Gender and education in Asia and the Pacific

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by Sally Baden and Cathy Green

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ABBREVIATIONS

EIU  Economist Intelligence Unit
GER  Gross Enrolment Ratio
GNI  Gross National Income
GNP  Gross National Product
NER  Net Enrolment Ratio
NGO  Non-government organisation
NIC  Newly Industrialised Country
PRC  People’s Republic of China
PVO  Pre-Vocational Orientation
SFA  Schooling for All
SPC  South Pacific Commission
UNDP United Nations Development Programme
UNESCO United Nations Educational Scientific and Cultural Organisation
UNICEF United Nations Fund for Children
UPE  Universal Primary Education
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1. INTRODUCTION

The current development policy emphasis on human resource development in general, and female education in particular, is couched largely in terms of economic efficiency and social welfare arguments. The rationale for investment in education tends to be based on economic arguments about rates of return and efficient allocation of resources, using neo-classical models of household decision-making, where rational, maximising investment and consumption decisions are made on the basis of quantifiable costs and benefits. An extension of this argument, but still from a mainstream economic perspective, is that investment in education provides social benefits which are not captured by individuals or households, and which therefore justify state subsidies to education. This argument is used particularly to justify greater subsidies to female education, since, it is held that social benefits to female education (e.g. reduced fertility, improved health etc.) are greater than those to male education. (Herz et al, 1991; King and Hill, 1991).

1.1 Private returns to education

Private returns are those which accrue to individuals or households from investment in education. These are generally held to be similar for boys and girls, and are usually measured by increased earnings as a result of higher levels of education (Herz et al, 1991). If rates of return to education are similar for boys and girls, this then begs the question as to why parents appear to under-invest in girls’ education. There are several possible reasons which have been put forward to explain this:

- The costs of educating girls are higher than those of educating boys;
- Boys are themselves more able to contribute to their own education through market earnings;

1 A critique of neo-classical household models is beyond the scope of this briefing. However, their underlying assumptions, including the assumption that household decisions are made by a benevolent household head, acting in the interests of the household as a whole, have come under much criticism (see e.g. Kabeer, 1991, ‘Gender, Production and Well-Being: Rethinking the Household Economy, IDS Discussion Paper No. 288, IDS, Sussex).

2 ‘The private rate of return is the internal rate of return that equalises the presented discounted value of the private costs of attending school (principally the opportunity cost of labour at primary and secondary levels) and the presented discounted value of the private after-tax gains in subsequent employment or other productive activity.’ (Schultz, 1991: 43). There are complex methodological problems in estimating rates of return to education and, dependent on the methodology used, this may result in biases which widen, narrow, or reverse gender differentials in rates of return estimates (ibid).

3 Little consideration is given to more intangible individual benefits (e.g. improved access to media and other literature; greater access to various forms of social and political organisation; increased status or self-respect, for example).
• The returns to educational investment do not accrue directly to parents, who make the investment decision, but are only accessed by parents through inter-generational transfers - it is argued that girls are less likely to support their parents in old age or contribute to the household, because they marry into other households, at least in patrilineal systems;
• Parents have imperfect information about the returns to female education, and/or regard the risks associated with investment in female education as greater (this also relates to the above point);
• There are other, non-economic, constraints which prevent parents from investing in female education - usually represented as variables such as ‘culture’ or ‘religion’.

Girls’ education is sometimes argued to be more costly than boys’ because of higher:
• direct costs (e.g. for uniforms - especially where seclusion is required - or provision for safe transport);
• indirect or opportunity costs because girl children do more labour in the household than boy children. (Herz et al, 1991)

Direct private costs of education vary according to educational level, generally rising at secondary and tertiary levels, such that the disincentives to female education may be higher, further up the educational system.

Schultz (1991) has argued, on the basis of evidence from a number of countries, that when appropriate methodologies are used, private returns ‘tend to be at least as high for women as they are for men, varying from 30 to 10 percent in the less and more developed countries respectively’. Schultz gives the following reasons to explain why, given these high returns, investment in female education is low:

‘the structure of aggregated demand for labour ... economic constraints such as per capita income, the costs of delivering school services and the structure of regulations and incentives in public (and private) education systems, and the preferences of parents who may fail to value increased productivity of females as highly as that of males, or to appreciate the enhanced non-market productivity of better educated women’ (1991: 43)).

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4 There is an assumption here that it is the parents who do this. In fact, the children themselves, older siblings or other relatives or friends could be financing children’s education. In many Asian countries, daughters’ earnings are known to be used for paying for sons’ education, as shown in Greenhalgh’s (1985) work on Taiwan. ‘Among parents with limited resources, a major strategy for raising the educational level of their sons is to educate their daughters a little, send them out to work, then use their incomes to pay for higher education for their sons.’ (ibid: 282) A strong correlation is found between number of sisters and years of education of sons. Another major implication of this is that there will be variations in education level by sibling order, so that older girls, particularly, will sacrifice education in favour of younger brothers; in contrast younger daughters with no younger siblings may be allowed to remain in school for longer (ibid).

5 Analyses of the opportunity costs of education tend to overestimate boys’ opportunity costs and underestimate girls’, largely because girls’ labour is usually directly substitutable for that of mothers, whereas boys’ labour is directly substitutable neither for mothers’, nor for fathers’ labour. The use of adult wages to approximate opportunity cost in the case of boys may thus exaggerate the costs of their education to households. (Herz et al, 1991).
This places the policy emphasis on reducing the costs of and changing the structures of delivery of schooling services, on the one hand, and interventions to change parental attitudes and household behaviour on the other.

Herz et al (1991), whilst using the same basic framework, have a somewhat different emphasis: they argue that the returns to female education may be lower than those to male education for reasons which have not been accounted for in many estimates to date, i.e. because of labour market conditions, biases in allocations of resources, macro-economic policy distortions, or higher direct costs of girls’ schooling or opportunity costs of girls’ labour. They argue that a vicious circle ensues whereby:

‘men earn more, making the returns to male schooling higher, so boys are sent to school more often than girls. Girls then grow up lacking the education they need to compete. Cultural traditions may reflect and reinforce economics, especially in poor rural settings.’ (Herz et al, 1991: 16).

This suggests the need for action at the level of macro-economic policy and the labour market, as well as directly in education policy.

1.2 Social returns

Beyond the private gains to education through increased earnings and improved productivity, there are social benefits (externalities) which are not captured at the individual level, and thus, according to conventional welfare economic reasoning, justify state subsidies. The social payoff of female education is, it is widely argued, higher than that of male education - through the improved health and education of children and reduced fertility. Social rates of return to female education are generally thought to be highest at primary level, and lower at secondary and particularly tertiary levels (Schultz, 1991). There is some more recent evidence, however, that social rates of return at secondary level may be higher than previously thought (Herz et al, 1991). Herz et al (1991) present considerable evidence of the links between female education and, for example, child health, child education and family size, to support their claim of higher social returns to female education. However, the difficulty of quantifying health and other social benefits means that these wider externalities are often not included in calculations, thus tending to lower estimates of social rates of return to female education.7

However, not all commentators are as enthusiastic about the externalities to female education. Behrman (1991) holds that they are not as great as often claimed and, in fact, are realised mainly as private benefits. Furthermore, to the extent that there are externalities, he argues that these might be gained in a more cost-effective way by spending directly on child health or family planning, rather than female education.

6 ‘The social return includes, in addition to ... private costs and gains, the cost of public and private school subsidies and the gains in increased taxes more educated workers pay, as well as any net positive social externalities that education generates that the individual does not capture.’ (Schultz, 1991: 43).

7 Various criticisms have been raised about the methodologies used to impute these social returns - increased revenues from taxation (where private returns are calculated net of tax) are often not included, for example. (Herz et al, 1991).
The social benefits to female education, whether privately captured or seen as externalities, tend to be narrowly defined in terms of child health and welfare and fertility reduction. Improvements in women’s decision-making capacity and ability to participate in social and economic life, for example, are rarely direct considerations in such discussions.

1.3 Efficiency, equity or empowerment?

Efficiency and welfare focused approaches lead to an instrumental view of education in general, and female education in particular, usually seeing female education as a means to increasing child welfare and reducing fertility. Relying on such arguments as a rationale for female education may prove problematic, if, as some researchers (e.g. Behrman, 1991) claim, the external benefits to female education are limited, or if they are less apparent at higher levels of education. This may ultimately weaken the rationale for female education - particularly beyond certain levels. There is insufficient emphasis on the need for female education to increase women’s social and political participation, or raise their aspirations, for example.

Economic approaches to investment in education also tend to focus heavily on the need for skills and knowledge acquisition for employment, or on the enhancement of productivity brought about through increased education, rather than education as a developmental process in itself, aimed at nurturing critical thinking or creativity. A narrow focus on education for employment may, in the longer-term, serve to reinforce women’s concentration in particular areas of employment, since this approach will lead to the selection of women for areas of skills training relevant to existing employment opportunities. Consideration should also be given to strategies for tackling patterns of gender segregation and discrimination in the labour market and in access to other productive resources such as credit, land, and other inputs.

There are also equity arguments for promoting female education. Here, attention is focused on ensuring equal access by gender to educational opportunities. Beyond this, there is some attention to issues of gender stereotyping in curricula and fields of study, and on women’s participation in decision-making about education (i.e. in educational administration and management). This approach implies that once equal access to existing forms of education provision is assured for girls, the problem will be more or less solved. Mazumdar, however, contends that: ‘the critical issue in analysing the inter-relationship between education and women’s status is not only the question of access but that of content, values and structures of educational systems’ (1989: 3; emphasis added).

Mazumdar (1989) characterises the current education system in Asia as a compromise between indigenous knowledge systems, western imposed scientific-rational education values and control systems; and movements arising out of reactions to imperialism, which include liberal democratic, secular and socialist as well as religious, cultural revivalist and fundamentalist movements. Projections of appropriate gender roles, are, she argues, central to this compromise.

Radical approaches to development have questioned the elitist, hierarchical systems and western-based scientific-rational values which are promoted through formal education.
structures in much of the developing world, and have stressed an alternative approach to education based on popular participation, self-development and empowerment or - in the Freirian tradition - ‘conscientisation’. Feminist critiques of mainstream education provision have also stressed its promotion of patriarchal values and western capitalist development models, its negation of indigenous knowledge bases (particularly those of rural women) and consequent perpetuation of unsustainable development patterns (e.g. Jain, cited in Mazumdar, 1989).

1.4 Structure of the briefing

Section 2 will review the Asian and Pacific experience of education from a gender perspective in the last twenty years, using statistical data, which are contained in the Appendix. Regional overviews are given as well as more detailed analyses of trends since 1970 at primary, secondary and tertiary levels and in literacy. Section 3 reviews gender-based constraints to education in Asia and the Pacific, looking at both ‘demand’ and ‘supply’ factors. Programmes and policies implemented to address these constraints are described and assessed in Section 4. In Section 5, case studies are provided of gender biases in access to education and attempts to overcome these in China and Viet Nam. Section 6 summarises the key points from the discussion.
2. REGIONAL OVERVIEW: EDUCATION AND GENDER IN ASIA AND THE PACIFIC

2.1 Asia and the Pacific in the global context

As discussed in the previous section, returns to girls’ education may be greater than those to boys’, yet paradoxically, many countries invest less in girls’ education. The gender gap is worst in Africa, Middle East and South Asia and particularly worrying at secondary level. Once countries reach a certain per capita income (as in most of Europe, North America etc.), the gender gap tends to close. However, below $2000 per capita GNI (Gross National Income), variation in education provision for and attainment of women is considerable. (Herz et al., 1991)

Figures 1 and 2 compare progress in increasing gender parity in enrolment across regions of the developing world, at primary and secondary levels respectively. In both cases, whilst Asia as a whole is second only to Latin America, this is primarily because of the positive experience of East Asia. When South Asia is considered separately, it fares worst of all the regions shown, particularly at secondary level. Moreover, the graphs show that, whilst considerable progress has been made towards gender parity since 1970, this progress slowed in the period 1980-7.

Discussion of Asia and the Pacific as a region is problematic, given the wide variation in levels of economic development, overall levels of educational enrolment and gender parity in enrolment. South Asia is clearly the sub-region with the poorest performance, with the exceptions of Sri Lanka and the Maldives. East Asia fares best, with the NICs (i.e. Taiwan, Korea, Hong Kong, Singapore) reaching levels of education on a par with western industrialised market economies. In Southeast Asia, general education levels are also relatively high in most countries and gender disparity not wide. With the exceptions of Papua New Guinea and the Solomon Islands, primary enrolment ratios and literacy rates are high in the Pacific. However, there is very little consolidated information about gender differentials in education in the Pacific region and detailed data is scarce. Similarly, detailed

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8 For some regions (Africa, South Asia, Latin America at primary level; South Asia and Latin America at secondary level), 1965 data has been used for 1970 - this may give the impression of faster progress than in reality.

9 Here represented by India, Pakistan and Bangladesh - this selection may distort the picture somewhat since the more favourable experience of Sri Lanka is not captured.

10 Some classifications include Southeast Asian countries in the East Asia region, but categorise these into different groups, i.e.: NICs; Malaysia and Thailand (second tier NICs); Philippines and Indonesia (middle income countries) and China and Vietnam (low income countries). (King and Hill, 1991). Here, Southeast Asia is treated as part of East Asia, to simplify the discussion.

11 The data on the Solomon Islands are somewhat contradictory. Data in Table A2 would seem to indicate almost universal primary education. Other sources do not support this (Fleming, 1992c; UNICEF/SPC, 1993); moreover, literacy rates are very low, as reported in Table 1.
information was lacking on Laos, Mongolia, and Cambodia. No enrolment data could be found on Cambodia.

National participation rates, even when broken down by gender, obscure regional and other differentials. For example, female participation rates in education in India in the mid-1980s, ranged from nine percent in Rajasthan to 80 percent in Kerala.13 Elsewhere, regional and rural-urban differentials are also striking. Within urban areas, slum neighbourhoods also experience poor access to education. In rural areas, tribal groups or those working on plantations may be particularly disadvantaged. (Jayaweera, 1987.) Ethnicity is another factor which often differentiates access to education, often strongly related to regional differentials, and which interplays with gender biases.

12 UNESCO (1993) regional data is for Oceania (including Australia and New Zealand), therefore favourably distorting the picture as regards the smaller Pacific countries. Country by country data on Pacific Islands is sparse, as reflected in Tables A2, B2, C2 and D2.

13 It is not clear from the source whether this means total participation aggregated across all levels, or whether it refers to primary or any other specific level.
Figure 1: Females per 100 males
in primary schools,
various regions, 1970-87

Figure 2: Females per 100 males in secondary schools, various
regions, 1970-87
2.2 Regional overviews

2.2.1 South Asia

South Asia is the region where, apart from Sub-Saharan Africa, girls’ education lags most severely behind boys.\(^{14}\) Gender differences in primary level enrolment range from 15 to 50 percentage points. There has been considerable expansion of enrolments between 1960 and 1987 (from 51 to 78 percent at primary level) but progress has been slower than in most regions and educational expenditure in the region remains low. At post-primary level South Asia has the widest gender gap of any third world region. (Khan, 1991). One third of boys but only one fifth of girls attend secondary school - this is the cumulative effect of disadvantage at primary level and of high drop out rates of girls - although data in this area are scanty (Herz \textit{et al}, 1991).

Poor education indicators and wide gender disparities in South Asian countries in part reflects their low per capita incomes, agrarian based economies and relatively low female labour force participation rates\(^{15}\) in most South Asian countries, but are also a function of low educational spending, and pervasive patterns of sex segregation and gender discrimination. Low female life expectancy (compared to male - the only region in the world where this is the case) and imbalance in sex ratios in the population have been widely documented in the region, reflecting patterns of gender discrimination in the allocation of food and spending on health. Socio-cultural factors restricting women’s mobility and autonomy (e.g. purdah, dowry, early marriage) are also major constraints to women’s participation in education in the region (see section 3.3 for more detailed discussion of this).

2.2.2 East Asia

East Asia\(^{16}\) has the fastest economic growth rate \(^{17}\) and highest education level of any third world region. Most countries in the region fall into the middle income category (excluding Cambodia China, Laos and Viet Nam, which are low income countries). However, within the region, there is a wide range of income levels, from US $200 (1992 estimate) in Cambodia (EIU, 1993) to US $7410 in Singapore (1987). (Tilak, 1991).

The fast economic and technological growth in East Asian countries is in part a result of their relatively high levels of education and growing pool of post-primary educated workers. In this region, there is near universal primary education and two thirds literacy on average. The mean

\(^{14}\) Sri Lanka and the Maldives are exceptions to the regional pattern, as noted above.

\(^{15}\) Recent developments in the methodologies for conceptualising women’s work and collecting data on female labour force participation and economic activity of women has led to some upward revision of activity rates in Asia as elsewhere, however.

\(^{16}\) Here defined as: China, Hong Kong, Indonesia, Korea, North Korea, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam, Taiwan, Cambodia, Mongolia - constituting 30 percent of world’s population.

\(^{17}\) Growth rates in East Asia averaged at least four percent per annum in the period 1965-87, compared to 2.6 percent for middle income countries as a whole.
level of education of the labour force is high, ranging between 4.5 (China) and 8.8 years (Hong Kong) in the early 1980s. (Tilak, 1991).

Spending on education as percentage of GNP is generally high, at over two percent, reaching as high as 7.8 for Malaysia (1986/7). However, percentage expenditure appears to bear little direct relation to progress made in extending educational opportunity. For example, the Philippines, with an expenditure of two percent of GNP, has done better than Malaysia at nearly eight percent of GNP.18

East Asian countries are, on the whole, highly patriarchal societies. However, some indicators of gender inequality are less marked than elsewhere in Asia. Women have a high and rising life expectancy, in some cases several years higher than men’s. The education gender gap is relatively low and women comprise larger share of labour force than in any other third world region, ranging from 31 percent of the total labour force in Indonesia to 47 percent in Viet Nam (Tilak, 1991). On average, women’s literacy rates in East Asia are well over 50 percent, and in several countries, they are over 80 percent. The stock of educated adults still contains more educated males than females, however. In all countries, in East Asia, at all educational levels, there are more educated men than women.

In East Asia, the gender gap at primary level closed by 1987. About half of school age boys and almost half of school age girls attend secondary school. By the mid-late 1980s, women’s share of secondary enrolment was over 40 percent in all East Asian countries (Herz et al, 1991). In some countries in East Asia, there are more girls than boys at secondary (e.g. Philippines, Sri Lanka) and even tertiary (Malaysia and the Philippines) levels. In East Asia, whilst gender equality of access to education remains an issue at secondary and particularly tertiary levels in some countries, gender constraints in education relate increasingly to curriculum bias and gender differentials in fields of study at secondary and higher levels, and to subsequent labour market opportunities.

Despite significant progress, gender differences in education [in East Asia] persist, particularly in the distribution of male and females by field of study at the secondary and higher levels. For example, girls tend to take traditionally female dominated courses such as nutrition, nursing, and teacher training. In the Philippines, more than 90 percent of the students in each of these fields were women. Males tend to dominate in engineering, law, agriculture and technology. (Tilak, 1991: 219)

2.2.3 Pacific

Table 1 gives basic data on education in the Pacific, to supplement the limited data given in the comparative tables in the Appendix.

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18 However, in the former case, private expenditure is a major contributor to educational investment. Moreover, the Philippines has a long history of educational infrastructure provision, the benefits of which may still be being felt today.
Table 1: Basic Education Statistics for Pacific region (circa. 1992)

<table>
<thead>
<tr>
<th>Country</th>
<th>Adult literacy (%)</th>
<th>GER primary (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Samoa</td>
<td>99</td>
<td>100</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>CNMI</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>FSM</td>
<td>81</td>
<td>100</td>
</tr>
<tr>
<td>Fiji</td>
<td>87</td>
<td>94</td>
</tr>
<tr>
<td>French Polynesia</td>
<td>87+</td>
<td>98</td>
</tr>
<tr>
<td>Guam</td>
<td>99</td>
<td>101</td>
</tr>
<tr>
<td>Kiribati</td>
<td>93</td>
<td>100</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>91</td>
<td>95</td>
</tr>
<tr>
<td>Nauru</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>New Caledonia</td>
<td>94+</td>
<td>126</td>
</tr>
<tr>
<td>Niue</td>
<td>99</td>
<td>100</td>
</tr>
<tr>
<td>Palau</td>
<td>98</td>
<td>103</td>
</tr>
<tr>
<td>Papua New</td>
<td>52</td>
<td>73</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>22</td>
<td>66</td>
</tr>
<tr>
<td>Tokelau</td>
<td>99</td>
<td>100</td>
</tr>
<tr>
<td>Tonga</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>Tuvalu</td>
<td>99</td>
<td>101</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>64</td>
<td>103</td>
</tr>
<tr>
<td>Wallis and Western Samoa</td>
<td>71+</td>
<td>-</td>
</tr>
<tr>
<td>Regional</td>
<td>63</td>
<td>79</td>
</tr>
</tbody>
</table>

Source: UNICEF/SPC, 1993: 52

In the Pacific region, overall literacy rates average 63 percent - in most countries they are much higher (at over 80 percent) but the regional average is brought down by low literacy in Papua New Guinea, the largest country in the region as well as in the Solomon Islands (see Table 1 below - and footnote 23). Systematic gender disaggregated data are not available: however, such data as is available suggest that, as elsewhere, women’s literacy rates are lower than those of men.

The average gross enrolment ratio (GER)\(^{19}\) at primary level in the Pacific is 79 percent, again affected by the relatively low enrolment in Papua New Guinea. The majority of countries in the Pacific have GERs over 100 at primary level. However, drop out rates are said to be high, and, in all, 40 percent of children in region are not completing primary education. ‘Hidden’ costs of education, poor quality of education and limited relevance of curriculum, are given as reasons for high drop out. In the case of girls, demands on their labour at home may be a major reason. (UNICEF/SPC, 1993).

\(^{19}\) GERs measure school attendance as a proportion of the relevant age group in the population. These can be over 100, since they may include either under-age or over-age children. They also tend to overestimate actual attendance, since many children (particularly girls) drop out after initial attendance. Net enrolment ratios give a more accurate picture of actual attendance, since they remove under and over age children. However, net enrolment ratio data is not systematically available for all countries - see Tables - and thus is difficult to use as a basis for comparison.
At secondary level, there is a shortage of supply of public school places and funding in many countries. In Kiribati, for example, 2000 primary school completers compete for 200 secondary school places. Competitive entry exams are used to ration places at secondary level and also higher up the secondary school system, to select those who will go on to various forms of higher and further education. Whilst girls’ may achieve well academically at lower levels, and be well, if not over-represented at lower secondary school, this does not always carry through at higher levels and may thus act against their prospects of entrance to tertiary education.

The gender imbalance is most marked at tertiary level. Again, provision at this level is limited and access highly competitive. University education often means going abroad, which may raise additional gender constraints. Both university and vocational education are highly gender segregated and stereotyped. The lack of secure accommodation and childcare facilities at tertiary level may be a major problem for female students.

In most Pacific countries, there is a severe problem of youth unemployment, given high population growth rates and small, dependent economies, facing adverse terms of trade movements and structural adjustment. Female unemployment is often worse than male.
2.3 Trends in enrolment and literacy in Asia and the Pacific

2.3.1 Primary enrolment

Tables A1 and A2 (see Appendix) give data on primary enrolment in various countries in Asia and the Pacific, for the period 1970-90. There may be inconsistencies in the data across both countries and time periods, due to different sources or methods of data collection. For this reason, it is difficult to make more than the broadest of comparisons. Gross enrolment ratios are given in most cases; net figures are given in brackets where available, but as noted above, these are limited and thus cannot be used as a basis for comparison.

From Table A1, it can be seen that, in Asia, there are several countries which have achieved UPE\(^{20}\) (Universal Primary Education) and gender parity or near gender parity at primary level. These are: China, Hong Kong, Indonesia, Republic of Korea, Mongolia, the Philippines, Singapore, Sri Lanka, and Viet Nam\(^{21}\). There are also several countries with GERs approaching 100, with gender parity, e.g. Thailand and Malaysia. India, Laos and Nepal have GERs of over 100 for males, but a considerable gender gap (over 25 percentage points for India and Laos and over 50 percentage points for Nepal). In the case of India, there has been a narrowing of the gender gap since 1970, whilst for Laos it has remained more or less the same, even showing some widening after 1985. The gender gap in education in Nepal remains the widest of any country in Asia at both primary and secondary levels.

In some countries in Asia, GERs of 100 and gender parity (or near gender parity) had already been achieved by 1970, e.g. Hong Kong, Republic of Korea, Mongolia, the Philippines, Singapore, and Sri Lanka, and have since maintained similar levels of education. In other countries, e.g. Indonesia, Thailand, UPE with gender parity was achieved by 1980, although in the latter case, more recent data cast some doubt on this. Similarly, for Malaysia, while 1985 data show UPE with gender parity, 1990 data show lower GERs. For other countries (China, Viet Nam), data is not available before 1980, and thus trends are difficult to establish. Recent transition to market-based economies in both these cases may be leading to pressures on access to education, particularly for women (see section 4 for more detail on this). In Laos, similarly, data for the 1980s show a slight fall off in attendance, particularly for girls, following considerable progress in the 1970s.

\(^{20}\) UPE is defined by the GER for a country having reached 100 or over. This, as Colclough and Lewin (1993) argue, may be an inappropriate target, since a considerable number of children may still not be attending school, even where there is GER > 100. (See note 19). They argue that Schooling for All (SFA), defined as ‘having a school system in which all eligible children are enrolled in schools of at least minimally acceptable quality’, is a more suitable target for educational policy. (Colclough with Lewin, 1993: 2).

\(^{21}\) China is included in this set but there is considerable doubt over the official statistics. Section 4.1 gives a more detailed analysis of the Chinese situation.

\(^{22}\) GERs are the proportion of the relevant age group in the population who are enrolled in school. These can be over 100, since they may include under and overage children. They also tend to exaggerate actual attendance, since many children drop out after initial enrolment.
In India and Bangladesh, considerable progress has been made, from a low base in 1970, both in increasing overall enrolment and in moving towards gender parity, although there is still a long way to go on this. In Nepal, which has the lowest ratio of females to males in Asia at both primary and secondary levels, although overall enrolments have increased considerably, there has been little improvement in gender gaps. In some countries - Pakistan, Afghanistan and Bhutan - limited progress seems to have been made in expanding access to primary education, particularly to girls. They still have enrolment ratios of around 50 percent or under for both sexes and a wide gender gap, with almost twice as many of the eligible boys as girls attending school.

Gender disaggregated data series on education in the Pacific are sparse - series are only available for two countries in Table A2. Gross enrolment ratios (overall - see Table 1) at primary level are generally high throughout the Pacific, reaching UPE in many cases, with the exceptions of Papua New Guinea, and, at least until recently, the Solomon Islands. Papua New Guinea, the largest country in the region, has an overall primary enrolment ratio of 73 percent. The female enrolment ratio at primary level is 65 percent compared to 77 percent for males. The Solomon Islands, have an overall enrolment ratio at primary level of 66 percent - no gender breakdown is available, but 44 percent of the primary intake is female (Fleming, 1992c). In the Cook Islands and the Marshall Islands, women form 49 percent of primary students; the figure for Tuvalu is 48 percent. (Booth, n.d. (a), (b), (d)).

According to a recent UNICEF/SPC report:

Most Pacific countries have made great strides in extending access to primary education. Access ... is now virtually universal excepting the Solomon Islands and Papua New Guinea, where small scattered populations living across rugged terrain have combined with economics and high rates of population growth to constraint expansion of primary education ... Outside of these two countries, virtually every child begins primary school. However, ... dropout rates are high. Based on available data, approximately 13 percent of children who begin primary school fail to complete eight years of basic education. However, this figure probably underestimates the true extent of the problem which is compounded by intermittent attendance. When children dropping out of primary school and never starting ... are considered together, it is seen that nearly 40 percent of Pacific children fail to obtain a basic primary education.’ (UNICEF/SPC, 1993: 13).

The high drop out rates at primary level are attributed to high hidden costs of education; the low quality of educational provision; and lack of relevance of the curriculum. (Ibid.: 13). No gender disaggregated data was found on drop out rates in the Pacific.

Table A3 gives females per 100 males at primary level in Asian countries (and also Papua New Guinea) from 1965 to 1987, giving a clearer picture of the extent of gender inequality in different countries. This is also illustrated graphically in Figure 3 (see below) for selected countries showing the varying levels of inequality and rates of progress. One worrying tendency is that, in a few countries - e.g. Nepal and Pakistan - the rate of progress in addressing gender inequality appears to have slowed considerably since 1980. These are also

23 Table A2 gives current GER at primary level in the Solomon Islands as 107 for boys and 96 for girls. Fleming (1992c) gives overall enrolment in the Solomon Islands at less than 50 percent and states that no progress has been made in the last 15 years. Education is not compulsory.
the countries - together with Bhutan and Afghanistan - with the worst record on gender equality in education in Asia and the Pacific.

Average enrolment rates and gender parity are only loosely related, at primary level. Some countries achieve gender parity at overall enrolment rates of about 60 percent, whereas in others enrolment rates may be as high as 80 percent but still conceal a wide gender gap. (Herz et al, 1991).

2.3.2 Secondary enrolment

Tables B1 and B2 (see Appendix) give data on secondary enrolment ratios, by sex, for Asia and the Pacific respectively, over the period 1970-1990. The caveats raised above about the comparability of data also apply here. Only one country - Mongolia - had high (over 80 percent) levels of both male and female enrolment in secondary education in 1970. All other countries in the region have increased enrolments from a low base, although at varying rates. Some countries already had one third to a half secondary enrolment in 1970 (the Philippines, Sri Lanka, Singapore, Malaysia, Republic of Korea, Hong Kong), whereas in others, enrolment in secondary education served less than one quarter of the population at this time, among whom very few were female (Bhutan, Laos, Nepal, Pakistan, Thailand, Indonesia).

Interestingly, Mongolia has consistently higher female than male enrolment ratios at secondary level. Based on 1990 data, the Philippines, Sri Lanka and Singapore, all have two thirds or more enrolment of both males and females, with a slightly higher enrolment ratio of females in each case. Korea also has high levels of secondary enrolment, but with a slightly higher enrolment of males than females (88 percent compared to 87). Malaysia is approaching 60 percent enrolment of both males and females, the latter being slightly higher (58 percent compared to 55 percent).

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24 In view of the later figures, the India and Bangladesh data for 1970 seem rather inflated.

25 In some cases, progress at secondary level has been limited, e.g. Pakistan, Afghanistan, Bhutan, and in East Asia, Thailand.
Figure 3: Females per 100 males in primary schools, selected countries, 1965-87

Figure 4: Females per 100 males in secondary schools, various countries, 1965-87
China, India, Indonesia, Nepal and Vietnam have 40-55 percent enrolment of males enrolled at secondary levels, but there is a considerable gender gap in all cases except Viet Nam, ranging from eight percentage points in Indonesia, to twenty six points in Nepal. For those countries where male GERs at secondary level are less than 40 percent, (Thailand, Pakistan, Laos, Bhutan, Bangladesh, Afghanistan), all except Thailand have wide gender disparities.

On the Pacific, again, data is patchy. Overseas scholarships and private education become features of the education system at this stage, as well as a highly competitive, exam based system for the award of places and scholarships. Because of these factors, gender constraints may be of a different kind to elsewhere.

Fiji has over 50 percent enrolment at secondary level, with gender parity, having made considerable progress in the 1970s. By contrast, in Papua New Guinea, only 15 percent of males and 10 percent of females are enrolled at secondary level. In 1989, 32 percent of the 1000 or so students in Papua New Guinea who were selected for national high school entrance were female. In the Solomon Islands, in 1986, 24 percent of eligible males and 15 percent of eligible females attended secondary school; 31 percent of those enrolled in secondary schools are female (Fleming, 1992c).

In several countries in the Pacific, there are a higher proportion and larger share of females than males at secondary level, e.g. Cook Islands, Marshall Islands, and Tuvalu, with the latter having 61 percent females overall at secondary level in 1979-83. (Booth, n.d., (a), (b), (c)). Girls appear to achieve better than boys at least until upper secondary level. In some cases, their representation and/or achievement falls again higher up the system.

Table B3 shows females per 100 males for Asian countries and Papua New Guinea (1965-87) and Figure 4 (above) illustrates the trend for some of these countries. The share of females in secondary education has increased considerably in the last 20 years, especially in the 1970s. Progress has slowed somewhat in the 1980s, however. Figure 4 shows that progress towards gender equity at secondary level has been relatively slow in South Asian countries, compared to East Asian ones. Bhutan, Nepal, Pakistan and Bangladesh have over twice as many boys as girls in secondary school; India and Papua New Guinea have only slightly over half as many girls as boys.

Increases in participation rates at secondary level and improvements in gender parity are even more loosely related than at primary level. (Herz et al, 1991)

2.3.3 Tertiary enrolment

Access to higher education is generally much more restricted than to primary or secondary education and is predicated on already having passed through lower levels of the system. Where women are under-represented at lower levels, there is thus a cumulative bias against women. This may be reinforced by competitive exam selection for places at higher levels, which can act against women’s representation at higher levels. Direct costs of education are higher at tertiary level, which limits its affordability to low income households. Even in East Asia, where there is limited gender bias at primary and secondary levels, strong biases in access emerge at tertiary level.

Gender biases in access to tertiary education, and more specifically in distribution by gender across fields of study, may be based on different constraints to access at lower levels, and
more closely tied to labour market conditions. In South Asian countries, female graduates often have much higher unemployment rates than male graduates. For example, in Bangladesh, 17 percent of female graduates are unemployed compared with 2.3 percent of male graduates (Khan, 1991; BRIDGE, 1994). General unemployment data for East Asia (Tilak, 1991) also show higher unemployment for women than men in China, the Philippines and Taiwan.

In South Asia particularly, given the high private costs of tertiary education, the relocation usually involved and the perception of girls’ limited prospects in the employment market, parents are unlikely to favour higher education for girls, where resources are constrained. Studies have found that, in rural areas, parents may favour sending boys to college but not girls (Khan, 1991). Some rural households adopt strategies where one son is sent to college in order to get a white collar job, for example in Nepal (ibid.).

Notwithstanding these factors, there may be a class factor at tertiary level which to some extent counteracts these gender biases. Middle class families may favour education of daughters, partly because of their own educational and occupational background and partly because of expectations of marriage into a similar or higher social strata. Moreover, middle class women are increasingly expected to contribute to household income. On the whole, women in higher education are more likely than men at this level to be middle class. (Khan, 1991).

Tables C1 and C2 give data on tertiary enrolment by gender for Asia and the Pacific, respectively, for 1970-90. Data coverage is limited, particularly for more recent years. Of the sixteen countries for which recent data is available, over ten percent of women are enrolled at tertiary level in three cases; between five and ten percent in two cases, between two and five percent in five cases and under two percent in six cases.

The Republic of Korea stands out, with over 50 percent enrolment of males and over 25 percent enrolment of females at this level in 1990. Mongolia and the Philippines also have high enrolment ratios at tertiary level - 17 percent of males and 26 percent of females; and 23 percent of males compared to 33 percent of females respectively, showing a greater proportion of females than males in higher education in both cases. Hong Kong has tertiary enrolment ratios of 17 percent for males and 9 percent for females.

All other countries for which data is available have enrolment ratios below ten percent for both sexes at tertiary level and - with the exception of Malaysia - a considerable gender gap. In most cases, twice or more as many males as females are enrolled at this level. China, Laos and Papua New Guinea have particularly low enrolment at tertiary level.

Education science and teacher training, humanities, fine and applied arts and commerce and business administration are areas where women tend to have higher than average enrolment ratios in many countries. The cases of the Philippines and Mongolia are interesting anomalies here - with half again as many women as men in higher education. This cannot be explained by the slight over-representation of girls at lower levels and is perhaps worthy of investigation. It may be that the very high proportion of women in teacher training in these countries leads to this bias.

In the Philippines, 95 percent of primary and secondary school teachers are women.
representation at tertiary level; moreover, the majority of women in higher education are in one of these areas. In countries where sex segregation is the norm, women may have higher than average representation in medical courses. Mazumdar (1989) argues that too much emphasis is placed on women’s lack of representation in agricultural courses (which she sees as often irrelevant to women’s needs), rather than on their under-representation in areas such as law, through which women may have direct influence on policy and the political process.

In only a few countries in Asia do women form more than 10 percent of those enrolled on vocational courses and only in Mongolia do women outnumber men in vocational education (Jayaweera, 1987). In technical training courses, women are found primarily in areas such as garments; embroidery; clerical work; nutrition; and food processing. Men, by contrast, are concentrated in mechanical disciplines. (Tilak, 1991).

There are considerable social pressures on women to enter employment fields which are less remunerative, and this influences their choice of subjects at tertiary level. Women tend to choose subjects which relate to non-market as well as market work, foreseeing considerable periods of time when they will withdraw from the labour force for child-rearing purposes. Women also lack access to professional jobs - in many East Asian countries, less than five percent of the female labour force are in professional occupations. Within marriage, when men’s uptake of education and training to enhance career and earnings prospects increases, women’s tends to decline. This form of inequality, it is suggested, may be resistant to policy reform. (Tilak, 1991).

In the Pacific, gender biases are most evident at tertiary level. In Papua New Guinea, enrolment is low, at tertiary level, at around two percent overall - of which only 35 percent are female. Whilst women form 50 percent of the intake at teachers’ college, they are only 20 percent of university entrants. In Papua New Guinea, female students reported a lack of secure, separate accommodation facilities and childcare provision as constraints on study at higher levels. (Fleming, 1992b). Quotas have been instituted at various levels in Papua New Guinea to ensure a minimal representation of female students.

In Fiji, where only 3.1 percent of females compared to 5.4 percent of males are in higher education, there are clear gender differentials in subject selection with women forming 97 percent of general and secretarial students, 47 percent of teacher trainees and only 17 percent of agricultural students. Women received a relatively high proportion of university scholarships - 43 percent - but only 10 percent went to Indo-Fijian women (Fleming, 1992a). By contrast, in the Cook Islands, women form the majority of those attending university (61 percent) and doing degrees, whereas men tend to follow technical courses. The

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28 Booth (n.d. (c)) gives figures of 15 percent for university entrance and 32 percent for teachers’ college entrance respectively.

29 No date is given. Here, there is an interplay between gender and ethnic factors in the allocation of scholarships. After the 1987 coup, there has been a concerted policy against state support to Indo-Fijians and an attempt to increase the proportion of indigenous Fijians in government jobs etc. Hence, Fijian women may be relatively favoured in the allocation of scholarships. Similarly, in Malaysia, the proportion of (particularly Malay) women receiving scholarships and places in higher education is relatively high, again, due in part to ethnic discrimination.
proportion of scholarships going to women has increased from 30 percent in 1987 to 46 percent in 1991. (Booth, n.d., (a)).

Given the small size of many Pacific populations and the scattered geography of the region, distance education or overseas scholarships are major means of accessing higher education. Overseas scholarships are highly competitive and whilst girls may perform well at lower secondary levels, their attainment drops higher up the school system, as in Tuvalu (Booth, n.d., (d)), possibly limiting access to tertiary education. In Tuvalu, 59 percent of students abroad are male (this includes secondary level as well as tertiary students); Kiribati provides only 20 overseas degree scholarships to 200 possible candidates.

Given a tight labour market and high population growth rates, there is high unemployment of young people in the Pacific, and particularly of women. Currently, there is emphasis on expanding vocational education to make education more relevant to labour market requirements and on providing support to self-employment opportunities. At present, there are considerable gender biases in access to and take up of vocational training opportunities. Women are concentrated in teacher training, nursing, secretarial skills and home economics, and have low representation in technical and scientific courses, or agriculture, in spite of their major role in the agricultural economy. Curricula specifically aimed at women (e.g. home economics) also lack relevance to their daily lives. There is a need to provide better information about training to girls, and to encourage more women to enter previously male preserves. (UNICEF/SPC, 1993; Fleming, 1992a, 1992b, 1992c, 1992d, 1992e).

One encouraging trend at tertiary level over recent years in Asia and the Pacific has been the burgeoning of women’s studies and research centres, which are enabling women to redefine their own experiences, and review theoretical concepts and historical events from a feminist perspective (Mazumdar, 1989).

Literacy rates and trends

Whilst considerable progress has been made in some countries in Asia and the Pacific in increasing enrolment in formal education and reducing or eradicating the gender gap in enrolment ratios, overall levels of literacy, and gender differentials in these, reflect the historical legacy of lack of education provision, particularly for females. Tables D1 and D2 give gender disaggregated data on illiteracy in Asia and the Pacific respectively, for 1970-90. The data show that in almost all countries, female illiteracy is higher than male - often two times as high or more. These gender differentials persist in spite of the fact that female illiteracy has been falling, in some cases faster than male illiteracy, since 1970.

30 Data on literacy and illiteracy are notoriously variable and unreliable. Definitions of these concepts may be variable. Collection methods usually rely either on self-reporting, or extrapolate literacy from prior school attendance. Thus, inaccuracies will be incorporated, usually exaggerating the levels of literacy, through false self-reporting, or through lapsed literacy.

31 Except the Maldives - where male illiteracy is 8.8 percent compared to 8.5 percent for females (1985 data). The Philippines also has relatively equal illiteracy rates by gender at 6.3 percent for men and 6.6 percent for women (population aged 10+).
Over three quarters of women are illiterate in: Afghanistan, Bangladesh, Cambodia, Nepal and Pakistan, which all have male illiteracy between 50 and 60 percent. Two thirds of women in India are illiterate compared to around 40 percent of men. In Indonesia, Malaysia, Myanmar and Laos, between one quarter and one third of women are illiterate, compared to rates for men between eight and 15 percent. Ten to twenty percent of women are illiterate in Viet Nam and Singapore (21.4) and Sri Lanka32, where rates for men are 10 percent or less in all cases. Under 10 percent illiteracy of women is found in Mongolia, Korea, the Maldives, the Philippines and Thailand33.

Illiteracy in South Asia has fallen over the last two decades, but overall illiteracy remains high in most countries and gender differentials remain wide. For example, in Bangladesh, male and female illiteracy rates were 53 percent and 78 percent respectively in 1990. The figures for India were 38 percent and 66 percent; for Nepal 62 percent and 87 percent; and for Pakistan, 53 percent and 79 percent. This shows a gap of at least 25 percentage points in illiteracy rates by gender in each case. Sri Lanka and the Maldives are the only two countries in the region with relatively low illiteracy, at 6.6 percent and 16.5 percent for men and women in Sri Lanka respectively; and 8.8 percent for men and 8.5 percent for women in the Maldives.

Table 2 below gives the proportion of adults (25-64) with no schooling, in various countries in South Asia, broken down by gender and residence. These data are from about 1980, and so the picture will have improved since then. Nevertheless, they show, strikingly, that in India, Pakistan and Bangladesh 34 over 80 percent of females had no schooling, compared to around 60 percent of men. In Bangladesh, rural men were better schooled than urban women.

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32 The official statistics on China are not considered here, since other sources give much higher rates of illiteracy - see footnote 9 to Table D1 and section 4.1.

33 The figures for the Philippines and Thailand are for population aged 10+ and 6+ respectively; this will tend to boost the literacy figures by giving increased weight to younger age groups who are more likely to be literate.

34 The data on Nepal seem anomalous, given the low enrolment and literacy rates for women displayed in previous tables.
Table 2: Proportion of adults with no schooling (aged 25-64), circa 1980, by gender and residence, selected countries in South Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Females total</th>
<th>Females urban</th>
<th>Females rural</th>
<th>Males total</th>
<th>Males urban</th>
<th>Males rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>83.2</td>
<td>68.2</td>
<td>85.5</td>
<td>57.5</td>
<td>39.7</td>
<td>61.7</td>
</tr>
<tr>
<td>India</td>
<td>83.2</td>
<td>-</td>
<td>-</td>
<td>57.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nepal</td>
<td>36.4</td>
<td>27.8</td>
<td>39</td>
<td>41.2</td>
<td>24.9</td>
<td>43.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>89.1</td>
<td>71.2</td>
<td>96.0</td>
<td>65.8</td>
<td>44.5</td>
<td>75.3</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>20.1</td>
<td>10.4</td>
<td>22.8</td>
<td>8.3</td>
<td>5.2</td>
<td>9.5</td>
</tr>
</tbody>
</table>

Source: King and Hill, 1991:

Table 1 above gives adult literacy data for most countries in the Pacific region, but no gender breakdown. In the Solomon Islands, with the worst literacy record in the region, 44 percent of women are literate compared to 69 percent of men. (The figures for literacy in English - the official language - are 17 percent and 27 percent respectively - this corresponds more closely to the data in Table 1.) (Fleming, 1992c) In Vanuatu, the overall literacy rate is also low by Pacific standards, at 64 percent, but no gender breakdown is available. However, other sources demonstrate an inherited imbalance in educational attainment, In the 35-39 age group, only 31 percent of women compared to 46 percent of men have more than six years schooling in Vanuatu. (Fleming, 1992c).
3. CONSTRAINTS ON FEMALE EDUCATION IN ASIA AND THE PACIFIC

As seen above, there remains a considerable gender gap in education in Asia and the Pacific, but with great variation between countries. Broadly speaking, the gender gap is least pronounced in East Asia and worst in South Asia (with one or two exceptions). In the Pacific, with the exceptions of Papua New Guinea and the Solomon Islands, the situation at primary level is good, but the gender gap worsens at secondary and tertiary levels.

There are numerous factors which underlie both the continued existence of a gender gap in education and also its variation between countries and regions. These include historical, economic (both macro- and micro-), and socio-cultural factors, as well as factors related to educational policy and the nature of school provision. Some of these are reviewed below, using evidence from Asia and the Pacific, but the account is by no means exhaustive.

Although discussed separately, these factors cannot be easily categorised into independent variables, since the nature of educational provision will be largely determined by historical and macro-economic factors, micro-economic decisions will respond to wider economic conditions, and socio-cultural norms, or at least the extent of adherence to these, are susceptible to change under economic pressures.

3.1 Historical factors

Many of the countries in the Asia and Pacific region have experienced direct colonial rule and/or other forms of external intervention, which have had a major impact on their societies, not least through the creation of new education systems. The effect of this may have been the provision of education for elite groups, or particular ethnic groups, whilst excluding lower classes, other ethnic groups and the majority of women, for example, thus creating a legacy of educational differentials. Thus, the relative educational privilege of Indo-Fijians in Fiji, or of Tamils in Sri Lanka, can be partly explained by colonial policies.

On the other hand, colonial intervention or missionary activity may have been instrumental in creating wider access to education. In the Philippines, for example, following the transition from Spanish to US colonialism, access to education broadened considerably. Education was, in some views, used as a tool by US colonialism to impose certain values and undermine nationalist aspirations (Torres, cited in Mazumdar, 1989). Nevertheless, in part because of this historical legacy, the Philippines has one of the best records in the region on education provision in general and, particularly, female access to education.

Where access to education was extended to women through colonial policies or missionary activity, it also exposed women to new sets of patriarchal values, through the curriculum and education system, rooted in the western nuclear family model, and often limited women’s participation to fields which were in keeping with these values. This legacy also remains today. (Mazumdar, 1989).
3.2 Economic factors

3.2.1 Education and macro-economic indicators

As described above, on the whole, low income countries are more likely than middle or high income countries to have low overall enrolment ratios and also low gender parity in enrolments. Schultz (1991), using cross-national data, finds that the income elasticity of girls’ education is higher than that of boys’.

However, when the relationship between per capita gross national income and enrolment ratios is explored through regression analysis, for a range of countries, including some in Asia, although positive, the association is not strong. The same applies also for gender parity and per capita income. Herz et al (1991: 10) concluded that:

Firstly, neither high levels of per capita GNI [gross national income] nor economic growth ensures improved female enrolment with gender parity. Higher female enrolment and gender parity do not occur automatically as development proceeds. So waiting for per capita GNI to grow enough to ‘fix’ the gender gap in education and raise female enrolment is not a promising strategy for most poor countries. Second, several countries with low per capita income and limited economic growth achieved remarkable improvements in female education with gender parity. In these countries, deliberate public policy choices evidently made a difference, and it was not simply a matter of increasing public spending on education.

Other standard macro-level indicators of development, such as the level of urbanisation, are also not good predictors of gender parity in education, particularly at low levels of urbanisation, where there is great variation in enrolment ratios.

High population growth rates are often associated with low levels of educational provision, and particularly lack of gender parity. Low levels of education of women are often associated with high fertility. The corollary to this is that higher levels of education, especially for women, may reduce fertility. At the same time, high population growth rates undermine educational provision because they reduce the amount of available expenditure per child.

However, the countries in Asia where population growth has been reduced, e.g. China, India, Sri Lanka, are not always those which perform best on educational indicators. In East Asia, with, in aggregate, the best record of gender parity in education, whilst population growth rates have slowed considerably in some countries, to under two percent per annum, in others they remain relatively high, e.g. Viet Nam, Malaysia, Taiwan and the Philippines.
3.2.2 Employment, unemployment, wages and returns to education

Other economic issues relating to employment have been raised to explain continuing gender differentials in education, such as low levels of female participation in the labour force, high female unemployment rates, and wage discrimination faced by women, leading to low returns to educational investment. 35

There is a clear positive relationship between participation in education and probability of being in the labour force, for women. Thus, as indicated above, countries in East Asia with high female participation in education also tend to have high rates of female labour force participation. However, it is unclear as to what impact participation in the labour market has on participation in education, though one might assume it motivates both women and their parents to increase investment in education. (Tilak, 1991).

Wage discrimination according to gender is a feature of labour markets world-wide, to varying degrees. This acts against female participation in education in two ways: by reducing the possibilities for women of supporting their own education through earnings and by lowering the returns to educational investment for women and/or their families. However, the relationship between wage discrimination and participation in education is not clear-cut. (Khan, 1991).

In East Asia, for example, where there is relative equity in education, wage discrimination is quite marked. For example, ILO data (cited in Baden, 1993) show that, in 1991, female earnings were only 69 percent of male earnings in manufacturing in Hong Kong, 51 percent in Korea and 56 percent in Singapore. In Sri Lanka (in 1990) female manufacturing earnings were 90 percent of male earnings and in Burma (now Myanmar) in 1986, female manufacturing earnings were 86 percent of male earnings. (Baden, 1993: Table 3). Even in government jobs, where pay is nominally equal, full earnings data (taking account of fringe benefits) would probably show a gender differential (Tilak, 1991) 36

Parents and female children may perceive limited opportunities in the labour market and low wages as obstacles to realising the returns to educational investment, or at least as increasing the risks attached to this investment. The less it is perceived that education will lead to increased future earnings, the less likely women are to continue in school. The reverse effect,

35 However, exploration of relationships between these factors and education indicators is hampered by problems in the definition and reporting of female labour force participation, unemployment etc, which could lead to serious biases in estimates of rates of return.

36 Gender discrimination in labour markets does not necessarily imply that returns to female education are lower than to male, since it is the increase in earnings resulting from the investment which is key (Behrman, 1991). Where women’s access to formal sector labour markets is predicated on attaining a certain level of education (e.g. secondary level) and where gender based wage discrimination is not pervasive in formal sector labour markets, increased earnings associated with investment in female education may be greater than those for boys, such that private rates of return to female education are higher for those women able to enter the formal sector labour market. This is argued, for example, by Appleton, Collier et al, with respect to women, education and the labour market in Côte d’Ivoire. (Appleton, S., Collier, P., and Horsnall, S., 1990, ‘ Gender, education and employment in Côte D’Ivoire,’ Social Dimensions of Adjustment Policy Analysis Series, Working Paper No. 8, World Bank, Washington.)
whereby wage discrimination forces women to get more education to increase their earnings relative to men, is apparently not prevalent. (Tilak, 1991).

Unemployment may tend to put downward pressure on female participation in education in the short term, as girls and/or women are pushed back into a ‘secondary earner’ role under recessionary conditions and girls are taken out of education as a result. Boys may also be removed from school to earn income, but are less likely to be substituted for female labour in the home. Increased unemployment may also lower investment in education in the longer term, since it will decrease the perceived likelihood of returns being realised in the form of earnings. However, it may, at the same time, reduce the opportunity costs of education and thus encourage greater participation - this is more likely to be true of boys, than girls, however. Where there are gender differentials in unemployment at particular levels of education, such that women’s unemployment is higher, this will clearly reduce the expected returns to female education. (Tilak, 1991).

In many East Asian countries, women have lower unemployment rates than men but in some countries with high female participation in education, (e.g. the Philippines) female unemployment rates are relatively high, compared to others, e.g. Thailand, with relatively low female enrolment at secondary and higher levels, but relatively low female unemployment. (Tilak, 1991). In Bangladesh, unemployment rates of female graduates are much higher than those of male graduates (BRIDGE, 1994).

In order to analyse more precisely the linkages between macro trends in employment, unemployment and wages, and gender biases in education, education specific data by gender and employment status are required. (Tilak, 1991). Beyond this, there is a need for more attention to the economic impact of female education on activities outside formal sector labour markets, i.e. in informal sector activities; small farming; home based production etc. (Herz et al, 1991).

The impact of female education may be limited where women’s access to employment or resources which would enable them to be more productive is constrained. Floro and Wolf (1990) suggest that it is the combination of independent income and the skills and attitude changes generated by education, which leads to greater decision-making power and autonomy for women.

3.2.3 Intra-household resource allocation

There has been considerable work done, from an economic perspective, on household decisions about investment in children’s education, as part of a wider literature on the economics of the family and the household. Some of this work (e.g. Folbre, 1985, on the Philippines; Greenhalgh, 1985, on Taiwan) highlights the importance of remittances or inter-generational transfers of income from children to parents, and also, gender differentials in allocation of resources such as food, health care and education, to children.

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37 Official unemployment statistics may be deceptive, however, for variety of reasons: e.g. women are less likely to register as unemployed; men are more likely to job search for longer periods and thus be temporarily out of labour market for longer periods. (Baden, 1993).
The broad argument advanced from a neo-classical economic perspective is that parents invest less in daughters because they expect lower returns (either because daughters will get lower paid jobs, spend less time in the labour force, and/or because they will leave the family and get married), or because their tastes and attitudes, which are ‘given’, prejudice them against female education.\(^{38}\) However, this assumes that parents make joint decisions and have the same interests in their children’s’ education - which may not be the case. Alternative analyses, based on bargaining power approaches to the household, have stressed the need to look at gender relations within the household as a factor in determining how resources are allocated.

Whilst it is often argued that parents’ will not realise the benefits from educating daughters, in fact, parents may be able to access earnings of young female members of the household more easily, at least in the short-term before they marry and have children. In the patriarchal family structure, daughters’ incomes may be more easily appropriated by the household, or daughters may feel more obliged to meet expectations to provide income to the household.\(^{39}\) It is well documented that men retain a larger portion of their income for own consumption than women (e.g. Bruce, 1988). It has already been shown that in Taiwan, for example, daughters’ incomes are often used to finance sons’ education.

It is not clear how decisions to invest in children’s’ education are related to (a) expectations of financial returns by parents, or (b) actual returns to parents from educational investment, for sons’ compared to daughters’ education. Although it is often argued that men support parents because women marry out, once sons are earning, and particularly when they have their own families, they may be unwilling and/or unable to give money to parents. Moreover, in some kinship systems, social obligations are such that women, rather than men, are expected to support their parents. This is the case, for example, in Thailand and is sometimes used as an explanation for relative gender parity in education there (Tilak, 1991).

Given pervasive patterns of gender discrimination in the labour market (see above), parents may see the possibilities of their daughters earning a decent income as limited. Nevertheless, numerous examples can be found where parents do realise the earning power of daughters - at least in particular kinds of jobs - or the value of educating daughters as a strategy for marrying into more wealthy, or well-connected families. In South India, families are said to educate daughters as a strategy against famine, intending to marry them to white collar employees with a greater degree of security. (Khan, 1991). In Bangladesh, and elsewhere, women who work in manufacturing industry, with relatively high education levels and wages, are often sought after marriage partners (BRIDGE, 1994).

\(^{38}\) Notwithstanding the discussion in this section, there are several cases in Asia where girls’ enrolment ratios are actually higher than boys’ at least at primary and secondary levels, and in one or two cases at tertiary level, e.g. in the Philippines, Mongolia. Thus, preference for male education is certainly not a universal ‘given’ in the region, and may be declining as a result of processes of social and economic change, as well as progressive educational policies.

\(^{39}\) Greenhalgh found that in Taiwan: ‘In the post-war environment, with expanding job opportunities for those with junior high, high school and even college educations, parents increased their investments in most of their daughter’s education just enough to get them a good-paying (sic) job but not beyond a level they could repay before they married, while increasing their investments in their sons’ education as much as they could on the assumption that the higher the investment, the higher the return’ (Greenhalgh, 1985: 280; emphasis added).
Beyond the broad generalisations about the costs and benefits underlying household decisions about education, more detailed analysis is needed about how considerations of social mobility and economic security interact with kinship structures and obligations, to influence gendered decisions about investment in girls’ education in particular contexts.

**Gender bias in allocation of food and health care**

It is well documented for at least parts of South Asia, that there is at least selective discrimination against some girls within households through unequal allocation of food and health care resources, compared to boys (see e.g. BRIDGE, 1994 on Bangladesh). Such biases in household resource allocation may act to reinforce any biases in educational expenditure, since undernourished or sick girls are likely to perform less well at school and have more regular absences. School feeding and health care programmes may be one approach to addressing this problem, although some analysts (e.g. Rosenzweig, 1986) would argue that this will simply lead to a re-allocation of resources away from girls within the household.

**Opportunity cost of child labour**

Various studies in Asia have looked at the relative involvement of girls and boys in domestic and market labour, to assess the opportunity cost of schooling. For example:

In Nepal, studies have documented that the demand for girls’ labour exceeds the demand for boys labour by half. In India and Bangladesh, and Nepal, by the age of 5 many girls are involved in such household responsibilities as collecting water and fuel and managing younger siblings and farm activities. Between the ages of 10 and 15, girls may work 8 to 10 hours a day on productive activities inside and outside the home. Time use studies in India have shown that younger girls worked 5.5 hours and older girls 7.7 hours a day in adult household and agricultural tasks, whereas younger boys spent only 1.8 hours and older boys 3.6 hours on such tasks. (Herz et al., 1991: 27).

Although boys also perform some household chores, they are more likely than girls to work in the market, possibly contributing some of their own income to school costs. Girls are more likely to be assigned domestic responsibilities at young age. A recent study in Indonesia found that ‘families rely much more on older girls than on older boys to care for younger siblings’ and that girls are much more likely than boys to drop out of school to look after sick siblings, for example. (Ibid.: 28).

In some situations, boys’ labour may (e.g. in herding) may also carry a high opportunity costs, on the whole:

Sons do fewer chores at home and do not liberate either parent to earn more. The full opportunity cost of educating girls may thus be higher than that for boys, especially for poor families. This difference may help explain why poor parents often invest less in their daughters’ schooling than in their son’s. (Ibid., 1991: 28).
3.2.4 Household characteristics

Various household ‘characteristics,’ such as level of education of parents, occupation of parents, family size and income group, have been put forward to explain variations in female enrolment.

Education

Studies show that as parents’ level of education increases, so does the likelihood of female enrolment, but there are variation in studies as to whether mother’s or father’s education has the greatest impact on daughters’ education.40 One study in Lahore, Pakistan, found that fathers’ education had a much greater influence over daughters’ than sons’ schooling. Mothers’ education was less important, except in upper middle class families (Khan, 1991). Elsewhere, studies have shown that mothers’ education level has a major effect on attitudes to daughters’ education and in some cases, a significant impact on education of both sons and daughters. (Ibid.; Tilak, 1991; Herz et al, 1991). In some cases, mothers education affects daughters but not sons. (Tilak, 1991).

The literacy rate of the community as a whole, as well as within particular households, has a significant impact on female participation rates in education, suggesting a demonstration effect within communities, even socially very conservative ones (Khan, 1991: 193). Literacy (especially of women) was also found to be a significant predictor of both total enrolment and gender parity, at the national level (Herz et al, 1991), lending analytical weight to the saying ‘When you educate the women, you educate the nation’.

Occupation

Similarly, parents in white collar occupations are more likely to support daughters’ education than those in blue collar occupations (Tilak, 1991). It is not clear how mothers’ occupation, separately, might influence daughters, since most such studies focus on the occupation of head of household (presumed to be male). Where mothers are working, they may be more motivated to send daughters to school, because they perceive the connection between education and increased earnings and, possibly, because they can financially assist in supporting their daughters’ education. On the other hand, female employment, and increased female wages, may increase the likelihood of dropout or non-attendance of girls, due to substitution of labour. According to one study on India, a 10 percent increase in female wages was said to cause a five percent drop in girls’ school attendance. (Rosenzweig, 1980, cited in Khan, 1991). The overall impact of mothers’ occupation depends on the relative strength of substitution and income effects (Herz et al, 1991). It may be necessary to combine labour market initiatives with counter measures to offset the increase in opportunity cost of daughters’ labour in the home, when mothers engage in market activity.

40 If there is a relationship between the level of education of mothers and fathers, which seems likely, it may be difficult to distinguish their effects separately.
**Family size**

Whilst there is some micro-study evidence that girls in larger families are less likely to go to school and/or perform less well, in aggregate, this is not necessarily borne out in all cases - e.g. the Philippines, with average family size of 5.9, has better female enrolment than other countries with smaller average family size. Thailand, on the other hand, has the second highest aggregate family size in the (East Asia) region (5.7) and one of the lowest female participation rates in secondary and tertiary education. (Tilak, 1991: 237).

**Income**

At the micro-level, poverty may be critical in decisions on female education. Income (or other measures of wealth, such as land-holding) has more affect on girls’ than on boys’ education. In higher income strata, girls are considerably more likely to be enrolled in school than in low income groups. This may reflect a strategy favouring boys where parents cannot finance all children to attend school, and also higher opportunity costs of girls’ labour in poorer households. (Tilak, 1991: 226-7). Opportunity costs of child labour may be particularly hard for low income households to bear - in poorer households, girls are less likely to attend school, since their labour is more essential to the household, where mothers are more likely to be working.41

The percentage of direct costs of education in average household income varies across countries but is similar for boys and girls, reaching as much as ten percent of household income (Herz *et al*, 1991). Poorer households in particular will find it harder to meet the direct costs, as these will represent a higher proportion of household income. Data on the proportion of household expenditure spent on education do not, however, reveal the division of responsibility within the household for paying for schooling costs for different children. If, for example, mothers are generally responsible for school fees, then there is little basis for assessing affordability on total household income.

**3.3 Socio-cultural factors**

Religious, ethnic and other socio-cultural factors are not static constraints on female education, but interplay with other factors, and are susceptible to change.

**3.3.1 Religion**

The evidence on the impact of religion on girls’ enrolment is inconclusive, suggesting that it is too simplistic to associate low participation of girls with particular religious affiliations. Whilst examples can be found which appear to link, for example, the predominance of Islam with low female enrolment and wide gender gaps in education, there are also counter examples. The two predominantly Muslim countries in East Asia - Malaysia and Indonesia -

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41 This does not, however, explain the persistence of a gender bias in education even in higher income households (See, for example, Chapter 8, ‘The impact of adjustment on women,’ in World Bank, 1990, *Analysis Plans for Understanding the Social Dimensions of Adjustment*, which shows that, in Côte d’Ivoire, even when incomes rise, up to one quarter of girls remain uneducated.).
have the lowest female literacy levels in the sub-region after China, but Malaysia has a relatively good record of gender parity in secondary and higher education. (Tilak, 1991). In Sri Lanka, for example, Muslim communities lag behind other communities in terms of access to education. However, these associations are, on the whole, too simplistic - religious practice varies considerably between different countries and communities and class, income and other factors mediate the impact of religious attitudes. (Khan, 1991: 179, 191).

South Asia is a culturally heterogeneous region, in terms of religion (encompassing Islam, Hinduism, and Buddhism as well as significant Christian and other religious minorities), so that no single doctrine can be isolated to explain low female enrolment in the region. However, certain socio-cultural practices associated primarily, but not exclusively, with Islam and Hinduism, such as purdah, early age at first marriage and dowry, may be particularly limiting in terms of girls’ access to education.

3.3.2 Age at marriage and marital systems

Marriage, particularly early marriage, may affect girls’ educational achievement. Single women tend to have higher educational levels than married women, but the trade off is not simple; there may be common causes of both, rather than a clear causal link. (Tilak, 1991: 236). In most countries, the legal minimum age at marriage, and actual average age at marriage, are lower for women than for men. Early marriage thus probably acts as more of a deterrent to female than to male education. In South Asia, the legal minimum age at marriage in most countries is between 15 and 16 for women, and at least two years older for males. Actual average age at marriage in Pakistan, Bangladesh and India ranged between 17 and 22. In Sri Lanka, with better participation of women in education, over half of women were still unmarried at age 23. (Khan, 1991).

The practice of dowry introduces further ‘hidden costs’ of female education. Allowing girls to continue in education means that, where men expect to marry women less educated than themselves, parents will have to pay more dowry to marry their daughter to more educated men. Even university educated men do not show a preference for women of the same educational level (Ibid.). The need to save up resources for a girls’ dowry may take away resources which might otherwise be available for girls’ education or oblige girls’ to enter the labour market to save towards marriage (Tilak, 1991: 236). Some researchers have suggested providing a dowry subsidy to parents as an incentive to promote female education. (Seetharamu and Ushadevi, cited in Khan, 1991: 192).

On the other hand, in some instances, education of daughter may be seen as a substitute for dowry, and therefore represent a good investment from parents’ point of view, rather than a hidden cost. This may be more likely among urban and middle class families, however, where women are increasingly expected to be wage earners. (Tilak, 1991: 236).

3.3.3 Ethnicity

Ethnicity may also impact on female education, partly due to cultural practices in particular communities and partly as a result of state policies. Where state policies positively discriminate in favour of one particular ethnic group, for example through scholarship or quota systems, e.g. Fijians in Fiji, rather than Indo-Fijians; Malays in Malaysia, rather than
Chinese. This may either exacerbate or temper gender differentials in particular ethnic groups (Tilak, 1991; Fleming, 1992a).

3.4 School related factors

The extent, quality and nature of available schooling can have a considerable influence over educational enrolment patterns, including by gender. In many instances, the ways in which schooling is delivered limits girls’ access or performance. The quality of educational provision tends to affect attendance and performance. This may have a particular impact on girls, where, for example, there is a general tendency for teachers in large classes to pay less attention to girls.

3.4.1 Types of school

In some Asian countries, e.g. Malaysia, girls have much higher enrolment ratios in religious schools than boys. This may be because parents feel that such schools inculcate moral values which are not taught in state schools. (Tilak, 1991). Sex-segregated schools may also be preferred by parents for girls, and there is some evidence that girls, although not boys, perform better in these than in co-educational schools. (Ibid.)

In the Pacific, there is considerable involvement of the private sector and churches in education provision, particularly at post-primary level where public supply is limited, as well as local community involvement, for example in pre-school education, but also in community colleges in Papua New Guinea and Tuvalu, for example. In Papua New Guinea, community schools are reportedly subject to temporary closures due to local conflicts (Booth, n.d. (c)).

No analyses have been found of the varying gendered conditions of access to these different institutions, nor indeed any information about the extent to which gender issues are under discussion in different institutional contexts. There is some indication that, in Papua New Guinea, girls have higher representation in church schools post-primary level, but elsewhere there was no strong evidence on greater or lesser biases in private or NGO provision. It is suggested (Booth, n.d., (c)), that parents prefer to send daughters to church schools in Papua New Guinea.

3.4.2 Distance and location of school facilities

Distance of school facilities is used as a conventional measure of the adequacy of supply of school places (Khan, 1991). It is often argued that the greater the distance of the school, the more the gender gap in participation will be increased, because, for example, of parents’ concern about girls’ safety, or moral reputation (particularly in communities where female seclusion is the norm). Fall off of attendance tends to occur especially as girls’ approach puberty, when family honour (izzat) in some predominantly Muslim societies becomes linked to concerns over daughters’ sexual modesty. Transport availability is a bigger issue for female students than male and may introduce other ‘hidden’ costs of female education. Similarly, the need to provide girls’ with suitable clothing, where questions of moral reputation and seclusion are at stake, can prove a disincentive to female education.
Where separate schools are the norm, shortage of places and distance of female facilities may be a particular issue. However, costs of duplicating facilities may be prohibitive and may lead to second rate institutions for girls. Distance is more of a problem at secondary level, partly for reasons given above, and partly because facilities tend to be further away; moreover, enrolment at primary level may be affected if there is no nearby secondary school, or if the primary school facility is not complete.

In fact, the evidence is not clear as to whether it is distance *per se*, or other factors, such as lack of separate facilities such as toilets, lack of walls around schools, lack of provision for transport, or other barriers are really responsible for lowering female attendance. Some studies have shown that relatively short distances reduce female attendance, it is worry about females crossing a major river or road, or simply being exposed to public scrutiny, which prevents attendance. (BRIDGE, 1994). Issues of social, rather than simply physical, distance, may be constraints on attendance, e.g. where schools are located in upper caste areas of villages which lower caste children may not be able to enter, although there is no clear specifically gender bias arising from this.

From a gender perspective, questions of distance take on a different slant. The real barriers around distance, transport and secure facilities relate directly to questions of violence against women, or the pervasive threat of this. The threat, particularly of sexual violence, against young women, becomes a rationale for parents to keep daughters out of school. For example, in Papua New Guinea, which has a high incidence of violence against women, villagers in Pimanga, in the Southern Highlands, were: *most reluctant to allow a girls to attend high school [and] rationalised this response by saying that boys could walk home from school using back tracks but if girls’ did this they might be raped* (Booth, n.d. (c): 8).

There is some evidence that female enrolment can be increased with a greater supply of school places and greater proximity, or accessibility of schools to communities. For example, in the Philippines, expansion of the school system has increased female enrolment considerably. (Tilak, 1991: 232) Satellite schools have been successfully introduced in some villages in Bangladesh, to bring facilities closer to home. However, distance is no longer the major problem in some places; supply of school places is thought to be adequate overall, for example, in India. Even in this case, however, supply may be a problem for particular sections of the community, such as tribals, living in remote areas (Montgomery, 1993). Supply may remain a more general problem in countries where terrain is difficult and/or populations scattered, such as Nepal, or some Pacific islands.

Beyond the question of increased supply and accessibility of places, there is clearly a need to devise long-term strategies to tackle violence against and sexual harassment of young women, who may thus be prevented from getting an education. As well as making safer provisions for female students, there is a need for community based awareness raising and action.

### 3.4.3 Curriculum bias and relevance

Curricula may project stereotyped and limited role models/representations of girls and women. Gender-based conditioning which influences choices about subject areas in secondary and higher education and about employment, begins early on. ‘Culturally conditioned perceptions of girls and the hidden curriculum in schools influence their
educational and vocational aspirations, their subject choices and their options for further study and employment’. (Jayaweera, 1987: 465)

Another aspect of the curriculum is its perceived relevance, both by parents and by students, and the impact of this on attendance. This is a tricky area, since parents’ perceptions of what subjects are appropriate and relevant for girls may be quite limiting. Parents tend to have an instrumental attitude towards education, seeing it principally as a route to employment, or transferring skills and values which will make girls better wives and mothers (Jayaweera, 1987). Rural families particularly, may favour traditional skills such as childcare, cooking and handicrafts for girls (Khan, 1991: 191). Where increased local participation in school financing and management is being promoted, this may be leading to increased conservatism about appropriate curricula for girls.

Where places at higher levels are rationed by a rigid examination policy, female access may suffer, or drop out may be higher. Domestic demands on girls may mean that they take more regular absences; they may also have less time for homework. These can result in them doing less well in exams thus reinforcing parental bias towards investing more in boys. Where girls drop out and repeat years, performance will be affected - repeaters or those withdrawn for temporary periods and re-entering do less well than those with consistent attendance. One solution to this may be to enforce compulsory enrolment at prescribed ages, although this might have unintended negative effects. (Herz et al, 1991).

3.4.5 Female teachers

Low representation of female teachers is thought to be a constraint on improving access of girls to education and quality of girls’ education, due to (a) parental worries about contact of adolescent girls with male teachers, particularly in highly sex-segregated societies; (b) conversely, the lack of attention given by male teachers to female students; and (c) the need for female teachers as a role model for girls.

Table 3 gives data on the representation of female teachers at primary and secondary levels for 1980 and 1988, for countries in Asia and the Pacific. As the table shows, on the whole, representation of women among teachers declines higher up the educational system, with lowest representation at tertiary levels (not shown here).

Those countries with a low representation of female teachers also tend to have low enrolment ratios of females in schools, and low gender parity, e.g. Afghanistan, Bhutan, Bangladesh, Nepal, Pakistan, Papua New Guinea. However, the relationship is not direct: India, for example, has higher female enrolment ratios than Pakistan or Afghanistan, but lower representation of female teachers (in the latter two cases, segregated schools may partly explain this). In East Asia, only China (42 percent), Korea (47 percent) and Laos (35 percent) have less than 50 percent female primary teachers. Those countries with high representation

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42 In Fiji, girls performed better than boys up to secondary entrance level, with more girls than boys passing the entrance exam. After this, however, girls’ relative performance deteriorated. (Fleming, 1992a).

43 This is not a universal pattern, however: India, Myanmar, Thailand and Papua New Guinea, for example, have more female teachers at secondary than at primary level, according to data in Table 3. In Pakistan and Laos, there is the same proportion of female teachers at both levels.
of female teachers (Hong Kong, Mongolia, Philippines) tend also to be those with a longer history of high enrolment of girls. There is also a danger, however, of teaching (particularly at primary level) becoming a feminised profession (as for example in the Philippines), and consequently suffering from low status, pay and conditions, relative to other labour market opportunities.

Table 3: Share of female teachers in selected countries in Asia and the Pacific, primary and secondary levels, 1980 and 1988.

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In aggregate, there is an association between low representation of female teachers and poor access/performance of girls and conversely, between high representation and high female
enrolment and gender parity. However, it is not clear to what extent female teachers actually improve girls’ educational prospects, since the representation of female teachers is itself a function of the representation of girls in the education system, particularly at secondary and higher levels and on teacher training courses. (Tilak, 1991). Although these broad patterns suggest that female teachers encourage female enrolment, there are very few micro-level studies which examine this hypothesis.

Some of the constraints on increasing female representation in teaching are similar to those on increasing female enrolment generally, e.g. lack of separate facilities, lack of secure accommodation. Policies adopted to increase female representation in teaching will be examined in the next section.
4. POLICY AND PROGRAMMES: SUCCESSES AND FAILURES

Three promising types of measures to increase girls’ education have been identified, i.e.: increasing the economic returns of educating girls (through economic policies); lowering the costs to parents of educating girls; and providing direct incentives. (IBRD, 1991). Identifying appropriate policies depends on the context. As seen in sections 2 and 3, there is wide variation by region and country, in the extent and nature of the gender gap and in the range of constraints limiting female education.

In poor agrarian societies, direct and opportunity costs, as well as socio-cultural factors, pose severe constraints and the gender gap is wide, as in much of South Asia. In these countries, progress in education requires policies addressing a number of constraints simultaneously, through economic, as well as educational approaches. At the same time, severe budgetary constraints mean that there is little if any additional expenditure available for education (Herz et al, 1991: 32). In the countries under transition in East Asia (China, Laos, Vietnam), there is a need to ensure that past progress in extending education and lowering gender inequalities are not sacrificed in the drive towards liberalisation. In middle income countries, the constraints on female education are less severe, particularly at primary level. Attention needs to be focused on secondary and tertiary education, and on widening fields of study and labour market opportunities for women.

4.1 Economic policies

Policies to improve girls’ access to education, reduce gender gaps and increase the quality of girls’ education are not restricted to the education sector. As seen above, macro-economic and employment policies can directly impact on the returns to girls’ education in terms of the possibilities of their labour market participation, self-employment and returns to economic activity.

Macro-economic policies may cause distortions which create biases against women’s economic activities, where, for example, women are concentrated in sectors which are discriminated against by pricing structures, availability of credit, access to markets etc. Such distortions may limit women’s ability to realise the returns of educational investment in increased productivity or income. (Herz et al, 1991).

In poor agrarian societies, where women have a very limited range of opportunities, policies which increase women’s access to labour markets and improve their productivity and earnings will be particularly important. As well as measures to assist women in increasing productivity and earnings, measures are also needed to offset the increase in opportunity costs of girls’ household labour arising through increased female labour force participation and wages, e.g. through improved childcare provision, water supply provision.

In rural Pakistan, for example, there are few employment opportunities for women with education, except for government jobs, e.g. in health and teaching, which require relatively high levels of education. The investment required and the risks involved are too high for most families, given the limited range of employment options for women in local communities.
One response might be to lower employment requirements for women in government jobs in rural areas. Another would be to lower the costs of education to families. (Herz et al, 1991).

Better information and analysis is required about the potential interactions between macro-economic policies, employment policies and educational investments, in overcoming constraints to female education.

4.1.1 Public expenditure and educational financing

The share of education in government expenditure and GNP is low in South Asia, particularly in Bangladesh and Pakistan (2.2 and 2.1 percent of GNP respectively) compared to the low income developing country average of 3.3 percent (Khan, 1991: 182; Herz et al, 1991: 82). Even Sri Lanka, with a previous record of high public spending on social programmes, has shrinking expenditure in this area since the 1970s, but particularly since 1987. Where military expenditure is rising, educational expenditure tends to fall; the reverse is also true. (Khan, 1991).

In East Asia, on the other hand, educational expenditure is higher on average, with most countries spending at least three percent of GNP and some much more (e.g. Malaysia). Similarly, in the Pacific region, educational expenditure is over four percent of GNP for Papua New Guinea, Tonga, and Fiji. (UNESCO, 1991a).

Where investments are currently low, increased education expenditure is a necessary but not sufficient pre-condition for expanding enrolment and tackling the gender gap. To this extent, a reorientation of government (and donor) expenditure priorities may be required. However, there is considerable variation in the efficiency of education systems, which mediates the effectiveness of increasing public expenditure. Additionally, more money alone will not necessarily overcome gender-based constraints, without some restructuring of service delivery systems and simultaneous action in other areas.

Decentralisation of school management and financing has some positive aspects in introducing more flexibility in systems, enabling local solutions to gender constraints to be found, as reported for China (Herz et al, 1991: 43). However, whilst such measures may allow increased flexibility which works in favour of increased girls’ enrolment and also more rapid expansion of education provision, there may also be negative quality and equity impacts, such that those areas most in need of investment to improve the quality of education are those least able to afford to finance it. (Colclough with Lewin, 1993).

4.2 Education policies

A wide variety of measures have been tried, within the education sector, to address gender constraints in education. These include: awareness campaigns; recruitment of female teachers; protection of girls’ privacy (sanitation facilities etc.); separate schools for girls, of equal quality to boys’ schools; more flexible schedules; retention of pregnant girls and mothers; child care provision; and special scholarships and other direct incentives. (IBRD, 1991).
Other educational measures are not gender specific, but may help girls more than boys where parents are reluctant to send daughters to school, for example, smaller, closer schools; improved quality of schooling; reduction of direct costs of education for all children; deepening community involvement; making school compulsory. The most successful projects involve a package of measures and need to specifically include measures to reduce costs to parents. Increasing the internal efficiency of education can offset subsidies required for improved provision, and special incentives for girls. (Ibid.).

4.2.1 Legislative measures

Legislation which makes education compulsory up to a certain age can be useful in promoting enrolment generally and particularly, enrolment of females (Colclough with Lewin, 1993). Some countries in Asia have a long history of compulsory education at primary level and/or of legislation providing for equal access to education by sex. Thailand has such legislation dating back to 1921, the Philippines to 1901 (Tilak, 1991). There remain a number of countries in Asia and the Pacific which do not have compulsory education, e.g. Bhutan, Papua New Guinea and where enrolment rates are relatively low. (UNESCO, 1991a). However, enforcing compulsory education in a situation of inadequate supply of school places, may be counterproductive.

4.2.2 Awareness campaigns

Parental literacy, especially mothers’ literacy, was shown above to be related to improved educational opportunity of children, and particularly for girls. Awareness and enrolment campaigns linked to adult literacy or other non-formal education for adults may be particularly successful. The importance of conveying the practical benefits of female education to parents has been stressed (Montgomery, 1993). The involvement of community and/or religious leaders in promoting female education may be another potentially successful strategy (BRIDGE, 1994). China is cited as a country where awareness campaigns have had considerable success (Herz et al, 1991), but this may relate to the existence of social and political organisations at all levels of society, a legacy of communist policy which may now be weakening, and reducing the scope for community based activities of this kind. This may also be true of Vietnam (see section 5.2), Laos and Cambodia.

Little is known about the impact of such campaigns. Attitudinal change is difficult to assess or relate directly to interventions rather than other factors; moreover, during and immediately following campaigns, schools and campaign organisers are likely to inflate their enrolment figures more than usual (Montgomery, 1993).

4.2.3 Incentives and subsidies to female education

Subsidies to girls’ education are justified on both efficiency (externalities) and equity grounds. Incentives are necessary to overcome the direct and opportunity costs of female education, where these may be higher than those for boys and/or where parents tend to favour educating boys in a situation of scarce resources.

Numerous approaches to providing special incentives or subsidies to encourage girls to attend school have been adopted in Asian and Pacific countries in recent years. These include:
exemption from fees; subsidies for uniforms and textbooks, scholarships; and school feeding and health programmes, *inter alia*. Such policies have been implemented in India, for example, and also Bangladesh. The Bangladesh Secondary Education Scholarship Programme, which started in 1977, gave over 18,000 scholarships in grades 6-10 to cover secondary tuition and succeeded in expanding enrolments ratios of girls from 27 percent to 43 percent of the eligible population in the project area (it is not clear how this compares to increases in non-project areas) and in reducing drop-out of females, as well as having spin off benefits at primary level. However, it was also found that:

The decision to limit funding to a target group of girls from "poor" families ... proved unwise as: a) the chosen indicator of poverty was too low; b) administrative costs increased and school places were left empty because of problems identifying suitable candidates and c) community support deteriorated when some girls were excluded.' (Herz *et al*, 1991: 44).

The Bangladesh Fourth Primary Project (1980-86), which provided free uniforms to female students, found: ‘No evidence that the distribution of uniforms contributed to a substantial increase in the enrolment of girls. There was a marginal increase in girls’ enrolment at the start of the programme, but enrolment decreased when some girls, although not eligible for free uniforms, dropped out of school because they were excluded from the programme.’ (*Ibid.*, ;1991: 70).

Details of other experiences, and the numbers of students covered, were not found, but the above suggests that provision of direct incentives may have limited impact, in the absence of other measures, and that narrow targeting of such incentives undermines their effectiveness.

### 4.2.4 Recruiting female teachers

Increasing the proportion of female teachers, particularly at primary and secondary levels, is another major strategy which has been tried in order to reduce gender inequality in education. Various measures have been tried. Quotas for entry into teacher training and/or teaching jobs are one approach. However, in some cases, quotas can become ceilings such that women’s recruitment does not advance beyond a certain level, particularly if they are set too low (BRIDGE, 1994). It also may give the appearance of having dealt with the problem, when in fact quotas are not filled. In some countries, female representation in teaching is very high - e.g. Philippines. However, above a certain level, increased representation of female teachers is liable to create a ghettoised profession, particularly at primary level. Thus, increased representation of female teachers should not be seen as a wholly positive development.

Experience from elsewhere shows that, in the context of structural adjustment programmes, or more generally, restrictions on public expenditure, teachers real salaries may have been progressively eroded due to rising inflation, such that they either abandon the profession or take up other jobs or income earning activities concurrently. (BRIDGE, 1993). Where there are pressures of this kind, training of new recruits to the profession will be of limited benefit unless they can be retained through improved pay and conditions, or other incentives. Such problems may be particularly pertinent to those Asian economies undergoing currently transition to the market (China, Laos, Vietnam), where private sector opportunities may be increasingly attractive relative to working in a low wage public sector.
Lowering the entry qualifications for women is another form of positive discrimination which
could increase female representation in the profession, particularly where recruitment from
local communities is being encouraged, often linked to the creation of community based
facilities. Many such programmes have been implemented, often taking in girls at post-
primary level and enrolling them in teacher training courses at secondary level (Herz et al,
1991: 50). Adequate training and support, and possibilities for further training and promotion
should be given in such instances, however, to ensure that a second class tier of female
educators is not created.

In 1971, in Nepal, a programme was started to increase rural women’s access to teacher
training, through a variety of measures including awareness raising, community involvement,
financial assistance, tutoring, home posting and in-service training. Over eight years the
percentage of females in the teaching force rose from three to ten percent and girls’ enrolment
in schools also increased dramatically in schools affected by the project. (Khan, 1991: 194;

A mohalla (home school) programme in Baldia, a large squatter settlement in Pakistan,
recruited local women with a high school education and trained them as teachers, to work in
homes, therefore avoiding issues of purdah and cutting costs on travel, uniforms, shoes etc.
The programme is reported to have had considerable initial success, enrolling some 1500

Similarly, Bangladesh Rural Advancement Committee (BRAC), a large NGO in Bangladesh
have, as part of their Non-formal Education Programme, required communities to supply a
local female secondary school graduate to be trained as a teacher, as well as to provide a one-
roomed school building. Hours of teaching are arranged flexibly around domestic work
demands and a more appropriate curriculum has been devised. These schools also require a
two thirds enrolment of females as students. (BRIDGE, 1994). Retention rates have been
high, even in impoverished areas, countering claims that poverty is the main constraint to
female education in the Bangladeshi context.

Elsewhere in Bangladesh, problems have been reported with local recruitment of teachers -
 i.e. absenteeism, taking on students for private tutoring and favouritism towards private tutees.
For these reasons, villagers did not favour local teachers. Recruiting from outside the locality
brings in another set of problems, however, since few women are willing to relocate to
unfamiliar communities, particularly in remote rural areas. (Khan, 1991: 195). Issues of
isolation, physical security and vulnerability arise for female teachers posted to remote
communities.

Financial and other incentives may be required to encourage teachers to relocated to rural
areas, e.g. provision of housing, relocation expenses, transportation etc. However, on their
own, these will be insufficient (Herz et al, 1991: 48). Allowing regular home leaves and
creating networks of support may also be necessary. Encouraging re-entry of women into
teaching after long breaks from the labour force may be another way of increasing female
4.2.5 Non-formal education provision

More flexible community based forms of education provision, with greater community participation, flexible hours, adapted curricula and other innovations, have had considerable success in increasing female enrolment and reducing drop out rates. BRAC’s programme in Bangladesh described above is one such positive example. (BRIDGE, 1994).

One scheme in Pune, Maharashtra (India) held classes in the evenings, between 7 and 9 p.m., when evening meals and domestic chores were completed, to make them accessible to girls. Another project in Nepal, for low caste girls, held classes early in the morning, before household chores had begun, again with some success in reducing drop out. However, upper caste families were able to oppose the subsequent enrolment of these girls into local public schools. This underlines a concern that non-formal programmes may introduce a two tier system unless bridges are found into the formal system. (Jayaweera, 1987).

Distance education has been seen as a solution to extending educational provision, particularly at tertiary level, in the Pacific, partly because of the geography and demography of the region. There are sizeable extension programmes e.g. in University of Papua New Guinea. From a gender perspective, distance education may have some advantages: it increases access to wider range of people, has lower costs, and enables participants to combine study with work and/or childcare. It may also ease budgeting of educational costs for women. It has also been argued that it is better for women in that they are not exposed to the negative influences of discriminatory attitudes and behaviour of teachers and peer groups in the classroom (Martin, 1988).

On the other hand, distance education does not provide space for women to study separately from other responsibilities and they may thus have greater difficulties than men in maintaining their commitment (Ibid). Where study skills are required to prepare people for distance education, women may be disadvantaged without additional support.

Overall, data suggest that distance education is still dominated by men: In Papua New Guinea (in 1988) women represented less than a third of distance learners; in Tuvalu, there were more men (two thirds) than women enrolled for distance education courses at the University of the South Pacific extension centre (Booth, n.d. (d)).

One structural problem with all these examples of non-formal education provision, is that, whilst they address the practical issue of how to make schooling accessible to women who are tied by their domestic responsibilities, they do so by working around these responsibilities, rather than reducing them. Other measures, such as childcare provision attached to schools, or attempts to involve men/boys more in domestic chores to allow women to study, might be more in women’s strategic interests in the longer run. In Andhra Pradesh, India, one study recommended that pre-school child-care centres (locally known as anganwadi) should be integrated with primary school provision and that this should be considered at the school mapping stage. Provision of child care facilities as a means to reduce the opportunity cost of female labour will not be helpful unless it is provided at times and locations which relate to the availability of schooling. (Montgomery, 1993)
4.2.6 Curriculum bias

Few initiatives are reported in Asia and the Pacific in the area of curriculum reform from a gender perspective. Whilst several surveys report findings that textbooks overwhelmingly present men or boys as leading actors, and under-represented women, or represent them in stereotyped roles and attitudes, little information is found about measures taken to address these biases. (Khan, 1991: 196-7). According to Jayaweera (1987: 465)

Although studies have been carried out particularly in Bangladesh, India and Pakistan on gender role stereotypes in educational materials ... only China, India and the Philippines have taken specific measures to introduce curriculum materials that may promote gender equality.

Educational materials are only one issue in curriculum bias, however. The attitudes of teachers, and others who influence decisions about subjects of study, and the allocation of girls and boys to particular subject areas, are equally, if not more important, as shown above. Improved teacher training, including gender awareness and equal opportunities training, and encouragement to girls to take up and pursue subjects like maths and science from early on are required. (Herz et al, 1991: 45).

One source (Khan, 1991: 201) recommends the increased involvement of ‘village women who possess handicraft of domestic skills’ as assistants or demonstrators in local schools, as a positive measure in terms of girls’ education. This may appear positive from the point of view of community participation and increasing the ‘relevance’ of the curriculum to everyday life, but raises questions about the maintenance of curricular standards and professionalism in teaching. From a gender perspective, bringing in older women to demonstrate traditional ‘feminine’ skills would be of limited strategic value to improving girls’ employment opportunities or widening their horizons.

4.3 Assessment of interventions

The above range of policies and programmes illustrate some attempts to date to address gender biases in educational provision and also gender constraints to school enrolment, persistence and achievement. So far, there has been a tendency to act on quality of school provision rather than demand constraints which would reduce the costs of education to parents (IBRD, 1991).

There is a need to devise policies which would reduce the reduce direct and indirect costs of education to parents. However, this is being advocated at a time when: (a) budgets for education are being squeezed and cost-recovery in education promoted; and (b) pressures on households, particularly poorer households, are increasing such that the opportunity costs of child, especially girls’ labour may be increasing.

Quality of schooling has also suffered under restrictions in spending and this may have led to falling enrolment. Where the financing and management of schools is becoming more decentralised, and contributions from the community playing a larger role, this is leading to a variability in the quality (or even quantity) of provision according to the capacity of the
community to pay. Increased local involvement in school management also brings in the danger of increased conservatism over appropriate curricula for girls. Community participation needs to be more critically examined as a strategy for increasing female enrolment.

Some of the most innovative approaches to overcoming constraints to female education have been through non-formal education programmes, which have succeeded, in many instances, in increasing female enrolment, even in impoverished areas. A key issue here, however, is the need to provide mechanisms for the reintegration of girls into the formal system, or the need to adapt the formal system along the lines of non-formal provision. In the longer term, a more strategic approach is required to reducing girls’ child care responsibilities and other domestic labour burdens, e.g. through the provision of school based child care.

Across the range of measures which have been attempted, there is little clarity about which, in practice, are the most effective and which constraints are the most binding on female attendance and retention, although packages of two or three measures, rather than single measures, seem to work best. Thus, there is a need for project related research which looks at the impact and cost-effectiveness to different approaches to overcoming constraints. Furthermore, there is a need for greater understanding regarding the interactions between economic policies and educational policies:

A top priority should be research that would model and test more precisely how innovative education policies and other policies that improve women’s productivity, can be combined to maximise female education at minimum cost. (Herz et al, 1991).

Education programmes with a gender perspective should also look beyond the issue of increasing women’s productivity, or the conventionally defined social returns to female education, to initiatives which are geared, also, to increasing women’s autonomy, decision-making capacity, and participation in civil and political institutions.
5. CASE STUDIES

5.1 China

5.1.1 Recent trends in female education

The 1990 census indicates a long-term upward trend in male and female access to education over the last fifty years in China (Seifman, 1991). In 1988 the overall ratio for net primary school enrolment was 97.2 percent, as compared to 50 percent in 1952, indicating near-universal attendance of primary-age children (Colclough & Lewin, 1993:85).

The most significant periods of expansion of female education occurred between 1950 to 1958 following the establishment of the People’s Republic of China (PRC) in 1949 and during the Cultural Revolution from 1966-1976 (Lavely et al, 1990:61; Rai, 1993:3). During both these periods the Chinese government was committed to eliminating the various manifestations of social stratification. During the period 1977-1982 attempts to extend quality primary and secondary education to rural areas were put on hold. ‘Schools in rural areas were now under-funded and under-staffed compared to schools in urban areas, especially those in cities of strategic importance to modernisation’ (Hanum-Demopolos, 1992).

Reflecting the overall improvements in availability and accessibility of schooling since 1949, female access to education has improved markedly over the last 45 years. In 1951, females comprised only 28 percent of primary school students; by 1973, their share had risen to 41 percent. More recently, female gross enrolment ratios (GERs) for primary education have risen from 103 percent in 1980 to 115 percent in 1985 and 120 percent in 1990. The upward trend in female secondary enrolment was broken by a decline between 1980 and 1985 from 37 to 32 percent, with a subsequent rise to 42 percent in 1990 and 45 percent in 1991 (UNESCO, 1993). Female GERs for tertiary level education, although showing an increase between 1980 and 1990, from 0.6 percent to 1.1 percent, remain extremely low. Similar upward trends, bar the decline in secondary school GERs between 1980 and 1985, are apparent for males.

However, despite these improvements in enrolment ratios at all levels of education, women continue to face considerable inequality within the education sector.

44 It is not clear how the serious disruption of schools, especially senior secondary schools, and universities in urban areas, during the Cultural Revolution period, relate to this period of supposed expansion.

45 Net enrolment ratios are currently unavailable, except for 1990, at 95 percent for females, compared to 100 percent for males.

46 A number of problems with enrolment ratios and literacy rates have been identified. In the former case, enrolment on the first day of school may be used as a measure, regardless of any subsequent dropout. Moreover, population growth may be underestimated due to inadequate record keeping and/or the late registration of second and higher order births (UNICEF, 1989:111; Colclough & Lewin, 1993:89). As a result, enrolment ratios may appear higher than in reality. There are also suggestions that standards of literacy may be exaggerated, as can be seen by the discrepancy between government and other statistics. (Lavely et al, 1990:89).
In 1987, the ratio of females to males in primary education was 88.6 percent; at secondary level the ratio was lower at 74 percent (see Tables A3 and B3). The figures in Tables A through C (see Appendix) indicate that a gender gap persists to varying degrees in enrolment at all levels of education, but particularly at secondary and tertiary levels (Hannum-Demopolos, 1992:6). In 1991, GERs at primary level were 127 for males and 118 for females (net figures were 99 percent and 94 percent respectively); and for secondary level, 56 percent for males and 45 percent for females.

Trends in illiteracy are shown in Table D1 (see Appendix). Official government statistics indicate that the percentage of illiterate females fell from 37.1 percent in 1970 to 28.3 percent in 1980 and 14.2 percent in 1990. Over the same period, men’s illiteracy rates fell from 11.6 percent to 4.0 percent. However, other sources give significantly higher illiteracy rates for women of 32 percent in 1990, compared to 13 percent for men, making it difficult to assess trends (UNESCO, 1993). Reflecting recent improvements in the supply of educational facilities, younger cohorts have substantially higher literacy rates than older cohorts (Jowett, 1989:424).

Table 4 gives more detailed data on the share of female students in total enrolment at primary, secondary and tertiary levels between 1973 and 1989.

These figures indicate a significant lessening of the gender gap between 1973 and 1975, particularly at primary and secondary levels. The female proportion of total enrolment at primary school levelled off at approximately 45 percent between 1975 and 1989. The 1990 Census indicates that the gender gap within recent age cohorts ‘has diminished almost to non-existence’ at primary levels in both rural and urban areas (Hannum-Demopolos, 1992:16). In the case of secondary education, the gender gap is wider than at primary level, although negligible within urban secondary schools (ibid.). Around 41 percent of secondary school pupils were female in 1989. Again, the most rapid narrowing of the gender gap happened between 1973 and 1975.

Table 4: Female Students as a Percentage of Total Enrolment in China, all levels, 1973-1989

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Education</th>
<th>Secondary Education</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>40.7</td>
<td>33.0</td>
<td>30.8</td>
</tr>
<tr>
<td>1975</td>
<td>45.2</td>
<td>39.3</td>
<td>32.6</td>
</tr>
<tr>
<td>1976</td>
<td>45.5</td>
<td>40.4</td>
<td>33.0</td>
</tr>
<tr>
<td>1978</td>
<td>44.9</td>
<td>41.5</td>
<td>24.1</td>
</tr>
<tr>
<td>1983</td>
<td>43.7</td>
<td>39.5</td>
<td>26.9</td>
</tr>
<tr>
<td>1987</td>
<td>45.4</td>
<td>40.8</td>
<td>33.0</td>
</tr>
<tr>
<td>1989</td>
<td>45.9</td>
<td>41.4</td>
<td>33.7</td>
</tr>
</tbody>
</table>

Source: Adapted from Rai, 1993
Females are still highly under-represented compared to males at tertiary level education - females comprised only 33.7 percent of students in 1989. Within this cohort, females from rural areas are heavily under-represented. Moreover, females entering higher education are far less likely than male students to graduate. In 1985, only 18.76 percent of graduates were female (UNESCO, 1990:32).

The significant decline in the female proportion of total enrolment at secondary and tertiary levels between 1978 and 1983 (see Table 4) coincided with a period when the government’s ‘goal of minimising social differentials [was] relinquished in favor (sic) of policies designed for a quick economic recovery’ (Hannum-Demopolos, 1992:12).

The overall provision of special education is low, although significant increases in provision have occurred since 1949. Facilities are available mainly for blind and/or deaf children. In 1987, 62 percent of students in receipt of special education were boys, again indicating significant under-representation of girls in these schools (UNICEF, 1989:117).

5.1.2 Regional and ethnic differentials by gender

Aggregate figures tend to obscure regional, rural/urban and ethnic variations in access to education. However, all these variations are cross-cut by male/female differentials. The children remaining outside the formal primary education system are ‘mostly girls, mostly from rural and remote mountainous areas, and from minority groups’ (UNICEF, 1989:112).

Data for 1988 show that economically deprived provinces and regions such as Guizhou, Tibet, Gansu and Ningxia revealed greater gender differentials in primary level enrolment ratios than urban centres such as Beijing, Tianjin, and Shanghai (UNICEF, 1989:112). Likewise, the 1982 census indicates that, in general, provinces with below average literacy rates (i.e. Guizhou, Anhui, Yunnan) exhibited greater male/female differentials in literacy (Jowett, 1989:422). Xinjiang province, despite being a non-Han Chinese border area, with a large Muslim population, has above average literacy rates and one of the lowest gender differentials in literacy of all provinces and regions (i.e. overall literacy of 69 percent; 64 percent for women and 75 percent for men). The relatively high literacy in this region may be partly explained by in-migration of Han Chinese and attempts to ‘sinicise’ the population. (Jowett, 1989: 420).

Variations in literacy rates by ethnic group have also been identified. Table 5, using data from the 1982 census47 shows male/female differentials in literacy by ethnic group.

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47 This was the most recent breakdown by ethnic group available. It is not known whether a similar exercise using the 1990 Census data has been undertaken.
Table 5: Gender differentials in literacy rates in China for selected ethnic groups aged 11 and above in 1982

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korean</td>
<td>89.5</td>
<td>95.3</td>
<td>83.9</td>
</tr>
<tr>
<td>Manchu</td>
<td>83.0</td>
<td>88.1</td>
<td>76.9</td>
</tr>
<tr>
<td>Kazak</td>
<td>77.9</td>
<td>83.6</td>
<td>71.9</td>
</tr>
<tr>
<td>Mongolian</td>
<td>71.5</td>
<td>79.0</td>
<td>63.6</td>
</tr>
<tr>
<td>Han48</td>
<td>68.8</td>
<td>81.5</td>
<td>55.5</td>
</tr>
<tr>
<td>Zhuang</td>
<td>68.6</td>
<td>84.3</td>
<td>53.0</td>
</tr>
<tr>
<td>Hui</td>
<td>59.3</td>
<td>70.6</td>
<td>47.7</td>
</tr>
<tr>
<td>Uygur</td>
<td>57.8</td>
<td>61.1</td>
<td>54.3</td>
</tr>
<tr>
<td>Yao</td>
<td>53.1</td>
<td>69.5</td>
<td>35.7</td>
</tr>
<tr>
<td>Buyi</td>
<td>44.5</td>
<td>66.6</td>
<td>22.3</td>
</tr>
<tr>
<td>Miao</td>
<td>41.9</td>
<td>60.5</td>
<td>22.3</td>
</tr>
<tr>
<td>Yi</td>
<td>38.4</td>
<td>54.3</td>
<td>22.3</td>
</tr>
<tr>
<td>Hani</td>
<td>29.9</td>
<td>43.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Tibetan</td>
<td>25.7</td>
<td>39.1</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Source: adapted from Jowett, 1989:423

Several interesting features emerge from this data. Firstly, the majority Han Chinese (who form about 95 percent of the total population) are not the ethnic group with the highest literacy rate and the gender gap in literacy among the Han is comparatively wide. Secondly, the most literate groups (Koreans, Manchus, Mongolians), which are also those with the smallest gender gaps in literacy, are concentrated in the North and North-east (one of the areas of China with a long history of economic development). The Kazaks, concentrated in the North-west border areas, also, surprisingly, have a very high literacy rate. Thirdly, the lowest literacy rates are found among minority groups in the South-west and, particularly, Tibet. For these groups, the gender gap in literacy is wide, ranging between 26 and 44 percentage points.

5.1.3 Academic performance

Various studies of academic records within the tertiary sector have indicated that the performance of female students equals or surpasses that of male students (UNESCO, 1990:27-28). However, some studies have shown that female performance is perceived, by both sexes, to be due to hard work rather than intellectual gift (ibid.; Kan Feng Min, 1990). Information on performance by sex within the primary or secondary sectors is currently unavailable.

An increase in female drop out rates over the last decade, particularly in rural areas, has been reported (UNICEF, 1989:113; UNESCO, 1990:39) and this has generated a great deal of debate within the Chinese press (Rai, 1993:2). However, these rates are difficult to determine.

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48 The 1990 census indicates that 91.96 percent of the Chinese population are of Han nationality.
accurately because of the way in which enrolment ratios have been exaggerated (UNICEF, 1989:113) (see footnote 46).

The following sections examine, in turn, the supply and demand factors which have contributed to the persistent gender gaps in education and, more specifically, to the recent increase in female dropout.

5.1.4 Constraints to female participation

Supply factors

Supply factors include the extent of provision of educational infrastructure, the quality of education and the availability of incentives for attendance. Supply factors may be of limited relevance in the primary and junior secondary sectors, where provision has been adequate to meet demand since the 1950s, such that: ‘the parental decision whether to educate a son or a daughter is governed by patterns of social, demographic, and economic incentives rather than by accessibility of schooling’ (Hannum-Demopolos, 1992:8). However, quality of provision at these levels, and in some areas, availability of schooling, are emerging as major concerns. The demand for tertiary education currently exceeds availability and thus supply factors are important in this instance. Although actual numbers of university places have grown over the last three decades, demand for these places has grown at a greater rate, thereby dramatically increasing competition for places (Bauer et al, 1992:343). There is evidence to suggest that when competition for places increases, males tend to be privileged over females (UNESCO, 1989:70).

Increasing costs of education

A major economic barrier to girls’ education is the resurgence of fees and other costs for education, especially during the period of high inflation in the mid to late 1980s. Although in theory tuition fees are not charged for education, other miscellaneous costs such as registration fees, graduation and examination fees, levies for burglary prevention and school repairs can add up to a significant sum (Colclough & Lewin, 1993:90; UNICEF, 1989:126). It is common for families to pay between one and ten yuan per term at primary level and higher rates at secondary and tertiary levels (Colclough & Lewin, 1993:90).

Within urban areas, these costs are sometimes borne by a parent’s workplace. However, rural farming families do not have the option of transferring costs in this manner and so the impact of the growing private cost of education has fallen more heavily within rural areas (Dreyer, 1993:284). Again, this may act as a major disincentive to female education.

Within the university system tuition and lodging are provided free and students pay only for maintenance. A survey undertaken by the National Women’s Federation found that 38 percent of females studying at five universities received either minimal or no support from their families and were forced to rely on special subsidies and scholarships given to poor students by the government (UNESCO, 1990:39).

49 The Chinese yuan was valued at 4.8 per US$ in 1990 (Colclough & Lewin, 1993:90).

50 The date of the survey is unclear.
Quality of provision

Current systems of financing education have a significant impact on the quality of education available. In 1985 only 2.7 percent, and in 1988 2.3 percent of GNP was allocated to education by the government (Colclough & Lewin, 1993:85; UNESCO, 1991a:144). Local government, and communities (including factories and other enterprises) finance a significant proportion of the cost of education. As a result, there are considerable regional differences in the provision and quality of educational facilities (UNICEF, 1989:110). Indeed, the future impact of the current economic restructuring of enterprises on the financing of education could be quite dramatic, potentially leading to a fall in the supply of school places and/or to even greater geographical inequities in provision. Although these factors will affect both males and females, the inadequate provision of facilities and equipment is likely to interact with demand factors to strengthen the bias against female participation within the education system.

Within the primary sector many schools have been reported as overcrowded (UNICEF, 1989:114); little budgetary allocation is made for textbooks and other equipment and thus access to provisions depends to a large extent on supply by parents and even teachers (Colclough & Lewin, 1993:92); teaching methods and curricula tend to be both dull and rigid (UNICEF, 1989:113). There is even evidence that the current system of financing education has negatively affected the provision of schools. For example, in Shaanxi Province between 1982 and 1986 the number of rural primary schools fell by 288, thereby effectively disenfranchising over half a million students from access to education (Rai, 1993:5).

Both the numbers of female teachers and quality of teaching provided are important factors influencing the access of females to education. Student/teacher ratios in primary schools tend to be quite low (i.e. average of 23:1 in 1985) compared to other low-income countries (Colclough & Lewin, 1993:93), although there are great rural/urban variations. In 1988 women comprised 42 percent of primary teaching staff and 31 percent of teaching staff at secondary level (UNICEF, 1989:114-116). Women have even less representation within the tertiary sector. In 1985 only 26.69 percent of university teaching staff were female, a distribution reflective of the proportion of female students within the university system (UNESCO, 1990:29).

In general, teacher’s salaries are low in China, reflecting the low status ascribed to the occupation. Lack of qualifications amongst teachers has been a major problem to date. Figures for 1988 indicate that 16 percent of primary teachers in Beijing, 44 percent of teachers in Guizhou and 67 percent of teachers in Tibet were under-qualified having failed to complete secondary school (UNICEF, 1989:115). Within the secondary sector, only 38 percent of teachers were suitably qualified in the same year (ibid., p.116). Again, in situations where the education of sons tends to be privileged over that of daughters (see next section) it is probable that low quality teaching serves to exacerbate both the non-attendance and dropout rates of school-age girls.
Tertiary sector

Females may face overt discrimination when applying for entrance to higher education. In the mid-1980s the selection procedures of some well-renowned high schools and universities allowed male applicants entrance on lower grades than their female counterparts. This bias against women is justified by educationalists on the basis that ‘girls tend to surpass boys in the high school entrance examination but...boys, who mature later intellectually, are likely to catch up and even surpass girls during their early teens’ (Hooper, 1984:324). These and other similar arguments used to justify gender-based bias fail to acknowledge how gender-typing and other social expectations influence female motivation (ibid.).

Over the last five to ten years, processes of ‘marketisation’ have been taking hold in the higher education sector (Yin and White, 1993). Resulting changes in the financing and management of the tertiary sector have led to the admission of private students, in the form of both sponsored (or ‘commissioned’- usually by private enterprises) students and self-supporting individual students, for whom the stringent competitive entrance requirements are relaxed. At the same time, universities and other tertiary institutions are working closely in partnership with business, or even investing heavily in businesses and running their own companies. In order to boost falling real incomes, and/or fulfil pressures to make their work commercially relevant, lecturers are now moonlighting to varying degrees, to some extent depending on the saleability of their discipline. (Yin and White, 1993).

The gender dimensions of these changes have not been fully analysed, but the likelihood is that the increase in fee-paying and sponsored students will favour male entrants and that, similarly, the university staff who are most likely to benefit from commercial opportunities, will be males concentrated in applied scientific and management disciplines such as computing, engineering, accountancy and business studies, rather than women, concentrated in departments of social sciences and arts, which may suffer from a dearth of funding, or even closure.

Curricula have been decentralised and universities given much more freedom to determine their own course structures. Indeed, this is now often done purely on the basis of student demand. At the same time, there is enormous pressure to teach ‘practical’ or commercially applicable skills, rather than academic or generalist skills and there has been a boom in vocational universities, whose students are fee-paying, since the early 1980s. (Yin and White, 1993). Apart from any educational deficiencies in this form of education, it may tend to propel young women, and men, into narrow and highly sex-segregated forms of training, which suit current labour market demands but offer little flexibility or upward mobility in the face of fluctuating market conditions.

Demand Factors

Beyond the direct influence of government policy-making on educational supply, the current economic transformation within China has had an indirect impact on girls’ education by modifying or even transforming the incentives to participation (Hannum-Demopolos, 1992:21).
**Rural reforms**

Educational opportunities are closely related to the economic position of individual families. Within a rapidly changing economic climate, the opportunity costs of girls’ education may be rising, especially within rural areas where the decollectivisation of agriculture has taken place (UNESCO, 1990:39).

As part of its agricultural policy, the party/state has encouraged family based rural enterprises, and an open market for the trade of the products produced by peasant families under the ‘individual and family responsibility system’. A ‘courtyard economy’ has flourished in the countryside, with rural women particularly engaged in three different projects: handicrafts, raising small livestock, and cultivation of fruits and vegetables...While engaged in such production mothers need their daughters to look after younger children, and help with household chores. Child labour has become an issue once again in rural China. This tendency has particularly affected the education of girls. (Rai, 1993:4-5)

The rural reform process described above is also increasing incentives for rural families to have more children, thus increasing intra-familial competition for household resources. In contrast, many urban families have stuck to the one child per family directive⁵¹ because economic incentives for larger families are absent and because incentives and disincentives for enforcing the policy (e.g. through the allocation of scarce accommodation) are more easily applied. Girls within one-child urban families will have improved chances of education, since parents are not obliged to divide resources between offspring (Rai, 1993: 4; Hannum-Demopolos, 1992:20).

**Socio-cultural factors**

Other factors which contribute to lessen incentives to girls’ education include the gains to be had from early marriage of girls. Despite being banned under the Marriage Law of 1950, gifts are still commonly exchanged from a male’s to a female’s family upon betrothal (Zheng et al, 1989:14). The incentive of economic gain can act as a motivation for the early marriage of daughters and thus the exclusion of girls from schooling:

Mercenary marriage is now widely practised in rural areas despite repeated banning, and the price of betrothal gifts has gone up incessantly. To raise funds for their sons’ marriage, many parents are forced to have their daughters engaged at an early age so that betrothal gifts can be taken in early. (from Chinese Education, Summer 1989, cited in Rai, 1993:6)

Various socio-cultural factors contribute to gender differentials in school enrolment and literacy rates. For example, the custom of virilocal residence upon marriage, widespread within rural areas, reinforces perceptions of low returns to investment in girls’ education (Hannum-Demopolos, 1992:16). A Chinese proverb says that to educate a girl ‘is to water another man’s garden’ (cited in Rai, 1993:6). Sons are more likely than daughters to support

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⁵¹ Implemented in 1979.
their parents in old age, and so improving the income-earning potential of sons through education makes good economic sense (Bauer et al, 1992:349).

The process of gender-typing is also played out in the choice of subjects studied by females. Within colleges and universities girls are actively discouraged from taking natural science or engineering courses (UNESCO, 1990:39), and a similar channelling of girls into ‘appropriate’ subjects within schools is widely documented (Bauer et al, 1992:350). In 1986, females at universities in Sichuan province made up 26.42 percent of natural science students but 48.52 percent of liberal arts students (ibid: 53). Data on gender distribution by subject have not been collected systematically by many higher education establishments, and thus further analysis of the concentration of females within particularly subject areas is difficult (UNESCO, 1989:34).

It is plausible that in the current economic climate problems of gender discrimination may well be intensified. Goals of equality in enrolment are already giving way to market-driven incentives which promote the interests of male over female students (Hannum-Demopolos, 1992:21).

5.1.5 Government policy on education

Following the end of the Cultural Revolution in 1976, the government committed itself to the Four Modernisations (of industry, agriculture, defence and science and technology). Improvements in education were considered the bedrock on which the reform process rested (Colclough & Lewin, 1993:87-88). During the early 1980s the reform process focused on primary education and the following legislation was passed: the Provisional Regulations on the Basic Requirements for Universalising Primary Education (1983); the Reform of China’s Educational Structure (1985), and the Law of Compulsory Education (1986) (ibid.). Collectively these laws provide for nine years of compulsory education.

The formal school system in China is based on primary schools providing six years of education (more usually five in rural areas); junior and senior high schools both of which provide three years of education; followed by higher education consisting of either university education (lasting four years in most cases) or specialised technical or vocational education (e.g. agricultural college or teacher training). In general, the formal education system is co-educational.

Over the last decade, the Government has committed itself to improving the literacy rates of the rural population. Separate literacy targets have been set for rural and urban populations, of 85 percent and 90 percent respectively, by 1995 (Seifman, 1991). These provisions do not recognise the need for any special emphasis on improving female literacy rates (UNICEF, 1989:125). Overall targets have also been set for primary and secondary enrolment ratios and end of year retention rates and for primary graduation rates, the latter having different targets in urban areas, ‘better off’ rural areas and ‘other’ areas. (Colclough & Lewin, 1993:88)

In accordance with the government’s concern with raising the education level of the population as a whole, equal opportunity of education for both sexes has been emphasised by the government. However, it is not clear whether this concern has been translated into a comprehensive policy statement on women’s education.
In relation to the retention targets, various attempts to reduce school dropout rates have been made by the Government. These include a focus on supply factors such as improving the quality of teaching staff, and setting standards for the provision of adequate school facilities and equipment (ibid.). The accomplishment of these standards depends to a large extent on the resources available at local level and thus regional inequities in attainment are to be expected (UNICEF, 1989:113). These measures do not address the specific problem of higher dropout rates for girls. However, a campaign has been launched by the Government has launched a campaign through schools and through the Women’s Federation to convince parents of the necessity of educating girls (UNESCO, 1989:70).

Attempts to increase the aggregate number of university places resulted in a significant expansion between 1983 and 1987 (Bauer et al, 1992:338). However, it is unclear whether the government currently has any policy measures to increase the enrolment of females at university level. During the 1970s women benefited from a scheme which granted scholarships and subsidies to students from poor backgrounds. However, access to these grants was tied to social background and did not reflect a specific concern for gender equality (Mak, 1991: 234). There is ample scope for increasing subsidies and scholarships to poor female students as a means of narrowing the gender gap at this level. However, at a time when the state is withdrawing to a certain degree from the funding of education, it is possible that these grants will be reduced rather than expanded.

The Government, through the Department of Education, is attempting to prevent educational establishments from operating discriminatory selection procedures (UNESCO, 198970). However, it is not clear what measures have been used to this end. Considering the growing evidence of increasing discrimination against females in university recruitment (Mak, 1991:241), it is vital that the Government takes a strong lead on the issue, perhaps through legislative measures or other sanctions.

Demand factors leading to lower female attendance and retention have caused a rethink about educational provision for girls. According to Rai (1993: 6-7): ‘Demands are now being made for flexibility in schooling for girls, and to make education "relevant to the lives of peasant girls" ’ (Rai, 1993:6-7). Although there is something to be said for reintroducing a degree of flexibility into timetable and curricula design to allow females tied down with household chores to attend, there is a danger that the emphasis on ‘flexibility’ may result in a dual educational system in which rural females become effectively disenfranchised from pursuing education to higher levels and are taught only in areas which immediately relate to their existing gender roles.

5.1.6 Employment prospects

Gender-based inequality in access to education is strongly related to women’s employment prospects, through the influence of labour market opportunities on incentives to education; and, conversely, through the influence of educational inequalities on women’s labour market opportunities.

The last few decades have seen a dramatic rise in female labour force participation rates. According to the 1987 One Percent Population Survey, 90 percent of urban women aged 25-44 are employed. The ten percent of urban women who were not employed were less educated than their employed counterparts (Bauer et al, 1992:350).
Employment opportunities for males and females are unequal and occupational categories are highly stratified by gender (Bauer et al., 1992:334). Although the lower education of females overall is in part responsible for this disparity, even qualified females face overt discrimination in the labour market (Hooper, 1984:321). In 1986, females comprised 61.5 percent of the unemployed (Rai, 1993:8). Unemployment amongst women graduates in particular, is growing considerably.

Women tend to be concentrated within collectives rather than within state-owned enterprises where benefits (i.e. housing, sick pay, vacations) and working conditions are better. Moreover, men predominate within sectors where occupational status and/or wages are higher (i.e. engineers, scientists, construction and transportation, government and party officials). To some extent, the way in which women are channelled within the education system affects their prospects in the labour market - for instance, the discouragement given to women taking natural sciences is directly related to women’s under-representation amongst engineers and other science and technical staff. However, gender differentials in occupation are both horizontal and vertical (Bauer et al., 1992:365) thus indicating that processes other than occupational stereotyping are at work.

Women are concentrated within industry (especially low-priority sectors), commerce and services, health and within education at primary teacher level. Within jobs labelled as ‘professional’ women predominate in the lower echelons. In short, the ‘returns to education, in terms of occupational attainment, are higher for men’ (Bauer et al., 1992:356-7).

Prior to economic reform, graduates were allocated jobs by government labour bureaux. Female university graduates, more so than males, were apportioned jobs as school teachers. More recently, enterprises have had wider scope to make their own appointments (ibid., p.362) and the complete relaxation of the job allocation system is on the political agenda (Rai, 1993:7). Discrimination against women in the labour market appears to be on the increase (UNESCO, 1989:71; 1990:44; Bauer et al., 1992: 362; Rai, 1993). In 1987, 200 organisations selecting candidates from the Beijing Second Foreign Language Institute refused to employ females (UNESCO, 1990:44).

It is becoming increasingly difficult to find employment for women graduates in post-Mao China. The growing unemployment among women peaked in 1988-1989, but women’s groups are concerned that the potential for further increases remains great. Concern with profitability, cultural and social prejudices and the lack of a state supervised policy on female employment is creating a situation that is squeezing women out of the job market. (Rai, 1993:8)

The discrimination against females is such that many firms are ‘employing young men who have barely scraped through a university course rather than young women with the equivalent of A grades’ (Hooper, 1984:321). One of the major reasons for this discrimination is the unwillingness of employers to carry the costs of women’s childbearing. Crèches once widely provided by enterprises are now considered uneconomic and are thus subject to severe cuts. This attitude is potently seen in the following comment by an enterprise manager: ‘We would rather take in a male hoodlum than a woman. A hoodlum can be reformed, but you cannot get a woman to give up childbearing...’ (cited in Rai, 1993:9). Business managers ‘have used the growing political and economic ethos of market rationality and competition to find various
ways to exclude women from employment’ (Rai, 1993:9). Furthermore, women are being portrayed as having ‘a psychological barrier to the values of the market’ (ibid.). In tests taken by prospective employees of the Beijing Garment Import and Export Corporation women are required to score 90 points compared to men’s 60 points to get a job (ibid.: 10).

Moreover, the ‘revival of femininity’ which has been a by-product of liberalisation has serious consequences for the education and employment of females ‘by focusing added attention on possible alternatives to socio-economic equality’ (Hooper, 1984:319). As has occurred within some export-oriented industries within Southeast Asia, it is possible that notions of ‘femininity’ will be utilised by enterprises in China to set the boundaries of ‘appropriate’ behaviour for female workers and thereby cultivate the ‘docility’ that is so functional to capital formation.

The issue of gender discrimination within the labour market has been taken up by the media and the Women’s Federation who are campaigning for legal sanctions against offending institutions (UNESCO, 1989:71). The Government has been pressurised into passing directives forbidding discrimination against females in employment procedures. In addition, institutional measures such as maternity funds to subsidise maternity leave have been trialled within a number of companies with the support of the municipal corporations and the Women’s Federation. However, these schemes have not addressed the issue of other perceived costs to economic efficiency such as the increased leave required by women to look after children, nor have they confronted the gendered division of labour which lies at the root of the problem of women’s employment, particularly in the current phase of economic liberalisation. (Rai, 1993:10-11).
5.2 VIET NAM

5.2.1 Overview

According to official statistics, the overall primary enrolment ratio, at 102 (gross - 88 percent net in 1988 - UNESCO, 1991a), and the literacy rate at 88 percent, are both high in Viet Nam, relative to many other countries in Asia, especially when its extremely low per capita income, estimated at around $200 (EIU, 1993) is taken into consideration. However, relative to males, females continue to face inequality in access to education. A gender gap persists at every level of education, albeit narrow in the case of primary and secondary schooling.

The gender inequality in access to education is particularly apparent when the stock of schooling in the adult population is considered. The 1990 figures for mean years of schooling for age cohorts over 25 years were 3.4 years for females and 5.8 percent for males (UNDP, 1993: iii), indicating a historical pattern of discrimination against females (Fraser, 1993:68). The most readily apparent indicator of the legacy of sex bias in access to education is the female illiteracy rate, which in 1990 was double that of males, at 16 percent compared to eight percent (see Table D1).

As the description below of recent trends demonstrates, there has been considerable progress in eroding gender differentials in educational status over the 1970s and 1980s. However, the 1989 census indicates that, since the mid-eighties, overall enrolment ratios have been falling (UNICEF, 1990:136) with a potential for a future decline in literacy rates. Whether or not this decline in attendance has been gender-specific is as yet unclear, although there is evidence to suggest that the disincentives to female education have grown with the transition to a market economy.

Between 1987 and 1989, there was a decline of seven percent in the absolute numbers of students enrolled in education, from 12.6 million to 12.2 million. This was reversed in 1990/1, but the increase in numbers enrolled has failed to keep pace with population growth of on average 2.1 percent a year between 1979 and 1989. A further increase in numbers occurred in 1991/2, rising to 12.8 million, mainly accounted for by increased enrolment at primary and secondary levels - the numbers of students attending tertiary institutions fell dramatically by 57 percent. (EIU, 1993: 15).

Overall, drop-out and repeater rates in schools are high and increasing and there is potential for a growing incidence of lapsed literacy (UNESCO/UNDP, 1992b:1). No overall disaggregated data are available, but drop-out rates are said to be considerably higher for girls in mountainous regions (UNESCO/UNDP, 1992c).

5.2.2 Recent trends in education

The female GER at primary level fell between 1980 and 1985 from 106 percent to 100 percent. Figures for males were 111 and 106 percent respectively for the same years. (See Table A1). Gender differentials in primary school education grew between 1975 and 1985, during which period the number of females per 100 males attending school fell from 107.9 to
93, although the decline in female representation was concentrated in the 1975-80 period.\(52\) (See Table A3).

The average primary completion rate for Viet Nam was 53.7 percent between 1986-1988.\(53\) However, the figure was substantially lower for the mountainous regions (40.4 percent) and for the Mekong Delta Region (38.8 percent) (UNICEF, 1990:141). Gender disaggregated completion figures are currently unavailable, although where female drop-out is higher, completion rates will be correspondingly lower than those of males.

Table B3 shows gender differentials in secondary education between 1975 and 1985. There is a small but widening gap between the number of females and males at this level: from 101.9 females per 100 males in 1975 to 95.5 in 1980, and 94.3 in 1985.\(54\) During the mid- to late 1980s aggregate numbers of secondary school entrants dropped dramatically (UNESCO/UNDP, 1992c:21). Considering the decline in the proportion of females to males at secondary level between 1975 and 1985, it is possible that the trend in widening gender differentials at this level has intensified. In the event that gender differentials have narrowed, it may be more a function of male attendance falling than of female attendance rising.

The drop-out rate at lower secondary level is high and increasing. Between 25-33 percent of students at this level dropped out in 1991. The average drop-out rate of upper secondary students was 19.4 percent in 1989 (UNESCO/UNDP, 1992c: 22). Gender disaggregated data on drop-out rates is not available; however, completion rates at upper secondary level are apparently much higher for males (UNESCO/UNDP, 1992c:22).

Between 1970 and 1980 gender differentials in enrolment ratios increased at tertiary level, with female ratios falling from 1.62 to 1.0 percent and male ratios increasing from 2.44 to 3.8 percent (see Table C1). Figures for 1991-1992 suggest that the aggregate number of pupils attending vocational schools, colleges and universities fell by 57 percent, although it is not clear whether this decline has been gender-specific (EIU, 1993:17).

Over the last decade, some improvement in overall literacy rates has occurred.\(55\) Illiteracy rates for females fell from 21.7 percent in 1979 to 16.6 percent in 1990 (see Table D1). The decline in male illiteracy was less dramatic over the decade, falling from 9.5 percent to 8.0 percent. Table 6 shows male and female literacy by age cohort using data from the 1989 census.

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\(52\) 1989 Census data show a significant decline in the male to female sex ratio, as age increases, with males outnumbering females only below the age of 15, such that there are more females than males in older cohorts (EIU, 1993). Thus, the decline in the share of females in primary enrolment may to some extent reflect the changing sex ratio of the population.

\(53\) Government statistics suggest that the rate fell to 45 percent in 1989 (UNESCO/UNDP, 1992c:14).

\(54\) This is somewhat inconsistent with data in Table B1, which shows, female enrolment ratios at secondary level remaining static between 1980 and 1985 at 40 percent, whilst male ratios fell slightly from 44 to 43 percent, suggesting a small relative increase in the female share of enrolment. This could be due to discrepancies in data collection methods or sources. Enrolment ratios could be affected by changes in the sex ratio in different age cohorts, depending on what reference population data is used.

\(55\) These nationwide figures conceal regional, ethnic and other variations in literacy attainment: see below.
census. Nationally, gender differentials in literacy rates are lower for younger age groups, indicating a significant success over recent years in improving the participation of females in formal or informal literacy education. Significant gender differentials in literacy appear only above the age of 25, and particularly above the age of 45 (see Table 6).

Table 6: Percentage Male and Female Literacy Rates in Viet Nam, by Age, 1989

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male %</th>
<th>Female %</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14</td>
<td>94</td>
<td>93</td>
</tr>
<tr>
<td>15-24</td>
<td>94</td>
<td>93</td>
</tr>
<tr>
<td>25-34</td>
<td>96</td>
<td>93</td>
</tr>
<tr>
<td>35-44</td>
<td>96</td>
<td>90</td>
</tr>
<tr>
<td>45-54</td>
<td>94</td>
<td>79</td>
</tr>
<tr>
<td>55-64</td>
<td>89</td>
<td>61</td>
</tr>
<tr>
<td>65+</td>
<td>73</td>
<td>31</td>
</tr>
</tbody>
</table>

Source: Fraser, 1993:68

However, literacy figures may be suspect. Participation in past literacy campaigns is no guarantee of current literacy, since without follow-up or post-literacy training, literacy may lapse (Fraser, 1993). For example, around 20 percent of the beneficiaries of the 1975-1978 government-run literacy campaign had become functionally illiterate by 1982 (UNICEF, 1990:145).

5.2.3 Regional, ethnic and age-specific differences in enrolment ratios

There are significant rural/urban differentials in access to education. Table 7, based on data from the 1989 census, indicates that enrolment ratios across all age groups in rural areas are considerably lower than the corresponding figures for urban areas. Moreover, gender differentials within age groups 10-14 and 15-19 are wider in rural than in urban areas. Over the age of 15, only just over half as many females as males attend school, suggesting high rates of female drop out above the age of 14.

56 One interesting feature of the data in this table is the higher enrolment ratios in the 10-14 than in the 5-9 age group in both rural and urban areas, suggesting that many children do not start school until relatively late.
Table 7: Current school enrolment ratios in Viet Nam\(^57\), by age cohort and residence, 1989

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Urban Males</th>
<th>Urban Females</th>
<th>Rural Males</th>
<th>Rural Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>62.4</td>
<td>61.7</td>
<td>73.8</td>
<td>74.0</td>
</tr>
<tr>
<td>10-14</td>
<td>78.0</td>
<td>71.1</td>
<td>87.5</td>
<td>86.0</td>
</tr>
<tr>
<td>15-19</td>
<td>26.8</td>
<td>16.5</td>
<td>37.7</td>
<td>34.0</td>
</tr>
</tbody>
</table>

Source: UNICEF, 1990:169

ActionAid (UK) collected data in Mai Sa District, Son La Province, north-west Viet Nam and found little evidence of universal primary school attendance. Rural girls from the various ethnic minorities\(^58\) seldom attended classes, even in villages with schools. In 1990, rates of illiteracy in the district were high at 53 percent for rural women aged 16-20 and 42 percent for rural men of the same age cohort. Moreover, the research found that educational coverage within the rural communes had decreased. Adults aged between 21-45 had higher literacy rates than the 16-20 age group\(^59\). Only around 17 percent of females in the 16-20 age group had completed four years of primary education, compared to 25 percent of the older cohort. However, this decline had affected males more drastically - with only 19.5 percent of 16-20 year olds compared to 41 percent of 21-45 year olds having completed four years of education. These figures indicate that gender differentials in education exist to a greater extent within the older cohort, but that the levelling out in younger groups is partly due to worsening overall schooling records, particularly among males. (ActionAid, personal communication).

In Lai Chau, a mountainous province in the north, the illiteracy rate was 50.9 percent in 1989 and females comprised 63 percent of illiterates (UNESCO/UNDP, 1992c: 17). Comparison of these figures with the data in Table D1 suggests that significant regional differences in literacy exist throughout the country, with the north being particularly disadvantaged.

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\(^{57}\) Although unstated in the source, this data probably refers to net enrolment ratios. The alternative explanation for the low ratios is that all previous estimates of GERs (see Tables A1 and B1) have been grossly exaggerated. The first explanation is more likely.

\(^{58}\) The main non-Vietnamese ethnic groups in Viet Nam are the Tay, Thai, Hoa, Kh’mer Muong and Nung, many of whom are concentrated in highland areas in the North. Ethnic minorities make up approximately 13 percent of the population (UNICEF, 1990:3). It is not clear whether this includes the Chinese community, who numbered 950,000 in 1989, and are largely concentrated in the South.

\(^{59}\) This contrasts strongly with the data in Table 6, which shows literacy rates increasing among younger age groups.
5.2.4 The education system

Basic education in Viet Nam comprises primary education (lasting five years), junior secondary (four years) and upper secondary (three years). The majority of schools are run by the Government through the Ministry of Education and Training, although a few private institutions now operate. Entrance to vocational training can be gained via two routes: direct from lower secondary school for a two year course, or following senior secondary school for a course lasting one and a half years. Other secondary technical schools specialising in six broad subject areas run three year courses for lower secondary entrants and courses lasting two and a half years for senior secondary entrants. In theory, access to secondary technical schools is equal for males and females.

In an attempt to improve the standard of vocational qualifications of students, pre-vocational orientation centres (PVOs) have been set up. Primary students attend classes at these centres for a few hours every week (UNICEF, 1990:137).

All schools are co-educational and both sexes study the same curriculum. In areas where ethnic groups predominate, indigenous languages and scripts are used as the medium of instruction (UNESCO, 1989:21). Special needs education facilities are apparently inadequate, although no gender-disaggregated data on either the supply of or demand for such education exists.

5.2.5 Constraints to education

Supply factors

Article 60 of the 1980 Constitution states that ‘Education is a right and an obligation of citizens’ and Article 65 provides for equality between men and women in all aspects of life (UNESCO, 1989:19-20). Although this commitment to equality is manifest in the near-equal access of males and females to primary education (White, 1987:230), the recent downward trend in primary enrolment suggests that these constitutional guarantees of equality are now being compromised as the government moves towards economic liberalisation. The transition to a market economy has had major implications for the financing of education and cutbacks in educational coverage have been reported (UNDP, 1993:11).

60 Agriculture, forestry and fisheries; culture and art; economics; industry; medicine; physical education and sport (UNESCO/UNDP, 1992c:26).

61 It is not known what provisions on sex equality and education are contained in the new 1992 Constitution.

62 i.e. in terms of national aggregate figures.

63 The programme of economic liberalisation was adopted by the government in 1986.
Increasing costs

Throughout the 1980s education was, in theory, free, although contributions were made by communities, including state farms and co-operatives, for the building and maintenance of schools, provision of equipment and support of teachers and disadvantaged pupils (UNICEF, 1990:144). In 1989, private contributions to education were made formalised by the Government, through the introduction of a fees system, although some provision in the form of subsidies is made for poor families in disadvantaged areas (EIU, 1993:17).

Approximately 25 percent of primary and secondary school finances are now provided from non-government sources (UNICEF, 1990:144). The current emphasis on expanding the role of the private sector means that contributions from state farms and co-operatives are likely to decline further. The quality of schooling is becoming increasingly dependent on the ability of individuals within local communities to support education. Regional wealth differentials will result in disparities in the quality and quantity of educational provision.

The recently introduced fees for education have almost certainly contributed to the growing trend in early dropout. Fees increase incrementally as a child moves up through the education system (UNICEF, 1990:144). This increase in the direct costs of education is likely to lead to a renewal of sex discrimination against females in education, and is incongruous with the government’s objective of achieving universal primary education by the year 2000.

Furthermore, the shift from collective forms of economic and social organisation to individual enterprise may be reducing the scope for educational campaigns:

‘Previous successes in the promotion of literacy have been due in no small measure to widespread social mobilisation and volunteer efforts. However, as the government liberalises the economy and encourages individual initiative, it may be more difficult to maintain the motivation needed to carry out community and socially-oriented activities on a voluntary basis.’ (UNICEF, 1990:145)

Problems in teacher recruitment

Enrolments for teacher training have fallen considerably in recent years. Poor training facilities, low wages and a concomitant loss in professional status have been cited as the major reasons for this decline. Inadequate salaries are forcing many staff to seek additional sources of employment. This not only affects the ability of staff to provide quality education, but also acts as a significant disincentive to recruitment and retention of teachers. Teacher quality is falling as training institutions are lowering their entrance grades in an attempt to increase enrolments. It has been estimated that approximately 66 percent of primary teachers, 52 percent of lower and ten percent of upper secondary teachers lack appropriate qualifications (UNESCO/UNDP, 1992c:27).

At village-level, the majority of teachers are female (White, 1987:230). In 1990/1991 71 percent of primary teachers were female compared to 65 percent in 1981/1982 (UNESCO/UNDP, 1992c: 14). At lower secondary level, 64 percent of teachers were female in 1989/1990 (ibid. p.21). At higher education levels, female representation among teaching staff falls dramatically. At upper secondary level females comprised 46 percent of teachers, and at tertiary level, only 30 percent in 1989/1990 (UNESCO/UNDP, 1992c: 22-24). The
lack of female role models at higher levels of education may act as a disincentive to girls to continue through the education system. The proportion of female teachers at primary and secondary levels has been rising through the 1980s (see Table 3 above) but this could reflect economic changes, whereby men are taking up private sector opportunities which may not be available to women. In this sense, the feminisation of the teaching profession should not be regarded simply in a positive light.

Provision and maintenance of school facilities

Lack of adequate facilities and equipment appears to be a general and growing problem within the education sector in Viet Nam (UNESCO/UNDP, 1992c: 33). Overall, school maintenance is generally poor within Viet Nam and schools commonly lack basic sanitation facilities. Many schools operate a shift system to counteract the lack of facilities, equipment and teaching staff. Overcrowding remains a problem, especially in the Mekong Delta region where some schools run three shifts a day (UNICEF, 1990:143). It is now widely recognised that poor quality of education can have a negative impact on enrolment ratios and drop out, as well as on levels of literacy and other skills achieved by those who remain in schools.

Provision of schools and equipment in the mountainous provinces is inadequate to meet demand and recruitment of teachers for these isolated regions is an ongoing problem. Of the schools that do exist, many are inaccessible for isolated families. The research undertaken by ActionAid within Mai Sa District, Son La province in the north-west of the country revealed that schools in rural areas were on average 5.3 kilometres from villagers’ homes (ActionAid, personal communication). As discussed in section 3, the distance factor may have a greater impact on female than male attendance. It is likely that these regional differentials in education coverage and quality have significant bearing on regional female enrolment and dropout rates. Where facilities are poor, socio-cultural discrimination against females will combine with supply factors to exclude girls from education to a greater degree than their male counterparts.

Demand factors

The costs of education are rising in tandem with growing economic hardship, as shown, for example, by rising unemployment rates. School books are currently beyond the purchasing power of many families (UNICEF, 1990:143). Poor and worsening employment prospects are lessening the incentives of parents to educate their children (UNICEF, 1990:142). There is also a general feeling that school curricula are irrelevant to the needs of children whose prospects lie in farming.

The opportunity costs of girls’ education are rising with the liberalisation of the economy. Economic incentives to utilise child labour are now much higher with the shift from cooperative to household-based production units. The prevailing sexual division of labour in Viet Nam means that female children substitute their domestic labour (including child care) for that of their working mothers.
5.2.6 Government Policies on Education

With the transition to a market economy, the importance of increasing the access to and attainment of the school-age population via the reorganisation, expansion and modernisation of the education sector has been emphasised by the Government. To this end, an education development strategy is now being formulated. It is hoped that the strategy will be the basis on which new donor funding is generated.

National goals in education to the year 2,000 have been defined as follows:

‘Overhaul and expand the education and training system. Ensure that schooling is accessible to all school-age children and popularise primary education. Particular attention should be paid to educational needs of ethnic groups and those in mountainous regions. Combat illiteracy and set up adult education. Restructure the higher education system and intermediate vocational training schools, diversify forms of training.’ (Socialist Republic of Viet Nam, 1993:11)

Specific mention of male/female differentials in access to education and in literacy rates by the Government has focused on the problems of female access to basic education in remote, including mountainous, areas. Countrywide gender differentials in access to secondary and tertiary education do not appear to merit a specific focus within the education development strategy.

The Government has committed itself to working in close co-operation with the Women’s Union as a means of defining education priorities, particularly in terms of efforts to increase the school enrolment of girls (UNESCO/UNDP, 1992b: 1; Fraser, 1993:69). However, the benefits of increasing the retention of girls at primary level have been linked to the ‘use of contraceptives and fertility rates, child mortality, and literacy of children’ (UNESCO/UNDP, 1992c: 33). The motivation behind increasing the retention of female students appears to be driven by instrumental concerns with child health and well being and population control, rather than a commitment to gender equality.

Attempts have been made by the Government to halt the decline in primary school attendance through improving the quality of educational provision with a focus on improving teacher training and motivation and school facilities. However, the budgetary constraints of the Government in this sphere are also acknowledged. Improvements in the quality of education will thus be largely reliant on donor funding and donor agencies will thus have considerable influence over educational policy. For example, World Bank funding of US$ 70 million has been earmarked for the achievement of universal primary education (UNICEF, 1990:147). Sources of donor finance are likely to increase dramatically over the next few years. However, if gender differentials in access to education are to be tackled, it is vital that the government devises a comprehensive policy statement and programme relating to female education (UNESCO/UNDP, 1992b: 1).

In the sphere of non-formal education:

‘Modified curricula have been developed to provide an alternative basic general education for children who have dropped out of school or who live in areas with very low enrolment. Thus there is a 100 week curriculum which working children or
school dropouts can take on a non-formal basis outside the regular school hours, while children of minority groups living in the mountains of northern Viet Nam are taught a 120 week curriculum which has been specially developed to meet their needs’. (UNICEF, 1990:139)

Considering the fact that female drop-out rates are higher than those of males, these modified curricula could have a significant impact on the educational attainment of females, although there is no information by gender on the attendance in non-formal programmes. However, there is a danger that a two-tiered education system will be institutionalised which, although fulfilling basic education and literacy quotas, fails to tackle the structural socio-cultural and economic constraints to the education of females. Parallel efforts will be needed to encourage the re-entry of girls into the formal system at higher education levels, if the sidelining of females into non-formal education is to be avoided.

5.2.7 Employment prospects

The 1989 census indicates that 73 percent of the economically active female population are engaged in agriculture, forestry and fishing; 4.4 percent in education, medicine and science and 8.3 percent in sales and supplies. Within the small industrial sector women are heavily concentrated in low-skill industries such as textiles processing (UNICEF, 1990:171). Women are actively encouraged to enter the teaching profession, since the work is considered a ‘natural’ extension of their socialised family roles (White, 1987:231). A similar proportion of the male economically active population work in agriculture but a higher proportion of men work in heavy industry, transport, and public service (UNICEF, 1990:172).

Unemployment has increased severely over the last few years (UNESCO/UNDP, 1992c). Estimates suggest that up to 20 percent of the workforce are currently either un- or under-employed (EIU, 1993:32). There is no information as to whether rising unemployment is particularly affecting either women or men. In any case, the economic hardship resulting from increased unemployment could act as a major disincentive to the education of girls, especially when females face sex discrimination within the labour market. In this instance, the returns to male education may be perceived by parents as higher and the education of male siblings consequently prioritised in situations where household resources are scarce.

The Government has recognised that much of the training currently gained through vocational and technical education is divorced from the needs of the labour market. However, it is also recognised that ‘The profound changes Viet Nam is undergoing make it...difficult to elaborate a clear policy for his sub-sector as a whole’ (UNESCO/UNDP, 1992c: 69). There is a feeling that a total reorientation of the education system is required to meet the human resources requirements generated by the shift to a market-based economy (UNESCO/UNDP, 1992c: 34 and 45). However, it would be potentially very negative for women, if the education system were reformed to focus mainly on skills required for employment in the market economy, without some attention, also, to gender biases and discrimination operating and emerging in the labour market.
6. SUMMARY AND CONCLUSIONS

Economic analyses of investment in female education focus on two areas: private returns and social returns. There remains considerable debate in these areas, but, broadly, there is some agreement that private returns to female education are, at least potentially, as high as those for male education, if not higher and that the social externalities (e.g. child health and education, reduced fertility) of female education are higher than those of male education. This then raises questions as to why parents and governments appear to under-invest in female education and which policies would be appropriate and effective to redress gender biases in educational investment.

In terms of parental decisions, a number of arguments have been put forward from this perspective as to why gender bias persists. It may be that the direct or opportunity costs (especially in terms of domestic labour) of girl’s education are higher. There is certainly evidence to support girls’ greater involvement in domestic labour, from an early age, and particularly in caring for younger siblings. Beyond this, it is argued that parents may be unaware of the benefits and potential returns from female education. The discrimination in labour markets, and access to productive resources, faced by women results in lower earning potential or productivity, thus lowering both the expected and actual returns to female, compared to male, education, and leading to a concentration of scarce resources on son’s education. It may be that kinship structure, marriage patterns and social obligations are such that parents cannot capture the gains from daughters’ education in the same way that they can from sons’. Finally, for cultural or other reasons, parents may be ‘prejudiced’ against female education. In terms of government under-investment in female education, this may relate to lack of recognition of the benefits of female education (or the difficulty of quantifying them), and/or to overall budgetary constraints limiting the quality and quantity of education.

Efficiency and welfare focused analyses of female education lead to an instrumental view of education in general and of female education in particular. They are primarily concerned with increasing women’s productivity and/or with the social externalities (usually narrowly defined in terms of child health and education and reduced fertility) which arise from investment in female education. Equity arguments for female education are usually focused on ensuring equal access to existing education systems. Neither approach addresses the content, values and structures of education systems. Other, more radical views, of gender and education would extend the purpose of education to increasing women’s decision making capacity, and autonomy, as well as seeing the need for women themselves to challenge existing patriarchal structures and values and define their own agenda for education, through, for example, developing feminist analyses and courses, or through consciousness raising and popular education at grassroots level.

The data and experiences reviewed here show that there has been considerable progress in the last 20 to 25 years in improving female access to education, alongside overall improvements in extending schooling provision. Regional, or even sub-regional, generalisation is difficult, because of widely varying national contexts and also, the limitations of data. National aggregate data conceal wide variation between regions, urban and rural setting and between ethnic groups, for example, with gender biases interacting with all the factors. Females from minority ethnic groups, living in remote rural or border areas, are most likely to be systematically excluded from formal education systems.
Asia as a whole has a relatively good record on education, by developing country standards, but this is heavily influenced by the high educational levels in some East Asian countries. In the whole, in East Asia, enrolment rations and gender parity are high at both primary and secondary levels, although China, Laos, Vietnam, and Thailand have quite poor records at secondary and tertiary levels. In several East Asian countries, female enrolment ratios exceed those of males at secondary and even tertiary levels (Philippines, Mongolia, Malaysia). Overall, though, serious gender biases emerge at tertiary level in East Asia, particularly with regard to fields of study, vocational education, and, through this, subsequent employment opportunities.

When South Asia is considered separately, it fares worst of any third world region, on gender parity, particularly at secondary level. Most worryingly, progress in increasing enrolments and gender parity in South Asia appears to be particularly slow at secondary level and to have slowed over the 1980s. Data on the Pacific is patchy, but, with some notable exceptions (Papua New Guinea), overall and female enrolment ratios (at primary level) and literacy rates are high and female students outnumber men at secondary level in at least some countries. At tertiary level, gender biases are more evident in the access of female students, award of scholarships and fields of study.

However, it is important to grasp that gender biases in education are not simply a matter of equalising numbers of females and males at different levels of enrolment and achievement. It is also necessary to understand why, for example, women become ghettoised as low-paid primary teachers, and take measures to ensure that this does not happen as by-product of attempting to increase their representation. Similarly, gender analyses are required of women’s concentration in other specific fields of study. An interesting question in some Asian and Pacific countries is why women’s representation is higher than men’s secondary and tertiary levels in some countries (e.g. Mongolia, Philippines, Cook Islands). Speculative explanations might be the siphoning off of boys above a certain age into employment or income earning activities (where these may be absent for girls), higher representation of males in private education above a certain level, or, possibly, better achievement levels of females.

Despite the progress described above, there remain gender gaps in education in all countries discussed. In almost all countries, at all levels, there are more educated men than women. In virtually all countries, male literacy is higher than female literacy. In addition, much of the improvement in access to education took place over the 1970s; progress has been less evident over the 1980s (see Figures 3 and 4), and in some cases, there appear to be reversals of previous gains (see particularly case studies of China and Vietnam). This slowing of progress is partly related to the decreasing scope for improvements as gender differentials get smaller (this may be particularly the case in East Asia), but is also a result of persistent gender-based constraints on improving access and of financial pressures on education systems (more so in South Asia).

Statistical analyses relating gender parity in education to national income and other aggregate variables have shown some perhaps surprising results. At primary, and especially secondary, level, overall enrolment and gender parity are positively but only loosely related. Similarly, the associations between per capita income, income growth and both overall enrolment and gender parity although positive, are not strong. Whilst above a certain income level, gender parity is generally high, at low income levels there is considerable variation. This leads to the
conclusion that income growth will not automatically lead to improved gender parity in education. Moreover, it is possible to achieve relative gender parity in education even in low income countries.

Progressive and pro-active policies are required to overcome the wide variety of constraints to female education in Asia and the Pacific. These include historical factors, economic (both macro- and micro) factors, socio-cultural factors and school related factors, (i.e. constraints related to the way in which schooling services are delivered). However these constraints are not independent of each other, nor static, and vary widely between contexts, calling for carefully considered packages of measures in particular settings.

Analyses of gender constraints to education are often based on rather crude and general positions, deriving from the application of neo-classical rational choice household models. Two areas, at least, call for more detailed consideration from a gender perspective, i.e. the relationship between gendered conditions of access to factor and product markets, particularly labour markets, and female education; and at micro-level, education investment decisions within the household and their relationship to kinship structures, intra-household bargaining processes, and strategies of social mobility and economic security. The review shows that socio-cultural variables such as ‘religion’ cannot be isolated as ‘given’ features of behaviour and decision-making (which is the tendency in conventional economic analyses), but nor can they be dismissed as secondary to ‘rational’ economic decision-making.

In addressing constraints to female education, then, it is necessary to look at economic policy measures as well as education policies, and to have a clearer understanding of the interaction between the two. Distortions in the macro-economy can limit the possibility of women realising the gains from education; conversely, without education, women may be limited in their ability to take up new economic opportunities. In particular, more measures are needed which act on the demand side (by reducing costs of/increasing returns to female education), rather than the simply on the supply side. Packages of measures have been shown to be more effective than single measures.

A range of measures have been implemented to address gender constraints in education. Overall, there is little clarity about the impact of particular measures, indicating the need for project related research monitoring the impact of different interventions. Of the numerous measures being advocated to increase female enrolment, some may have limited impact in isolation, or have implications which are not being addressed at present. For example, incentives and subsidies to female education may have a limited impact in isolation, and may be counter-productive if they are too narrowly targeted.

Community participation in the running and financing of schooling is a major plank of current educational policy, to promote improved quality and relevance of schooling, and, through involving local women, increased enrolment of girls. From a gender perspective, ‘participation’ can be problematic, unless its underlying assumptions and implications are thought through. Will women from all sections of the community be able and/or willing to participate? To what extent is their participation a cost-saving rather than a democratic measure? Local participation may also lead to increased conservatism and stereotyping in the curriculum for girls and the substitution of un- or poorly trained local teachers and demonstrators for properly trained personnel. On the financial side, decentralisation could lead to increased inequality of provision, with those areas most in need of finance to improve
schooling provision and quality least able to provide it. This certainly appears to happening in China and Vietnam, as described in the case studies.

Much of the innovative work in overcoming gender constraints to education is through non-formal education provision, where success has been achieved in increasing female enrolment and retention rates even in relatively impoverished areas. However, there is a tendency for such programmes to adopt \textit{practical} solutions to structural constraints to female participation, rather than adopting longer term \textit{strategic} approaches. The provision of school-based childcare facilities, designed to fit around girl’s attendance, and encouragement, through the curriculum, of increased male participation in domestic work, may need greater emphasis, for example.

Similarly, questions of distance of school facilities, transport provision and security of buildings, whilst all crucial issues, tend to be discussed without reference to the issue of violence against women, the reality or the threat of which is a major underlying obstacle to female participation. Beyond measures to provide more accessible and safer facilities and transport, there is a need for community-based awareness raising and action around issues of violence against women and sexual harassment of young girls, although this would clearly have to be articulated through local institutions or groups.

Beyond the measures described, there is need for greater consideration of support to education to \textit{empower} women, either in the sense of increasing their autonomy and access to social and political power, as well as economic resources, or through creating spaces in which women can define their own educational agenda.

In China and Vietnam, economic liberalisation is creating new pressures on female participation in education. This is happening partly through direct factors such as the introduction of cost-recovery and decentralisation of financing, and partly through indirect trends such as the withdrawal of enterprises from social sector provision, increasing labour market discrimination against women, and the growth of demand for child (especially female) labour in rural household production, the latter two trends being particularly notable in China.

In Vietnam, since the mid-eighties, overall enrolment ratios have been falling and drop out and repeater rates increasing, although it is not yet clear whether there are strong gender specific effects. The provision and maintenance of school facilities is a particular problem in mountainous areas, and there is evidence of falling literacy rates in some locations.

In China, both the quality and even quantity of available primary and secondary school education are coming under pressure in poorer rural areas. The real incomes and conditions of teachers are worsening leading to problems in recruitment and the maintenance of professional standards. There is a danger that lower levels of the profession could become feminised, where women lack other options, or through deliberate policy of recruiting women with lower qualifications as ‘second tier’ teachers. At tertiary level, ‘marketisation’ of higher education is, potentially, creating pressures which could marginalise women students and staff in higher education. In both countries, there is increasing focus on the need for the education system to provide skills for the market, which, given increasingly discriminatory and segregated labour markets, is tending towards short-term and stereotyped views of female employment possibilities, in services and labour intensive industries, for example.
External support to educational reform in countries under transition, such as China and Vietnam, should make a concerted effort to tackle these emerging inequalities, through both educational and economic policies.
## Table A1  Primary School Enrolment Ratios, By Sex, for Asia, 1970-1990

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64 Figures given are gross enrolment ratios (GER) which include under and over-age children. Net enrolment ratios are given in brackets, where available. Where there are discrepancies in data between different sources, latest available date is used.

65 Afghanistan - for 1990, primary level data refer to 1989

66 Bhutan - for 1990, primary level data refer to 1988

67 Indonesia - for 1990, primary level data refer to 1989

68 Lao PDR - for 1990, data refer to 1991

69 Mongolia - for 1985, primary level data refer to 1986

70 Nepal - for 1990, data refer to 1988

71 Philippines - for 1990, primary level, data refer to 1989

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Table A2: Primary school enrolment ratios, by sex, for the Pacific, 1970-1990

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73 Figures given are GERs - Net enrolment ratios given in brackets where available. Where there are discrepancies between data from different sources, latest available data is used.
74 Fiji - 1990 data refer to 1991
75 Papua New Guinea, primary level data for 1985 refers to 1987
76 Solomon Islands - 1985 data refer to 1986
Table A3: Females per 100 Males in Primary Schools  
(Female enrolment rate as a percentage of male enrolment rate)

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**Source:** Herz et al. 1991: 80
Table B1: Secondary school enrolment ratios, By Sex, in Asia, 1970-1990

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Figures given are GER - net enrolment ratios given in brackets where available. Where there are discrepancies between data from different sources, latest available data is used.

77 Afghanistan - 1990 data refer to 1988
78 Bhutan - 1990 data refer to 1988
79 Indonesia - 1985 data refer to 1987
80 Indonesia - 1990 data refers to 1989
81 Laos - 1990 data refers to 1991
82 Mongolia - 1985 data refers to 1986
83 Myanmar - 1985 data refers to 1987
84 Nepal - 1990 data refers to 1988
85 Philippines - 1990 data refers to 1989
86 Singapore - 1990 data refers to 1989
| Vietnam | - | - | 44 | 40 | 41 | 41 | - | - |

Table B2: Secondary school enrolment ratios, By Sex, in the Pacific, 1970-1990

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\(^{88}\) Papua New Guinea - 1985 data refer to 1987

\(^{89}\) Solomon Islands - 1985 data refer to 1986
Table B3: Females per 100 Males in Secondary Schools  
(Female enrolment rate as a percentage of male enrolment rate)

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Source: Herz et al. 1991: 80
Table C1: Tertiary level enrolment ratios, by sex, in Asia, 1970-1990

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\(^{90}\) Afghanistan - 1985 data refer to 1986
\(^{91}\) 1990 data refer to 1989
\(^{92}\) Laos - 1990 data refer to 1989
\(^{93}\) Mongolia - 1985 data refer to 1986
\(^{94}\) Nepal - 1990 data refer to 1991
\(^{95}\) Pakistan - 1990 data refer to 1989
\(^{96}\) Philippines - 1990 data refer to 1991
\(^{97}\) Sri Lanka - 1990 data refer to 1990
### Table C2: Tertiary level enrolment ratios, by sex, in the Pacific, 1970-1990

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<sup>98</sup> Fiji - 1990 data refer to 1988
Table D1: Percentage Illiterate Population for Asia, 1970-1990, by Sex\textsuperscript{99}

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\textsuperscript{99} Figures for population aged 15+, unless otherwise stated.
\textsuperscript{100} UNESCO estimate for 1985, unless otherwise stated.
\textsuperscript{101} Unless otherwise stated, figures are estimates for 1990 from UNESCO, 1991
\textsuperscript{102} Figures for 1975, population 10+
\textsuperscript{103} Figures for 1979
\textsuperscript{104} Figures for 1974
\textsuperscript{105} Figures for 1981
\textsuperscript{106} Figures from UNESCO, cited in UNICEF, 1994, \textit{The State of the World’s Children}
\textsuperscript{107} Figures for population 25+, taken from \textit{The Statistical Yearbook of the Republic of China}, 1993. These figures appear to grossly underestimated the degree of male and female illiteracy - UNESCO’s \textit{World Education Report}, 1991, for example, estimates male and female illiteracy for 1990 at 16 percent and 38 percent respectively. The UNESCO Statistical Yearbook (1993), gives figures of 13.0 and 31.9 respectively.
\textsuperscript{108} Figures for 1975
\textsuperscript{109} Figures for 1992
\textsuperscript{110} Figures for 1971
\textsuperscript{111} Figures for 1971
\textsuperscript{112} Figures for 1981
\textsuperscript{113} Figures for 1971
\textsuperscript{114} Figures for 1962
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119 Myanmar - data for 1970 refer to 1973
120 Data for 1985 refer to 1983
121 Figures for 1971
122 Figures for 1981
123 Figures for 1972
124 Figures for 1981
125 Population aged 10+
126 Sri Lanka - 1970 data refer to 1971
127 Figures for 1981
128 Population aged 6+
129 Figures for 1979
### Table D2: Percentage illiterate population, 1970-1990, in the Pacific

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**Cambodia**


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