Evidence Mounts for Sex-Selective Abortion in Asia

In most populations, women give birth to slightly more boys than girls. The result is average sex ratios of 104 to 107 males for every 100 females born. Yet infant and child mortality rates are generally higher for boys than for girls, so as children grow up the number of girls and boys gradually becomes more balanced.

In societies that prefer sons, several practices may lead to abnormally high sex ratios for children. Neglect or mistreatment can increase female mortality rates: in some cases families may even resort to female infanticide. Or the birth of baby girls may simply not be reported, and girls may not be counted in census enumerations. In China during the 1980s, couples who wanted sons but faced harsh penalties if they had too many children sometimes gave baby girls away for adoption without registering their births.

More recently in Korea, China, and Taiwan, the introduction of technologies to determine the sex of unborn fetuses combined with the widespread availability of abortion has led to a record preponderance of male births, suggesting that couples are selectively aborting females. Evidence is accumulating that sex-selective abortion is also occurring in India. This combination of son preference with modern technology poses a social, economic, and ethical dilemma for policymakers.

In November 1994, the United Nations Population Fund (UNFPA) and the government of the Republic of Korea sponsored an International Symposium on Sex Preference for Children in the Rapidly Changing Demographic Dynamics in Asia. Participants discussed indicators of son preference, the incidence of sex-selective abortion, and policy responses in Asian countries. This issue of *Asia-Pacific Population & Policy* highlights a few of the topics discussed at the symposium, with detailed information from recent reports by East-West Center staff.
societies. Male children carry on the family name, inherit the family property, and play a special role in family traditions. In countries with a strong Confucian influence, family ceremonies must be led by the eldest son of the most recent male ancestor. If no sons are born, the family dies. In such societies, it is important for a woman to produce a male heir.

Powerful economic factors also support son preference. In many Asian societies, married sons are expected to live with aging parents and provide financial support. By contrast, when a woman marries, she joins her husband’s household and does not normally contribute to the support of her own parents. Her marriage itself may impose a financial burden—through expectations of a large celebration, as in Korea and Taiwan, or expensive dowry payments, as in India and Bangladesh.

Before industrialization, boys played an important economic role in Asian households, contributing agricultural labor from an early age. One study in rural Bangladesh revealed that boys as young as 12 were already producing more food than they consumed. And unless development improves the status of women, the economic basis for son preference may not disappear. In describing the situation in South Korea, Yun-Ae Yi remarked at the symposium, “Given the existing gender differences in earnings in the marketplace, parents or parents-in-law may perceive long-run returns from sons to be substantially higher than from daughters.” Indeed, studies of ideal family composition in South Korea indicate the persistence of a strong preference for sons.

One sign of son preference is higher mortality rates for girls than for boys. More than 10 years of demographic data from Bangladesh’s Matlab region show that mortality between ages one and four is strongly affected by a child’s sex and the sex of older siblings: the highest death rates are for girls with older sisters. At the Seoul symposium, the Indian demographer Leela Visaria referred to similar evidence of “anomalous excess female mortality” in her country. Even in Korea and China, where child mortality is generally low, death rates are higher for girls than for boys.

FERTILITY DECLINE

Early observers predicted that son preference would impede efforts to slow down population growth, as couples would keep having children until they obtained the desired number of boys. In fact, several studies have shown a relationship between son preference and contraceptive use. For example, a 1991 survey in Taiwan revealed that 90 percent of couples who had two children including at least one son were using contraceptives: among couples with two daughters, only 76 percent were using contraceptives. In China in the late 1980s, women who already had at least one son were more than twice as likely to abort a subsequent pregnancy as women who had only daughters.

Nevertheless, fertility has declined precipitously in several Asian countries where son preference is strong—not only in China, where government policies have punished couples who have too many children, but also in Taiwan and Korea, where fertility has dropped to below-replacement levels without government penalties. As couples have fewer children, efforts to produce at least one son may intensify.

MODERN TECHNOLOGY

Abortion. Traditionally high in East Asia, abortion rates have climbed further in

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![Figure 1 Sex ratios at birth for South Korea, China, and Taiwan](image)

*Figure 1 Sex ratios at birth for South Korea, China, and Taiwan*

*Sources:* South Korea, Park and Cho 1995; China, Gu Baochang and Li Yong Ping in UNFPA and Republic of Korea 1994; Taiwan, Ming-Cheng Chang in UNFPA and Republic of Korea 1994.
Table 1: Reported sex ratios at birth by birth order, South Korea and China

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<th>Year</th>
<th>Country</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th+</th>
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<td>106.1</td>
<td>109.3</td>
<td>114.2</td>
<td>—</td>
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<td>107.2</td>
<td>113.1</td>
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<td>109.5</td>
<td>107.8</td>
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<td>S. Korea</td>
<td>106.0</td>
<td>106.3</td>
<td>112.5</td>
<td>122.1</td>
<td>—</td>
<td>107.7</td>
</tr>
<tr>
<td></td>
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<td>107.5</td>
<td>107.2</td>
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<td>—</td>
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<tr>
<td></td>
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<td>112.6</td>
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<tr>
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<td>S. Korea</td>
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<td>192.9</td>
<td>—</td>
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<tr>
<td>1989</td>
<td>S. Korea</td>
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<td>112.6</td>
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<td>—</td>
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Source: Park and Cho 1995, from vital statistics data on current births (for Korea) and One per 1,000 and Two per 1,000 Surveys (for China).

Recent years. In South Korea, induced abortion is one of the most common methods of fertility control, condoned by government family planning programs as a backup method in case of contraceptive failure. In 1990, the estimated average number of abortions for married women throughout their lifetime was 1.9—higher than the estimated lifetime number of live births, which was 1.6.

In urban China, the reported proportion of all pregnancies terminated by abortion rose from less than 3 percent in 1960 to about 30 percent in 1987; in rural areas, the proportion rose from virtually none to more than 15 percent. In the country as a whole, about 14 million pregnancies were aborted in 1990, or more than half the number of births reported during the year. National-level statistics are not available for India, but current estimates for New Delhi are about 19 abortions per 100 live births.

Fetal sex determination. Technologies to determine the sex of unborn fetuses were introduced in several Asian countries during the 1980s. Three technologies are currently available: chorionic villi sampling, amniocentesis, and ultrasound. Ultrasound is the safest, least expensive, and most widely used of these technologies. However, the test is not accurate until the second trimester of pregnancy, resulting in late abortions with some increased risk to the mother.

Ultrasound equipment was first mass-produced in South Korea in the mid-1980s and is now available in clinics and hospitals throughout the country. China began manufacturing ultrasound machines in 1979 and now has the capacity to produce more than 10,000 a year. Additional machines are imported—2,175 in 1989 alone according to Chinese customs records. In India, ultrasound equipment is available in hundreds of hospitals and private clinics.

When fetal-screening technology is available, it tends to be heavily used. In Korea, a conservative estimate suggests that more than 30,000 fetuses were screened in 1990, at a total cost to couples of approximately US$3 million. In discussing amniocentesis with a weekly news magazine, one Korean obstetrician estimated that 90 percent of all requests for fetal screening are for sex determination, rather than to detect genetic disorders.

**SEX-SELECTIVE ABORTION**

The clearest evidence for the practice of fetal screening followed by sex-selective abortion comes from increases in sex ratios at birth. As Figure 1 illustrates, sex ratios in China, Taiwan, and South Korea began to rise abruptly in the 1980s. The 1992 figures are 119 boys for every 100 girls in China, 114 in South Korea, and 110 in Taiwan. In India, national-level estimates are as high as 112.

The evidence for sex-selective abortion is particularly striking when sex-ratio imbalances are broken down by birth order [Table 1]. In South Korea and China, sex ratios for third- and later-born children began to rise during the early 1980s. The 1989 sex ratio of 209 for fourth-born children in South Korea means that more than two boys were born for every girl at this birth order. By 1990, sex ratios in Taiwan reached 134 for third births and 159 for fourth births.

These high sex ratios for late-order births are convincing indicators of the prevalence of sex-selective abortion. Yet they do not, in themselves, have a major
impact on the sex ratios of national populations because few families have this many children.

**POPULATION DYNAMICS**

Fertility rates in Korea and China were already falling before fetal sex screening became widely available. For Korea, demographic modeling suggests that after the screening technology was introduced, sex-selective abortion still had only a moderate effect on fertility reduction.

In a country with low fertility, sex-selective abortion of early-order births may affect the sex distribution of the national population. According to 1990 census data for South Korea, nearly 80,000 female fetuses were aborted between 1986 and 1990 for purposes of sex selection, a number equivalent to about 5 percent of all female births.

Yet the resulting sex imbalance may be temporary. Recent data from South Korea indicate that sex ratios for first-born children are indeed rising, but ratios for second-born children are going down. Results for completed fertility from the 1991 Fertility and Family Health Survey indicate a sex ratio of 118 for first births, 104 for second births following a daughter, and 94 for second births following a son. As in many countries, South Koreans tend to want a son followed by a daughter, and couples now appear to be using sex-selective abortion to achieve their ideal family composition.

There is also evidence from China that current high sex ratios may be temporary. Ratios are low in the least developed rural provinces, high in more developed provinces, and low in the relatively modern cities of Shanghai and Beijing. The trend in these large cities may represent the future for China as a whole.

**POLICY RESPONSES**

The use of fetal-screening technologies for sex identification was outlawed in South Korea in 1987. In 1990, the Ministry of Health and Social Affairs increased the penalties for doctors convicted of performing the tests and suspended the medical licenses of eight physicians, an action that was widely reported in the media. In 1994, the medical code was further strengthened: physicians who perform such tests may now be imprisoned for up to one year, may be fined up to US$12,000, and may lose their medical licenses.

In May 1989, the Chinese Ministry of Health issued “An urgent notice on strictly forbidding use of medical technology to perform prenatal sex determination,” which reemphasized previous regulations. In 1983, the Indian government banned sex screening in government hospitals, and recently the Indian Parliament passed a bill banning all fetal screening except for the detection of genetic abnormalities.

Although the legal framework is important, some observers believe that harsh regulations have only made sex-determination procedures more clandestine and more expensive. Stressing the need to address the problem of son preference underlying the incidence of sex-selective abortion, participants in the Seoul symposium recommended the following government actions:

- Implement policies and programs to diminish the ubiquitous manifestations of gender discrimination, which may include discriminatory laws, inequitable inheritance systems, discriminatory social and cultural practices, differential nutrition and health care, and unequal access to education, economic opportunities, and resources.

- Initiate a public policy dialogue to establish guidelines for monitoring and regulating the use of prenatal testing in order to discourage its use for sex detection.

- Employ all information-dissemination channels—including mass and folk media, interpersonal counseling, and school curricula—to promote gender equity.

- Strengthen ethics curricula in medical schools to incorporate issues of son preference and prenatal sex determination.

- Increase the capacity of statistical and research organizations to collect and analyze gender-disaggregated data and to improve their quality.

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