# Why is Son Preference so Persistent in East and South Asia? 

## A Cross-Country Study of China, India, and the Republic of Korea

Monica Das Gupta<br>Jiang Zhenghua<br>Li Bohua<br>Xie Zhenming<br>Woojin Chung<br>Bae Hwa-Ok

The World Bank
Development Research Group
Public Services
and
Rural Development
December 2002


#### Abstract

Son preference has persisted in the face of sweeping economic and social changes in China, India, and the Republic of Korea. The authors attribute this to their sımilar famıly systems, which generate strong disincentives to rase daughters while valuing adult women's contributions to the household. Urbanization, female education, and employment can only slowly


change these incentives without more direct efforts by the state and civil society to increase the flexibility of the kinship system such that daughters and sons can be percerved as being more equally valuable. Much can be done to this end through social movements, legislation, and the mass media.

This paper--a joint product of Public Services and Rural Development, Development Research Group-is part of a larger effort in the group to study social institutions and development outcomes. Copies of the paper are avalable free from the World Bank, 1818 H Street NW, Washıngton, DC 20433. Please contact Monica Das Gupta, room MC3-633, telephone 202-473-1983, fax 202-522-1153, email address mdasgupta@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. January 2003. (36 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even tf the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclustons expressed in this paper are entirely those of the authors. They do not necessarly represent the view of the World Bank, its Executive Directors, or the countrues they represent.

# Why is son preference so persistent in East and South Asia? A cross-country study of China, India and the Republic of Korea 

Monica Das Gupta<br>Development Research Group, World Bank, 1818 H Street NW, Washington, DC 20433

Tel: 1-202-473-1983, Fax: 1-202-522-1153
mdasgupta@worldbank.org

## Jiang Zhenghua

Professor and Honorary Director, Interdisciplinary Research Center of the Academic Sciences of China, and Population and Economy Research Institute, Xi'an Jiaotong University, Xi'an, China, and Vice-Chairman, PRC National People's Congress

## Li Bohua, Xie Zhenming,

China Population Information and Research Center, Beijing

Woojin Chung, Bae Hwa-Ok

Korean Institute for Health and Social Affairs, Seoul

We are grateful for valuable comments from anonymous reviewers, Judith Banister, Pranab Bardhan, Shelah Bloom, Birgitta Bucht, Minja Kim Choe, Mrinal DattaChaudhuri, Sonalde Desai, Tim Dyson, Alice Goldstein, Gu Baochang, Supriya Guha, Gene Hammel, Ron Lee, Bob Levine, Li Shuzhuo, Li Yongping, Emily MacFarquhar, Jane Menken, Mick Moore, and Arthur Wolf, as also for comments from participants at seminars at Stanford University, the University of California at Berkeley, Harvard University, The London School of Economics, Brown University, the Population Association of America, the United Nations Population Division, the United Nations Population Fund, New York, and the Institute of Economic Growth, New Delhi.

## Contents

1. Introduction ..... 1
2. Levels, trends and patterns in the proportions of girls "missing" ..... 2
Levels ..... 4
Trends and patterns ..... 5
3. Cultural factors in son preference: the role of family systems ..... 7
Kinship systems and the construction of gender ..... 8
Implications for the position of women and of girls ..... 10
Shifts in power over the lifecycle ..... 11
The role of ancestor worship. ..... 12
Different rules of family segmentation ..... 13
4. Economic factors influencing son preference ..... 14
Old age support ..... 15
Dowry. ..... 15
Labor force participation: paid employment and the value of wives versus daughters ..... 16
Poverty ..... 18
5. The experience of son preference ..... 18
South Korea ..... 19
India ..... 21
6. Forces of change ..... 22
Urbanization ..... 23
Social and legal rëform movements ..... 25
The role of the mass media ..... 28
7. Conclusions ..... 28
Bibliography ..... 30

## 1. Introduction

Most societies show some degree of preference for sons, though mostly so mild as to be virtually undetectable (Williamson 1976). However, son preference strong enough to result in substantial levels of excess female child mortality is manifested in East and South Asia, including China, South Korea, and India. Excess female child mortality is a longstanding problem in all three settings. In China and India the practice of female infanticide was noted at least a century ago, and in Korea and India high juvenile sex ratios have been documented since the first modern censuses were taken. By contrast, there seems to be little son preference in Southeast Asia or in most other parts of the developing world (Map 1).

That these settings should be so similar in terms of son preference is especially striking, given the wide differences between them in industrialization, urbanization, and social development (Table 1). Moreover, the reasons given for son preference also differ. In India the main cause is, it is argued, the need to pay dowries for daughters. In the context of China it has been suggested that stringent fertility regulation is responsible for heightened discrimination against daughters. In South Korea, son preference is attributed more to patriarchal family systems and low female autonomy. In South Korea and China son preference is sometimes also attributed to Confucian values.

Table 1. Social and economic indicators for India, China, and the Republic of Korea, 1998-99

|  | India | China | Republic of Korea |
| :--- | :---: | :---: | :---: |
| GNP per capita(US\$,PPP) | 2,144 | 3,291 | 14,637 |
| \% poor(<\$1a day,1997-8) | 44.2 | 18.4 | $<2$ |
| \% urban | 28 | 32 | 81 |
| \% of GDP from agriculture | 28 | 17 | 5 |
| Total fertility rate | 3.2 | 1.9 | 1.6 |
| Female adult illiteracy (\%) | 57 | 25 | 4 |
| Females as percent of labor force | 32 | 45 | 41 |
| Infant mortality rate | 70 | 31 | 9 |

Source: World Bank (2000/1).
We argue that the striking similarities in patterns of son preference stem from commonalities in the kinship systems in these settings, and that the local-specific explanations are only serve to reinforce the exigencies of the kinship system. A comparative approach also provides an opportunity to examine the reasons for the persistence of son preference, and how we might expect this to change as populations
shift from living in largely agrarian societies to the very different exigencies of the industrialized and urbanized modern world. ${ }^{1}$

This paper draws on our extensive fieldwork in these three countries and on secondary sources, including published official data. We begin by analyzing the patterns, levels, and trends in child mortality in these countries. We discuss the strong similarities in their family systems, which marginalize women very effectively, and the resultant social and economic pressures to bear sons. The kinship systems ensure that parents can benefit little from daughters and have strong economic incentives to prefer raising sons even if brideprice is paid rather than dowry, and even if adult women are economically very active. Although older women can gain much status and autonomy in the household, this can only be achieved at the cost of marginalizing the younger married women in the household. Finally, we discuss how urbanization and efforts by the state and civil society can help reduce discrimination against daughters.

## 2. . Levels, trends and patterns in the proportions of girls "missing"

There are strong parallels between China, India, and South Korea in their trends and patterns of discrimination against female children. Please note that we use the word "discrimination" for several phenomena that have quite different ethical and philosophical meaning. We use the same word because these phenomena are driven by the same underlying motivation, which is to have sons rather than daughters. This motivation leads people to discriminate between the sexes in very different ways:

- before conception, by continuing childbearing until reaching their desired number of sons and stopping after that. This is reflected in decisions to use contraception or to have an additional child, contingent on the sex composition of the children already born. This may have relatively little impact on the overall sex ratio of the population, since families with no sons will tend to have several daughters.
- during pregnancy, through sex-selective abortion. This is reflected in sex ratios at birth which are more masculine than the normal biological range of around 105106 boys for every 100 girls born.
- at birth, through sex-selective infanticide. This is often difficult to distinguish empirically from sex-selective abortion, since a high proportion of infanticide cases are unlikely to be reported as births. Thus this is also largely reflected in

[^0]elevated sex ratios at birth, rather than in sex differentials in recorded child survival.

- during early childhood, through neglect and other mechanisms, as reflected in higher mortality of girls than boys during infancy and early childhood.

For the present analysis we use the word "discrimination" for all of the above, because they are all motivated by the same desire to have more sons than daughters. They lead to an observed high juvenile sex ratio (i.e., an excess of male children relative to female children in a population), as compared with populations without strong son preference.

There is a shift from postnatal discrimination to prenatal discrimination as the accessibility of sex-selective technology improves (Goodkind 1996). The former is the method resorted to by people without physical or financial access to sex-selective technology, and the latter is the method of choice for those who have such access. South Korea today shows the highest level of sex-selective abortion, since their access to such technology is the highest. China presents a more mixed picture, with the bulk of discrimination taking place either before or at birth, but still showing some excess female mortality among reported births. India still has most of the discrimination after birth, though a shift towards sex-selective abortion is indicated by many studies. ${ }^{2}$

The availability of sex-selective technology may actually increase net proportions of girls "missing," rather than simply substitute for lower-technology methods, by making it easier to discriminate against girls. This is suggested by the fact that in both South Korea and China, sex ratios at birth started rising sharply around 1985, when sexselective technology began to become widespread. This is also of note because this date does not coincide with the enforcement of the one-child policy in China, which began at the end of $1979 .{ }^{3}$ Fertility decline and the availability of sex-selective technology both work to raise discrimination against female children.

[^1]Levels
Levels of excess female child mortality are quite high in these three countries (Table 2). ${ }^{4}$ Some of this results from sex-selective abortion, and is therefore not reflected in excess female child mortality after birth. In the case of South Korea, for example, the mortality statistics show no difference in survival by gender, although the juvenile sex ratios are excessively masculine because of sex-selective abortion.

Excess female child mortality is substantial as compared with the $0-4$ year mortality rate. How high it is relative to the $0-4$ year mortality rate depends of course on the level of excess child loss resulting from discrimination, as well as the level of 0-4 year mortality.

- South Korea. Child mortality levels are low and excess female loss is high, so prenatal discrimination creates more than double the child loss as child mortality.
- India. Child mortality rates are still very high, and son preference is especially strong only in the North of this culturally heterogeneous country. In India as a whole, discrimination accounts for about one-fifth of child mortality.
- China. The estimates of discrimination vary depending on whether we use the published sex ratio at birth for China from the 1990 Census or the adjustment carried out by Zeng and others (1993).Thus the estimates of child mortality due to discrimination lies between $49-75$ percent of the $0-4$ child mortality rate.

[^2]Table 2. Number of girls "missing" per thousand livebirths

|  | China <br> $1989-90$ | South Korea | India |
| :--- | :---: | :---: | :---: |
| No. of excess deaths age 0-4, per 1,000 <br> female livebirths | 13 | - | $1981-91$ |

Note: 1. Computed from the sex differential in recorded mortality, compared with West model life tables for the prevailing life expectancy.
2. Computed from the recorded sex ratio at birth, assuming a normal ratio of 106.

Source: Das Gupta (1999); sex differentials in mortality from Huang and Yan (1995) and sample Registration System of India; sex ratios at birth from 1990 Census of China (the lower estimates are based on Zeng Yi and others 1993 recalculation of the 1990 figures) and Park and Cho (1995); intercensal estimates for India from Das Gupta and Bhat (1997); and Child mortality rate (Lin and others 1996), Korean life tables (lower estimate) and vital statistics (higher estimates); International Institute for Population Science (1995) report on NHFS survey in India.

## Trends and patterns

The juvenile sex ratio (ratio of boys to girls) has been rising steadily since the 1960s in all three countries (Figure 1), showing that the manifestation of son preference is rising, as fertility has declined and sex-selection technology has improved. In all the three countries, juvenile sex ratios have risen in recent decades. However, we do not find this phenomenon in societies without strong son preference, such as in Southeast Asia. Clearly, fertility decline and the new technology are not causes of son preference-they merely intensify the manifestation of gender bias where this bias is already strong.

When fertility levels fall in a society with strong son preference, there is heightened pressure to remove daughters. For example in South Korea between 1959 and 1991, the ideal number of children fell from 5 to 2 , while the ideal number of sons fell from 3 to 1.2 (Choe and Han 1994). Although the proportion of sons desired remained constant, the number of daughters that could be accommodated within these ideal family sizes dropped sharply, from an average of 2 to 0.8 per couple. In fact, the room for tolerating daughters dropped even more sharply, because the most crucial requirement (both in the past and in the present) is to have at least 1 surviving son. Having two instead of three sons was far easier for couples in the past to accept than it is for couples today to accept having no sons instead of one son. Thus the consequences of not meeting
the full ideal number of sons are far more drastic when fertility declines-putting couples today under much more pressure to avoid having daughters. The Korean data indicate little evidence of a desire to have at least one daughter to balance out the sex composition of the family (Larsen, Chung, and Das Gupta 1998).

The pattern of discrimination against female children is similar in the three countries, in that it rises with the birth order of the child. The burden of excess female child mortality is concentrated on higher birth order girls. The sex ratio at birth in South Korea and China rises with birth order, reflecting increasing removal of females at higher birth orders (Choe 1987, Park and Cho 1995, Zeng and others 1993). In the case of China, data on sex ratios at birth by family composition permit an estimate of excess female child mortality by birth order, showing a pattern similar to that of Northwest India (Das Gupta 1987, Zeng and others 1993).

Figure 1. Juvenile (0-4 year) sex ratios in China, Republic of Korea,

India and Punjab, 1950-2000

01*


Notes: 1 . The figures for the year 2000 for China and the Republic of Korea will be updated when the data from their latest censuses become available. For now, we have put the estimated sex ratio at birth for China in 2000, and the United Nations projected child sex ratio for the Republic of Korea.
2. The data for India are from the 2001 Census of India.
3. All the other data are from the published censuses of these countries.

## 3. Cultural factors in son preference: the role of family systems

For all their other striking differences, Northern India, China, and South Korea have strong commonalties in their kinship system, which is rigidly patrilineal. Studies of son preference sometimes refer to patriarchy by way of an explanation, but we need to sharpen our understanding of what exactly this means and how it affects the way in which daughters are received in a family. Many societies are patriarchal, or to put it more precisely, patrilineal and patrilocal. Patrilineality includes passing on the main productive assets through the male line, while women may be given some movable goods in the form of dowry or inheritance. This constrains women's ability to sustain their economic level without being attached to a man. Patrilocality involves a couple residing at the man's home, which goes hand in hand with inheritance-especially in peasant societies where land is the main productive asset that is inherited.

This description would broadly fit many societies around the world. Why then is strong son preference manifested only in some societies and not in others? The answer to this lies in the extent of flexibility in the logic of patrilineal kinship. In much of peasant Europe, for example, there was considerable flexibility in the system. For example, women could inherit land if their parents had no sons, and the daughter and her husband would take over the property (Arensberg and Kimball 1968, Sieder and Mitterauer 1983). The household was thus reproduced, though not the father's lineage. This applied also in Japan (Nakane 1967). ${ }^{5}$ A fuller comparison of these Asian and European kinship systems and their theoretical and empirical ramifications has been developed in Das Gupta (1999).

In China, South Korea, and Northwest India, the logic of patrilineality is very rigid. For example, it would be extremely rare for a daughter to inherit land. A man without sons might adopt one from among the man's male kin, or take another wife or concubine. The driving motivation is to continue the family line by whatever means possible. Belonging to a lineage confers membership of society, so enormous importance is placed on the maintenance of genealogies, carefully recording lineage ties between men for generations on end. Of course, the kinship systems of these countries have many local variations, but their broad organizational logic has a great deal in common. Our focus is on the basic organizational logic of these kinship systems, which lies at the root of discrimination against daughters.

[^3]
## Kinship systems and the construction of gender

In China, South Korea, and Northwest India, the traditional social organization prevailing in the early decades of this century (and to a large extent also today in rural areas) was one in which clans had their own territories. Villages had their dominant clan (sometimes more than one), to which the majority of men belonged. Strict exogamy was maintained by these clans, so wives would be brought in from elsewhere. A strong sense of clanship pervaded the village, making men from other clans feel like interlopers. Such interlopers are referred to caustically as "wild ducks" (as opposed to home-grown ducks) in Northern China. ${ }^{6}$ A man who lives as a member of his wife's home is subject not only to humiliation, but also to the threat posed by other villagers who resent his usurping clan property.

Thus it is that only men constitute the social order, and women are the means whereby men reproduce themselves. Women are the biological reproducers, but it is through the father that a child acquires a social identity and is incorporated into the social order. Since only boys remain in the lineage, the significant social reproduction is that by the father of the son. Nowhere is this more apparent than in a genealogical record or in an ancestor worship hall: one can literally see each generation of men, and the generations of men to whom they gave rise. Women are recorded, if at all, only in the capacity of the wives of the men who gave rise to succeeding generations of men.

Men are the fixed points in this social order, and women are the moving points because lineages are strictly exogamous. When women marry they leave their home and lineage, to be absorbed into their husband's lineage. Neither in their father's nor their husband's lineage can a woman ever aspire to the central position which is the simple birthright of any male born into the lineage.

When she marries, a woman is perceived to have been permanently exported from the family: her "slot" in the household ceases to exist, and a new "slot" is created for incoming brides. In the rare cases when women do return, they and their parents have to struggle to make it work, because other members of the village resist the incursion on their property rights. This makes it difficult, for example, for a woman in rural China to return to live with her parents once she has been married and her land entitlement reallocated among village residents. ${ }^{7}$ This is also illustrated by our case-study from
6. Xie Zhenming, personal communication.
7. This is dramatically illustrated, for example; in the case of the kidnapped woman discussed in Zhang and Li (1993).

Northwest India, which records the plight of a separated woman who managed to live in her father's home ${ }^{8}$ :

Parmeshwari had serious problems in her husband's home, and returned to her own home. In another rare feat, she succeeded in bringing her infant son with her. Her widowed father was keen to protect his daughter, but his two sons disapproved of this and separated from his household, leaving him with a small share of the land for his own subsistence. He lived with his daughter and her baby. She worked very hard all day, cultivating the land and keeping cattle to make ends meet. A very energetic woman, she seemed never to rest from her work, always striding from one task to another. Her father looked after the child during the day.

Her neighbors, who were mostly her own relatives, were not obstructive to her but never included her in their circle. They treated her with some derision. What protected her was the fact that she worked so hard (no one could accuse her of being a financial burden), her loud and confident manner and readiness to defend herself and her child if challenged, and above all, her father's commitment to protecting her. By the time her father died, her son had grown and found a job, so his mother could have her son's protection.

This is in sharp contrast to the more bilateral kinship systems of Southeast Asia, in which relationships through both the male and the female line are recognized and actively used. As might be expected, there is little evidence of gender discrimination in Southeast Asian countries (Map 1). ${ }^{9}$ In South India, women are freer to maintain mutually supportive relationships with their parents even after marriage, which makes for lower son preference by reducing the difference between the value of a daughter and that of a son. ${ }^{10}$ This is reflected in regional differences in juvenile sex ratios in India (Map 2).

The less rigid construction of gender in the kinship systems in South India also makes it easier for women to act as independent social and legal entities. This is illustrated by many ethnographic accounts, as also by one of our case studies from the Southern State of Karnataka:
8. Das Gupta, fieldwork in Rampur, 1975-92.
9. See also Wongboosin and Ruffolo (1996), Soeradji and Hatmadji (1996).
10. Dyson and Moore (1983), Karve (1965), Kolenda (1987), Saavala (2001).

Lakshamma is the eldest of five sisters, they did not have a brother. When Lakshamma's parents died leaving three sisters still unmarried, she moved back to her parents' village with her husband. She sold some of her parents' land to pay for her sisters' marriages, and divided the rest between the sisters. When her second sister left her alcoholic husband and came back to her parents' village, she used some of her share of the property to set up a teashop near the village bus stop. This teashop has a flourishing business, and the sister has raised her daughter and son well, sending them to school and seeing to it that they studied hard.

The village as a whole was supportive of these women's actions, treating these women with respect and commending the eldest sister for her evenhanded division of the property. Neighboring households, who had known these women from childhood, were especially supportive.

Similar regional differences exist in China (Map 2), where some of the non-Han minorities with less rigidly patrilineal kinship systems show little or no son preference. The Tibetans in particular have very balanced sex ratios, having a kinship system in which females are not systematically marginalized (Levine 1988). The ethnic minorities in Yunnan, sharing cultural patterns with bordering societies of Burma and Thailand also show less strong son preference (Hua 2001), as do the Islamic groups in Western China. Other minorities, such as those in Guizhou, show as strong son preference as the Han, who constitute the overwhelming majority of China's population.

## Implications for the position of women and of girls

Once women are left out of the social order, they become dispensable essentially because they count for very little as individuals. When stresses arise for the household, women are the ones who have to yield so that men are protected from want. This is not to say that women are not valued in the household: they have value as vessels of procreation and for their labor contribution to the household.

Nor is there any simple relationship between the value of an adult woman as compared with that of a female child. In societies in which daughters are totally incorporated into the husband's household, the value of daughters to their parents can remain low, although adult women are very valuable to their husbands' families. If women's earnings rise, this benefits their husband's families, not their parents. This creates a gap between female children and women, in the way in which they are affected by recent changes in living conditions. For example, in all three settings adult women's
life expectancy has been rising steadily relative to that of men. Adult women have benefited from improvements in living conditions and social development, including education, better opportunities for employment and health care. At the same time, levels of excess female child mortality have been rising, as parents seek to ensure having sons.

A daughter's appropriate place is in her father's home only until she marries. Moreover, it is the norm for all girls to marry: there is very little scope for a grown woman to find a socially acceptable role as a resident of her family of birth, except as a visitor. Parents are under much social pressure to ensure that their daughters marry, as evidenced by the negligible proportions of women never-married in their thirties in the censuses of these countries. Daughters must leave and make way for incoming daughters-in-law.

There are thus some critical points of similarity in the nature of marriage between these three countries, which distinguish them from most other cultures. For example, in large parts of rural Europe it was completely acceptable, and even the norm, for grown daughters to remain single for many years and look after their parents or work on someone else's farm. ${ }^{11}$ Besides, marriage was a matter of the couple's own choosing, not a pressing responsibility of the parents as in these East and South Asian societies. Thus in Europe a shortage of available grooms would be more of a personal problem for a woman, not an intolerable situation for parents to avoid by whatever means possible including offering very high dowries and marrying girls to undesirable grooms.

## Shifts in power over the lifecycle

Women's status changes dramatically over the lifecycle (Das Gupta 1995). As a young bride and young mother, a woman has little intrinsic source of standing other than as the mothers of the future men of the lineage, as has been discussed above. But in the later stages of the lifecycle, women's power and autonomy in the household rise, and women gain fuller access to the household's resources. Margery Wolf (1972) has argued that in their old age, Chinese women wield the main authority in the household, while old men are relatively marginalized. Our ethnographic studies in Northwest India confirms this observation. Old men withdraw from household affairs and become increasingly shadowy characters, while their wives become the lynchpins of the home, managing their sons, their daughters-in-law, and the grandchildren.
11. See for example Sieder and Mitterauer (1983), Arensberg and Kimball (1968), and Das Gupta (1999).

However, this rise in women's autonomy in old age depends on having the support of grown sons. Without this, women can be very vulnerable (Cain 1981; Rahman, Foster, and Menken 1992). This a powerful force making for son preference, as well as to ensure that the sons are emotionally attached to the mother, becoming her firm supporters as they themselves grow in household stature. Women are careful to bind their sons to themselves through subtle webs of solicitousness and emotional manipulation. This has been noted in Northwest India:

The woman is careful to bind her sons to herself through various measures. She can be solicitous of their needs, the gentle nurturer who cooks foods they like. She can allow her sons to see how she suffers at the hands of her in-laws and even her husband. She can allow them to see how hard she works. She can be careful to communicate that all her sacrifices will be rewarded if her sons have successful lives, while also subtly communicating that she expects unquestioning loyalty from them in compensation for her sacrifices (Das Gupta 1995).

Very similar strategies for forming a strong mother-son bond are noted in China (Hsiung 1993, Wolf 1974). This is also a powerful motivation for marginalizing the son's bride, to ensure that the son's loyalties are to the mother above all. Unfortunately, the successful self-assertion of women in a such a kinship system is at the expense of younger women, which helps perpetuate the cycle of female subordination.

## The role of ancestor worship

In China and South Korea, ancestor worship adds another dimension to the need to have male offspring. In both these countries there are elaborate and explicit beliefs about the afterlife and the need for performing the rituals of ancestor worship in order to ensure the welfare of the departed souls. One's entire afterlife is at stake: without sons, grandsons and great-grandsons, one's afterlife is insecure. Not fulfilling one's filial duty to continue the family line constitutes a major dereliction of duty, and the consequence is that one's own soul and that of one's predecessors will become what in China is called "hungry ghosts." This is as important a filial duty as taking care of one's aged parents indeed, caring for ancestors is in many ways just an extension of caring for aged parents. To help ensure compliance, there is also a belief that angering the ancestors through unfilial acts can bring their wrath down on you in this life, bringing bad luck.

India has less elaborate rituals of ancestor worship, but male descendants are central for ensuring one's prestige during one's lifetime and after death, and also for
performing a series of funerary rituals. Especially in Northwest India, it is very important to achieve immortality in the form of having successfully left descendants to reproduce the social order and carry on one's family line. Without this, one is recorded in genealogies as the loser whose line died out, or worse still, not recorded at all and therefore condemned to oblivion.

Not all societies that practice ancestor worship should necessarily be expected to manifest son preference. It is important to distinguish which forms of ancestor worship generate a need to continue the male line. In China and South Korea, people worship their male ancestors in systematic recognition of their dead kin, and the obligation to care for the ancestors also falls systematically on their descendants. Other forms of ancestor worship do not emphasize the continuity of the male line. Several sub-Saharan societies fall into this category, since they worship ancestors on an ad hoc basis, selecting those who appear notable or powerful. In Japan also, people exercise choice as to which departed souls to care for (Smith 1974).

## Different rules of family segmentation

One difference in the kinship system of South Korea compared with China or Northwest India makes for a more pressing need in South Korea to have sons of one's own. In both Northwest India and China, sons are in principle equal, though the eldest son is viewed as the senior and therefore second in authority only to the father. They are expected to inherit equally. The principle of equality of brothers introduces an element of flexibility, in that it is possible for those without sons to be sustained in this life and the afterlife by their brothers' sons. If brothers co-reside, as is the ideal in the joint family system, such maintenance takes place with little need for adjustment within the family. Obviously it is far less preferred to be supported by brothers' sons, because the ties are more easily ruptured than with one's own son, but nevertheless the possibility exists.

By contrast, in South Korea brothers are not interchangeable. The custom is that the eldest brother inherits the largest share of the property and is responsible for taking care of the parents and ancestors. Therefore in each generation brothers separate from each other and explicitly form a new branch of the lineage. To receive support in this life and the afterlife, one has to have one's own son: a brother's son will not do. This inflexibility heightens the urgency of having a son of one's own: without this, one is destined to be a lost soul forever. This may help to explain why son preference has remained very strong despite the extensive social changes in the country.

The system is rigidly formal, requiring parents to be supported by the eldest son even if they might be more comfortable with another son. It is striking how much the eldest sons continue to be the main support for their parents-despite the socioeconomic transformation of the country, and residential mobility as sons go to work in other cities-of those supported by children, over half received support from the eldest son, while only 2 percent received support from daughters (Republic of Korea 1995: 231). In some cases parents depend on another son, if for example if the eldest does not have a son or is living in another city, but this represents a departure from the norm. Since the eldest son is supposed to be responsible not only for the parents but also for the ancestors, this places an additional source of pressure for them to have a son-and this is reflected in our analysis of survey data which show that the eldest son's wife has a significantly higher probability than other women, of having additional conceptions if she has not yet borne a son (Larsen, Chung, and Das Gupta 1998).

## 4. Economic factors influencing son preference

It is commonly argued that parents prefer sons because their perceived net value is higher than that of daughters. The argument is that sons can help on the family farm, and provide old age support to their parents-while daughters have much less to offer and can even be a major economic drain if their marriage expenses are high. These are the terms in which discrimination against daughters has typically been explained, at least in India and China. In India, discussion has focused especially on the high costs of dowry, while also noting the low levels of female labor force participation, the harsh realities of poverty, and the need for old age support. When asked about the reasons for son preference, Chinese respondents typically mention the fact that only men are strong enough to do the really hard work in the fields, and that sons are needed for old age support. Korean respondents take a less directly economic line of explanation, stressing more the need for continuing the family line.

The advantage of doing a cross-country study is that it helps throw light on which factors are basic to son preference and which are simply additional factors. We discuss each of the factors in turn, and conclude that economic factors serve only to add to discrimination and do not explain the underlying reasons for discrimination. Moreover, we argue that these economic factors are themselves culturally constructed, because they result from the logic of the kinship system. ${ }^{12}$
12. Kandiyoti (1991) has made the same argument in the context of Islamic societies.

## Old age support

The question of old age support is a good example of how kinship systems create economic incentives for son preference. Explanations of son preference place much emphasis on the fact that sons can provide old age support. It is certainly the case that in China, South Korea and India, sons do provide old age support. The majority of the old live with married children, and these are overwhelmingly sons. This would seem to be an important economic reason for wanting to have sons. The Korean data, for example, indicate that this factor is significantly associated with higher son preference after controlling for many socioeconomic factors (Larsen, Chung, Das Gupta 1998).

Whether only sons or also daughters can support their aged parents is, however, not dictated by economic considerations. It is a cultural construct, as shown by data on patterns of co-residence in Taiwan and the Philippines (Table 3). In both societies, parents live with unmarried children of both sexes, or one could say that unmarried children are still living with their parents. When it comes to living with married children, however, there are strong differences between the two countries. In the Chinese society of Taiwan (as in mainland China) it is rare to live with a married daughter, while in the Philippines parents are equally likely to live with a married daughter as with a son. Thus we have to go a step further back to understand why in some cultures only sons can perform this role, while in others both sons and daughters can do so.

Table 3. Percentage of men and women age $60+$ co-residing with children, by gender and marital status of the children, Philippines 1984 and Taiwan 1989

| Sex of elderly | Son | Unmarried daughter | Son | Married daughter |
| :--- | :---: | :---: | :---: | :---: |
| Philippines |  |  |  |  |
| Male | 85 | 79 | 29 | 24 |
| Female | 77 | 75 | 28 | 34 |
| Taiwan |  |  |  |  |
| Male | 73 | 70 | 55 | 5 |
| Female | 69 | 58 | 63 | 7 |

Source: Casterline, Chang, and Domingo (1993).

## Dowry

The costs of daughters' weddings are a major drain on household resources in India, and there is growing evidence of dowry inflation (Rao 1993). Indeed, advertisements for sex-selective abortion sometimes state that making a small expense on
an abortion today will save a large expense on dowry later. Although marriages entail some costs also for the groom's family, these are trivial compared to those for the bride's family. In India, dowry costs are indeed a major disincentive for raising girls.

However, this cannot be a complete explanation of why people prefer to have sons and discriminate against daughters. In China and South Korea, the net expenses of a son's marriage are estimated to be $3-4$ times higher than that of a daughter's marriage (Xie 1997, Bae 1996). Williamson (1976) reports that in Taiwan the costs were 4-5 times higher for boys than for girls. The parents of the groom have to buy or construct new housing for the couple, and bear the larger part of the other costs of marriage, including feasts. The bride's family provides some clothes and household items. If the bride's family is very wealthy and wants to show off their wealth, they can make more lavish outlays, but this is not a prerequisite for marriage as dowry has become in India.

It is especially telling that in India, too, brideprice has been prevalent in the past, ${ }^{13}$ and has co-existed with discrimination against daughters, as in China and South Korea. If people have to pay substantially more for sons' weddings than daughters' weddings, as they did in Punjab in the early twentieth century and still do in China and South Korea, they do not resent the expense because they feel the money remains within the family. By contrast, even small expenses on daughters feel like a net drain on household resources.

The need to pay high dowries cannot be an underlying cause of son preference in India, but it does add to the existing disincentives in the North for raising girls. Regional differentials within India suggest that the kinship system plays an important role in mediating the effect of dowry payments on the treatment of daughters. Although dowry is a heavy burden across India today, levels of discrimination against girls continue to be far lower in South India than in the North. ${ }^{14}$ This is because the kinship systems of the South offer more room for give and take between a married woman and her family of birth. This works to the advantage of both the parents and the daughters: the parents can hope to receive some physical and other support from their daughter, and the daughter can continue to receive support from the parents in case of need.

## Labor force participation: paid employment and the value of wives versus daughters

The main form of female labor force participation in agrarian settings is through women working on the family farm. However, data on this are notorious for under-
13. Imperial Gazeteer of India (1908:285), Bhat and Halli (1999), Rao (1993).
14. Caldwell, Reddy, and Caldwell (1983), Das Gupta and Bhat (1997), Rao (1993), Billig (1992).
reporting the extent of their participation are notorious. Women's work on the family farm tends to be discounted as merely an extension of their domestic work: little distinction is made between whether the woman did the harvesting or the cooking. This is further complicated by the fact that the extent of under-reporting is greater where women's position in the kinship system is more marginal. For example, official statistics show that the State of Haryana in Northwest India has an especially low rate of female labor force participation, but in fact women do almost all the manual labor on the fields . through the whole crop cycle, while men spend short periods of time ploughing with tractors and operating tubewells (Das Gupta 1987). Thus even if women are responsible for most of the actual labor input into agriculture, the production is perceived to be that of the men because they own the land and take the managerial decisions around it. In this context, it is important to note that respondents in China mentioned that serious efforts have been made to have families and communities explicitly recognize the economic contribution women make through their agricultural work (Xie 1997). For what the data are worth, there seems to be little relationship between rates of female labor force participation in different countries of Asia and son preference. ${ }^{15}$

Paid work is valued much more highly than work on the family farm, and this may be especially important for ensuring recognition of women's economic contribution in societies in which women's work tends otherwise to be discounted. Having paid employment is widely recognized to increase women's decision-making power within the household. However, the fact that adult women's status improves or that their perceived contribution to their household rises does not necessarily suggest that daughters will become more welcome to their families. As long as adult women continue to be rigidly part of their husband's families, as they traditionally have been in Northwest India, China and South Korea, they can contribute little to their parental family. Investing in daughters will continue to be perceived as investing in another family's daughter-in-law.

How rapidly the growth of women's paid employment translates into reduced son preference depends on the extent to which public policy enables women to contribute to their parents' well-being. In China, efforts in this direction have generated a growing trend for women to contribute to their parents' family, especially when they participate in the growing employment opportunities of the newly-industrializing market economy (Xie 1997). This radical departure from tradition is part of a general effort in Communist China to break longstanding age and gender hierarchies. By contrast, women have

[^4]participated extensively in paid work since the 1960s in South Korea, but conservative public policies slowed the potential for parents to benefit from daughters as well as sons.

## Poverty

There seems to be little evidence to support the hypothesis that the poor discriminate more against their daughters than the rich - the hypothesis being that sharper resource constraints force the poor to allocate resources to the more valued males. Census data from India show that in North India the higher castes (who tend to be richer) had more unbalanced sex ratios than the lower castes (Miller 1981, Das Gupta 1987). Similarly, district-level data from India and household-level data from South Korea suggest that if anything the rich discriminate more than the poor. ${ }^{16}$

However, all these analyses look at the relationship between gender discrimination and absolute economic differences between groups. There is evidence that resource constraint affects discrimination in another way: people increase the level of discrimination when they experience a tightening of circumstances relative to their own previous position. When people are impoverished by crop failure or other stress, they discriminate more heavily against girls. For example, war and famine raised the level of discrimination in China and South Korea in the middle of this century (Das Gupta and Shuzhuo 1999). Of course, one would only expect to find such an effect in a society with strong son preference - not in societies whose kinship systems make for more equal valuation of males and females.

## 5. The experience of son preference

Bearing sons is important in all these three countries, for a woman to gain standing in her husband's household. A woman's main source of standing in her husband's family is as the mother of the future men of the family. In Northern India for example, a woman is called " X 's mother." If the first is not a son she will be renamed as soon as she bears a son, because being called a boy's mother is much more prestigious than a girl's mother. For men, too, having a son brings full membership of society as he has now performed the critical function of social reproduction.

## South Korea

Of the three countries studied, South Korean parents seem to be under the greatest pressure to bear sons. Unlike China and India, in South Korea even highly-educated professional people who have only daughters describe this as a terrible tragedy. One senior academic has only two daughters, and has told them that when he dies they should give him a simple burial, not even troubling over his clothes. Since he has no descendants to tend him in his afterlife, there is little point in fussing over his funeral. Besides, he explained, daughters should not have to bear the expenses.

It is common for women to be mistreated if they do not have sons. The husband might take to drinking and womanizing, and maltreating the wife. His parents might put pressure of their own, and in the past they would ask their son to take a concubine, threatening if necessary to disinherit him if he did not have a son. Such stories abound in the interviews we conducted. Nor did one son suffice in the past, as illustrated by the story of a woman now in her seventies:

Although my first child was a son, my mother-in-law was very angry with me because the next three were daughters. Although I cooked rice for the family, my daughters and I were allowed only to eat millet. Feeling very guilty about bearing three daughters in a row, I felt I should be very obedient to my mother-in-law. I would wake up very early and do all the domestic work, work on the rice fields, feed the animals, and then weave until late into the night. I served my mother-in-law carefully, making sure never to sleep until she was comfortably asleep and could not need anything further. After my second daughter was born, she sent me off to work in the kitchen and the rice fields within days of the birth, not allowing the normal period of rest. My third daughter died. Later I had another son, but by then my mother-in-law had died.

When pressed as to why people did not want daughters, she said it was not because they were unproductive or needed dowries to get married:

No, women did a lot of hard labor in the fields and their marriage cost virtually nothing. People don't want daughters because they are not helpful to the family-they leave the family when they marry. Daughters are useless! Unworthy! It is sons who are able to inherit assets and keep the rituals of ancestor worship.

These forms of maltreatment are still common, though to a lesser extent than before. For example, it is now rare to take a concubine.

It is crucial for a daughter-in-law to keep her mother-in-law on her side, to minimize maltreatment if she is unable to have sons, and for domestic harmony as a whole. Sometimes mothers-in-law can be supportive, as illustrated by the following account given by a old woman of her daughter-in-law, who is in her forties now:

My daughter-in-law had six daughters in a row, and came close to being thrown out of the house by my son. When the third daughter was born, he removed the protective string placed on the threshold to repel evil spirits, and placed no further strings for subsequent daughters. I tried to reason with him, saying that a woman who can bear daughters can also bear a son. When the fourth daughter was born, he began to drink heavily and have relationships with other women. Though he did not actually beat her, he punished her by ordering her to resume cooking three days after giving birth. She cried every day. At the fifth daughter, he laughed harshly and said nastily: "Another daughter? Feel free to eat more, help yourself, take good care of yourself." The sixth daughter died three days after birth: he made no attempt to take her to a doctor, just as he paid little attention when the other daughters fell ill.

I tried various rituals to help her bear a son, but to no avail. Finally I found a shaman, who took her up a mountain to pray for a son, and that night she became pregnant and had twin sons.

It should be added that this woman was bearing these children before the spread of sex-selective abortion. Now people can avoid bearing a long string of daughters.

Both men and women suffer terribly in the absence of sons, though for somewhat different reasons. Men suffer private grief at their lineage coming to an end, a sense of having let down the ancestors, and fear of being untended in one's own afterlife. Thus it is not unusual for old men (comfortably supported in this life by their own savings and pensions) to visit clinics and ask nurses for information on how their daughter-in-law could bear a son. No amount of savings in this life can assure well-being in the next, in the absence of a son to carry out the necessary rituals. Aside from the grief and fear, there is also considerable public humiliation for men who do not have a son. It was commonly reported that other men taunt them. It is also said to be humiliating to appear in public places such as a public bath without a son.

For women, the suffering involves fear of rejection and mistreatment by the husband. Moreover, they feel terribly guilty not to have borne a son. As a woman doctor told us:

Every woman in Korea wants to have a son. Even though a lot of people are aware that the sex of the child is determined by the father, women still feel that if their husband had married some other woman, he might have had a son. A woman's domestic life is often badly affected if she does not have a son.

Until the recent change in the Family Law, even women who could afford to sue for divorce could not do so without losing custody of their children.

Ethnographic accounts from China, ${ }^{17}$ as well as our own interviews, show that in earlier decades women were subject to considerable stress within their family of marriage. In most ways women's position in the household was much like that in South Korea. A crucial difference, however, was that it was acceptable to adopt a son, preferably from the father's lineage (Hsu 1949) - reducing the stress to all of not giving birth to a son.

## India

Like their counterparts in China and South Korea, young married women in North India have to wake.up before anyone else in the household and start all the domestic chores (Das Gupta 1995). They, too, have to serve their mother-in-law well, being careful not to incur their wrath or dissatisfaction. At the end of the day the mother-in-law must be tended before going to sleep. Even after the advent of electric grinding of wheat, many households continued to demand that their young wives wake up long before dawn to grind flour by hand, just to make sure that they understood their position in the household.

Here too it is very important for a woman to have a son to give her standing in the household and community. As a young woman she will have limited bargaining power vis-à-vis her mother-in-law and others in the household, and as an old woman she will be vulnerable without a son to offer his protection. It is unusual for men to take a second

[^5]wife if their wife does not have a son, but if this happens the first wife's position in the household is relegated to that of domestic help.

Yet the pressures to bear a son are softened by the fact that a man's brothers' or cousins' sons can substitute for his own, as shown in our case study from Northwest India:

Shortly after I was married, I had two daughters spaced three years apart. After that it was thirteen years till my next birth. This turned out to be a boy, and my husband's family celebrated greatly, distributing a lot of sweets and presents. Even now, if the boy is sick his father stays up all night fanning him. Five years later I had another daughter, and that was my last birth.

My husband was certainly very anxious to have a son, and I tried many medicines to bear one. But no, he did not maltreat me although for a long time it seemed that I would never have a son. His brother had two sons, and that gave him a lot of satisfaction. Some of the neighbors teased me sometimes, but it was alright because I was not childless after all...They called me the mother of my eldest daughter. Now, of course, they call me the mother of my son, and my status is transformed as a consequence.

## 6. Forces of change

To reduce discrimination against girls, it is critical to have policies that raise the value of girls to their parents, relative to boys. It is not enough to hope that policies aimed more generally at raising the status of women will be equally effective at reducing discrimination against girls. As long as daughters continue to be totally absorbed into their husband's home and cannot contribute to their parents' welfare, son preference will continue to persist even though adult women are integrated into education and formal employment. For example in China, there has been much emphasis on gender equality, but far less effort to alter the fundamentals of the family system in order to make daughters and sons more equally valuable to their parents. In fact, it has been useful for the state to encourage the continuation of those aspects of the kinship system which assure stable customary family residential patterns, with clear expectations that women will care for their husbands' parents, their children and other family dependents-thereby helping maintain social stability and relieving the state of the burdens of caring for the
old, the young, the sick and the unemployed. ${ }^{18}$ Thus the situation of women has improved but discrimination against girls persists.

This is especially evident from the experience of South Korea, where the emphasis has been on raising incomes (including that of women), and relatively little effort has been spent on ensuring gender equality for its own sake. Women's lives have thus improved dramatically in material ways but their position in the family has changed very much less. Standards of living have improved, along with technological innovation in domestic work. In terms of health women have benefited enormously from rapid improvement in maternal and child health, as well as general health care which has given them among the greatest longevity in the world. Education is virtually universal (Table 1) and women's participation in formal sector employment has also risen steadily (Table 4).

Table 4. Women workers as percent of total workers in each occu pation group, South Korea, 1993

| Occupation group | Percent |
| :--- | :---: |
| Legislators, senior officials and managers | 5 |
| Professionals and technicians | 32 |
| Clerks | 50 |
| Sales and service | 58 |
| Agriculture and fishery | 46 |
| Plant and machine operators | 23 |
| Other | 35 |
| Total | 40 |

Source: Korean Women's Development Institute 1995: 163-5, based on National Statistical Office, Annual Report on Economically Active Population Survey (1993-5).

There are, however, some important forces of change at work, which increase flexibility in the kinship system and thereby help equalize the value of sons and daughters.

## Urbanization

The organization of urban life differs enormously from that of rural areas, reducing the centrality of sons in their parents' lives. Customary rules of inheritance are most inflexible regarding immovable clan assets such as land, and customary rules of post-marital residence are most inflexible in rural areas where clan exogamy is typically synonymous with villagee exogamy. By contrast, urban parents and their daughters can

18 See Das Gupta and others (2000) for a fuller discussion of this.
give each other much more financial, emotional and physical support. Sons-in-law also interact with them and can sometimes be called upon for assistance. Moreover, sons' employment may take them to a city other than that of their parents.

Whether urban parents derive support from a child often depends more on who lives in the same city and the nature of their relationship, than on the sex of the child. This is critical to making daughters less of a drain and more of an asset as compared with sons. Besides, older people in urban areas have typically worked in jobs that give them pensions and health care coverage, reducing their need for financial support from their children. Going against this trend is the continued need for sons to support them in their afterlife-as no earthly pension system can take care of this need.

Empowering adult women certainly helps set the stage for a higher valuation of daughters, even if separate strategies have to be adopted in order to increase the value of daughters more directly. Decades of urbanization with concomitant social change, as well as female education and employment seem to be having some impact on the pressure to have sons. In South Korea, a small but growing proportion of husbands are accepting of their wives even if they do not bear a son:

My husband's youngest sister was supported by her husband although she had only two daughters. They decided to get sterilized because they felt they could not afford to raise more children. The husband's parents were terribly angry about this, but they could not say anything much since it was their son who took the decision. A few young couples now are able to bear the pressure of not having a son.

In Shanghai, the sex ratios have become fairly normal, in stark contrast with evidence of heavy discrimination against females around 1900 (Xin 1989).

The market reforms in China since the early 1980s may have reduced the disincentive to have daughters. Girls can now earn wages, and while they are unmarried their earnings contribute to their parents' household expenses and their wedding expenses. If they continue to earn wages after marriage, they are also better placed to help their parents even after leaving home.

However, the market reforms may also be contributing to reinforcing women's marginalization. Firstly, women in the new market economy are not protected as they were before, and are vulnerable to being terminated when they marry or have children. Secondly, the boom in commerce and trading has revived traditional ways of forming
business networks and contacts through family and personal connections. Women are consequently disadvantaged, because they lose their father's lineage networks when they marry, and it takes time for them to develop new connections based on their husband's family connections.

Government officials and villagers whom we interviewed in the economically booming coastal province of Zhejiang pointed out other ways in which the new market economy has contributed to increasing the manifestation of son preference. Clans have begun to function once again as organizations which provide their own with protection and assistance in exploiting the newfound business opportunities. And of course subscribing to clan ideology puts a heavy premium on having sons to perpetuate and strengthen the clan. They also said that when people become richer they become more concerned with having a son to pass on their wealth. In the collective farming period, clan and kinship ties were of relatively little economic significance.

## Social and legal reform movements

In China and India, the early twentieth century was a period of intense questioning of many aspects of the social order. Gender hierarchies were one focus of this rethinking, as reflected in social movements and literature written for raising social consciousness in the early decades of this century. Like Tagore and his contemporaries in India, major literary figures such as Lu Xun wrote explicitly about the problems generated by the family system, especially for women. In India, this process was incorporated into the popular movement for independence, helping disseminate the radical social messages very widely. As a result, the concept of gender equality is firmly established in civil discourse, and women's movements have flourished as a major force of change. While the gains to women from these efforts are not as dramatic as those achieved through state intervention in East Asia, the fact that they emanate from civil society means that they are also less subject to reversal. ${ }^{19}$

In China, the process of social change was interrupted by the civil wars and invasions which dominated the first half of the twentieth century. After 1950, the Communists' ideological commitment to gender equality resulted in much effort to improve the situation of young women vis-à-vis their mothers-in-law and husbands. The difference between the sexes was de-emphasized, even in clothing. Women gained much freedom of movement and visibility in local official positions. Women's contribution to

19 The role of public policy in shaping women's autonomy is discussed further in Das Gupta and others. (2000).
production, even in agriculture, was explicitly recognized. It is instructive, though that these changes take a long time to effect: in rural China the authorities are still emphasizing the importance of women's contribution to production. During the decades of strict Communist control, they also sought to eradicate ancestor worship-but many people continued to quietly leave some food in their home for their ancestors, and as soon as the control was loosened people went back to more public manifestations of their customs.

The thrust of these efforts was to make people aware, as Mao put it, that "Women hold up half the sky." By this we assume that he meant that women should be perceived as having a social and legal persona, so that they could be full-fledged social actors and have their social contribution formally recognized. Yet for all his efforts at raising the status of women, Mao did not alter the basic rules of kinship. The rules of residence in rural areas continued to be that men stayed in their father's village, and women went to their husbands' homes at marriage. Even today village land is allocated according to these rules, deleting a daughter's share of land on her marriage and granting her a share in her husband's village. Thus although women's situation is enormously improved in modern China, girls continue to be marginal to their parents' family and their birth continues to be unwelcome. In urban areas, where the exigencies of life break these traditions, gender discrimination has decreased.

Especially in rural China, it is still a tragedy for people if they do not have a son. A woman without a son is vulnerable to terrible taunts by others in her community, for example in the course of an altercation, and she suffers much loss of face as a result. Nevertheless, very considerable improvements have been achieved in women's position in the household. As a result, women who fail to bear a son are likely to be subject to far less maltreatment today than their counterparts in South Korea. This is illustrated by the following story of a man now in his early fifties:

When my child was born and it turned out to be a girl, I was so disappointed that I flung my cigarette out of the window. I did not dare to tell my father about it, though of course he guessed the truth from my silence. My wife was so upset that she did not want to care for the child, and I had to persuade her to nurse it. I always regretted not having a son. Some years later, my cousin sister found a boy from my home area for me to adopt, but my wife would not hear of it. She said she was too busy with her work to be bothered to look after a small child again. My father has become resigned to this now, and so have I, but when I got my first personal computer I said "This is my son."

Legal changes can be highly effective in increasing women's voice. In India, for example, women have become much more active in public fora since the recent legislation requiring that one-third of panchayat (grassroots administration) positions should be composed of women. In China too, the state has striven to bring women into the public sphere and reduce their in-laws' hold over them, as illustrated by the casestudy of a woman who was married shortly before the revolution:

My mother-in-law was a very harsh woman... I had to serve her hand and foot. In the morning I had to wake up and begin work before she woke up. I also had to empty her chamberpot in the morning. Then I worked all through the day, and could only go to sleep after she did...

My first child was a son, but she would not let me hold him. She insisted that I just lie him flat on the bed and leave him alone all day while I worked. She would not let me eat rice, only inferior grains...

When the Communist youth meetings began in the village, I attended a couple of them. They made me feel as though I had some group to which I belonged which was outside my husband's household. But my mother-inlaw forbade me from going to any more meetings, and I did not dare oppose her.

Persistent efforts to bring young women out of their homes to participate in these meetings bore fruit in the face of resistance, and helped transform women's lives simply by allowing them to function as part of a large group

Korean feminists recognize the need to alter the position of women in the family, and they place much emphasis on the need to revise the Family Law. After many years of debate, some changes were made in the Family Law in 1989. These changes open up the possibility of women being able to have custody of children after divorce; encourage equal inheritance of sons and daughters; allow the eldest son to relinquish family headship; and allow recognition of blood ties up to the same generational distance on both the mother's and the father's side. The nature of the changes may seem bizarre to Western feminists, but for Korean feminists the main point is to increase the recognition of women as social actors. Their case for gender equity was strengthened by the state's concern about the potentially negative social repercussions of a shortage of women.

## The role of the mass media

The mass media can be a powerful tool of social engineering, within the context of a broader process of social and legal reform. ${ }^{20}$ The state-run television and radio in India and China has sought to use this to raise awareness of the problems and constraints facing women, and to project images of women who are able to take charge of their lives at home and at work. They have also sought to use the media to disseminate information about women's legal rights and how to try to enforce them. In addition to these efforts at bringing about greater gender equity in social values, much more can be done to reduce son preference by tackling the more specific issue of making sons and daughters more equally valuable to their parents. For example, soap operas can be used to portray women (and also their husbands) helping her parents, emphasizing that this is socially acceptable. Parents can be shown dividing inheritance equally between children of both sexes The fact that the relationship with a daughter is often emotionally more rewarding can be emphasized, and parents can also be portrayed living with married daughters.

## 7. Conclusions

What factors are responsible for son preference, and why is it so persistent in the face of sweeping economic and social changes? Why does a highly urbanized society such as South Korea manifest the same patterns of gender bias as the more agrarian societies of China and India? To understand this, a cross-country comparison is very useful because it indicates which factors are central to the problem. These three settings have strong similarities in their family systems, which are strongly patrilineal. Women are effectively marginalized in the social order. This is one of the most fundamental aspects of their culture, capable of persisting despite rising incomes, education, and urbanization.

We have argued that despite local variations on the ground, these kinship systems have a common organizational logic which generates son preference. It is interesting to note that variations in the kinship systems confirm the theoretical implications of their common organizational logic. For example, South Korea has different rules of family segmentation from China and Northwest India, placing the burden of continuing the family line more squarely on the shoulders of the eldest son, and this is reflected in the eldest son empirically manifesting stronger son preference than other sons.

[^6]These kinship systems generate a critical dichotomy between the value of a girl to her parents and her value to her husband's family. As long as the custom persists for women and their future productivity to be totally absorbed by their in-laws, parents are likely to perceive daughters as a drain and prefer to raise sons. Women can contribute little to their parents' welfare, so even when levels of women's education and formalsector labor force participation increase, the fruits of these go to her husband's home. Even though women can gain considerable power in the household in their old age, this depends on having sons who support their mother's voice in the household at the expense of their own wives. In short, the vulnerability of women in these settings is well-designed for reinforcing and perpetuating itself with little need for direct reinforcement from the male world. This is a vicious twist to what Kandiyoti $(1988,1998)$ has termed the "patriarchal bargain."

We also argue that the economic pressures for son preference are culturally induced. If people have to pay large dowries to get their daughters married, this is just an additional factor in the equation-the levels of "missing girls" are high even when brideprice is the norm as in China and South Korea today and in Northwest India in the early twentieth century. The fact that sons are the main source of old age support is clearly culturally determined, as there is no intrinsic reason why parents cannot seek such support from their daughters as they do elsewhere in Asia. Nor can adequate pensions and savings offer peace of mind for one's old age, as long as people believe that they will be "hungry ghosts" in the afterlife unless sons provide the necessary rituals.

Efforts to raise the status of women as a whole are a somewhat indirect route to reducing son preference, because of the dichotomy between the value of a girl to her parents versus that of a woman to her in-laws. Increasing female education and paid employment gives women greater ability to function independently and offer support to their parents. However, the speed with which this will reduce son preference can be greatly accelerated if measures are also taken to make it socially acceptable for daughters to help their parents. What is required is to reduce the incentive to discriminate against girls by making daughters and sons more equally valuable to their parents. This can be left to take place naturally with the cumulative effect of decades of urbanization on family arrangements, but for societies like China and India which are still heavily agrarian this would be a very slow process. Fortunately, much can be done to accelerate the process of reducing son preference through social movements, legislation, and the mass media.

## Bibliography

The word "processed" describes informally reproduced works that may not be commonly available through library systems.

Andors, Phyllis. 1983. The unfinished liberation of Chinese women, 1949-1980. Bloomington: Indiana University Press; Brighton, Sussex: Wheatsheaf Books.
Arensberg, Conrad and S. T Kimball, 1968. Family and Community in Ireland, 2nd edition, Harvard University Press.
Arnold, Fred, and Liu Zhaoxiang. 1986. "Son preference, fertility and family planning in China." Population and Development Review 12(2): 221-46.
Bae, Hwa-Ok. 1996. "Son Preference in China, South Korea and India: trends, causes and policy implications." Transcript of field interviews conducted for the project and funded by the United Nations Population Fund.
Basu, Ananya, and Monica Das Gupta. 2002. "Family Systems and the Preferred Sex of Children." In Jan Hoem, ed., International Encyclopedia of Social and Behavioral Sciences. Abstract available at http://www.iesbs.com/>
Bhat, P. N. Mari, and Shiva S. Halli. 199 9. "Demography of brideprice and dowry: causes and consequences of the Indian marriage squeeze." Population Studies 53(2, July): 129-48.
Bhat, P. N. Mari 1998. "Contours of Fertility Decline in India." In G. Martine, M. Das Gupta and L. C. Chen, eds.,Reproductive Change in India and Brazil. Oxford University Press.
Billig, Michael. 1992. "The marriage squeeze and the rise of groomprice in India's Kerala State." Journal of Comparative Family Studies 23(2): 197-216.
Booth, B.E., M. Ver ma, and R. S. Beri. 1994. "Fetal sex determination in infants in Punjab, India: correlations and implications." British Medical Journal 309: 1259-61.
Cain, Mead. 1981. "Risk and Insurance: perspectives on fertility and agrarian change in India and Bangladesh." Population and Development Review 7: 435-74.
Caldwell, John C., P. H. Reddy, and Pat Caldwell. 1983. "The causes of marriage change in South India." Population Studies 37(3): 343-361.
Casterline, John B. ,M. C. Chang and Lita Domingo. 1993."Which children co-reside with elderly parents? A comparative analysis of the Philippines and Taiwan." paper presented at the annual meeting of the Gerontological Society of America, New Orleans, November 1993.
Centre for Monitoring the Indian Economy. 1987. District-level Data for Key Economic Indicators with 70 Maps, Bombay Centre for Monitoring the Indian Economy.
Choe, Minja Kım. 1987. "Sex differentials in infant and child mortality in Korea." Social Biology 34: 1225.

Choe, Minja Kim, Guo Fei, Wu Jianming, and Zhang Ruyue. 1992. "Progression to second and third births in China: patterns and covariates in six provinces." International Family Planning Perspectives 18(4): 130-36.
Choe, Minja Kim, and Seung-Hyun Han. 1994. "Family size ideal and reproductive behaviour in South Korea." Paper presented at the IUSSP Workshop on Abortion, Infanticide and Neglect in the Asian Past, Kyoto, Japan. Processed.
Choe, Minja Kim, Ian D. Diamond, Fiona Steele, and Seung Kwon Kim. 1995. "Son preference, family building process, and child mortality." In UN Secretariate, ed. Too Young to Die: Genes or Gender. ST/ESA/SER.A/155, 1998, 208-222.

Coale, Ansley J., and P. Demeny. 1966. Regional Model Life Tables and Stable Populations. Princeton University Press.
Coale, Ansley, and Judith Banister. 1994. "Five decades of missing females in China." Demography 31(3): 459-80.
Croll, Elisabeth. 2001. Endangered Daughters Discrimination and Development in Asia. Routledge.
Das Gupta, Monica 1987. "Selective discrimination against female children in Punjab, India." Population and Development Review 13(1): 77-100.
Das Gupta, Monica 1995. "Life Course Perspectives on Women's Autonomy and Health Outcomes." American Anthropologist 97(3): 481-91.
Das Gupta, Monica. 1998. "Missing girls in China, South Korea and India: causes and policy implications." Harvard University Center for Population and Development Studies Working Paper 98-03. Cambridge, Mass.
Das Gupta, Monica, and P. N. Mari B hat. 1997. "Fertlity decline and increased manifestation of sex bias in India." Population Studies 51(3): 307-15.
Das Gupta, Monica, and Li Shuzhuo. 1999. "Gender bias in China, South Korea and India 1920-1990: the effects of war, famine and fertility decline." Development and Change 30(3): 619-52, Special Issue on Gendered Poverty and Wellbeing (ed. Shahra Razavi).
Das Gupta, Monica. 1999. "Lifeboat versus Corporate Ethic: Social and Demographic Implications of Stem and Joint Families." Social Science and Medicine 49(2):173-84.
Das Gupta, Monica, Sunhwa Lee, Patricia Uberoi, Danning Wang, Lihong Wang, and Xiaodan Zhang. 2000. "State Policy and Women's Autonomy in China, India, and the Republic of Korea, 19502000: Lessons from Contrasting Experiences." Policy Research Working Paper 2497 (November). World Bank, Washington, D.C. (available at http://econ.worldbank.org/view.php?type=5\&id=1307)

Das Gupta, Monıca, Jiang Zhenghua, Xie Zhenming, Li Bohua, Nam-Hoon Cho, Woojin Chung and P. N. Mari Bhat. 1997. "Gender bias in China, South Korea and India: Causes and Policy Implications." Report submitted to the United Nations Population Fund. Processed.
Department of Population Statistics, State Statistical Bureau, China. 1988. China Population Yearbook 1988. China Statistical Press, Beijing, China.

Department of Population Statistics, State Statistical Bureau, China. 1985. 1982 Population Census of China. China Statistical Press, Beijing, China.
Department of Population Statistics, State Statistical Bureau, China. 1993. Tabulation of the 1990 Population Census of China. China Statistical Press, Beijing, China.
Department of Population Statistics, State Statistical Bureau, China. 1997. Tabulation of the 1995 National One Percent Sample Survey. China Statistical Press, Beijing, China.
Economic Planning Board of Korea. Population and Housing Census, 1960, 1970.
Dyson, Tim, and Mick Moore. 1983. "On kinship structure, female autonomy and demographic behavior in India." Population and Development Review 9(1): 35-60.
Fried, Morton. 1969 [1953]. Fabric of Chinese society: a study of the social life of a Chinese county seat, $2^{\text {nd }}$ ed. New York: Octagon.
Gates, Hill. 1996. China 's Motor: A Thousand Years of Petty Capitalism. Ithaca and London: Cornell University Press.
Goodkind, Daniel.1996. "On Substituting Sex Preference Strategies in East Asia: Does Prenatal Sex Selection Reduce Postnatal Discrimination?" Population and Development Review 22(1): 111-25.
Hsiung, Pingchen. 1993. "The Formation of Mother-Son Bond in Traditional China." Processed.

Hsu, Francis L. 1949. Under the Ancestors Shadow. London: Routledge and Kegan Paul.
Hu, Hsien-chin. 1948. The common descent group in China and its functions. New York: Viking Fund.
Hua, Cai. 2001. A Society without Fathers or Husbands: The Na of China. Zone Books.
Huang, Rongqing, and Liu Yan. 1995. Mortality Data of China. Beijing: China Population Publishing House.
Imperial Gazeteer of India Vol. XX, Oxford: Clarendon Press, 1908.
International Institute for Population Science (IIPS). 1995. National Family Health Survey (MCH and Family Planning), India 1992-93. Bombay: TIPS.
Joshi, B. L. 1997. "Female status in rural Punjab, India." Paper presented at the workshop on Son Preference in China, South Korea and India: trends, causes and policy implications." Harvard University, Cambridge, Mass. February 1997.
Kandiyoti, Deniz. 1988. "Bargaining with Patriarchy." Gender and Society 2:3
Kandiyoti, Deniz. 1991. "Islam and Patriarchy: A Comparative Perspective." In Keddie and Baron, eds., Women in Middle Eastern History. New Haven: Yale University Press.
Kandiyoti Deniz. 1998. "Gender, Power and Contestation: Rethinking bargaining with patriarchy." In C. Jackson and R. Pearson, eds., Feminist Visions of Development: gender analysis and policy. London: Routledge.
Karve, Irawati. 1965. Kinship Organization in India. Bombay: Asia Publishing House.
Kolenda, Pauline. 1987. Regional differences in family structure in India. Jaipur: Rawat Publications.
Kessinger, Tom. 1974. Vilyatpur 1848-1968: Social and Economic Change in a North Indian Village. Berkeley: University of California Press.
Kim, Son-ung. 1981. "Population policies in Korea." In Robert Repetto,T ae Hwan Kwon, Son-Ung Kim, Dae Young Kim, Peter J. Donaldson. Economic Develop ment, Population Policy, and Demographic Transition in the Republic of Korea. Cambridge, Mass.: Council on East Asian Studies, Harvard University.
Kim, Mo-Ran. 1995. "A study of marital transaction in Korea." Korean Journal of Sociology 29(3):533-58.
Korean Women's Development Institute. 1995. Statistical Yearbook on Women 1995. Seoul: Korean Women's Development Institute.
Krishnaji, N. 1987. "Poverty and sex ratio: some data and speculations." Economic and Political Weekly 6(June).
Kwon, Tae-Hwan, Hae Young Lee, Yunshik Chang, and Eui-young Yu. 1973. The Population of Korea. Seoul: The Seoul National University.

Kwon, Tai-Hwan. 1977. Demography of Korea: population change and its components 1925-66, Seoul: Seoul National University Press.

Larsen, Ulla, Woojin Chung, and Monica Das Gupta. 1998. "Fertility and Son Preference in Korea." Population Studies 52(3): 317-25.
Levine, Nancy. 1988. The Dynamics of Polyandry: kinship, domesticity and population on the Tibetan border. Chicago: University of Chicago Press.

Li, Jiang-hong, and William Lavely. 1995. "Rural economy and male marriage in China: Jurong, Jiangsu 1993." Journal of Family History 20(3): 289-306.

Lin, Liangmin et al. 1996. "An Analysis on Infant and Child Mortality of China in 1991." Population Research 20(4): 50-56(in Chinese).

Lu, Zhenglai. 1994. "Some hints for rural women working outside." Zhung Guo Fu Nu August 1992 (in Chinese).

Mason, Karen. 1995. "Is the situation of women in Asia improving or deteriorating?" Asia-Pacific Research Reports No. 6. Honolulu: East-West Center, Program on Population.
Miller, Barbara. 1981. The Endangered Sex: neglect of female children in rural North In dia. Ithaca: Cornell University Press.
Murthi, Mamta, A. Guio, and J. Dreze. 1995. "Mortality, fertility and gender bias in India, a district-level analysis." Population and Development Review 21 (4): 745-82.
Nakane, Chie. 1967. Kinship and Economic Organization in Rural Japan. London: Athlone Press.
Operations Research Group. 1990. Family Planning Practices in India: Third All India Survey, Baroda: Operations Research Group.
Park, Chai-Bin, and Nam-Hoon Cho. 1995. "Consequences of son preferences in a low-fertility society: imbalance of the sex ratio at birth in Korea." Population and Development Review 21(1): 59-84.
Pebley, Ann, and Sajeda Amin. 1991. "The impact of a public health intervention on sex differentials in childhood mortality in rural Punjab, India." Health Transition Review 1: 143-69.
Premi, Mahendra K. 2001. "The missing girl child." Economic and Political Weekly, May 26.
Preston, Samuel H., ed. 1978 . The Effects of Infant and Child Mortality on Fertility. New York: Academic Press.
Rahman, Omar, Andrew Foster, and Jane Menken. 1992. "Older Widow Mortality in Rural Bangladesh." Social Science and Medicine 34: 89-96.
Rao, . 1993. "Dowry inflation in rural India: a statistical investigation." Population Studies 47(2): 283-93. Registrar General of India. Census of India, 1951, 1961, 1971, 1981, 1991.
Registrar General of India. 1985. Estimates of vital rates for the decade 1971-81 and analysis of the 1981 census data. Paper 1 of 1985, New Delhi.
Registrar General of India. 1995. SRS based abridged life tables 1988-1992. Occasional Paper 4 of 1995, New Delhi.
Republic of Korea. 1995. Annual Report on the Vital Statistics 1994. National Statistical Office, Seoul.
Republic of Korea. Population and Housing Census, 1980, 1990. National Bureau of Statistics and Economic Planning Board, Seoul.
Republic of Korea. 1993. Social Indicators in Korea 1993. National Statistical Office,S eoul.
Republic of Korea.1995. Social Indicators in Korea 1995. National Statistical Office,Seo ul. Ren, Xinhua Steve. 1996. "Regional variation in infant survival in China." Social Biology 43(1-2): 1-19.
Saavala, Minna. 2001. Fertility and Familial Power Relations Procreation in South India. Routledge Curzon.
Sieder, Reinhard, and Michael Mitterauer. 1983. "The reconstruction of the family life course: theoretical problems and empirical results." In Richard Wall, Peter Laslett, and Jean Robin, eds., Family Forms in Historic Europe. Cambridge University Press.
Smith, Robert. 1974. Ancestor Worship in Contemporary Japan. Stanford: Stanford University Press.
Soeradji, Budi, and Sri Harijati Hatmadji. 1996. "Ethnic differentials in son preference in Indonesia." In Sex Preference for Children and Gender Discrimination in Asia. Seoul: Korea Institute for Health and Social Affairs.
Visaria, Pravin. 1969. "The Sex Ratio of the Population of India." Census of India 1961. Vol. 1, Monograph No. 10.
Vlassoff, Carol. 1990. "The Value of Sons in an Indian Village: how widows see it." Population Studies 44:520.

Williamson, Nancy 1976. Sons or Daughters? Beverley Hills, California: Sage Publications.
Wolf, Arthur, and Chieh-Shan Huang. 1980. Marriage and Adoption in China 1845-1945. Stanford: Stanford University Press.
Wolf, Margery. 1972. Women and the Family in Rural Taiwan. Stanford: Stanford University Press.
Wolf, Margery. 1974. "Chinese Women: Old Skills in a New Context." In Michelle Z. Rosaldo and Louise Lamphere, eds., Woman, Culture and Society. Stanford: Stanford University Press.
Wolf, Margery. 1985. Revolution Postponed: Women in Contemporary China. Stanford: Stanford University Press.
World Bank. 1992 World Development Report 1992: Development and the Environment. Washington, D.C.

World Bank. 1997. World Development Indicators 1997. Washington, D.C.
World Bank. 2001 World Development Report 2000/2001: Attacking Poverty . Washington, D.C.: World Bank.
Wongboosin, Kua, and Vipan Prachuabmoh Ruffolo. 1996. "Family size desires and sex preferences for children in Thailand." Sex Preference for Children and Gender Discrimination in Asia. Seoul: Korea Institute for Health and Social Affairs.

Xie, Zhenming. 1997. "Demand of childbearing of Chinese farmer and its changes in Zhejiang Province, China." paper presented at the workshop on Son Preference in China, South Korea and India, Harvard University, Cambridge MA., February.
Xin Long. 1989. "The high sex ratio in the modern population of China." (in Chinese). Processed.
Yao, Xinwu and Yın Hua. 1994. Basic Data of China 's Population, Beijing: China Population Press.
Zeng, Yi, Tu Ping, Gu Baochang, Xu Yi, Li Bohua, and Li Yongping. 1993. "Causes and implications of the recent increase in the reported sex ratio at birth in China." Population and Development Review 19(2): 283-302.
Zhenghua, Jiang. 1997. "Women's position in the context of population and development in China." Paper presented at the workshop on Son Preference in China, South Korea and India, Harvard University, USA, February 1997.
Zhang, Hua, and Xiaojin Li. 1993. "Rescue action in Taihang mountain." Min Zhu Yu Fa Zhi December (in Chinese).

Map 1: Juvenile Sex Ratios in Africa, Asia, and Latin America, 2000


## Map 2: Juvenile Sex Ratios in

 Provinces of China and States of India, 1990-91Sources: Consus of India, 1991; Fourth Nationd Population Census of China, 1990 .

This map was produrad by the Map Design Unit of The World Banks. the boundaries, colors, denominations and any other information shown on his map do not imply, on the part of the Wordd Bank
Group, any iudgment on the legal stalus of any ternitary, or any
endorsement or accepptonce of suct boundaries.

|  | Title | Author | Date | Contact for paper |
| :---: | :---: | :---: | :---: | :---: |
| WPS2923 | Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages | Beata K. Smarzynska | October 2002 | P Flewitt 32724 |
| WPS2924 | Financial Development, Property Rights, and Growth | Stijn Claessens Luc Laeven | November 2002 | $\begin{aligned} & \text { R. Vo } \\ & 33722 \end{aligned}$ |
| WPS2925 | Crıme and Local Inequality in South Africa | Gabriel Demombynes Berk Özler | November 2002 | $\begin{aligned} & \text { P Sader } \\ & 33902 \end{aligned}$ |
| WPS2926 | Distinguishing between Observationally Equivalent Theories of Crises | Rashmı Shankar | November 2002 | $\begin{aligned} & \text { P. Holt } \\ & 37707 \end{aligned}$ |
| WPS2927 | Miltary Expenditure: Threats, Ald, and Arms Races | Paul Collier Anke Hoeffler | November 2002 | A. Kitson-Walters 33712 |
| WPS2928 | Growth without Governance | Danıel Kaufmann Aart Kraay | November 2002 | K Morgan 37798 |
| WPS2929 | Assessing the Impact of Communication Costs on International Trade | Carsten Fink <br> Aaditya Mattoo <br> lleana Cristina Neagu | November 2002 | P Flewitt 32724 |
| WPS2930 | Land Rental Markets as an Alternative to Government Reallocation? Equity and Efficiency Consideratıons in the Chinese Land Tenure System | Klaus Deınınger Songqing Jin | November 2002 | M Fernandez 33766 |
| WPS2931 | The Impact of Property Rights on Households' Investment, Risk Coping, and Policy Preferences: Evidence from China | Klaus Deininger Songqing Jin | November 2002 | M Fernandez $33766$ |
| WPS2932 | China's Accession to the World Trade Organization The Services Dimension | Aaditya Mattoo | December 2002 | P. Flewitt 32724 |
| WPS2933 | Small- and Medium-Size Enterprise Financing in Eastern Europe | Leora F Klapper <br> Virginıa Sarria-Allende <br> Victor Sulla | December 2002 | A Yaptenco 31823 |
| WPS2934 | After the Big Bang? Obstacles to the Emergence of the Rule of Law in Post-Communist Societies | Karla Hoff Joseph E Stıglitz | December 2002 | A Bonfield 31248 |
| WPS2935 | Missed Opportunities. Innovation and Resource-Based Growth in Latin America | William F. Maloney | December 2002 | $\begin{aligned} & \text { P. Soto } \\ & 37892 \end{aligned}$ |


| Policy Research Working Paper Series |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Title | Author | Date | Contact for paper |
| WPS2936 | Industrial Ownership and Environmental Performance: Evidence from China | Hua Wang <br> Yanhong Jin | December 2002 | $\begin{aligned} & \text { Y. D'Souza } \\ & 31449 \end{aligned}$ |
| WPS2937 | The Determinants of Government Environmental Performance: An Empirical Analysis of Chinese Townships | Hua Wang Wenhua Di | December 2002 | $\begin{aligned} & \text { Y. D'Souza } \\ & 31449 \end{aligned}$ |
| WPS2938 | Recurrent Expenditure Requirements of Capital Projects: Estimation for Budget Purposes | Ron Hood David Husband Feı Yu | December 2002 | M. Galatis 31177 |
| WPS2939 | School Attendance and Child Labor in Ecuador | Gladys López-Acevedo | December 2002 | M. Geller 85155 |
| WPS2940 | The Potential Demand for an HIV/ AIDS Vaccine in Brazil | Hillegonda Maria Dutilh Novaes <br> Expedito J. A Luna Moisés Goldbaum Samuel Kilsztajn Anaclaudia Rossbach José de la Rocha Carvall | December 2002 | H. Sladovich 37698 |
| WPS2941 | Income Convergence during the Disintegration of the World Economy, 1919-39 | Branko Milanovic | January 2003 | P. Sader 33902 |


[^0]:    1. Croll (2001) has also discussed various quantitative and qualitative aspects of son preference in these countries, but her focus is not on the underlying causes for the son preference and its persistence over time.
[^1]:    2. See for example, Booth, Verma and Beri (1994) and Premi (2001).
    3. It has been argued that China's family planning program may have exacerbated son preference. Accelerating the speed of fertility decline, reduces the time for parents to become accustomed to the idea of having fewer sons when they have fewer children. Strict limits on the total number of children also increase the risk of remaining sonless yed when fertility decline is more obviously voluntary, as in South Korea, the sex ratios at birth are as bigh äs in China, emphasizing the fact that son preference is not caused by a specific kind of family planning program.
[^2]:    4. We can derive the proportion of female births missing from the sex ratio at birth, given an assumed "normal" sex ratio at birth of 106 males per 100 females. We have estimated this for China and South Korea. In the case of India, data on the sex ratio at birth are not available, so we have estimated it indirectly. This was done by estimating the number of female children missing during the intercensal period 1981-91 whose deaths are not explained by changes in recorded excess female mortality after birth (Das Gupta and Bhat 1997).The extent to which these estimates consist of sex-selective abortion or female infanticide is difficult to judge, since a case of infanticide is not likely to be reported as a birth. To this estimate we have added the recorded excess female child mortality after birth, to derive a total estimated excess female child mortality per 1,000 females (and per 1,000 children of both sexes) who would have been born had the sex ratio at birth been normal.
[^3]:    5. Also Carl Mosk and Emiko Ochiai, personal communication.
[^4]:    15. Das Gupta and others (1997).
[^5]:    17 This is an enormous literature, but see, for example Andors (1983), Fried (1969), Gates (1996), Hu (1948); Hsu (1949); Wolf (1985); and Wolf and Huang (1980).

[^6]:    20 For an analysis of the powerful effect of the mass media on values and perceptions regarding childbearing, see Bhat (1998).

