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Sex Preference for Children in Thailand and Some Other South-East Asian Countries

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Some countries in this subregion show a preference for both boys and girls, or no sex bias at all

During the past three decades, there have been rapid changes in South-East Asia, not only in the socio-economic and political situation, but also in the demographic situation. In almost all countries and areas in South-East Asia, population growth has declined to moderate or low levels as a result of rapid declines in fertility. In most cases, this phenomenon has been promoted in the belief that lower fertility should increase the value of human capital, help to accelerate the pace of socio-economic development and bring about greater gender equity. However, in some countries lower fertility, while helping countries towards some of their aforementioned goals, has made more apparent a strong gender bias, i.e. the antithesis of gender equity. For example, gender preference, especially for male children, may be observed as being inherent in the cultural settings of many countries in Asia, particularly those influenced by Confucianism, all of which have achieved low fertility: e.g. China, Japan and the Republic of Korea. On the other hand, in low fertility countries influenced by Theravada Buddhism, such as Sri Lanka and Thailand, there is no gender bias for boys.

One of the most crucial aspects of the Programme of Action, adopted by the International Conference on Population and Development held at Cairo in 1994, regards the empowerment of women and their improved status. Improvement of the status of females is considered essential not only for the success of population programmes but also sustainable national development. Gender preference for male children thus can be seen as undermining the success of the overall development process, because it reflects discrimination on the basis of sex from the earliest to the later stages of life (United Nations, 1995).

Gender preference for children of a certain sex can have an impact not only on fertility but also on mortality. There is evidence that advanced medical technologies such as those used for pre-natal sex identification have been exploited as a tool for the selection of children by the sex of the fetus. In other words, ultrasound and amniocentesis have been used as methods for determining whether or not to abort a fetus. In general, a preference for children of one sex, i.e. males, may lead to problems of sex discrimination, sex-selective abortion, female infanticide, a poor quality of life for females, a "marriage squeeze", deterioration of the family system and have effects on the future fertility of countries; it may even interrupt the advance towards sustainable social and economic development in countries where such a preference exists.

In the case of Asia, previous research has shown that there is a great variation among countries with regard to the existence of sex preference for children. Therefore, this article attempts to review the demographic situation and the existence of sex preference in some South-East Asian countries, including Thailand.

Fertility trends

To understand the situation of sex preference for children in countries in the South-East Asian subregion, it is necessary to investigate the changes that have occurred in fertility, since this is recognized as an important factor closely related to sex preference. Table 1 shows the total fertility rate (TFR), the average number of live births during a woman's lifetime, of each South-East Asian country. The TFR for most of the countries, except the Lao People's Democratic Republic, declined during the period 1990-1995 when compared with the period 1960-1965. If South-East Asian countries are classified into ASEAN1 and non-ASEAN countries, it may be observed that ASEAN TFRs have declined faster than those of Indochinese countries (Cambodia, the Lao People's Democratic Republic and Viet Nam) and Myanmar. The percentage decline for ASEAN countries ranges from 40.5 per cent in the case of the Philippines to 65.6 per cent in the case of Thailand. Among non-ASEAN countries in South-East Asia, Viet Nam2 has had the highest percentage of decline (36.0 per cent), followed by Myanmar (30.7 per cent) and Cambodia (28.5 per cent). On the other hand, the Lao People's Democratic Republic is the only South-East Asian country where the TFR has increased, from 6.2 in the period 1960-1965 to 6.7 in the period 1990-1995, which is higher than the TFRs of all other South-East Asian countries.

According to the United Nations medium-fertility variant projected for the period 1995-2000, a further declining trend of TFRs is expected in all South-East Asian countries, including the Lao People's Democratic Republic. While Singapore will experience the lowest TFR, the Lao People's Democratic Republic will continue to have the highest.

Table 1: Total fertility rate by country in South-East Asia, (medium-fertility variant)

				Medium

Country	1960-1965	1990-1995	Percentage decline	fertility projection (1995-2000)
Brunei Darussalam	6.72	3.07	54.32	2.75
Cambodia	6.29	4.50	28.46	4.29
Indonesia	5.42	3.10	42.80	2.70
Lao People's Democratic Republic	6.15	6.69	-8.78	6.03
Malaysia	6.72	3.62	46.13	3.24
Myanmar	6.00	4.16	30.67	3.81
Philippines	6.61	3.93	40.54	3.57
Singapore	4.93	1.75	64.50	1.80
Thailand	6.42	2.21	65.58	1.85
Viet Nam	6.05	3.87	36.03	3.51

Source: United Nations (1993:218-219).

Population and age distribution trends

Such a rapid decline in the total fertility rate of most South-East Asian countries has had significant impacts on population size, structure and growth. Among all countries in the subregion, Brunei Darussalem has the smallest population whereas Indonesia's was ranked as the biggest both in 1985 and 1995 (table 2). A comparison of populations in 1985 and 1995 shows that Singapore has had the lowest increase in total population size (11.5 per cent) whereas the Lao People's Democratic Republic is experiencing the highest percentage increase (35.8 per cent). Looking at the rates of population growth, the data reveal a similar trend to that for TFRs: the Lao People's Democratic Republic is the only country in this subregion that has a population growth rate that increased (from 2.29 per cent during the period 1980-1985 to 2.72 per cent during the period 1990-2000). As for Cambodia and Myanmar, despite the fact that they are experiencing a declining rate of population growth, the decline has been relatively slow.

United Nations population projections for the year 2000 show that Indonesia will remain the largest country in South-East Asia in terms of total population (around 218 million), followed by Viet Nam (81.5 million), the Philippines (76.1 million), Thailand (61.2 million), Myanmar (51.6 million), Malaysia (22.3 million), Cambodia (10.6 million), the Lao People's Democratic Republic (5.6 million), Singapore (3.0 million) and Brunei Darussalam (0.3 million), respectively.

Table 2: Total population and growth rate by country in South-East Asia

Country	Population (thousands)		Percentage increase	Growth rate (%)		Medium fertility projection (thousands)
1985	1995		1980-1985	1995-2000	2000	
Brunei Darussalam	226	288	27.43	3.12	1.95	318
Cambodia	7,327	9,447	28.93	2.40	2.27	10,580
Indonesia	167,332	201,477	20.41	2.06	1.58	217,998
Lao People's Democartic Republic	3,594	4,882	35.84	2.29	2.72	5,592
Malaysia	15,677	20,125	28.37	2.60	2.02	22,263
Myanmar	37,544	46,548	23.98	2.09	2.05	51,567
Philippines	55,395	69,257	25.02	2.58	1.88	76,091
Singapore	2,558	2,853	11.53	1.15	0.85	2,976
Thailand	51,187	58,265	13.83	1.83	0.98	61,202
Viet Nam	59,898	73,811	23.23	2.18	1.99	81,516

Source: United Nations (1993:154-155).

As for age distribution, table 3 shows that the percentage of the population aged 0-14 years in every non-ASEAN country

in the subregion is higher than that of each ASEAN country, except the Philippines and Malaysia. Of all countries in South-East Asia, the Lao People's Democratic Republic has the highest percentage of population under 15 years of age, i.e. 44.8 per cent in 1995. The figures for Cambodia, Myanmar and Viet Nam are 41.8, 37.4, and 37.0, respectively. Since the percentage of the population under age 15 in non-ASEAN countries is quite high, this leads to a higher dependency ratio there too. In 1995, the dependency ratio -- 100 times the sum of the population under 15 years of age and the population aged 60 and older divided by the population aged 15 to 59 -- is highest for the Lao People's Democratic Republic (98.4), followed by Cambodia (86.2), Viet Nam (79.9) and Myanmar (77.9). In 1995, Singapore appeared to have the lowest dependency ratio (47.9) among South-East Asian countries, and this will also be true in the year 2000 when it is projected to have a dependency ratio of 48.6. The next lowest is Thailand, for which the dependency ratio is below 55 in 1995, and is expected to be about 51.5 in the year 2000.

Special attention should be paid to Cambodia and the Lao People's Democratic Republic. Since their TFRs are quite high (table 1), the age distribution for both countries will still be concentrated in the under-15 age group for many years to come.

Table 3: Age distribution, total population and dependency ratio by country in South-East Asia (medium-fertility variant)

Country	Population (thousands)				Dependency ratio	Population (thousands) (medium-fertility projection)		Dependency ratio
	1985	%	1995	%	1995	2000	%	2000
Brunei Darussalam	226		288		66.9	318		63.7
0-14	82	36.1	93	32.2		96	30.1	
15-59	130	57.7	173	59.9		194	61.1	
60+	14	6.2	23	7.9		28	8.8	
Cambodia	7,327		9,447		86.2	10,580		82.1
0-14	2,953	40.3	3,949	41.8		4,295	40.6	
15-59	4,052	55.3	5,073	53.7		5,808	54.9	
60+	322	4.4	425	4.5		476	4.5	
Indonesia	167,332		201,477		67.8	217,998		64.2
0-14	64,757	38.7	67,293	33.4		68,233	31.3	
15-59	93,037	55.6	120,080	59.6		132,761	60.9	
60+	9,538	5.7	14,103	7.0		17,004	7.8	
Lao People's Democratic Republic	3,594		4,882		98.4	5,592		97.2
0-14	1,535	42.7	2,187	44.8		2,483	44.4	
15-59	1,887	52.5	2,461	50.4		2,835	50.7	
60+	173	4.8	234	4.8		274	4.9	
Malaysia	15,677		20,125		77.9	22,263		71.5
0-14	6,067	38.7	7,627	37.9		7,837	35.2	
15-59	8,732	55.7	11,310	56.2		12,979	58.3	
60+	878	5.6	1,187	5.9		1,447	6.5	
Myanmar	37,544		46,548		78.6	51,567		77.3
0-14	14,717	39.2	17,409	37.4		19,028	36.9	
15-59	20,499	54.6	26,067	56.0		29,034	56.4	
60+	2,328	6.2	3,072	6.6		3,455	6.7	
Philippines	55,395		69,257		77.6	76,091		71.8
0-14	22,712	41.0	26,595	38.4		27,545	36.2	
15-59	30,079	54.3	38,992	56.3		44,285	58.2	
60+	2,604	4.7	3,671	5.3		4,261	5.6	
Singapore	2,558		2,853		47.9	2,976		48.6
0-14	624	24.4	648	22.7		643	21.6	
15-59	1,734	67.8	1,929	67.6		2,003	67.3	

60+	200	7.8	277	9.7		330	11.1	
Thailand	51,187		58,265		54.3	61,202		51.5
0-14	18,427	36.0	16,431	28.2		15,913	26.0	
15-59	29,842	58.3	37,756	64.8		40,393	66.0	
60+	2,918	5.7	4,079	7.0		4,896	8.0	
Viet Nam	59,898		73,811		79.9	81,516		73.6
0-14	24,259	40.5	27,310	37.0		28,612	35.1	
15-59	31,566	52.7	41,039	55.6		46,953	57.6	
60+	4,073	6.8	5,462	7.4		5,951	7.3	

Source: United Nations (1993).

Measuring the preference for children of a certain sex

A review of the sex preference literature suggests that there are several methods for measuring gender preferences for children. According to Soeradji and Hatmadji (1994), information on the desired number of sons and daughters provides a way of examining women's preference for children of a certain sex. This particular measure was also used by Goodkind (1994). In his analysis of sex preferences for children in Viet Nam, Goodkind (1994) also used as indicators the sex combination preference in the case of a couple having only two children, and the percentage of second birth intervals less than three years by the sex of the first birth. The use of the latter indicator is based on the tendency, found by previous studies, for a subsequent birth interval to be relatively short if a daughter is born first to parents who had hoped for a son. Goodkind (1994) used the sex ratio of child mortality as another indicator of sex preference for children in Viet Nam. He found that the sex ratio of death probabilities at ages 1 to 14 shifted strongly between 1979 and 1989 from a surplus of male deaths to a surplus of female deaths. Such a trend in the sex ratio of child mortality suggests decreasing relative survival probabilities for female children there.

In addition, the parity progression ratio and ordinary least square regression of birth intervals can also be used to test for sex preferences. However, according to Leung (1988) there is a problem of validity when the two methods deal with right censoring and time-varying covariates. He maintains that, under appropriate conditions, the power of the sex ratio to test for sex preferences is satisfactory. Relying on the use of the sex ratio at birth, Chahnazarian (1988) found some homogeneity across populations and over time with an excess of male over female births, with the sex ratio at birth usually varying between 104 and 107 males for every 100 females born. Nevertheless, his conclusion was questioned by Roy (1994) who cited the influence of biological and other factors upon sex ratios. Those factors, leading to high female mortality rates in infancy and childhood etc., include under-registration of female births, female infanticide and neglect of female children in feeding and health care.

Shryock and Siegel (1973) pointed out that analyses of the sex ratio at birth should be interpreted cautiously, since the sex ratio at birth can be affected by demographic characteristics of the child and parents, such as age of the mother and birth order of the child. Besides these factors, the socio-economic status of the parents can also influence sex preference. For example, an abnormal ratio of boys to girls at birth in some developed countries may not be due to a cultural setting favouring males, but rather it could be explained by the predominance of lower order births when fertility is low and also a lower rate of pre-natal deaths. Moreover, the sex ratio at birth may be unreliable and sensitive to misreporting of births, or sampling errors.

Another measure that provides a good indicator of sex preference without the confounding effects of preference in number is the Coombs's scale, which can be used for investigating the complexity of the decision (more details on the Coombs's scale will be discussed later).

Factors affecting sex preference

Previous studies have shown that there are variations in sex preference among countries and regions that can be associated with a wide range of factors. These factors can be classified into micro- and macro-level factors. Concerning micro-level factors, the individual characteristics of parents, especially the mother, are expected to have an influence on the preference for children of a certain sex. Some research in developed countries has hypothesized that improving the socio-economic status of parents could affect preferences for the sex of children, particularly because the increasing autonomy of the mother would lead to a greater girl preference, or a more equitable view of the gender composition of the family.

Previous research has provided no consensus on the impact of maternal characteristics, such as employment, on the sex preference for children. Coombs (1977) studied preferences for the sex of children among couples in the United States, and found that the empirical result did not support the hypothesis that wives working outside the home are more likely than non-working wives to prefer girl children, or prefer both sexes. Instead, his analysis showed that "working wives are somewhat more likely to prefer sons".

There are also several macro-level factors that are expected to have an impact on sex preference, such as population policy and rapid fertility decline, modernization, cultural settings, and socio-economic and political transformation.

In many developing countries, rapid fertility decline has been an achievement of population policy. Such policies usually concentrate on reducing the total fertility rate or the number of children per woman. If there is a cultural setting that is biased towards one sex, this may elevate the situation of sex preference for children. For example, the existence of gender preference in Viet Nam is also related to the country's reduction in fertility, owing in part to the Government's anti-natal population policy, which has increased concern among couples who, if they are going to have fewer children, would want to make sure they bear some sons (Goodkind, 1994).

Some demographers believe that modernization will change attitudes and behaviour towards fertility, including the sex preference for children. It is believed that modernization will make people more egalitarian or less biased towards boys. Considering the evidence from developed countries, it seems that "modernization" or "development processes" gradually reduce the bias towards the sex of children. However, the experience of newly industrialized economies (NIE) and some developing societies in Asia does not follow such a pattern. For example, the Republic of Korea and Taiwan Province of China, which have been classified as NIEs, have experienced modernization for some time, but they still have a strong bias towards boys.

One of the factors that previous research indicated would play an important role in determining sex preference is cultural factors. Coombs (1977) stated that "sex preferences are more deeply rooted in the culture and reflect a constellation of cultural attitudes about sex roles and values". Previous results have indicated that the cultural setting is the crucial factor determining sex preferences. In a study on gender preferences in seven Asian societies (Indonesia, the Philippines, the Republic of Korea, Singapore, Taiwan Province of China, Thailand and Turkey) and the United States, Arnold and Kuo (1984) concluded that the development of sex preference for children is more a function of cultural factors than of the individual characteristics of parents. The cultural tradition is a factor at the societal level having effects upon individual characteristics. Studies have maintained that son preference tends to be strong in societies with a Confucian tradition, and its patrilineal and patriarchal kinship systems. This is particularly the case for China, the Republic of Korea, Taiwan Province of China and other East Asian societies. According to Goodkind (1994), Keyes (1977), Hirschman (1994) and others, Viet Nam's contemporary gender preference has resulted from a blending of Confucian and bilateral kinship systems. Besides the cultural factors, there are other factors in both economic and political terms. For example, there is an interplay of socio-economic and political transformations on gender relations in Viet Nam. As Goodkind (1994) put it, an increase in female child mortality in Viet Nam can be explained by the weakened post-war position of Vietnamese women in a situation of poverty and the Government's promotion of a free market. Women's position had previously been elevated by the goal of the revolutionary socialist regime.

Sex preference in South-East Asia

Research has shown that a strong preference for sons prevails in both eastern and southern Asia (see other articles in this issue of the Journal). This is particularly the case for Bangladesh, China, India, the Republic of Korea, Pakistan and Taiwan Province of China (Soeradji and Hatmadji, 1994). In South-East Asia, there seems to be two major patterns of sex preference for children: the preference-for-sons pattern, and the pattern of an egalitarian gender preference.

The general Oriental pattern of a preference for sons seems to be followed by people in Malaysia, Singapore and Viet Nam. This is particularly the case for the Chinese in Malaysia, according to Leung (1988). In Singapore, Goh (1981) found both a preference for having children of both sexes and a clear preference for sons. This was so despite Singapore's earlier official policy characterized by the "girl or boy, two is enough" slogan aimed at achieving zero population growth by the year 2030. According to the results of his analysis, a couple with children of only one sex likely would decide to have more children. In addition, among couples with more than one child, the proportion wanting no more children was higher among those with at least one son, compared with those having daughters only. A subsequent national plan aimed at narrowing the gap between parental satisfaction and the former target of zero population growth characterized what had been an intensive national family planning and population programme. A revised slogan stating "stop when you have both boys and girls, but three is enough" represented a compromise by the Government (Goh, 1981). As Moen (1991) put it, "the Singaporean case falsifies the basic assumption that economic development is an essential prerequisite for improved female status". (It should be mentioned that in 1987, the slogan was again revised to reflect what the Government calls a "selectively pro-natalist" policy: "have three or more if you can afford it".)

The case is quite different in Indonesia, the Philippines and Thailand where the sex preference for children is more egalitarian in nature than a bias towards sons or daughters.

According to Bautista (1988), egalitarian gender preference has long existed in the Philippines. It was interrupted only during the Spanish colonial period when male status was considered superior. Currently, with the American model of a liberal education and the economic trend towards industrialization, men and women are considered equally important to the advancement of Philippine society. Accordingly, Filipino couples tend to be associated with an egalitarian child preference.

In Indonesia, a study using 1976 World Fertility Survey (WFS) data covering the islands of Java and Bali demonstrated the balanced nature of the sex preference for children there (Central Bureau of Statistics, Indonesia, 1978). A balanced gender preference also represented the majority of responses by Indonesian women in a study by Sinquefield and Kartoyo (1979) covering a larger spatial scope of investigation. They also found a low percentage preference for daughters and that the

proportion of couples desiring additional children was slightly higher among those with children of only one sex than those couples having both boys and girls. However, using the 1991 Indonesian Demographic and Health Survey (DHS) data, Soeradji and Hatmadji (1994:18) maintained that "although studies at the national level have concluded that there is no sex preference in Indonesia, it is difficult to reach such a conclusion if we are studying different ethnic groups or regions".

In Thailand, there is a general lack of a son preference. In fact, as many studies have shown, the majority of Thais strongly desire at least one child of each sex (Kamnuansilpa, Chamratrithirong and Knodel, 1982; Knodel and others, 1987; Knodel, Chayovan and Frisen, 1988). According to Kamnuansilpa, Chamratrithirong and Knodel (1982), a couple tends to continue child-bearing if their first two children are of the same sex; their hope is for a child of the other sex. Knodel and others (1987) reported that couples with only two girls were less likely to undergo sterilization. Lately, in our recent pilot study (Wongboonsin and Ruffolo, 1994), we have used the Coombs scale to provide much more detailed information on the preference for both family size and gender composition among single and newlywed couples in Thailand.

We have analyzed data from a pilot project on low fertility conducted in 1993 by the Institute of Population Studies at Chulalongkorn University. The sample was drawn from couples married for fewer than five years and single adults. Since this was a pilot project, the sampling was purposive, and we did not attempt to randomly sample the entire Thai population. Instead, we randomly chose 250 respondents from five different groups: (a) professional workers in Bangkok, (b) factory workers in Bangkok, (c) construction workers in Bangkok, (d) slum dwellers in Bangkok and (e) rural villagers in the northeastern province of Khon Kaen. We tested the use of the Coombs scale to provide much more detailed information on the preference for both family size and gender composition among single and newlywed couples. The theoretical basis for this is that the unfolding theory used by Coombs and others (1974) assumes a single-peaked utility function so that, for example, if the respondent's first choice is three girls, it is assumed that the second choice is one boy and two girls, the third choice is two boys and one girl, and the fourth choice is three boys (see the figure on page 54). This is an assumption underlying the Coombs scale. However, if the respondent's first choice is one boy and two girls, we would not know whether the second choice will be three girls, or two boys and one girl. Therefore, we would probe further, asking: "If you could not have the number of boys and girls you want, would you prefer to have three girls, or two boys and one girl?" In our survey a similar question was asked in cases where the first choice was two boys and one girl. Finally, if the second choice was two boys and one girl, or one boy and two girls, we asked what their third choice would be. This set of questions then completely determines the relative preference for the gender composition of the families concerned.

Figure: Part of questionnaire concerning the preferred gender composition

First choice	3 girls	1 boy, 2 girls		2 boys, 1 girl		3 boys
Second choice		0 boys 3 girls	2 boys 1 girl	1 boy 2 girls	3 boys 0 girl	
Third choice		0 boy 3 girls	3 boys 0 girl	0 boy 3 girls	3boys 0 girl	

In the coding stage, these responses were converted to I-scale values according to table 4, again following Coombs and others (1974). A code of IS1 indicates a strong preference for girls, IS7 indicates a strong preference for boys, and an intermediate code indicates little or no gender preference.

Table 4: The Coombs IS-scale for measuring number preference

IS scale	Choices for (No. of boys) - (No. of girls)			
	First	Second	Third	Fourth
1	-3	-1	+1	+3
2	-1	-3	+1	+3
3	-1	+1	-3	+3
4	-1	+1	+3	-3
or	+1	-1	-3	+3
5	+1	-1	+3	-3
6	+1	+3	-1	-3
7	+3	+1	-1	-3

Notes: IS1 means a strong preference for girls and IS7, a strong preference for boys.

Boldface numbers are actual choices and plain numbers are assumed choices.

Table 5: The Coombs IN-scale for measuring number preference IN scale Choice for No. of

children

IN scale	Choice for No. of children			
	First	Second	Third	Fourth
1	0	2	4	6
2	2	0	4	6
3	2	4	0	6
4	2	4	6	0
or	4	2	0	6
5	4	2	6	0
6	4	6	2	0
7	6	4	2	0

Notes: IN1 means a strong preference for few children and IN7, a strong preference for many children. The respondents were asked to assume they would have equal numbers of girls and boys.

We asked a similar set of questions about the desired number of children, assuming an equal number of boys and girls. Again, we coded the responses on a scale from 1 to 7, where IN1 represents a desire for very few children and IN7, a desire for many children (see table 5).

Previous studies have shown that the Coombs scales are much more powerful indicators of the true preference for the number and gender of children than the respondent's first choice (Coombs and Coombs, 1974). The reason for this is that the Coombs scale measures first, second, third and fourth choices, either by explicit questioning or the implicit assumption of a single-peaked utility function. Most importantly, the scales provide independent measures of the preference for number and gender composition, whereas these preferences are not independently measured by a single first choice.

We have mentioned previously that, unlike couples in many other Asian countries, Thai couples have no strong preference for boys (Wongboonsin and Ruffolo, 1993). In fact, most couples show a strong desire to have at least one boy and at least one girl. Our recent data show a striking confirmation of this preference (see table 6). Notice that, among couples who desire two children, nearly all the respondents wanted to have one boy and one girl as their first choice. Almost no one selected two boys, or two girls.

Table 6: Percentage distribution of preferred number of boys and girls by type of respondent

Preferred number of children	All	P *	F *	C *	S *	R *
1 girl	6	21	0	5	0	8
1 boy	4	7	0	10	0	7
2 girls	1	0	0	0	0	3
1 boy, 1 girl	76	50	86	67	80	82
2 boys	1	0	0	5	0	0
1 boy, 2 girls	8	7	10	14	10	3
2 boys, 1 girl	4	14	5	0	10	0
Total (per cent)	100	100	100	100	100	100
Number	115	14	21	21	20	39

* Note: P = professionals; F = factory workers; C = construction workers; S = slum dwellers; and R = rural villagers.

This question was from the short form: only half the respondents were asked.

If there were no sex preference, what we would see is that roughly equal numbers would prefer two girls, one boy and one girl, and two boys. That is not the case, so there is a sex preference, but it is a preference for both sexes -- almost all Thai couples want to have children of both sexes. This is very different from the situation in India or the Republic of Korea, or many other Asian countries. Again, among respondents who said they would prefer having three children, every one of them wanted at least one boy and at least one girl. No one preferred having all boys or all girls.

We now turn to results based on the Coombs scales. One noticeable trend is that the mean preferred family size depends on the occupation of the respondents (see table 7). While most respondents of every occupation had a low score on the IN scale, indicating a preference for 0-3 children, a large fraction of the factory workers had a medium score (IN4), whereas not many professional workers had such a score.

Table 7: Percentage distribution of Coombs IN and IS scales according to type of respondent

	All	P *	F *	C *	S *	R *
IN scale						
Small(1-3)	64	67	55	64	65	67
Medium (4)	26	17	41	27	23	23
Large (5-7)	11	17	5	9	13	10
Total (per cent)	100	100	100	100	100	100
Mean	3.2	3.2	3.4	3.1	3.2	3.2
IS scale						
Girl bias (1-3)	39	39	41	36	26	51
Balance (4)	23	11	32	18	19	28
Boy bias (5-7)	38	50	27	45	55	21
Total (per cent)	100	100	100	100	100	100
Mean	4.0	4.2	3.9	4.0	4.6	3.6
Number	132	18	22	22	31	39

* Notes: See table 6 for meaning of abbreviations. This question was from the Coombs scale: only half the respondents were asked.

The IS scores seem to exhibit more random fluctuations, which is consistent with a weak gender bias. There does appear to be a variation with occupation, as slum dwellers were more likely to prefer boys, and rural villagers were more likely to prefer girls. One possible explanation for the mild preference for girls among rural villagers is provided by results from the Study of Women and Fertility in Thailand (SWAFT), in which focus groups indicated that villagers believe that daughters will take care of them in their old age.

We also compared the IN and IS scores as a function of socio-economic variables, and found essentially no correlation with education, income, or marital status. One possible trend is that families with higher income seem to desire fewer children. However, on the whole, the desire for a family size of 2-3 children and a lack of gender bias seem to be common to all socio-economic groups in Thailand (see table 8).

Table 8: Mean values of Coombs IN and IS scales by education, income and marital status

	IN scale	IS scale	Number
Education			
Primary	3.3	3.9	62
Lower secondary	3.0	3.5	20
Upper secondary/lower vocational	3.0	4.3	30
Upper vocational/university	3.4	4.6	20
Income (in Baht 1,000 per annum)			
<100	3.3	3.8	58
100-199	3.2	4.3	41
200+	3.0	4.0	27
Marital status			
Single	3.1	4.2	62
Married	3.3	3.9	70

Note: This question was from the Coombs scale: only half the respondents were asked.

In conclusion, the results from the Coombs scales show that most Thai people still want 2-3 children of both sexes, even when controlling for socio-economic factors such as education, occupation and income. We found that those who have a better socio-economic status (i.e. professional workers) tend to prefer fewer children; however, most of them still want two children.

Conclusion

Recently, sex preference for children has become a matter of public concern and an important issue for research. Although this topic is not new to demographers, it has become a more important issue especially in NIEs and developing countries. In South-East Asia, there are two main lines of thought on the issue of sex preference. One group has shown trends towards a boy bias, such as in Malaysia, Singapore and Viet Nam. The other group has shown a trend of preference for both boys and girls, or no sex bias, such as in Indonesia, the Philippines and Thailand.

Social and cultural factors are likely to be substantial determinants of sex preference in South-East Asia as in the case elsewhere in Asia. Some Governments have attempted to solve the problems of sex bias by enforcing laws and regulations to prohibit and punish the medical doctors and their clients practising sex-selective abortion. Laws and regulations alone may temporarily alleviate the problem, but these methods cannot transform attitudes and beliefs that are hidden in cultural settings. Changing people's attitudes and beliefs is very difficult task and one that will take considerable time to accomplish. One of the ultimate solutions to this problem may be to conduct an IEC (information, education and communication) programme to change the attitudes of the people. As long as the traditional cultural setting still dominates, the problem of sex bias is likely to persist in many societies. IEC programmes have proved to be successful in gradually changing the attitudes and behaviour of populations, as show by the success of the family planning programme in Thailand, and the IEC programme to control the AIDS pandemic.

Also, the role of women will be crucial in shaping future reproductive behaviour. Although improving women's status is important, concentrating on improving women's status only without changing people's attitudes or norms may lead to higher expectations among women, with society unable to fulfill those expectations. Also needed is a programme to changes the attitudes and norms of people, starting with those in the very young age groups. Such attempts may take time, but the outcome will be worthwhile in the long run.

However, it should be emphasized that these policies and programmes will be successful only when we have enough information on the social and cultural context underlying the sex bias. Therefore, further research on this topic is still needed. Previous research has rarely made a comparison among countries both in terms of sex preference for children and the causes underlying such a preference. This may have been due to the different methods used by each study. Many studies concentrated only on the sex ratio at birth as an indication of sex discrimination, despite the limitations of this method, as discussed previously.

One measure that may help in studying sex preferences is Coombs's scale. Coombs's scale can provide independent measures of the preference for number and gender composition, whereas these preferences are not independently measured by single first choice. The scales were successfully tested for the first time in Thailand in the pilot project described in the present article. It should also be possible to apply this method in the study of other Asian countries in which contraceptive methods have been widely used.

Moreover, further research should investigate in more detail the macroscopic and microscopic determinants of such sex preferences. If we can find specific reasons why individuals in different societies do or do not employ specific sex selection of their children, then these reasons can be used for drafting appropriate policy measures and solutions to alleviate the problems connected with gender discrimination.

Footnotes

1. ASEAN is the acronym for Association of South-East Asian Nations.

2. At the time this study was carried out, Viet Nam was not yet a member of ASEAN, which is composed of Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand and (since July 1995) Viet Nam.

References

Arnold, F. and Kuo, E.C. (1984). "The value of daughters and sons: a comparative study of the gender preferences of parents" Journal of Comparative Family Studies 15(2):299-318.

Bautista, M.L. (1988). "Historical influences on gender preference in the Philippines" Journal of Comparative Family Studies, Spring, 9(1):143-153.

Central Bureau of Statistics (1978). Indonesia Fertility Survey 1976. Principal Report, vol.1, Jakarta, Indonesia.

Chahnazarian, Anouch (1988). "Determinants of the sex ratio at birth: review of recent literature" Social Biology 35(3-

4):214-235.

Chayovan, Napaporn (1994). "Preliminary report on status of women and fertility in Thailand" Population, Newsletter No. 52, Bangkok: Institute of Population Studies, Chulalongkorn University.

Chayovan, Napaporn, Peerasit Kamnuansilpa and John Knodel (1988). Demographic and Health Survey, 1987 (Bangkok: Institute of Population Studies, Chulalongkorn University; Columbia, MD: Institute for Resource Development/Westinghouse).

Cleland, John (1992). "New problems of population in low fertility Asian countries", In: Impact of Fertility Decline on Population Policies and Programme Strategies (Seoul: Korea Institute for Health and Social Affairs).

Coombs, C.H., L.C. Coombs and G.H. McClelland (1975). "Preference scales for number and sex of children" Population Studies 19(2):273-298.

Coombs, Lolagene C. (1976). "Are cross-cultural preference comparisons possible? a measurement-theoretic approach", Liege, Belgium, International Union for the Scientific Study of Population (IUSSP Papers No. 5).

_____ (1977). "Preferences for sex of children among U.S. couples" Family Planning Perspectives 9(6):259-265.

_____ (1979). "Reproductive goals and achieved fertility: a fifteen-year perspective" Demography 16(4):523-534.

Goh, T.N. (1981). "Quantitative analysis of some decision rules for family planning in an oriental society" Interfaces 11 (2):31-37.

Goodkind, Daniel (1994). "Sex preference for children in Vietnam". Paper presented at the International Symposium on Issues Related to Sex Preference for Children in the Rapidly Changing Demographic Dynamics in Asia, Seoul, Republic of Korea, 21-24 November 1994.

Hirschman, Charles (1994). "Family and household structure in Vietnam". Paper presented at the Annual Meeting of the Association for Asian Studies, Boston, MA.

Kamnuansilpa, P., A. Chamratrithirong and John Knodel (1982). "Thailand's reproductive revolution: an update" International Family Planning Perspectives 8(2):51-56.

Keyes, Sunita (1993). "May God give sons to all: gender and child mortality in India" American Sociological Review 58 (2):247-265.

Knodel, John, A. Chamratrithirong and N. Debavalya (1987). Thailand's Reproductive Revolution: Rapid Fertility Decline in a Third-World Setting (Madison, University of Wisconsin Press).

Knodel, John, N. Chayovan and C. Frisen (1988). "Has Thailand's fertility decline stalled?" Asia-Pacific Population Journal 3(3):3-20.

Leung, S.F. (1988). "On tests for sex preferences" Journal of Population Economics 1(2):95-114.

Moen, E. (1991). "Sex selection: implications for females in the third world". Working Papers on Women in International Development, No. 225, East Lansing, Michigan, Michigan State University, Women and International Development Program.

Roy, Krishna (1994). "Socio-cultural factors and sex preference for children in South and East Asian countries - a review of selected studies". Paper presented at the International Symposium on Issues Related to Sex Preference for Children in the Rapidly Changing Demographic Dynamics in Asia, Seoul, Republic of Korea, 21-24 November 1994.

Shryock, H. and J.S. Siegel (1980). The Methods and Materials of Demography (Washington, D.C.: Government Printing).

Sinquefield, J.C. and Azwini Kartoyo (1979). "Sex preference for children in Indonesia" Majalah Demografi Indonesia, 6 (11):35-45.

Soeradji, Budi and Sri Harijati Hatmadji (1994). "Issues on sex preference: the case of Indonesia". Paper presented at the International Symposium on Issues Related to Sex Preference for Children in the Rapidly Changing Demographic Dynamics in Asia, Seoul, Republic of Korea, 21-24 November 1994.

United Nations (1993). World Population Prospects: 1992 Revision, (New York: United Nations).

_____ (1995). Population and Development: Programme of Action Adopted at the International Conference on Population and Development, Cairo, 5-13 September 1994, vol. 1 (ST/ESA/SER.A/149).

Wongboonsin, Kua and Vipan Prachuabmoh Ruffolo (1993). "The future of Thailand's population policy: potential directions" Asia-Pacific Population Journal 8(3):3-18.

_____ (1994). "Thailand's fertility future: prospects for below replacement levels". Paper presented at the International Symposium on Issues Related to Sex Preference for Children in the Rapidly Changing Demographic Dynamics in Asia, Seoul, Republic of Korea, 21-24 November 1994.
