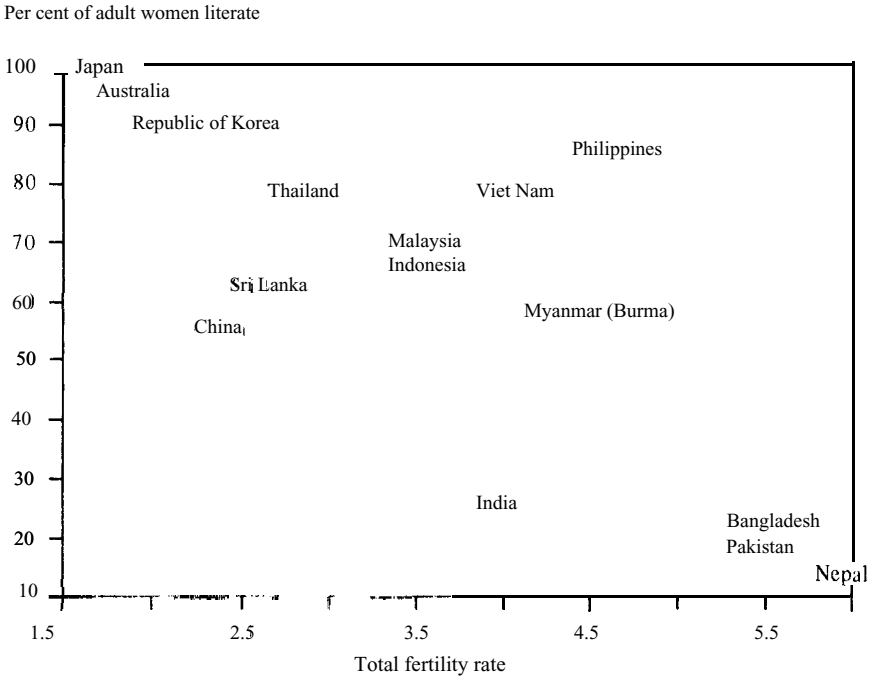
decade, success has been limited by several factors, among them a low degree of urbanization and low rate of economic growth.

This survey suggests that a growth rate of 1.7 per cent by 1990 (which is Viet Nam's population goal) probably will not be achieved, because fertility is still quite high. Although surveys of this kind are subject to various errors, when there is an error in the estimation of fertility, it is usually an underestimate rather than an overestimate. Thus, it is reasonable to assume that the survey's estimate of 4.1 for the total fertility rate in 1984-1986 was a minimum.

Therefore, it is most unlikely that the population growth rate can fall as low as 1.7 per cent in the near future. Moreover, if mortality is as low as it appears from the survey, it will be even more difficult to reduce the growth rate. The projections of the United Nations use a relatively high rate of mortality, as in projection IV of table 6; if mortality is lower than the United Nations has assumed (as in projections I-III), the growth rate would be proportionately higher.

Another consideration is that one of the causes of the comparatively low fertility in the southern region is the high proportion of women who are unmarried. This is due in part to the lack of men owing to war-related losses. However, this will be a temporary phenomenon. The sex ratios for people in their twenties and thirties will become more normal in a few years and, other thing being equal, the percentage of women able to find husbands will increase.

Figure 4: Relationship between total fertility rates and percentage of adult women who are literate



Sources: Total fertility rates: ESCAP estimates for 1987; literacy rates: UNESCO estimates for 1985.

There may also be other reasons why so many people are not getting married. It is not only women, but also men who have remained single, despite the large number of single women available for marriage. The postponement of marriage is common in developing countries partly because of the difficulty of finding a job after graduation from school. This means that economic prosperity may induce young people to marry earlier, thus increasing fertility in the short run.

On the positive side, fertility has probably been decreasing and may be undergoing a phase in which it can be brought down rapidly. In most developing countries, when mortality falls to a low level and education rises to a high level, it is only a matter of time before fertility begins to fall rapidly. Figure 4 suggests

that in a country with a literacy rate as high as in Viet Nam one would expect a lower rate of fertility. Viet Nam is somewhat like the Philippines in being an exception to this rule; however, in both countries, fertility may start to fall rapidly in the near future.

One factor which would help fertility to fall faster would be more supplies of contraceptives. The major difficulty for the family planning programme in Viet Nam at present is the expense of providing a full range of contraceptive methods.[10/] Foreign exchange is scarce and international aid limited. The data on contraception from this survey may not be completely reliable, but they do suggest that many of the effective methods of fertility control are not being used. Moreover, the data suggest that many couples were using the traditional contraceptive methods, which implies a demand for fertility limitation. More attention should be given to supplying some of the contraceptive methods, such as the oral pill and surgical sterilization, which have been used so successfully in other countries in Asia.

References/footnotes

1. International Statistical Institute, *Manual on Sample Design,* No. 3. (Voorburg, Netherlands, March 1975), chapter 9.
2. Institute for Resource Development Inc., *Model "A" Questionnaire with Commentary for High Contraceptive Prevalence Countries* (Columbia, Maryland, U.S.A., Institute for Resource Development Inc., October 1986).
3. Ansley J. Coale and Paul Demeny, *Regional Model Life Tables and Stable Populations* (New York, Academic Press, 1983).
4. General Statistical Office, *1979 Census of Viet Nam* (Hanoi, 1983).
5. J.R. Rele, *Fertility Analysis Through Extension of Stable Population Concepts* (Berkeley, Institute of International Studies, University of California, 1967, Republished in 1977 by the Greenwood Press, Westport, Connecticut, as Population Monograph Series No. 2).
6. *The Geography of Fertility in the ESCAP Region,* No. 62K (Bangkok, United Nations Economic and Social Commission for Asia and the Pacific, 1988).
7. Dorothy L. Nortman; *Population and Family Planning Programs: A Compendium of Data through 1981* (New York, Population Council, 1982), p. 22.
8. Vu Quy Nhan, *Knowledge and Attitudes of Grassroots Family Planning Workers about Contraceptive Methods* (ESCAP, ST/ESCAP/687, Bangkok, 1989), pp. 4-5.
9. The projection program used was ESCAP/POP: Economic and Social Commission for Asia and the Pacific, "ESCAP/POP: A Computer Program for Projecting Populations by Age and Sex," *Population Research Leads,* No. 22 (Bangkok, 1986).
10. *Nhan,* p. 15.