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The changing demographic and social profile of youth in Asia

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Asia has undergone sweeping demographic and social change in recent decades much of it involving youth. In part because of the dramatic growth in their numbers and in part because they can be a source of problems as well as a major resource for national development, young people have become the focus of intense interest to policymakers. This report assembles data on demographic and social changes affecting youth—defined as the 15–24 age group—in 17 Asian countries over the period from 1950 to 1990. It also projects trends in key demographic and social indicators to 2025. The Asian data illustrate how a permanent demographic transition from high to low fertility gives rise to a transitional, temporary but quite predictable youth bulge. Its characteristics vary according to the speed and magnitude of fertility decline. Social elements of the youth transition examined here are the transition from early to late marriage and, particularly for the 15–19 age group, rising school enrollment. Although not considered a true transition, changes in young people's labor force participation rates are also explored. These demographic and social indicators are projected to the year 2025 for the region as a whole, its three subregions, and the 17 countries.

In recent years policy attention has rightfully turned to youth and their special problems and to the challenge of reaching young people with useful information and effective programs. This focus on youth by governments, international agencies, and nongovernmental organizations reflects the recognition that a nation's youth can be both a significant source of problems and an important resource for national develop-

ment. Policy interest is heightened by the knowledge that the sheer number of young people has grown rapidly in recent decades.

The numbers of youth are affected by how this segment of the population is defined. Here we define youth as persons between the ages of 15 and 24. Although this is just one of a number of widely accepted definitions of youth, it is convenient because many data sources,

particularly census materials, use this age range (Analysts use other age ranges for specific programmatic purposes, see, for example, ESCAP 1997, 7 ff.) Across Asia as a whole in 1990, there were 647 million persons of ages 15–24, representing 20.4 percent of the regional population. If we include persons of ages 10–14, the percentage was 30.5, and if we broaden the definition of youth further to include the age range from 10 through 29, youth comprised 39.0 percent of Asia's population in 1990.

Nowhere is this new attention to youth more visible and welcome than in the area of reproductive health. Attention to reproductive health issues among youth rose dramatically as a result of the 1994 International Conference on Population and Development and its resulting Program of Action (UN 1994a), which stressed the importance of reproductive health and empowerment, especially for excluded groups such as women and youth.

This report focuses on the societies of Asia (excluding Western Asia), where the increased policy interest in youth is well documented (Compare, for example, UNICEF's 1967 and ESCAP's 1989 and 1997 overviews.) Although it is common to treat Asia as one region, it is actually several, even many, regions—a mosaic of nations and societies possessing a striking diversity of economic development levels, religions, and cultures. Asian political systems range from democratic to authoritarian. Of particular relevance here is the range of approaches to social policy, including youth policy. All governments see their youth as both a problem and a resource, though with notable differences in emphasis.

Although marked by obvious differences in history, social systems, and economic achievement, the societies of Asia are subject to common forces as well, which engender a degree of similarity

In the search for shared influences, analysts have devoted much attention to the impact of mass schooling on the lives of young people and to the similarities among economic trajectories and national labor markets. Another shared experience of these societies is the demographic transition and its many significant corollaries, ranging from personal changes associated with an extension of life expectancy to the transformations of family life associated with a decline in fertility (Leete and Alam 1993, Freedman 1995, Bongaarts and Watkins 1996).

ELEMENTS OF THE ASIAN YOUTH TRANSITION

Flowing directly from the demographic transition are youth bulges and deficits—that is, large or small numbers of youth relative to adjoining age groups—and a host of associated social changes. We have examined the dimensions and consequences of these changes in a more detailed report (Xenos and Kabamalan 1998) as part of a project entitled Long-term Transformations of Youth in Asia. Among those changes are increased levels of high risk behavior as well as increasing proportions of single youth and youth in school. The current report summarizes key findings from the longer study.

YOUTH AND RISK

The proximate stimulus for the recent focus on youth takes the form of some striking statistics. A wide range of measures indicates rising levels of risk-taking behavior of many kinds, from substance abuse to premarital and generally unprotected sexual activity (McCauley and Salter 1995, Senderowitz

1995). Youth populations are linked increasingly to well known precursors of such behavior. These include disturbed family backgrounds, living away from parents, and unsupervised rural to urban migration. In the area of reproductive health and sexuality, findings have been especially alarming, particularly when evidence of high risk sexual behavior is combined with a significant prevalence of HIV and other sexually transmitted diseases (Dyson 1990, Cleland and Way 1994, Cleland and Ferry 1995).

It is generally agreed that young people today confront an unprecedented range of behavioral choices, many of them involving considerable risk. At the same time they are receiving less parental guidance and community support and are assuming greater responsibilities, such as for earning income. Substance abuse may be a greater temptation today than in the past and in some ways is even encouraged by the public culture. The same surely can be said of sexual activity. In short, youth are at heightened risk because social and economic institutions are guiding and supporting them less while demanding more of them. Moreover, the pace of changes that threaten youth seems to have accelerated.

These changes have spurred an intense interest in understanding how to reach youth with messages and programs. Much of this interest focuses on youth in developing countries, where young people, and especially unmarried youth, have not been a priority for researchers or policymakers in the past. The literature is expanding rapidly on the problems of young people's reproductive health and reproductive risk and on the interventions that can be most effective in reaching them (WHO 1993, CCP 1995, McCauley and Salter 1995, NAS 1997). Central to strategic thinking in this area is the notion of reproductive risk and the fact that the total youth population can be divided into risk categories (Bell and

Bell 1993, Koontz and Conly 1994, Lightfoot 1997) In media and marketing oriented thinking about reaching youth, the term often used is "segmentation" Segmentation can be used to distinguish fairly subtle lifestyle differences (Slater and Flora 1991) These include differences in young people's links to peer networks, in their receptivity to peer education efforts (Fee and Youssef 1993, Flanagan and Mahler 1996), in their access to health care professionals (Senderowitz 1997), and in their response to media messages (Flora, Maibach, and Holtgrave 1995, Nare, Katz, and Tolley 1996)

Unfortunately, much the information needed to segment youth populations is scanty Simple and widely available disaggregations of the kind provided in the present analysis can therefore be useful For a start, age categories are one way of identifying critical developmental differences (Austin 1995) Marital status certainly distinguishes quite different risk categories among youth School enrollment marks a group of youth readily accessible to many kinds of information programs (EDC 1996, Birdthistle and Vince Whitman 1997) Working youth are another segment that can be reached by carefully designed programs Youth who are out of school (Sikes 1996), out of the labor force, or both are especially difficult to reach Our analysis provides a comparative description of the changing proportions making up these key segments, or social categories, of youth

POPULATION MOMENTUM, THE YOUTH BULGE, AND YOUTH FOCUSED POPULATION POLICIES

The future of population growth is largely determined by future rates of childbearing combined with the composition of present day populations, with future mortality a relatively predictable and minor factor For program and policy

purposes, demographers often divide present and future fertility into wanted and unwanted components, with unwanted fertility the primary target of family planning programs worldwide The component of future population growth that is predictable based on the present population age structure has been called "population momentum" (Keyfitz 1971) With wanted and unwanted fertility roughly at today's levels, population momentum accounts for much of the anticipated future growth of population (Bongaarts 1994) Across much of Asia, fertility is now well below the peak levels of the past, so that population momentum, stemming from past high levels of fertility, assumes additional significance A recent exercise for the Philippines suggests that about two thirds of the population growth from 1995 through 2020 will be due to momentum, with wanted and unwanted components of fertility accounting for the remaining third (Herrin and Costello 1996)

In concrete terms, momentum stems from a population having relatively large numbers of young people poised to mature into their childbearing years when they will substantially boost population growth This phenomenon can be called the "youth bulge" The historical youth bulge of interest here, a mid to late twentieth century relative excess of persons in the youth age range, reflects two demographic phases An initial phase is characterized by a sharp drop in mortality in the period immediately following World War II and, for some countries, following political and military disturbances related to struggles for political independence A second phase reflects a decline in fertility Fertility decline does not increase the number of youth, but it does heighten the proportion of youth in a population These two phases of the youth bulge have occurred in close succession in some settings, producing a

prolonged period of rapid expansion in numbers of youth and in the proportion of youth in populations as a whole Elsewhere the two phases have occurred essentially simultaneously, producing a very considerable bulge—up to a one third expansion of youth's share in total population If such relatively large cohorts survive through the years of childbearing and have wanted and unwanted children at roughly the current levels of fertility, they will produce about one third more births than will a cohort of conventional relative size

Youth are at heightened risk because social and economic institutions are supporting them less while demanding more from them

Bearing such considerations in mind, policymakers have advanced various proposals to mitigate the effects of the youth bulge One core notion seems to be that, for any given level of fertility, delaying first births and moving childbearing to an older mean age will reduce population growth due to momentum From this kind of analysis, policymakers recommend that bulge cohorts be encouraged to delay or reduce their childbearing Specifically, they suggest encouraging young people to marry later, to lengthen the interval between marriage and first birth, and to extend the intervals between births They point out that the benefits of these changes will not only help achieve demographic goals but will also improve the health of mothers and children, another aim of policy

Extending intervals between births has long been a goal of family planning programs designed to reach married couples Later marriage seems to be occurring spontaneously almost everywhere and is a core element of the general youth transition as defined here

There has been some policy consideration of inducing delayed marriage, and governments regularly raise the legal age of marriage. This does not seem particularly necessary as a population policy, however, though legal changes have been effective in a few societies (see Hare Mustin 1982 on China, for example), and every society has particular social subgroups whom such legislation would surely benefit.

The second policy goal, increasing the age of mothers at first birth, has long been viewed as an automatic consequence of delayed marriage. Analysts now recognize, however, that the reality is often more complicated because of premarital sexual exposure and complex forms of marriage. (On Asia see Rindfuss and Morgan 1983, Gage Brandon and Meekers 1993, Meekers 1993, Xenos 1990a, 1990b, 1997. On Africa see Cherlin and Riley 1986. On Latin America see Morris 1988, Singh and Wulf 1990.)

YOUTH DEMOGRAPHY

Across Asia today, as in other regions, youth are considered important by dint of their sheer numbers. But the demographic expansion of youth is not a new concern. Youth demography, in the form of "bulges" and "deficits," rising and declining age groups, and changing youth shares, is a recurring theme in macro-societal studies of social change. Goldstone (1991) provides a highly regarded investigation of two century long waves of political disintegration across Eurasia, culminating during the mid-seventeenth to mid-eighteenth centuries. In the Goldstone model the overall number of youth is not critical in itself, but it becomes critical in interaction with prevailing social and economic institutions. Goldstone draws on long time series of population estimates for England (Wrigley and Schofield 1981) to show that the propor-

tions of particular types of youth were highest during England's periods of greatest political agitation—for example, the 1630s (Goldstone 1991, 138 ff.)

Another important example of macro-societal and comparative analysis is Huntington's (1996) widely cited account of the twentieth century resurgence of cultural and religious identity as a political and economic force. Huntington observes that relatively large, dynamic youth cohorts form the vanguard of many of these social movements, notably the twentieth century Islamic resurgence (p. 109 ff.). He joins analysts for the Central Intelligence Agency (CIA 1990, PDR 1990) in attaching importance to a "benchmark" 20 percent share of youth (defined as those in the 15–24 age group) as constituting a "youth bulge"—a social force to be reckoned with. In these analyses, a youth share below 15 percent constitutes a "youth deficit," which can be equally problematic because it leads to such outcomes as inadequate numbers of new entrants to a nation's labor force.

The changing demography of youth has figured prominently in analyses of Asian societies, with the emphasis on a putative post-World War II youth boom. In some analyses the number of youth, the growth in the number of youth, or the youth share of the total population is described as a major or contributing factor in political disturbances. (On Indonesia see Keyfitz 1973, on India see Butler 1990, on South Korea see Fuller and Pitts 1990, on Sri Lanka see Fuller 1995.) Whereas the simplest analyses consider only absolute numbers, relative numbers, or the rate of change in numbers, a few recognize the importance of the social composition of youth populations. In discussing Indonesia's postwar wave of youth, Keyfitz (1973, 1986) focuses on educational planning, urban migration, and job creation. In her examination of India, Visaria (1986) devotes

attention to aspects of social composition, including school enrollment and marital status. Xenos (1990a, 1997) and Jones (1997a, 1997c) consider the social demography of Asian youth in a comparative, descriptive framework.

The research summarized here builds upon these existing studies, while addressing their shortcomings. Much of the analysis just cited focuses on one society or looks at a relatively short period of time, overlooking important differences among societies and significant long-run changes. Differences in definitions of youth further inhibit comparison. Our research covers 17 Asian societies—every country outside Western Asia (except Vietnam and North Korea) with a population of 2.5 million or greater, plus Brunei with only 257,000 persons.¹ For each country, we have assembled comparable data for persons of ages 15 through 24 covering the four decades from 1950 through 1990.

Using this comparative approach, we demonstrate that the youth bulge phenomenon is more complex than previous research has suggested. Timing, tempo, and magnitude all vary across societies. Beyond that, we have disaggregated, or segmented, the youth cohorts on the basis of available statistical series to produce an effective level of social detail while retaining significant temporal and geographic dimensions for comparison. We cannot hope to measure directly many abstract dimensions of change that are of keen interest—for example, the degree of disaffection with traditional public mores, the decline of guidance and protection within families, or the changing commitment of youth to the labor market. But we have identified

1. Beside Vietnam (66.7 million) and North Korea (21.8 million), the excluded countries are the Maldives (215,000), Macao (344,000), Bhutan (1.4 million), and Mongolia (2.2 million). Altogether, they account for only 3.1 percent of the region's population.

some social and demographic categories of considerable interest, for which pronounced historical changes and cross societal variations are apparent

THE ASIAN YOUTH TRANSITION AS A UNIFYING THEME

The forces of change seem to converge on youth, reshaping demographic and social features of youth populations into a new and essentially universal pattern. We call this transformation the *youth transition* to suggest that like other true transitions, it is a unique occurrence, irreversible and nonrepeatable. The demographic and social core of the youth transition is rising numbers and proportions of youth in national populations, rising percentages of youth remaining single until well into adulthood, and rising proportions of youth enrolled in school. But a more complete description of the youth transition would incorporate other changes that are important but less regular in pattern across societies (e.g., changing patterns of labor force participation) or are systematic but difficult to measure (e.g., a long term decline in the average age at menarche).

The analysis reported here provides a basic demographic assessment of Asia's youth populations, both retrospectively and prospectively, focusing on a short list of important compositional features: marital status, school enrollment status, and labor force status. Taken together, these features encompass or are implicated in some of the most important changes facing Asian youth populations both in the recent past and in the decades ahead. The exercise serves to identify some key social groups for policy consideration and provides a basis for anticipating which groups in each country of Asia will expand most and least rapidly over the next several decades.

DEMOGRAPHIC ASPECTS OF THE YOUTH TRANSITION

Our analysis first briefly reviews relevant demographic changes that occurred across Asia from 1950 through 1990 and then projects trends in these indicators from 1990 to 2025. Basic data presented here are drawn from tables in our more detailed report (Xenos and Kabamalan 1998) and its statistical appendix. That report also describes in detail the methods employed in assembling and adjusting the data and in projecting the trends.

Our goal is to identify the broad outlines of a regional youth demography, including common features and national differences, within an empirical framework that assures comparability among countries, allows the grouping of countries into regional patterns, and permits the disaggregation of the youth cohort into important social demographic subgroups. Available data sources have made it possible to produce estimates at an acceptable level of accuracy for 17 countries over the historical period (1950 through 1990). The empirical base consists of estimates of each country's population in five year age groups by sex, produced by the United Nations Population Division for five year periods from 1950 through 1990 (UN 1994b, 1995). The projections to 2025 are from the World Bank (Bos et al. 1994).

For social classifications we sought the same broad geographic coverage and the same segmentation of the youth population into the two sexes and two five year age groups. Available data have allowed us to distinguish the single from the ever married, those in school from those not in school, and those economically active (in the labor force) from those not. These are not particularly subtle classifications, but they are important ones that delimit major dimensions of

both temporal change and cross national variation among youth. All these classifications have been reconstructed from existing data insofar as possible for the period from 1950 through 1990.

We then projected the resulting historical series on proportions single into the future, using a methodology developed for that purpose. We projected the historical series on school enrollment to 2025 on the basis of the future enrollment ratios given in UNESCO's most recent round of projections (UNESCO 1993). We projected the historical series on the labor force to 2025 by using projections of economic activity rates prepared by the International Labour Office (ILO 1986). We have not developed alternative projections for the three series because such projections would be highly speculative. (See the shaded box for a description of our projection methods.)

Like other true transitions, the youth transition is a unique occurrence, irreversible and nonrepeatable.

The World Bank Population projections assume that all societies will undergo a fertility transition over the next two or three decades, provided they experience a transition from high to low mortality. The projections on the timing of fertility decline are not unreasonably optimistic and are similar in many respects to the projections of the United Nations Population Division (UN 1994b, 1995). The assumed shift from early to late age patterns of fertility is consistent with the Asian experience of steadily rising percentages single by age and is broadly compatible with our own projections of rising percentages single.

Considering first all of Asia, we can describe a historical sequence that is playing out over the last half of the twentieth century and the first quarter of the

Methods Used to Project Future Social Demographic Trends

The World Bank's population projections incorporate mortality and fertility assumptions applied in a cohort component framework (Bos et al. 1994). Mortality, indexed by life expectancy at birth, is allowed to improve along a curve defined by a logistic function, with five year improvements smaller at higher initial levels. Age and sex patterns are based on extended life tables prepared by Coale and Guo (1989). Fertility is indexed by the total fertility rate, with different trajectories for countries that were already in a fertility decline by 1990 and countries that were not. The total fertility rate, or TFR, is the total number of children that a woman in a hypothetical cohort would have at prevailing age specific fertility rates.

For the countries in a fertility decline by 1990, the TFR is reduced so that the net reproduction rate descends to replacement level by the year 2030 at five year rates determined by previous rates of change. (The net reproduction rate, or NRR, is the number of daughters that a woman in a hypothetical cohort would have at prevailing age specific fertility rates and the prevailing sex ratio at birth.) For the countries not yet in a fertility decline by 1990, it is assumed that a decline in the TFR toward a replacement level NRR begins once life expectancy (male and female combined) has reached 50 years. Different levels of TFR invoke different age patterns of fertility. For a country with a TFR of six or more children per woman, an early fertility pattern is assumed, for a country with a TFR of three or fewer children, a late fertility pattern is assumed, and for countries with TFRs between three and six, a fertility pattern is interpolating between these two patterns.

Our projections of percentages single rely on the essentially uniform pattern of rising percentages single witnessed throughout the region in recent decades. Japan led the way during the two decades before 1995 and by that year had very high percentages of males and females single at ages 15-19 and 20-24. Regression analysis indicates that the proportions single rise throughout Asia as the gross national product per capita rises. As a first approximation to a reasonable scenario for 2025, we have assumed that Japan's percentages single will rise no further, while other societies will move toward Japan's level over the 30 year projection period. We fitted intervening estimates using a logistic function.

We obtained projected percentages of youth enrolled in school at ages 15-19 and 20-24 for each sex from corresponding projections of enrollment ratios prepared by the UNESCO Division of Statistics (UNESCO 1993). In the UNESCO methodology, enrollment ratios are estimated or projected for each sex and for three grade levels (primary, secondary, tertiary) and three functional age

groups (6-11, 12-17, 18-23). The trend in the enrollment ratio at ages 6-11 is first extrapolated, then distributed among grade levels. Results for the other age groups are obtained by means of appropriate transition coefficients. Projections are obtained using a logistic function. The UNESCO enrollment ratios for functional age groups were transformed into percentages enrolled for five year age groups on the basis of regression relationships between the two kinds of estimate over countries and years where both are available.

Our projections of percentages economically active came from the International Labour Office's most recent series by country (ILO 1986). The methodology builds on a five year series of activity rates over 1950-80 that the ILO estimated for each country, combined with estimates of the sectoral distribution of the labor force over the same period. Following the procedure used in previous labor force projections, the ILO carried out projections by country based on the observation that national configurations of age and sex specific participation rates reflect national distributions of labor by sector, which change with economic development. The level of economic development is indexed by a single criterion variable, the percentage of the economically active male population engaged in agriculture, or PEAMPEA. Using country level data from 1950 to 1980, the ILO has estimated shifts in age and sex specific labor force participation rates. Projections of future trends in age and sex specific labor force participation rates are based on projected future trends in the PEAMPEA and the observed relationship between participation rates and the PEAMPEA during 1950-80. Overall, the relationship between these variables is parabolic, with the greatest changes in age and sex specific participation rates occurring when the PEAMPEA is at intermediate levels.

Our projections of national youth transitions combine these population, labor force, and enrollment projections. It must be emphasized that we did not conduct these several projection exercises in a unified fashion because they are based on the products of different international agencies carried out for the agencies' own, somewhat different purposes. It is necessary to assess the compatibility of the series at the country level, since the two UN agencies do not always use the same definition of subregions. We found that across the projection period the sum of percentages of youth enrolled and in the labor force slightly exceeded 100 in two countries, Hong Kong and Singapore, where the proportions of youth in school and in the labor force are very high. In these cases we adjusted the percentages enrolled slightly downward.

twenty first. Asian youth numbered 239 million in 1950 but had multiplied by nearly 2.4 times to 572 million by 1990. Over this period, the underlying annual growth rate of the youth population segment (2.18 percent) marginally exceeded the underlying annual growth rate of the total population (2.03 percent), and the region's youth share rose from 19 to nearly 21 percent. Between 1950 and 1990, all Asian societies experienced

some growth of youth numbers due to mortality decline, but by 1990 some had not yet witnessed the youth bulge resulting from fertility decline.

According to the World Bank's projections, between 1990 and 2025 the Asian populations considered here will grow by 50 percent, from 2,600 million to 3,897 million, but the Asian youth population will grow by only 6.7 percent to 610 million. Youth's share of total population

will decline to 15 percent by the end of the period. The youth population will reach a peak in absolute numbers between 2010 and 2020 and will decline thereafter. The growth rate of the youth population will begin to slow down somewhat earlier.

What does not emerge clearly from this region wide summary is the link at the national level between demographic changes in youth populations and soci

ety wide mortality and fertility declines—the demographic transition. The features we wish to highlight can be seen best by focusing on one society. South Korea illustrates especially clearly the historical sequence of youth demography driven by the demographic transition and particularly by the timing of fertility decline. The South Korean death rate plummeted from 1925 onward, interrupted only by the turmoil of 1940–55 (Kwon 1972, chap 3). Fertility fell slightly as well before 1940, then rose to a peak by the end of the 1950s and began a dramatic transition downward in the 1960s that followed the classic contours of a demographic transition. According to United Nations estimates (UN 1995, 788), in 1955 the total fertility rate was 6.07 children per woman, and the net reproduction rate was 2.28 daughters per woman. By 1990, only 25 years after fertility had begun to decline, the net reproduction rate had fallen below the replacement level.

The demographic youth transition in South Korea followed in lockstep with the stages of the overall demographic transition (Figure 1). The size and growth rate of the youth population rose dramatically as the large pretransition birth cohorts reached the youth age span under conditions of low mortality. Irregular changes occurred in the size and growth rate of the youth population between 1945 and 1955 (Kwon 1972, appendix I). These reflected demographic and social conditions surrounding the birth cohort of the 1930s including improved survivorship in the 1930s followed by severe disruption (and probably higher mortality) between 1940 and 1955. The youth growth rate and the youth share diminished somewhat after 1955, only to rise again even more sharply after 1965 and especially after 1970, reflecting settled postwar conditions combined with lower fertility. By the time the youth growth rate peaked

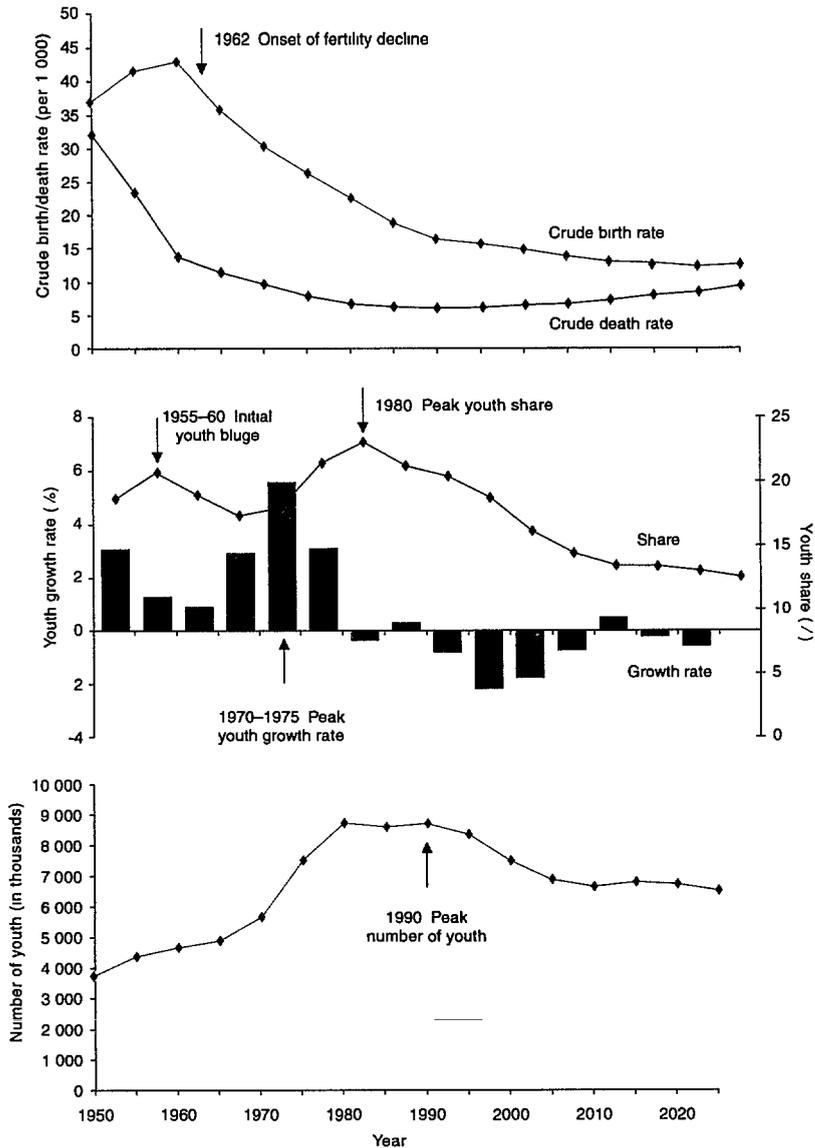


Figure 1 The demographic youth transition South Korea

during 1970–75 at 5.5 percent, the youth share of the total Korean population had risen from around 19 percent in the 1950s and 1960s to 21 percent in 1975. The youth share peaked at 23 percent in 1980. In absolute numbers, the youth population expanded very rapidly during the 1970s and continued to expand, though less rapidly, during the 1980s. It peaked in 1990 at 8.8 million and then began to decline. The World Bank's projection for the year 2025 suggests a youth share of only 12.4 percent, a youth population growth rate of -0.6 percent, and a youth population only three

quarters of the size it was at its peak in 1990.

The sequence of events illustrated for South Korea in Figure 1 has been, or will be, experienced with some variation by every society going through the demographic transition. This is so because the sequence is the necessary outcome of the underlying formal demography linking changes in population size and age composition with trends in mortality and fertility (For the moment we leave migration out of the picture.) Patterns varied most in the one to two decades immediately following World War II and

Table 1 Important dates in the demographic youth transition 17 Asian countries

Country	Onset of fertility decline	Peak growth rate among youth	Peak youth share of total population	Peak number of youth population
Japan	1950	1960	1965	1965
Singapore	1959	1965	1980	1980
Hong Kong	1960	1960	1980	1980
South Korea	1962	1970	1980	1980
Sri Lanka	1962	1970	1980	2000
Philippines	1963	1965	1975	2025
Brunei	1965	1965	1980	2025
Taiwan	1965	1970	1980	1980
Malaysia	1966	1965	1980	2010
Thailand	1968	1970	1985	2000
China	1969	1980	1985	1990
Indonesia	1970	1970	1990	2000
India	1973	1970	1985	2015
Myanmar	1976	1980	1990	2020
Bangladesh	1981	1970	2000	2020
Nepal	1988	1995	2005	2030
Pakistan	1990	2000	2010	2035

Source: Xenos and Kabamalan 1998 Table 1

its political aftermath, except that virtually everywhere there was a clear acceleration in the growth of national youth populations and a resulting initial youth bulge. This was evident as early as 1945–50 in a number of countries of the region—specifically in Hong Kong, Burma, Malaya, Singapore, and Ceylon, to use the names of those countries at the time. A growth surge occurred slightly later for most of the remaining countries, and a relatively late growth surge occurred in South Korea in 1955–60.

The timing of subsequent events for the other countries reflects primarily the timing of their national fertility transitions. Table 1 gives a summary of the key dates for each country.² Fertility began to decline in the early 1950s in Japan and in the early 1960s in Singapore, Hong Kong, South Korea, and Sri Lanka (Japan had, of course, experienced an initial phase of fertility decline long before, in the 1920s). Following the vanguard countries over the next two decades were, in rough temporal order, the Philippines, Brunei, Taiwan, Malaysia, Thailand, China, Indonesia, India, Myanmar, Bangladesh, Nepal, and Pakistan.

The initial youth bulge, reflecting disturbed mid century conditions, varies substantially among countries, but the remainder of the youth demographic transition—that induced mainly by fertility decline—is much more uniform. The peak youth growth rate follows the onset of fertility decline by a decade or so, and the peak youth share trails by about 20 years. The differences among countries, and how distinctly youth transitions show up in the data, reflect variations in the shape of the fertility transition and in the degree to which the results of the initial youth bulge overlap the consequences of fertility decline. The shifts are greatest, most distinct, and the core demographic features of the youth transition most noticeable where the following conditions are met:

- Fertility levels are initially high
- Mortality levels decline significantly, producing rapid population growth
- Fertility decline is abrupt and rapid, and the decline is to a much lower level
- Other factors, including the consequences of the mid century changes, are not sufficient to disturb the pattern

Some societies are making the demographic youth transition with little evident disturbance, while for others the transition is distinct, noticeable, and perhaps even traumatic. Among the demographic features of the transition that may stand out are a high peak youth share, relative to pre- and post-peak levels, followed by a sharp decline. Another feature is a sharp increase, followed by a sharp decrease, in the youth population growth rate.

Examination of the national patterns prompts several observations likely to be of interest to policymakers:

- The youth share, as we have already noted, peaks about 20 years after the onset of fertility decline (20 being the midpoint of the age group 15–24), that is, after the numbers of infants and children have been reduced but before the youth population has been similarly affected
- For early decline countries, the 1970s and 1980s were a time of high youth proportions, which peaked in the 1980s. For countries with fertility declines beginning in the 1970s and thereafter, peak youth shares are projected for the 1990s or the first decade of the twenty first century.

2 We have used as onset dates for sustained fertility decline the estimates suggested by Bongaarts and Watkins (1996), whose criterion was a 10 percent decline in the TFR reported by the United Nations (UN 1994b). We have supplemented their estimates with estimates for Japan, Taiwan, Brunei, and Pakistan. Japan's date of sustained fertility decline was taken as 1950 although an initial fertility decline began there around 1925 (Kobayashi and Tsubouchi 1979). Taiwan's was taken as 1965, based on data presented in Chang, Freedman, and Sun (1981). Brunei's was taken as 1965, based on the United Nations data (UN 1994b). Pakistan's was taken as 1990 based on total fertility rates used in the World Bank projections (Bos et al. 1994).

- Somewhat later, the national youth populations reach their peak in absolute numbers and begin to decline in size. The time lag from the onset of the fertility decline to the onset of the decline in youth numbers varies widely (Figure 2). Countries that experience relatively early fertility transitions generally have shorter periods between beginning the fertility transition and reaching the peak number of youth. Conversely, countries that have relatively late fertility transitions generally are taking longer to reach their peak numbers of youth.
- A clear association exists between the magnitude of the youth share at its peak and the peak growth rate of the youth population (across the 17 countries the Pearson correlation coefficient is 0.63).
- Countries vary in how quickly the youth share declines from its peak level and in the amount of time that elapses between the peak youth share and the peak youth number (Figure 3).

It is apparent that the 17 countries are arrayed along a continuum based on the timing of their fertility transitions and their demographic youth transitions. Countries with early fertility transitions have had relatively rapid youth transitions, whereas countries with late fertility transitions are seeing slower youth transitions. Some of the intermediate countries (e.g., the Philippines and Brunei) are projected to experience continued growth of their youth populations until well after their fertility declines have begun. Although the dates involved cannot be precise, the data convey an essential relationship between fertility transition and the demographic youth transition.

One group of countries, comprising most evidently Taiwan, South Korea, Hong Kong, and Singapore, experienced early and rapid fertility declines driven by rapid economic development as well

as by successful programs of fertility control. These fertility declines prompted sharply defined, brief, but numerically important demographic youth transitions. In these countries, the whole sequence from the onset of the fertility decline to the beginning of an

absolute decline in the youth population took no more than 21 years.

China's fertility decline began a few years later, but China also had a very rapid demographic youth transition. Certain other countries—notably Indonesia and Thailand—have experienced rapid

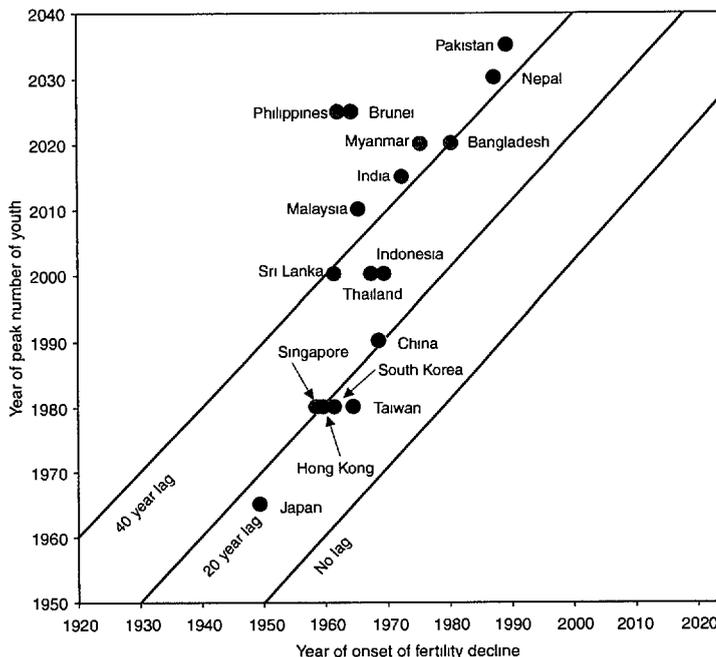


Figure 2 Interval from fertility decline to peak number of youth 17 Asian countries

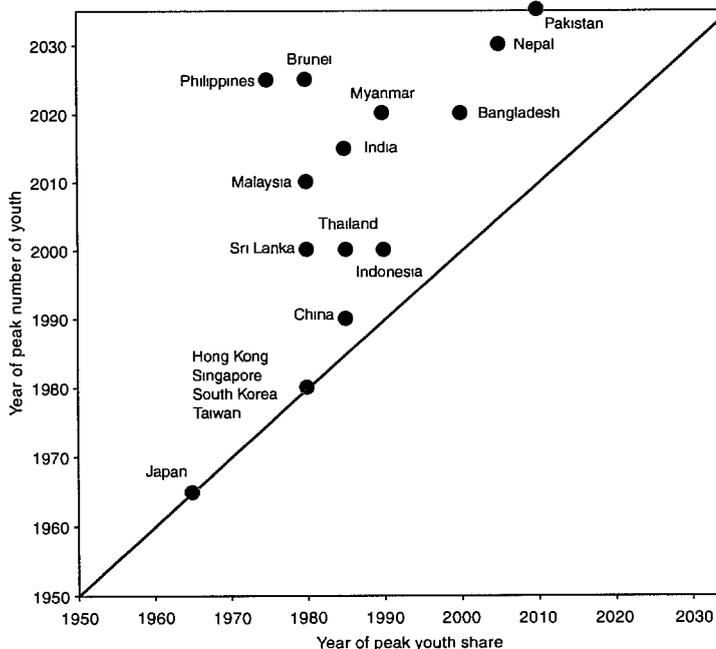


Figure 3 Interval from peak youth share to peak number of youth 17 Asian countries

Table 2 Patterns of fertility transition and demographic youth transition 17 Asian countries

Country	Duration of fertility transition (years) ^a	Duration of demographic youth transition (years) ^b	Total growth of youth population during demographic youth transition (%)
Japan	10	15	21.6
Singapore	16	21	111.5
Taiwan	18	15	54.3
Hong Kong	20	20	219.9
China	21	21	97.2
South Korea	23	18	83.1
Thailand	32	32	108.8
Bangladesh	34	39	77.8
Indonesia	40	30	103.6
Pakistan	40	45	100.4
Nepal	42	42	126.6
Sri Lanka	43	38	90.0
India	47	42	106.1
Malaysia	49	44	193.8
Myanmar	49	44	117.0
Brunei	55	60	442.9
Philippines	67	62	258.9

Source: Xenos and Kabamalan 1998 Table 2

a Number of years from the onset of fertility decline to a net reproduction rate of 1.0 daughters per woman

b Number of years from the onset of fertility decline to a decline in the number of youth

fertility transitions more recently, accomplishing them at somewhat lower levels of economic advance. These countries are also witnessing distinct and fairly rapid demographic youth transitions, but they have fewer economic resources for social programs and less rapid rates of absorption of youth into their national economies.

A third group of countries in South Asia—Sri Lanka, Bangladesh, India, Nepal, and Pakistan—is characterized by late starting and relatively slow fertility declines taking place at relatively low levels of economic advance. The demographic youth transitions in these countries are much slower and less distinct. Their youth shares are not rising to very high levels, and their youth growth rates are lower as well. Myanmar and Malaysia are experiencing even slower demographic youth transitions, and Brunei and the Philippines are in the midst of very slow demographic youth transitions. Countries with relatively slow,

less abrupt youth transitions nevertheless produce large proportional expansions of their youth populations.

From a policy standpoint, there are some clear practical tradeoffs. An especially rapid fertility decline is associated with an especially quick and well demarcated demographic youth transition. Peaks and then declines in youth numbers are reached quickly. During a rapid demographic youth transition, however, the youth share and the rate of growth of youth numbers reach relatively high levels. This situation may create some problems, for example, in managing labor markets or planning schooling or health care facilities. A slower fertility decline avoids extremes of youth growth and youth shares, but nevertheless allows considerable growth of the youth population before the whole transition process is completed.

Table 2 summarizes the growth of youth populations resulting from all these changes. The total expansion of each na-

tional youth population depends on the time span from the year when fertility begins to decline to the year when the national youth population begins to decline in absolute terms. This period varies from 15 years for Japan to 62 years for the Philippines. Of particular interest is the amount of growth of the youth population during this period of transition.

Where the fertility transition is especially rapid (it takes place in less than 25 years in Japan, Singapore, Taiwan, Hong Kong, China, and South Korea), the youth population may continue to grow after fertility has reached replacement level (e.g., in Japan and Taiwan). Nevertheless, a rapid fertility transition is associated with a rapid youth demographic transition and with a modest expansion in the number of youth. The lone exception among the rapid transition countries is Hong Kong, where, because of substantial immigration, the youth population more than doubled during the 20 years of youth demographic transition. When fertility decline occurs more slowly, and especially when it occurs very slowly (e.g., in Brunei and the Philippines), the associated expansion of the youth population can be substantial.

These, then, are the broad contours of the demographic youth transition. This youth bulge sequence must be seen in the context of the overall transformation of a population's age composition in the course of the broader demographic transition. Two other, related shifts of age composition are much more widely known: the decline in proportions of the population in infancy and childhood and the rise in the proportions in old age. Both of these—the diminished stock of children and the increase in elderly—are permanent features of post-transitional societies, whereas the youth bulge is a temporary phenomenon. Temporary though it may be, however, the youth bulge is difficult to ignore, particularly

when changes in the numbers of youth are accompanied by changes in social composition. Specific subgroups of youth can expand very rapidly indeed.

SOCIAL ASPECTS OF THE YOUTH TRANSITION

The youth transition comprises certain core changes, so called because they occur in every population once and in a similar fashion. Other changes, though important, may not occur in every context or may occur differently in one setting than in another.

Figure 4 depicts elements of the youth transition. At the center is the *youth demographic transition* described in the previous section. The next circle outward includes *core social transitions*—universal experiences of one time, irreversible transformations among youth across the region. The outer circle represents *other social transformations*, which are more varied across populations than true transitions but are nevertheless of direct relevance and importance to policy. We have reconstructed one key transformation of this type, rates of economic participation, for the full range of countries and dates. We do not consider this a core social transition because changes in labor force participation do not follow a simple path—that is, they are not one time, irreversible occurrences. There are major differences, even differences in the direction of change, among countries and age groups, as well as between the sexes.

Many other elements of social change among youth might well be drawn into this concept of youth transition. Changes among youth are, after all, embedded in a much deeper and broader pattern of social change. We have excluded many of these elements from the framework presented here because it is not possible to

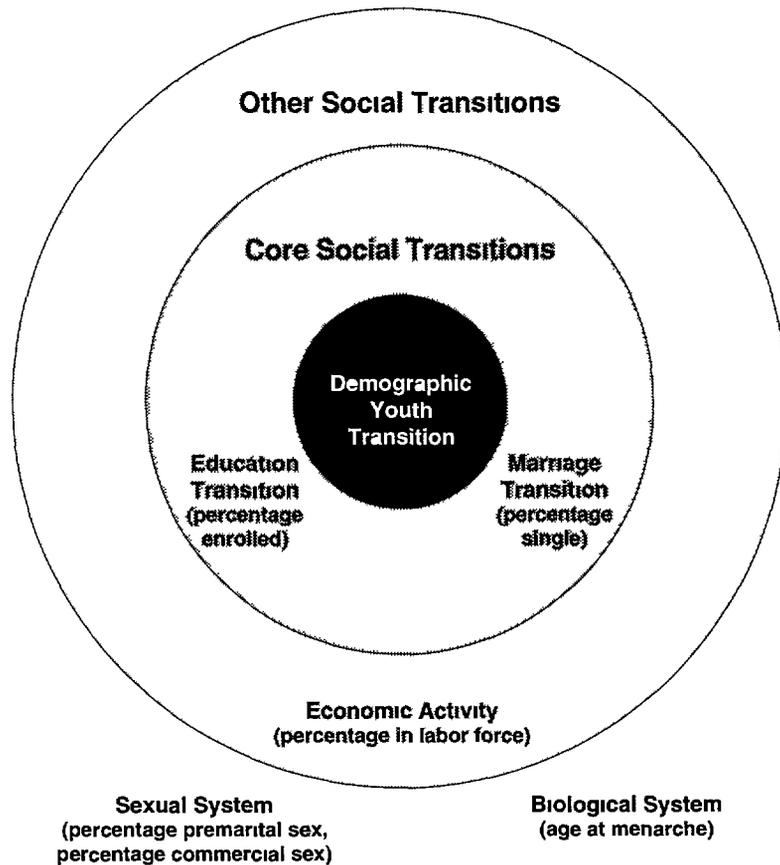


Figure 4 Elements of the youth transition

measure them across different time periods and countries. We have identified some of these changes in Figure 4, placing them outside the largest circle to indicate their importance but also our inability to depict trends and differentials adequately. We could easily include many other kinds of change in this category.

We have included one such change, the sexual revolution, because of its great importance and because so much effort in recent years has gone into improving its measurement. The indicators suggested are the percentage of youth reporting premarital sexual activity and the percentage reporting having visited a commercial sex worker. Another change, the decline in age at menarche, is a universal feature of youth and bears directly on the core of the youth transition, notably on marriage timing (Buck and Stavraký 1967). However, we lack the

measures required to add the changing timing of menarche to our empirical framework (Van der Eng 1993). Other omitted changes of similar importance include home leaving, in our social composition framework this is the percentage no longer living in the parental household.

It is clear that the youth transition encompasses a great deal of systematic change, but for the moment we focus on change that can be measured adequately and comparatively. In the following sections we look in more detail at changes across the region in percentages single and percentages enrolled in school among youth of each sex. Then we look at the more diverse changes occurring in labor force participation rates among youth. The Appendix Table provides statistics on these indicators for the region as a whole, for the three subregions, and

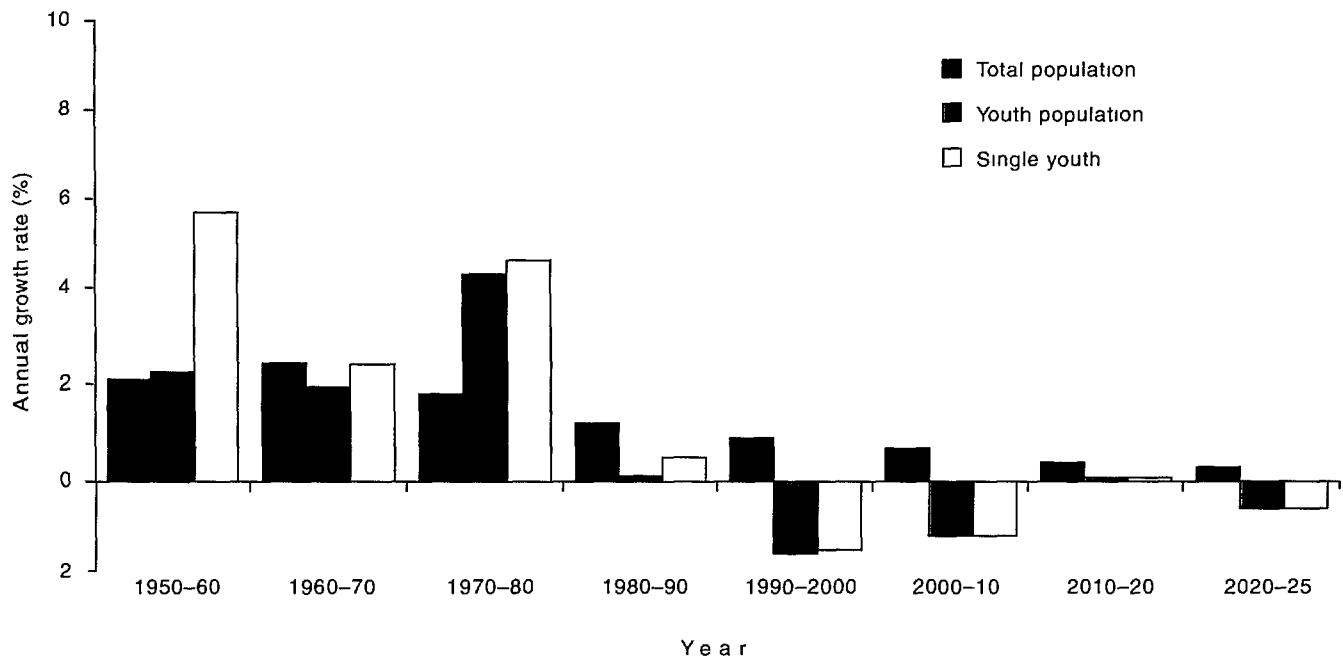


Figure 5 Total population growth rate youth growth rate, and growth rate of single youth South Korea, 1950-2025

for the 17 countries. As before, our discussion focuses for the most part on regularities and comparative observations rather than on national level detail.

THE SHIFT TO LATER MARRIAGE

A considerable body of survey data for Asian countries shows a historic twentieth century shift toward later marriage (D. P. Smith 1980, McCarthy 1982, UN 1983, Westoff, Blanc, and Nyblade 1994, Singh and Samara 1996). Demographic surveys, however, can describe only the past two or three decades and generally focus exclusively on women, ignoring men. Census marital status distributions provide another set of indicators with considerable geographic and temporal coverage (P. C. Smith 1980, UN, DIESA 1988, UN 1990, Xenos and Gultiano 1992, Jones 1997b). We examined the full complement of available census materials for the present study, expanding and updating the compilation first presented by Xenos and Gultiano (1992).

Excluding China, for which appropriate data are unavailable, the region wide

aggregation of national data indicates significant upward movement in the percentage of single males in the youth age range and even greater upward shifts for young females. Among Asian females of ages 15-19, the percentage single rose from 46 in 1950 to 72 in 1990, while among females age 20-24 the percentage single rose from 16 to 31. In the 20-24 age group, the number of single women was nearly double the number it would have been without the change in the marriage pattern. Though less dramatic, the rising percentages and numbers of single males are equally widespread.

Across the subregions of Asia, East Asia has led the trend toward delayed marriage. Southeast Asia follows, with South Asia lagging behind. Among all youth in East Asia (excluding China) the percentage single rose between 1950 and 1990 from 70 to 91 for females and from 87 to 96 for males. In Southeast Asia, the percentage single rose from 45 to 66 for females and from 78 to 85 for males. In South Asia the corresponding levels are much lower, but the absolute changes are even greater: the percentage single

rose from 18 to 42 for females and from 56 to 77 for males. Striking variations are found among the countries within each subregion.

It is important to appreciate the numerical significance of these marriage trends. Between 1950 and 1990, the number of single young women in Asia (excluding China) increased from 22 to 82 million. Somewhat more than half of this change was due to the rise in percentages single, which accounted for 31 million of the increase. Arithmetic of the same kind applies to each country.

This dimension of social change has important ramifications for Asian societies, but most of these ramifications are outside the scope of this discussion. Here we focus on certain striking implications at the relatively superficial level of demographic composition among youth, again using South Korea as an illustration (Figure 5). The changes in marriage patterns reinforce the demographic youth transition by adding to the numbers of single youth throughout the youth transition until the last stage when the size of the youth population is declining and the proportions of youth

who are single can rise no further. South Korea's female youth population expanded by nearly 2.3 times between 1950 and 1990—from 1.87 million to 4.24 million—with an annual growth rate of more than 4 percent in the 1970s. At the same time, the percentage of women single rose from 73 to 99 in the 15–19 age group and from 16 to 81 among those 20–24. As a result, the population of young single women in South Korea rose by 4.4 times over the 1950–90 period, from 871,000 to 3.83 million. In addition, a convergence of female and male marriage patterns transformed the relative numbers of single males and females from a situation in 1950 of about three single young men for every two single young women to a situation in 1990 in which the sex ratio was virtually in balance (see Appendix Table).

Similar observations apply to each of the other countries. Growth rates of single populations are sometimes extremely high, both relative to total youth growth rates and in absolute terms (exceeding 5 or even 6 percent per year). The pattern is most consistent in South Asia (except in Sri Lanka, where marriage delay has occurred throughout the twentieth century), but it was also the case in Singapore in the 1950s and 1960s and in Brunei in the 1960s and 1970s. For countries such as these, the very rapid growth of single youth is confined to one or two decades, for other societies, moderately rapid expansion of this group takes place over a longer period. A few societies (e.g., the Philippines and Sri Lanka) have never experienced extremely rapid growth of the single population because their shifts to later marriage occurred relatively slowly.

THE RISE IN SCHOOL ENROLLMENT

The global, long term extension of school enrollment from childhood into

the adolescent years has affected the youth population of Asia, resulting in rising proportions in school. It is possible to assemble hard evidence of this transformation, but not without considerable difficulty (Meyer and Hannan 1979, Benavot et al 1991, Meyer, Ramirez, and Soysal 1992). Benavot and Riddle (1988) managed to assemble enrollment ratios for functional age groups spanning the period from 1870 to 1940. Taking their lead, we have compiled or estimated enrollment ratios and percentages of youth enrolled in school for age groups by sex for the period from 1950 through 1990.

Over this period youth enrollment levels rose by at least 10–15 percent in all subregions and for each sex. Most of the increase occurred in the 15–19 age group, with enrollment rising from 14 to 26 percent for females and from 23 to 39 percent for males. Subregional contrasts were marked for both sexes, however. The upward movement in enrollment rates for males age 15–19 was similar in South and Southeast Asia. In East Asia, the average male enrollment was already higher in 1950 (at 37 percent) than it was in 1990 in either South Asia (34 percent) or Southeast Asia (16 percent), and the rise over the 40 year period was even greater. Among females of ages 15–19, East Asia had the highest level and the greatest increase by far (from 36 to 74 percent). In Southeast Asia, the percentage of enrolled females actually exceeded the male percentage by 1990. In contrast, the levels for South Asian females started and ended low, rising from 8 to 16 percent.

Throughout the region, the rise in enrollment levels was much smaller in the 20–24 age group. By 1990, only 12 percent of males and 6 percent of females in this age group were enrolled in school. In East Asia, however, male enrollment reached 24 percent in 1990.

The upward trend in school enrollment shares some features with the up-

ward trend in percentages single. It has been occurring in all the countries and has been most noticeable among females, resulting in a degree of convergence between male and female percentages enrolled in school. Just as with trends in percentages single, however, social norms seem to be dictating, at least thus far in the transformation, generally higher levels of school enrollment among males as well.

The widespread consequence of these trends for Asian youth populations is the rapid growth in actual numbers of young people enrolled in school. South Korea (Figure 6) again illustrates the typical pattern. The proportion of South Korea's youth population enrolled in school expanded annually by about 6 percent in the 1950s and by nearly 10 percent in the 1970s. There are, of course, important national and regional differences. The enrolled youth population grew much faster than the total youth population across East Asia until recently, and enrolled youth growth rates reached very high levels in much of Southeast Asia over the past two decades or so. Recent policy and long term trends are both clearly reflected in these rates.

As with the proportion single, the proportion of youth in school is growing more quickly than the general proportion of youth in the population at large. In South Korea, for example, the number of youth rose, between 1950 and 1990, from 3.8 million to 8.8 million, an increase of 132 percent. Over the same period the number of youth enrolled in school rose by 600 percent, from 0.6 million to 4.2 million. While this increase surely placed heavy demands on the educational system, the same changes held down the number of out of school youth, which rose by only 44 percent, from 3.2 million to 4.6 million. This often problematic segment of the youth population was kept numerically in check by South Korea's enroll-

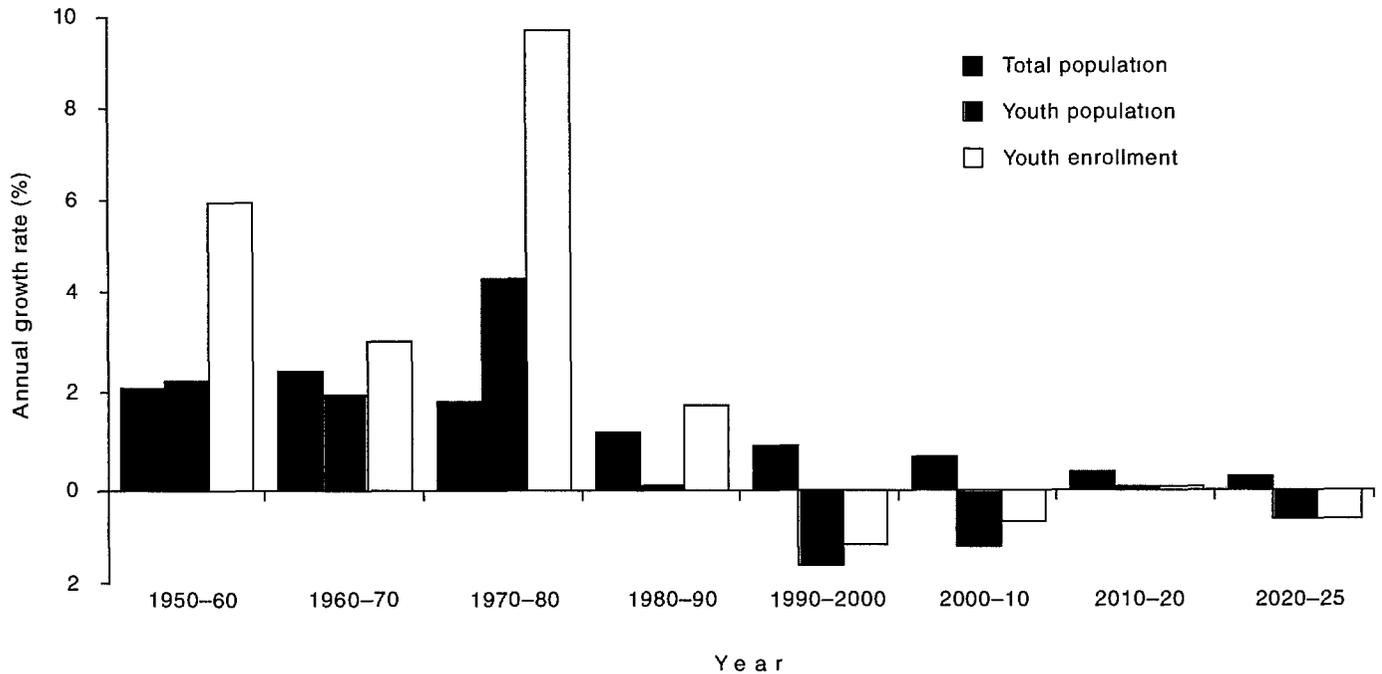


Figure 6 Total population growth rate, youth growth rate, and growth rate of youth enrolled in school South Korea, 1950-2025

ment trends despite the country's abrupt demographic youth transition

Across Asia, the numbers of young people in school are growing even more quickly than the numbers of youth in the population at large

As one of the vanguard countries with respect to fertility decline, South Korea has already begun to illustrate the dramatic changes in population composition that result from completing the youth transition. Almost immediately after 1990, South Korea's youth population began to shrink in size. According to the World Bank's projections, it will decline from 8.8 million in 1990 to only 6.5 million in 2025 (Bos et al. 1994, p. 296). Moreover, despite projected increases in enrollment rates (slight, since South Korea's enrollment rates were already quite high by 1990), South Korea's in-school youth population is projected to decline from 4.2 million in 1990 to 3.8 million in 2025. The out-of-school youth population will decline even

more dramatically, from 4.6 million to only 2.7 million.

CHANGES IN LABOR FORCE PARTICIPATION

Most international comparisons of labor force participation rates have not focused on the participation levels of youth, but as nearly all countries include ages 15 and over (and often younger) in their labor force statistics, general studies of international labor force participation rates cover the youth age groups considered here. In a comprehensive study, Durand (1975) relates the level of economic development to labor force participation rates as recorded by national censuses from 1946 to 1966, giving us a dated but still helpful point of comparison. Durand arrayed 58 countries along a dimension from low to high levels of economic development and found somewhat different patterns of labor force participation for males and females, and for younger versus older youth. The participation rates of younger male youth declined steadily as the development level rose, whereas the participation rates of older male youth

changed little. Among females there was a similar U-shaped pattern for both age groups, that is, female youth participation in the labor force declined with economic development at first and then, from a moderate level of development onward, rose steadily. Considering his data by region, Durand also notes that the South and East Asian countries he examined were more diverse than most other world regions.

The trends in labor force participation rates for males and females in our two youth age groups are shown in Xenos and Kabamalan (1998) for the subregions of Asia and for individual countries. Asia has followed the global trend in its declining male labor force participation rates in the youth age groups. Participation rates for male youth in the region are actually somewhat below world levels, perhaps reflecting Asia's generally higher than average school enrollment percentages. Labor force participation rates for young women are also below world levels for the same reason. However, three further observations are in order. First, near-zero participation rates among female youth are rare; they are

found only in Pakistan and Bangladesh. Second, each of the Asian subregions displays a diversity of levels. Third, among females aged 20–24 the rates do not decline by much, and across East Asia (and in Singapore) they even rise somewhat

IDENTIFYING KEY SUBGROUPS OF YOUTH

Thus far we have examined four major patterns of change: the formal demography of the youth transition (including the youth share of total population and the youth population growth rate), the social transitions in percentages single (reflecting later marriage) and percentages enrolled in school, and the more diverse changes in youth labor force participation. The demography of the youth transition occurs in predictable lockstep with the fertility transition, though we have seen that variations in the pace of fertility decline and level of economic development are also important determinants. The two major social transitions (reflected in percentages single and percentages enrolled in school) are closely tied to the level of development as indexed conventionally by gross national product per capita. We have also seen that there are important changes in the labor force participation rates of youth. The directions and magnitudes of these changes are closely associated, particularly for females, with national histories and cultures rather than with the level of development.

In this section we examine the numbers of youth in certain population subgroups that may be at heightened risk and thus the focus of policies and programs. Were the necessary tabulations available, we might proceed by examining a cross classification of all the categorizations presented earlier, combining age, sex, marital status, enroll-

ment status, and labor force status to define 32 subgroups of youth. In fact, age and sex are commonly cross classified, but marital status, enrollment status, and labor force status are rarely combined in tabulations.

We can move forward, however, by making certain assumptions that seem warranted, or at least not entirely unwarranted. We can identify youth who are single and out of school, for example, by subtracting the numbers enrolled in school from the numbers single.³ That is, we assume that all youth in school are still single. This is virtually the case in the younger age group, particularly for males, and we believe it is largely the case among older youth as well. To the degree that there are married students in a population, this approach will underestimate the number of single and out of school youth.

The number of youth in this category results from a kind of race over time between rising percentages single and rising enrollment rates. Considering the age group 15–19 and the time period from 1950 to 1990, we observe varied results across countries and for each of the sexes (Figure 7).

For females, six countries have seen the percentage single and out of school rise significantly, while another six have seen that percentage decline just as markedly. The remaining countries had only slight changes. Interestingly, the countries with major increases are in South Asia (excluding Sri Lanka), plus Myanmar and China. The countries with major decreases are in East Asia, joined by Brunei and, to a lesser degree, Thailand, the Philippines, and Indonesia. In South Asia, percentages single have risen more rapidly than have enrollment rates

In India, for example, there have been major shifts toward later marriage, but enrollment rates for girls have not moved upward to the same extent. In East Asia, enrollment rates have risen more rapidly than have percentages single. In South Korea, for example, the rise in female percentages single has been phenomenal, yet the rise in female school enrollment in the 15–19 age group has been even greater.

Male patterns are quite different. Only three countries have had major increases in the percentage of males single and out of school: India, Pakistan, and Brunei. Nearly all the other countries have had major decreases. This has occurred because the upward movement of enrollment rates easily outpaced male marriage delay.

The pattern of changes projected for the period from 1990 to 2025 is somewhat different and reflects our assumptions that enrollment rates will rise moderately while percentages single will rise dramatically outside East Asia, particularly in South Asia. The percentage of all youth in the single and out of school group expands very rapidly in South Asia, especially among females, but only slightly elsewhere. Major declines in this subgroup are projected for South Korea and Taiwan, where enrollment rates and percentages single had reached very high levels by 1990 for both sexes.

We can combine these changes in percentages with the projections of the youth population and add numbers of married youth to produce the national patterns illustrated in Figure 8 by Nepal and South Korea. Most evident is the underlying rise in numbers of youth, which continues to the end of the century and well beyond in Nepal but has already ended in South Korea. The shrinking absolute size of the married youth population reflects a shift to later marriage in both countries. The absolute number of married youth is still

3 Other subgroups considered in Xenos and Kabamalan (1998) include those not enrolled in school or in the labor force.

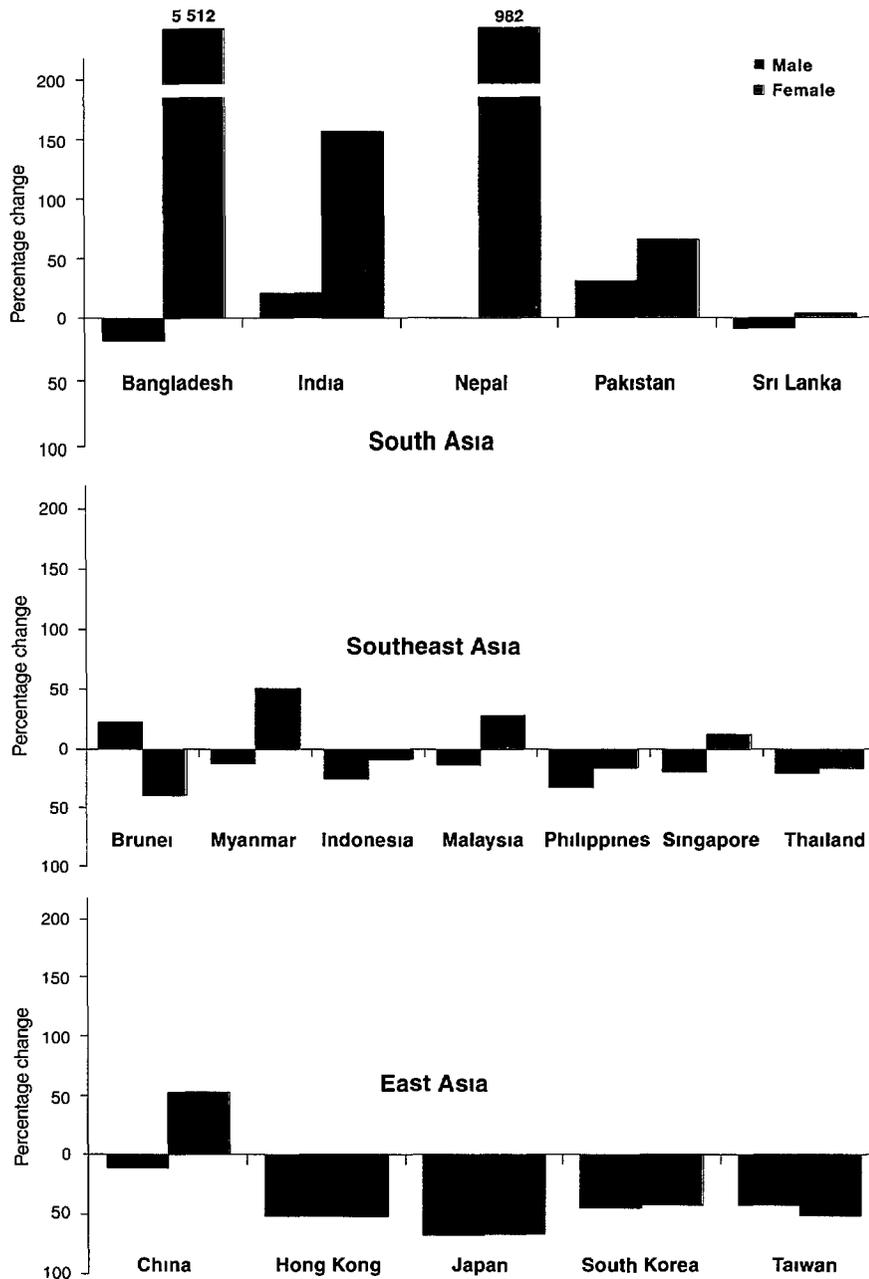


Figure 7 Changes in the percentage single and out of school among youth of ages 15–19, by sex 17 Asian countries, 1950–90

large in Nepal (and throughout South Asia), however, and it remains large over the projection period (in contrast with the other subregions) More young females than males are married, particularly in Nepal, where the age gap between spouses is still relatively large, even as projected to 2025

The population of single youth is large and grows rapidly in these estimates and

projections The out of school category typically absorbs that growth, reflecting our assumptions of modest future increases in enrollment rates and substantial future increases (outside East Asia) in percentages single South Korea illustrates the East Asian pattern, in which the in school category absorbs the growth of the single population, as percentages single there were already very high by 1990

CONCLUSION

Much of the epic social change across Asia has involved youth, giving rise to a myriad of problems Currently there is intense interest in improving policies focusing on youth, especially in the relatively unexplored areas of risk taking by youth and their reproductive health Policymaking directed to this age group requires the fullest understanding of the changes that are occurring among youth, including dramatic changes in their numbers and composition These changes are seen best from a comparative perspective over a historically meaningful time period The research reported here pursues this strategy by assembling data on demographic and social changes among Asian youth spanning 17 countries between 1950 and 1990 and combining that information with projections of changes from 1990 to 2025

Our analysis of these complex demographic and social trends suggests that Asia is in the midst of a youth transition that is irreversible and unrepeatable Among its characteristics are the following

- common changes of a transitional nature, including a demographic transition, a marriage transition, an education transition, and other transitions that perhaps cannot be described with reliable comparative and historical data
- important and measurable changes that are more complex—for example, changes in labor force participation
- other important changes that are not measured in this research and perhaps cannot be measured reliably except intermittently, such as age at menarche and indicators of the sexual system

The demographic core of the youth transition is driven by the fertility transition and results in a one time youth

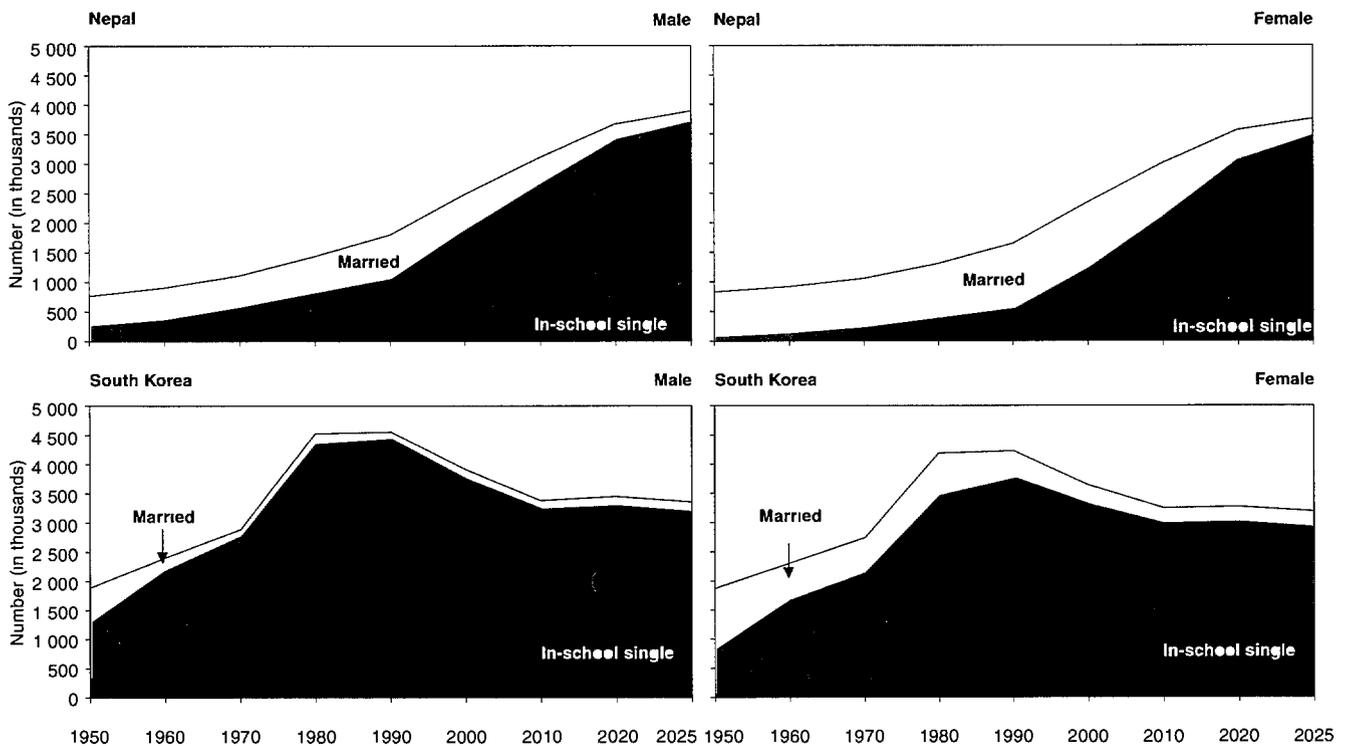


Figure 8 Youth population by marital and school status and by sex South Korea and Nepal, 1950–2025

bulge During the transition, the youth share of total population shifts from about 16–18 percent to somewhere in the range of 20–24 percent (mid bulge), then back down to the pretransitional level some 30 years after the onset of fertility decline, and finally, many decades later, to a stable post transition level of about 12 percent We are not yet able to project demographic changes well after the demographic transition has been completed, but stable population models reflecting post transitional demographic conditions suggest a “final” youth share of about 12.8 percent At that point the elderly share of total population will be around 18.5 percent

The characteristics of the mid transitional youth bulge vary with the pace and magnitude of fertility decline Two key indicators are the youth share of total population and the youth population growth rate These can be very high when fertility drops quickly from a very high to a very low level, conditions illustrated in this report by South Korea

Latecomers to the fertility transition (e.g., Indonesia and the Philippines) are experiencing moderate youth bulges What will happen to the countries just beginning their fertility transitions (e.g., India and Pakistan) depends largely on the pace and magnitude of their fertility decline

A rapidly played out youth bulge can be disruptive in the short run because the youth share of the total population and the youth growth rate are very high, but this situation is temporary A slower demographic youth transition can be dealt with more easily, but it generates considerable growth of the youth population National planners should be aware of this trade off

In short, the youth component of a population can be an important factor in the course of large scale social change Our primary interest here is not in youth as a political force, but as a diverse audience for programmatic efforts We stressed at the outset the importance of segmenting that audience so that efforts

to reach it can be tailored carefully and targeted accurately Sheer numbers are not the entire story In the Asian societies we have examined, a demographic transition is producing a notable youth bulge in only those few instances where the transition has been extremely rapid and fertility has fallen from a high initial level Such early and rapid transitions occurred in South Korea, Singapore, and Taiwan More important numerically, and much more nearly universal, are the systematic and in many cases dramatic shifts in the social composition of youth populations that have occurred simultaneously

The remarkable transitions in schooling and age at marriage are more waves than bulges, waves that build on one another to create a crest of remarkable force For example, at its peak (in 1950–60) the youth growth rate in South Korea was 5.5 percent From 1960 to 1980 South Korea’s youth population expanded by 86 percent, but during the same period its population of single

youth doubled and its in school population expanded by 3.5 times

We have stressed the common experiences of Asian societies, but unique national experiences are important as well. The timing, tempo, and force of the transitions discussed here vary across countries, and extra-neous historical events sometimes obscure the underlying transitional patterns. Nonetheless, the shared experience of youth transition is powerful enough to give the framework predictive value. Our projections of youth bulges and other aspects of the demographic youth transition in South Asia are likely to be borne out because they follow directly from the demographic transition as well as the ongoing marriage and schooling transitions observed throughout the region.

Additional analysis of various kinds would be productive, including an effort to further disaggregate the youth population. Certainly a more detailed examination might be made of urban youth, and among urban youth of the migrant youth population. Other dimensions of the social demography of youth can be addressed directly, though for fewer countries and shorter time periods. One such dimension is living arrangements—for example, of youth living outside conventional kin and family groups and youth in youth households. Further segmentation of the youth population is needed to identify the subgroups that are increasing rapidly in terms of proportions and absolute numbers as well as the subgroups whose numbers are small or diminishing. Finally, a growing number of surveys in the region are measuring the rates of risk-taking behavior of various kinds among youth, and some of these surveys can provide behavioral information for the youth population segments identified here.

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Appendix Table Indicators of youth demography and the youth transition, by subregion and country 17 Asian countries, 1950-90 and projected to 2025

Region, country and year	Youth population (in thousands)	Youth share of total population (%)	Percentage single		Percentage enrolled		Percentage in the labor force		Percentage single and out of school	
			Male	Female	Male	Female	Male	Female	Male	Female
All Asia										
1950	239,251	20.7	75.1	33.6	9.2	6.1	87.2	55.5	65.9	27.5
1970	358,812	20.2	81.3	50.4	14.6	8.3	79.7	55.0	66.6	42.1
1990	571,965	22.0	83.2	62.4	17.6	11.7	75.1	52.1	65.5	50.7
2025	610,354	15.7	95.5	92.6	21.0	14.5	67.3	41.7	74.5	78.1
Asia (excluding China)										
1950	137,911	19.3	65.3	32.0	15.0	8.2	83.7	40.5	50.3	23.8
1970	200,607	18.2	75.4	41.6	23.4	11.2	73.5	35.7	52.1	30.4
1990	322,075	19.4	80.5	52.5	26.5	16.4	67.9	29.7	54.0	36.1
2025	423,369	16.1	95.4	92.6	25.8	16.6	63.5	28.1	69.7	76.0
South Asia										
1950	87,366	19.2	55.8	17.7	13.5	5.1	85.3	35.6	42.3	12.6
1970	128,204	18.0	69.4	27.9	22.0	7.0	75.5	28.8	47.4	20.9
1990	217,735	19.7	76.8	42.1	23.1	9.7	70.5	22.8	53.6	32.4
2025	308,923	16.6	95.4	92.6	23.1	11.1	65.0	22.7	72.3	81.5
Bangladesh										
1950	7,583	18.1	65.7	0.4	2.8	0.0	86.2	4.4	62.9	0.4
1970	11,308	17.0	75.4	11.8	18.8	3.4	80.9	5.1	56.5	8.4
1990	22,847	20.8	82.4	30.3	23.7	12.4	76.3	6.6	58.7	17.8
2025	30,312	16.6	95.2	92.5	23.4	14.0	71.2	12.4	71.8	78.4
India										
1950	69,279	19.4	54.2	17.7	15.2	5.7	84.8	41.6	39.0	12.0
1970	100,363	18.1	67.2	26.5	23.5	7.5	74.5	33.5	43.6	19.0
1990	165,826	19.5	75.7	41.1	24.2	9.3	69.1	26.1	51.5	31.8
2025	221,315	16.2	95.4	92.6	24.9	11.2	63.5	24.1	70.6	81.4
Nepal										
1950	1,558	19.5	36.9	6.9	3.6	5.2	96.4	57.2	33.3	1.7
1970	2,163	18.8	55.0	24.2	17.4	6.1	82.6	52.2	37.6	18.1
1990	3,443	18.2	60.4	34.5	21.0	11.1	77.2	47.2	39.5	23.4
2025	7,637	19.9	95.5	93.0	20.3	13.3	73.7	40.5	75.2	79.7
Pakistan										
1950	7,440	18.8	56.2	30.1	9.4	1.3	88.8	8.0	46.8	28.8
1970	12,109	18.4	80.8	47.3	12.9	4.1	78.9	7.8	67.8	43.2
1990	22,415	20.0	79.8	58.5	15.1	6.5	75.2	10.8	64.7	52.0
2025	46,348	19.1	95.3	92.8	14.6	7.0	67.1	19.3	80.8	85.7
Sri Lanka										
1950	1,506	19.6	90.8	54.4	21.6	20.1	75.3	30.0	69.2	34.3
1970	2,261	18.1	93.4	71.5	23.8	20.3	67.4	34.5	69.6	51.2
1990	3,204	18.9	91.6	72.5	25.2	26.4	63.3	29.4	66.4	46.1
2025	3,311	13.9	95.6	92.8	28.2	29.0	57.0	33.7	67.4	63.8
Southeast Asia										
1950	28,291	19.5	78.4	45.1	12.5	8.2	85.5	44.7	65.9	36.9
1970	43,135	18.5	80.7	53.7	19.4	11.9	74.6	43.9	61.3	41.8
1990	71,951	20.1	84.8	65.8	26.9	22.9	67.9	42.4	57.8	42.9
2025	91,529	16.1	95.4	92.6	29.1	27.7	62.7	40.7	66.4	65.0
Brunei										
1950	8	16.7	85.3	44.8	30.0	18.4	63.5	34.5	55.4	26.4
1970	22	16.9	89.7	70.0	40.4	36.0	57.1	30.0	49.3	34.0
1990	47	18.2	89.9	76.8	33.0	44.0	61.5	28.9	57.0	32.8
2025	76	15.9	95.5	92.3	35.7	47.9	62.1	29.9	59.8	44.4
Indonesia										
1950	15,941	20.0	79.3	38.6	14.4	6.6	85.0	28.5	64.9	32.0
1970	21,320	17.7	79.0	42.5	20.1	10.1	74.2	31.8	58.9	32.4
1990	34,870	19.6	86.1	59.9	29.9	23.0	65.9	32.5	56.2	36.9
2025	40,660	15.3	95.4	92.7	31.9	28.8	60.6	32.5	63.5	63.9

Appendix Table, cont

Region, country and year	Youth population (in thousands)	Youth share of total population (%)	Percentage single		Percentage enrolled		Percentage in the labor force		Percentage single and out of school	
			Male	Female	Male	Female	Male	Female	Male	Female
Malaysia										
1950	1,097	18.0	80.8	39.0	18.6	10.4	81.4	33.9	62.2	28.6
1970	2,093	19.3	86.4	64.6	24.0	17.3	68.3	37.9	62.4	47.2
1990	3,462	19.5	92.4	77.0	24.9	22.3	65.0	44.9	67.5	54.7
2025	4,557	15.0	95.6	92.2	29.6	28.4	62.4	53.0	66.0	63.9
Myanmar										
1950	3,210	18.5	69.1	39.9	13.8	7.7	84.1	60.1	55.3	32.2
1970	5,161	19.0	74.8	54.7	20.9	10.1	78.9	56.8	53.9	44.7
1990	8,582	20.5	78.1	70.3	22.3	13.9	74.1	51.8	55.8	56.4
2025	12,734	17.5	95.6	92.6	24.5	17.3	66.6	49.2	71.1	75.4
Philippines										
1950	3,760	17.9	83.5	67.7	9.6	20.9	90.4	57.4	74.0	46.8
1970	7,559	20.1	85.3	72.2	22.3	21.4	70.0	42.1	63.0	50.8
1990	12,285	20.0	85.9	74.1	31.6	34.7	61.4	36.2	54.4	39.4
2025	20,737	18.1	95.2	92.6	30.9	34.5	61.0	35.5	64.2	58.1
Singapore										
1950	183	17.9	83.7	40.8	22.5	14.0	76.2	20.0	61.2	26.8
1970	450	21.7	94.6	81.2	23.4	14.2	71.5	47.6	71.2	67.0
1990	456	16.9	96.9	88.1	28.3	29.5	71.7	65.1	68.6	58.6
2025	455	11.6	95.9	92.5	29.7	34.1	70.3	64.9	66.2	58.4
Thailand										
1950	4,092	20.4	76.6	55.5	4.7	2.4	85.6	88.5	71.9	53.1
1970	6,530	18.3	82.6	63.0	10.3	6.6	80.4	77.5	72.3	56.5
1990	12,249	21.8	82.0	68.0	17.9	17.3	76.4	70.0	64.1	50.7
2025	12,310	15.2	95.6	92.7	20.9	22.8	67.9	62.4	74.6	69.9
East Asia (excluding China)										
1950	22,254	19.5	87.1	70.2	24.0	20.3	75.4	53.7	63.1	49.9
1970	29,268	18.9	94.9	82.0	35.1	28.4	62.9	52.4	59.8	53.6
1990	32,389	16.8	96.3	90.8	48.4	45.8	50.5	46.5	48.0	44.9
2025	22,917	11.0	95.7	92.7	48.2	46.3	48.2	50.0	47.5	46.4
China										
1950	101,340	18.3	87.8	35.9	1.6	3.2	91.6	77.0	86.2	32.7
1970	158,205	19.0	88.6	61.7	3.8	4.4	87.4	79.9	84.8	57.3
1990	249,890	22.0	86.6	75.2	6.2	5.7	84.3	81.0	80.4	69.5
2025	186,985	12.7	95.7	92.7	10.5	9.7	75.7	73.3	85.1	83.0
Hong Kong										
1950	449	22.7	86.0	62.4	0.0	0.0	74.8	42.5	86.0	62.4
1970	777	19.7	96.2	82.1	27.6	24.4	68.5	61.3	68.6	57.7
1990	867	15.2	96.3	89.8	30.0	33.0	68.2	61.8	66.3	56.8
2025	574	9.1	96.0	92.6	32.4	38.0	67.6	61.2	63.5	54.6
Japan										
1950	16,396	19.6	91.7	76.9	26.0	25.2	73.9	58.0	65.7	51.7
1970	19,831	19.0	94.4	83.7	38.4	32.4	61.6	54.5	56.0	51.3
1990	18,948	15.3	95.5	92.0	54.0	50.4	45.1	43.8	41.5	41.6
2025	12,666	10.2	95.6	92.6	50.9	47.7	46.2	46.0	44.7	44.9
South Korea										
1950	3,786	18.6	70.3	46.5	19.5	6.4	80.5	43.0	50.8	40.1
1970	5,688	17.8	96.5	79.3	25.6	16.0	64.8	48.6	70.9	63.2
1990	8,815	20.6	98.2	90.3	43.5	40.4	56.5	50.1	54.7	50.0
2025	6,549	12.4	96.0	92.8	45.2	45.2	54.8	54.8	50.7	47.6
Taiwan										
1950	1,623	20.2	80.8	58.7	21.2	7.0	77.7	36.6	59.7	51.7
1970	2,972	20.2	94.7	75.9	34.1	25.8	65.6	43.4	60.5	50.0
1990	3,759	18.5	95.9	86.0	35.9	38.6	59.7	47.8	60.0	47.4
2025	3,128	12.3	95.8	92.8	46.6	44.5	38.5	53.8	49.2	48.3

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