

# **The Scorecard on Globalization 1980-2000: Twenty Years of Diminished Progress**

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## Executive Summary

It is commonly accepted that the increased opening to international trade and financial flows that has occurred in the vast majority of countries in the world has been an overall success. Even critics of globalization have generally accepted that the reforms of the last two decades, in low to middle-income countries, have boosted economic growth rates. They have argued that this growth has left many people behind, and has often been at the expense of the natural environment.

This paper looks at the major economic and social indicators for all countries for which data are available, and compares the last 20 years of globalization (1980-2000) with the previous 20 years (1960-1980). These indicators include: the growth of income per person, life expectancy, mortality among infants, children, and adults, literacy, and education.

For economic growth and almost all of the other indicators, the last 20 years have shown a very clear decline in progress as compared with the previous two decades. For each indicator, countries were divided into five roughly equal groups, according to what level the countries had achieved by the start of the period (1960 or 1980). Among the findings:

- **Growth: The fall in economic growth rates was most pronounced and across the board for all groups or countries.** The poorest group went from a per capita GDP growth rate of 1.9 percent annually in 1960-80, to a *decline* of 0.5 percent per year (1980-2000). For the middle group (which includes mostly poor countries), there was a sharp decline from an annual per capita growth rate of 3.6 percent to just less than 1 percent. Over a 20-year period, this represents the difference between doubling income per person, versus increasing it by just 21 percent. The other groups also showed substantial declines in growth rates.
- **Life Expectancy: Progress in life expectancy was also reduced** for 4 out of the 5 groups of countries, with the exception of the highest group (life expectancy 69-76 years). The sharpest slowdown was in the second to worst group (life expectancy between 44-53 years). Reduced progress in life expectancy and other health outcomes cannot be explained by the AIDS pandemic.
- **Infant and Child Mortality: Progress in reducing infant mortality was also considerably slower during the period of globalization** (1980-1998) than over the previous two decades. The biggest declines in progress were for the middle to worst performing groups. Progress in reducing child mortality (under 5) was also slower for the middle to worst performing groups of countries.
- **Education and literacy: Progress in education also slowed during the period of globalization.** The rate of growth of primary, secondary, and tertiary (post-secondary) school enrollment was slower for most groups of countries. There are some exceptions, but these tend to be concentrated among the better performing

groups of countries. By almost every measure of education, including literacy rates, the middle and poorer performing groups saw less rapid progress in the period of globalization than in the prior two decades. The rate of growth of public spending on education, as a share of GDP, also slowed across all groups of countries.

In this study, countries are grouped by their level of the indicator (GDP, life expectancy, etc.) at the start of each period. We are therefore comparing the countries that start each period at similar levels, rather than comparing the same country across the two 20-year periods. This eliminates the problem that it might be more difficult, for example, for a country to make the same amount of progress going forward from an average life expectancy of 65 years, as it made from a life expectancy of 50 years. (See the Introduction for a more detailed explanation.)

The last two decades have seen a number of important changes in economic policy adopted throughout much of the world, and especially in the low to middle-income countries. Many of these measures fall under the common definition of globalization: i.e., the removal of tariff and non-tariff barriers to trade, and capital account liberalization (the removal of restrictions on international investment flows).

Other policies directly related to globalization have also been implemented over the last two decades. For example, the International Monetary Fund and World Bank have increasingly, during this period, required a number of measures to be adopted by borrowing countries as a condition of their access to foreign credit. These have included contractionary monetary policies (higher interest rates and tighter credit), public spending cuts, privatization of public enterprises, increasing foreign reserve requirements, and a long list of "micro-interventions" ranging from user fees for primary education and health care to removing various government subsidies. Many poor as well as medium-income countries have also faced historically unprecedented levels of foreign debt and debt service.

The evidence presented in this study does not prove that the broad decline in progress in the areas of economic growth, health outcomes, or other social indicators are a result of any one or more of these policy changes. But it does present a very strong *prima facie* case that some structural and policy changes implemented during the last two decades are at least partly responsible for these declines. And there is certainly no evidence in these data that the policies associated with globalization have improved outcomes for most low to middle-income countries. To argue that this is the case, it would be necessary to show that outcomes would have been even worse in the era of globalization, if countries had not adopted these policies.

If the basic facts presented in this paper were well known, discussions of globalization and international economic policy would look very different than the ones we see today. At the very least, the burden of proof would be squarely placed on those who claim success -- by any available measure of human well-being -- for the last two decades of the experiment in globalization.

## Introduction

The last two decades have seen a number of important changes in economic policy adopted throughout much of the world, and especially in the low to middle-income countries. Many of these measures fall under the common definition of globalization: i.e., the removal of tariff and non-tariff barriers to trade, and capital account liberalization (the removal of restrictions on international investment flows). In general these policies have led to the increasing participation of low and middle-income countries in the global economy.

Other policies directly related to globalization have also been implemented over the last two decades. For example, the International Monetary Fund and World Bank have increasingly, during this period, required a number of measures to be adopted by borrowing countries as a condition of their access to foreign credit. These have included contractionary monetary policies (higher interest rates and tighter credit), public spending cuts, privatization of public enterprises, increasing foreign reserve requirements, and a long list of "micro-interventions" ranging from user fees for primary education and health care to removing various government subsidies. Many poor as well as medium-income countries have also faced historically unprecedented levels of foreign debt and debt service.

The era of globalization can be contrasted with the development path pursued in prior decades, which was generally more inward-looking. Prior to 1980, many countries quite deliberately adopted policies that were designed to insulate their economies from the world market in order to give their domestic industries an opportunity to advance to the point where they could be competitive. The policy of development via import substitution, for example, was often associated with protective tariffs and subsidies for key industries. Performance requirements on foreign investment were also common. These measures often required foreign investors to employ native workers in skilled positions, and to purchase inputs from domestic producers, as ways of ensuring technology transfers. It was also common for developing countries to sharply restrict capital flows. This was done for a number of purposes: to increase the stability of currencies, to encourage both foreign corporations and citizens holding large amounts of domestic currency to invest within the country, and to use the allocation and price of foreign exchange as part of an industrial or development policy.

It is commonly believed that the shift towards globalization has been a success, at least regarding growth. A number of papers have attempted to measure the effectiveness of these policies, and their findings have been mostly ambiguous.<sup>1</sup> Efforts to test the effectiveness of any individual policy are generally extremely difficult, due to the problems of isolating its impact. However, there is a more simple and fundamental proposition that can be readily evaluated: are

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<sup>1</sup> See Rodriguez, Francisco, and Dani Rodrik, "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence," in B. Bernanke and K. Rogoff, NBER Macroeconomics Annual 2000, Cambridge, MA, MIT Press, 2000; and Rodrik, Dani, "Comments on 'Trade, Growth, and Poverty,' by D. Dollar and A. Kraay," October 2000, for a critical review of some of the most important economic research purporting to show a positive relationship between lower trade barriers and economic growth.

low and middle-income countries making greater progress in the period of globalization than in the prior era?

In other words, by standard measures of economic growth, health outcomes, education and literacy, has the era of globalization brought more or less progress than was seen in the previous era? This paper examines this question by comparing the progress achieved over the period from 1980 to 2000 with the progress achieved in the period from 1960-1980.

As will be seen below, by almost every measure, the progress achieved in the two decades of globalization has been considerably less than the progress in the period from 1960 to 1980. This finding does not prove that the policies associated with globalization are necessarily the cause of diminishing progress (or even backsliding) in low and middle-income countries. Proponents of these policies could argue that other factors were responsible, and without the benefits of globalization, the deterioration in the performance of these countries would have been even worse. While this is possible, it would then be necessary to identify what forces in the world economy led the period from 1980 to 2000 to be so much worse for low and middle-income countries than the period from 1960 to 1980. In any case, the data presented here certainly contradict any claims that the last two decades of the twentieth century were a time of extraordinary progress for people living in the less affluent countries of the world -- they were not.

The next section will describe in detail the methodology used for the comparisons, but it is worth briefly commenting on the two decades from 1960 to 1980, which provide the basis for the comparison with the era of globalization. In principle, the intention was to match up the performance of countries in the years in which they were following policies associated with globalization with years in which they were pursuing a less outward-oriented development path. While some developing countries consciously pursued an inward-directed development path from the first years after World War II, it is not possible to get reliable data for most developing countries for this period. Many developing countries only became independent in the late fifties or early sixties. Even for countries that were independent throughout the entire post-war period, the quality of data is generally quite poor for years prior to 1960. Had it been possible to include data from the early post-war period, it almost certainly would have made the picture look even better for the pre-globalization era, since the fifties were a decade of relatively rapid growth in most of the developing world.

The remaining two decades available as a comparison period, 1960-1980, do not stand out as particularly good decades by the standards of modern economic history. While the sixties were a period of extraordinary economic performance, the seventies stand out as a period of relatively bad performance. The decade saw two major oil shocks that led to worldwide recessions: in the years 1974-1975, and again at the end of the decade. The 1970s were also marked by high inflation throughout the developed and developing world. Including the seventies in the comparison period ensures that the benchmark is not being set too high for the period of globalization.

The next section describes the methodology used for the comparisons. The third section briefly describes the comparative record on economic growth in the two periods. The fourth section discusses the evidence on population health statistics and the fifth section reports on the data on education. The last section is a brief conclusion.

## Standards of Comparison

This paper sets up the simplest possible set of measurements that can be used to compare performance across countries, in the two periods, by each of the criteria examined. For each criterion (e.g. GDP growth, life expectancy, infant mortality), the countries were divided into five groups of approximately equal size. Each group contains all the countries that fall within a certain range (e.g. life expectancy of 44-53 years, 53-64 years, etc.) of the measured criterion, at the start of each period. The goal is to compare the progress of countries that began the first period (in 1960) at a certain level, with those that were at that level at the beginning of the second period (in 1980).

For example, in the case of per capita GDP growth, there are data in the first period for 116 countries. For the second period there are also data for 116 countries, giving a total of 232 data points -- average annual growth rates.<sup>2</sup> These countries are then divided into five groups of 46 or 47 each, according to the amount of per capita GDP they had in either period. For example, the third or middle-income category (see Figure 1) includes countries that started either period with a per capita GDP between \$1,826 and \$3,364, measured in 2000 dollars. In 1960 there are 29 countries that fall into this income range; in 1980 there are 17 countries.<sup>3</sup> We can therefore compare whether the countries that started the period in this income range (per capita GDP between \$1,826 and \$3,364) grew faster on average in the years from 1960 to 1980, or whether they grew faster in the years from 1980 to 2000. The same comparison can be made for the other 4 income groupings.

This methodology typically causes more countries to be bunched in the lower groupings in the first period and the higher groupings in the second period, since most countries make progress in most of these measures. However, it ensures that countries are being compared at comparable stages of economic development. This removes the problem that the rate of improvement in these measures may inevitably slow as a result of prior progress. For example, it may be more difficult for countries to double their per capita GDP from \$10,000 to \$20,000 than to grow from \$5,000 to \$10,000. Similarly, it may be more difficult to increase life expectancy from 65 years to 70 years than from 60 to 65 years. The methodology used in this paper eliminates this sort of problem. The paper compares countries at similar levels of performance as of 1960 and 1980, and examines whether they did better in the first period or the second.

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<sup>2</sup> The growth rates are calculated as annual averages, so the fact that there are some years missing at the beginning or end of these periods for several countries does not affect the number of data points in the series.

<sup>3</sup> The groupings include 47 countries, rather than 46, if adding the marginal country to that grouping increased the number of countries in the under-represented period (either 1960-80 or 1980-2000) within that grouping by a larger percentage than placing it in the next higher or lower grouping.

In fact, this methodology should bias the data towards finding better results for the second period. There should generally be possibilities for countries to gain by borrowing from the technology and practices of other countries that are richer or have achieved higher levels of the various social indicators. As a result of the progress made in the first period, there were far more possibilities for faster improvement in the second period. For example, in the case of life expectancy, there were only fifteen countries at the start of the first period (1960) with life expectancy of more than 72 years. This meant that countries in the next lowest grouping, with life expectancies from 66 to 72 years, would have a relatively limited number of countries from which to adopt better public health measures, medicines, or medical practices. However, at the start of the second period (1980), there were 51 countries with life expectancies of more than 72 years. This should have provided a far larger set of practices that the countries in the second grouping (with life expectancies from 66 to 72 years) could adopt to improve health care in their own country in the second period. The same would also be true for all the countries further down the ladder in life expectancy.

In other words, it is reasonable to expect that countries starting at any particular level (e.g. of income or life expectancy) will perform better in the second period (1980 to 2000), simply because the advance of technology and knowledge over 20 years has created more and better practices that are available to be adopted.

### **Slower Growth in the Period of Globalization**

The first and most basic comparison is simply the rate of per capita GDP growth in the two periods. This is shown in Figure 1. The figure shows the average rate of per capita GDP growth for the countries falling in each income range at the start of the two periods. As can be seen, in each of the five groupings, per capita GDP growth is considerably worse in the second period than in the first period (see Weisbrot et al, 2000 for a more complete discussion of the slowdown in growth<sup>4</sup>).

The slowdown is quite dramatic for the poorer countries. The second set of countries, with per capita GDP ranging from \$1,121 to \$1,826 in 2000 dollars at their starting points, saw growth fall from an annual average of 2.1 percent to 0.8 percent.

Among the 26 countries that began the first period (in 1960) in this income range are Egypt, the Philippines, South Korea, and the Dominican Republic. In the second period (beginning 1980) this category included Kenya, China, and Zimbabwe, among 20 countries.

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<sup>4</sup> See Weisbrot, et al, "The Emperor Has No Growth: Declining Economic Growth Rates in the Era of Globalization," Center for Economic and Policy Research, May 2001. See also Easterly, William, "The Lost Decades: Developing Countries' Stagnation in Spite of Policy Reform 1980-1998," Journal of Economic Growth, 2001 (forthcoming).

The slowdown in growth is even sharper for countries in the third grouping, with per capita GDP between \$1,826 and \$3,364 (in 2000 dollars). The average annual rate of per capita GDP growth fell from 3.6 percent in the first period (1960-1980) to just under 1 percent in the second (1980-2000). There were 29 countries at this level of income in 1960, including Taiwan, Panama, Turkey, and South Africa. In 1980, 17 countries were within this income range, including Indonesia, Ivory Coast, and Thailand.

Over a 20 year period, the gap between the growth rate experienced by countries in the first versus the second period adds up to an enormous difference: it is the difference between doubling income per person, versus increasing it by 21 percent.

The most tragic picture appears in the data for the poorest countries (per capita GDP between \$375 and \$1,121). In the first period, 1960 to 1980, these countries sustained a rate of growth of per capita GDP that averaged 1.9 percent. While this is lower than the growth rate for the other four groups, it was at least positive and not trivial. By contrast, the seventeen countries that were in this income grouping in the second period actually experienced negative growth, on average, over the period from 1980 to 2000.<sup>5</sup> Among the countries in this grouping for the first period (beginning 1960) are Ethiopia, Romania, Indonesia, and Chad. In the second period (beginning 1980), Burkina Faso, Uganda, and Niger were among the countries that started at this income level.

Summing up the evidence on per capita income growth, countries at every level of per capita GDP performed worse on average in the period of globalization than in the period from 1960 to 1980. The largest absolute falloff occurred for countries that stood near the middle of the rankings of income distribution. Although this is the middle of the 5 groups into which the countries are divided, it is worth noting that these are countries that started the second period at a fairly low level of per capita GDP (\$1,826 - \$3,364); they are poor countries. (By comparison, US per capita GDP, in the same 2000 dollars, was \$22,331 in 1980). For these countries to miss out on the growth opportunities of the kind that were available in the previous two decades means that many millions of people who could have escaped a lifetime of poverty were unable to do so.

But perhaps the most disturbing development was the fact that the poorest countries went from a modest rate of positive to per capita GDP growth to declining per capita GDP in the second period.

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<sup>5</sup> There is arguably a bias against the worst performing countries in the second period, in the sense that the countries that remain in this grouping after the 1960 to 1980 period are countries that are failing. It could therefore be argued that the countries in this grouping would perform more poorly in the second period, because of this selection bias. While this argument is possible, by the same reasoning we would expect countries in the higher categories to perform better in the second period. In this period, each grouping above the bottom one will have added some of the more successful countries that were in the earlier period. In the same way that the concentration of the poorer performing countries in the bottom grouping can be expected to depress its record in the second period, the addition of success stories from the lower groupings should improve the average performance of countries in higher groupings in the second period.



While it is beyond the scope of this paper to explain the cause of the growth slowdown, it is at least worth noting one commonly accepted explanation that does not fit the evidence. While some economists have acknowledged the relatively strong growth of countries during the period in which they pursued more inward-oriented growth, they have argued that this growth reached its limits for a number of reasons inherent to these development strategies (e.g. import substitution). In other words, they argue that there is some inherent limit to the growth potential of these strategies; and after reaching this point, further development along these lines would be severely constrained.

If this were true, then we would expect to find that while some groups of countries experienced slower growth as a result of reaching the limits of these inward-oriented strategies and moved into higher income groupings, poorer countries should have continued to experience strong growth, since they had not yet reached the limits of this kind of economic development. But the data show that slower growth is a clear pattern for countries at all income levels in the second period. This rules out the possibility that the slowdown is due to countries reaching the limits of development strategies pursued during the first period. The slower growth in the period of globalization cannot be attributed to constraints created by the economic growth between 1960 and 1980. This indicates that the cause of the sharp decline in growth was a result of structural and policy changes that have affected the vast majority of countries over the last 20 years.

### **Less Progress in Health Outcomes During the Period of Globalization**

Most measures of social progress generally follow patterns in the growth of per capita GDP, at least over long enough time periods. So it should not be surprising that the much slower growth in the period of globalization was also accompanied by considerably less progress in health outcomes for most countries. Looking at measures of infant mortality, child and adult mortality, and life expectancy, the rate of progress was generally greater for countries during the first period (1960-1980) than during the period of globalization.

Figure 2 shows the annual rate of increase in life expectancy in the two periods for the five groups of countries. As can be seen, the countries in the highest grouping, with life expectancies that range from age 69 to 76 (beginning in either 1960 or 1980), had a somewhat more rapid rate of increase in life expectancy in the period from 1980 to 1998, than in the period from 1960 to 1980. The average annual rate of increase was approximately 0.19 years in the second period, compared to 0.15 years in the first period.

However, this was the only group that experienced any improvement in the rate of increase in life expectancy. The next highest grouping, with life expectancies ranging from age 64 to 69 years at the starting points (1960 or 1980) saw a somewhat slower rate of increase in life expectancy in the second period: 0.18 years annually, compared to 0.20 years in the period from 1960 to 1980. The slowdown was slightly greater for the middle group, including countries with life expectancies between 53 and 64 years at the start points. Progress in these groups slowed

from 0.43 years annually for the first period to 0.38 years annually for countries that began the 1980s in this range.

The largest falloff occurred for the countries in the second to bottom grouping with life expectancies from age 44 to 53 at the starting point. The annual rate of increase went from 0.56 percent in the first period to 0.18 percent in the period from 1980 to 2000. This falloff is striking. In the first period the countries in this grouping were making substantial progress toward closing the gap in life expectancies with wealthier and healthier countries; from 1960 to 1980, the typical country in this group added more than 11 years to its average life expectancy. In the period of globalization, these countries actually fell slightly further behind the richer countries.

The least healthy grouping also saw a substantial decline in the rate of increase in life expectancy, dropping from 0.40 years annually in the period from 1960 to 1980, to 0.32 years in the period from 1980 to 2000.

It is important to recognize that even small differences in this measure have large consequences when taken over a twenty-year interval. For example, the 0.05 year difference in the annual rate of increase in life expectancies for countries in the middle grouping (life expectancies between ages 53 to 64), between the first and second period, translates into a difference in life expectancy of a full year, at the end of a twenty-year period. The drop of 0.38 years in the annual rate of improvement for the countries in the second to the bottom grouping (life expectancies between ages 44 and 53), implies a reduction in life expectancy of approximately 8 years measured against a scenario where the previous rate of improvement had been maintained in the years 1980 to 2000.

Figures 3 and 4 show the increases in life expectancies for men and women, respectively, in the two periods. As can be seen, while both men and women saw slower improvements in life expectancies in the second period than in the first, in most groupings, the slowdown for men is generally less than for women. In fact, in the highest grouping the annual rate of improvement in life expectancy for men in the second period exceeds that in the first period by approximately 0.06 years, while the rate of improvement for men in the second highest grouping (life expectancies between ages 61 to 66) is essentially unchanged in the two periods. By contrast, for women the rate of improvement in life expectancies fell for every grouping in the second period, although the slowdown is small for countries in the two highest groupings. The slowdown in the rate of increase in life expectancy is larger for women than men in each of the three lowest groupings, although it follows the same general pattern. As is the case with the men, the biggest falloff for women occurs in the second to the bottom grouping, with life expectancies from age 45 to 54 at the start points. Life expectancy for women in the countries in this group increased at a rate of approximately 0.54 years annually in the period from 1960 to 1980. In the period of globalization, life expectancy for the women in these countries increased by an average of just 0.20 years annually.

Figure 5 shows the rate of decline in measured infant mortality during the two periods. For all groupings, the rate of decline is lower in the period of globalization than in the first period, although for the two best performing groups of countries, the improvement in infant

mortality rates is very similar across the two periods. The same pattern holds for child (under 5 years) mortality (see Figure 6). These trends are very similar to those observed for the comparisons of increases in life expectancy. For the best performing countries, the slowdown in the rate of improvement is relatively small. However, for the countries that perform more poorly in these measures, there is a much greater falloff during the period of globalization. For example, the middle grouping of countries for child mortality (80-151 deaths per thousand live births) improved at an annual rate that was approximately 20 percent faster in the first period than in the second. There is a similar falloff for this group of countries in the rate of progress for infant mortality.

The data on adult mortality are more mixed, although they do not contradict the general pattern of slower progress on health outcomes during the second period. Four of the 10 groupings here (male and female are measured separately) show better outcomes for the second period than the first. For adult males (see Figure 7), there is a very large fall-off in the rate of progress for the groupings that are second and third from the bottom -- 65 percent and 60 percent, respectively. But the top two groups show substantial improvement, and the worst performing group also shows some improvement from the first to the second period.

For adult females (see Figure 8) the second to worst grouping falls from annual rate of improvement of more than 5 (per 1000 female adults) to an actual worsening (that is, increasing adult female mortality) over the period 1960-80. The best performing group of countries did better during the period of globalization, and the second best did worse; the remaining two groupings were essentially unchanged.

To sum up the evidence from the data on health outcomes, by almost every measure most categories of countries saw less improvement in health care statistics during the period of globalization than in the prior two decades. The greatest deterioration in performance occurred among the poorer performing countries. In addition, women appeared to be harder hit by this deterioration than men. While some of the best performing groups of countries, with respect to health outcomes, also saw less improvement during the second period than in the first, this decline was relatively minor in most categories.

Before concluding this section, it is worth commenting briefly on the impact of the AIDS pandemic on this data. While the AIDS pandemic is a crisis of enormous proportions, it cannot explain most of the deterioration in the progress of health care outcomes that is shown above. First, the decline in the progress in health outcomes is seen throughout most of the low and middle-income countries, and not just in those countries most affected by AIDS.

It is also worth noting that the spread of AIDS is itself partly a result of the increased trade and travel, including migrant and transport labor, associated with globalization. For all the benefits that countries can gain as a result of increased commerce, a potential drawback is the more rapid spread of diseases. Furthermore, the ability and willingness of governments to pursue the necessary measures to stem the spread of a pandemic such as AIDS are related to a whole host of policy as well as economic variables. For example, Uganda has shown some success in

recent years in stemming the spread of the AIDS virus<sup>6</sup>; so has Senegal, where action was taken at a very early stage.<sup>7</sup> We do not know how many countries would have been able to contain the spread of HIV, and at what rate of infection, if their income growth, education levels, health care spending, and infrastructure had continued to grow at the rates seen from 1960-1980. Even something as simple and vital as access to condoms (at affordable prices), and their use in preventing the spread of AIDS, is related to these and other economic and policy variables. Response to the AIDS pandemic is also affected by developing countries' access to generic equivalents of patented medicines, as has been demonstrated in the successful treatment program carried out in Brazil. The availability of generic medicines is largely determined by national and international policy decisions. For all of these reasons, it would be mistaken to view the effects of AIDS on health outcomes as something completely exogenous to the economic and policy choices of the affected countries.

### **Less Progress in Education Outcomes During the Period of Globalization**

To a large extent, the record on education parallels the record on health outcomes. Countries in most groupings performed worse, by most measures, during the period of globalization than in the prior two decades. However, the picture is not as uniformly bleak as in the case of health measures. There are at least some measures by which the period of globalization shows greater progress, although most of these involve comparisons of the better-performing countries.

Figure 9 compares the rates of increase in spending on education measured as share of GDP in the two periods.<sup>8</sup> As can be seen, in every grouping there is a slower rate of increase in the period of globalization. By this measure, the largest falloff appears for the better performing groupings, with the best performing group actually experiencing a decline on average in the share of GDP going to education. Part of the explanation for the relatively poor showing of the better performing countries may be attributed to demographics. In most of these countries, school-aged children comprised a considerably smaller share of the population at the end of the period examined, than at the beginning. This explanation could explain less of the deterioration for countries that were not already spending large percentages of GDP on education.

With the record on changes in shares of education spending shown in Figure 9, coupled with the slowdown in growth shown in Figure 1, it should not be surprising that most of the groupings of countries showed less improvement in most educational measures in the period of globalization than in the prior two decades. Unless there was an enormous improvement in the efficiency of the education systems across the world, this outcome is predictable from the slower growth in spending.

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<sup>6</sup> UNAIDS, Report on the Global HIV/AIDS Epidemic, June 2000, ([www.unaids.org](http://www.unaids.org)).

<sup>7</sup> UNAIDS, Acting early to prevent AIDS: The case of Senegal, June 1999, ([www.unaids.org](http://www.unaids.org)).

<sup>8</sup> The data series for public spending on education had fewer countries, going back to 1960, than the previous series. This analysis is based on the 91 countries for which data are available for at least one of the two periods.

Figure 10 shows the rate of improvement in literacy rates for five groupings of countries over the two periods. The evidence shown by this measure is mixed. The two worst performing groups of countries both show a considerably slower rate of increase in literacy rates in the period of globalization than in the prior two decades. For the worst performing group there is a falloff of more than 0.3 percentage points in the annual rate of increase in the literacy rate, from an increase of more than 1.1 percentage point annually in the first period to an annual increase of approximately 0.8 percentage points in the second period. The second to the worst performing group shows deterioration in performance of approximately the same size. However, the middle group does show a better picture. The rate of increase in literacy rates was 0.9 percentage points annually in the first period. This rose to 1.1 percentage points annually in the second period. The rate of increase in literacy rates among the second highest group was little changed over the two periods, with the second period showing a very small drop-off. The best performing set of countries showed a modest increase in the rate of increase in literacy rates in the second period.

Figures 11, 12, and 13 show the rate of increase in the percentage of primary school age population enrolled in primary education programs overall, for males, and for females, respectively.<sup>9</sup> The most noteworthy comparisons in these figures are the slower rate of increase in enrollment in the era of globalization for the two lowest-performing groups of countries in the overall measure. For all of these groupings, the rate of increase in the percentage of the relevant population enrolled in primary education was much slower in the second period than in the first. The sharpest drop occurs for the countries in the lowest performing group overall. Primary school enrollment increased at the rate of more than 1.9 percentage points annually in the first period, but by just over 1.0 percentage point in the period of globalization. The falloff for the countries with lowest percentage enrollment among females was from an annual increase of 1.8 percentage points annually to approximately 1.0 percentage point. The rate of improvement in primary school enrollment falls for almost all of the groupings. The exceptions are the middle performing group in the overall (male and female combined) data, and the second highest performing group among females; the rate of improvement in these categories was essentially unchanged. And in the case of countries with the highest percentage of males enrolled in primary education, there is a small improvement in performance in the second period.

It is worth noting that the declines in this measure among high-performing countries are not necessarily a negative outcome. (The two highest groupings overall show declines in both periods, while the group of countries with highest percentage of female enrollment experiences declines in both periods.) This decline could reflect the fact that older students have completed remedial course work and no longer need to be enrolled in primary education classes.

Figures 14, 15, and 16 show the rates of increase in the percentage of secondary school age population receiving secondary education overall, and for males and females respectively. Figure 14 shows that the rate of increase in the percentage of the overall population enrolled in secondary education fell for every grouping, except for the countries in the lowest performing

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<sup>9</sup> This percentage can exceed 100, since the denominator is the size of the primary school age population. If people outside of this age grouping are receiving primary education (e.g. remedial reading classes for adults), then the number of people enrolled in primary education programs could be larger than the primary school age population.

category, where the rate of improvement was essentially unchanged. The rates of growth of enrollment fell sharply for each of the countries in the three middle performance groupings. For males, Figure 15 shows a sharp increase in the rate of growth of secondary school enrollment in the second period for the countries in the lowest performing group (although only two countries fell within this category at the start of the second period), but substantial falloffs in the rate of improvement among all other groups of countries. The largest falloff occurs among countries in the middle grouping. In the first period, the percentage of the relevant population enrolled in secondary education increased at the rate of approximately 1.7 percentage points annually. In the period of globalization, the rate of increase in secondary enrollment among this group of countries fell to 0.7 percentage points annually. The middle grouping was also the hardest hit for females, with a similar drop from a growth rate of 2.2 to 1.3 percentage points annually. Again, it is worth noting that the middle groupings in these data contain many poor as well as middle-income countries, with a great need for increasing access to education. The 19 countries that began the second period in the middle grouping for female primary school enrollment included Algeria, Kenya, Gabon, Morocco, and Tunisia.

Figure 17 shows the rate of increase in the percentage of the relevant population enrolled in tertiary education programs. The countries in the three lowest groupings all saw slower rates of increase in the period of globalization than in the first period, although for the worst performing group of countries, the rate of improvement was minimal even in the first period. The second to the highest performing group of countries had a very slight increase in its rate of improvement by this measure, while the highest performing group of countries saw the rate of increase in enrollment in tertiary education rise from 0.76 percentage points annually in the first period to 0.85 percentage points annually in the second period.

Summing up the evidence on educational measures, in the vast majority of comparisons, countries did worse in the period of globalization than in the prior two decades. There are some exceptions, where groups of countries saw a more rapid pace of improvement in the second period, but these exceptions are concentrated among the better performing groups of countries. By almost every measure of education, the middle and poorer performing groups saw less rapid progress in the period of globalization than in the prior two decades.

### **Conclusion: Globalization Has Been Associated With Diminished Progress**

The purpose of this study is very limited. It simply seeks to clarify the backdrop to debates over the impact of globalization. There has been considerable confusion -- at least in public discourse, if not within the economics profession itself -- over the actual track record of the last two decades. This study has used standard measures of progress in the categories of economic growth, health outcomes, and education to evaluate the record of the last twenty years. The results are overwhelmingly in one direction: in every category, the comparisons show diminished progress overall in the period of globalization as compared with the prior two decades. The few comparisons that show increased rates of progress in the second period nearly all involve groups of countries that were already performing relatively well at the start of the

periods being examined. There are almost no instances in which groupings of countries that were performing poorly at the start of the period saw more progress during the era of globalization than in the previous two decades.

As noted above, this evidence does not prove that the policies associated with globalization were responsible for the deterioration in performance. But it does present a very strong *prima facie* case that some structural and policy changes implemented during the last two decades are at least partly responsible for these declines. In some cases, for example in the transitional economies, the link between policy and outcomes is fairly clear. Russia lost about half of its national income in just a few years in the 1990s, following a program designed to rapidly transform its economy. We also have several prominent cases of mismanaged policy in just the last few years, such as the Asian economic crisis, where liberalization of financial markets led to a rapid inflow and then reversal of capital flows, and the crisis was then worsened by extremely high interest rates, overly tight fiscal policy, and other mistakes.<sup>10</sup>

For most of the low and middle-income countries, the link between policy and outcome remains to be shown. But in any case, there is certainly no evidence in this data that the policies associated with globalization have improved outcomes for developing countries. To argue that this is the case, proponents of these policies would need to show that outcomes would have been even worse in the era of globalization, if developing countries had not adopted these policies.

If the basic facts presented in this paper were well known, discussions of globalization and international economic policy would look very different than the ones we see today. At the very least, the burden of proof would be squarely placed on those who claim success -- by any available measure of human well-being -- for the last two decades of the experiment in globalization. By contrast, in most of the discussions now held, it is assumed that this experiment has largely succeeded, and those who challenge this assumption must bear a high, often insurmountable burden of proof.

Finally, it is worth noting the limited basis of the comparisons used in this analysis. It would have been better to use a broader set of measures. In particular, it would have been desirable to measure national performances on a variety of environmental measures. Unfortunately, there are no widely available sets of data for most of these countries that could be used to provide the basis for such a comparison. If this data could be assembled, it would be an important component of a fuller evaluation of international progress in the era of globalization.

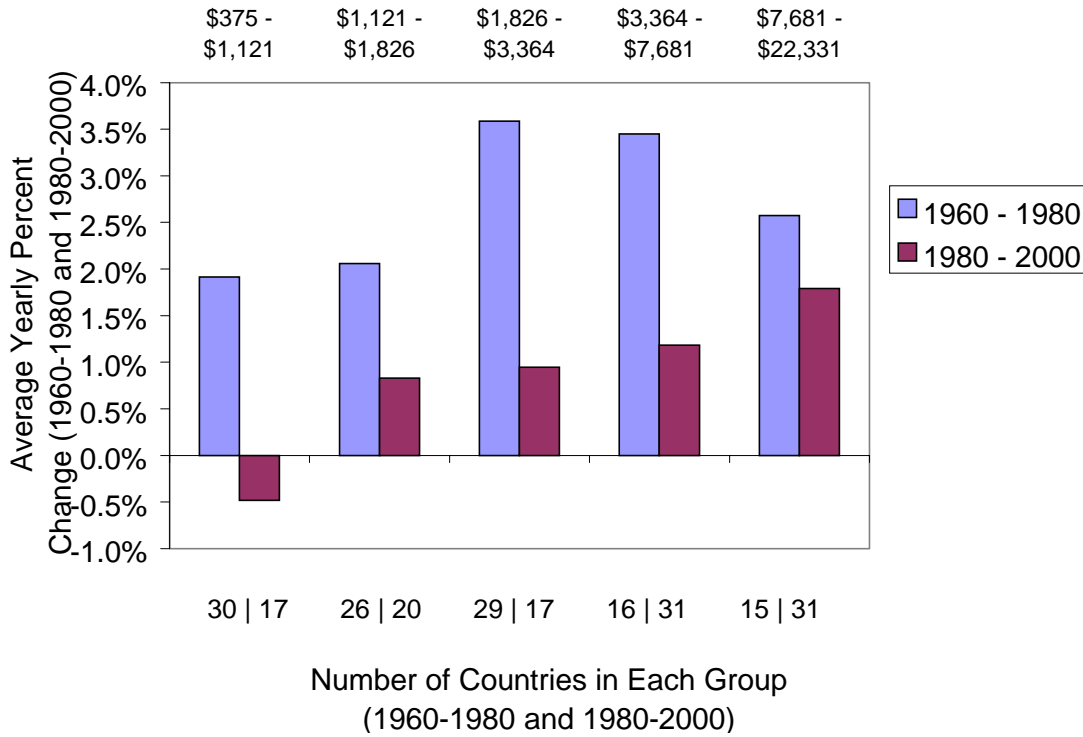
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<sup>10</sup> See, e.g., Radelet, Steven and Jeffrey Sachs. "The Onset of the East Asian Financial Crisis." Harvard Institute for International Development, March 30, 1998; and Radelet, Steven and Jeffrey Sachs. "The East Asian Financial Crisis: Diagnosis, Remedies, Prospects." Harvard Institute for International Development, April 20, 1998.

**Figure 1**

**Average Yearly Change in Real Per Capita GDP**

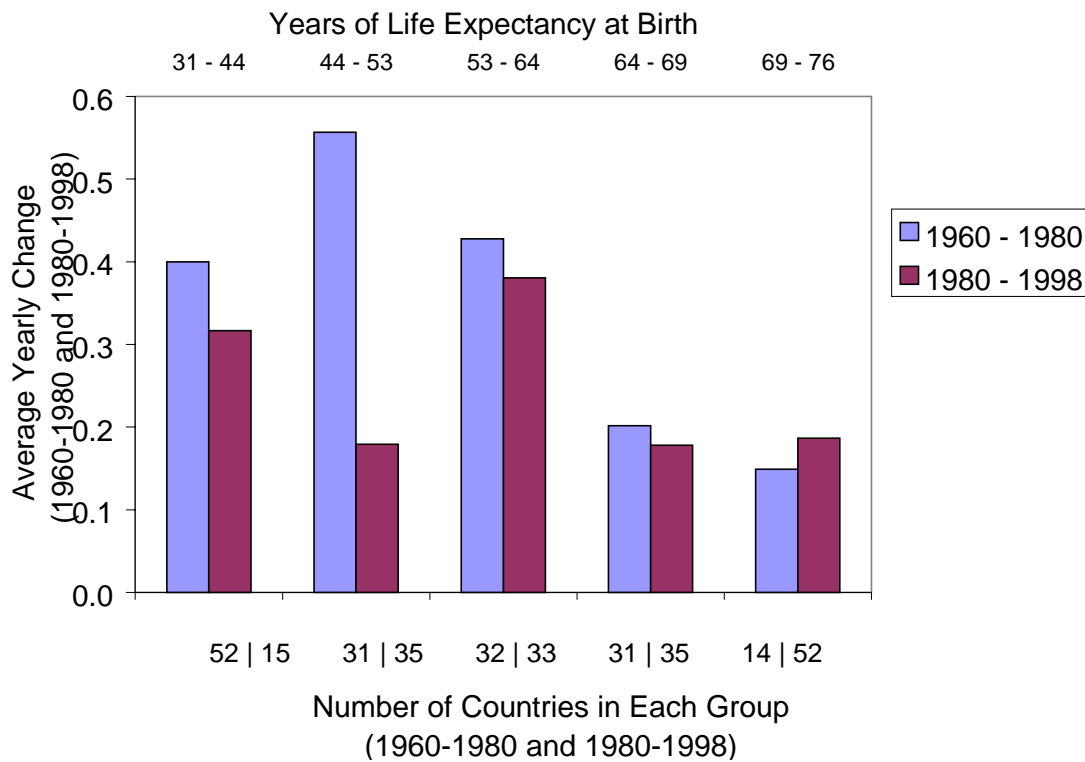
Per Capita GDP at Start of Period (1960-1980 and 1980-2000) in Constant 2000 U.S. Dollars



Sources: Penn World Table, International Monetary Fund



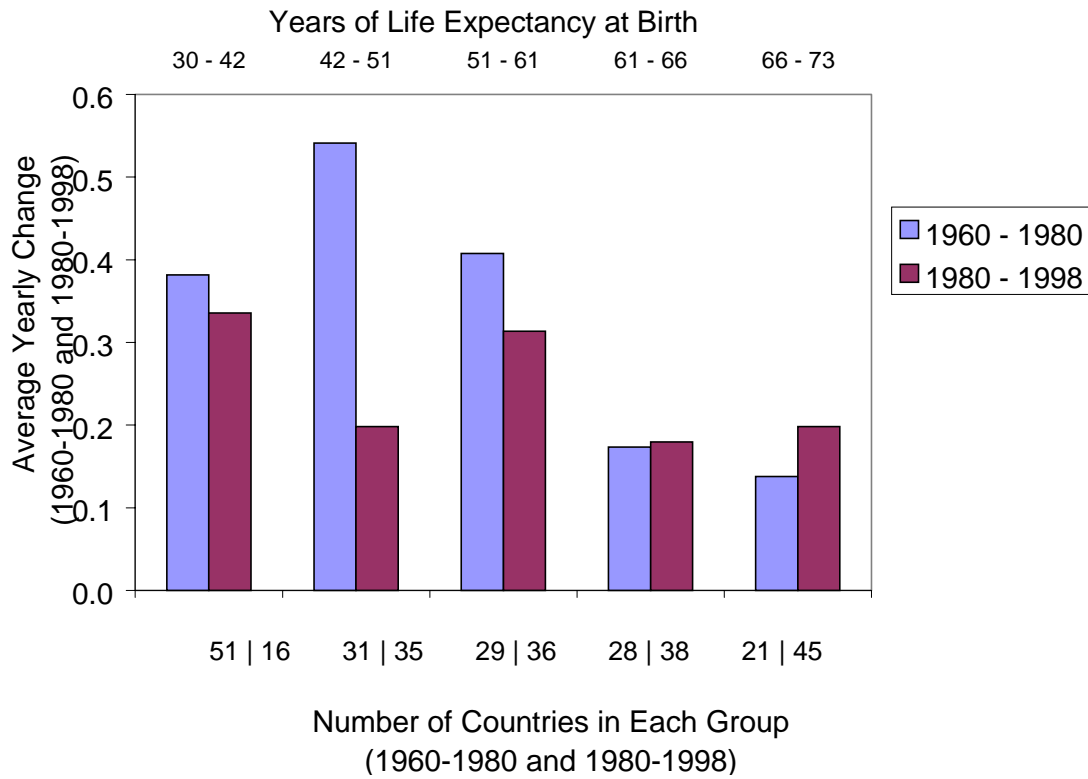
**Figure 2**  
**Average Yearly Change in Total Life Expectancy<sup>1</sup>**



Source: World Bank, World Development Indicators, 2000

<sup>1</sup>Total (male and female combined) life expectancy at birth is the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

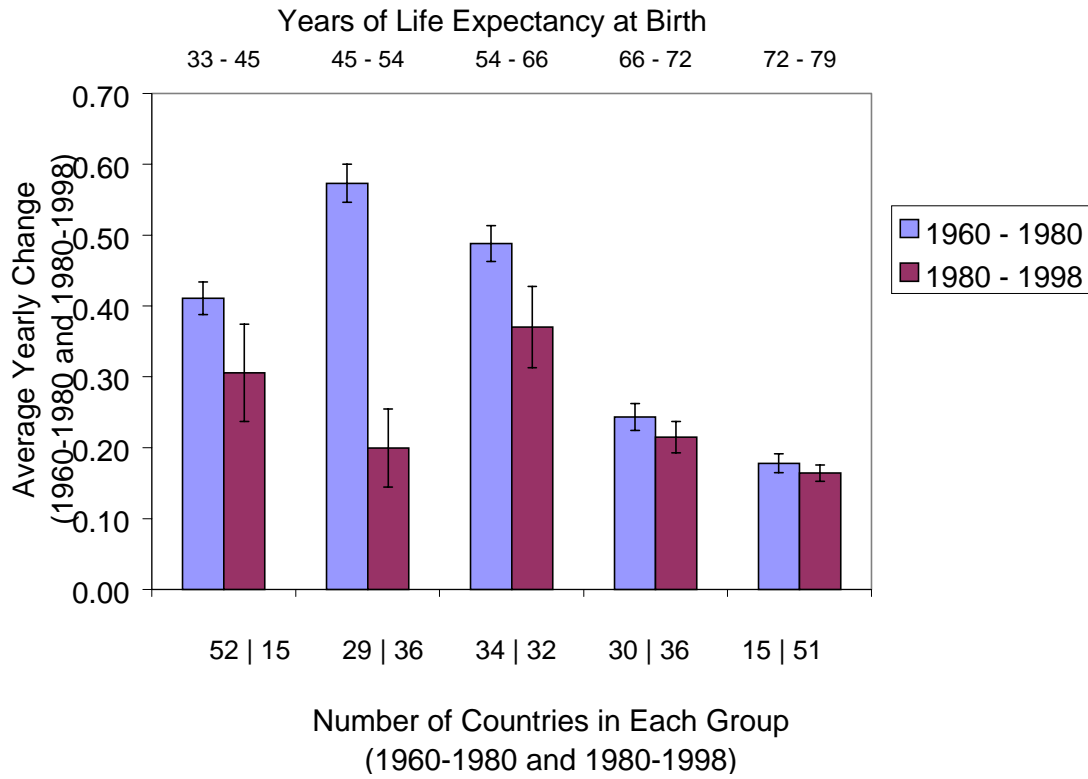
**Figure 3**  
**Average Yearly Change in Male Life Expectancy**



Source: World Bank, World Development Indicators, 2000

**Figure 4**

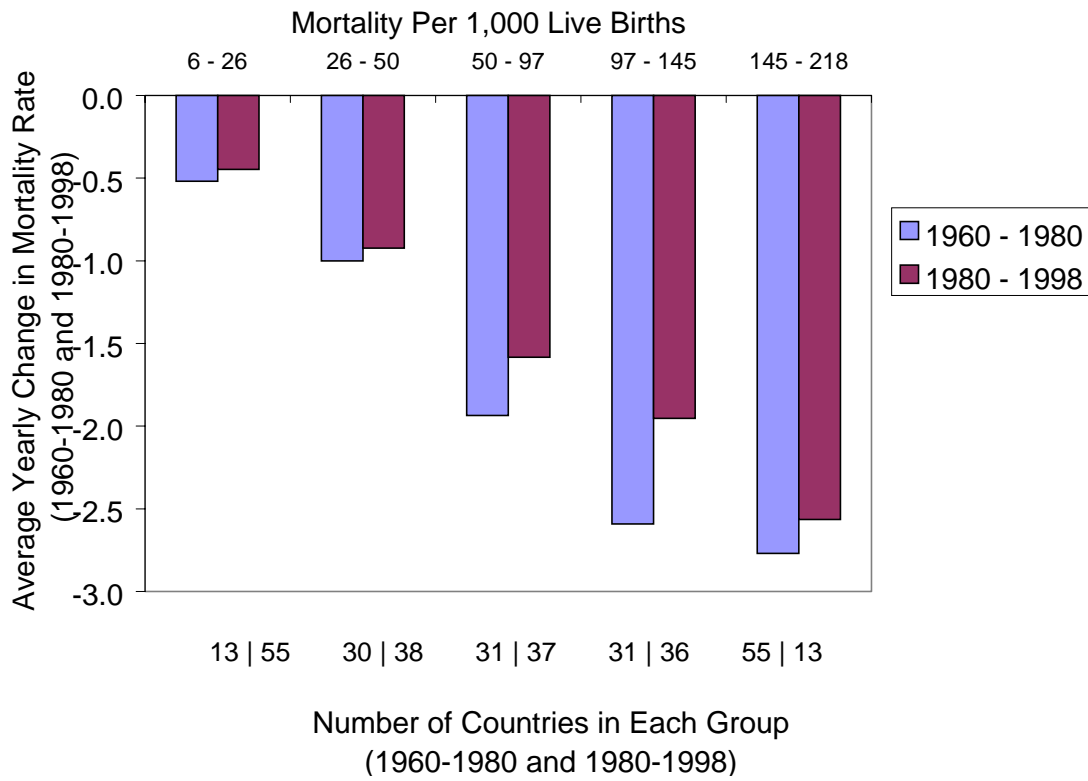
**Average Yearly Change in Female Life Expectancy**



Source: World Bank, World Development Indicators, 2000

**Figure 5**

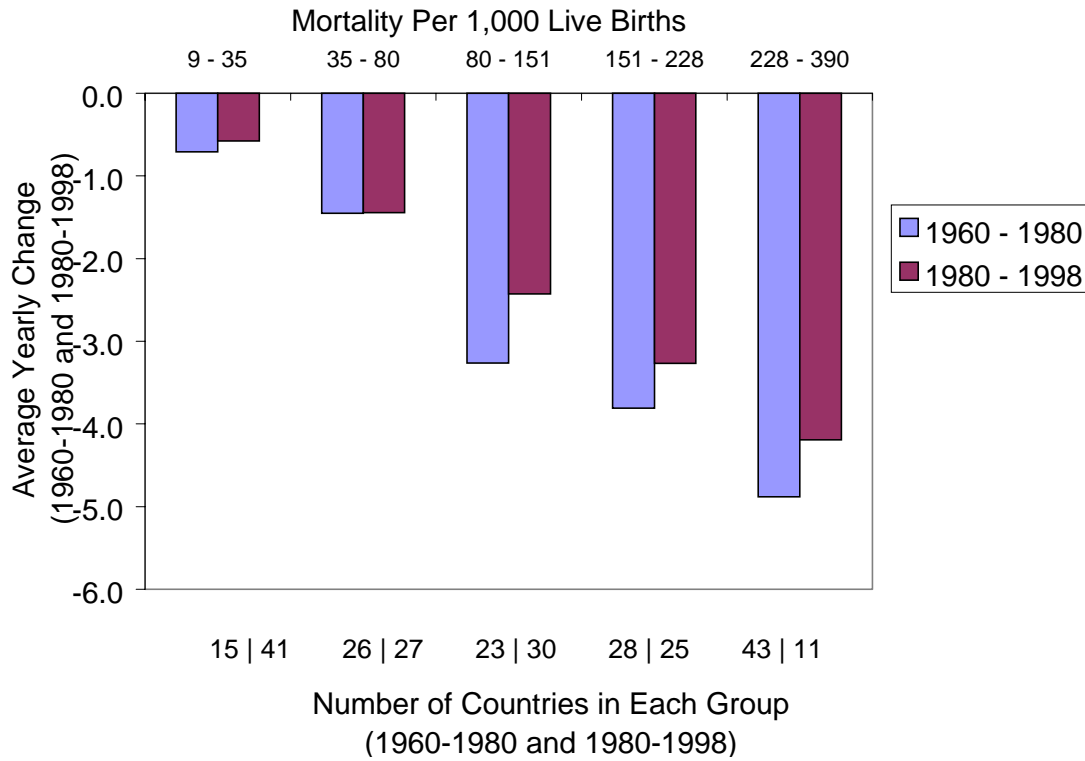
**Average Yearly Change in Infant Mortality Rate<sup>1</sup>**



Source: World Bank, World Development Indicators, 2000

<sup>1</sup> Infant mortality rate is the number of infants dying before reaching the age of one year, per 1,000 live births in a given year.

**Figure 6**  
**Average Yearly Change in Mortality Rate of Children under Five**  
**Years of Age<sup>1</sup>**

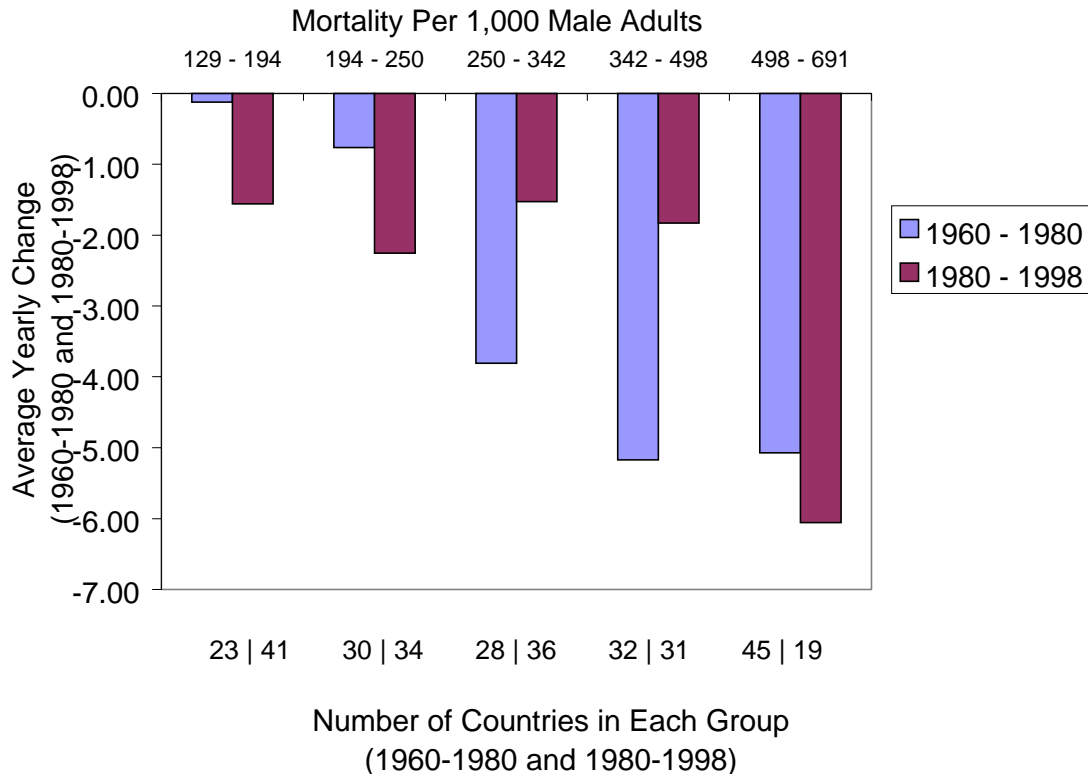


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> The mortality rate of children under five years of age is the probability that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates.

**Figure 7**

**Average Yearly Change in Adult Male Mortality Rate<sup>1</sup>**

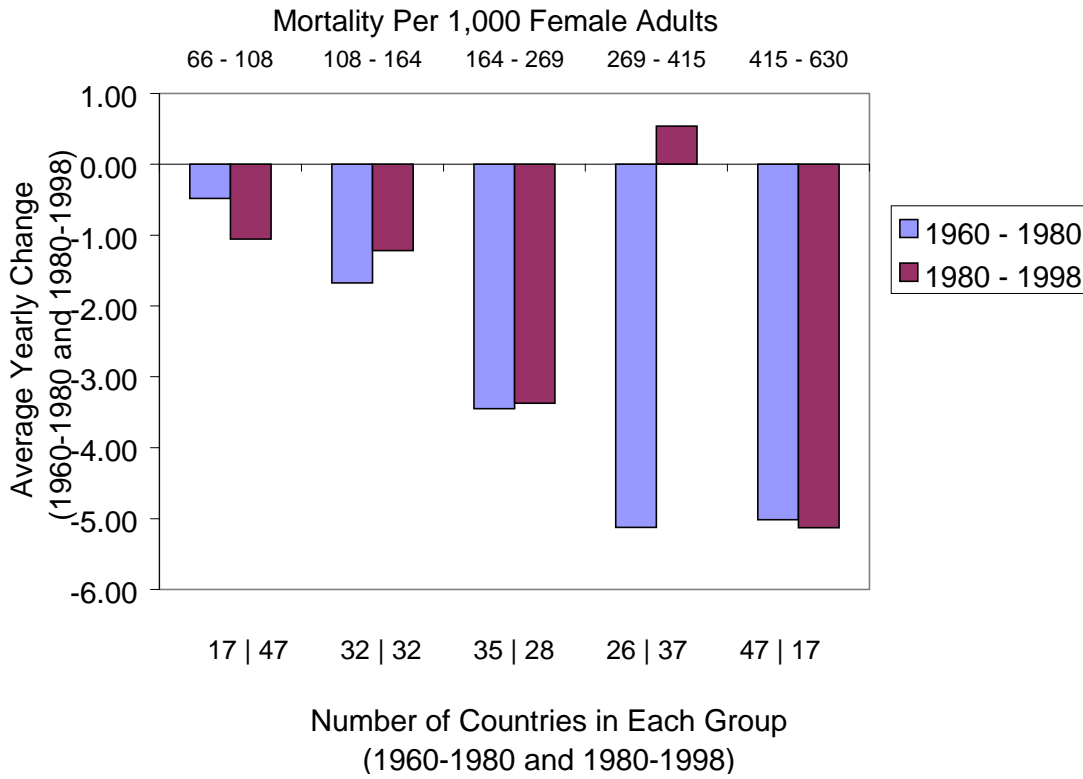


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> Adult mortality rate is the probability of dying between the ages of 15 and 60—that is, the probability of a 15-year-old dying before reaching age 60, if subject to current age-specific mortality rates between ages 15 and 60.

**Figure 8**

**Average Yearly Change in Adult Female Mortality Rate<sup>1</sup>**

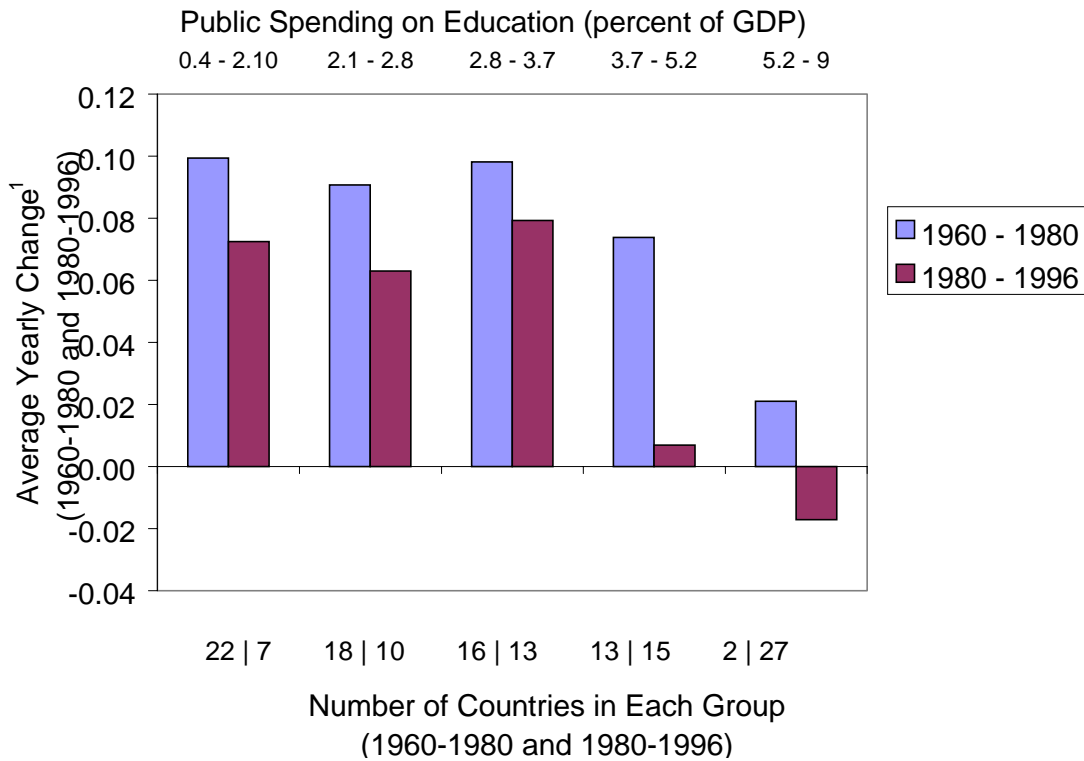


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> Adult mortality rate is the probability of dying between the ages of 15 and 60-that is, the probability of a 15-year-old dying before reaching age 60, if subject to current age-specific mortality rates between ages 15 and 60.

Figure 9

### Average Yearly Change in Total Public Spending on Education

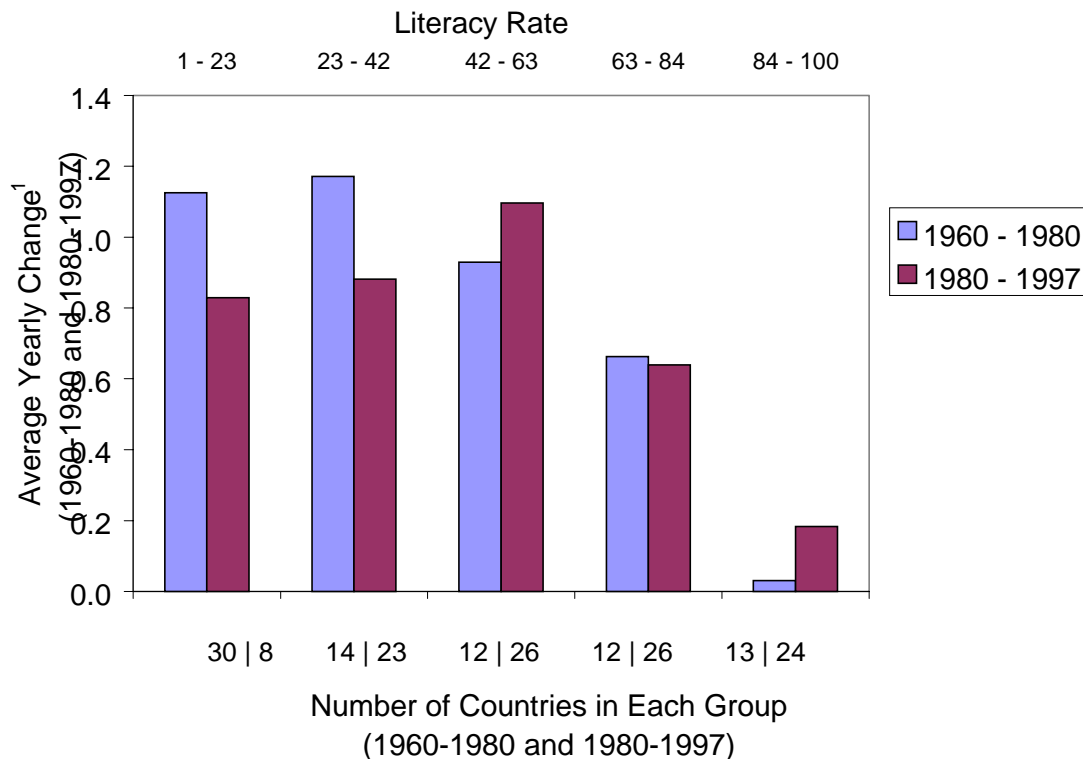


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points



**Figure 10**  
**Average Yearly Change in Literacy Rates**

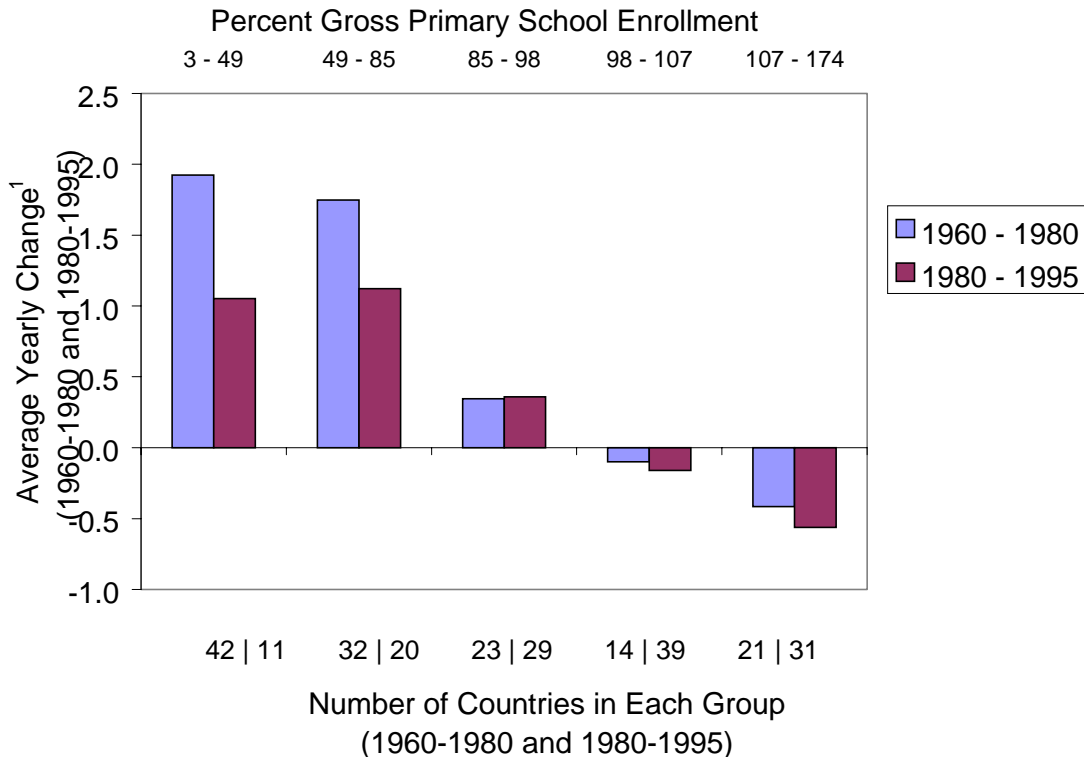


Source: UNESCO

<sup>1</sup> In percentage points

Figure 11

Average Yearly Change in Total Primary School Enrollment

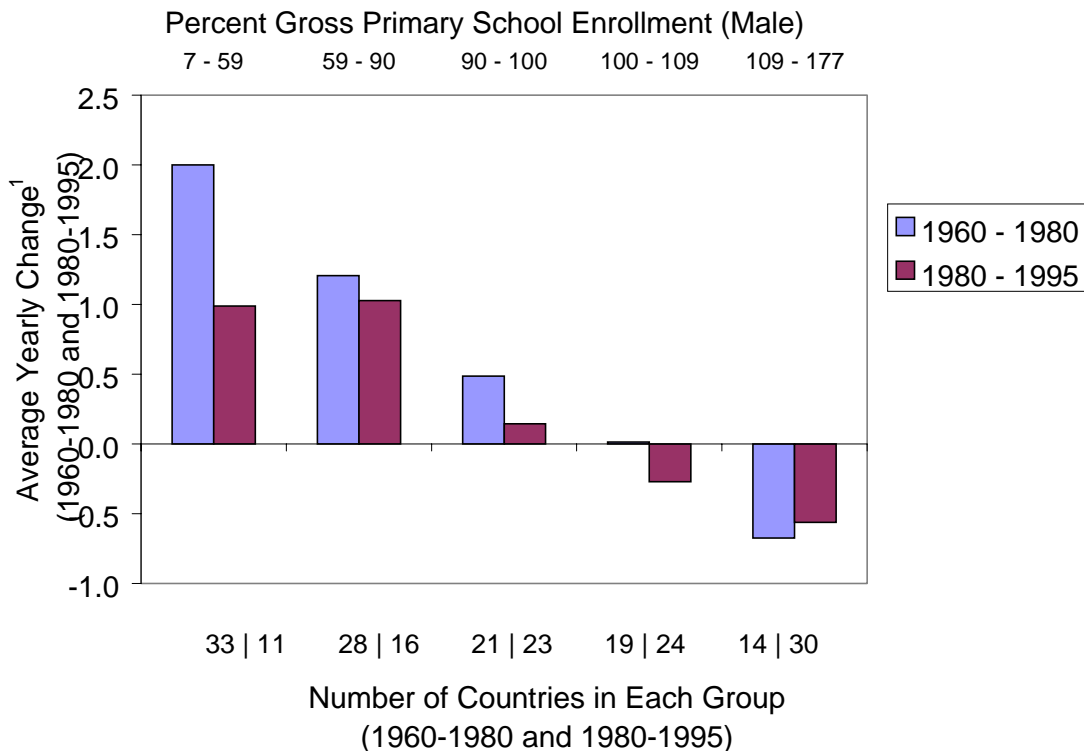


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points

Figure 12

Average Yearly Change in Male Primary School Enrollment

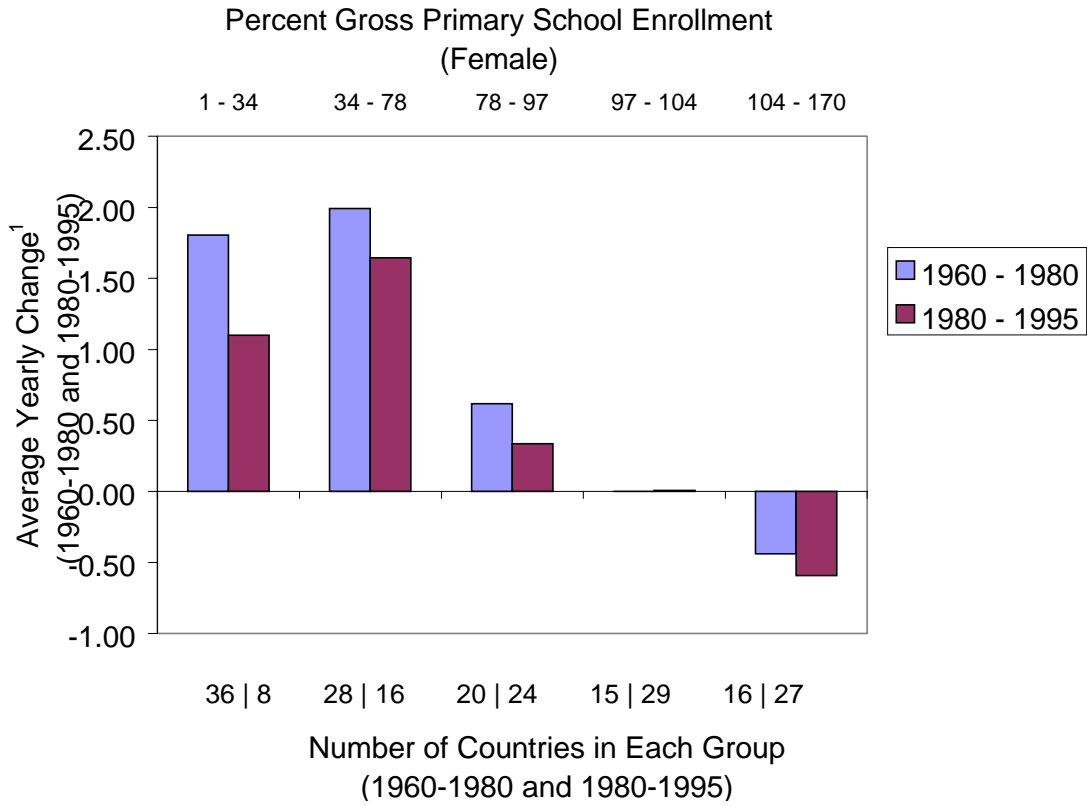


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points

**Figure 13**

**Average Yearly Change in Female Primary School Enrollment**

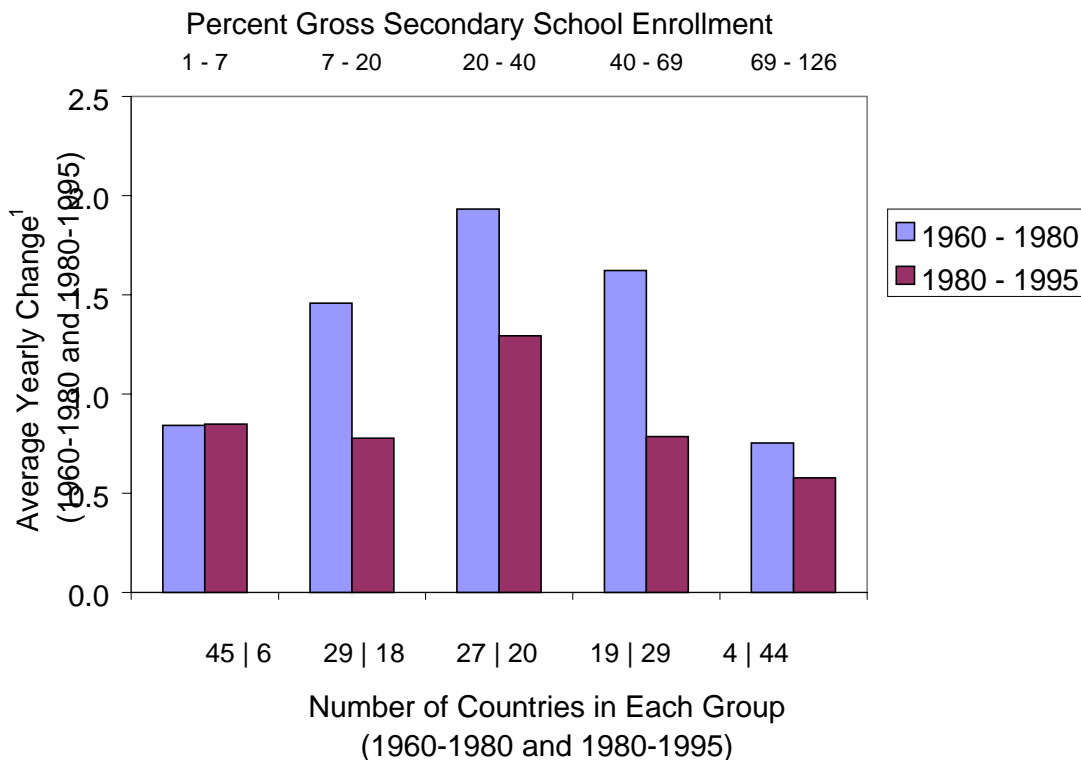


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points

Figure 14

Average Yearly Change in Secondary School Enrollment

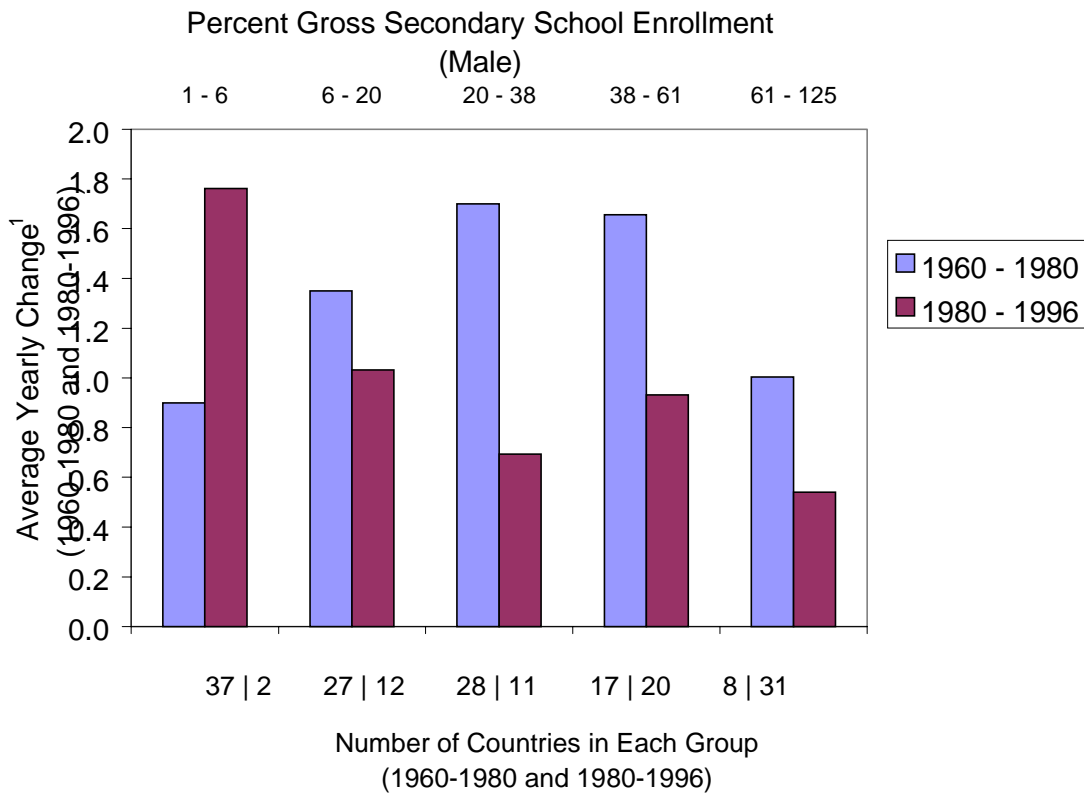


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points

Figure 15

Average Yearly Change in Male Secondary School Enrollment

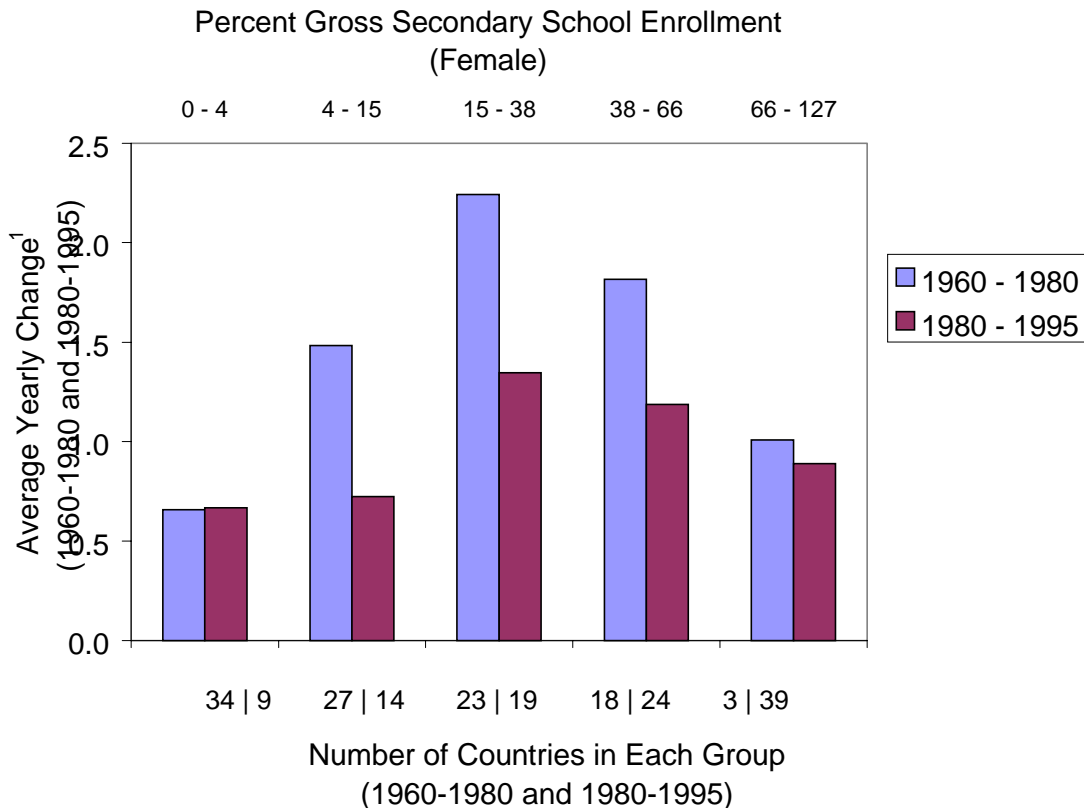


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points

Figure 16

Average Yearly Change in Female Secondary School Enrollment

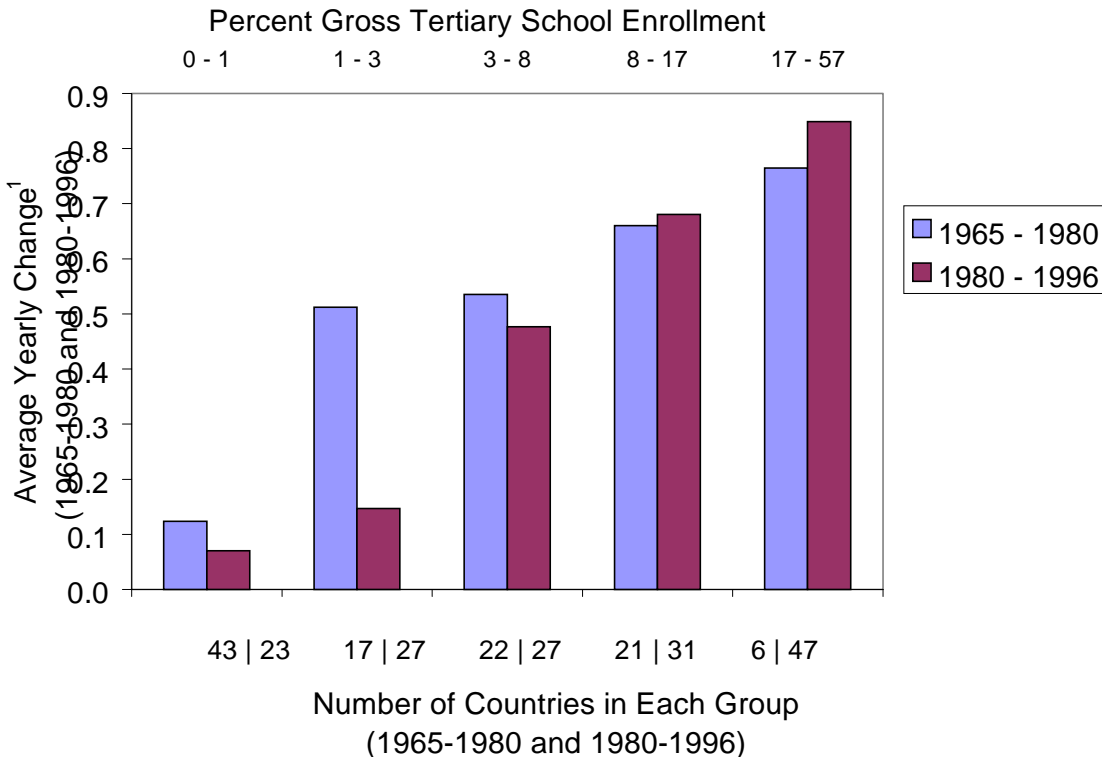


Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points

Figure 17

Average Yearly Change in Tertiary Enrollment



Source: World Bank, World Development Indicators, 2000

<sup>1</sup> In percentage points