2 PEOPLE

Development has often bypassed the poorest people—and sometimes increased their disadvantage. Attacking poverty directly has therefore become an urgent global priority.

Poverty is commonly measured by income, but it has many other dimensions. Poor people not only lack money, but they also lack resources, opportunities, and access to services such as health and education. So to help people move out of poverty, countries need to take action in three areas: They need to stimulate growth and make markets work for the poor. They need to invest in health, nutrition, and education—increasing human capital. And they need to provide effective mechanisms for reducing vulnerability to economic shocks, natural disasters, ill health, and disability.

This section measures income poverty and tracks the progress countries have made in developing their human capital and in reducing the vulnerability of their people.

Boosting growth to lift people out of poverty

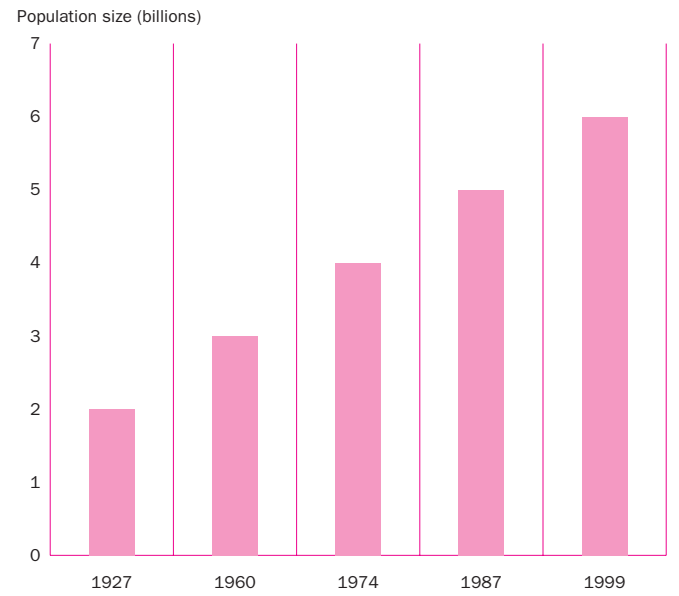
A paradox of the second half of the 20th century is that the world population underwent unprecedented growth—from 2.5 billion in 1950 to more than 6 billion in 2001—even as the population growth rate was declining (figure 2a). The decline was triggered largely by a drop in fertility rates. Between 1952 and 2001 fertility rates fell from 5.1 to 2.7 births per woman. Thus while the population grew by 1.5 percent a year in 1980–2001, the growth rate is expected to drop to 1 percent in 2001–15 (table 2.1).

During the transition from high fertility and rapid population growth to lower fertility and slower growth, the working-age population expands relative to the dependent (younger and older) population, opening a demographic window of opportunity for economic growth. Countries can take advantage of this one-time opportunity if they invest appropriately in their human and physical capital and create employment opportunities for youth and for those who have not been working for wages. Several countries in East Asia, such as the Republic of Korea and Thailand, and a few in Latin America, such as Brazil and Mexico, have done so (figure 2b). But South Asian countries that are now moving into the later stage of their transition to low fertility may not benefit from the demographic transition if they do not encourage growth, investment, and human capital development. The demographic window for these countries will close within a generation.

In many developing countries agriculture is still the main economic activity (table 2.3). As economies grow, more people work for wages. In most countries wages are rising steadily, increasing prosperity and raising standards of living (table 2.5).

2a

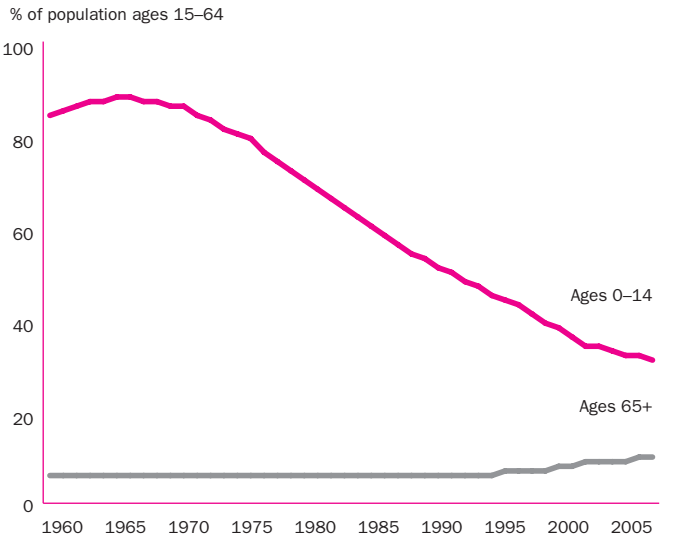
The world population boomed in the second half of the 20th century



Source: World Bank staff estimates.

2b

Thailand's child dependency ratio fell quickly in the 1970s and 1980s, before the old-age dependency rose



Source: World Bank data.

In developing countries gross domestic product (GDP) grew by 3.3 percent a year in the 1990s, and the share of people living on less than $1 a day fell from 29 percent to 23 percent. By 1999, 125 million fewer people were living in extreme poverty. But the poorest are often excluded from all but the lowest level of economic activity.

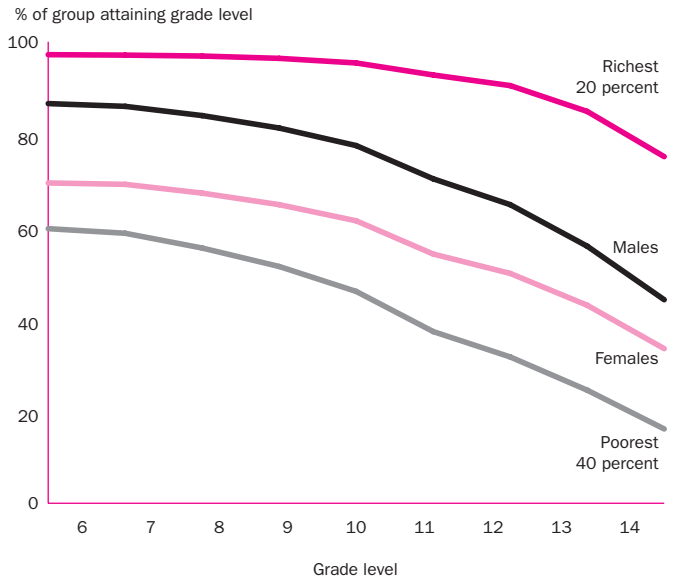
Progress in reducing poverty has been uneven. Within countries, the large gaps in social indicators between rich and poor confirm the persistence of deprivation (table 2.7). Globally, much of the decline in income poverty took place in East Asia, where sustained growth in China has lifted nearly 150 million people out of poverty since 1990. And faster growth in India has led to a modest decline in the number of poor people in South Asia. But in other regions the number of poor people has increased even as their share in the population has declined—and in Europe and Central Asia both the number and the share of poor people have risen. Unemployment is high in many of the formerly centrally planned economies, with long-term unemployment hovering around 50 percent of total unemployment in the Czech Republic, Estonia, and Latvia in 1998–2001 (table 2.4).

Enhancing security for poor people

Poor people face many risks. They face labor market risks, often having to take precarious jobs in the informal sector and put their children to work to increase household income. In Sub-Saharan Africa one in three children ages 10–14 was in the labor force in 2001 (table 2.9). Poor people also face health risks, with illness and injury having both direct and opportunity costs. In South Asia nearly 80 percent of all spending on health comes from private sources, much of it out of pocket, exposing

2c

In India educational attainment is sharply lower for the poor—and for girls



Source: Demographic and Health Survey.

many poor households to the impoverishing effects of needed health care (table 2.9).

Enhancing security for poor people means reducing their vulnerability to ill health and economic shocks. Market-based insurance and pension schemes can reduce risk significantly, but they play only a minor role in many developing countries. In 16 developing countries public spending on pensions amounted to less than 0.5 percent of GDP in the 1990s (table 2.10). To increase the security of poor people, national poverty reduction strategies must support their immediate consumption needs and protect their assets by ensuring access to basic services. Literacy training and health and nutrition services are often the most needed and most valued by poor people. Yet government spending in these areas remains low in many countries. In 2000 low-income countries' public spending on health averaged 1 percent of GDP, compared with 6 percent for high-income countries (table 2.10).

Building human capital through education and health services

Poor people lack the means to escape poverty. Increasing the productivity of their labor through investments in education and health is often the most effective way to improve their welfare.

Investments in education widen horizons, making it easier for people to take advantage of new opportunities and helping them to participate in social and economic life. But despite increased spending on education, particularly primary education (table 2.11), enrollment rates remain low in many countries. In Sub-Saharan Africa primary enrollment rates declined between 1980 and 2000 (table 2.12). Low primary enrollment typically reflects low participation by poor people. But in many poor countries it also has a gender dimension, reflecting traditional biases against girls' education and reliance on girls' contributions to the household (figure 2c; table 2.13). One consequence of this imbalance: higher rates of illiteracy among women (table 2.14).

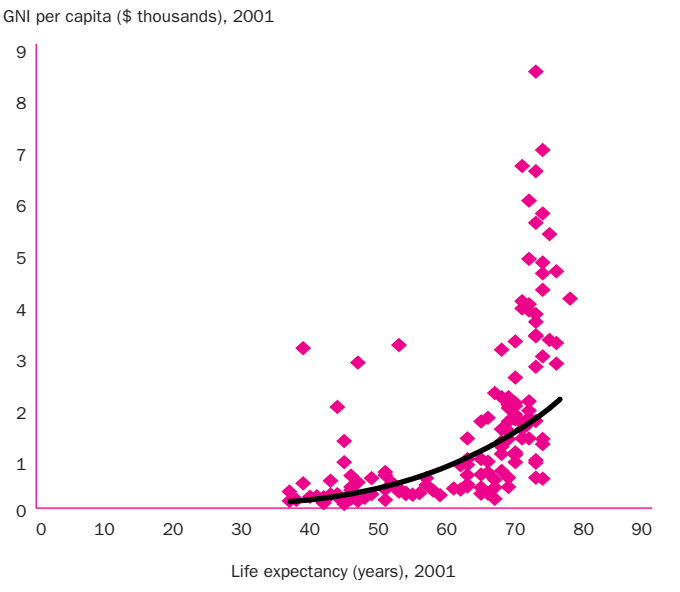
The public sector is the main provider of health care in developing countries—training medical personnel, investing in hospitals, and directly providing medical care (table 2.15). To reduce inequities, many countries have emphasized primary health care, including immunization, provision of sanitation, access to safe drinking water, and safe motherhood initiatives (tables 2.16 and 2.17). Even so, much remains to be done. Child malnutrition remains a burden, with 22 countries having rates of more than 30 percent in the 1990s (table 2.18). An estimated 40 million people are living with HIV/AIDS, an unprecedented public health challenge (table 2.19). And the reemergence of old diseases such as tuberculosis in Europe and Central Asia and parts of South and East Asia has put severe strains on health budgets. A high prevalence of disease in a country goes hand-in-hand with poor economic performance (figure 2d).

* * *

There are many ways to measure poverty and its effects on people's lives. The indicators reported here suffer from many shortcomings, noted in *About the data* for each table. But taken together, the indicators provide a broad picture of how well different economies are doing in reducing poverty, enhancing human security, and building human capital—and how large a task still faces many developing countries.

2d

Where per capita income is low, so is life expectancy



Source: World Bank data.

2.1 Population dynamics

	Total population			Average annual population growth rate		Population age composition			Dependency ratio		Crude death rate	Crude birth rate
						Ages 0–14	Ages 15–64	Ages 65+	dependents as proportion of working–age population			
	millions			%		%	%	%	Young	Old	per 1,000 people	per 1,000 people
	1980	2001	2015	1980–2001	2001–15	2001	2001	2001	2001	2001	2001	2001
Afghanistan	16.0	27.2 [a]	38.8	2.6	2.5	43.7	53.5	2.8	0.8	0.1	21	48
Albania	2.7	3.2	3.6	0.8	1.0	28.6	64.5	6.9	0.5	0.1	6	17
Algeria	18.7	30.8	38.3	2.4	1.5	35.4	60.7	3.9	0.6	0.1	5	23
Angola	7.1	13.5	19.6	3.1	2.6	47.4	49.7	2.9	1.0	0.1	19	47
Argentina	28.1	37.5	42.8	1.4	1.0	27.5	62.8	9.7	0.4	0.2	8	19
Armenia	3.1	3.8	4.0	1.0	0.3	23.0	67.7	9.3	0.4	0.1	7	11
Australia	14.7	19.4	21.5	1.3	0.7	20.5	67.5	12.0	0.3	0.2	7	13
Austria	7.6	8.1	8.0	0.4	–0.1	16.5	67.8	15.7	0.2	0.2	9	9
Azerbaijan	6.2	8.1	8.9	1.3	0.7	28.4	64.4	7.2	0.5	0.1	6	16
Bangladesh	85.4	133.3	166.0	2.1	1.6	37.0	59.7	3.3	0.6	0.1	9	28
Belarus	9.6	10.0	9.3	0.2	–0.5	18.0	68.3	13.6	0.3	0.2	14	9
Belgium	9.8	10.3	10.4	0.2	0.0	17.2	66.1	16.6	0.3	0.3	10	11
Benin	3.5	6.4	9.0	3.0	2.4	45.9	51.4	2.7	0.9	0.1	13	39
Bolivia	5.4	8.5	10.9	2.2	1.8	39.1	56.5	4.4	0.7	0.1	8	30
Bosnia and Herzegovina	4.1	4.1	4.4	0.0	0.5	18.6	71.3	10.2	0.3	0.1	8	12
Botswana	0.9	1.7	1.8	3.0	0.5	42.0	55.7	2.2	0.8	0.0	21	31
Brazil	121.6	172.4	201.0	1.7	1.1	28.4	66.4	5.2	0.4	0.1	7	19
Bulgaria	8.9	8.0	7.3	–0.5	–0.7	15.2	68.6	16.2	0.2	0.2	14	9
Burkina Faso	7.0	11.6	15.6	2.4	2.1	47.1	50.2	2.7	0.9	0.1	19	44
Burundi	4.1	6.9	8.8	2.5	1.7	46.0	51.4	2.6	0.9	0.1	20	39
Cambodia	6.8	12.3	15.1	2.8	1.5	43.0	54.2	2.8	0.8	0.1	12	29
Cameroon	8.7	15.2	19.4	2.6	1.7	41.6	54.8	3.7	0.8	0.1	15	36
Canada	24.6	31.1	33.7	1.1	0.6	18.8	68.6	12.6	0.3	0.2	7	11
Central African Republic	2.3	3.8	4.6	2.3	1.5	42.3	54.2	3.5	0.8	0.1	20	36
Chad	4.5	7.9	11.8	2.7	2.9	49.6	47.4	3.0	1.1	0.1	16	45
Chile	11.1	15.4	17.7	1.5	1.0	27.8	65.0	7.2	0.4	0.1	6	17
China	981.2	1,271.8	1,392.6	1.2	0.6	24.8	68.1	7.1	0.4	0.1	7	15
Hong Kong, China	5.0	6.7	7.0	1.4	0.3	16.7	72.0	11.2	0.2	0.2	5	7
Colombia	28.4	43.0	51.5	2.0	1.3	32.4	62.9	4.7	0.5	0.1	6	22
Congo, Dem. Rep.	26.9	52.4	75.7	3.2	2.6	47.6	49.8	2.6	1.0	0.1	17	45
Congo, Rep.	1.7	3.1	4.6	3.0	2.7	46.3	50.5	3.2	0.9	0.1	14	42
Costa Rica	2.3	3.9	4.7	2.5	1.4	31.2	63.1	5.7	0.5	0.1	4	20
Côte d'Ivoire	8.2	16.4	20.5	3.3	1.6	42.1	55.3	2.6	0.8	0.0	17	37
Croatia	4.6	4.4	4.2	–0.2	–0.3	16.7	68.1	15.2	0.2	0.2	11	9
Cuba	9.7	11.2	11.7	0.7	0.3	21.1	68.8	10.1	0.3	0.1	7	12
Czech Republic	10.2	10.2	9.9	0.0	–0.2	16.1	70.1	13.8	0.2	0.2	11	9
Denmark	5.1	5.4	5.4	0.2	0.1	18.4	66.7	14.9	0.3	0.2	11	12
Dominican Republic	5.7	8.5	10.1	1.9	1.3	33.0	62.7	4.4	0.5	0.1	7	23
Ecuador	8.0	12.9	15.8	2.3	1.5	33.4	61.9	4.7	0.6	0.1	6	24
Egypt, Arab Rep.	40.9	65.2	80.9	2.2	1.5	34.7	61.1	4.2	0.6	0.1	6	25
El Salvador	4.6	6.4	8.0	1.6	1.6	35.3	59.7	5.0	0.6	0.1	6	26
Eritrea	2.4	4.2	5.8	2.7	2.3	45.2	52.2	2.6	0.9	0.1	13	38
Estonia	1.5	1.4	1.3	–0.4	–0.5	17.1	68.0	14.9	0.3	0.2	14	9
Ethiopia	37.7	65.8	88.2	2.7	2.1	46.0	51.2	2.8	0.9	0.1	20	43
Finland	4.8	5.2	5.3	0.4	0.1	17.9	67.0	15.0	0.3	0.2	9	11
France	53.9	59.2	61.8	0.4	0.3	18.7	65.1	16.1	0.3	0.2	9	13
Gabon	0.7	1.3	1.7	2.9	2.2	40.3	54.1	5.7	0.7	0.1	15	35
Gambia, The	0.6	1.3	1.8	3.5	2.0	40.3	56.5	3.2	0.7	0.1	14	38
Georgia	5.1	5.3	4.8	0.2	–0.7	20.1	66.8	13.1	0.3	0.2	10	8
Germany	78.3	82.3	80.1	0.2	–0.2	15.3	68.3	16.4	0.2	0.2	10	9
Ghana	10.7	19.7	24.7	2.9	1.6	43.3	52.2	4.6	0.9	0.1	12	29
Greece	9.6	10.6	10.7	0.4	0.1	14.9	67.0	18.1	0.2	0.3	11	11
Guatemala	6.8	11.7	16.3	2.6	2.4	43.2	53.3	3.5	0.8	0.1	7	33
Guinea	4.5	7.6	9.8	2.5	1.9	44.3	53.1	2.6	0.8	0.1	17	38
Guinea-Bissau	0.8	1.2	1.7	2.3	2.2	43.6	52.9	3.6	0.8	0.1	20	40
Haiti	5.4	8.1	10.3	2.0	1.7	40.2	56.3	3.5	0.7	0.1	13	32

2.1 Population dynamics

	Total population			Average annual population growth rate		Population age composition			Dependency ratio		Crude death rate	Crude birth rate
						Ages 0–14	Ages 15–64	Ages 65+	dependents as proportion of working–age population			
	millions			%		%	%	%	Young	Old	per 1,000 people	per 1,000 people
	1980	2001	2015	1980–2001	2001–15	2001	2001	2001	2001	2001	2001	2001
Honduras	3.6	6.6	8.9	2.9	2.1	41.4	55.2	3.4	0.8	0.1	6	30
Hungary	10.7	10.2	9.4	–0.2	–0.6	16.8	68.7	14.5	0.2	0.2	13	10
India	687.3	1,032.4	1,227.9	1.9	1.2	33.1	61.9	5.0	0.5	0.1	9	25
Indonesia	148.3	209.0	245.5	1.6	1.1	30.2	65.1	4.7	0.5	0.1	7	21
Iran, Islamic Rep.	39.1	64.5	80.4	2.4	1.6	32.6	62.7	4.7	0.6	0.1	6	22
Iraq	13.0	23.8	31.2	2.9	1.9	40.9	56.2	2.9	0.8	0.1	8	30
Ireland	3.4	3.8	4.3	0.6	0.8	21.5	67.2	11.2	0.3	0.2	8	15
Israel	3.9	6.4	7.9	2.4	1.5	27.6	62.6	9.7	0.4	0.2	6	21
Italy	56.4	57.9	55.0	0.1	–0.4	14.2	67.4	18.4	0.2	0.3	10	9
Jamaica	2.1	2.6	3.0	0.9	1.1	30.6	62.4	7.0	0.5	0.1	7	21
Japan	116.8	127.0	124.1	0.4	–0.2	14.5	67.9	17.6	0.2	0.3	9	9
Jordan	2.2	5.0	6.8	4.0	2.2	38.2	58.7	3.1	0.7	0.1	4	29
Kazakhstan	14.9	14.9	15.1	0.0	0.1	26.1	66.4	7.5	0.4	0.1	10	15
Kenya	16.6	30.7	37.5	2.9	1.4	43.0	54.3	2.7	0.8	0.1	15	35
Korea, Dem. Rep.	17.2	22.4	24.2	1.3	0.6	27.1	67.1	5.8	0.4	0.1	11	18
Korea, Rep.	38.1	47.3	50.3	1.0	0.4	21.3	71.8	7.0	0.3	0.1	6	13
Kuwait	1.4	2.0	2.7	1.9	2.1	32.2	65.5	2.3	0.5	0.0	2	20
Kyrgyz Republic	3.6	5.0	5.8	1.5	1.1	33.4	60.6	6.0	0.6	0.1	7	20
Lao PDR	3.2	5.4	7.3	2.5	2.2	42.4	54.1	3.5	0.8	0.1	13	36
Latvia	2.5	2.4	2.1	–0.4	–0.7	16.5	68.6	14.9	0.3	0.2	14	8
Lebanon	3.0	4.4	5.2	1.8	1.2	31.5	62.6	5.9	0.5	0.1	6	20
Lesotho	1.4	2.1	2.3	2.0	0.8	39.7	56.1	4.3	0.7	0.1	18	32
Liberia	1.9	3.2	4.4	2.6	2.3	44.5	52.8	2.8	0.8	0.1	19	44
Libya	3.0	5.4	7.0	2.7	1.9	33.6	62.9	3.5	0.5	0.1	4	27
Lithuania	3.4	3.5	3.4	0.1	–0.2	18.9	67.4	13.7	0.3	0.2	12	9
Macedonia, FYR	1.9	2.0	2.2	0.4	0.4	22.2	67.5	10.2	0.3	0.1	8	13
Madagascar	8.9	16.0	22.5	2.8	2.5	44.8	52.2	3.0	0.9	0.1	12	39
Malawi	6.2	10.5	13.6	2.5	1.8	44.4	52.0	3.6	0.8	0.1	24	45
Malaysia	13.8	23.8	29.6	2.6	1.5	33.7	62.1	4.2	0.5	0.1	4	22
Mali	6.6	11.1	14.9	2.5	2.1	47.1	49.9	3.0	0.9	0.1	21	46
Mauritania	1.6	2.7	3.8	2.7	2.3	43.9	52.9	3.2	0.8	0.1	15	41
Mauritius	1.0	1.2	1.4	1.0	0.9	25.5	68.3	6.2	0.4	0.1	7	16
Mexico	67.6	99.4	121.1	1.8	1.4	33.6	61.4	5.0	0.6	0.1	5	24
Moldova	4.0	4.3	4.1	0.3	–0.2	21.8	67.1	11.0	0.3	0.2	9	9
Mongolia	1.7	2.4	2.9	1.8	1.3	33.2	62.7	4.0	0.5	0.1	6	22
Morocco	19.4	29.2	35.4	1.9	1.4	34.1	61.7	4.2	0.6	0.1	6	22
Mozambique	12.1	18.1	22.7	1.9	1.6	42.8	53.5	3.7	0.8	0.1	21	40
Myanmar	33.7	48.3	55.9	1.7	1.0	32.7	62.7	4.6	0.5	0.1	12	24
Namibia	1.0	1.8	2.1	2.8	1.2	41.7	54.6	3.8	0.8	0.1	19	35
Nepal	14.6	23.6	31.1	2.3	2.0	40.7	55.5	3.8	0.7	0.1	10	32
Netherlands	14.2	16.0	16.9	0.6	0.4	18.5	67.9	13.7	0.3	0.2	9	13
New Zealand	3.1	3.8	4.1	1.0	0.5	22.3	65.9	11.8	0.3	0.2	7	15
Nicaragua	2.9	5.2	7.0	2.8	2.1	42.1	54.9	3.1	0.8	0.1	5	30
Niger	5.6	11.2	16.6	3.3	2.8	49.0	48.7	2.4	1.0	0.0	20	50
Nigeria	71.1	129.9	169.4	2.9	1.9	43.9	53.5	2.6	0.8	0.0	17	39
Norway	4.1	4.5	4.8	0.5	0.4	20.0	65.0	15.1	0.3	0.2	10	13
Oman	1.1	2.5	3.4	3.9	2.2	43.2	54.2	2.5	0.8	0.0	3	27
Pakistan	82.7	141.5	192.8	2.6	2.2	41.2	55.5	3.3	0.8	0.1	8	33
Panama	2.0	2.9	3.5	1.9	1.3	30.9	63.5	5.6	0.5	0.1	5	21
Papua New Guinea	3.1	5.3	6.8	2.5	1.9	39.9	57.6	2.5	0.7	0.0	10	32
Paraguay	3.1	5.6	7.5	2.8	2.1	39.1	57.3	3.5	0.7	0.1	5	30
Peru	17.3	26.3	31.6	2.0	1.3	32.9	62.2	4.9	0.5	0.1	6	24
Philippines	48.0	78.3	98.2	2.3	1.6	36.9	59.2	3.9	0.6	0.1	6	26
Poland	35.6	38.6	38.4	0.4	0.0	18.8	69.0	12.2	0.3	0.2	9	10
Portugal	9.8	10.0	9.9	0.1	–0.1	17.1	67.6	15.2	0.3	0.2	10	11
Puerto Rico	3.2	3.8	4.2	0.9	0.7	23.8	66.1	10.1	0.4	0.2	8	15

2.1 Population dynamics

	Total population			Average annual population growth rate		Population age composition			Dependency ratio		Crude death rate	Crude birth rate
						Ages 0–14	Ages 15–64	Ages 65+	dependents as proportion of working–age population			
	millions			%		%	%	%	Young	Old	per 1,000 people	per 1,000 people
	1980	2001	2015	1980–2001	2001–15	2001	2001	2001	2001	2001	2001	2001
Romania	22.2	22.4	21.4	0.0	–0.3	17.7	68.8	13.5	0.3	0.2	12	10
Russian Federation	139.0	144.8	134.5	0.2	–0.5	17.5	69.9	12.5	0.3	0.2	16	9
Rwanda	5.2	8.7	10.9	2.5	1.6	47.6	49.3	3.1	1.0	0.1	22	44
Saudi Arabia	9.4	21.4	32.1	3.9	2.9	40.9	56.2	2.9	0.7	0.1	4	33
Senegal	5.5	9.8	13.0	2.7	2.0	44.4	52.9	2.7	0.9	0.1	13	36
Sierra Leone	3.2	5.1	6.7	2.2	1.9	44.6	52.9	2.6	0.9	0.0	25	44
Singapore	2.4	4.1	4.8	2.6	1.1	21.5	71.2	7.3	0.3	0.1	4	12
Slovak Republic	5.0	5.4	5.4	0.4	0.0	19.3	69.3	11.3	0.3	0.2	10	10
Slovenia	1.9	2.0	1.9	0.2	–0.2	15.7	70.2	14.2	0.2	0.2	9	9
Somalia	6.5	9.1	14.0	1.6	3.1	47.9	49.7	2.4	1.0	0.0	17	50
South Africa	27.6	43.2	45.8	2.1	0.4	32.3	63.1	4.6	0.5	0.1	18	25
Spain	37.4	41.1	41.4	0.5	0.0	15.0	68.1	16.9	0.2	0.2	9	10
Sri Lanka	14.6	18.7	21.9	1.2	1.1	26.0	67.6	6.4	0.4	0.1	6	18
Sudan	19.3	31.7	42.1	2.4	2.0	39.9	56.6	3.5	0.7	0.1	11	34
Swaziland	0.6	1.1	1.3	3.0	1.2	42.2	55.0	2.8	0.8	0.1	17	35
Sweden	8.3	8.9	8.9	0.3	0.0	17.9	64.6	17.5	0.3	0.3	10	10
Switzerland	6.3	7.2	7.2	0.6	–0.1	16.8	67.8	15.4	0.3	0.2	8	10
Syrian Arab Republic	8.7	16.6	22.1	3.1	2.1	40.0	56.9	3.1	0.7	0.1	4	29
Tajikistan	4.0	6.2	7.7	2.2	1.5	38.6	57.0	4.4	0.7	0.1	6	21
Tanzania	18.6	34.4	43.9	2.9	1.7	45.2	52.4	2.4	0.9	0.0	18	39
Thailand	46.7	61.2	66.3	1.3	0.6	23.6	70.1	6.3	0.3	0.1	8	15
Togo	2.5	4.7	6.0	2.9	1.9	43.9	53.0	3.2	0.8	0.1	15	35
Trinidad and Tobago	1.1	1.3	1.5	0.9	0.8	24.9	68.8	6.3	0.4	0.1	7	15
Tunisia	6.4	9.7	11.6	2.0	1.3	28.9	65.1	5.9	0.5	0.1	6	17
Turkey	44.5	66.2	77.7	1.9	1.1	28.3	65.9	5.8	0.4	0.1	7	20
Turkmenistan	2.9	5.4	6.4	3.1	1.1	36.6	59.1	4.3	0.6	0.1	7	20
Uganda	12.8	22.8	32.0	2.7	2.4	49.0	49.1	1.9	1.0	0.0	18	45
Ukraine	50.0	49.1	44.7	–0.1	–0.7	17.1	68.6	14.3	0.3	0.2	15	8
United Arab Emirates	1.0	3.0	3.8	5.0	1.8	26.1	71.2	2.7	0.4	0.0	4	17
United Kingdom	56.3	58.8	58.9	0.2	0.0	18.6	65.4	16.1	0.3	0.2	11	11
United States	227.2	285.3	319.9	1.1	0.8	21.2	66.2	12.6	0.3	0.2	9	15
Uruguay	2.9	3.4	3.7	0.7	0.6	24.7	62.7	12.6	0.4	0.2	10	16
Uzbekistan	16.0	25.1	30.0	2.2	1.3	36.5	59.0	4.5	0.6	0.1	6	21
Venezuela, RB	15.1	24.6	30.3	2.3	1.5	33.5	62.1	4.4	0.6	0.1	5	23
Vietnam	53.7	79.5	94.4	1.9	1.2	32.4	62.3	5.3	0.5	0.1	6	19
West Bank and Gaza	..	3.1	4.8	..	3.2	46.6	50.1	3.3	1.0	0.1	4	37
Yemen, Rep.	8.5	18.0	27.3	3.6	3.0	46.2	51.0	2.8	0.9	0.1	11	41
Yugoslavia, Fed. Rep.	9.8	10.7	10.7	0.4	0.1	20.1	66.2	13.7	0.3	0.2	11	12
Zambia	5.7	10.3	12.2	2.8	1.2	45.1	52.7	2.2	0.9	0.0	22	39
Zimbabwe	7.1	12.8	14.0	2.8	0.6	44.6	52.2	3.2	0.9	0.1	20	29
World	**4,429.6 s**	**6,130.1 s**	**7,093.9 s**	**1.5 w**	**1.0 w**	**29.6 w**	**63.4 w**	**7.0 w**	**0.5 w**	**0.1 w**	**9 w**	**21 w**
Low income	1,613.4	2,505.9	3,090.9	2.1	1.5	36.4	59.2	4.4	0.6	0.1	11	29
Middle income	1,988.8	2,667.2	3,001.1	1.4	0.8	27.1	66.0	6.9	0.4	0.1	8	17
Lower middle income	1,626.4	2,163.5	2,413.0	1.4	0.8	26.7	66.4	6.9	0.4	0.1	8	17
Upper middle income	362.4	503.6	588.1	1.6	1.1	29.0	64.4	6.6	0.4	0.1	7	20
Low & middle income	3,601.6	5,172.3	6,091.9	1.7	1.2	31.6	62.7	5.7	0.5	0.1	9	23
East Asia & Pacific	1,359.4	1,822.5	2,041.3	1.4	0.8	26.8	66.8	6.4	0.4	0.1	7	17
Europe & Central Asia	425.8	474.6	476.6	0.5	0.0	21.4	67.6	11.0	0.3	0.2	12	12
Latin America & Carib.	359.9	523.6	625.7	1.8	1.3	31.3	63.2	5.5	0.5	0.1	6	22
Middle East & N. Africa	174.0	300.6	387.7	2.6	1.8	36.2	59.8	4.0	0.6	0.1	6	26
South Asia	901.3	1,377.8	1,680.0	2.0	1.4	34.6	60.8	4.6	0.6	0.1	9	26
Sub-Saharan Africa	381.7	673.9	880.6	2.7	1.9	44.0	53.0	3.0	0.8	0.1	17	39
High income	827.4	957.0	1,001.9	0.7	0.3	18.4	67.3	14.3	0.3	0.2	9	12
Europe EMU	286.7	306.7	306.0	0.3	0.0	16.2	67.3	16.5	0.2	0.2	10	10

a. Estimate does not account for recent refugee flows.

2.1 Population dynamics

About the data

Population estimates are usually based on national population censuses, but the frequency and quality of these vary by country. Most countries conduct a complete enumeration no more than once a decade. Pre- and postcensus estimates are interpolations or extrapolations based on demographic models. Errors and undercounting occur even in high-income countries; in developing countries such errors may be substantial because of limits in the transport, communications, and other resources required to conduct a full census. The quality and reliability of official demographic data are also affected by the public trust in the government, the government's commitment to full and accurate enumeration, the confidentiality and protection against misuse accorded to census data, and the independence of census agencies from undue political influence. Moreover, the international comparability of population indicators is limited by differences in the concepts, definitions, data collection procedures, and estimation methods used by national statistical agencies and other organizations that collect population data.

Of the 152 economies listed in the table, 123 (about 81 percent) conducted a census between 1995 and 2002. The currentness of a census, along with the availability of complementary data from surveys or registration systems, is one of many objective ways to judge the quality of demographic data. In some European countries registration systems offer complete information on population in the absence of a census. See *Primary data documentation* for the most recent census or survey year and for the completeness of registration.

Current population estimates for developing countries that lack recent census-based data, and pre- and postcensus estimates for countries with census data, are provided by national statistical offices, the United Nations Population Division, and other agencies. The standard estimation method requires fertility, mortality, and net migration data, which are often collected from sample surveys, some of which may be small or limited in coverage. The population estimates are the product of demographic modeling and so are susceptible to biases and errors because of shortcomings in the model as well as in the data. Population projections are made using the cohort component method.

The growth rate of the total population conceals the fact that different age groups may grow at very different rates. In many developing countries the population under 15 was earlier growing rapidly but is now starting to shrink. Previously high fertility rates and declining mortality rates are now reflected in the larger share of the working-age population.

Dependency ratios take into account the variations in the proportions of children, elderly people, and working-age people in the population. Separate calculations of young-age and old-age dependency suggest the burden of dependency that the working-age population must bear in relation to children and the elderly. But dependency ratios show the age composition of a population, not economic dependency. Some children and elderly people are part of the labor force, and many working-age people are not.

The vital rates shown in the table are based on data derived from birth and death registration systems, censuses, and sample surveys conducted by national statistical offices, United Nations agencies, and other organizations. The estimates for 2001 for many countries are based on extrapolations of levels and trends measured in earlier years.

Vital registers are the preferred source of these data, but in many developing countries systems for registering births and deaths do not exist or are incomplete because of deficiencies in the coverage of events or of geographic areas. Many developing countries carry out special household surveys that estimate vital rates by asking respondents about births and deaths in the recent past. Estimates derived in this way are subject to sampling errors as well as errors due to inaccurate recall by the respondents.

The United Nations Statistics Division monitors the completeness of vital registration systems. The share of countries with at least 90 percent complete vital registration increased from 45 percent in 1988 to 55 percent in 2001. Still, some of the most populous developing countries—China, India, Indonesia, Brazil, Pakistan, Bangladesh, Nigeria—do not have complete vital registration systems. Fewer than 30 percent of births and 40 percent of deaths worldwide are thought to be registered and reported.

International migration is the only other factor besides birth and death rates that directly determines a country's population growth. In the high-income countries about 40 percent of annual population growth in 1990–95 was due to migration, while in the developing countries migration reduced population growth by about 3 percent. Estimating international migration is difficult. At any time many people are located outside their home country as tourists, workers, or refugees or for other reasons. Standards relating to the duration and purpose of international moves that qualify as migration vary, and accurate estimates require information on flows into and out of countries that is difficult to collect.

Definitions

• **Total population** of an economy includes all residents regardless of legal status or citizenship—except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. The values shown are midyear estimates for 1980 and 2001 and projections for 2015. • **Average annual population growth rate** is the exponential change for the period indicated. See *Statistical methods* for more information. • **Population age composition** refers to the percentage of the total population that is in specific age groups. • **Dependency ratio** is the ratio of dependents—people younger than 15 or older than 64—to the working-age population—those ages 15–64. • **Crude death rate** and **crude birth rate** are the number of deaths and the number of live births occurring during the year, per 1,000 population estimated at midyear. Subtracting the crude death rate from the crude birth rate provides the rate of natural increase, which is equal to the population growth rate in the absence of migration.

Data sources

The World Bank's population estimates are produced by its Human Development Network and Development Data Group in consultation with its operational staff and country offices. Important inputs to the World Bank's demographic work come from the following sources: census reports and other statistical publications from national statistical offices; Demographic and Health Surveys conducted by national agencies, Macro International, and the U.S. Centers for Disease Control and Prevention; United Nations Statistics Division, *Population and Vital Statistics Report* (quarterly); United Nations Population Division, *World Population Prospects: The 2000 Revision*; Eurostat, *Demographic Statistics* (various years); Centro Latinoamericano de Demografía, *Boletín Demográfico* (various years); and U.S. Bureau of the Census, International Database.

2.2 Labor force structure

	Population ages 15–64		Labor force						
	millions		Total millions			Average annual growth rate %		Female % of labor force	
	1980	2001	1980	2001	2010	1980–2001	2001–10	1980	2001
Afghanistan	8.5	14.6 [a]	6.8	11.4 [a]	14.1	2.5	2.3	34.8	35.7
Albania	1.6	2.0	1.2	1.6	1.8	1.3	1.5	38.8	41.4
Algeria	9.3	18.7	4.8	10.6	14.3	3.7	3.4	21.4	28.3
Angola	3.7	6.7	3.5	6.2	8.1	2.7	3.0	47.0	46.3
Argentina	17.2	23.5	10.7	15.4	18.5	1.7	2.1	27.6	33.8
Armenia	2.0	2.6	1.4	1.9	2.2	1.4	1.2	47.9	48.6
Australia	9.6	13.1	6.7	9.9	10.6	1.8	0.7	36.8	43.9
Austria	4.8	5.5	3.4	3.8	3.8	0.5	0.0	40.5	40.4
Azerbaijan	3.7	5.2	2.7	3.7	4.3	1.4	1.7	47.5	44.6
Bangladesh	44.8	79.6	40.3	70.8	86.0	2.7	2.2	42.3	42.4
Belarus	6.4	6.8	5.1	5.3	5.3	0.2	0.0	49.9	49.0
Belgium	6.5	6.8	3.9	4.3	4.2	0.4	–0.1	33.9	41.0
Benin	1.8	3.3	1.7	2.9	3.7	2.7	2.8	47.0	48.3
Bolivia	2.9	4.8	2.0	3.5	4.3	2.6	2.4	33.3	37.9
Bosnia and Herzegovina	2.7	2.9	1.6	1.9	2.0	0.8	0.7	32.8	38.1
Botswana	0.4	0.9	0.4	0.8	0.8	3.1	0.8	50.1	45.2
Brazil	70.3	114.3	47.7	80.7	89.9	2.5	1.2	28.4	35.5
Bulgaria	5.8	5.6	4.6	4.1	3.8	–0.6	–0.7	45.3	48.1
Burkina Faso	3.4	5.8	3.8	5.7	6.7	1.9	1.9	47.6	46.5
Burundi	2.1	3.6	2.3	3.8	4.6	2.5	2.2	50.2	48.6
Cambodia	3.9	6.6	3.7	6.5	7.9	2.7	2.2	55.4	51.6
Cameroon	4.5	8.4	3.6	6.2	7.5	2.5	2.1	36.8	38.1
Canada	16.7	21.3	12.2	16.7	17.5	1.5	0.6	39.5	45.9
Central African Republic	1.3	2.0	1.2	1.8	2.1	1.9	1.5	..	..
Chad	2.3	3.7	2.2	3.8	5.0	2.6	3.0	43.4	44.8
Chile	6.8	10.0	3.8	6.3	7.5	2.4	1.9	26.3	34.1
China	586.3	865.4	538.7	763.2	818.3	1.7	0.8	43.2	45.2
Hong Kong, China	3.4	4.8	2.5	3.6	3.7	1.7	0.5	34.3	37.2
Colombia	15.8	27.0	9.4	18.9	23.0	3.3	2.1	26.2	38.9
Congo, Dem. Rep.	13.8	26.1	12.0	21.6	28.2	2.8	2.9	44.5	43.4
Congo, Rep.	0.9	1.6	0.7	1.3	1.7	2.9	3.0	42.4	43.5
Costa Rica	1.3	2.4	0.8	1.6	1.9	3.2	2.0	20.8	31.4
Côte d'Ivoire	4.2	9.0	3.3	6.6	8.0	3.3	2.2	32.2	33.5
Croatia	3.1	3.0	2.2	2.1	2.0	–0.2	–0.3	40.2	44.3
Cuba	5.9	7.7	3.7	5.6	5.9	1.9	0.7	31.4	39.7
Czech Republic	6.5	7.2	5.3	5.7	5.5	0.4	–0.4	47.1	47.3
Denmark	3.3	3.6	2.7	2.9	2.8	0.4	–0.5	44.0	46.4
Dominican Republic	3.1	5.3	2.1	3.8	4.6	2.8	2.2	24.7	31.1
Ecuador	4.2	8.0	2.5	5.1	6.5	3.3	2.6	20.1	28.4
Egypt, Arab Rep.	23.1	39.8	14.3	25.2	32.2	2.7	2.7	26.5	30.7
El Salvador	2.4	3.8	1.6	2.8	3.6	2.8	2.8	26.5	36.9
Eritrea	1.3	2.2	1.2	2.1	2.7	2.6	2.6	47.4	47.4
Estonia	1.0	0.9	0.8	0.8	0.8	–0.3	–0.2	50.6	49.0
Ethiopia	19.9	33.6	16.9	28.3	34.6	2.4	2.2	42.3	40.9
Finland	3.2	3.5	2.4	2.6	2.5	0.3	–0.6	46.5	48.1
France	34.4	38.5	23.8	26.8	27.6	0.6	0.3	40.1	45.2
Gabon	0.4	0.7	0.4	0.6	0.7	2.2	1.9	45.0	44.7
Gambia, The	0.3	0.8	0.3	0.7	0.8	3.4	2.2	44.8	45.1
Georgia	3.3	3.3	2.6	..	2.5	..	..	49.3	46.8
Germany	51.6	56.1	37.5	41.0	40.9	0.4	0.0	40.1	42.4
Ghana	5.5	10.2	5.1	9.4	11.2	2.9	2.0	51.0	50.4
Greece	6.2	7.1	3.8	4.6	4.7	0.9	0.4	27.9	38.0
Guatemala	3.5	6.2	2.3	4.4	6.0	3.0	3.5	22.4	29.5
Guinea	2.3	4.0	2.3	3.6	4.3	2.1	2.0	47.1	47.2
Guinea-Bissau	0.4	0.6	0.4	0.6	0.7	1.9	2.3	39.9	40.5
Haiti	2.9	4.6	2.5	3.6	4.2	1.6	1.7	44.6	42.9

Labor force structure 2.2

	Population ages 15–64		Labor force						
	millions		Total millions			Average annual growth rate %		Female % of labor force	
	1980	2001	1980	2001	2010	1980–2001	2001–10	1980	2001
Honduras	1.8	3.6	1.2	2.5	3.5	3.5	3.6	25.2	32.2
Hungary	6.9	6.9	5.1	4.9	4.6	–0.2	–0.8	43.3	44.7
India	394.5	637.9	299.5	460.5	543.6	2.0	1.8	33.7	32.4
Indonesia	83.2	136.1	58.6	102.0	122.0	2.6	2.0	35.2	41.0
Iran, Islamic Rep.	20.5	40.5	11.7	20.4	27.7	2.6	3.4	20.4	27.8
Iraq	6.7	13.3	3.5	6.6	8.6	3.0	2.8	17.3	20.0
Ireland	2.0	2.6	1.3	1.6	1.9	1.3	1.4	28.1	34.8
Israel	2.3	4.0	1.5	2.8	3.5	3.1	2.5	33.7	41.5
Italy	36.4	38.8	22.6	25.8	24.8	0.6	–0.4	32.9	38.6
Jamaica	1.1	1.6	1.0	1.4	1.6	1.7	1.5	46.3	46.2
Japan	78.7	86.2	57.2	68.2	66.0	0.8	–0.4	37.9	41.6
Jordan	1.0	2.9	0.5	1.5	2.0	5.1	3.4	14.7	25.1
Kazakhstan	9.1	10.0	7.0	7.3	7.7	0.2	0.5	47.6	47.1
Kenya	7.8	16.6	7.8	15.9	19.0	3.4	2.0	46.0	46.1
Korea, Dem. Rep.	10.5	15.0	7.5	11.7	12.3	2.1	0.6	44.8	43.3
Korea, Rep.	23.7	34.1	15.5	24.3	26.6	2.1	1.0	38.7	41.6
Kuwait	0.8	1.3	0.5	0.8	1.2	2.5	3.9	13.1	31.7
Kyrgyz Republic	2.1	3.0	1.5	2.2	2.6	1.6	2.0	47.5	47.3
Lao PDR	1.8	2.9	1.7	2.6	3.3	2.1	2.6	..	..
Latvia	1.7	1.6	1.4	1.3	1.3	–0.5	–0.4	50.8	50.5
Lebanon	1.6	2.7	0.8	1.6	2.0	2.9	2.6	22.6	29.9
Lesotho	0.7	1.2	0.6	0.9	0.9	1.9	1.2	37.9	37.0
Liberia	1.0	1.7	0.8	1.3	1.5	2.3	1.9	38.4	39.6
Libya	1.6	3.4	0.9	1.6	1.9	2.4	2.4	18.6	23.6
Lithuania	2.2	2.4	1.8	1.8	1.8	0.0	0.1	49.7	48.0
Macedonia, FYR	1.2	1.4	0.8	1.0	1.0	0.8	0.6	36.1	41.8
Madagascar	4.6	8.3	4.3	7.6	9.7	2.7	2.8	45.2	44.7
Malawi	3.1	5.5	3.1	5.1	6.0	2.3	1.9	50.6	48.5
Malaysia	7.8	14.7	5.3	10.0	12.8	3.0	2.8	33.7	38.1
Mali	3.3	5.5	3.4	5.4	6.6	2.2	2.2	46.7	46.2
Mauritania	0.8	1.4	0.7	1.3	1.6	2.5	2.5	45.0	43.5
Mauritius	0.6	0.8	0.3	0.5	0.6	2.0	1.1	25.7	32.8
Mexico	34.5	61.0	22.0	41.3	50.9	3.0	2.3	26.9	33.5
Moldova	2.6	2.9	2.1	2.2	2.2	0.1	0.1	50.3	48.5
Mongolia	0.9	1.5	0.8	1.2	1.5	2.2	2.1	45.7	47.1
Morocco	10.2	18.0	7.0	11.8	14.7	2.5	2.5	33.5	34.8
Mozambique	6.4	9.6	6.7	9.4	11.1	1.6	1.9	49.0	48.4
Myanmar	18.6	30.3	17.1	25.8	29.4	2.0	1.5	43.7	43.4
Namibia	0.5	1.0	0.4	0.7	0.8	2.6	1.3	40.1	40.9
Nepal	8.1	13.1	7.1	11.0	13.6	2.1	2.4	38.8	40.5
Netherlands	9.4	10.9	5.6	7.4	7.6	1.3	0.2	31.5	40.8
New Zealand	2.0	2.5	1.3	1.9	2.0	1.8	0.6	34.3	45.1
Nicaragua	1.5	2.8	1.0	2.1	2.9	3.6	3.4	27.6	36.3
Niger	2.7	5.4	2.8	5.3	6.9	3.0	3.0	44.6	44.3
Nigeria	37.0	69.4	29.5	51.6	63.1	2.7	2.2	36.2	36.6
Norway	2.6	2.9	1.9	2.3	2.4	0.9	0.3	40.5	46.5
Oman	0.6	1.3	0.3	0.7	0.8	3.3	2.6	6.2	18.0
Pakistan	45.4	78.5	29.3	53.5	71.4	2.9	3.2	22.7	29.0
Panama	1.1	1.8	0.7	1.2	1.5	2.8	2.0	29.9	35.5
Papua New Guinea	1.7	3.0	1.5	2.6	3.1	2.5	2.2	41.7	42.3
Paraguay	1.7	3.2	1.1	2.1	2.8	3.0	2.9	26.7	30.2
Peru	9.4	16.4	5.4	10.1	12.7	3.0	2.5	23.9	31.6
Philippines	25.8	46.2	18.7	33.3	41.5	2.7	2.4	35.0	37.9
Poland	23.3	26.7	18.5	19.9	20.1	0.3	0.1	45.3	46.4
Portugal	6.2	6.8	4.6	5.1	5.0	0.5	–0.1	38.7	44.1
Puerto Rico	1.9	2.5	1.0	1.5	1.6	1.7	1.2	31.8	37.5

2.2 Labor force structure

	Population ages 15–64		Labor force						
	millions		Total millions			Average annual growth rate %		Female % of labor force	
	1980	2001	1980	2001	2010	1980–2001	2001–10	1980	2001
Romania	14.0	15.4	10.9	10.8	10.6	–0.1	–0.1	45.8	44.5
Russian Federation	94.7	101.3	76.0	77.6	77.0	0.1	–0.1	49.4	49.2
Rwanda	2.5	4.3	2.6	4.7	5.6	2.8	1.9	49.1	48.8
Saudi Arabia	5.0	12.0	2.8	7.1	9.6	4.5	3.4	7.6	16.9
Senegal	2.9	5.2	2.5	4.4	5.3	2.6	2.2	42.2	42.6
Sierra Leone	1.7	2.7	1.2	1.9	2.3	2.0	2.2	35.5	37.0
Singapore	1.6	2.9	1.1	2.0	2.2	2.9	0.9	34.6	39.2
Slovak Republic	3.2	3.7	2.5	3.0	3.0	0.9	0.2	45.3	47.7
Slovenia	1.2	1.4	1.0	1.0	1.0	0.3	–0.3	45.8	46.5
Somalia	3.3	4.5	3.0	3.9	5.2	1.3	3.2	43.4	43.4
South Africa	15.2	27.2	10.3	17.2	18.4	2.4	0.7	35.1	37.9
Spain	23.5	27.7	14.0	18.2	18.6	1.3	0.3	28.3	37.3
Sri Lanka	8.9	12.6	5.4	8.3	9.6	2.0	1.7	26.9	36.8
Sudan	10.2	18.0	7.1	12.7	16.2	2.8	2.7	26.9	29.8
Swaziland	0.3	0.6	0.2	0.4	0.5	3.2	1.9	33.5	37.8
Sweden	5.3	5.7	4.2	4.8	4.7	0.6	–0.2	43.8	48.0
Switzerland	4.2	4.9	3.1	3.9	3.9	1.2	0.0	36.7	40.6
Syrian Arab Republic	4.2	9.4	2.5	5.4	7.5	3.7	3.8	23.5	27.3
Tajikistan	2.1	3.6	1.5	2.5	3.3	2.3	3.0	46.9	45.0
Tanzania	9.3	18.0	9.5	17.7	21.1	3.0	2.0	49.8	49.0
Thailand	26.9	42.8	24.4	37.2	39.7	2.0	0.7	47.4	46.3
Togo	1.3	2.4	1.1	1.9	2.3	2.7	2.2	39.3	40.0
Trinidad and Tobago	0.7	0.9	0.4	0.6	0.7	1.6	1.6	31.4	34.6
Tunisia	3.5	6.3	2.2	3.9	4.8	2.7	2.4	28.9	31.9
Turkey	24.9	43.6	18.7	31.9	37.1	2.5	1.7	35.5	37.8
Turkmenistan	1.6	3.2	1.2	2.4	2.9	3.3	2.0	47.0	45.9
Uganda	6.4	11.2	6.6	11.2	14.1	2.5	2.6	47.9	47.6
Ukraine	33.4	33.7	26.4	25.0	24.3	–0.3	–0.3	50.2	48.8
United Arab Emirates	0.7	2.1	0.6	1.5	1.7	4.6	1.8	5.1	15.3
United Kingdom	36.1	38.4	26.9	29.4	29.3	0.4	–0.1	38.9	44.2
United States	150.6	188.6	110.1	146.7	159.0	1.4	0.9	41.0	46.1
Uruguay	1.8	2.1	1.2	1.5	1.7	1.4	0.9	30.8	42.0
Uzbekistan	8.6	14.8	6.5	10.7	13.2	2.4	2.3	48.0	46.9
Venezuela, RB	8.5	15.3	5.2	10.2	12.8	3.2	2.5	26.7	35.1
Vietnam	28.6	49.5	25.6	41.1	48.0	2.3	1.7	48.1	48.8
West Bank and Gaza	..	1.5	..	..	..	..	..	..	..
Yemen, Rep.	4.0	9.2	2.5	5.7	7.8	4.0	3.4	32.5	28.2
Yugoslavia, Fed. Rep.	6.5	7.0	4.5	5.1	5.2	0.6	0.3	38.7	43.0
Zambia	2.9	5.4	2.4	4.4	5.1	2.9	1.8	45.4	44.7
Zimbabwe	3.5	6.6	3.2	5.9	6.6	2.9	1.1	44.4	44.5
World	**2,600.4 s**	**3,882.1 s**	**2,036.0 s**	**2,983.4 s**	**3,376.7 s**	**1.8 w**	**1.4 w**	**39.1 w**	**40.7 w**
Low income	896.5	1,480.4	710.3	1,138.4	1,367.5	2.2	2.0	37.8	37.9
Middle income	1,174.6	1,759.5	952.2	1,378.4	1,526.5	1.8	1.1	40.2	42.1
Lower middle income	964.2	1,435.8	809.6	1,155.8	1,271.1	1.7	1.1	41.6	43.2
Upper middle income	210.4	323.7	142.6	222.6	255.4	2.1	1.5	32.3	36.3
Low & middle income	2,071.2	3,239.9	1,662.5	2,516.8	2,894.0	2.0	1.6	39.2	40.2
East Asia & Pacific	796.7	1,215.4	703.8	1,037.6	1,140.5	1.8	1.1	42.6	44.5
Europe & Central Asia	274.2	320.4	214.1	236.5	248.1	0.5	0.5	46.7	46.3
Latin America & Carib.	201.1	330.6	129.9	226.8	269.2	2.7	1.9	27.8	35.0
Middle East & N. Africa	91.6	179.9	54.1	102.0	134.1	3.0	3.0	23.8	28.1
South Asia	510.6	836.9	388.7	616.0	738.9	2.2	2.0	33.8	33.5
Sub-Saharan Africa	197.0	356.8	172.0	297.9	363.2	2.6	2.2	42.0	42.0
High income	529.3	642.2	373.4	466.6	482.7	1.1	0.4	38.4	43.3
Europe EMU	184.8	205.6	123.4	142.2	142.6	0.7	0.0	36.4	41.3

a. Estimate does not account for recent refugee flows.

Labor force structure 2.2

About the data

The labor force is the supply of labor available for the production of goods and services in an economy. It includes people who are currently employed and people who are unemployed but seeking work as well as first-time job-seekers. Not everyone who works is included, however. Unpaid workers, family workers, and students are among those usually omitted, and in some countries members of the military are not counted. The size of the labor force tends to vary during the year as seasonal workers enter and leave it.

Data on the labor force are compiled by the International Labour Organization (ILO) from censuses or labor force surveys. For some countries a combination of sources is used, including establishment surveys and data on job-seekers. While the resulting statistics may provide rough estimates of the labor force, they are not comparable across countries because of the noncomparability of the original data.

For international comparisons the most comprehensive source is labor force surveys. Despite the ILO's efforts to encourage the use of international standards, labor force data are not fully comparable, however, because of differences among countries, and sometimes within countries, in their scope and coverage. In some countries data on the labor force refer to people above a specific age, while in others there is no specific age provision. The reference period of the census or survey is another important source of differences: in some countries data refer to people's status on the day of the census or survey or during a specific period before the inquiry date, while in others the data are recorded without reference to any period. In developing countries, where the household is often the basic unit of production and all members contribute to output, but some at low intensity or irregular intervals, the estimated labor force may be significantly smaller than the numbers actually working (ILO, *Yearbook of Labour Statistics 1997*).

The labor force estimates in the table were calculated by World Bank staff by applying economic activity rates from the ILO database to World Bank population estimates to create a series consistent with these population estimates. This procedure sometimes results in estimates of labor force size that differ slightly from those in the ILO's *Yearbook of Labour Statistics*. The population ages 15–64 is often used to provide a rough estimate of the potential labor force. But in many developing countries children under 15 work full or part time. And in some high-income countries many workers postpone retirement past age 65. As a result, labor force participation rates calculated in this way may systematically over- or underestimate actual rates.

In general, estimates of women in the labor force are lower than those of men and are not comparable internationally, reflecting the fact that for women, demographic, social, legal, and cultural trends and norms determine whether their activities are regarded as economic. In many countries large numbers of women work on farms or in other family enterprises without pay, while others work in or near their homes, mixing work and family activities during the day. Countries differ in the criteria used to determine the extent to which such workers are to be counted as part of the labor force. In most economies the gap between male and female labor force participation rates has been narrowing since 1980.

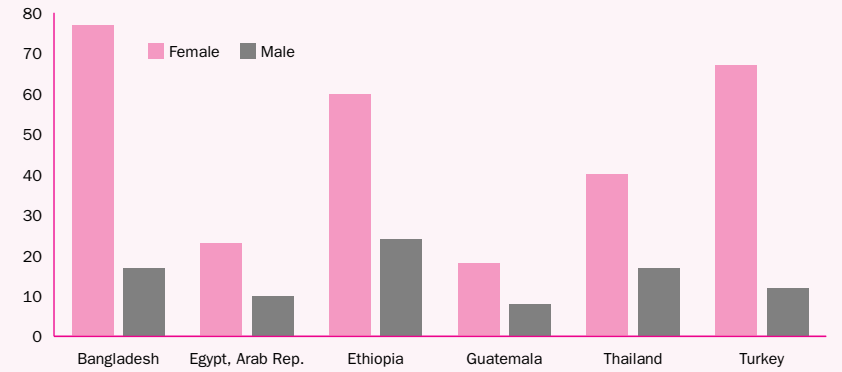
Definitions

• **Population ages 15–64** is the number of people who could potentially be economically active. • **Total labor force** comprises people who meet the ILO definition of the economically active population: all people who supply labor for the production of goods and services during a specified period. It includes both the employed and the unemployed. While national practices vary in the treatment of such groups as the armed forces and seasonal or part-time workers, the labor force generally includes the armed forces, the unemployed, and first-time job-seekers, but excludes homemakers and other unpaid caregivers and workers in the informal sector. • **Average annual growth rate of the labor force** is calculated using the exponential endpoint method (see *Statistical methods* for more information). • **Females as a percentage of the labor force** show the extent to which women are active in the labor force.

2.2a

Women are clustered in unpaid family work

Contributing family workers as % of employment, 1996–2000



Women's participation in the labor force has increased in almost all regions. But more women than men continue to be employed in unpaid family work, with the largest shares being in Africa and Asia.

Note: Data are for most recent year available between 1996 and 2000.
Source: International Labour Organization, Key Indicators of the Labour Market (2001–02 issue).

Data sources

The population estimates are from the World Bank's population database. The economic activity rates are from the ILO database Estimates and Projections of the Economically Active Population, 1950–2010. The ILO publishes estimates of the economically active population in its *Yearbook of Labour Statistics*.

2.3 Employment by economic activity

	Agriculture [a]				Industry [a]				Services [a]			
	Male		Female		Male		Female		Male		Female	
	% of male employment		% of female employment		% of male employment		% of female employment		% of male employment		% of female employment	
	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]
Afghanistan	66	..	86	..	9	..	12	..	26	..	2	..
Albania	..	..	..	..	..	..	..	..	..	..	..	..
Algeria	27	..	69	..	33	..	6	..	40	..	25	..
Angola	67	..	87	..	13	..	1	..	20	..	11	..
Argentina	..	1	..	0 [c]	..	34	..	10	..	65	..	89
Armenia	..	..	..	..	..	..	..	..	..	..	..	..
Australia	8	6	4	3	38	31	16	10	54	63	80	86
Austria	..	6	..	7	..	43	..	14	..	52	..	79
Azerbaijan	..	..	..	..	..	..	..	..	..	..	..	..
Bangladesh	..	52	..	48	..	11	..	20	..	37	..	32
Belarus	..	..	..	..	..	..	..	..	..	..	..	..
Belgium	..	3	..	2	..	37	..	13	..	60	..	86
Benin	66	..	69	..	10	..	4	..	24	..	27	..
Bolivia	52	..	28	..	21	..	19	..	27	..	53	..
Bosnia and Herzegovina	26	..	38	..	45	..	24	..	30	..	39	..
Botswana	6	..	3	..	41	..	8	..	53	..	89	..
Brazil	34	26	19	19	28	27	13	10	37	47	68	71
Bulgaria	..	..	..	..	..	..	..	..	..	..	..	..
Burkina Faso	92	..	93	..	3	..	2	..	5	..	5	..
Burundi	..	..	..	..	..	..	..	..	..	..	..	..
Cambodia	..	..	..	..	..	..	..	..	..	..	..	..
Cameroon	65	..	87	..	11	..	2	..	24	..	11	..
Canada	7	5	3	2	35	32	14	11	58	63	83	87
Central African Republic	79	..	90	..	5	..	1	..	15	..	9	..
Chad	82	..	95	..	6	..	0 [c]	..	12	..	4	..
Chile	22	19	3	5	21	31	12	14	57	49	86	82
China	..	..	..	..	..	..	..	..	..	..	..	..
Hong Kong, China	1	0 [c]	1	0 [c]	44	28	52	12	55	71	47	88
Colombia	2	2	1	1	39	30	26	20	59	68	74	80
Congo, Dem. Rep.	62	..	84	..	18	..	4	..	20	..	12	..
Congo, Rep.	42	..	81	..	20	..	2	..	38	..	17	..
Costa Rica	38	22	6	4	21	27	20	17	40	51	73	79
Côte d'Ivoire	60	..	75	..	10	..	5	..	30	..	20	..
Croatia	..	16	..	17	..	38	..	22	..	46	..	61
Cuba	30	..	10	..	32	..	22	..	39	..	68	..
Czech Republic	13	6	11	4	57	49	39	28	30	48	50	69
Denmark	11	5	4	2	41	37	16	15	48	58	80	83
Dominican Republic	..	24	..	3	..	27	..	20	..	49	..	77
Ecuador	..	11	..	2	..	26	..	14	..	63	..	84
Egypt, Arab Rep.	42	29	9	35	23	25	13	9	35	46	72	56
El Salvador	51	37	10	6	21	24	21	25	28	38	69	69
Eritrea	79	..	88	..	7	..	2	..	14	..	11	..
Estonia	..	11	..	7	..	40	..	23	..	49	..	70
Ethiopia	..	..	..	..	..	..	..	..	..	..	..	..
Finland	15	8	11	4	44	40	22	14	41	52	68	82
France	2	2	1	1	49	35	23	13	49	63	76	86
Gabon	59	..	74	..	18	..	6	..	24	..	21	..
Gambia, The	78	..	93	..	10	..	3	..	13	..	5	..
Georgia	..	..	..	..	..	..	..	..	..	..	..	..
Germany	..	3	..	2	..	46	..	19	..	50	..	79
Ghana	..	..	..	..	..	..	..	..	..	..	..	..
Greece	25	16	38	20	34	29	18	12	41	54	43	67
Guatemala	..	37	..	14	..	26	..	19	..	38	..	68
Guinea	86	..	97	..	2	..	1	..	12	..	3	..
Guinea-Bissau	81	..	98	..	3	..	0	..	17	..	3	..
Haiti	81	..	53	..	8	..	8	..	11	..	39	..

2.3 Employment by economic activity

	Agriculture [a]				Industry [a]				Services [a]			
	Male		Female		Male		Female		Male		Female	
	% of male employment		% of female employment		% of male employment		% of female employment		% of male employment		% of female employment	
	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]
Honduras	..	50	..	9	..	21	..	25	..	30	..	67
Hungary	26	9	18	4	44	42	32	25	31	48	41	71
India	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	55	..	54	..	15	..	14	..	30	..	32	..
Iran, Islamic Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Iraq	21	..	62	..	24	..	11	..	55	..	28	..
Ireland	..	12	..	2	..	38	..	15	..	50	..	83
Israel	7	3	3	1	39	35	15	13	54	61	81	86
Italy	12	6	13	5	42	39	27	21	46	55	60	74
Jamaica	47	30	23	10	20	26	8	9	33	45	69	81
Japan	8	5	12	6	39	38	28	22	52	57	60	73
Jordan	..	..	..	..	..	..	..	..	..	..	..	..
Kazakhstan	..	..	..	..	..	..	..	..	..	..	..	..
Kenya	23	20	25	16	24	23	9	10	53	57	65	75
Korea, Dem. Rep.	39	..	52	..	37	..	20	..	24	..	28	..
Korea, Rep.	30	10	36	13	32	34	22	19	39	56	42	68
Kuwait	2	..	0	..	36	..	3	..	62	..	97	..
Kyrgyz Republic	..	52	..	53	..	14	..	8	..	34	..	38
Lao PDR	77	..	82	..	7	..	4	..	16	..	13	..
Latvia	..	17	..	14	..	35	..	18	..	49	..	69
Lebanon	13	..	20	..	29	..	21	..	58	..	59	..
Lesotho	26	..	64	..	52	..	5	..	22	..	31	..
Liberia	69	..	89	..	9	..	1	..	22	..	10	..
Libya	16	..	63	..	29	..	3	..	55	..	34	..
Lithuania	..	24	..	16	..	33	..	40	..	43	..	63
Macedonia, FYR	..	..	..	..	..	..	..	..	..	..	..	..
Madagascar	73	..	93	..	9	..	2	..	19	..	5	..
Malawi	..	..	..	..	..	..	..	..	..	..	..	..
Malaysia	28	21	37	13	26	33	21	29	46	46	42	58
Mali	86	..	92	..	2	..	1	..	12	..	7	..
Mauritania	65	..	79	..	11	..	2	..	25	..	19	..
Mauritius	29	..	30	..	19	..	40	..	47	..	31	..
Mexico	..	23	..	7	..	29	..	22	..	47	..	71
Moldova	..	..	..	..	..	..	..	..	..	..	..	..
Mongolia	..	..	..	..	..	..	..	..	..	..	..	..
Morocco	..	6	..	6	..	32	..	40	..	63	..	54
Mozambique	72	..	97	..	14	..	1	..	14	..	2	..
Myanmar	..	..	..	..	..	..	..	..	..	..	..	..
Namibia	52	..	42	..	22	..	10	..	27	..	47	..
Nepal	..	..	..	..	..	..	..	..	..	..	..	..
Netherlands	7	4	3	2	39	31	13	9	54	63	84	84
New Zealand	..	11	..	6	..	32	..	12	..	56	..	81
Nicaragua	..	..	..	..	..	..	..	..	..	..	..	..
Niger	7	..	6	..	69	..	29	..	25	..	66	..
Nigeria	..	..	..	..	..	..	..	..	..	..	..	..
Norway	10	6	6	2	40	33	13	9	50	61	82	88
Oman	52	..	24	..	21	..	33	..	27	..	43	..
Pakistan	..	..	..	..	..	..	..	..	..	..	..	..
Panama	37	25	6	2	21	22	12	10	39	52	81	88
Papua New Guinea	76	..	92	..	8	..	2	..	16	..	6	..
Paraguay	2	..	0 [c]	..	35	..	13	..	63	..	86	..
Peru	..	8	..	3	..	25	..	11	..	67	..	86
Philippines	60	47	39	27	15	18	13	13	25	36	48	61
Poland	..	19	..	19	..	41	..	21	..	39	..	60
Portugal	21	11	32	14	45	44	26	24	35	45	42	62
Puerto Rico	8	3	0 [c]	0 [c]	25	28	25	14	67	69	75	85

2.3 Employment by economic activity

	Agriculture [a]				Industry [a]				Services [a]			
	Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment	
	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]	1980–82 [b]	1998–2001 [b]
Romania	22	39	38	45	52	33	35	22	27	29	27	33
Russian Federation	19	15	13	8	50	36	37	23	31	49	50	69
Rwanda	88	..	98	..	5	..	1	..	7	..	1	..
Saudi Arabia	45	..	25	..	17	..	5	..	39	..	70	..
Senegal	74	..	90	..	9	..	2	..	17	..	8	..
Sierra Leone	63	..	82	..	20	..	4	..	17	..	14	..
Singapore	1	0 [c]	1	0 [c]	36	33	38	23	63	67	61	77
Slovak Republic	..	10	..	5	..	49	..	26	..	42	..	69
Slovenia	..	11	..	11	..	46	..	28	..	42	..	61
Somalia	69	..	90	..	12	..	2	..	19	..	8	..
South Africa	..	..	..	..	..	..	..	..	..	..	..	..
Spain	19	8	17	5	40	41	19	14	41	51	64	81
Sri Lanka	44	38	51	49	19	23	18	22	30	37	28	27
Sudan	66	..	88	..	9	..	4	..	24	..	8	..
Swaziland	40	..	38	..	29	..	14	..	30	..	48	..
Sweden	8	4	3	1	44	38	15	12	49	59	82	87
Switzerland	8	5	5	4	47	36	23	13	46	59	72	83
Syrian Arab Republic	..	..	..	..	..	..	..	..	..	..	..	..
Tajikistan	..	..	..	..	..	..	..	..	..	..	..	..
Tanzania	..	..	..	..	..	..	..	..	..	..	..	..
Thailand	60	50	64	47	16	20	11	17	24	31	25	36
Togo	70	..	67	..	12	..	7	..	19	..	26	..
Trinidad and Tobago	11	11	9	3	44	37	21	13	45	52	70	83
Tunisia	33	..	53	..	30	..	32	..	37	..	16	..
Turkey	4	34	9	72	36	25	31	10	60	41	60	18
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	..	..	..	..	..	..	..	..	..	..	..	..
Ukraine	..	..	..	..	..	..	..	..	..	..	..	..
United Arab Emirates	5	..	0	..	40	..	7	..	55	..	93	..
United Kingdom	4	2	1	1	45	36	20	12	52	61	79	87
United States	5	4	2	1	37	32	17	12	58	64	81	86
Uruguay	..	6	..	1	..	34	..	14	..	61	..	85
Uzbekistan	..	..	..	..	..	..	..	..	..	..	..	..
Venezuela, RB	19	..	2	..	32	..	17	..	49	..	80	..
Vietnam	..	..	..	..	..	..	..	..	..	..	..	..
West Bank and Gaza	22	..	25	..	43	..	25	..	36	..	50	..
Yemen, Rep.	60	..	98	..	19	..	1	..	21	..	1	..
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Zambia	69	..	85	..	13	..	3	..	19	..	13	..
Zimbabwe	29	..	50	..	31	..	8	..	40	..	42	..
World	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w
Low income	..	..	..	..	..	..	..	..	..	..	..	..
Middle income	..	..	..	..	..	..	..	..	..	..	..	..
Lower middle income	..	..	..	..	..	..	..	..	..	..	..	..
Upper middle income	..	21	..	13	..	31	..	16	..	48	..	70
Low & middle income	..	..	..	..	..	..	..	..	..	..	..	..
East Asia & Pacific	..	..	..	..	..	..	..	..	..	..	..	..
Europe & Central Asia	..	21	..	21	..	35	..	21	..	44	..	58
Latin America & Carib.	..	21	..	11	..	28	..	14	..	51	..	75
Middle East & N. Africa	..	..	..	..	..	..	..	..	..	..	..	..
South Asia	..	..	..	..	..	..	..	..	..	..	..	..
Sub-Saharan Africa	..	..	..	..	..	..	..	..	..	..	..	..
High income	9	4	7	3	39	36	21	15	52	59	71	81
Europe EMU	..	5	..	3	..	41	..	17	..	54	..	80

a. Data may not sum to 100 because of workers not classified by sectors. b. Data are for the most recent year available. c. Less than 0.5.

Employment by economic activity 2.3

About the data

The International Labour Organization (ILO) classifies economic activity on the basis of the International Standard Industrial Classification (ISIC) of All Economic Activities. Because this classification is based on where work is performed (industry) rather than on what type of work is performed (occupation), all of an enterprise's employees are classified under the same industry, regardless of their trade or occupation. The categories should add up to 100 percent. Where they do not, the differences arise because of workers who cannot be classified by economic activity.

Data on employment are drawn from labor force surveys, establishment censuses and surveys, administrative records of social insurance schemes, and official national estimates. The concept of employment generally refers to people above a certain age who worked, or who held a job, during a reference period. Employment data include both full-time and part-time workers. There are, however, many differences in how countries define and measure employment status, particularly for students, part-time workers, members of the armed forces, and household or contributing family workers. Where the armed forces are included, they are allocated to the service sector, causing that sector to be somewhat overstated relative to the service sector in economies where they are excluded. Where data are obtained from establishment surveys, they cover only employees; thus self-employed and contributing family workers are excluded. In such cases the employment share of the agricultural sector is severely underreported.

Countries also take very different approaches to the treatment of unemployed people. In most countries unemployed people with previous job experience are classified according to their last job. But in some countries the unemployed and people seeking their first job are not classifiable by economic activity. Because of these differences, the size and distribution of employment by economic activity may not be fully comparable across countries (ILO, *Yearbook of Labour Statistics* 1996, p. 64).

The ILO's *Yearbook of Labour Statistics* and its database Key Indicators of the Labour Market report data by major divisions of the ISIC revision 2 or ISIC revision 3. In this table the reported divisions or categories are aggregated into three broad groups: agriculture, industry, and services. An increasing number of countries report economic activity according to the ISIC. Where data are supplied according to national classifications, however, industry definitions and descriptions may differ. In addition, classification into broad groups may obscure fundamental differences in countries' industrial patterns.

The distribution of economic activity by gender reveals some interesting patterns. Agriculture accounts for the largest share of female employment in much of Africa and Asia. Services account for much of the increase in women's labor force participation in North Africa, Latin America and the Caribbean, and high-income economies. Worldwide, women are underrepresented in industry.

Segregating one sex in a narrow range of occupations significantly reduces economic efficiency by reducing labor market flexibility and thus the economy's ability to adapt to change. This segregation is particularly harmful for women, who have a much narrower range of labor market choices and lower levels of pay than men. But it is also detrimental to men when job losses are concentrated in industries dominated by men and job growth is centered in service occupations, where women often dominate, as has been the recent experience in many countries.

There are several explanations for the rising importance of service jobs for women. Many service jobs—such as nursing and social and clerical work—are considered "feminine" because of a perceived similarity to women's traditional roles. Women often do not receive the training needed to take advantage of changing employment opportunities. And the greater availability of part-time work in service industries may lure more women, although it is not clear whether this is a cause or an effect.

Definitions

• **Agriculture** corresponds to division 1 (ISIC revision 2) or tabulation categories A and B (ISIC revision 3) and includes hunting, forestry, and fishing. • **Industry** corresponds to divisions 2–5 (ISIC revision 2) or tabulation categories C–F (ISIC revision 3) and includes mining and quarrying (including oil production), manufacturing, construction, electricity, gas, and water. • **Services** correspond to divisions 6–9 (ISIC revision 2) or tabulation categories G–P (ISIC revision 3) and include wholesale and retail trade and restaurants and hotels; transport, storage, and communications; financing, insurance, real estate, and business services; and community, social, and personal services.

Data sources

The employment data are from the ILO database Key Indicators of the Labour Market (2001–02 issue).

2.4 Unemployment

	Unemployment						Long-term unemployment			Unemployment by level of educational attainment		
	Male % of male labor force		Female % of female labor force		Total % of total labor force		% of total unemployment			% of total unemployment		
							Male	Female	Total	Primary	Secondary	Tertiary
	1980–82 [a]	1998–2001 [a]	1980–82 [a]	1998–2001 [a]	1980–82 [a]	1998–2001 [a]	1998–2001 [a]	1998–2001 [a]	1998–2001 [a]	1997–99 [a]	1997–99 [a]	1997–99 [a]
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Albania	..	15.8	..	20.9	3.6	18.0	..	..	..	..	..	..
Algeria	..	..	..	..	..	..	..	..	..	..	..	..
Angola	..	..	..	..	..	..	..	..	..	..	..	..
Argentina	..	11.9	..	14.3	4.8	12.8	..	..	..	..	..	..
Armenia	..	4.9	..	15.0	..	9.3	..	..	..	..	..	..
Australia	6.3	7.2	7.5	6.7	6.7	6.4	30.6	24.0	27.9	53.3	32.1	11.8
Austria	3.8	4.7	3.5	4.8	3.7	4.7	28.1	36.1	31.7	35.2	60.3	4.6
Azerbaijan	..	1.0	..	1.4	..	1.2	..	..	..	6.7	30.8	62.5
Bangladesh	..	..	..	..	..	..	..	..	..	..	..	..
Belarus	..	..	..	..	..	2.0	..	..	..	7.8	15.5	76.7
Belgium	9.5	5.8	18.6	8.7	13.0	7.0	60.1	60.9	60.5	53.1	33.4	13.6
Benin	..	..	..	..	..	..	..	..	..	..	..	..
Bolivia	..	..	..	..	..	..	..	..	..	..	..	..
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..	..	..
Botswana	..	..	..	..	..	..	..	..	..	..	..	..
Brazil	3.9	7.2	4.0	11.6	3.9	9.6	..	..	..	..	..	..
Bulgaria	..	14.0	..	14.1	..	14.1	55.1	55.5	55.3	7.4	85.3	7.3
Burkina Faso	..	..	..	..	..	..	..	..	..	..	..	..
Burundi	..	..	..	..	..	..	..	..	..	..	..	..
Cambodia	..	..	..	..	..	..	..	..	..	..	..	..
Cameroon	..	..	..	..	..	..	..	..	..	..	..	..
Canada	11.2	6.9	10.6	6.7	11.0	6.8	11.7	9.5	10.7	25.9	31.2	35.6
Central African Republic	..	..	..	..	..	..	..	..	..	..	..	..
Chad	..	..	..	..	..	..	..	..	..	..	..	..
Chile	20.2	9.4	18.3	10.2	19.6	9.7	..	..	..	28.5	56.2	14.6
China	..	..	..	..	3.2	3.1	..	..	..	..	..	..
Hong Kong, China	4.0	5.1	3.1	4.0	3.6	5.0	..	..	..	..	..	..
Colombia	7.5	16.9	11.5	24.5	9.1	20.5	..	..	..	21.3	57.8	19.1
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Congo, Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Costa Rica	8.6	5.2	11.4	7.6	9.4	6.1	..	..	..	75.1	12.7	8.1
Côte d'Ivoire	..	..	..	..	..	..	..	..	..	..	..	..
Croatia	3.9	12.8	9.1	14.5	6.0	20.6	..	..	..	19.5	69.1	11.4
Cuba	..	..	..	..	..	..	..	..	..	..	..	..
Czech Republic	..	7.3	..	10.6	..	8.8	47.5	49.8	48.8	24.2	72.1	3.7
Denmark	9.7	4.5	10.0	5.9	10.0	5.4	20.9	20.1	20.5	34.6	47.7	16.7
Dominican Republic	..	7.8	..	24.9	..	13.8	..	..	..	50.4	31.1	9.6
Ecuador	..	8.4	..	16.0	..	11.5	..	..	..	..	..	..
Egypt, Arab Rep.	4.1	5.1	20.5	19.9	5.7	8.2	..	..	..	..	..	..
El Salvador	..	8.2	..	6.0	12.9	7.3	..	..	..	57.1	23.4	7.5
Eritrea	..	..	..	..	..	..	..	..	..	..	..	..
Estonia	..	13.0	..	10.2	..	14.8	45.4	49.1	47.0	22.5	54.4	23.1
Ethiopia	3.6	..	9.5	..	5.2	..	..	..	..	26.9	61.3	8.1
Finland	5.5	9.7	5.2	10.7	5.4	9.8	30.1	25.2	27.6	41.1	49.8	9.1
France	5.8	8.5	10.5	11.9	7.8	10.0	41.1	43.6	42.5	..	..	..
Gabon	..	..	..	..	..	..	..	..	..	..	..	..
Gambia, The	..	15.3	..	12.2	..	13.8	..	..	..	3.9	32.4	60.8
Georgia	..	..	..	..	..	..	..	..	..	..	..	..
Germany	..	7.6	..	8.6	..	8.1	49.9	54.0	51.7	28.9	57.5	13.6
Ghana	..	..	..	..	..	..	..	..	..	..	..	..
Greece	4.8	7.0	8.1	16.5	5.8	10.8	44.7	61.5	54.9	36.9	40.5	21.9
Guatemala	..	..	..	..	..	..	..	..	..	..	..	..
Guinea	..	..	..	..	..	..	..	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..	..	..	..	..	..	..	..
Haiti	..	..	..	..	..	..	..	..	..	..	..	..

Unemployment 2.4

	Unemployment						Long-term unemployment			Unemployment by level of educational attainment		
	Male % of male labor force		Female % of female labor force		Total % of total labor force		% of total unemployment			% of total unemployment		
							Male	Female	Total	Primary	Secondary	Tertiary
	1980–82 [a]	1998–2001 [a]	1980–82 [a]	1998–2001 [a]	1980–82 [a]	1998–2001 [a]	1998–2001 [a]	1998–2001 [a]	1998–2001 [a]	1997–99 [a]	1997–99 [a]	1997–99 [a]
Honduras	8.6	3.7	6.0	3.8	7.3	3.7	..	..	..	63.2	22.4	5.8
Hungary	..	7.5	..	6.3	..	6.5	45.0	43.2	44.3	35.2	61.6	3.2
India	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	..	..	..	..	..	6.1	..	..	..	38.3	47.9	9.2
Iran, Islamic Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Iraq	..	..	..	..	..	..	..	..	..	..	..	..
Ireland	11.4	4.8	8.2	4.6	12.1	4.7	44.9	23.4	36.5	60.7	20.8	16.1
Israel	4.4	8.5	6.0	8.1	5.0	8.3	..	..	..	23.9	42.2	33.1
Italy	5.7	8.7	14.0	15.7	8.5	10.8	62.1	60.7	61.4	52.3	39.0	6.9
Jamaica	16.1	10.0	40.6	22.5	27.6	15.7	19.4	30.5	26.6	..	..	..
Japan	2.4	5.0	2.2	4.5	2.3	4.8	30.7	17.1	25.5	23.3	51.2	25.6
Jordan	..	11.8	..	20.7	..	13.2	..	..	..	..	..	..
Kazakhstan	..	..	..	..	..	13.7	..	..	..	7.2	52.5	40.3
Kenya	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	5.5	7.1	2.5	5.1	4.4	4.1	3.1	0.7	2.3	16.4	52.7	20.0
Kuwait	..	..	..	..	..	..	..	..	..	..	..	..
Kyrgyz Republic	..	..	..	..	..	..	..	..	..	33.4	55.7	10.9
Lao PDR	..	..	..	..	..	..	..	..	..	..	..	..
Latvia	..	15.5	..	13.3	..	8.4	50.5	52.8	51.5	20.8	68.1	8.5
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..
Lesotho	..	..	..	..	..	..	..	..	..	..	..	..
Liberia	..	..	..	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	..	19.3	..	13.9	..	16.6	60.9	56.2	59.0	15.4	56.2	28.5
Macedonia, FYR	15.6	32.5	32.8	37.5	22.0	34.5	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..	..	..	..	..	..	..
Malawi	..	..	..	..	..	..	..	..	..	..	..	..
Malaysia	..	..	..	..	..	3.0	..	..	..	..	..	..
Mali	..	..	..	..	..	..	..	..	..	..	..	..
Mauritania	..	..	..	..	..	..	..	..	..	..	..	..
Mauritius	..	..	..	..	..	..	..	..	..	33.2	66.1	..
Mexico	..	1.8	..	2.6	..	2.0	0.4	1.5	0.8	15.5	36.0	37.7
Moldova	..	..	..	..	..	11.1	..	..	..	..	..	..
Mongolia	..	5.2	..	6.3	..	5.7	..	..	..	47.9	24.1	17.3
Morocco	..	20.3	..	27.6	..	22.0	..	..	..	..	..	..
Mozambique	..	..	..	..	..	..	..	..	..	..	..	..
Myanmar	..	..	..	..	..	..	..	..	..	..	..	..
Namibia	..	..	..	..	..	..	..	..	..	38.4	50.1	0.5
Nepal	..	1.5	..	0.7	..	1.1	..	..	..	..	..	..
Netherlands	10.0	2.7	8.9	4.9	9.6	3.6	47.7	40.4	43.5	30.4	33.0	14.3
New Zealand	..	6.1	..	5.8	..	6.0	20.7	12.6	17.1	0.5	38.5	22.6
Nicaragua	..	8.8	..	14.5	..	13.3	..	..	..	54.9	24.7	14.9
Niger	..	..	..	..	..	..	..	..	..	..	..	..
Nigeria	..	..	..	..	..	..	..	..	..	..	..	..
Norway	2.5	3.7	3.0	3.2	2.7	3.4	6.7	2.9	5.0	25.3	54.7	17.3
Oman	..	..	..	..	..	..	..	..	..	..	..	..
Pakistan	3.0	4.2	7.5	14.9	3.6	5.9	..	..	..	..	..	..
Panama	6.3	10.8	13.3	17.9	8.4	13.3	..	..	..	..	..	..
Papua New Guinea	..	..	..	..	..	..	..	..	..	..	..	..
Paraguay	5.4	..	5.9	..	5.6	..	..	..	..	..	..	..
Peru	..	7.5	..	8.6	..	8.0	..	..	..	13.1	52.6	33.3
Philippines	3.6	9.8	8.6	10.5	5.5	10.1	..	..	..	..	..	..
Poland	..	15.2	..	18.5	..	16.7	34.2	41.4	37.9	33.1	64.8	2.0
Portugal	2.7	2.9	11.9	4.8	6.3	3.8	39.5	42.9	41.2	73.9	14.9	5.8
Puerto Rico	26.3	11.9	15.5	7.8	22.9	10.1	..	..	..	..	..	..

2.4 Unemployment

	Unemployment						Long-term unemployment			Unemployment by level of educational attainment		
	Male % of male labor force		Female % of female labor force		Total % of total labor force		% of total unemployment			% of total unemployment		
	1980–82 [a]	1998–2001 [a]	1980–82 [a]	1998–2001 [a]	1980–82 [a]	1998–2001 [a]	Male 1998–2001 [a]	Female 1998–2001 [a]	Total 1998–2001 [a]	Primary 1997–99 [a]	Secondary 1997–99 [a]	Tertiary 1997–99 [a]
Romania	..	7.4	..	6.2	..	10.8	41.0	48.4	44.0	21.7	70.6	6.4
Russian Federation	..	13.6	..	13.1	..	11.4	..	..	11.9	16.8	41.6	41.6
Rwanda	..	..	..	..	..	..	..	..	..	..	..	..
Saudi Arabia	..	..	..	..	..	..	..	..	..	..	..	..
Senegal	..	..	..	..	..	..	..	..	..	..	..	..
Sierra Leone	..	..	..	..	..	..	..	..	..	..	..	..
Singapore	2.4	4.5	2.9	4.6	2.6	4.4	..	..	..	26.8	27.4	28.6
Slovak Republic	..	15.9	..	16.4	..	18.9	43.2	49.7	46.1	..	75.6	3.0
Slovenia	..	7.5	..	7.4	..	7.5	44.3	36.8	40.7	28.2	64.8	7.0
Somalia	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	..	19.8	..	27.8	..	23.3	..	..	..	..	..	..
Spain	14.4	9.7	18.7	20.5	15.6	14.1	39.5	52.4	46.8	52.3	19.1	21.5
Sri Lanka	..	7.1	..	16.2	..	10.6	..	..	..	49.8	..	50.2
Sudan	..	..	..	..	..	..	..	..	..	..	..	..
Swaziland	..	..	..	..	..	..	..	..	..	..	..	..
Sweden	3.3	7.4	3.8	6.7	3.5	5.1	33.3	26.1	30.1	32.0	50.6	15.8
Switzerland	0.4	2.3	0.6	3.1	0.4	2.7	27.5	29.1	28.3	..	..	..
Syrian Arab Republic	3.8	..	3.8	..	3.9	..	..	..	..	..	..	..
Tajikistan	..	..	..	..	..	..	..	..	..	10.6	83.2	6.3
Tanzania	..	..	..	..	..	..	..	..	..	..	..	..
Thailand	2.4	3.0	3.1	3.0	2.8	2.4	..	..	..	71.7	12.3	12.9
Togo	..	..	..	..	..	..	..	..	..	..	..	..
Trinidad and Tobago	8.3	10.9	13.8	16.8	10.0	13.1	19.0	33.8	26.2	38.2	60.7	0.8
Tunisia	..	..	..	..	..	..	..	..	..	..	33.7	4.1
Turkey	9.0	7.6	23.0	6.6	10.9	8.3	29.8	44.1	33.7	..	..	..
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	..	..	..	..	..	..	..	..	..	..	..	..
Ukraine	..	12.2	..	11.5	..	11.9	..	..	..	9.4	27.2	63.4
United Arab Emirates	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	13.1	6.7	7.5	5.1	10.9	5.3	34.8	21.6	29.8	9.3	43.4	12.1
United States	9.9	3.7	9.4	4.6	9.7	4.1	6.7	5.3	6.0	22.2	35.6	42.1
Uruguay	..	8.7	..	14.6	..	11.3	..	..	..	..	..	..
Uzbekistan	..	..	..	..	..	..	..	..	..	..	..	..
Venezuela, RB	..	..	..	..	7.1	14.9	..	..	..	..	..	..
Vietnam	..	..	..	..	..	..	..	..	..	..	..	..
West Bank and Gaza	..	..	..	..	..	14.1	..	..	..	..	..	..
Yemen, Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Zambia	32.7	..	59.0	..	42.2	..	..	..	..	..	..	..
Zimbabwe	..	7.3	..	4.6	..	6.0	..	..	..	..	..	..
World	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w
Low income	..	..	..	..	..	..	..	..	..	..	..	..
Middle income	..	..	..	..	4.1	4.9	..	..	..	..	..	..
Lower middle income	..	..	..	..	3.6	4.3	..	..	..	..	..	..
Upper middle income	..	7.0	..	8.9	..	9.0	..	..	..	..	..	..
Low & middle income	..	..	..	..	..	..	..	..	..	..	..	..
East Asia & Pacific	..	..	..	..	3.3	3.7	..	..	..	..	..	..
Europe & Central Asia	..	11.3	..	11.1	..	11.1	..	..	27.1	17.6	47.3	34.8
Latin America & Carib.	..	7.2	..	10.5	..	9.2	..	..	..	..	..	..
Middle East & N. Africa	..	..	..	..	..	..	..	..	..	..	..	..
South Asia	..	..	..	..	..	..	..	..	..	..	..	..
Sub-Saharan Africa	..	..	..	..	..	..	..	..	..	..	..	..
High income	7.8	5.4	8.7	6.7	8.1	6.2	28.4	25.6	27.3	27.3	41.2	27.4
Europe EMU	7.5	7.9	12.8	11.6	9.5	9.8	48.5	50.9	49.8	42.3	42.9	12.9

a. Data are for the most recent year available.

Unemployment 2.4

About the data

Unemployment and total employment in an economy are the broadest indicators of economic activity as reflected by the labor market. The International Labour Organization (ILO) defines the unemployed as members of the economically active population who are without work but available for and seeking work, including people who have lost their jobs and those who have voluntarily left work. Some unemployment is unavoidable in all economies. At any time some workers are temporarily unemployed—between jobs as employers look for the right workers and workers search for better jobs. Such unemployment, often called frictional unemployment, results from the normal operation of labor markets.

Changes in unemployment over time may reflect changes in the demand for and supply of labor, but they may also reflect changes in reporting practices. Ironically, low unemployment rates can often disguise substantial poverty in a country, while high unemployment rates can occur in countries with a high level of economic development and low incidence of poverty. In countries without unemployment or welfare benefits, people eke out a living in the informal sector. In countries with well-developed safety nets, workers can afford to wait for suitable or desirable jobs. But high and sustained unemployment indicates serious inefficiencies in the allocation of resources.

The ILO definition of unemployment notwithstanding, reference periods, the criteria for those considered to be seeking work, and the treatment of people temporarily laid off and those seeking work for the first time vary across countries. In many developing countries it is especially difficult to measure employment and unemployment in agriculture. The timing of a survey, for example, can maximize the effects of seasonal unemployment in agriculture. And informal sector employment is difficult to quantify where informal activities are not registered and tracked.

Data on unemployment are drawn from labor force sample surveys and general household sample surveys, social insurance statistics, employment office statistics, and official estimates, which are usually based on information drawn from one or more of the above sources. Labor force surveys generally yield the most comprehensive data because they include groups not covered in other unemployment statistics, particularly people seeking work for the first time. These surveys generally use a definition of unemployment that follows the international recommendations more closely than that used by other sources and therefore generate statistics that are more comparable internationally.

In contrast, the quality and completeness of data from employment offices and social insurance programs vary widely. Where employment offices work closely with social insurance schemes and registration with such offices is a prerequisite for receipt of unemployment benefits, the two sets of unemployment estimates tend to be comparable. Where registration is voluntary and where employment offices function only in more populous areas, employment office statistics do not give a reliable indication of unemployment. Most commonly excluded from both these sources are discouraged workers who have given up their job search because they believe that no employment opportunities exist or do not register as unemployed after their benefits have been exhausted. Thus measured unemployment may be higher in countries that offer more or longer unemployment benefits.

Long-term unemployment is measured in terms of duration, that is, the length of time that an unemployed person has been without work and looking for a job. The underlying assumption is that shorter periods of joblessness are of less concern, especially when the unemployed are covered by unemployment benefits or similar forms of welfare support. The length of time a person has been unemployed is difficult to measure, because the ability to recall the length of that time diminishes as the period of joblessness extends. Women's long-term unemployment is likely to be lower in countries where women constitute a large share of the unpaid family workforce. Women in such countries have more access than men to nonmarket work and are more likely to drop out of the labor force and not be counted as unemployed.

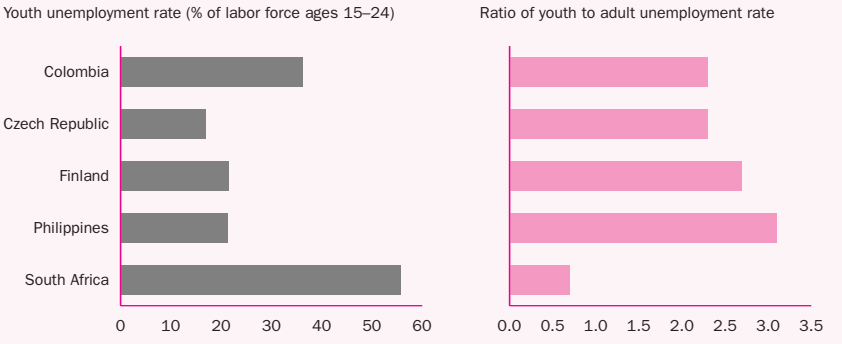
No data are given in the table for economies for which unemployment data are not consistently available or are deemed unreliable.

Definitions

• **Unemployment** refers to the share of the labor force without work but available for and seeking employment. Definitions of labor force and unemployment differ by country (see *About the data*). • **Long-term unemployment** refers to the number of people with continuous periods of unemployment extending for a year or longer, expressed as a percentage of the total unemployed. • **Unemployment by level of educational attainment** shows the unemployed by level of educational attainment, as a percentage of the total unemployed. The levels of educational attainment accord with the International Standard Classification of Education 1997, of the United Nations Educational, Cultural, and Scientific Organization (UNESCO).

2.4a

Youth unemployment does not always exceed adult unemployment



Unemployment among youth (ages 15–24) is an important policy issue for many economies, at all stages of development. Youth unemployment tends to exceed adult unemployment. But where the ratio of the youth unemployment rate to the adult rate is one or less, the problem of finding work is not limited to the young.

Source: ILO database Key Indicators of the Labour Market (2001–02 issue).

Data sources

The unemployment data are from the ILO database Key Indicators of the Labour Market (2001–02 issue).

2.5 Wages and productivity

	Average hours worked per week		Minimum wage		Agricultural wage		Labor cost per worker in manufacturing		Value added per worker in manufacturing	
			$ per year		$ per year		$ per year		$ per year	
	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]
Afghanistan	..	..	..	..	..	..	..	..	..	..
Albania	..	..	..	..	..	..	..	..	..	..
Algeria	..	..	..	*1,340*	..	..	6,242	*2,638*	11,306	..
Angola	..	..	..	..	..	..	..	..	..	..
Argentina	41	*40*	..	2,400	..	..	6,768	*7,338*	33,694	*37,480*
Armenia	..	..	..	..	..	..	..	..	..	..
Australia	37	*39*	..	*12,712*	11,212	*15,124*	14,749	26,087	27,801	*57,857*
Austria	33	*32*	..	[b]	..	..	11,949	*28,342*	20,956	*53,061*
Azerbaijan	..	..	..	..	..	..	..	..	..	..
Bangladesh	..	*52*	..	*492*	192	*360*	556	*671*	1,820	*1,711*
Belarus	..	..	..	..	1,641	410	2,233	754	..	..
Belgium	..	*38*	7,661	15,882	6,399	..	12,805	*24,132*	25,579	*58,678*
Benin	..	..	..	..	..	..	..	..	..	..
Bolivia	..	*46*	..	529	..	..	4,432	*2,343*	21,519	*26,282*
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..
Botswana	45	..	894	961	650	*1,223*	3,250	*2,884*	7,791	..
Brazil	..	..	1,690	1,308	..	..	10,080	*14,134*	43,232	*61,595*
Bulgaria	..	..	..	*573*	..	*1,372*	2,485	*1,179*	..	..
Burkina Faso	..	..	695	585	..	..	3,282	..	15,886	..
Burundi	..	..	..	..	..	..	..	..	..	..
Cambodia	..	..	..	..	..	..	..	..	..	..
Cameroon	..	..	..	..	..	..	..	..	..	..
Canada	38	*38*	4,974	7,897	20,429	*30,625*	17,710	*28,424*	36,903	*60,712*
Central African Republic	..	..	..	..	..	..	..	..	..	..
Chad	..	..	..	..	..	..	..	..	..	..
Chile	43	45	663	1,781	..	..	6,234	*5,822*	32,805	*32,977*
China	..	..	..	..	349	*325*	472	729	3,061	*2,885*
Hong Kong, China	48	*46*	..	..	..	..	4,127	*10,353*	7,886	32,611
Colombia	..	..	..	*1,128*	..	..	2,988	*2,507*	15,096	*17,061*
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Congo, Rep.	..	..	..	..	..	..	..	..	..	..
Costa Rica	..	*47*	1,042	*1,638*	982	*1,697*	2,433	*2,829*	7,185	*7,184*
Côte d'Ivoire	..	..	1,246	871	..	..	5,132	*9,995*	16,158	..
Croatia	..	..	..	..	..	..	..	..	..	..
Cuba	..	..	..	..	..	..	..	..	..	..
Czech Republic	43	43	..	942	2,277	3,090	2,306	3,815	5,782	*5,094*
Denmark	..	*37*	9,170	19,933	..	..	16,169	*29,235*	27,919	*49,273*
Dominican Republic	44	44	..	*1,439*	..	..	2,191	*1,806*	8,603	..
Ecuador	..	..	1,637	*492*	..	..	5,065	*3,738*	12,197	*9,747*
Egypt, Arab Rep.	58	..	343	*415*	..	..	2,210	*1,863*	3,691	*5,976*
El Salvador	..	..	..	*790*	..	..	3,654	..	14,423	..
Eritrea	..	..	..	..	..	..	..	..	..	..
Estonia	..	..	..	..	..	..	..	..	..	..
Ethiopia	..	..	..	..	..	..	..	*1,596*	..	*7,094*
Finland	..	*38*	..	[b]	..	..	11,522	*26,615*	25,945	*55,037*
France	40	*39*	6,053	*12,072*	..	..	18,488	..	26,751	*61,019*
Gabon	..	..	..	..	..	..	..	..	..	..
Gambia, The	..	..	..	..	..	..	..	..	..	..
Georgia	..	..	..	..	..	..	..	..	..	..
Germany	41	*40*	..	[b]	..	..	15,708	*33,226*	34,945	*79,616*
Ghana	..	..	..	..	1,470	..	2,306	..	12,130	..
Greece	39	*41*	..	6,057	..	..	6,461	*12,296*	14,561	*30,429*
Guatemala	..	..	..	*459*	..	..	2,605	*1,802*	11,144	*9,235*
Guinea	40	..	..	..	..	..	..	..	..	..
Guinea-Bissau	48	..	..	..	..	..	..	..	..	..
Haiti	..	..	..	..	..	..	..	..	..	..

2.5 Wages and productivity

	Average hours worked per week		Minimum wage		Agricultural wage		Labor cost per worker in manufacturing		Value added per worker in manufacturing	
			$ per year		$ per year		$ per year		$ per year	
	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]
Honduras	..	*44*	..	..	1,623	..	2,949	*2,658*	7,458	*7,427*
Hungary	35	*33*	1,186	1,132	1,186	2,676	1,410	3,755	4,307	10,918
India	46	..	..	*408*	205	*245*	1,035	*1,192*	2,108	*3,118*
Indonesia	40	43	..	*241*	..	639	898	3,054	3,807	*5,139*
Iran, Islamic Rep.	..	..	..	..	..	..	9,737	*30,562*	17,679	*89,787*
Iraq	..	..	..	..	..	..	4,624	*13,288*	13,599	*34,316*
Ireland	41	*41*	5,556	12,087	..	..	10,190	*22,681*	26,510	*86,036*
Israel	36	*36*	..	*5,861*	4,582	*7,906*	13,541	*21,150*	23,459	*35,526*
Italy	..	*32*	..	[b]	..	..	9,955	*34,859*	24,580	*50,760*
Jamaica	..	*39*	782	*692*	..	..	5,218	*3,655*	12,056	*11,091*
Japan	47	47	3,920	12,265	..	..	12,306	*31,687*	34,456	*92,582*
Jordan	..	*50*	[b]	[b]	..	..	4,643	2,082	16,337	*11,906*
Kazakhstan	..	..	..	..	..	..	..	..	..	..
Kenya	41	*39*	..	551	508	*568*	1,043	810	2,345	1,489
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	52	*48*	..	3,903	..	..	3,153	*10,743*	11,617	*40,916*
Kuwait	..	..	..	*8,244*	..	..	10,281	..	30,341	..
Kyrgyz Republic	..	..	..	65	1,695	168	2,287	687	..	..
Lao PDR	..	..	..	..	..	..	..	..	..	..
Latvia	..	..	..	..	..	..	..	*366*	..	..
Lebanon	..	..	..	..	..	..	..	..	..	..
Lesotho	..	*45*	..	..	..	..	1,442	..	6,047	..
Liberia	..	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	8,648	..	21,119	..
Lithuania	..	..	..	..	..	..	..	..	..	..
Macedonia, FYR	..	..	..	..	..	..	..	..	..	..
Madagascar	..	*40*	..	..	..	..	1,575	..	3,542	..
Malawi	..	..	..	..	..	..	..	..	..	..
Malaysia	..	..	..	[b]	1,435	..	2,519	*3,429*	8,454	*12,661*
Mali	..	..	321	*459*	..	..	2,983	..	10,477	..
Mauritania	..	..	..	..	..	..	..	..	..	..
Mauritius	..	..	..	..	..	..	1,465	*1,973*	2,969	*4,217*
Mexico	43	*45*	1,343	768	1,031	*908*	3,772	7,607	17,448	*25,931*
Moldova	..	..	..	..	..	..	..	..	..	..
Mongolia	..	..	..	..	..	..	..	..	..	..
Morocco	..	..	..	*1,672*	..	..	2,583	*3,391*	6,328	*9,089*
Mozambique	..	..	..	..	..	..	..	..	..	..
Myanmar	..	..	..	..	..	..	..	..	..	..
Namibia	..	..	..	..	..	..	..	..	..	..
Nepal	..	..	..	..	..	..	371	..	1,523	..
Netherlands	40	*40*	9,074	15,170	..	..	18,891	*34,326*	27,491	*56,801*
New Zealand	39	*39*	3,309	9,091	..	..	10,605	*18,419*	16,835	*32,723*
Nicaragua	..	*44*	..	..	..	..	..	..	..	..
Niger	40	..	..	..	..	..	4,074	..	22,477	..
Nigeria	..	..	..	*300*	..	..	4,812	..	20,000	..
Norway	33	*35*	..	[b]	..	..	14,935	38,415	24,905	*51,510*
Oman	..	..	..	..	..	..	..	*3,099*	..	*61,422*
Pakistan	48	..	..	*600*	427	*416*	1,264	..	6,214	..
Panama	..	..	..	..	..	..	4,768	*6,351*	15,327	*17,320*
Papua New Guinea	44	..	..	..	..	..	4,825	..	13,563	..
Paraguay	36	*39*	..	..	1,606	*1,210*	2,509	*3,241*	..	*14,873*
Peru	48	..	..	..	..	*944*	2,988	..	15,962	..
Philippines	47	*43*	915	1,472	382	..	1,240	*2,450*	5,266	*10,781*
Poland	36	*33*	320	1,584	1,726	*1,301*	1,682	*1,714*	6,242	*7,637*
Portugal	39	*40*	1,606	4,086	..	..	3,115	*6,237*	7,161	*17,273*
Puerto Rico	..	..	..	..	..	..	..	..	..	..

2.5 Wages and productivity

	Average hours worked per week		Minimum wage		Agricultural wage		Labor cost per worker in manufacturing		Value added per worker in manufacturing	
			$ per year		$ per year		$ per year		$ per year	
	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]	1980–84	1995–99 [a]
Romania	34	*34*	..	*531*	1,669	*1,864*	1,757	*1,190*	..	*3,482*
Russian Federation	..	..	863	297	2,417	659	2,524	1,528	..	..
Rwanda	..	..	..	..	..	..	1,871	..	9,835	..
Saudi Arabia	..	..	..	..	..	..	9,814	..	..	..
Senegal	..	..	993	848	..	..	2,828	*7,754*	6,415	..
Sierra Leone	44	..	..	..	..	..	1,624	..	7,807	..
Singapore	46	47	..	..	..	*4,856*	5,576	21,317	16,442	*40,674*
Slovak Republic	43	*40*	..	..	2,277	*1,885*	2,306	*1,876*	5,782	*5,094*
Slovenia	..	..	..	..	..	..	..	*9,632*	..	*12,536*
Somalia	..	..	..	..	..	..	..	..	..	..
South Africa	42	*41*	..	[b]	888	..	6,261	*8,475*	12,705	*16,612*
Spain	38	*37*	3,058	5,778	..	..	8,276	*19,329*	18,936	*47,016*
Sri Lanka	50	*53*	..	..	198	*264*	447	*604*	2,057	*3,405*
Sudan	..	..	..	..	..	..	..	..	..	..
Swaziland	..	..	..	..	..	..	..	..	..	..
Sweden	36	*37*	..	..	9,576	*27,098*	13,038	*26,601*	32,308	*56,675*
Switzerland	44	*42*	..	[b]	..	..	..	..	..	*61,848*
Syrian Arab Republic	..	..	..	..	..	..	2,844	*4,338*	9,607	*9,918*
Tajikistan	..	..	..	..	..	..	..	..	..	..
Tanzania	..	..	..	..	..	..	1,123	..	3,339	..
Thailand	50	*47*	749	*1,159*	..	..	2,305	3,868	11,072	*19,946*
Togo	..	..	..	..	..	..	..	..	..	..
Trinidad and Tobago	..	*40*	..	*2,974*	..	..	..	..	14,008	..
Tunisia	..	..	1,381	*1,525*	668	*968*	3,344	*3,599*	7,111	..
Turkey	..	*48*	594	1,254	1,015	*2,896*	3,582	*7,958*	13,994	*32,961*
Turkmenistan	..	..	..	..	..	..	..	..	..	..
Uganda	43	..	..	..	..	..	253	..	..	..
Ukraine	..	..	..	..	..	..	..	..	..	..
United Arab Emirates	..	..	..	..	..	..	6,968	..	20,344	..
United Kingdom	42	*40*	..	[b]	..	..	11,406	*23,843*	24,716	*55,060*
United States	40	*41*	6,006	8,056	..	..	19,103	*28,907*	47,276	*81,353*
Uruguay	48	*42*	1,262	1,027	1,289	..	4,128	*3,738*	13,722	*16,028*
Uzbekistan	..	..	..	..	..	..	..	..	..	..
Venezuela	41	..	1,869	*1,463*	..	..	11,188	*4,667*	37,063	*24,867*
Vietnam	..	47	..	134	..	442	..	711	..	..
West Bank and Gaza	..	..	..	..	..	..	..	..	..	..
Yemen, Rep.	..	..	..	..	..	..	4,492	1,291	17,935	5,782
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	..	..	..	..
Zambia	..	*45*	..	..	..	..	3,183	*4,292*	11,753	*16,615*
Zimbabwe	..	..	..	..	1,065	..	4,097	*3,422*	9,625	*11,944*

a. Figures in italics refer to 1990–94. b. Country has sectoral minimum wage but no minimum wage policy.

2.5 Wages and productivity

About the data

Much of the available data on labor markets is collected through national reporting systems that depend on plant-level surveys. Even when these data are compiled and reported by international agencies such as the International Labour Organization or the United Nations Industrial Development Organization, differences in definitions, coverage, and units of account limit their comparability across countries. The data in this table are the result of a research project at the World Bank that has compiled results from more than 300 national and international sources in an effort to provide a set of uniform and representative labor market indicators. Nevertheless, many differences in reporting practices persist, some of which are described below.

Analyses of labor force participation, employment, and underemployment often rely on the number of hours of work per week. The indicator reported in the table is the time spent at the workplace working, preparing for work, or waiting for work to be supplied or for a machine to be fixed. It also includes the time spent at the workplace when no work is being performed but for which payment is made under a guaranteed work contract, or time spent in short periods of rest. Hours paid for but not spent at the place of work—such as paid annual and sick leave, paid holidays, paid meal breaks, and time spent in commuting between home and workplace—are not included. When this information is not available, the table reports the number of hours paid for, comprising the hours actually worked plus the hours paid for but not spent in the workplace. Data on hours worked are influenced by differences in methods of compilation and coverage as well as by national practices relating to the number of days worked and overtime, making comparisons across countries difficult.

Wages refer to remuneration in cash and in kind paid to employees at regular intervals. They exclude employers' contributions to social security and pension schemes as well as other benefits received by employees under these schemes. In some countries the national minimum wage represents a "floor," with higher minimum wages for particular skills and occupations set through collective bargaining. In those countries the agreements reached by trade unions and employers associations are extended by the government to all firms in the sector, or at least to large firms. Changes in the national minimum wage are generally associated with parallel changes in the minimum wages set through collective bargaining.

International comparisons of agricultural wages are subject to greater reservations than those of wages in other activities. The nature of the work carried out by different categories of agricultural workers and the length of the workday and workweek vary considerably from one country to another. Seasonal fluctuations in agricultural wages are more important in some countries than in others. And the methods followed in different countries for estimating the monetary value of payments in kind are not uniform. In many developing countries agricultural workers are hired on a casual or daily basis and lack any social security benefits.

Labor cost per worker in manufacturing is sometimes used as a measure of international competitiveness. The indicator reported in the table is the ratio of total compensation to the number of workers in the manufacturing sector. Compensation includes direct wages, salaries, and other remuneration paid directly by employers plus all contributions by employers to social security programs on behalf of their employees. But there are unavoidable differences in concepts, reference periods, and reporting practices. Remuneration for time not worked, bonuses and gratuities, and housing and family allowances should be considered part of the compensation costs, along with severance and termination pay. These indirect labor costs can vary substantially from country to country, depending on the labor laws and collective bargaining agreements in force.

International competitiveness also depends on productivity, which is often measured by value added per worker in manufacturing. The indicator reported in the table is the ratio of total value added in manufacturing to the number of employees engaged in that sector. Total value added is estimated as the difference between the value of industrial output and the value of materials and supplies for production (including fuel and purchased electricity) and cost of industrial services received.

Observations on labor costs and value added per worker are from plant-level surveys covering relatively large establishments, usually employing 10 or more workers and mostly in the formal sector. In high-income countries the coverage of these surveys tends to be quite good. In developing countries there is often a substantial bias toward very large establishments in the formal sector. As a result, the data may not be strictly comparable across countries. The data are converted into U.S. dollars using the average exchange rate for each year.

The data in the table are period averages and refer to workers of both sexes.

Definitions

• **Average hours worked per week** refer to all workers (male and female) in nonagricultural activities or, if unavailable, in manufacturing. The data correspond to hours actually worked, to hours paid for, or to statutory hours of work in a normal workweek. • **Minimum wage** corresponds to the most general regime for nonagricultural activities. When rates vary across sectors, only that for manufacturing (or commerce, if the manufacturing wage is unavailable) is reported. • **Agricultural wage** is based on daily wages in agriculture. To ensure comparability with the other wage series, full employment over the year is assumed, although many wage earners in agriculture are employed seasonally. • **Labor cost per worker in manufacturing** is obtained by dividing the total payroll by the number of employees, or the number of people engaged, in manufacturing establishments. • **Value added per worker in manufacturing** is obtained by dividing the value added of manufacturing establishments by the number of employees, or the number of people engaged, in those establishments.

Data sources

The data are drawn from Martin Rama and Raquel Artecona's "Database of Labor Market Indicators across Countries" (2002).

2.6 Poverty

	National poverty line								International poverty line				
		Population below the poverty line				Population below the poverty line							
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	Population below $1 a day %	Poverty gap at $1 a day %	Population below $2 a day %	Poverty gap at $2 a day %
Afghanistan		..	..	..		..	..	..		..	..	..	..
Albania		..	..	..		..	..	..		..	..	..	..
Algeria	1988	16.6	7.3	12.2	1995	30.3	14.7	22.6	1995	<2	<0.5	15.1	3.6
Angola		..	..	..		..	..	..		..	..	..	..
Argentina	1995	..	28.4		1998		29.9						
Armenia	1998	..	..	55.0		..	..	..	1998	12.8	3.3	49.0	17.3
Australia		..	..	..		..	..	..		..	..	..	..
Austria		..	..	..		..	..	..		..	..	..	..
Azerbaijan	1995	..	..	68.1		..	..	..	2001	3.7	<1	9.1	3.5
Bangladesh	1995–96	38.5	13.7	34.4	2000	37.4	19.1	33.7	2000	36.0	8.1	82.8	36.3
Belarus	1998	..	..	33.0	2000	..	..	41.9	2000	<2	<0.5	<2	0.1
Belgium		..	..	..		..	..	..		..	..	..	..
Benin	1995	..	..	33.0		..	..	..		..	..	..	..
Bolivia	1997	77.3		63.2	1999	81.7	..	62.7	1999	14.4	5.4	34.3	14.9
Bosnia and Herzegovina	2001–02	19.9	13.8	19.5		..	..	..		..	..	..	..
Botswana		..	..	..		..	..	..	1993	23.5	7.7	50.1	22.8
Brazil	1990	32.6	13.1	17.4		..	..	..	1998	9.9	3.2	23.7	10.1
Bulgaria		..	..	..		..	..	..	2001	4.7	1.4	23.7	10.1
Burkina Faso	1994	51.0	10.4	44.5	1998	51.0	16.5	45.3	1994	61.2	25.5	85.8	50.9
Burundi	1990	..	..	36.2		..	..	..	1998	58.4	24.9	89.2	51.3
Cambodia	1993–94	43.1	24.8	39.0	1997	40.1	21.1	36.1		..	..	..	..
Cameroon	1984	32.4	44.4	40.0		..	..	..	1996	33.4	11.8	64.4	31.2
Canada		..	..	..		..	..	..		..	..	..	..
Central African Republic		..	..	..		..	..	..	1993	66.6	38.1	84.0	58.4
Chad	1995–96	67.0	63.0	64.0		..	..	..		..	..	..	..
Chile	1996	..	..	19.9	1998	..	..	17.0	1998	<2	<0.5	8.7	2.3
China	1996	7.9	<2	6.0	1998	4.6	<2	4.6	2000	16.1	3.7	47.3	18.3
Hong Kong, China		..	..	..		..	..	..		..	..	..	..
Colombia	1991	29.0	7.8	16.9	1992	31.2	8.0	17.7	1998	14.4	8.1	26.5	14.3
Congo, Dem. Rep.		..	..	..		..	..	..		..	..	..	..
Congo, Rep.		..	..	..		..	..	..		..	..	..	..
Costa Rica	1992	25.5	19.2	22.0		..	..	..	1998	6.9	3.4	14.3	7.0
Côte d'Ivoire	1995	..	..	36.8					1995	12.3	2.4	49.4	16.8
Croatia		..	..	..		..	..	..	2000	<2	<0.5	<2	<0.5
Cuba		..	..	..		..	..	..		..	..	..	..
Czech Republic		..	..	..		..	..	..	1996	<2	<0.5	<2	<0.5
Denmark		..	..	..		..	..	..		..	..	..	..
Djibouti	1996	86.5	..	45.1		..	..	..		..	..	..	..
Dominican Republic	1989	27.4	23.3	24.5	1992	29.8	10.9	20.6	1998	<2	<0.5	<2	<0.5
Ecuador	1994	47.0	25.0	35.0		..	..	..	1995	20.2	5.8	52.3	21.2
Egypt, Arab Rep.	1995–96	23.3	22.5	22.9	1999–2000	..	..	16.7	2000	3.1	<0.5	43.9	11.3
El Salvador	1992	55.7	43.1	48.3		..	..	..	1997	21.4	7.9	45.0	20.9
Eritrea	1993–94	..	..	53.0		..	..	..		..	..	..	..
Estonia	1995	14.7	6.8	8.9		..	..	..	1998	<2	<0.5	5.2	0.8
Ethiopia	1995–96	47.0	33.3	45.5	1999–2000	45.0	37.0	44.2	1999–2000	81.9	39.9	98.4	66.5
Finland		..	..	..		..	..	..		..	..	..	..
France		..	..	..		..	..	..		..	..	..	..
Gabon		..	..	..		..	..	..		..	..	..	..
Gambia, The	1992	..	..	64.0	1998	61.0	48.0	..	1998	59.3	28.8	82.9	51.1
Georgia	1997	9.9	12.1	11.1		..	..	..	1998	<2	<0.5	12.4	3.4
Germany		..	..	..		..	..	..		..	..	..	..
Ghana	1992	34.3	26.7	31.4		..	..	..	1999	44.8	17.3	78.5	40.8
Greece		..	..	..		..	..	..		..	..	..	..
Guatemala	1989	71.9	33.7	57.9		..	..	..	2000	16.0	4.6	37.4	16.0
Guinea	1994	..	..	40.0		..	..	..		..	..	..	..
Guinea-Bissau	1991	..	..	48.7		..	..	..		..	..	..	..

Poverty 2.6

	National poverty line								International poverty line				
		Population below the poverty line				Population below the poverty line							
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	Population below $1 a day %	Poverty gap at $1 a day %	Population below $2 a day %	Poverty gap at $2 a day %
Guyana	1993	..	..	43.2		..	..	..	1998	<2	<0.5	6.1	1.7
Haiti	1987	..	..	65.0	1995	66.0	..	..		..	..	..	..
Honduras	1992	46.0	56.0	50.0	1993	51.0	57.0	53.0	1998	23.8	11.6	44.4	23.1
Hungary	1993	..	..	14.5	1997	..	..	17.3	1998	<2	<0.5	7.3	1.7
India	1993–94	37.3	32.4	36.0	1999–2000	30.2	24.7	28.6	1999–2000	34.7	8.2	79.9	35.3
Indonesia	1996	..	..	15.7	1999	..	..	27.1	2000	7.2	1.0	55.4	16.4
Iran, Islamic Rep.		..	..	..		..	..	..	1998	<2	<0.5	7.3	1.5
Iraq		..	..	..		..	..	..		..	..	..	..
Ireland		..	..	..		..	..	..		..	..	..	..
Israel		..	..	..		..	..	..		..	..	..	..
Italy		..	..	..		..	..	..		..	..	..	..
Jamaica	1995	37.0	..	27.5	2000	25.1	..	18.7	2000	<2	<0.5	13.3	2.7
Japan		..	..	..		..	..	..		..	..	..	..
Jordan	1991	..	..	15.0	1997	..	..	11.7	1997	<2	<0.5	7.4	1.4
Kazakhstan	1996	39.0	30.0	34.6		..	..	..	1996	1.5	0.3	15.3	3.9
Kenya	1992	46.4	29.3	42.0		..	..	..	1997	23.0	6.0	58.6	24.1
Korea, Dem. Rep.		..	..	..		..	..	..		..	..	..	..
Korea, Rep.		..	..	..		..	..	..	1998	<2	<0.5	<2	<0.5
Kuwait		..	..	..		..	..	..		..	..	..	..
Kyrgyz Republic	1997	64.5	28.5	51.0	1999	69.7	49.0	64.1	2000	2.0	0.2	34.1	8.3
Lao PDR	1993	48.7	33.1	45.0	1997–98	41.0	26.9	38.6	1997–98	26.3	6.3	73.2	29.6
Latvia		..	..	..		..	..	..	1998	<2	<0.5	8.3	2.0
Lebanon		..	..	..		..	..	..		..	..	..	..
Lesotho	1993	53.9	27.8	49.2		..	..	..	1993	43.1	20.3	65.7	38.1
Liberia		..	..	..		..	..	..		..	..	..	..
Libya		..	..	..		..	..	..		..	..	..	..
Lithuania		..	..	..		..	..	..	2000	<2	<0.5	13.7	4.2
Macedonia, FYR		..	..	..		..	..	..	1998	<2	<0.5	4.0	0.6
Madagascar	1997	76.0	63.2	73.3	1999	76.7	52.1	71.3	1999	49.1	18.3	83.3	44.0
Malawi	1990–91	..	..	54.0	1997–98	66.5	54.9	65.3	1997–98	41.7	14.8	76.1	38.3
Malaysia	1989	..	..	15.5		..	..	..	1997	<2	<0.5	9.3	2.0
Mali		..	..	..		..	..	..	1994	72.8	37.4	90.6	60.5
Mauritania	1996	65.5	30.1	50.0	2000	61.2	25.4	46.3	1995	28.6	9.1	68.7	29.6
Mauritius	1992	..	..	10.6		..	..	..		..	..	..	..
Mexico	1988	..	..	10.1		..	..	..	1998	8.0	2.1	24.3	9.2
Moldova	1997	26.7	..	23.3		..	..	..	2001	22.0	5.8	63.7	25.1
Mongolia	1995	33.1	38.5	36.3		..	..	..	1995	13.9	3.1	50.0	17.5
Morocco	1990–91	18.0	7.6	13.1	1998–99	27.2	12.0	19.0	1999	<2	<0.5	14.3	3.1
Mozambique	1996–97	71.3	62.0	69.4		..	..	..	1996	37.9	12.0	78.4	36.8
Myanmar		..	..	..		..	..	..		..	..	..	..
Namibia		..	..	..		..	..	..	1993	34.9	14.0	55.8	30.4
Nepal	1995–96	44.0	23.0	42.0		..	..	..	1995	37.7	9.7	82.5	37.5
Netherlands		..	..	..		..	..	..		..	..	..	..
New Zealand		..	..	..		..	..	..		..	..	..	..
Nicaragua	1993	76.1	31.9	50.3	1998	68.5	30.5	47.9	1998	82.3	52.2	94.5	71.1
Niger	1989–93	66.0	52.0	63.0		..	..	..	1995	61.4	33.9	85.3	54.8
Nigeria	1985	49.5	31.7	43.0	1992–93	36.4	30.4	34.1	1997	70.2	34.9	90.8	59.0
Norway		..	..	..		..	..	..		..	..	..	..
Oman		..	..	..		..	..	..		..	..	..	..
Pakistan	1993	33.4	17.2	28.6	1998–99	35.9	24.2	32.6	1998	13.4	2.4	65.6	22.0
Panama	1997	64.9	15.3	37.3		..	..	..	1998	7.6	2.9	17.9	7.9
Papua New Guinea	1996	41.3	16.1	37.5		..	..	..		..	..	..	..
Paraguay	1991	28.5	19.7	21.8		..	..	..	1998	19.5	9.8	49.3	26.3
Peru	1994	67.0	46.1	53.5	1997	64.7	40.4	49.0	1996	15.5	5.4	41.4	17.1
Philippines	1994	53.1	28.0	40.6	1997	50.7	21.5	36.8	2000	14.6	2.7	46.4	17.2
Poland	1993	..	..	23.8		..	..	..	1998	<2	<0.5	<2	<0.5

2.6 Poverty

	National poverty line								International poverty line				
		Population below the poverty line				Population below the poverty line							
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	Population below $1 a day %	Poverty gap at $1 a day %	Population below $2 a day %	Poverty gap at $2 a day %
Portugal		..	..	..		..	..	..	1994	<2	<0.5	<0.5	<0.5
Puerto Rico		..	..	..		..	..	..		..	..	..	..
Romania	1994	27.9	20.4	21.5		..	..	..	2000	2.1	0.6	20.5	5.2
Russian Federation	1994	..	..	30.9		..	..	..	2000	6.1	1.2	23.8	8.0
Rwanda	1993	..	..	51.2		..	..	..	1983–85	35.7	7.7	84.6	36.7
Saudi Arabia		..	..	..		..	..	..		..	..	..	..
Senegal	1992	40.4	..	33.4		..	..	..	1995	26.3	7.0	67.8	28.2
Sierra Leone	1989	76.0	53.0	68.0		..	..	..	1989	57.0	39.5	74.5	51.8
Singapore		..	..	..		..	..	..		..	..	..	..
Slovak Republic		..	..	..		..	..	..	1996	<2	<0.5	2.4	0.7
Slovenia		..	..	..		..	..	..	1998	<2	<0.5	<2	<0.5
Somalia		..	..	..		..	..	..		..	..	..	..
South Africa		..	..	..		..	..	..	1995	<2	<0.5	14.5	2.8
Spain		..	..	..		..	..	..		..	..	..	..
Sri Lanka	1990–91	22.0	15.0	20.0	1995–96	27.0	15.0	25.0	1995–96	6.6	1.0	45.4	13.5
Sudan		..	..	..		..	..	..		..	..	..	..
Swaziland	1995	..	..	40.0		..	..	..		..	..	..	..
Sweden		..	..	..		..	..	..		..	..	..	..
Switzerland		..	..	..		..	..	..		..	..	..	..
Syrian Arab Republic		..	..	..		..	..	..		..	..	..	..
Tajikistan		..	..	..		..	..	..	1998	10.3	2.6	50.8	16.3
Tanzania	1991	..	..	51.1	1993	49.7	24.4	41.6	1993	19.9	4.8	59.7	23.0
Thailand	1990	..	..	18.0	1992	15.5	10.2	13.1	2000	<2	<0.5	32.5	9.0
Togo	1987–89	..	..	32.3		..	..	..		..	..	..	..
Trinidad and Tobago	1992	20.0	24.0	21.0		..	..	..	1992	12.4	3.5	39.0	14.6
Tunisia	1990	13.1	3.5	7.4	1995	13.9	3.6	7.6	1995	<2	<0.5	10.0	2.3
Turkey		..	..	..		..	..	..	2000	<2	<0.5	10.3	2.5
Turkmenistan		..	..	..		..	..	..	1998	12.1	2.6	44.0	15.4
Uganda	1993	..	..	55.0		..	..	..	1996	82.2	40.1	96.4	65.9
Ukraine	1995	..	..	31.7		..	..	..	1999	2.9	0.6	45.7	16.3
United Arab Emirates		..	..	..		..	..	..		..	..	..	..
United Kingdom		..	..	..		..	..	..		..	..	..	..
United States		..	..	..		..	..	..		..	..	..	..
Uruguay		..	..	..		..	..	..	1998	<2	<0.5	<2	<0.5
Uzbekistan		..	..	..		..	..	..	1998	19.1	8.1	44.2	19.9
Venezuela, RB	1989	..	..	31.3		..	..	..	1998	15.0	6.9	32.0	15.2
Vietnam	1993	57.2	25.9	50.9		..	..	..	1998	17.7	3.3	63.7	22.9
West Bank and Gaza		..	..	..		..	..	..		..	..	..	..
Yemen, Rep.	1998	45.0	30.8	41.8		..	..	..	1998	15.7	4.5	45.2	15.0
Yugoslavia, Fed. Rep.		..	..	..		..	..	..		..	..	..	..
Zambia	1996	82.8	46.0	69.2	1998	83.1	56.0	72.9	1998	63.7	32.7	87.4	55.4
Zimbabwe	1990–91	35.8	3.4	25.8	1995–96	48.0	7.9	34.9	1990–91	36.0	9.6	64.2	29.4

Poverty 2.6

About the data

International comparisons of poverty data entail both conceptual and practical problems. Different countries have different definitions of poverty, and consistent comparisons between countries can be difficult. Local poverty lines tend to have higher purchasing power in rich countries, where more generous standards are used than in poor countries. Is it reasonable to treat two people with the same standard of living—in terms of their command over commodities—differently because one happens to live in a better-off country? Can we hold the real value of the poverty line constant across countries, just as we do when making comparisons over time?

Poverty measures based on an international poverty line attempt to do this. The commonly used $1 a day standard, measured in 1985 international prices and adjusted to local currency using purchasing power parities (PPPs), was chosen for the World Bank's *World Development Report 1990: Poverty* because it is typical of the poverty lines in low-income countries. PPP exchange rates, such as those from the Penn World Tables or the World Bank, are used because they take into account the local prices of goods and services not traded internationally. But PPP rates were designed not for making international poverty comparisons but for comparing aggregates from national accounts. Thus there is no certainty that an international poverty line measures the same degree of need or deprivation across countries.

This year's edition of the *World Development Indicators* (like those of the past three years) uses 1993 consumption PPP estimates produced by the World Bank. The international poverty line, set at $1 a day in 1985 PPP terms, has been recalculated in 1993 PPP terms at about $1.08 a day. Any revisions in the PPP of a country to incorporate better price indexes can produce dramatically different poverty lines in local currency.

Problems also exist in comparing poverty measures within countries. For example, the cost of living is typically higher in urban than in rural areas. So the urban monetary poverty line should be higher than the rural poverty line. But it is not always clear that the difference between urban and rural poverty lines found in practice properly reflects the difference in the cost of living. In some countries the urban poverty line in common use has a higher real value than does the rural poverty line. Sometimes the difference has been so large as to imply that the incidence of poverty is greater in urban than in rural areas, even though the reverse is found when adjustments are made only for differences in the cost of living. As with international comparisons, when the real value of the poverty line varies, it is not clear how meaningful such urban-rural comparisons are.

The problems of making poverty comparisons do not end there. More issues arise in measuring household living standards. The choice between income and consumption as a welfare indicator is one issue. Income is generally more difficult to measure accurately, and consumption accords better with the idea of the standard of living than does income, which can vary over time even if the standard of living does not. But consumption data are not always available, and when they are not there is little choice but to use income. There are still other problems. Household survey questionnaires can differ widely, for example, in the number of distinct categories of consumer goods they identify. Survey quality varies, and even similar surveys may not be strictly comparable.

Comparisons across countries at different levels of development also pose a potential problem, because of differences in the relative importance of consumption of nonmarket goods. The local market value of all consumption in kind (including consumption from own production, particularly important in underdeveloped rural economies) should be included in the measure of total consumption expenditure. Similarly, the imputed profit from production of nonmarket goods should be included in income. This is not always done, though such omissions were a far bigger problem in surveys before the 1980s. Most survey data now include valuations for consumption or income from own production. Nonetheless, valuation methods vary. For example, some surveys use the price in the nearest market, while others use the average farm gate selling price.

Wherever possible, consumption has been used as the welfare indicator for deciding who is poor. Where consumption data are unavailable, income data are used, though there is a change in this year's edition in how income surveys are used. In the past, average income was adjusted to accord with consumption and income data from national accounts. This approach was tested using data for more than 20 countries for which the surveys provided both income and consumption expenditure data. Income gave a higher mean than consumption but also greater income inequality. These two effects roughly canceled each other out when poverty measures based on consumption were compared with those based on income from the same survey; statistically, there was no significant difference. So this year's edition uses income data to estimate poverty directly and no longer adjusts the income mean.

In all cases the measures of poverty have been calculated from primary data sources (tabulations or household data) rather than existing estimates. Estimation from tabulations requires an interpolation method; the method chosen was Lorenz curves with flexible functional forms, which have proved reliable in past work. Empirical Lorenz curves were weighted by household size, so they are based on percentiles of population, not households.

Definitions

• **Survey year** is the year in which the underlying data were collected. • **Rural poverty rate** is the percentage of the rural population living below the national rural poverty line. • **Urban poverty rate** is the percentage of the urban population living below the national urban poverty line. • **National poverty rate** is the percentage of the population living below the national poverty line. National estimates are based on population-weighted subgroup estimates from household surveys. • **Population below $1 a day** and **population below $2 a day** are the percentages of the population living on less than $1.08 a day and $2.15 a day at 1993 international prices (equivalent to $1 and $2 in 1985 prices, adjusted for purchasing power parity). Poverty rates are comparable across countries, but as a result of revisions in PPP exchange rates, they cannot be compared with poverty rates reported in previous editions for individual countries. • **Poverty gap** is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

Data sources

The poverty measures are prepared by the World Bank's Development Research Group. The national poverty lines are based on the World Bank's country poverty assessments. The international poverty lines are based on nationally representative primary household surveys conducted by national statistical offices or by private agencies under the supervision of government or international agencies and obtained from government statistical offices and World Bank country departments. The World Bank has prepared an annual review of its poverty work since 1993. *Poverty Reduction and the World Bank: Progress in 2001/02* is forthcoming.

2.7 Social indicators of poverty

	Survey year	Infant mortality rate (per 1,000 live births)		Births attended by skilled health staff (% of births in the five years prior to survey)		Prevalence of child malnutrition (% of children under five)		Women with low body mass index (%)		Total fertility rate (births per woman)	
		Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile
Bangladesh	1996–97	96	57	2	30	60	28	64.4	32.6	3.8	2.2
Benin	1996	119	63	34	98	37	19	21.0	7.0	7.3	3.8
Bolivia	1998	107	26	20	98	17	3	0.5	2.2	7.4	2.1
Brazil	1996	83	29	72	99	12	3	8.8	5.4	4.8	1.7
Burkina Faso	1992–93	114	80	26	86	36	22	15.7	10.2	7.5	4.6
Cameroon	1991	104	51	32	95	25	6	..	..	6.2	4.8
Central African Republic	1994–95	132	54	14	82	37	20	16.3	11.2	5.1	4.9
Chad	1996–97	80	89	3	47	50	29	27.5	21.0	7.1	6.2
Colombia	1995	41	16	61	98	15	3	5.9	1.2	5.2	1.7
Comoros	1996	87	65	26	85	36	18	7.4	8.6	6.4	3.0
Côte d'Ivoire	1994	117	63	17	84	31	13	11.0	5.7	6.4	3.7
Dominican Republic	1996	67	23	89	98	13	1	8.9	3.0	5.1	2.1
Egypt, Arab Rep.	1995–96	110	32	21	86	17	8	2.9	0.4	4.4	2.7
Ghana	1993	78	46	25	85	33	13	11.3	7.2	6.7	3.4
Guatemala	1995	57	35	9	92	35	7	4.2	2.0	8.0	2.4
Haiti	1994–95	94	74	24	78	39	10	24.9	9.3	7.0	2.3
India	1992–93	109	44	12	79	60	34	..	..	4.1	2.1
Indonesia	1997	78	23	21	89	..	..	..	..	3.3	2.0
Kazakhstan	1995	35	29	99	100	11	3	7.9	3.8	3.2	1.3
Kenya	1998	103	50	23	80	32	10	17.6	6.0	6.6	3.0
Kyrgyz Republic	1997	83	46	96	100	13	8	5.6	3.7	4.6	2.0
Madagascar	1997	119	58	30	89	45	32	24.3	15.1	8.1	3.4
Malawi	1992	141	106	45	78	34	17	14.1	6.0	7.2	6.1
Mali	1995–96	151	93	11	81	47	28	15.9	12.2	6.9	5.1
Morocco	1993	80	35	5	78	17	2	6.2	1.8	6.7	2.3
Mozambique	1997	188	95	18	82	37	14	17.2	4.2	5.2	4.4
Namibia	1992	64	57	51	91	36	13	19.3	5.3	6.9	3.6
Nepal	1996	96	64	3	34	53	28	25.7	21.4	6.2	2.9
Nicaragua	1997–98	51	26	33	92	18	4	4.0	4.1	6.6	1.9
Niger	1998	131	86	4	63	52	37	26.7	12.8	8.4	5.7
Nigeria	1990	102	69	12	70	40	22	..	..	6.6	4.7
Pakistan	1990–91	89	63	5	55	54	26	..	..	5.1	4.0
Paraguay	1990	43	16	41	98	6	1	..	..	7.9	2.7
Peru	1996	78	20	14	97	17	1	1.3	1.1	6.6	1.7
Philippines	1998	49	21	21	92	..	..	..	..	6.5	2.1
Senegal	1997	85	45	20	86	..	..	..	..	7.4	3.6
Tanzania	1996	87	65	27	81	40	18	12.2	7.1	7.8	3.9
Togo	1998	84	66	25	91	32	12	13.3	7.9	7.3	2.9
Turkey	1993	100	25	43	99	22	3	2.7	3.2	3.7	1.5
Uganda	1995	109	63	23	70	31	16	12.7	5.8	7.5	5.4
Uzbekistan	1996	50	47	92	100	25	12	11.4	5.7	4.4	2.1
Vietnam	1997	43	17	49	99	..	..	..	..	3.1	1.6
Yemen, Rep.	1997	109	60	7	50	20	6	39.0	13.1	7.3	4.7
Zambia	1996	124	70	19	91	32	13	10.2	7.9	7.4	4.4
Zimbabwe	1994	52	42	55	93	19	9	5.7	1.2	6.2	2.8

Social indicators of poverty 2.7

About the data

The data in the table describe the health status of, and use of health services by, individuals in different socioeconomic groups within countries. The data are from Demographic and Health Surveys conducted by Macro International with the support of the U.S. Agency for International Development. These large-scale household sample surveys, conducted periodically in about 50 developing countries, collect information on a large number of health, nutrition, and population measures as well as on respondents' social, demographic, and economic characteristics using a standard set of questionnaires. The data presented here draw on responses to individual and household questionnaires.

In the table socioeconomic status is defined in terms of a household's assets, including ownership of consumer items, characteristics of the household's dwelling, and other characteristics related to wealth. Each household asset for which information was collected was assigned a weight generated through principal component analysis. The resulting scores were standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one. The standardized scores were then used to create break points defining wealth quintiles, expressed as quintiles of individuals in the population rather than quintiles of individuals at risk with respect to any one health indicator.

The choice of the asset index for defining socioeconomic status was based on pragmatic rather than conceptual considerations: Demographic and Health Surveys do not provide income or consumption data but do have detailed information on households' ownership of consumer goods and their access to a variety of goods and services. Like income or consumption, the asset index defines disparities in primarily economic terms. It therefore excludes other possibilities of disparities among groups, such as those based on gender, education, ethnic background, or other facets of social exclusion. To that extent the index provides only a partial view of the multidimensional concepts of poverty, inequality, and inequity.

Creating one index that includes all asset indicators limits the types of analysis that can be performed. In particular, the use of a unified index does not permit a disaggregated analysis to examine which asset indicators have a more or less important association with health status or use of health services. In addition, some asset indicators may reflect household wealth better in some countries than in others—or reflect different degrees of wealth in different countries. Taking such information into account and creating country-specific asset indexes with country-specific choices of asset indicators might produce a more effective and accurate index for each country. The asset index used in the table does not have this flexibility.

The analysis has been carried out for 45 countries, with the results issued in country reports. The table shows the estimates for the poorest and richest quintiles only; the full set of estimates for more than 20 indicators is available in the country reports (see *Data sources*).

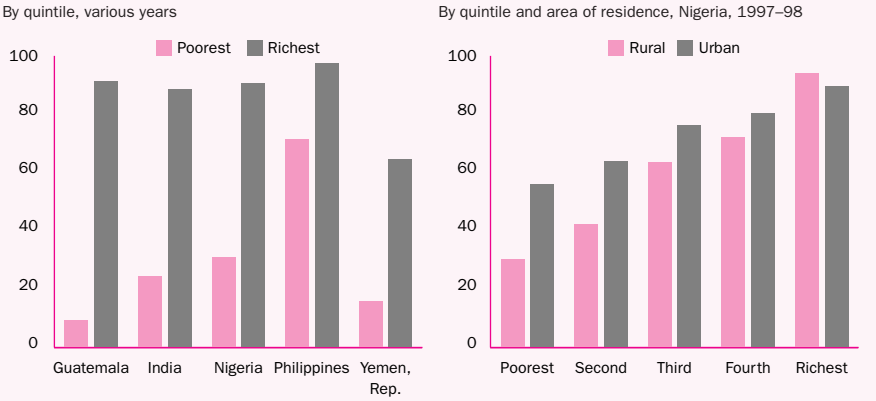
Definitions

• **Survey year** is the year in which the underlying data were collected. • **Infant mortality rate** is the number of infants dying before reaching one year of age, per 1,000 live births. The estimates are based on births in the 10 years preceding the survey and may therefore differ from the estimates in table 2.20. • **Births attended by skilled health staff** are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period, to conduct deliveries on their own, and to care for newborns. • **Prevalence of child malnutrition** is the percentage of children whose weight is more than two standard deviations below the median reference standard for their age as established by the U.S. National Center for Health Statistics, the U.S. Centers for Disease Control and Prevention, and the World Health Organization. The data are based on a sample of children who survived to age three, four, or five years, depending on the country. • **Women with low body mass index** are the percentage of women whose body mass index (BMI) is less than 18.5, a cutoff point indicating acute malnutrition. The BMI is the weight in kilograms divided by the square of the height in meters. • **Total fertility rate** is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. The estimates are based on births during the three years preceding the survey and may therefore differ from those in table 2.17.

2.7a

Poor women lack adequate access to reproductive health care in urban as well as rural areas

% of pregnant women receiving antenatal care



Rich women are more likely to receive antenatal care than poor women. This holds true even in rural areas, showing that poverty, not area of residence, has a greater effect on access to health care.

Source: Demographic and Health Survey data.

Data sources

The data are from an analysis of Demographic and Health Surveys by the World Bank and Macro International. Country reports are available at http://www.worldbank.org/poverty/health/data/index.htm.

2.8 Distribution of income or consumption

	Survey year	Gini Index	Percentage share of income or consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Afghanistan		..	..	..	..	..	..	..	..
Albania		..	..	..	..	..	..	..	..
Algeria	1995 [a, b]	35.3	2.8	7.0	11.6	16.1	22.7	42.6	26.8
Angola		..	..	..	..	..	..	..	..
Argentina		..	..	..	..	..	..	..	..
Armenia	1998 [a, b]	37.9	2.6	6.7	11.3	15.4	21.6	45.1	29.7
Australia	1994 [c, d]	35.2	2.0	5.9	12.0	17.2	23.6	41.3	25.4
Austria	1995 [c, d]	30.5	2.3	7.0	13.2	17.9	24.0	37.9	22.4
Azerbaijan	2001 [a, b]	36.5	3.1	7.4	11.5	15.3	21.2	44.5	29.5
Bangladesh	2000 [a, b]	31.8	3.9	9.0	12.5	15.9	21.2	41.3	26.7
Belarus	2000 [a, b]	30.4	3.5	8.4	13.0	17.0	22.5	39.1	24.1
Belgium	1996 [c, d]	25.0	2.9	8.3	14.1	17.7	22.7	37.3	22.6
Benin		..	..	..	..	..	..	..	..
Bolivia	1999 [a, b]	44.7	1.3	4.0	9.2	14.8	22.9	49.1	32.0
Bosnia and Herzegovina		..	..	..	..	..	..	..	..
Botswana	1993 [a, b]	63.0	0.7	2.2	4.9	8.2	14.4	70.3	56.6
Brazil	1998 [c, d]	59.1	0.5	2.0	5.7	10.0	18.0	64.4	46.7
Bulgaria	2001 [c, d]	31.9	2.4	6.7	13.1	17.9	23.4	38.9	23.7
Burkina Faso	1998 [a, b]	48.2	1.8	4.5	7.4	10.6	16.7	60.7	46.3
Burundi	1998 [a, b]	33.3	1.7	5.1	10.3	15.1	21.5	48.0	32.8
Cambodia	1997 [a, b]	40.4	2.9	6.9	10.7	14.7	20.1	47.6	33.8
Cameroon	1996 [a, b]	47.7	1.8	4.6	8.3	13.0	21.0	53.0	36.5
Canada	1997 [c, d]	31.5	2.7	7.3	12.9	17.4	23.1	39.3	23.9
Central African Republic	1993 [a, b]	61.3	0.7	2.0	4.9	9.6	18.5	65.0	47.7
Chad		..	..	..	..	..	..	..	..
Chile	1998 [c, d]	57.5	1.1	3.2	6.7	10.7	18.1	61.3	45.4
China	1998 [c, d]	40.3	2.4	5.9	10.2	15.1	22.2	46.6	30.4
Hong Kong, China	1996 [c, d]	43.4	2.0	5.3	9.4	13.9	20.7	50.7	34.9
Colombia	1998 [c, d]	57.1	0.1	1.4	6.1	10.6	18.2	63.8	47.7
Congo, Dem. Rep.		..	..	..	..	..	..	..	..
Congo, Rep.		..	..	..	..	..	..	..	..
Costa Rica	1998 [c, d]	45.9	0.4	2.6	8.0	13.2	21.4	54.8	37.7
Côte d'Ivoire	1995 [a, b]	36.7	3.1	7.1	11.2	15.6	21.9	44.3	28.8
Croatia	2001 [a, b]	29.0	3.4	8.3	12.8	16.8	22.6	39.6	24.5
Cuba		..	..	..	..	..	..	..	..
Czech Republic	1996 [c, d]	25.4	4.3	10.3	14.5	17.7	21.7	35.9	22.4
Denmark	1997 [c, d]	24.7	2.6	8.3	14.7	18.2	22.9	35.8	21.3
Dominican Republic	1998 [c, d]	47.4	2.1	5.1	8.6	13.0	20.0	53.3	37.9
Ecuador	1998 [a, b]	43.7	0.9	3.3	7.5	11.7	19.4	58.0	41.6
Egypt, Arab Rep.	1999 [a, b]	34.4	3.7	8.6	12.1	15.4	20.4	43.6	29.5
El Salvador	1998 [c, d]	50.8	1.2	3.3	7.3	12.4	20.7	56.4	39.4
Eritrea		..	..	..	..	..	..	..	..
Estonia	1998 [c, d]	37.6	3.0	7.0	11.0	15.3	21.6	45.1	29.8
Ethiopia	2000 [a, b]	48.6	0.7	2.4	6.1	11.1	19.6	60.8	43.8
Finland	1995 [c, d]	25.6	4.1	10.1	14.7	17.9	22.3	35.0	20.9
France	1995 [c, d]	32.7	2.8	7.2	12.6	17.2	22.8	40.2	25.1
Gabon		..	..	..	..	..	..	..	..
Gambia, The	1998 [a, b]	47.8	1.5	4.0	7.6	12.3	20.8	55.2	38.0
Georgia	2000 [a, b]	38.9	2.2	6.0	10.8	15.6	22.4	45.2	29.3
Germany	1998 [c, d]	38.2	2.0	5.7	10.5	15.7	23.4	44.7	28.0
Ghana	1999 [a, b]	39.6	2.1	5.6	10.1	14.9	22.8	46.6	30.0
Greece	1998 [c, d]	35.4	2.9	7.1	11.4	15.8	22.0	43.6	28.5
Guatemala	2000 [c, d]	59.9	0.9	2.6	5.9	9.8	17.6	64.1	48.3
Guinea	1994 [a, b]	40.3	2.6	6.4	10.4	14.8	21.2	47.2	32.0
Guinea-Bissau	1993 [a, b]	47.0	2.1	5.2	8.8	13.1	19.4	53.4	39.3
Guyana	1999 [a, b]	44.6	1.3	4.5	9.9	14.5	21.4	49.7	33.8
Haiti		..	..	..	..	..	..	..	..

Distribution of income or consumption 2.8

	Survey year	Gini Index	Percentage share of income or consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Honduras	1998 [c, d]	59.0	0.5	2.0	6.2	11.3	19.5	61.0	44.4
Hungary	1998 [a, b]	24.4	4.1	10.0	14.7	18.3	22.7	34.4	20.5
India	1997 [a, b]	37.8	3.5	8.1	11.6	15.0	19.3	46.1	33.5
Indonesia	2000 [a, b]	30.3	3.6	8.4	11.9	15.4	21.0	43.3	28.5
Iran, Islamic Rep.	1998 [a, b]	43.0	2.0	5.1	9.4	14.1	21.5	49.9	33.7
Iraq		..	..	..	..	..	..	..	..
Ireland	1987 [c, d]	35.9	2.5	6.7	11.6	16.4	22.4	42.9	27.4
Israel	1997 [c, d]	35.5	2.4	6.9	11.4	16.3	22.9	44.3	28.2
Italy	1998 [c, d]	36.0	1.9	6.0	12.0	16.8	22.6	42.6	27.4
Jamaica	2000 [a, b]	37.9	2.7	6.7	10.7	15.0	21.7	46.0	30.3
Japan	1993 [c, d]	24.9	4.8	10.6	14.2	17.6	22.0	35.7	21.7
Jordan	1997 [a, b]	36.4	3.3	7.6	11.4	15.5	21.1	44.4	29.8
Kazakhstan	2001 [a, b]	31.2	3.4	8.2	12.5	16.8	22.9	39.6	24.2
Kenya	1997 [a, b]	44.5	2.3	5.6	9.3	13.6	20.2	51.2	36.1
Korea, Dem. Rep.		..	..	..	..	..	..	..	..
Korea, Rep.	1998 [c, d]	31.6	2.9	7.9	13.6	18.0	23.1	37.5	22.5
Kuwait		..	..	..	..	..	..	..	..
Kyrgyz Republic	2001 [a, b]	29.0	3.9	9.1	13.2	16.9	22.5	38.3	23.3
Lao PDR	1997 [a, b]	37.0	3.2	7.6	11.4	15.3	20.8	45.0	30.6
Latvia	1998 [c, d]	32.4	2.9	7.6	12.9	17.1	22.1	40.3	25.9
Lebanon		..	..	..	..	..	..	..	..
Lesotho	1995 [a, b]	56.0	0.5	1.4	3.7	7.7	16.5	70.7	53.6
Liberia		..	..	..	..	..	..	..	..
Libya		..	..	..	..	..	..	..	..
Lithuania	2000 [a, b]	36.3	3.2	7.9	12.7	16.9	22.6	40.0	24.9
Luxembourg	1998 [c, d]	30.8	3.2	8.0	12.8	16.9	22.5	39.7	24.7
Macedonia, FYR	1998 [a, b]	28.2	3.3	8.4	14.0	17.7	23.1	36.7	22.1
Madagascar	1999 [a, b]	46.0	2.5	6.4	10.7	15.5	22.7	44.8	28.6
Malawi	1997 [a, b]	50.3	1.9	4.9	8.5	12.3	18.3	56.1	42.2
Malaysia	1997 [c, d]	49.2	1.7	4.4	8.1	12.9	20.3	54.3	38.4
Mali	1994 [a, b]	50.5	1.8	4.6	8.0	11.9	19.3	56.2	40.4
Mauritania	1995 [a, b]	37.3	2.5	6.4	11.2	16.0	22.4	44.1	28.4
Mauritius		..	..	..	..	..	..	..	..
Mexico	1998 [c, d]	51.9	1.2	3.4	7.4	12.1	19.5	57.6	41.6
Moldova	2001 [a, b]	36.2	2.8	7.1	11.5	15.8	22.0	43.7	28.4
Mongolia	1998 [a, b]	44.0	2.1	5.6	10.0	13.8	19.4	51.2	37.0
Morocco	1998–99 [a, b]	39.5	2.6	6.5	10.6	14.8	21.3	46.6	30.9
Mozambique	1996–97 [a, b]	39.6	2.5	6.5	10.8	15.1	21.1	46.5	31.7
Myanmar		..	..	..	..	..	..	..	..
Namibia	1993 [c, d]	70.7	0.5	1.4	3.0	5.4	11.5	78.7	64.5
Nepal	1995–96 [a, b]	36.7	3.2	7.6	11.5	15.1	21.0	44.8	29.8
Netherlands	1994 [c, d]	32.6	2.8	7.3	12.7	17.2	22.8	40.1	25.1
New Zealand	1997 [c, d]	36.2	2.2	6.4	11.4	15.8	22.6	43.8	27.8
Nicaragua	1998 [a, b]	60.3	0.7	2.3	5.9	10.4	17.9	63.6	48.8
Niger	1995 [a, b]	50.5	0.8	2.6	7.1	13.9	23.1	53.3	35.4
Nigeria	1996–97 [a, b]	50.6	1.6	4.4	8.2	12.5	19.3	55.7	40.8
Norway	1995 [c, d]	25.8	4.1	9.7	14.3	17.9	22.2	35.8	21.8
Oman		..	..	..	..	..	..	..	..
Pakistan	1998–99 [a, b]	33.0	3.7	8.8	12.5	15.9	20.6	42.3	28.3
Panama	1997 [a, b]	48.5	1.2	3.6	8.1	13.6	21.9	52.8	35.7
Papua New Guinea	1996 [a, b]	50.9	1.7	4.5	7.9	11.9	19.2	56.5	40.5
Paraguay	1998 [c, d]	57.7	0.5	1.9	6.0	11.4	20.1	60.7	43.8
Peru	1996 [c, d]	46.2	1.6	4.4	9.1	14.1	21.3	51.2	35.4
Philippines	2000 [a, b]	46.1	2.2	5.4	8.8	13.1	20.5	52.3	36.3
Poland	1998 [a, b]	31.6	3.2	7.8	12.8	17.1	22.6	39.7	24.7
Portugal	1997 [c, d]	38.5	2.0	5.8	11.0	15.5	21.9	45.9	29.8
Puerto Rico		..	..	..	..	..	..	..	..

2.8 Distribution of income or consumption

	Survey year	Gini Index	Percentage share of income or consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Romania	2000 [a, b]	30.3	3.3	8.2	13.1	17.4	22.9	38.4	23.6
Russian Federation	2000 [a, b]	45.6	1.8	4.9	9.5	14.1	20.3	51.3	36.0
Rwanda	1983–85 [a, b]	28.9	4.2	9.7	13.2	16.5	21.6	39.1	24.2
Saudi Arabia		..	..	..	..	..	..	..	..
Senegal	1995 [a, b]	41.3	2.6	6.4	10.3	14.5	20.6	48.2	33.5
Sierra Leone	1989 [a, b]	62.9	0.5	1.1	2.0	9.8	23.7	63.4	43.6
Singapore	1998 [c, d]	42.5	1.9	5.0	9.4	14.6	22.0	49.0	32.8
Slovak Republic	1996 [c, d]	25.8	3.1	8.8	14.9	18.7	22.8	34.8	20.9
Slovenia	1998 [c, d]	28.4	3.9	9.1	13.4	17.3	22.5	37.7	23.0
Somalia		..	..	..	..	..	..	..	..
South Africa	1995 [a, b]	59.3	0.7	2.0	4.3	8.3	18.9	66.5	46.9
Spain	1990 [c, d]	32.5	2.8	7.5	12.6	17.0	22.6	40.3	25.2
Sri Lanka	1995 [a, b]	34.4	3.5	8.0	11.8	15.8	21.5	42.8	28.0
St. Lucia	1995 [c, d]	42.6	2.0	5.2	9.9	14.8	21.8	48.3	32.5
Sudan		..	..	..	..	..	..	..	..
Swaziland	1994 [c, d]	60.9	1.0	2.7	5.8	10.0	17.1	64.4	50.2
Sweden	1995 [c, d]	25.0	3.4	9.1	14.5	18.4	23.4	34.5	20.1
Switzerland	1992 [c, d]	33.1	2.6	6.9	12.7	17.3	22.9	40.3	25.2
Syrian Arab Republic		..	..	..	..	..	..	..	..
Tajikistan	1998 [a, b]	34.7	3.2	8.0	12.9	17.0	22.1	40.0	25.2
Tanzania	1993 [a, b]	38.2	2.8	6.8	11.0	15.1	21.6	45.5	30.1
Thailand	2000 [a, b]	43.2	2.5	6.1	9.5	13.5	20.9	50.0	33.8
Togo		..	..	..	..	..	..	..	..
Trinidad and Tobago	1992 [c, d]	40.3	2.1	5.5	10.3	15.5	22.7	45.9	29.9
Tunisia	1995 [a, b]	41.7	2.3	5.7	9.9	14.7	21.8	47.9	31.8
Turkey	2000 [a, b]	40.0	2.3	6.1	10.6	14.9	21.8	46.7	30.7
Turkmenistan	1998 [a, b]	40.8	2.6	6.1	10.2	14.7	21.5	47.5	31.7
Uganda	1996 [a, b]	37.4	3.0	7.1	11.1	15.4	21.5	44.9	29.8
Ukraine	1999 [a, b]	29.0	3.7	8.8	13.3	17.4	22.7	37.8	23.2
United Arab Emirates		..	..	..	..	..	..	..	`
United Kingdom	1995 [c, d]	36.0	2.1	6.1	11.7	16.3	22.7	43.2	27.5
United States	1997 [c, d]	40.8	1.8	5.2	10.5	15.6	22.4	46.4	30.5
Uruguay [e]	1998 [c, d]	44.8	1.6	4.5	9.2	14.2	21.7	50.4	33.8
Uzbekistan	2000 [a, b]	26.8	3.6	9.2	14.1	17.9	22.6	36.3	22.0
Venezuela, RB	1998 [c, d]	49.1	0.6	3.0	8.4	13.7	21.6	53.4	36.3
Vietnam	1998 [a, b]	36.1	3.6	8.0	11.4	15.2	20.9	44.5	29.9
West Bank and Gaza		..	..	..	..	..	..	..	..
Yemen, Rep.	1998 [a, b]	33.4	3.0	7.4	12.2	16.7	22.5	41.2	25.9
Yugoslavia, Fed. Rep.		..	..	..	..	..	..	..	..
Zambia	1998 [a, b]	52.6	1.1	3.3	7.6	12.5	20.0	56.6	41.0
Zimbabwe	1995 [a, b]	56.8	1.8	4.6	8.1	12.2	19.3	55.7	40.3

a. Refers to expenditure shares by percentiles of population. b. Ranked by per capita expenditure. c. Refers to income shares by percentiles of population. d. Ranked by per capita income. e. Urban data.

2.8 Distribution of income or consumption

About the data

Inequality in the distribution of income is reflected in the percentage shares of income or consumption accruing to segments of the population ranked by income or consumption levels. The segments ranked lowest by personal income receive the smallest shares of total income. The Gini index provides a convenient summary measure of the degree of inequality.

Data on personal or household income or consumption come from nationally representative household surveys. The data in the table refer to different years between 1987 and 2001. Footnotes to the survey year indicate whether the rankings are based on per capita income or consumption. Each distribution is based on percentiles of population—rather than of households—with households ranked by income or expenditure per person.

Where the original data from the household survey were available, they have been used to directly calculate the income (or consumption) shares by quintile. Otherwise shares have been estimated from the best available grouped data.

The distribution data have been adjusted for household size, providing a more consistent measure of per capita income or consumption. No adjustment has been made for spatial differences in cost of living within countries, because the data needed for such calculations are generally unavailable. For further details on the estimation method for low- and middle-income economies, see Ravallion and Chen (1996).

Because the underlying household surveys differ in method and in the type of data collected, the distribution data are not strictly comparable across countries. These problems are diminishing as survey methods improve and become more standardized, but achieving strict comparability is still impossible (see *About the data* for table 2.6).

Two sources of noncomparability should be noted. First, the surveys can differ in many respects, including whether they use income or consumption expenditure as the living standard indicator. The distribution of income is typically more unequal than the distribution of consumption. In addition, the definitions of income used usually differ among surveys. Consumption is usually a much better welfare indicator, particularly in developing countries. Second, households differ in size (number of members) and in the extent of income sharing among members. And individuals differ in age and consumption needs. Differences among countries in these respects may bias comparisons of distribution.

World Bank staff have made an effort to ensure that the data are as comparable as possible. Wherever possible, consumption has been used rather than income. Income distribution and Gini indexes for high-income countries are calculated directly from the Luxembourg Income Study database, using an estimation method consistent with that applied for developing countries.

Definitions

• **Survey year** is the year in which the underlying data were collected. • **Gini index** measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality. • **Percentage share of income or consumption** is the share that accrues to subgroups of population indicated by deciles or quintiles. Percentage shares by quintile may not sum to 100 because of rounding.

Data sources

The data on distribution are compiled by the World Bank's Development Research Group using primary household survey data obtained from government statistical agencies and World Bank country departments. The data for high-income economies are from the Luxembourg Income Study database.

2.9 Assessing vulnerability

	Urban informal sector employment			Children 10–14 in the labor force		Pension contributors			Private health expenditure
	% of urban employment			% of age group					
	Male	Female	Total				% of	% of working-age	% of
	1995–99 [a]	1995–99 [a]	1995–99 [a]	1980	2001	Year	labor force	population	total 2000
Afghanistan	..	..	..	28	24		..	..	36.5
Albania	..	..	..	4	0	1995	32.0	31.0	37.9
Algeria	..	..	..	7	0	1997	31.0	23.0	17.8
Angola	..	..	..	30	26		..	..	44.1
Argentina	48	36	43	8	2	1995	53.0	39.0	45.0
Armenia	..	..	..	0	0	1995	66.6	49.4	57.7
Australia	..	..	..	0	0		..	..	27.6
Austria	..	..	..	0	0	1993	95.8	76.6	30.3
Azerbaijan	..	..	..	0	0	1996	52.0	46.0	24.9
Bangladesh	..	..	..	35	27	1993	3.5	2.6	63.6
Belarus	..	..	..	0	0	1992	97.0	94.0	17.2
Belgium	..	..	..	0	0	1995	86.2	65.9	28.8
Benin	..	..	..	30	26	1996	4.8	..	50.0
Bolivia	..	..	53	19	11	1999	14.8	13.3	27.6
Bosnia and Herzegovina	..	..	..	1	0		..	..	31.0
Botswana	12	28	19	26	14		..	..	36.9
Brazil	43	31	38	19	14	1996	36.0	31.0	59.2
Bulgaria	..	..	..	0	0	1994	64.0	63.0	22.4
Burkina Faso	..	..	..	71	42	1993	3.1	3.0	29.3
Burundi	..	..	..	50	48	1993	3.3	3.0	46.9
Cambodia	..	..	..	27	24		..	..	75.5
Cameroon	..	..	..	34	23	1993	13.7	11.5	75.3
Canada	..	..	..	0	0	1992	91.9	80.2	28.0
Central African Republic	..	..	..	..	..		..	..	51.6
Chad	..	..	..	42	36	1990	1.1	1.0	20.2
Chile	33	32	32	0	0	2001	54.8	34.9	57.4
China	..	..	..	30	7	1994	17.6	17.4	63.4
Hong Kong, China	..	..	..	6	0		..	..	..
Colombia	49	44	47	12	6	1999	35.0	29.3	44.2
Congo, Dem. Rep.	..	..	..	33	28		..	..	26.3
Congo, Rep.	..	..	..	27	25	1992	5.8	5.6	29.8
Costa Rica	43	36	40	10	4	1998	50.6	38.5	31.6
Côte d'Ivoire	37	73	53	28	18	1997	9.3	9.1	63.1
Croatia	6	7	6	0	0	1997	66.0	57.0	20.0
Cuba	..	..	..	0	0		..	..	10.8
Czech Republic	..	..	..	0	0	1995	85.0	67.2	8.6
Denmark	..	..	..	0	0	1993	89.6	88.0	17.9
Dominican Republic	..	..	..	25	13	2001	30.9	18.0	72.0
Ecuador	54	55	53	9	4	1999	43.1	33.8	49.6
Egypt, Arab Rep.	..	..	..	18	9	1994	50.0	34.2	53.9
El Salvador	..	..	..	17	13	1996	26.2	25.0	57.0
Eritrea	..	..	..	44	38		..	..	34.4
Estonia	..	..	..	0	0	1995	76.0	67.0	23.3
Ethiopia	19	53	33	46	41		..	..	60.6
Finland	..	..	..	0	0	1993	90.3	83.6	24.9
France	..	..	..	0	0	1993	88.4	74.6	24.0
Gabon	..	..	..	29	13	1995	15.0	14.0	31.4
Gambia, The	..	..	..	44	33		..	..	17.6
Georgia	..	..	..	0	0	2000	41.7	40.2	89.5
Germany	..	..	..	0	0	1995	94.2	82.3	24.9
Ghana	..	..	79	16	12	1993	7.2	9.0	46.5
Greece	..	..	..	5	0	1996	88.0	73.0	44.5
Guatemala	..	..	..	19	14	1999	22.8	19.3	52.1
Guinea	..	..	..	41	31	1993	1.5	1.8	42.9
Guinea-Bissau	..	..	..	43	36		..	..	34.6
Haiti	..	..	..	33	22		..	..	50.7

2.9 Assessing vulnerability

	Urban informal sector employment			Children 10–14 in the labor force		Pension contributors			Private health expenditure
	% of urban employment			% of age group					
	Male	Female	Total					% of working-age population	% of total
	1995–99 [a]	1995–99 [a]	1995–99 [a]	1980	2001	Year	% of labor force		2000
Honduras	53	58	55	14	7	1999	20.6	17.7	36.9
Hungary	..	..	..	0	0	1996	77.0	65.0	24.3
India	..	..	..	21	12	1992	10.6	7.9	82.2
Indonesia	19	23	21	13	7	1995	8.0	7.0	76.3
Iran, Islamic Rep.	3	90	18	14	2	2000	48.2	25.2	53.7
Iraq	..	..	..	11	2		..	..	40.1
Ireland	..	..	..	1	0	1992	79.3	64.7	24.2
Israel	..	..	..	0	0	1992	82.0	63.0	24.1
Italy	..	..	..	2	0	1997	87.0	68.0	26.3
Jamaica	26	21	24	0	0	1999	44.4	45.8	53.0
Japan	..	..	..	0	0	1994	97.5	92.3	23.3
Jordan	..	..	..	4	0	1995	40.0	25.0	48.2
Kazakhstan	..	..	12	0	0	2001	38.3	28.3	26.8
Kenya	..	..	58	45	39	1995	18.0	24.0	77.8
Korea, Dem. Rep.	..	..	..	3	0		..	..	22.7
Korea, Rep.	..	..	..	0	0	1996	58.0	43.0	55.9
Kuwait	..	..	..	0	0		..	..	12.8
Kyrgyz Republic	..	..	12	0	0	1997	44.0	42.0	50.2
Lao PDR	..	..	..	31	25		..	..	62.0
Latvia	..	..	17	0	0	1995	60.5	52.3	40.0
Lebanon	..	..	..	5	0		..	..	*80.0*
Lesotho	..	..	..	28	20		..	..	17.7
Liberia	..	..	..	26	15		..	..	23.8
Libya	..	..	..	9	0		..	..	51.4
Lithuania	12	5	9	0	0		..	..	27.6
Macedonia, FYR	..	..	..	1	0	1995	49.0	47.0	15.5
Madagascar	..	..	58	40	34	1993	5.4	4.8	28.2
Malawi	..	..	..	45	31		..	..	52.2
Malaysia	..	..	..	8	2	1993	48.7	37.8	41.2
Mali	..	..	71	61	50	1990	2.5	2.0	54.5
Mauritania	..	..	..	30	22	1995	5.0	4.0	20.7
Mauritius	..	..	..	5	2	1995	60.0	57.0	43.7
Mexico	38	30	35	9	5	1997	30.0	31.0	53.6
Moldova	..	..	..	3	0		..	..	17.6
Mongolia	..	..	..	4	1		..	..	29.7
Morocco	..	..	..	21	1	2000	17.3	11.3	70.4
Mozambique	..	..	..	39	32	1995	2.0	2.1	36.6
Myanmar	53	57	54	28	23		..	..	82.9
Namibia	..	..	..	34	17		..	..	40.7
Nepal	..	..	..	56	41		..	..	..
Netherlands	..	..	..	0	0	1993	91.7	75.4	32.5
New Zealand	..	..	..	0	0		..	..	22.0
Nicaragua	..	..	..	19	12	1999	14.3	13.3	48.3
Niger	..	..	..	48	43	1992	1.3	1.5	55.1
Nigeria	..	..	..	29	24	1993	1.3	1.3	79.2
Norway	..	..	..	0	0	1993	94.0	85.8	14.8
Oman	..	..	..	6	0		..	..	17.1
Pakistan	..	..	..	23	15	1993	3.5	2.1	77.1
Panama	36	28	32	6	2	1998	51.6	40.7	30.8
Papua New Guinea	..	..	..	28	17		..	..	11.4
Paraguay	..	..	58	15	5	2001	14.2	9.2	61.7
Peru	45	53	48	4	2	2001	41.0	25.0	40.8
Philippines	16	19	17	14	5	1996	28.3	13.6	54.3
Poland	14	11	13	0	0	1996	68.0	64.0	30.3
Portugal	..	..	..	8	1	1996	84.3	80.0	28.8
Puerto Rico	..	..	..	0	0		..	..	..

2.9 Assessing vulnerability

	Urban informal sector employment			Children 10–14 in the labor force		Pension contributors			Private health expenditure
	% of urban employment			% of age group					
	Male	Female	Total				% of	% of working-age	% of
	1995–99 [a]	1995–99 [a]	1995–99 [a]	1980	2001	Year	labor force	population	total 2000
Romania	..	..	..	0	0	1994	55.0	48.0	36.2
Russian Federation	..	..	..	0	0		..	..	27.5
Rwanda	..	..	..	43	41	1993	9.3	13.3	48.7
Saudi Arabia	..	..	..	5	0		..	..	20.9
Senegal	..	..	..	43	26	1998	4.3	4.7	43.4
Sierra Leone	..	..	..	19	14		..	..	40.0
Singapore	..	..	..	2	0	1995	73.0	56.0	64.3
Slovak Republic	25	11	19	0	0	1996	73.0	72.0	10.4
Slovenia	..	..	..	0	0	1995	86.0	68.7	21.1
Somalia	..	..	..	38	31		..	..	28.6
South Africa	11	26	17	1	0		..	..	57.8
Spain	..	..	..	0	0	1994	85.3	61.4	30.1
Sri Lanka	..	..	..	4	2	1992	28.8	20.8	51.0
Sudan	..	..	..	33	27	1995	12.1	12.0	78.8
Swaziland	..	..	..	17	12		..	..	27.9
Sweden	..	..	..	0	0	1994	91.1	88.9	22.7
Switzerland	..	..	..	0	0	1994	98.1	96.8	44.4
Syrian Arab Republic	..	..	..	14	2		..	..	36.6
Tajikistan	..	..	..	0	0		..	..	*70.0*
Tanzania	60	85	67	43	36	1996	2.0	2.0	53.0
Thailand	75	79	77	25	11	1999	18.0	17.0	42.6
Togo	..	..	..	36	27	1997	15.9	15.0	45.7
Trinidad and Tobago	..	..	..	1	0		..	..	49.3
Tunisia	..	..	..	6	0	2000	40.0	23.0	*48.0*
Turkey	..	..	..	21	7	1997	37.1	27.4	28.9
Turkmenistan	..	..	..	0	0		..	..	15.1
Uganda	..	..	..	49	43	1994	8.2	..	62.0
Ukraine	5	5	5	0	0	1995	69.8	66.1	29.9
United Arab Emirates	..	..	..	0	0		..	..	22.3
United Kingdom	..	..	..	0	0	1994	89.7	84.5	19.0
United States	..	..	..	0	0	1993	94.0	91.9	55.7
Uruguay	39	41	36	4	1	1995	82.0	78.0	53.5
Uzbekistan	..	..	..	0	0		..	..	50.0
Venezuela, RB	47	46	47	4	0	1999	23.6	18.2	42.6
Vietnam	..	..	..	22	5	1998	8.4	10.0	74.2
West Bank and Gaza	..	..	..	..	..		..	..	..
Yemen, Rep.	..	..	..	26	18		..	..	*57.0*
Yugoslavia, Fed. Rep.	..	..	..	0	0		..	..	49.0
Zambia	..	..	..	19	15	1994	10.2	7.9	37.9
Zimbabwe	..	..	..	37	27	1995	12.0	10.0	57.4
World				**20 w**	**11 w**				**40.6 w**
Low income				25	18				72.9
Middle income				21	6				48.3
Lower middle income				24	6				50.6
Upper middle income				11	6				45.8
Low & middle income				23	12				52.4
East Asia & Pacific				27	8				61.4
Europe & Central Asia				3	1				27.6
Latin America & Carib.				13	8				52.4
Middle East & N. Africa				14	4				38.1
South Asia				23	15				79.2
Sub-Saharan Africa				35	29				57.6
High income				0	0				37.8
Europe EMU				1	0				26.6

a. Data are for the most recent year available.

Assessing vulnerability 2.9

About the data

As traditionally defined and measured, poverty is a static concept, and vulnerability a dynamic one. Vulnerability reflects a household's resilience in the face of shocks and the likelihood that a shock will lead to a decline in well-being. Thus it depends primarily on the household's asset endowment and insurance mechanisms. Because poor people have fewer assets and less diversified sources of income than the better-off, fluctuations in income affect them more.

Poor households face many risks, and vulnerability is thus multidimensional. The indicators in the table focus on individual risks—informal sector employment, child labor, income insecurity in old age—and the extent to which publicly provided services may be capable of mitigating some of these risks. Poor people face labor market risks, often having to take up precarious, low-quality jobs in the informal sector and to increase their household's labor market participation through their children. Income security is a prime concern for the elderly. And affordable access to health care is a primary concern for all poor people, for whom illness and injury have both direct and opportunity costs.

For informal sector employment the most common sources of data are labor force and special informal sector surveys, based on a mixed household and enterprise survey approach or an economic or establishment census approach. Other sources include multipurpose household surveys, household income and expenditure surveys, surveys of household industries or economic activities, surveys of small and micro enterprises, and official estimates. The international comparability of the data is affected by differences among countries in definitions and coverage and in the treatment of domestic workers and those who have a secondary job in the informal sector. The data in the table are based on national definitions of urban areas established by countries. For details on these definitions, see the notes in the data source.

Reliable estimates of child labor are difficult to obtain. In many countries child labor is officially presumed not to exist and so is not included in surveys or in official data. Underreporting also occurs because data exclude children engaged in agricultural or household activities with their families. Most child workers are in Asia. But the share of children working is highest in Africa, where, on average, one in three children ages 10–14 is engaged in some form of economic activity, mostly in agriculture (Fallon and Tzannatos 1998). Available statistics suggest that more boys than girls work. But the number of girls working is often underestimated because surveys exclude those working as unregistered domestic help or doing full-time household work to enable their parents to work outside the home.

The data on pension contributors come from national sources, the International Labour Organization, and International Monetary Fund country reports. Coverage by pension schemes may be broad or even universal where eligibility is determined by citizenship, residency, or income status. In contribution-related schemes, however, eligibility is usually restricted to individuals who have made contributions for a minimum number of years. Definitional issues—relating to the labor force, for example—may arise in comparing coverage by contribution-related schemes over time and across countries (for country-specific information, see Palacios and Pallares-Miralles 2000). Coverage may be overstated in countries that do not attempt to count informal sector workers as part of the labor force.

The expenditure on health in a country can be divided into two main categories by source of funding: public and private. Public health expenditure consists of spending by central and local governments, including social health insurance funds. Private health expenditure includes private insurance, direct out-of-pocket payments by households, spending by nonprofit institutions serving households, and direct payments by private corporations. In countries where the share of out-of-pocket spending is large, poor households may be particularly vulnerable to the impoverishing effects of health care needs.

Definitions

• **Urban informal sector employment** is broadly characterized as employment in urban areas in units that produce goods or services on a small scale with the primary objective of generating employment and income for those concerned. These units typically operate at a low level of organization, with little or no division between labor and capital as factors of production. Labor relations are based on casual employment, kinship, or social relationships rather than contractual arrangements. • **Children 10–14 in the labor force** refer to the share of that age group active in the labor force. • **Pension contributors** are the share of the labor force or working-age population (here defined as ages 20–59) covered by a pension scheme. • **Private health expenditure** includes direct (out-of-pocket) spending by households, private insurance, spending by nonprofit institutions serving households (other than social insurance), and direct service payments by private corporations.

Data sources

The data on urban informal sector employment are from the International Labour Organization (ILO) database Key Indicators of the Labour Market (2001–02 issue). The child labor force participation rates are from the ILO database Estimates and Projections of the Economically Active Population, 1950–2010. The data on pension contributors are drawn from Robert Palacios and Montserrat Pallares-Miralles's "International Patterns of Pension Provision" (2000). For updates and further notes and sources, go to *Knowledge and Information* on the World Bank's Web site on pensions (http://www.worldbank.org/pensions). The data on private health expenditure for developing countries are largely from the World Health Organization's *World Health Report 2002*, from household surveys, and from World Bank poverty assessments and sector studies. The data on private health expenditure for member countries of the Organisation for Economic Co-operation and Development (OECD) are from the OECD.

2.10 Enhancing security

	Public expenditure on pensions				Public expenditure on health	Public expenditure on education	
	Year	% of GDP	Year	Average pension % of per capita income	% of GDP 2000	% of GDP 2000 [a]	Per student % of GDP per capita 2000 [a]
Afghanistan		..		..	0.6	..	..
Albania	1995	5.1	1995	36.4	2.1	..	..
Algeria	1997	2.1	1991	75.0	3.0	..	..
Angola		..		..	2.0	2.7	..
Argentina	1994	6.2		..	4.7	4.0	*14.7*
Armenia	1996	3.1	1996	18.7	3.2	2.9	17.1
Australia	1997	5.9	1989	37.3	6.0	4.7	16.3
Austria	1995	14.9	1993	69.3	5.6	5.8	*32.8*
Azerbaijan	1996	2.5	1996	51.4	0.6	*4.2*	*11.2*
Bangladesh	1992	0.0		..	1.4	2.5	10.7
Belarus	1997	7.7	1995	31.2	4.7	*6.0*	..
Belgium	1997	12.9		..	6.2	*5.9*	..
Benin	1993	0.4	1993	189.7	1.6	3.2	*11.4*
Bolivia	1995	2.5		..	4.9	5.5	15.9
Bosnia and Herzegovina		..		..	3.1	..	..
Botswana		..		..	3.8	*8.6*	..
Brazil	1997	9.8		..	3.4	4.7	*15.5*
Bulgaria	1996	7.3	1995	39.3	3.0	*3.4*	*16.1*
Burkina Faso	1992	0.3	1992	207.3	3.0	..	..
Burundi	1991	0.2	1991	57.4	1.6	3.4	24.7
Cambodia		..		..	2.0	1.9	8.0
Cameroon	1993	0.4		..	1.1	3.2	*12.7*
Canada	1997	5.4	1994	54.3	6.6	*5.5*	..
Central African Republic	1990	0.3		..	1.4	*1.9*	..
Chad	1997	0.1		..	2.5	*2.0*	*14.3*
Chile	2001	2.9	1993	56.1	3.1	4.2	*15.4*
China	1996	2.7		..	1.9	2.9	*10.8*
Hong Kong, China		..		..	..	..	..
Colombia	1994	1.1	1989	72.2	5.4	..	..
Congo, Dem. Rep.		..		..	1.1	..	..
Congo, Rep.	1992	0.9		..	1.5	*4.2*	..
Costa Rica	1997	4.2	1993	76.1	4.4	4.4	19.1
CÙte d'Ivoire	1997	0.3		..	1.0	4.6	*22.1*
Croatia	1997	11.6		..	8.0	*4.2*	..
Cuba	1992	12.6		..	6.1	8.5	43.5
Czech Republic	1999	9.8	1996	37.0	6.6	4.4	*20.9*
Denmark	1997	8.8	1994	46.7	6.8	8.2	*37.2*
Dominican Republic	2000	0.8	2000	42.0	1.8	*2.5*	..
Ecuador	1997	1.0		..	1.2	1.6	..
Egypt, Arab Rep.	1994	2.5	1994	45.0	1.8	..	..
El Salvador	1997	1.3		..	3.8	*2.3*	*9.4*
Eritrea	2001	0.3		..	2.8	4.8	..
Estonia	1995	7.0	1995	56.7	4.7	*7.5*	*28.5*
Ethiopia	1993	0.9		..	1.8	4.8	..
Finland	1997	12.1	1994	57.4	5.0	*6.1*	*26.1*
France	1997	13.4		..	7.2	5.8	*25.8*
Gabon		..		..	2.1	3.9	*8.4*
Gambia, The		..		..	3.4	2.7	..
Georgia	2000	2.7	1996	12.6	0.7	..	..
Germany	1997	12.1	1995	62.8	8.0	*4.6*	*23.1*
Ghana	1996	1.1		..	2.2	*4.1*	..
Greece	1993	11.9	1990	85.6	4.6	3.8	*19.3*
Guatemala	1995	0.7	1995	27.6	2.3	1.7	..
Guinea		..		..	1.9	1.9	..
Guinea-Bissau		..		..	2.6	*2.1*	..
Haiti		..		..	2.4	1.1	..

Enhancing security 2.10

	Public expenditure on pensions				Public expenditure on health	Public expenditure on education	
	Year	% of GDP	Year	Average pension % of per capita income	% of GDP 2000	% of GDP 2000 [a]	Per student % of GDP per capita 2000 [a]
Honduras	1994	0.6		..	4.3	*4.0*	..
Hungary	1996	9.7	1996	33.6	5.1	5.0	*20.4*
India		..		..	0.9	*4.1*	..
Indonesia		..		..	0.6	..	..
Iran, Islamic Rep.	1994	1.5		..	2.5	4.4	14.0
Iraq		..		..	2.2	..	..
Ireland	1997	4.6	1993	77.9	5.1	*4.4*	*16.5*
Israel	1996	5.9	1992	48.1	8.3	7.3	*23.4*
Italy	1997	17.6		..	6.0	*4.5*	*25.0*
Jamaica	1996	..	1989	25.9	2.6	6.3	*24.2*
Japan	1997	6.9	1989	33.9	6.0	3.5	..
Jordan	1995	4.2	1995	144.0	4.2	*5.0*	*16.3*
Kazakhstan	2001	3.8	2001	23.0	2.7	..	..
Kenya	1993	0.5		..	1.8	6.4	*3.8*
Korea, Dem. Rep.		..		..	1.6	..	..
Korea, Rep.	1997	1.3		..	2.6	3.8	15.0
Kuwait	1990	3.5		..	2.6	..	..
Kyrgyz Republic	1997	6.4	2001	45.0	2.2	*5.4*	*12.8*
Lao PDR		..		..	1.3	2.3	9.1
Latvia	1995	10.2	1994	47.6	3.5	5.9	24.3
Lebanon		..		..	*2.5*	3.0	..
Lesotho		..		..	5.2	*10.1*	*42.7*
Liberia		..		..	3.0	..	..
Libya		..		..	1.6	..	..
Lithuania	1998	7.3	1995	21.3	4.3	*6.4*	..
Macedonia, FYR	1998	8.7	1996	91.6	5.1	*4.1*	..
Madagascar	1990	0.2		..	2.5	3.2	..
Malawi		..		..	3.6	*4.1*	..
Malaysia	1999	6.5		..	1.5	6.2	*20.8*
Mali	1991	0.4		..	2.2	*2.8*	..
Mauritania	1992	0.2		..	3.4	*3.0*	..
Mauritius	1999	4.4		..	1.9	*3.5*	..
Mexico	2000	0.3 [b]		..	2.5	*4.4*	*15.0*
Moldova	1996	7.5		..	2.9	4.0	18.8
Mongolia		..		..	4.6	2.3	..
Morocco	1994	1.8	1994	118.0	1.3	5.5	*33.0*
Mozambique	1996	0.0		..	2.7	*2.4*	..
Myanmar		..		..	0.4	*0.5*	*2.6*
Namibia		..		..	4.2	*8.1*	*26.4*
Nepal		..		..	0.9	3.7	16.3
Netherlands	1997	11.1	1989	48.5	5.5	*4.8*	*22.5*
New Zealand	1997	6.5		..	6.2	6.1	22.0
Nicaragua	1996	2.5		..	2.3	*5.0*	..
Niger	1992	0.1		..	1.8	2.7	37.5
Nigeria	1991	0.1	1991	40.5	0.5	..	..
Norway	1997	8.2	1994	49.9	6.6	6.8	..
Oman		..		..	2.3	*3.9*	..
Pakistan	1993	0.9		..	0.9	1.8	..
Panama	1996	4.3		..	5.3	5.9	*22.2*
Papua New Guinea		..		..	3.6	2.3	*12.0*
Paraguay		..		..	3.0	5.0	..
Peru	1996	1.2		..	2.8	*3.3*	*9.9*
Philippines	1993	1.0		..	1.6	*4.2*	*14.8*
Poland	1997	15.5	1995	61.2	4.2	*5.0*	*19.0*
Portugal	1997	10.0	1989	44.6	5.8	5.8	*25.6*
Puerto Rico		..		..	..	..	..

2.10 Enhancing security

	Public expenditure on pensions				Public expenditure on health	Public expenditure on education	
	Year	% of GDP	Year	Average pension % of per capita income	% of GDP 2000	% of GDP 2000 [a]	Per student % of GDP per capita 2000 [a]
Romania	1996	5.1	1994	34.1	1.9	*3.5*	..
Russian Federation	1996	5.7	1995	18.3	3.8	*4.4*	..
Rwanda		..		..	2.7	2.8	..
Saudi Arabia		..		..	4.2	*9.5*	..
Senegal	1998	1.5	1997	85.0 [c]	2.6	3.2	*21.1*
Sierra Leone		..		..	2.6	*1.0*	..
Singapore	1996	1.4		..	1.2	3.7	..
Slovak Republic	1994	9.1	1994	44.5	5.3	4.2	*18.3*
Slovenia	1996	13.6	1996	49.3	6.8	..	..
Somalia		..		..	0.9	..	..
South Africa		..		..	3.7	5.5	*18.6*
Spain	1997	10.9	1995	54.1	5.4	*4.5*	*21.9*
Sri Lanka	1996	2.4		..	1.8	*3.1*	..
Sudan		..		..	1.0	..	..
Swaziland		..		..	3.0	*1.5*	*18.1*
Sweden	1997	11.1	1994	78.0	6.5	*7.8*	*30.7*
Switzerland	1997	13.4	1993	44.4	5.9	*5.5*	*29.5*
Syrian Arab Republic	1991	0.5		..	1.6	4.1	..
Tajikistan	1996	3.0		..	0.9	*2.1*	..
Tanzania		..		..	2.8	*2.1*	..
Thailand		..		..	2.1	5.4	*15.9*
Togo	1997	0.6	1993	178.8	1.5	4.8	*15.9*
Trinidad and Tobago	1996	0.6		..	2.6	4.0	*16.2*
Tunisia	2000	4.2	1991	89.5	*2.9*	6.8	*26.1*
Turkey	1997	4.5	1993	56.0	3.6	3.5	*19.8*
Turkmenistan	1996	2.3		..	4.6	..	..
Uganda	1997	0.8		..	1.5	*2.3*	..
Ukraine	1996	8.6	1995	30.9	2.9	*4.4*	..
United Arab Emirates		..		..	2.5	*1.9*	..
United Kingdom	1997	10.3		..	5.9	*4.5*	*16.2*
United States	1997	7.5	1989	33.0	5.8	4.8	..
Uruguay	1996	15.0	1996	64.1	5.1	*2.8*	*11.3*
Uzbekistan	1995	5.3	1995	45.8	2.6	..	..
Venezuela, RB	2001	2.7		..	2.7	..	..
Vietnam	1998	1.6		..	1.3	..	..
West Bank and Gaza		..		..	..	..	..
Yemen, Rep.	1994	0.1		..	*2.1*	10.0	..
Yugoslavia, Fed. Rep.		..		..	2.9	*5.1*	..
Zambia	1993	0.1		..	3.5	*2.3*	..
Zimbabwe		..		..	3.1	*10.4*	17.7
World					**5.4 w**	***4.4* m**	**17.1 m**
Low income					1.1	*2.8*	17.1
Middle income					3.0	*4.5*	19.1
Lower middle income					2.6	*4.6*	15.0
Upper middle income					3.5	4.4	24.3
Low & middle income					2.7	*4.1*	17.4
East Asia & Pacific					1.8	2.3	9.1
Europe & Central Asia					4.0	*4.4*	18.8
Latin America & Carib.					3.3	4.4	25.8
Middle East & N. Africa					2.9	*5.3*	14.0
South Asia					1.0	2.5	13.5
Sub-Saharan Africa					2.5	*3.4*	24.7
High income					6.0	*5.3*	16.3
Europe EMU					6.7	*4.8*	..

a. Data are provisional for Organisation for Economic Co-operation and Development and World Education Indicators (WEI) countries. For a list of WEI countries, see *About the Data*.
b. Refers only to the scheme for civil servants. c. Refers to system covering private sector workers.

Enhancing security 2.10

About the data

Enhancing security for poor people means reducing their vulnerability to such risks as ill health, providing them the means to manage risk themselves, and strengthening market or public institutions for managing risk. The tools include microfinance programs, old age assistance and pensions, and public provision of basic health care and education.

Public interventions and institutions can provide services directly to poor people, although whether these work well for the poor is debated. State action is often ineffective, in part because governments can influence only a few of the many sources of well-being and in part because of difficulties in delivering goods and services. The effectiveness of public provision is further constrained by the fiscal resources at governments' disposal and the fact that state institutions may not be responsive to the needs of poor people.

The data on public pension spending are from national sources and cover all government expenditures, including the administrative costs of pension programs. They cover noncontributory pensions or social assistance targeted to the elderly and disabled and spending by social insurance schemes for which contributions had previously been made. The pattern of spending in a country is correlated with its demographic structure—spending increases as the population ages.

The lack of consistent national health accounting systems in most developing countries makes cross-country comparisons of health spending difficult. Compiling estimates of public health expenditures is complicated in countries where state or provincial and local governments are involved in financing and delivering health care because the data on public spending often are not aggregated. The data in the table are the product of an effort to collect all available information on health expenditures from national and local government budgets, national accounts, household surveys, insurance publications, international donors, and existing tabulations.

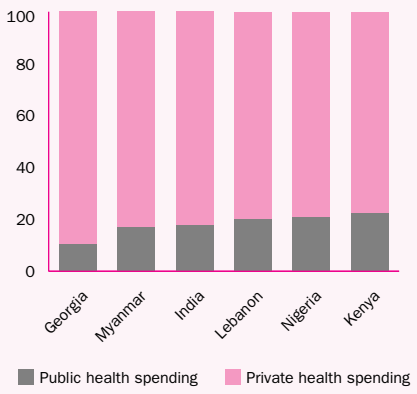
The data on education spending in the table refer solely to public spending—government spending on public education plus subsidies for private education. The data generally exclude foreign aid for education. They may also exclude spending by religious schools, which play a significant role in many developing countries. Data for some countries and for some years refer to spending by the ministry of education only (excluding education expenditures by other ministries and departments and local authorities). The share of gross domestic product (GDP) devoted to education can be interpreted as reflecting a country's effort in education. It often bears a weak relationship to the output of the education system as reflected in educational attainment. The pattern in this relationship suggests wide variations across countries in the efficiency with which the government's resources are translated into education outcomes.

For Organisation for Economic Co-operation and Development (OECD) and World Education Indicators (WEI) countries, education data for 1998–2000 are provisional. WEI is a joint UNESCO Institute for Statistics–OECD program that develops policy-relevant education indicators with national coordinators from 19 countries: Argentina, Brazil, Chile, China, Egypt, India, Indonesia, Jamaica, Jordan, Malaysia, Paraguay, Peru, the Philippines, the Russian Federation, Sri Lanka, Thailand, Tunisia, Uruguay, and Zimbabwe.

2.10a

Private health spending often far exceeds public

% of total health expenditure, 2000



In some developing countries private health spending accounts for more than 80 percent of the total. Out-of-pocket payments not only can impoverish people but also can deter the poor from obtaining care. To reduce the risks associated with out-of-pocket payments, some countries have exempted the poor from user fees at public facilities or used a sliding scale based on patients' socioeconomic characteristics. But such schemes can lead to high administrative costs and may end up having little effect on private health spending.

Source: WHO, *World Health Report 2002*.

Definitions

• **Public expenditure on pensions** includes all government expenditures on cash transfers to the elderly, the disabled, and survivors and the administrative costs of these programs. • **Average pension** is estimated by dividing total pension expenditure by the number of pensioners. • **Public expenditure on health** consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. • **Public expenditure on education** consists of public spending on public education plus subsidies to private education at the primary, secondary, and tertiary levels.

Data sources

The data on pension spending are drawn from Robert Palacios and Montserrat Pallares-Miralles's "International Patterns of Pension Provision" (2000). For updates and further notes and sources, go to *Knowledge and Information* on the World Bank's Web site on pensions (http://www.worldbank.org/pensions). The estimates of health expenditure come from the World Health Organization's *World Health Report 2002*, from the Organisation for Economic Co-operation and Development for its member countries, and from countries' national health accounts, supplemented by World Bank country and sector studies, including the Human Development Network's Sector Strategy, "Health, Nutrition, and Population" (World Bank 1997a). The data on education expenditure are from the UNESCO Institute for Statistics.

2.11 Education inputs

	Public expenditure per student [a]						Public expenditure on education	Trained teachers in primary education	Primary pupil-teacher ratio
	Primary % of GDP per capita		Secondary % of GDP per capita		Tertiary % of GDP per capita		% of total government expenditure	% of total	pupils per teacher
	1980	2000 [b]	1980	2000 [b]	1980	2000 [b]	2000 [b]	2000 [b]	2000 [b]
Afghanistan	10.8	..	46.7	..	..	..	..	..	43
Albania	..	..	..	..	..	..	..	..	22
Algeria	8.7	..	23.2	..	..	..	..	*93.7*	28
Angola	..	..	..	..	..	..	..	..	35
Argentina	..	*12.5*	11.0	*16.4*	29.8	*17.7*	11.8	..	*22*
Armenia	..	4.0	..	22.2	..	17.9	..	..	..
Australia	..	15.9	42.5	13.9	48.8	24.9	..	..	..
Austria	15.4	*25.1*	19.6	*30.5*	36.7	*51.0*	*12.4*	..	*13*
Azerbaijan	..	*24.8*	..	*0.9*	..	*13.1*	*24.4*	*99.9*	*19*
Bangladesh	..	7.3	9.3	14.1	33.9	38.9	15.7	65.0	57
Belarus	..	..	..	..	..	..	..	100.0	17
Belgium	..	*17.0*	32.4	..	50.3	..	*11.6*	..	12
Benin	..	10.3	..	*12.1*	..	*108.2*	..	*65.0*	54
Bolivia	..	13.3	..	11.0	..	45.2	23.1	74.2	24
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..
Botswana	..	..	..	..	..	..	..	89.2	27
Brazil	..	*12.5*	..	*12.6*	..	*72.8*	12.9	..	26
Bulgaria	17.2	*15.2*	..	*17.1*	50.5	*14.5*	..	..	18
Burkina Faso	..	..	102.9	..	2,938.5	..	..	80.4	47
Burundi	..	10.9	..	66.6	..	923.6	..	..	50
Cambodia	..	*3.2*	..	15.0	..	48.6	10.1	95.9	53
Cameroon	..	*8.3*	..	*24.6*	..	*69.6*	12.5	..	63
Canada	..	..	..	..	37.7	*46.1*	..	..	*15*
Central African Republic	..	..	23.9	..	938.8	..	..	..	74
Chad	..	*9.5*	..	*28.5*	..	*423.7*	..	37.2	71
Chile	9.2	*13.9*	15.7	*15.2*	107.8	*21.9*	17.5	..	25
China	3.8	*6.1*	12.4	*12.1*	246.2	*85.8*	..	..	22 [c]
Hong Kong, China	..	..	8.2	..	..	..	..	..	..
Colombia	5.2	..	7.7	..	43.6	..	..	..	26
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	*26*
Congo, Rep.	..	*9.9*	15.4	..	334.4	..	*12.6*	*64.6*	51
Costa Rica	..	14.9	24.5	19.4	72.4	55.7	..	..	25
Côte d'Ivoire	..	14.7	..	35.7	357.4	*139.6*	21.5	99.1	48
Croatia	..	..	..	..	..	..	*10.4*	..	18
Cuba	..	34.7	..	41.9	..	101.7	15.1	100.0	11
Czech Republic	..	*12.5*	..	*23.2*	..	*33.9*	9.7	..	18
Denmark	..	*23.4*	11.0	*37.2*	48.7	*65.1*	15.3	..	10
Dominican Republic	..	..	5.8	..	..	..	*15.7*	..	40
Ecuador	..	4.3	12.5	8.9	23.0	..	8.0	..	23
Egypt, Arab Rep.	..	..	..	..	54.1	*39.4*	..	..	22
El Salvador	..	*2.0*	13.9	*26.4*	138.4	*10.4*	*13.4*	..	26
Eritrea	..	..	..	..	..	..	..	70.5	45
Estonia	..	*24.5*	..	*30.8*	..	*33.0*	..	..	14
Ethiopia	..	..	..	..	..	..	13.8	70.4	55
Finland	..	*17.3*	21.2	*25.5*	35.9	*39.7*	*12.5*	..	16
France	11.7	*18.0*	19.7	*29.3*	28.6	*30.3*	*11.5*	..	19
Gabon	..	4.6	..	18.5	..	*50.9*	..	95.3	49
Gambia, The	18.4	..	43.2	..	..	..	14.2	73.1	37
Georgia	..	..	..	..	..	..	..	..	16
Germany	..	*17.8*	..	*20.5*	..	*42.5*	*9.7*	..	15
Ghana	..	..	10.3	..	..	..	..	68.6	33
Greece	..	*16.0*	..	*17.9*	..	*26.7*	*7.0*	..	13
Guatemala	..	*4.9*	..	*12.1*	..	..	11.4	..	33
Guinea	..	9.5	..	..	..	..	25.6	..	44
Guinea-Bissau	19.0	..	63.5	..	..	..	*4.8*	*35.1*	*44*
Haiti	..	..	12.8	..	128.6	..	10.9	..	..

Education inputs 2.11

	Public expenditure per student [a]						Public expenditure on education	Trained teachers in primary education	Primary pupil-teacher ratio
	Primary % of GDP per capita		Secondary % of GDP per capita		Tertiary % of GDP per capita		% of total government expenditure	% of total	pupils per teacher
	1980	2000 [b]	1980	2000 [b]	1980	2000 [b]	2000 [b]	2000 [b]	2000 [b]
Honduras	..	..	13.8	..	73.2	..	..	..	34
Hungary	13.7	*17.7*	25.5	*18.7*	83.8	*30.5*	14.1	..	11
India	..	*7.2*	15.1	*23.1*	83.3	..	*12.7*	..	*40*
Indonesia	..	*3.2*	..	*8.7*	..	..	..	..	22
Iran, Islamic Rep.	22.6	10.3	36.4	11.8	..	81.6	20.4	96.5	25
Iraq	..	..	6.5	..	87.5	..	..	..	*21*
Ireland	10.7	*13.3*	22.5	*15.2*	55.6	*27.8*	*13.2*	..	20
Israel	15.6	*21.2*	41.7	*22.5*	71.6	*31.6*	..	..	12
Italy	..	*21.2*	..	*27.1*	..	*26.0*	*9.5*	..	11
Jamaica	12.7	*16.2*	..	*26.8*	185.5	*80.0*	11.1	..	36
Japan	14.6	*21.3*	16.4	..	20.7	..	*9.3*	..	20
Jordan	..	*13.7*	..	*16.1*	61.7	*31.1*	5.0	..	..
Kazakhstan	..	..	..	..	..	..	..	..	19
Kenya	..	*0.4*	35.2	*1.2*	899.2	*496.9*	22.5	*96.6*	30
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..
Korea, Rep.	..	18.3	9.1	16.8	15.7	8.0	17.4	..	32
Kuwait	..	..	..	..	43.8	..	..	*100.0*	*14*
Kyrgyz Republic	..	..	..	*18.3*	..	*32.2*	..	48.4	24
Lao PDR	..	6.5	..	8.7	..	145.3	8.8	76.2	30
Latvia	..	23.6	16.1	25.2	13.6	22.5	..	..	15
Lebanon	..	*10.5*	..	..	..	9.3	11.1	..	17
Lesotho	12.7	*27.0*	107.3	*76.3*	1,500.8	*962.7*	*18.5*	74.2	48
Liberia	..	..	..	..	..	..	..	..	*36*
Libya	..	..	..	..	..	..	..	..	*8*
Lithuania	..	*61.4*	..	..	..	*40.4*	..	..	16
Macedonia, FYR	..	..	..	*30.6*	..	*44.8*	..	..	22
Madagascar	..	*3.9*	..	..	397.9	*76.2*	*10.2*	..	50
Malawi	7.0	..	89.2	..	1,685.7	..	*24.6*	51.2	56
Malaysia	..	*11.2*	20.5	*19.9*	140.9	*86.1*	26.7	..	18
Mali	29.6	*13.7*	87.3	..	..	*241.4*	..	..	63
Mauritania	28.8	*11.7*	167.6	*36.4*	..	..	*18.9*	..	42
Mauritius	..	..	21.3	..	355.7	..	*12.1*	100.0	26
Mexico	4.2	*11.7*	10.0	*13.8*	25.5	*45.2*	*22.6*	..	27
Moldova	..	1.3	..	28.7	..	19.3	15.0	..	20
Mongolia	..	..	..	40.6	95.5	26.8	2.2	92.9	32
Morocco	..	20.5	53.6	*49.9*	150.3	*102.7*	*26.1*	..	28
Mozambique	..	..	..	..	..	..	*12.3*	61.8	64
Myanmar	..	1.6	..	*1.9*	..	*19.4*	*9.0*	85.4	32
Namibia	..	*20.7*	..	*34.0*	..	*147.1*	..	36.0	32
Nepal	..	14.2	..	15.6	274.9	98.7	14.1	*44.5*	37
Netherlands	13.2	*15.4*	22.3	*21.8*	70.1	*43.0*	10.7	..	10
New Zealand	14.7	19.9	13.4	22.3	58.5	25.5	..	..	16
Nicaragua	..	*20.5*	..	..	..	..	13.8	..	36
Niger	..	22.3	..	81.0	..	441.0	..	84.1	42
Nigeria	..	..	..	..	..	..	..	..	..
Norway	..	*29.2*	14.5	..	37.1	*46.5*	16.2	..	..
Oman	..	*11.4*	..	*20.4*	..	..	..	*99.6*	24
Pakistan	..	..	17.1	..	..	..	7.8	..	44
Panama	..	15.8	10.2	24.4	26.5	*47.7*	..	*79.0*	25
Papua New Guinea	..	*11.1*	..	*18.0*	..	*40.4*	17.5	..	*36*
Paraguay	..	..	..	*18.1*	..	..	11.2	..	*20*
Peru	6.9	*8.0*	8.0	*10.6*	4.7	*22.0*	*21.1*	..	*25*
Philippines	..	*14.3*	4.2	*12.5*	13.7	*23.2*	*20.6*	..	35
Poland	..	*26.5*	..	*12.0*	..	*20.2*	*11.4*	..	11
Portugal	..	*20.5*	19.2	*29.4*	34.4	*28.2*	*13.1*	..	13
Puerto Rico	..	..	..	..	..	..	..	..	..

2.11 Education inputs

	Public expenditure per student [a]						Public expenditure on education	Trained teachers in primary education	Primary pupil-teacher ratio
	Primary % of GDP per capita		Secondary % of GDP per capita		Tertiary % of GDP per capita		% of total government expenditure	% of total	pupils per teacher
	1980	2000 [b]	1980	2000 [b]	1980	2000 [b]	2000 [b]	2000 [b]	2000 [b]
Romania	..	..	..	..	..	..	..	..	*20*
Russian Federation	..	..	..	*20.5*	..	*15.8*	..	..	17
Rwanda	11.1	6.9	112.4	..	902.7	571.6	..	..	51
Saudi Arabia	..	..	..	..	109.5	*86.9*	..	..	12
Senegal	..	*13.6*	68.5	*33.1*	432.5	*244.6*	..	100.0	51
Sierra Leone	..	..	..	..	..	..	..	78.9	44
Singapore	..	..	12.4	..	41.5	..	23.6	..	..
Slovak Republic	..	*10.8*	..	*19.2*	..	*30.8*	*13.8*	..	19
Slovenia	..	..	..	..	..	..	..	..	*14*
Somalia	..	..	..	..	..	..	..	..	..
South Africa	..	*14.0*	..	*17.9*	..	*61.3*	25.8	67.9	33
Spain	..	*18.8*	..	*25.5*	..	*19.8*	*11.3*	..	14
Sri Lanka	..	..	..	..	..	..	..	..	..
Sudan	..	..	601.0	..	..	..	..	*62.4*	*27*
Swaziland	..	*8.5*	35.3	*24.0*	139.5	*358.8*	..	*91.1*	33
Sweden	41.7	*23.5*	14.0	*28.3*	33.9	*53.5*	13.4	..	11
Switzerland	..	*23.2*	31.0	*28.2*	60.8	*55.8*	*15.2*	..	14
Syrian Arab Republic	..	12.9	15.1	23.3	74.7	..	11.1	*92.2*	24
Tajikistan	..	..	..	..	..	*9.9*	*11.8*	..	22
Tanzania	..	..	..	..	..	..	..	*44.1*	40
Thailand	8.8	*12.5*	9.8	*12.8*	59.7	*38.2*	31.0	..	21
Togo	7.7	11.6	..	23.1	828.7	*295.3*	23.2	80.0	34
Trinidad and Tobago	..	16.2	12.4	14.8	56.4	*147.9*	16.7	78.1	20
Tunisia	..	*16.2*	36.4	*28.4*	188.1	*89.8*	17.4	..	23
Turkey	..	*17.6*	8.7	*11.8*	96.3	*72.1*	..	..	..
Turkmenistan	..	..	..	..	..	..	..	..	..
Uganda	..	..	..	..	..	..	..	*45.0*	59
Ukraine	2.1	..	1.2	*21.2*	2.0	*28.2*	*15.7*	..	*20*
United Arab Emirates	..	*8.5*	..	*11.2*	..	..	..	*71.0*	16
United Kingdom	..	*14.0*	22.2	*14.9*	80.1	*26.3*	*11.4*	..	18
United States	..	*17.9*	17.3	*22.4*	47.8	..	..	..	15
Uruguay	8.9	*8.2*	13.6	*12.0*	27.0	*21.3*	..	..	21
Uzbekistan	..	..	..	..	..	..	..	..	..
Venezuela, RB	5.8	..	..	..	71.4	..	..	..	..
Vietnam	..	..	..	..	..	..	..	84.9	28
West Bank and Gaza	..	..	..	..	..	..	..	..	..
Yemen, Rep.	..	..	..	..	..	..	32.8	..	*30*
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	..	100.0	20
Zambia	9.8	..	56.4	..	..	..	*17.6*	100.0	45
Zimbabwe	19.5	13.2	103.8	20.1	326.8	200.9	..	..	37
World	**.. m**	**.. m**	**.. m**	**.. m**	**.. m**	**.. m**	**.. m**	***94.3* m**	***27* m**
Low income	..	..	..	..	..	..	..	*90.4*	*39*
Middle income	..	..	..	..	72.4	..	..	*95.5*	*22*
Lower middle income	..	..	..	..	..	..	..	*93.8*	*21*
Upper middle income	..	*11.7*	..	..	63.9	..	..	*98.2*	23
Low & middle income	..	..	..	..	..	..	..	*93.6*	*29*
East Asia & Pacific	..	*7.6*	..	..	..	*40.1*	13.8	*94.6*	*21*
Europe & Central Asia	..	..	..	..	..	..	..	*94.4*	..
Latin America & Carib.	..	..	12.6	..	71.4	..	12.4	*86.1*	26
Middle East & N. Africa	..	..	..	..	87.5	..	..	*83.7*	24
South Asia	..	*7.3*	16.1	..	83.7	..	14.1	*92.1*	*42*
Sub-Saharan Africa	..	..	..	..	..	..	..	*90.4*	47
High income	..	..	19.7	..	48.7	..	*12.0*	..	17
Europe EMU	..	..	..	..	..	..	*11.5*	..	14

a. Break in series between 1997 and 1998 due to change from International Standard Classification of Education 1976 (ISCED76) to ISCED97. b. Data are provisional for Organisation for Economic Co-operation and Development and World Education Indicators (WEI) countries. For a list of WEI countries, see *About the Data* for table 2.10. c. Data are for 2001.

Education inputs 2.11

About the data

Data on education are compiled by the UNESCO Institute for Statistics from official responses to surveys and from reports provided by education authorities in each country. Such data are used for monitoring, policymaking, and resource allocation. For a variety of reasons, however, education statistics generally fail to provide a complete and accurate picture of a country's education system. Statistics often lag by two to three years, though an effort is being made to shorten the delay. Moreover, coverage and data collection methods vary across countries and over time within countries, so the results of comparisons should be interpreted with caution. (For further discussion of the reliability of education data, see Behrman and Rosenzweig 1994.)

The data on education spending in the table refer solely to public spending—government spending on public education plus subsidies for private education. The data generally exclude foreign aid for education. They may also exclude spending by religious schools, which play a significant role in many developing countries. Data for some countries and for some years refer to spending by the ministry of education only (excluding education expenditures by other ministries and departments and local authorities).

Many developing countries have sought to supplement public funds for education. Some countries have adopted tuition fees to recover part of the cost of providing education services or to encourage development of private schools. Charging fees raises difficult questions relating to equity, efficiency, access, and taxation, however, and some governments have used scholarships, vouchers, and other methods of public finance to counter criticism. Data for a few countries include private spending, although national practices vary with respect to whether parents or schools pay for books, uniforms, and other supplies. For greater detail, see the country- and indicator-specific notes in the source.

The share of public expenditure devoted to education allows an assessment of the priority a government assigns to education relative to other public investments. It also reflects a government's commitment to investing in human capital development.

The share of trained teachers in primary schools measures the quality of the teaching staff. It does not take account of competencies acquired by teachers through their professional experience or self-instruction, or of such factors as work experience, teaching methods and materials, or classroom conditions, all of which may affect the quality of teaching. Since the training teachers receive varies greatly, care should be taken in comparing across countries.

The comparability of pupil-teacher ratios across countries is affected by the definition of teachers and by differences in class size by grade and in the number of hours taught. Moreover, the underlying enrollment levels are subject to a variety of reporting errors (for further discussion of enrollment data, see *About the data* for table 2.12). While the pupil-teacher ratio is often used to compare the quality of schooling across countries, it is often weakly related to the value added of schooling systems (Behrman and Rosenzweig 1994).

For two decades the International Standard Classification of Education, 1976 (ISCED76), was used to assemble, compile, and present education statistics. In 1998 the United Nations Educational, Scientific, and Cultural Organization (UNESCO) introduced ISCED97 and adjusted its data collection program and country reporting of education statistics to this new classification. The adjustments were made to ease the international compilation and comparison of education statistics and to take into account new types of learning opportunities and activities for both children and adults. Thus the time-series data for the years through 1997 are not consistent with those for 1998 and later. Any time-series analysis should therefore be undertaken with extreme caution.

ISCED97 introduced a new level of education—level 4, or postsecondary nontertiary education. The students in this category are not counted as either secondary or tertiary.

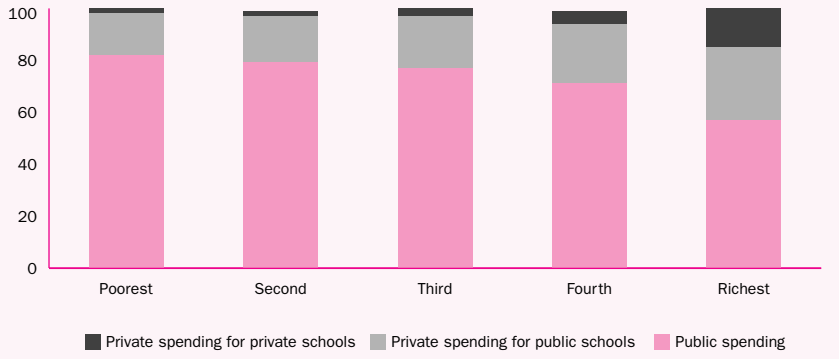
Definitions

• **Public expenditure per student** is public current spending on education divided by the number of students by level, as a percentage of gross domestic product (GDP) per capita. • **Public expenditure on education** is current and capital public expenditure on education. • **Trained teachers in primary education** are the percentage of primary school teachers who have received the minimum organized teacher training (preservice or in service) required for teaching. • **Primary pupil-teacher ratio** is the number of pupils enrolled in primary school divided by the number of primary school teachers (regardless of their teaching assignment).

2.11a

Even the poorest households in Indonesia contribute a significant share of education spending

Source of expenditure on primary education by quintile (%), 1999



Household surveys offer a valuable perspective on the private flows of education spending. According to the National Social and Economic Survey (SUSENAS) in Indonesia, poorer households benefit more than richer ones from public spending on primary schooling. But even the poorest households provide a significant share (16 percent) of the total expenditure on public primary education. Spending on private schools occurs in all income quintiles, possibly linked to enrollment in religious schools. But those in the richest quintile spend the most on private primary schools.

Source: UNESCO Institute for Statistics and OECD 2002.

Data sources

The data are from the UNESCO Institute for Statistics, which compiles international data on education in cooperation with national commissions and national statistical services.

2.12 Participation in education

	Gross enrollment ratio [a]							Net enrollment ratio [b]			
	Preprimary % of relevant age group	Primary % of relevant age group		Secondary % of relevant age group		Tertiary % of relevant age group		Primary % of relevant age group		Secondary % of relevant age group	
	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]
Afghanistan	..	34	15	10	..	..	..	29	..	..	..
Albania	43	113	107	67	78	5	15	..	98	..	74
Algeria	3	94	112	33	71	6	*15*	81	98	31	62
Angola	..	175	74	21	*15*	0 [d]	*1*	..	37	..	..
Argentina	60	106	120	56	97	22	*48*	..	107	..	79
Armenia	21	..	78	..	73	..	20	..	69	..	64
Australia	98	112	102	71	161	25	63	100	96	70	90
Austria	*81*	99	104	93	99	22	58	87	91	..	89
Azerbaijan	*23*	115	*98*	95	*80*	24	*22*	..	*91*	..	*78*
Bangladesh	25	61	100	18	46	3	7	..	89	..	43
Belarus	86	104	109	98	84	39	56	..	108	..	76
Belgium	*111*	104	105	91	..	26	*57*	97	101	..	..
Benin	6	67	95	16	*22*	1	*4*	..	*70*	..	*17*
Bolivia	46	87	116	37	80	15	36	79	97	16	68
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..	..
Botswana	..	91	108	19	93	1	5	76	84	14	70
Brazil	63	98	162	33	108	11	17	80	97	14	71
Bulgaria	68	98	103	84	94	16	41	96	94	73	88
Burkina Faso	1	17	44	3	10	0 [d]	..	15	36	..	8
Burundi	1	26	65	3	10	0 [d]	1	20	54	..	..
Cambodia	7	139	110	..	19	0 [d]	3	..	95	..	17
Cameroon	14	98	108	18	*20*	2	5	..	..	15	..
Canada	*64*	99	*99*	88	*103*	57	*60*	..	*99*	..	*98*
Central African Republic	..	71	75	14	..	1	*2*	56	55	..	..
Chad	..	..	73	..	*11*	..	*1*	..	58	..	*8*
Chile	77	109	103	53	75	12	38	..	89	..	75
China	*40*	113	*106*	46	*63*	2	*7*	..	*93*	..	..
Hong Kong, China	..	107	..	64	..	10	..	95	..	61	..
Colombia	37	112	112	39	70	9	23	..	89	..	57
Congo, Dem. Rep.	1	92	47	24	*18*	1	*1*	..	*33*	..	*12*
Congo, Rep.	3	141	97	74	42	5	5	96	..	..	..
Costa Rica	87	105	107	47	60	21	16	89	91	39	49
Côte d'Ivoire	3	75	81	19	23	3	*7*	..	64	..	..
Croatia	..	..	..	77	..	19	..	..	..	..	..
Cuba	109	106	102	81	85	17	24	95	97	..	82
Czech Republic	92	95	104	99	95	17	30	..	90	..	..
Denmark	*92*	95	102	105	*128*	28	59	95	*99*	88	*89*
Dominican Republic	38	118	124	42	59	..	..	..	93	..	40
Ecuador	69	117	115	53	57	35	..	..	99	..	48
Egypt, Arab Rep.	12	73	100	50	86	16	*39*	..	93	..	79
El Salvador	44	75	109	24	54	9	18	..	*81*	..	*39*
Eritrea	6	..	59	..	28	..	2	..	41	..	22
Estonia	102	103	103	127	92	25	58	..	98	..	83
Ethiopia	2	37	64	9	18	0 [d]	2	..	47	..	13
Finland	*49*	96	102	100	126	32	..	..	100	..	95
France	114	111	105	85	108	25	54	100	100	79	92
Gabon	14	..	144	..	60	..	*8*	..	88	..	..
Gambia, The	*20*	53	82	11	36	..	..	50	69	..	35
Georgia	39	93	95	109	73	30	35	..	95	..	*73*
Germany	*96*	..	104	..	*99*	..	*46*	..	*87*	..	*88*
Ghana	59	79	80	41	36	2	3	..	58	..	31
Greece	*72*	103	99	81	98	17	..	96	97	..	87
Guatemala	51	71	102	19	37	8	..	59	84	13	26
Guinea	..	36	67	17	*14*	5	..	..	47	..	*12*
Guinea-Bissau	*4*	68	*83*	6	*20*	..	*0* [d]	47	*54*	3	..
Haiti	..	77	..	14	..	1	..	38	..	..	..

Participation in education 2.12

	Gross enrollment ratio [a]							Net enrollment ratio [b]			
	Preprimary % of relevant age group	Primary % of relevant age group		Secondary % of relevant age group		Tertiary % of relevant age group		Primary % of relevant age group		Secondary % of relevant age group	
	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]
Honduras	21	98	106	30	..	7	15	78	88	..	..
Hungary	79	96	102	70	*99*	14	40	95	90	..	*87*
India	*20*	83	*102*	30	*49*	5	*10*	..	..	..	..
Indonesia	19	107	110	29	57	4	15	88	92	..	*48*
Iran, Islamic Rep.	17	87	86	42	78	..	10	..	74	..	..
Iraq	*6*	113	*102*	57	*38*	9	*14*	99	*93*	47	*33*
Ireland	..	100	*119*	90	..	18	48	90	*90*	78	..
Israel	113	95	114	73	93	29	53	..	101	..	88
Italy	*95*	100	101	72	96	27	50	..	100	..	91
Jamaica	*88*	103	100	67	83	7	16	96	95	64	74
Japan	*84*	101	101	93	102	31	48	100	101	93	101
Jordan	*31*	82	*101*	59	*88*	13	*29*	73	*94*	53	*76*
Kazakhstan	13	84	99	93	88	34	31	..	89	..	83
Kenya	42	115	94	20	31	1	3	91	69	..	23
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	80	110	101	78	94	15	78	100	99	70	91
Kuwait	*98*	102	*85*	80	*56*	11	*21*	85	*66*	..	*50*
Kyrgyz Republic	14	116	101	110	86	16	41	..	82	..	..
Lao PDR	8	113	113	21	38	0 [d]	3	..	81	..	30
Latvia	59	102	100	99	91	24	63	..	92	..	74
Lebanon	71	111	99	59	76	30	42	..	74	..	*70*
Lesotho	18	103	115	18	33	1	3	67	78	13	21
Liberia	70	48	*118*	22	*38*	..	..	..	*83*	..	*25*
Libya	8	125	116	76	90	8	49	..	..	62	..
Lithuania	52	79	101	114	95	35	52	..	95	..	89
Macedonia, FYR	29	100	99	61	84	28	24	..	92	..	*81*
Madagascar	3	130	103	..	*14*	3	2	..	68	..	*11*
Malawi	..	60	137	5	36	0 [d]	*0* [d]	43	101	..	25
Malaysia	..	93	99	48	70	4	28	..	98	..	70
Mali	1	26	61	8	*15*	1	*2*	20	*43*	..	..
Mauritania	..	37	83	11	21	..	4	..	64	..	14
Mauritius	90	93	109	50	77	1	11	79	95	..	64
Mexico	*76*	120	113	49	75	14	21	..	103	..	60
Moldova	35	83	84	78	71	30	28	..	78	..	68
Mongolia	29	107	99	92	61	22	33	..	89	..	58
Morocco	53	83	94	26	*39*	6	10	62	78	20	*30*
Mozambique	..	99	92	5	12	0 [d]	1	36	54	..	9
Myanmar	2	91	89	22	39	5	12	..	83	..	37
Namibia	21	..	112	..	62	..	*6*	..	82	..	38
Nepal	13	86	118	22	51	3	5	..	72	..	..
Netherlands	*98*	100	108	93	124 [e]	29	55	93	100	81	90
New Zealand	..	111	100	83	112	27	69	..	99	81	92
Nicaragua	27	94	104	41	54	12	..	70	81	22	36
Niger	1	25	35	5	6	0 [d]	1	21	30	4	5
Nigeria	..	109	..	18	..	3	..	..	..	..	..
Norway	*77*	99	101	94	115	25	70	98	101	84	95
Oman	5	51	72	12	68	0 [d]	8	43	65	10	59
Pakistan	..	40	75	14	..	..	..	..	66	..	..
Panama	47	106	112	61	69	21	*35*	89	100	46	62
Papua New Guinea	*18*	59	*84*	12	*21*	2	*2*	..	*84*	..	*21*
Paraguay	*83*	106	111	27	60	9	..	89	92	..	47
Peru	*59*	114	*128*	59	*81*	17	*29*	86	*104*	..	*61*
Philippines	..	112	113	64	*77*	24	31	94	93	45	53
Poland	*49*	100	100	77	101	18	56	98	98	70	91
Portugal	*68*	123	121	37	114 [e]	11	50	98	..	..	85
Puerto Rico	..	..	..	..	..	42	..	..	..	..	..

2.12 Participation in education

	Gross enrollment ratio [a]							Net enrollment ratio [b]			
	Preprimary % of relevant age group	Primary % of relevant age group		Secondary % of relevant age group		Tertiary % of relevant age group		Primary % of relevant age group		Secondary % of relevant age group	
	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]	1980	2000 [c]
Romania	73	104	99	94	82	12	27	..	93	..	80
Russian Federation	..	102	..	96	83	46	64	..	..	..	..
Rwanda	3	63	119	3	*12*	0 [d]	2	59	*97*	..	..
Saudi Arabia	5	61	68	29	68	7	*22*	49	58	21	51
Senegal	4	46	75	11	18	3	4	37	63	..	..
Sierra Leone	4	52	93	14	26	1	2	..	..	..	26
Singapore	..	108	..	60	..	8	..	99	..	..	..
Slovak Republic	*82*	..	103	..	87	..	30	..	89	..	75
Slovenia	75	98	100	..	..	20	61	..	93	..	..
Somalia	..	21	..	9	..	..	..	16	..	5	..
South Africa	34	90	111	..	87	..	15	..	89	..	57
Spain	102	109	105	87	116	23	59	100	102	74	94
Sri Lanka	..	103	*106*	55	*72*	3	..	..	*97*	..	..
Sudan	*22*	50	*55*	16	*29*	2	*7*	..	*46*	..	..
Swaziland	..	103	125	38	*60*	4	5	80	93	..	*44*
Sweden	*74*	97	110	88	149 [e]	31	70	..	102	..	*96*
Switzerland	*95*	84	107	94	100	18	42	79	99	78	88
Syrian Arab Republic	10	100	109	46	43	17	*6*	89	96	39	39
Tajikistan	9	..	104	..	79	24	14	..	103	..	76
Tanzania	..	93	63	3	6	0 [d]	1	68	47	..	5
Thailand	83	99	95	29	82	15	35	..	85	..	..
Togo	2	118	124	33	39	2	*4*	..	92	..	*23*
Trinidad and Tobago	63	99	100	69	81	4	6	90	92	..	71
Tunisia	*16*	102	117	27	78	5	22	82	99	23	70
Turkey	..	96	101	35	*58*	5	*15*	..	..	..	..
Turkmenistan	..	..	..	..	..	22	..	..	..	..	..
Uganda	4	50	136	5	19	1	3	..	109	..	*12*
Ukraine	*48*	102	*78*	94	*105*	42	*43*	..	*72*	..	..
United Arab Emirates	84	89	99	52	75	3	*12*	74	87	..	67
United Kingdom	*79*	103	99	83	156 [e]	19	60	97	99	79	94
United States	*57*	99	101	91	95	56	73	..	95	..	88
Uruguay	63	107	109	62	98	17	36	..	90	..	70
Uzbekistan	..	81	..	105	..	28	..	..	..	..	..
Venezuela, RB	48	93	102	21	59	21	28	82	88	14	50
Vietnam	43	109	106	42	67	2	10	95	95	..	62
West Bank and Gaza	..	..	..	..	..	..	..	..	..	..	..
Yemen, Rep.	0 [d]	..	79	..	*48*	..	*11*	..	67	..	*37*
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	..	..	..	..	..
Zambia	*2*	90	78	16	24	1	2	77	66	..	19
Zimbabwe	36	85	95	8	44	1	4	..	80	..	40
World	***48*** **w**	**97 w**	***102*** **w**	**49 w**	***67*** **w**	**13 w**	***22*** **w**	**.. w**	**.. w**	**.. w**	**.. w**
Low income	*20*	83	*95*	29	*44*	6	*8*	..	..	..	..
Middle income	*47*	106	*109*	51	*70*	10	*17*	..	*93*	..	..
Lower middle income	*44*	107	*104*	51	*65*	9	*15*	..	*92*	..	..
Upper middle income	*61*	102	125	49	91	15	26	..	96	..	69
Low & middle income	*33*	96	*102*	41	*58*	8	*14*	..	..	..	..
East Asia & Pacific	*37*	111	*106*	43	*61*	3	*9*	..	*93*	..	..
Europe & Central Asia	..	99	94	86	*88*	31	*44*	..	..	..	..
Latin America & Carib.	58	105	130	42	86	14	21	..	97	..	64
Middle East & N. Africa	16	87	95	42	76	11	*22*	..	82	..	..
South Asia	*20*	77	*98*	27	*48*	5	*10*	..	..	..	..
Sub-Saharan Africa	..	80	86	15	*27*	1	*4*	..	..	..	..
High income	*79*	102	102	86	106	35	62	..	98	..	92
Europe EMU	*97*	106	104	81	107	24	*52*	..	100	..	91

a. Break in series between 1997 and 1998 due to change from International Standard Classification of Education 1976 (ISCED76) to ISCED97. b. Net enrollment ratios exceeding 100 percent indicate discrepancies between estimates of the school-age population and reported enrollment data. c. Data are provisional for Organisation for Economic Co-operation and Development and World Education Indicators (WEI) countries. For a list of WEI countries, see *About the Data* for table 2.10. d. Less than 0.5. e. Includes training for the unemployed.

Participation in education 2.12

About the data

School enrollment data are reported to the UNESCO Institute for Statistics by national education authorities. Enrollment ratios help to monitor two important issues for universal primary education: a Millennium Development Goal that implies achieving a net primary enrollment ratio of 100 percent, and gross enrollment ratios help to assess whether an education system has sufficient capacity to meet the needs of universal primary education. Net enrollment ratios show the share of children of primary school age who are enrolled in school and thus also the share who are not.

Enrollment ratios, while a useful measure of participation in education, also have significant limitations. They are based on data collected during annual school surveys, which are typically conducted at the beginning of the school year. They do not reflect actual rates of attendance or dropouts during the school year. And school administrators may report exaggerated enrollments, especially if there is a financial incentive to do so. Often the number of teachers paid by the government is related to the number of pupils enrolled. Behrman and Rosenzweig (1994), comparing official school enrollment data for Malaysia in 1988 with gross school attendance rates from a household survey, found that the official statistics systematically overstated enrollment.

Overage or underage enrollments frequently occur, particularly when parents prefer, for cultural or economic reasons, to have children start school at other than the official age. Children's age at enrollment may be inaccurately estimated or misstated, especially in communities where registration of births is not strictly enforced. Parents who want to enroll their underage children in primary school may do so by overstating the age of the children. And in some education systems ages for children repeating a grade may be deliberately or inadvertently underreported.

As an international indicator, the gross primary enrollment ratio has been used to indicate broad levels of participation as well as school capacity. It has an inherent weakness: the length of primary education differs significantly across countries. A short duration tends to increase the ratio, and a long duration to decrease it (in part because there are more dropouts among older children).

Other problems affecting cross-country comparisons of enrollment data stem from errors in estimates of school-age populations. Age-gender structures from censuses or vital registration systems, the primary sources of data on school-age populations, are commonly subject to underenumeration (especially of young children) aimed at circumventing laws or regulations; errors are also introduced when parents round up children's ages. While census data are often adjusted for age bias, adjustments are rarely made for inadequate vital registration systems. Compounding these problems, pre- and postcensus estimates of school-age children are interpolations or projections based on models that may miss important demographic events (see the discussion of demographic data in *About the data* for table 2.1).

In using enrollment data, it is also important to consider repetition rates. These rates are quite high in some developing countries, leading to a substantial number of overage children enrolled in each grade and raising the gross enrollment ratio. A common error that may also distort enrollment ratios is the lack of distinction between new entrants and repeaters, which, other things equal, leads to underreporting of repeaters and overestimation of dropouts.

Thus gross enrollment ratios indicate the capacity of each level of the education system, but a high ratio does not necessarily mean a successful education system. The net enrollment ratio excludes overage students in an attempt to capture more accurately the system's coverage and internal efficiency. It does not solve the problem completely, however, because some children fall outside the official school age because of late or early entry rather than because of grade repetition. The difference between gross and net enrollment ratios shows the incidence of overage and underage enrollments.

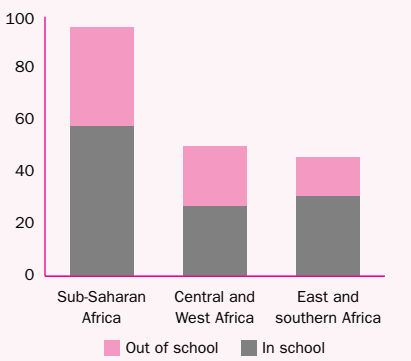
In 1998 the United Nations Educational, Scientific, and Cultural Organization (UNESCO) introduced the International Standard Classification of Education, 1997 (ISCED97), and adjusted its data collection program and country reporting of education statistics to this new classification. The adjustments were made to ease the international compilation and comparison of education statistics and to take into account new types of learning opportunities and activities for both children and adults. Thus the time-series data for the years through 1997 are not consistent with those for 1998 and later. Any time-series analysis should therefore be undertaken with extreme caution.

ISCED97 introduced a new level of education—level 4, or postsecondary nontertiary education. The students in this category are not counted as either secondary or tertiary.

The years shown in the table usually refer to the beginning of the school year. In most countries the school year ends in the following year.

2.12a

Nearly 40 million African children were out of school in 1998



In Sub-Saharan Africa an estimated 38 million children of primary school age (about 40 percent) were out of school in 1998. A large share (about 60 percent) of these children were in Central and West Africa. Unless countries in this region devise strategies to improve access to schools and create incentives to attend, they are unlikely to achieve the Millennium Development Goal of providing universal primary education by 2015.

Source: UNESCO Institute for Statistics 2001.

Definitions

• **Gross enrollment ratio** is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. • **Net enrollment ratio** is the ratio of children of official school age (as defined by the national education system) who are enrolled in school to the population of the corresponding official school age. Based on the International Standard Classification of Education, 1997 (ISCED97), • **Preprimary education** refers to the initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment. • **Primary education** provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music. • **Secondary education** completes the provision of basic education that began at the primary level, and aims at laying the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized teachers. • **Tertiary education**, whether or not leading to an advanced research qualification, normally requires, as a minimum condition of admission, the successful completion of education at the secondary level.

Data sources

The data are from the UNESCO Institute for Statistics.

2.13 Education efficiency

	Net intake rate in grade 1		Share of cohort reaching grade 5				Primary completion rate			Average years of schooling		
	% of school-age population		% of grade 1 students				% of relevant age group					
	Male	Female	Male		Female		Total	Male	Female	Total	Male	Female
	2000 [a]	2000 [a]	1980	1999 [a]	1980	1999 [a]	1995–2001 [b]	1995–2001 [b]	1995–2001 [b]	2000	2000	2000
Afghanistan	..	..	62	..	61	..	8	15	0 [c]	1.7	2.6	0.8
Albania	79	79	..	..	..	..	91	89	93	..	..	..
Algeria	82	80	90	97	85	98	91	93	88	5.4	6.2	4.5
Angola	*18*	*17*	..	..	..	..	28	..	..	..	..	..
Argentina	*92*	*92*	..	90	..	90	96	..	..	8.8	8.8	8.9
Armenia	57	58	..	..	..	..	82	70	95	..	..	..
Australia	..	..	..	..	..	..	..	..	..	10.9	11.2	10.7
Austria	..	..	..	..	..	..	..	..	..	8.4	9.2	7.6
Azerbaijan	*84*	*86*	..	..	..	..	100	99	101	..	..	..
Bangladesh	86	85	18	..	26	..	70	68	72	2.6	3.3	1.8
Belarus	*87*	*85*	..	..	..	..	93	95	92	..	..	..
Belgium	..	..	75	..	77	..	..	..	..	9.3	9.6	9.1
Benin	..	..	59	89	62	78	39	47	30	2.3	3.3	1.4
Bolivia	66	68	..	84	..	81	72	..	..	5.6	6.1	5.1
Bosnia and Herzegovina	..	..	..	..	..	..	88	..	..	..	..	..
Botswana	22	25	80	84	84	89	102	96	107	6.3	6.2	6.3
Brazil	..	..	..	..	..	..	71	..	..	4.9	5.4	4.4
Bulgaria	..	..	..	..	..	..	92	92	92	..	..	..
Burkina Faso	25	17	76	68	74	71	25	30	20	..	..	..
Burundi	32	28	100	59	96	58	43	31	28	..	..	..
Cambodia	70	67	..	63	..	63	70	68	51	..	..	..
Cameroon	..	..	70	*72*	69	*93*	43	46	39	3.5	4.2	2.9
Canada	..	..	..	..	..	..	..	..	..	11.6	11.7	11.6
Central African Republic	..	..	63	..	50	..	19	..	..	2.5	3.4	1.7
Chad	32	24	..	58	..	48	19	29	9	..	..	..
Chile	37	37	..	101	..	101	99	..	..	7.5	7.6	7.5
China	..	..	..	..	..	..	108	111	106	6.4	7.6	5.1
Hong Kong, China	..	..	98	..	99	..	..	..	..	9.4	9.9	8.9
Colombia	60	57	..	..	..	..	85	84	88	5.3	4.9	5.7
Congo, Dem. Rep.	*21*	*23*	56	..	59	..	40	45	34	3.0	4.1	2.0
Congo, Rep.	*11*	*10*	81	..	83	..	44	28	60	5.1	5.8	4.6
Costa Rica	61	61	77	77	82	84	89	91	88	6.0	6.1	6.0
CÙte d'Ivoire	30	24	..	91	..	90	40	48	33	..	..	..
Croatia	..	..	..	..	..	..	79	80	79	..	..	..
Cuba	94	93	..	95	..	96	..	..	..	..	..	..
Czech Republic	47	53	..	..	..	..	109	110	107	..	..	..
Denmark	*86*	*88*	99	..	99	..	..	..	..	9.7	9.8	9.5
Dominican Republic	63	63	..	*71*	..	*79*	82	78	86	4.9	4.9	5.0
Ecuador	80	83	..	76	..	79	96	96	96	6.4	6.4	6.4
Egypt, Arab Rep.	88	85	92	..	88	..	99	104	92	5.5	6.5	4.5
El Salvador	..	..	17	*69*	16	*72*	80	..	..	5.2	5.2	5.1
Eritrea	28	24	..	..	..	..	35	40	31	..	..	..
Estonia	..	..	..	100	..	99	88	89	86	..	..	..
Ethiopia	27	24	50	64	51	64	24	36	12	..	..	..
Finland	93	94	..	99	..	101	..	..	..	10.0	10.2	9.8
France	..	..	..	..	..	..	..	..	..	7.9	8.1	7.6
Gabon	..	..	57	..	56	..	80	79	80	..	..	..
Gambia, The	*46*	*44*	74	*75*	71	*63*	70	..	..	2.3	3.0	1.6
Georgia	73	72	..	..	..	..	90	..	..	..	..	..
Germany	..	..	..	..	..	..	..	..	..	10.2	10.5	9.9
Ghana	29	29	..	67	..	65	64	..	..	3.9	5.7	2.2
Greece	..	..	99	..	98	..	..	..	..	8.7	9.8	7.6
Guatemala	62	59	..	..	..	..	52	..	..	3.5	3.8	3.1
Guinea	*22*	*19*	..	90	..	77	34	44	24	..	..	..
Guinea-Bissau	*38*	*29*	25	*41*	17	*34*	31	40	24	0.8	0.9	0.7
Haiti	..	..	20	..	21	..	70	69	70	2.8	3.5	2.1

2.13 Education efficiency

	Net intake rate in grade 1		Share of cohort reaching grade 5				Primary completion rate			Average years of schooling		
	% of school-age population		% of grade 1 students				% of relevant age group					
	Male	Female	Male		Female		Total	Male	Female	Total	Male	Female
	2000 [a]	2000 [a]	1980	1999 [a]	1980	1999 [a]	1995–2001 [b]	1995–2001 [b]	1995–2001 [b]	2000	2000	2000
Honduras	49	49	..	..	..	..	67	66	74	4.8	5.6	4.0
Hungary	..	..	96	..	97	..	102	102	102	9.1	9.6	8.7
India	..	..	..	*70*	..	*65*	76	88	63	5.1	6.3	3.7
Indonesia	45	44	..	92	..	102	91	90	92	5.0	5.5	4.5
Iran, Islamic Rep.	38	38	..	..	..	..	92	95	89	5.3	6.1	4.5
Iraq	*76*	*71*	..	..	..	..	55	59	51	4.0	4.6	3.3
Ireland	..	..	..	98	..	99	..	..	..	9.4	9.3	9.4
Israel	..	..	..	..	..	..	..	..	..	9.6	9.8	9.4
Italy	..	..	99	..	99	..	..	..	..	7.2	7.6	6.8
Jamaica	80	85	..	87	..	91	94	91	98	5.3	4.9	5.6
Japan	..	..	100	..	100	..	..	..	..	9.5	9.9	9.1
Jordan	*70*	*71*	100	*98*	98	*97*	104	102	106	6.9	7.7	6.0
Kazakhstan	69	67	..	..	..	..	100	99	101	..	..	..
Kenya	*30*	*31*	60	*70*	62	*73*	63	..	..	4.2	4.7	3.7
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	..	..	94	..	94	..	96	95	98	10.8	11.7	10.0
Kuwait	*68*	*66*	..	..	..	..	70	69	71	7.1	7.2	6.9
Kyrgyz Republic	..	..	..	..	..	..	100	..	..	..	..	..
Lao PDR	60	58	..	..	..	..	69	73	64	..	..	..
Latvia	..	..	..	..	..	..	86	87	84	..	..	..
Lebanon	5	7	..	95	..	99	70	..	..	..	..	..
Lesotho	53	56	50	68	68	80	68	65	92	4.2	3.6	4.8
Liberia	*65*	*51*	..	*49*	..	*17*	..	..	..	2.5	3.3	1.5
Libya	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	..	..	..	..	..	..	95	97	94	..	..	..
Macedonia, FYR	..	..	..	..	..	..	91	94	87	..	..	..
Madagascar	*59*	*49*	..	..	..	..	26	26	26	..	..	..
Malawi	..	..	48	55	40	43	64	72	58	3.2	3.6	2.8
Malaysia	..	..	97	..	97	..	90	89	90	6.8	7.4	6.2
Mali	..	..	..	100	..	86	23	29	18	0.9	1.2	0.6
Mauritania	28	27	..	68	..	55	46	48	43	..	..	..
Mauritius	24	25	..	..	..	..	111	115	108	6.0	6.5	5.6
Mexico	83	86	..	88	..	89	100	..	..	7.2	7.6	6.9
Moldova	..	..	..	..	..	..	79	..	..	..	..	..
Mongolia	71	71	..	..	..	..	82	..	..	..	..	..
Morocco	68	65	79	79	78	81	55	63	47	..	..	..
Mozambique	22	21	..	..	..	..	36	50	22	1.1	1.4	0.8
Myanmar	90	90	..	..	..	..	..	..	..	2.8	3.0	2.5
Namibia	57	60	..	92	..	93	90	86	94	..	..	..
Nepal	..	..	..	..	..	..	65	70	58	2.4	3.4	1.5
Netherlands	99	98	94	..	98	..	..	..	..	9.4	9.6	9.1
New Zealand	..	..	93	..	94	..	..	..	..	11.7	12.0	11.5
Nicaragua	41	39	..	45	..	53	65	61	70	4.6	4.5	4.6
Niger	36	25	74	76	72	71	20	24	16	1.0	1.4	0.7
Nigeria	..	..	..	..	..	..	67	73	61	..	..	..
Norway	..	..	100	..	100	..	..	..	..	11.8	12.2	11.6
Oman	54	54	..	95	..	97	76	76	76	..	..	..
Pakistan	..	..	..	..	..	..	59	..	..	3.9	5.1	2.5
Panama	86	87	74	92	79	92	94	..	..	8.6	8.6	8.5
Papua New Guinea	*102*	*93*	..	..	..	..	59	64	53	2.9	3.3	2.4
Paraguay	69	71	58	74	58	79	78	..	..	6.2	6.3	6.1
Peru	*85*	*85*	78	*88*	74	*88*	98	..	..	7.6	8.0	7.1
Philippines	46	49	..	..	..	..	92	..	..	8.2	8.2	8.2
Poland	..	..	..	99	..	99	96	96	97	9.8	10.0	9.7
Portugal	..	..	..	..	..	..	..	..	..	5.9	6.1	5.7
Puerto Rico	..	..	..	..	..	..	..	..	..	..	..	..

2.13 Education efficiency

	Net intake rate in grade 1		Share of cohort reaching grade 5				Primary completion rate			Average years of schooling		
	% of school-age population		% of grade 1 students				% of relevant age group					
	Male	Female	Male		Female		Total	Male	Female			
	2000 [a]	2000 [a]	1980	1999 [a]	1980	1999 [a]	1995–2001 [b]	1995–2001 [b]	1995–2001 [b]	Total 2000	Male 2000	Female 2000
Romania	..	..	..	..	..	..	98	99	98	..	..	..
Russian Federation	..	..	..	..	..	..	96	..	..	..	..	..
Rwanda	63	67	69	38	74	40	28	..	..	2.6	3.0	2.2
Saudi Arabia	53	35	82	94	86	94	69	68	69	..	..	..
Senegal	..	..	89	75	82	69	41	49	34	2.6	3.1	2.0
Sierra Leone	*82*	*79*	..	..	..	..	32	36	30	2.4	3.1	1.7
Singapore	..	..	..	..	..	..	..	..	..	8.6 [d]	9.3 [d]	8.1 [d]
Slovak Republic	49	56	..	..	..	..	97	96	97	9.3	..	..
Slovenia	..	..	..	..	..	..	92	90	94	7.1	..	..
Somalia	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	39	36	..	66	..	63	98	95	100	6.1	5.7	6.6
Spain	..	..	95	..	94	..	..	..	..	7.3	7.4	7.1
Sri Lanka	..	..	..	..	..	..	111	108	114	6.9	7.2	6.6
Sudan	*30*	*26*	68	*86*	71	*88*	46	..	..	2.1	2.7	1.6
Swaziland	*49*	*51*	77	83	81	85	81	78	85	6.0	5.8	6.2
Sweden	..	..	98	..	98	..	..	..	..	11.4	11.4	11.4
Switzerland	59	59	75	101	74	101	..	..	..	10.5	11.1	9.9
Syrian Arab Republic	63	61	93	..	88	..	90	95	86	5.8	6.8	4.8
Tajikistan	98	92	..	..	..	..	95	..	..	..	..	..
Tanzania	*12*	*14*	89	80	90	83	60	..	..	2.7	3.1	2.3
Thailand	*56*	*52*	..	*96*	..	*99*	90	..	..	6.5	7.0	6.0
Togo	50	44	59	78	44	69	63	73	52	3.3	4.6	2.1
Trinidad and Tobago	66	67	85	98	87	101	81	79	84	7.8	7.5	8.0
Tunisia	*81*	*82*	89	92	84	94	91	93	90	5.0	5.8	4.2
Turkey	..	..	..	..	..	..	92	95	89	5.3	6.2	4.3
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	..	..	..	..	..	..	65	..	..	3.5	4.3	2.7
Ukraine	*67*	*66*	..	..	..	..	55	55	55	..	..	..
United Arab Emirates	59	62	100	98	100	98	80	76	86	..	..	..
United Kingdom	..	..	..	..	..	..	..	..	..	9.4	9.5	9.4
United States	..	..	..	..	..	..	..	..	..	12.0	12.1	12.0
Uruguay	35	38	..	93	..	88	98	95	101	7.6	7.2	7.9
Uzbekistan	..	..	..	..	..	..	100	..	..	..	..	..
Venezuela, RB	*63*	*64*	..	*88*	..	*94*	78	77	79	6.6	6.5	6.8
Vietnam	..	..	..	..	..	..	101	104	98	..	..	..
West Bank and Gaza	..	..	..	..	..	..	..	..	..	..	..	..
Yemen, Rep.	33	24	..	..	..	..	58	77	38	..	..	..
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	96	..	..	..	..	..
Zambia	37	40	88	83	82	78	73	..	..	5.5	6.0	5.0
Zimbabwe	*39*	*40*	..	..	..	..	113	116	111	5.4	6.0	4.7
World	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	6.5 w	7.2 w	5.7 w
Low income	..	..	..	..	..	..	..	..	..	4.4	5.4	3.3
Middle income	..	..	..	..	..	..	102	105	100	6.3	7.3	5.5
Lower middle income	..	..	..	..	..	..	103	106	101	6.2	7.3	5.2
Upper middle income	..	..	..	..	..	..	..	..	..	6.7	7.3	6.5
Low & middle income	..	..	..	..	..	..	..	..	..	5.5	6.5	4.6
East Asia & Pacific	..	..	..	..	..	..	105	108	103	6.2	7.3	5.2
Europe & Central Asia	..	..	..	..	..	..	..	..	..	..	..	..
Latin America & Carib.	..	..	..	..	..	..	..	..	..	6.0	6.3	5.8
Middle East & N. Africa	62	58	..	..	..	..	86	90	83	5.3	6.1	4.4
South Asia	..	..	..	*70*	..	*65*	74	86	61	4.7	5.8	3.4
Sub-Saharan Africa	..	..	..	..	..	..	..	..	..	..	..	..
High income	..	..	..	..	..	..	..	..	..	10.0	10.2	9.8
Europe EMU	..	..	..	..	..	..	..	..	..	8.4	8.8	8.1

a. Data are provisional for Organisation for Economic Co-operation and Development and World Education Indicators (WEI) countries. For a list of WEI countries, see *About the Data* for table 2.10. b. Data are for the most recent year available. c. Less than 0.5. d. Data are for 2001.

Education efficiency 2.13

About the data

Indicators of students' progress through school are estimated by the UNESCO Institute for Statistics and the World Bank. These indicators measure an education system's success in extending coverage to all students, maintaining the flow of students from one grade to the next, and, ultimately, imparting a particular level of education.

Low net intake rates in grade 1 reflect the fact that many children do not enter primary school at the official age, even though school attendance, at least through the primary level, is mandatory in all countries. Once enrolled, students drop out for a variety of reasons, including low quality of schooling, discouragement over poor performance, and the direct and indirect costs of schooling. Students' progress to higher grades may also be limited by the availability of teachers, classrooms, and educational materials.

The cohort survival rate is estimated as the proportion of an entering cohort of grade 1 students that eventually reaches grade 5. It measures the holding power and internal efficiency of an education system. Cohort survival rates approaching 100 percent indicate a high level of retention and a low level of dropout.

Cohort survival rates are typically estimated from data on enrollment and repetition by grade for two consecutive years, in a procedure called the reconstructed cohort method. This method makes three simplifying assumptions: dropouts never return to school; promotion, repetition, and dropout rates remain constant over the entire period in which the cohort is enrolled in school; and the same rates apply to all pupils enrolled in a given grade, regardless of whether they previously repeated a grade (Fredricksen 1993). Given these assumptions, cross-country comparisons should be made with caution, because other flows—caused by new entrants, reentrants, grade skipping, migration, or school transfers during the school year—are not considered.

The UNESCO Institute for Statistics measures cohort survival to grade 5 because research suggests that five to six years of schooling is a critical threshold for the achievement of sustainable basic literacy and numeracy skills. But the cohort survival rate only indirectly reflects the quality of schooling, and a high rate does not guarantee these learning outcomes. Measuring actual learning outcomes requires setting curriculum standards and measuring students' learning progress against those standards through standardized assessments or tests.

The primary completion rate is increasingly used as a core indicator of an education system's performance. Because it measures both the coverage of the education system and the educational attainment of students, the primary completion rate is a more accurate indicator of human capital formation and the quality and efficiency of the school system than are gross and net enrollment ratios. It is also the most direct measure of national progress toward the Millennium Development Goal of universal primary education.

The primary completion rate reflects the primary cycle as nationally defined, ranging from three or four years of primary education (in a very small number of countries) to five or six years (in most countries) and seven or eight years (in a relatively small number of countries). For any country it is therefore consistent with the gross and net enrollment ratios. The numerator may include overage children who have repeated one or more grades of primary school but are now graduating successfully as well as children who entered school early. The demoninator is the number of children of official graduation age, which could cause the primary completion rate to exceed 100 percent. There are other data limitations that contribute to completion rates exceeding 100 percent, such as the use of estimates for the population, different times of the year that the school and population surveys are conducted, and other discrepancies in the numbers used in the calculation.

For countries where the number of primary graduates is not reported, a proxy primary completion rate is calculated by subtracting the number of students who repeat the final grade in a typical year from the total number of students in that grade and dividing the result by the number of children of official graduation age in the population. Data limitations preclude adjusting this number for students who drop out during the final year of primary school. Thus proxy rates should be taken as an upper-bound estimate of the actual primary completion rate.

Average years of schooling measure the educational attainment of the population ages 15 and above, providing another indication of a country's human capital stock. But the data do not directly measure the human skills obtained in schools and do not take account of differences in the quality of schooling across countries. Average years of schooling are computed using a perpetual inventory method (for further details on this method, see Barro and Lee 2000).

Definitions

• **Net intake rate in grade 1** is the number of new entrants in the first grade of primary education who are of official primary school entrance age, expressed as a percentage of the population of the corresponding age. • **Share of cohort reaching grade 5** is the percentage of children enrolled in the first grade of primary school who eventually reach grade 5. The estimate is based on the reconstructed cohort method (see *About the data*). • **Primary completion rate** is the number of students successfully completing the last year of (or graduating from) primary school in a given year, divided by the number of children of official graduation age in the population. • **Average years of schooling** are the years of formal schooling received, on average, by adults ages 15 and above.

Data sources

The data on the net intake rate and the cohort reaching grade 5 are from the UNESCO Institute for Statistics. The data on the primary completion rate are compiled by staff in the education group of the World Bank's Human Development Network. The data on average years of schooling are from Robert Barro and Jong-Wha Lee's *International Data on Educational Attainment: Updates and Implications* (2000).

2.14 Education outcomes

	Adult illiteracy rate				Youth illiteracy rate				Expected years of schooling			
	Male		Female		Male		Female					
	% ages 15 and above		% ages 15 and above		% ages 15–24		% ages 15–24		Males		Females	
	1990	2001	1990	2001	1990	2001	1990	2001	1990	2000 [a]	1990	2000 [a]
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Albania	13	8	33	22	3	1	8	3	..	11	..	11
Algeria	36	23	59	42	14	6	32	15	*11*	..	*9*	..
Angola	..	..	..	..	..	..	..	..	..	..	..	..
Argentina	4	3	4	3	2	2	2	1	..	*14*	..	*15*
Armenia	1	1	4	2	0 [b]	0 [b]	1	0 [b]	..	8	..	9
Australia	..	..	..	..	..	..	..	..	13	17	13	17
Austria	..	..	..	..	..	..	..	..	*15*	15	*14*	15
Azerbaijan	..	..	..	..	..	..	..	..	..	*11*	..	*10*
Bangladesh	56	50	76	69	49	43	67	60	6	8	4	8
Belarus	0 [b]	0 [b]	1	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	..	12	..	13
Belgium	..	..	..	..	..	..	..	..	14	*16*	14	*16*
Benin	62	47	85	75	43	28	75	63	..	*9*	..	*5*
Bolivia	13	8	30	20	4	2	11	6	..	..	..	..
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..	..	..
Botswana	34	25	30	19	21	15	13	8	10	12	11	12
Brazil	17	13	19	13	9	6	7	3	..	13	..	14
Bulgaria	2	1	4	2	0 [b]	0 [b]	1	0 [b]	12	13	12	13
Burkina Faso	75	65	92	85	64	53	86	75	*3*	..	*2*	..
Burundi	52	43	73	58	42	33	55	36	*6*	..	*4*	..
Cambodia	22	20	51	42	19	16	34	25	..	8	..	7
Cameroon	31	20	52	35	14	8	24	11	..	..	..	..
Canada	..	..	..	..	..	..	..	..	17	*14*	17	*15*
Central African Republic	53	39	79	63	34	23	61	39	..	..	..	..
Chad	63	47	81	64	42	25	62	38	..	*7*	..	*4*
Chile	6	4	6	4	2	1	2	1	..	*14*	..	*13*
China	13	7	31	21	3	1	7	3	..	..	..	..
Hong Kong, China	4	3	17	10	2	1	2	0 [b]	..	..	..	..
Colombia	11	8	12	8	6	4	4	2	..	11	..	11
Congo, Dem. Rep.	39	26	66	48	20	11	42	24	..	..	..	..
Congo, Rep.	23	12	42	24	5	2	10	3	..	..	..	..
Costa Rica	6	4	6	4	3	2	2	1	..	10	..	10
Côte d'Ivoire	49	40	74	62	35	29	60	46	..	..	..	..
Croatia	1	1	5	3	0 [b]	0 [b]	0 [b]	0 [b]	..	12	..	12
Cuba	5	3	5	3	1	0 [b]	1	0 [b]	12	12	13	12
Czech Republic	..	..	..	..	..	..	..	..	..	14	..	14
Denmark	..	..	..	..	..	..	..	..	14	15	14	16
Dominican Republic	20	16	21	16	13	9	12	8	..	..	..	..
Ecuador	10	7	15	10	4	2	5	3	..	..	..	..
Egypt, Arab Rep.	40	33	66	55	29	23	49	36	..	10	..	10
El Salvador	24	18	31	23	15	11	17	12	..	*11*	..	*11*
Eritrea	42	32	65	54	27	19	51	39	..	6	..	4
Estonia	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	*12*	14	*12*	15
Ethiopia	63	52	80	68	48	38	66	50	..	6	..	4
Finland	..	..	..	..	..	..	..	..	*15*	16	*16*	17
France	..	..	..	..	..	..	..	..	*14*	15	*15*	16
Gabon	..	..	..	..	..	..	..	..	..	..	..	..
Gambia, The	68	55	80	69	50	33	66	49	..	..	..	..
Georgia	..	..	..	..	..	..	..	..	..	6	..	6
Germany	..	..	..	..	..	..	..	..	*15*	*15*	*14*	*15*
Ghana	30	19	53	35	12	6	25	11	..	8	..	7
Greece	2	1	8	4	1	0 [b]	0 [b]	0 [b]	13	15	13	15
Guatemala	31	23	47	38	20	14	34	27	..	..	..	..
Guinea	..	..	..	..	..	..	..	..	..	..	..	..
Guinea-Bissau	58	45	87	75	38	26	74	54	..	..	..	..
Haiti	57	47	63	51	44	35	46	34	..	..	..	..

2.14 Education outcomes

	Adult illiteracy rate				Youth illiteracy rate				Expected years of schooling			
	Male		Female		Male		Female					
	% ages 15 and above		% ages 15 and above		% ages 15–24		% ages 15–24		Males		Females	
	1990	2001	1990	2001	1990	2001	1990	2001	1990	2000 [a]	1990	2000 [a]
Honduras	31	25	33	24	22	16	19	13	..	..	..	..
Hungary	1	1	1	1	0 [b]	0 [b]	0 [b]	0 [b]	11	*13*	11	*14*
India	38	31	64	54	27	20	46	34	..	..	..	..
Indonesia	13	8	27	17	3	2	7	3	*10*	..	*9*	..
Iran, Islamic Rep.	28	16	46	30	8	4	19	8	..	..	..	..
Iraq	49	45	80	76	44	40	75	70	..	*10*	..	*8*
Ireland	..	..	..	..	..	..	..	..	12	*14*	13	*15*
Israel	5	3	12	7	1	0 [b]	2	1	..	14	..	15
Italy	2	1	3	2	0 [b]	0 [b]	0 [b]	0 [b]	..	15	..	15
Jamaica	22	17	14	9	13	9	5	2	11	11	11	11
Japan	..	..	..	..	..	..	..	..	..	*14*	..	*14*
Jordan	10	5	28	15	2	1	5	1	*9*	*12*	*9*	*13*
Kazakhstan	1	0 [b]	2	1	0 [b]	0 [b]	0 [b]	0 [b]	..	12	..	12
Kenya	19	11	39	23	7	4	13	5	..	8	..	8
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	2	1	7	3	0 [b]	0 [b]	0 [b]	0 [b]	14	16	13	14
Kuwait	21	16	27	20	12	8	13	6	*7*	*8*	*7*	*9*
Kyrgyz Republic	..	..	..	..	..	..	..	..	..	..	..	..
Lao PDR	30	23	57	46	21	15	39	28	*9*	9	*6*	7
Latvia	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	..	12	..	14
Lebanon	12	8	27	19	5	3	11	7	..	*13*	..	*13*
Lesotho	35	27	11	6	23	17	3	1	*9*	10	*11*	10
Liberia	45	29	77	62	25	14	61	46	..	*11*	..	*8*
Libya	17	9	49	31	1	0 [b]	17	6	..	..	..	..
Lithuania	0 [b]	0 [b]	1	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	..	14	..	15
Macedonia, FYR	..	..	..	..	..	..	..	..	..	*12*	..	*12*
Madagascar	34	26	50	39	22	16	33	23	..	*6*	..	*6*
Malawi	31	25	64	52	24	19	49	38	..	..	..	..
Malaysia	13	8	26	16	5	2	6	2	..	12	..	12
Mali	72	63	90	83	62	52	83	74	3	..	1	..
Mauritania	54	49	76	69	44	43	64	59	..	7	..	6
Mauritius	15	12	25	18	9	6	9	5	..	12	..	12
Mexico	9	7	16	11	4	2	6	3	..	*12*	..	*11*
Moldova	1	0 [b]	4	2	0 [b]	0 [b]	0 [b]	0 [b]	..	9	..	10
Mongolia	2	1	3	2	1	1	1	1	..	9	..	11
Morocco	47	37	75	63	32	23	58	40	..	*9*	..	*7*
Mozambique	51	39	82	70	34	24	68	52	*4*	7	*3*	5
Myanmar	13	11	26	19	10	9	14	9	..	7	..	7
Namibia	23	17	28	18	14	10	11	6	..	*12*	..	*12*
Nepal	53	39	86	75	33	23	73	56	..	..	..	..
Netherlands	..	..	..	..	..	..	..	..	15	16	15	16
New Zealand	..	..	..	..	..	..	..	..	14	16	15	17
Nicaragua	37	33	37	33	32	29	31	27	..	..	..	..
Niger	82	76	95	91	75	67	91	86	..	3	..	2
Nigeria	41	27	62	42	19	10	34	15	..	..	..	..
Norway	..	..	..	..	..	..	..	..	14	16	14	18
Oman	33	19	62	36	5	0 [b]	25	3	*10*	9	*9*	9
Pakistan	51	42	80	71	37	28	69	57	..	..	..	..
Panama	10	7	12	9	4	3	5	4	..	*12*	..	*13*
Papua New Guinea	36	29	52	42	26	20	38	28	..	*6*	..	*6*
Paraguay	8	5	12	8	4	3	5	3	9	10	8	10
Peru	8	5	21	14	3	2	8	5	..	*13*	..	*11*
Philippines	8	5	9	5	3	1	3	1	..	11	..	12
Poland	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	12	14	12	15
Portugal	9	5	16	10	1	0 [b]	0 [b]	0 [b]	*13*	15	*14*	16
Puerto Rico	8	6	9	6	5	3	3	2	..	..	..	..

2.14 Education outcomes

	Adult illiteracy rate				Youth illiteracy rate				Expected years of schooling			
	Male		Female		Male		Female					
	% ages 15 and above		% ages 15 and above		% ages 15–24		% ages 15–24		Males		Females	
	1990	2001	1990	2001	1990	2001	1990	2001	1990	2000 [a]	1990	2000 [a]
Romania	1	1	4	3	1	0 [b]	1	0 [b]	*11*	12	*11*	12
Russian Federation	0 [b]	0 [b]	1	1	0 [b]	0 [b]	0 [b]	0 [b]	..	..	..	..
Rwanda	37	26	56	38	22	14	33	17	..	..	..	..
Saudi Arabia	24	16	50	32	9	5	21	9	9	..	7	*9*
Senegal	62	52	81	71	50	40	70	57	..	..	..	..
Sierra Leone	..	..	..	..	..	..	..	..	..	7	..	5
Singapore	6	4	17	11	1	0 [b]	1	0 [b]	..	..	..	..
Slovak Republic	..	..	..	..	..	..	..	..	..	13	..	13
Slovenia	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	..	*14*	..	*15*
Somalia	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	18	14	20	15	11	8	12	9	*13*	13	*13*	13
Spain	2	1	5	3	0 [b]	0 [b]	0 [b]	0 [b]	..	15	..	16
Sri Lanka	7	5	15	11	4	3	6	3	..	..	..	..
Sudan	40	30	68	52	24	17	46	27	..	..	..	..
Swaziland	26	19	30	21	15	10	15	8	*11*	*13*	*10*	*12*
Sweden	..	..	..	..	..	..	..	..	13	*15*	13	*17*
Switzerland	..	..	..	..	..	..	..	..	14	16	13	15
Syrian Arab Republic	18	11	52	38	8	4	33	20	11	..	9	..
Tajikistan	1	0 [b]	3	1	0 [b]	0 [b]	0 [b]	0 [b]	..	11	..	9
Tanzania	24	15	49	32	11	6	23	11	..	5	..	5
Thailand	5	3	11	6	1	1	2	2	..	*11*	..	*11*
Togo	40	27	71	56	21	12	52	35	11	*12*	6	*8*
Trinidad and Tobago	2	1	4	2	0 [b]	0 [b]	0 [b]	0 [b]	*11*	11	*11*	12
Tunisia	28	18	53	38	7	2	25	10	*11*	14	*10*	14
Turkey	11	6	34	23	3	1	12	6	..	..	..	..
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	31	22	57	42	20	14	40	27	..	..	..	..
Ukraine	0 [b]	0 [b]	1	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	..	*11*	..	*12*
United Arab Emirates	29	25	29	20	18	12	11	5	10	..	11	..
United Kingdom	..	..	..	..	..	..	..	..	14	16	14	17
United States	..	..	..	..	..	..	..	..	15	16	16	16
Uruguay	4	3	3	2	2	1	1	1	..	*13*	..	*14*
Uzbekistan	1	0 [b]	2	1	0 [b]	0 [b]	0 [b]	0 [b]	..	..	..	..
Venezuela, RB	10	7	12	8	5	3	3	1	..	10	..	11
Vietnam	6	5	13	9	6	5	6	4	..	..	..	..
West Bank and Gaza	..	..	..	..	..	..	..	..	..	..	..	..
Yemen, Rep.	45	32	87	73	26	16	75	51	..	*11*	..	*5*
Yugoslavia, Fed. Rep.	..	..	..	..	..	..	..	..	..	10	..	11
Zambia	21	14	41	27	14	9	24	14	..	7	..	7
Zimbabwe	13	7	25	15	3	1	9	4	..	10	..	9
World	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w
Low income	35	28	56	46	24	19	40	31	..	..	..	..
Middle income	13	9	25	18	5	4	9	6	..	..	..	..
Lower middle income	13	9	28	20	5	4	10	7	..	..	..	..
Upper middle income	11	8	14	10	6	4	6	3	..	..	..	..
Low & middle income	22	17	38	30	14	11	23	19	..	..	..	..
East Asia & Pacific	12	7	29	19	3	2	7	4	..	..	..	..
Europe & Central Asia	2	1	5	4	1	0 [b]	2	1	..	..	..	..
Latin America & Carib.	13	10	17	12	7	5	7	5	..	..	..	..
Middle East & N. Africa	34	25	60	46	19	14	39	26	..	..	..	..
South Asia	41	34	66	56	30	24	50	41	..	..	..	..
Sub-Saharan Africa	40	30	60	46	25	18	40	27	..	..	..	..
High income	..	..	..	..	..	..	..	..	15	..	15	..
Europe EMU	..	..	..	..	..	..	..	..	15	..	15	..

a. Data are provisional for Organisation for Economic Co-operation and Development and World Education Indicator (WEI) countries. For a list of WEI countries, see *About the data* for table 2.10. b. Less than 0.5.

Education outcomes 2.14

About the data

Many governments collect and publish statistics that indicate how their education systems are working and developing—statistics on enrollment and on such efficiency indicators as repetition rates, pupil-teacher ratios, and cohort progression through school. But until recently, despite an obvious interest in what education achieves, few systems in high-income or developing countries had systematically collected information on outcomes of education.

Basic student outcomes include achievements in reading and mathematics judged against established standards. In many countries national learning assessments are enabling ministries of education to monitor progress in these outcomes. Internationally, the UNESCO Institute for Statistics has established literacy as an outcome indicator based on an internationally agreed definition. The rate of illiteracy is defined as the percentage of people who cannot, with understanding, read and write a short, simple statement about their everyday life. In practice, illiteracy is difficult to measure. To estimate illiteracy using such a definition requires census or survey measurements under controlled conditions. Many countries estimate the number of illiterate people from self-reported data or by taking people with no schooling as illiterate.

Literacy statistics for most countries cover the population ages 15 and above, by five-year age groups, but some include younger ages or are confined to age ranges that tend to inflate literacy rates. As an alternative, the UNESCO Institute for Statistics has proposed the narrower age range of 15–24, which better captures the ability of participants in the formal education system. The youth illiteracy rate reported in the table measures the accumulated outcomes of primary education over the previous 10 years or so by indicating the proportion of people who have passed through the primary education system without acquiring basic literacy and numeracy skills (or never entered the system). Reasons for this may include difficulties in attending school or dropping out before reaching grade 5 (see *About the data* for table 2.13) and thereby failing to achieve basic learning competencies.

The indicator expected years of schooling is an estimate of the total years of schooling that a typical child at the age of school entry will receive, including years spent on repetition, given the current patterns of enrollment across cycles of education. It may also be interpreted as an indicator of the total education resources, measured in school years, that a child will acquire over his or her "lifetime" in school—or as an indicator of an education system's overall level of development.

Because the calculation of this indicator assumes that the probability of a child's being enrolled in school at any future age is equal to the current enrollment ratio for that age, it does not account for changes and trends in future enrollment ratios. The expected number of years and the expected number of grades completed are not necessarily consistent, because the first includes years spent in repetition. Comparability across countries and over time may be affected by differences in the length of the school year or changes in policies on automatic promotions and grade repetition.

Definitions

• **Adult illiteracy rate** is the percentage of people ages 15 and above who cannot, with understanding, read and write a short, simple statement about their everyday life. • **Youth illiteracy rate** is the illiteracy rate among people ages 15–24. • **Expected years of schooling** are the average number of years of formal schooling that children are expected to receive, including university education and years spent in repetition. They reflect the underlying age-specific enrollment ratios for primary, secondary, and tertiary education.

Data sources

The data on illiteracy are based on estimates and projections by the UNESCO Institute for Statistics, assessed in 2002. The data on expected years of schooling are from the UNESCO Institute for Statistics.

2.15 Health expenditure, services, and use

	Health expenditure			Health expenditure per capita	Physicians		Hospital beds		Inpatient admission rate	Average length of stay	Outpatient visits per capita
	Total	% of total			per 1,000 people		per 1,000 people		% of population	days	
	% of GDP	Public	Private	$							
	1997–2000 [a]	1997–2000 [a]	1997–2000 [a]	1997–2000 [a]	1980	1995–2000 [a]	1980	1995–2000 [a]	1995–2000 [a]	1995–2000 [a]	1995–2000 [a]
Afghanistan	1.0	63.5	36.5	8	..	0.1	..	..	..	..	..
Albania	3.4	62.1	37.9	41	..	1.3	..	3.2	..	..	..
Algeria	3.6	82.2	17.8	64	..	1.0	..	2.1	..	..	..
Angola	3.6	55.9	44.1	24	..	0.1	..	..	..	..	..
Argentina	8.6	55.0	45.0	658	..	2.7	..	3.3	..	..	..
Armenia	7.5	42.3	57.7	38	3.5	3.2	8.4	0.7	8	15	2
Australia	8.3	72.4	27.6	1,698	..	2.5	12.3	7.9	16	16	6
Austria	8.0	69.7	30.3	1,872	1.6	3.1	11.2	8.6	30	9	7
Azerbaijan	0.9	75.1	24.9	8	3.4	3.6	9.7	9.7	6	..	1
Bangladesh	3.8	36.4	63.6	14	0.1	0.2	0.2	..	..	..	..
Belarus	5.7	82.8	17.2	57	3.4	4.4	12.5	12.2	26	18	11
Belgium	8.7	71.2	28.8	1,936	2.3	3.9	9.4	7.3	20	11	8
Benin	3.2	50.0	50.0	11	0.1	0.1	1.5	..	..	..	..
Bolivia	6.7	72.4	27.6	67	..	1.3	..	1.7	..	..	..
Bosnia and Herzegovina	4.5	69.0	31.0	50	..	1.4	..	1.8	..	15	..
Botswana	6.0	63.1	36.9	191	0.1	..	2.4	..	..	..	..
Brazil	8.3	40.8	59.2	267	..	1.3	..	3.1	0 [b]	..	2
Bulgaria	3.9	77.6	22.4	59	2.5	3.4	11.1	7.4	..	12	..
Burkina Faso	4.2	70.7	29.3	8	0.0 [c]	0.0 [c]	..	1.4	2	3	0 [b]
Burundi	3.1	53.1	46.9	3	..	..	..	..	..	..	..
Cambodia	8.1	24.5	75.5	19	..	0.3	..	..	..	..	..
Cameroon	4.3	24.7	75.3	24	..	0.1	..	..	..	..	..
Canada	9.1	72.0	28.0	2,058	1.8	2.1	6.8	3.9	10	9	7
Central African Republic	2.9	48.4	51.6	8	0.0 [c]	0.0 [c]	1.6	..	..	..	..
Chad	3.1	79.8	20.2	6	..	..	..	..	..	..	..
Chile	7.2	42.6	57.4	336	..	1.1	3.4	2.7	..	..	..
China	5.3	36.6	63.4	45	0.9	1.7	2.0	2.4	4	12	..
Hong Kong, China	..	..	..	..	0.8	1.3	4.0	..	..	..	..
Colombia	9.6	55.8	44.2	186	..	1.2	1.6	1.5	..	..	..
Congo, Dem. Rep.	1.5	73.7	26.3	9	..	0.1	..	..	..	..	..
Congo, Rep.	2.2	70.2	29.8	22	..	0.3	..	..	..	..	..
Costa Rica	6.4	68.4	31.6	273	..	0.9	3.3	1.7	9	6	1
Côte d'Ivoire	2.7	36.9	63.1	16	..	0.1	..	..	..	..	..
Croatia	10.0	80.0	20.0	434	..	2.3	..	..	..	..	..
Cuba	6.8	89.2	10.8	169	..	5.3	..	5.1	..	..	..
Czech Republic	7.2	91.4	8.6	358	2.3	3.1	11.3	8.8	21	11	12
Denmark	8.3	82.1	17.9	2,512	2.2	3.4	8.1	4.5	20	7	6
Dominican Republic	6.3	28.0	72.0	151	..	2.2	..	1.5	..	..	..
Ecuador	2.4	50.4	49.6	26	..	1.7	1.9	1.6	..	..	..
Egypt, Arab Rep.	3.8	46.1	53.9	51	1.1	1.6	2.0	2.1	3	6	4
El Salvador	8.8	43.0	57.0	184	0.3	1.1	..	1.6	..	..	..
Eritrea	4.3	65.6	34.4	9	..	0.0 [c]	..	..	..	..	..
Estonia	6.1	76.7	23.3	218	4.2	3.0	12.4	7.4	18	9	5
Ethiopia	4.6	39.4	60.6	5	0.0 [c]	..	0.3	..	..	..	..
Finland	6.6	75.1	24.9	1,559	1.7	3.1	15.6	7.5	27	10	4
France	9.5	76.0	24.0	2,057	2.0	3.0	11.1	8.2	23	11	7
Gabon	3.0	68.6	31.4	120	..	..	..	..	..	..	..
Gambia, The	4.1	82.4	17.6	10	..	0.0 [c]	..	..	..	..	..
Georgia	7.1	10.5	89.5	41	4.8	4.4	10.7	4.8	5	11	1
Germany	10.6	75.1	24.9	2,422	2.3	3.6	11.5	9.1	24	12	7
Ghana	4.2	53.5	46.5	11	..	0.1	..	..	..	..	..
Greece	8.3	55.5	44.5	884	2.4	4.4	6.2	4.9	15	8	..
Guatemala	4.7	47.9	52.1	79	..	0.9	..	1.0	..	..	..
Guinea	3.4	57.1	42.9	13	..	0.1	..	..	..	..	..
Guinea-Bissau	3.9	65.4	34.6	9	0.1	0.2	1.9	..	..	..	..
Haiti	4.9	49.3	50.7	21	..	0.2	0.7	0.7	..	..	..

2.15 Health expenditure, services, and use

	Health expenditure			Health expenditure per capita	Physicians		Hospital beds		Inpatient admission rate	Average length of stay	Outpatient visits per capita
	Total	% of total			per 1,000 people		per 1,000 people		% of population	days	
	% of GDP	Public	Private	$							
	1997–2000 [a]	1997–2000 [a]	1997–2000 [a]	1997–2000 [a]	1980	1995–2000 [a]	1980	1995–2000 [a]	1995–2000 [a]	1995–2000 [a]	1995–2000 [a]
Honduras	6.8	63.1	36.9	62	..	0.8	1.3	1.1	..	..	..
Hungary	6.8	75.7	24.3	315	2.3	3.2	9.1	8.2	24	10	15
India	4.9	17.8	82.2	23	0.4	..	0.8	..	..	..	..
Indonesia	2.7	23.7	76.3	19	..	..	..	..	..	..	..
Iran, Islamic Rep.	5.5	46.3	53.7	258	..	0.9	1.5	1.6	..	..	..
Iraq	3.7	59.9	40.1	375	0.6	0.6	1.9	1.5	..	..	..
Ireland	6.7	75.8	24.2	1,692	..	2.3	13.0	9.7	15	8	..
Israel	10.9	75.9	24.1	2,021	..	3.8	5.1	6.0	..	..	..
Italy	8.1	73.7	26.3	1,498	2.6	6.0	9.6	4.9	18	8	..
Jamaica	5.5	47.0	53.0	165	..	1.4	..	2.1	..	..	..
Japan	7.8	76.7	23.3	2,908	1.3	1.9	13.7	16.5	10	40	16
Jordan	8.1	51.8	48.2	137	0.8	1.7	1.3	1.8	11	4	..
Kazakhstan	3.7	73.2	26.8	44	3.2	3.5	13.2	8.5	15	16	0 [b]
Kenya	8.3	22.2	77.8	28	..	0.1	..	..	..	..	..
Korea, Dem. Rep.	2.1	77.3	22.7	18	..	3.0	..	..	..	..	..
Korea, Rep.	6.0	44.1	55.9	584	..	1.3	1.7	6.1	6	14	10
Kuwait	3.0	87.2	12.8	586	1.7	1.9	4.1	2.8	..	..	..
Kyrgyz Republic	4.3	49.8	50.2	12	2.9	3.0	12.0	9.5	21	15	1
Lao PDR	3.4	38.0	62.0	11	..	0.2	..	..	..	..	..
Latvia	5.9	60.0	40.0	174	4.1	2.8	13.7	10.3	21	14	4
Lebanon	12.4	20.0	80.0	499	..	2.1	..	2.7	17	4	..
Lesotho	6.3	82.3	17.7	28	..	0.1	..	..	..	..	..
Liberia	4.0	76.2	23.8	2	..	0.0 [c]	..	..	..	..	..
Libya	3.3	48.6	51.4	246	1.3	1.3	..	4.3	..	..	..
Lithuania	6.0	72.4	27.6	185	3.9	4.0	12.1	9.2	24	11	7
Macedonia, FYR	6.0	84.5	15.5	106	..	2.2	..	4.9 [d]	9	13	3
Madagascar	3.5	71.8	28.2	9	..	0.1	..	..	..	..	..
Malawi	7.6	47.8	52.2	11	..	..	..	1.3	..	..	2
Malaysia	2.5	58.8	41.2	101	0.3	0.7	..	2.0	..	..	..
Mali	4.9	45.5	54.5	10	0.0 [c]	0.1	..	0.2	1	7	0 [b]
Mauritania	4.3	79.3	20.7	14	..	0.1	..	..	..	..	..
Mauritius	3.4	56.3	43.7	134	0.5	0.9	3.1	..	..	..	..
Mexico	5.4	46.4	53.6	311	..	1.8	0.7	1.1	6	4	2
Moldova	3.5	82.4	17.6	11	3.1	3.5	12.0	12.1	19	18	8
Mongolia	6.6	70.3	29.7	23	..	2.4	11.2	..	..	..	..
Morocco	4.5	29.6	70.4	50	..	0.5	..	1.0	3	7	..
Mozambique	4.3	63.4	36.6	9	0.0 [c]	..	1.1	..	..	..	..
Myanmar	2.2	17.1	82.9	153	..	0.3	0.9	..	..	..	..
Namibia	7.1	59.3	40.7	136	..	0.3	..	..	..	..	..
Nepal	..	..	..	..	0.0 [c]	0.0 [c]	0.2	0.2	..	..	..
Netherlands	8.1	67.5	32.5	1,900	1.9	3.2	12.3	10.8	10	33	6
New Zealand	8.0	78.0	22.0	1,062	1.6	2.2	10.2	6.2	13	8	..
Nicaragua	4.4	51.7	48.3	43	0.4	0.9	..	1.5	..	..	..
Niger	3.9	44.9	55.1	5	..	0.0 [c]	..	0.1	28	5	0 [b]
Nigeria	2.2	20.8	79.2	8	0.1	..	0.9	..	..	..	..
Norway	7.8	85.2	14.8	2,832	2.0	2.9	16.5	14.6	17	9	..
Oman	2.8	82.9	17.1	295	0.5	1.3	1.6	2.2	9	4	4
Pakistan	4.1	22.9	77.1	18	0.3	0.6	0.6	..	..	..	..
Panama	7.6	69.2	30.8	268	..	1.7	..	2.2	..	..	..
Papua New Guinea	4.1	88.6	11.4	31	0.1	0.1	5.5	..	..	..	..
Paraguay	7.9	38.3	61.7	112	..	1.1	..	1.3	..	..	..
Peru	4.8	59.2	40.8	100	0.7	0.9	..	1.5	1	6	..
Philippines	3.4	45.7	54.3	33	0.1	1.2	1.7	..	..	..	..
Poland	6.0	69.7	30.3	246	1.8	2.2	5.6	4.9	16	9	5
Portugal	8.2	71.2	28.8	862	2.0	3.2	5.2	4.0	12	9	3
Puerto Rico	..	..	..	..	..	1.8	..	3.3	..	..	..

2.15 Health expenditure, services, and use

	Health expenditure			Health expenditure per capita	Physicians		Hospital beds		Inpatient admission rate	Average length of stay	Outpatient visits per capita
	Total	% of total			per 1,000 people		per 1,000 people		% of population	days	
	% of GDP	Public	Private	$							
	1997–2000 [a]	1997–2000 [a]	1997–2000 [a]	1997–2000 [a]	1980	1995–2000 [a]	1980	1995–2000 [a]	1995–2000 [a]	1995–2000 [a]	1995–2000 [a]
Romania	2.9	63.8	36.2	48	1.5	1.8	8.8	7.6	18	10	4
Russian Federation	5.3	72.5	27.5	92	4.0	4.2	13.0	12.1	22	17	8
Rwanda	5.2	51.3	48.7	12	0.0 [c]	..	1.5	..	..	..	..
Saudi Arabia	5.3	79.1	20.9	448	..	1.7	..	2.3	11	4	1
Senegal	4.6	56.6	43.4	22	..	0.1	..	0.4	..	10	1
Sierra Leone	4.3	60.0	40.0	6	0.1	0.1	1.2	..	..	..	..
Singapore	3.5	35.7	64.3	814	0.9	1.6	4.0	..	..	..	..
Slovak Republic	5.9	89.6	10.4	210	..	3.5	..	7.1	20	10	4
Slovenia	8.6	78.9	21.1	788	..	2.3	7.0	5.7	..	..	..
Somalia	1.3	71.4	28.6	19	0.0 [c]	0.0 [c]	..	..	..	..	..
South Africa	8.8	42.2	57.8	255	..	0.6	..	..	..	..	..
Spain	7.7	69.9	30.1	1,073	..	3.3	5.4	4.1	12	10	..
Sri Lanka	3.6	49.0	51.0	31	0.1	0.4	2.9	..	..	..	..
Sudan	4.7	21.2	78.8	13	0.1	0.1	0.9	..	..	..	..
Swaziland	4.2	72.1	27.9	56	..	0.2	..	..	..	..	..
Sweden	8.4	77.3	22.7	2,179	2.2	2.9	15.1	3.6	18	6	3
Switzerland	10.7	55.6	44.4	3,573	2.4	3.5	..	17.9	15	13	..
Syrian Arab Republic	2.5	63.4	36.6	30	0.4	1.3	1.1	1.4	..	..	..
Tajikistan	3.3	30.0	70.0	6	2.4	2.0	10.0	..	..	..	..
Tanzania	5.9	47.0	53.0	12	..	0.0 [c]	1.4	..	..	..	..
Thailand	3.7	57.4	42.6	71	0.1	0.4	1.5	2.0	..	..	1
Togo	2.8	54.3	45.7	8	0.1	0.1	..	..	..	..	..
Trinidad and Tobago	5.2	50.7	49.3	268	0.7	0.8	..	5.1	..	..	..
Tunisia	5.5	52.0	48.0	110	0.3	0.7	2.1	1.7	..	..	..
Turkey	5.0	71.1	28.9	150	0.6	1.3	2.2	2.6	8	6	2
Turkmenistan	5.4	84.9	15.1	52	2.9	3.0	10.6	..	..	..	..
Uganda	3.9	38.0	62.0	10	..	..	..	..	..	..	..
Ukraine	4.1	70.1	29.9	26	3.7	3.0	12.5	11.8	20	..	10
United Arab Emirates	3.2	77.7	22.3	767	1.1	1.8	2.8	2.6	..	..	..
United Kingdom	7.3	81.0	19.0	1,747	1.3	1.8	8.1	4.1	15	10	6
United States	13.0	44.3	55.7	4,499	2.0	2.8	6.0	3.6	12	7	6
Uruguay	10.9	46.5	53.5	653	..	3.7	..	4.4	..	..	..
Uzbekistan	5.3	50.0	50.0	29	2.9	3.1	11.5	8.3	..	..	..
Venezuela, RB	4.7	57.4	42.6	233	0.8	2.4	0.3	1.5	..	..	..
Vietnam	5.2	25.8	74.2	21	0.2	0.5	3.5	1.7	8	7	..
West Bank and Gaza	..	..	..	..	..	0.5	..	1.2	9	3	4
Yemen, Rep.	4.9	43.0	57.0	20	..	0.2	..	0.6	..	..	..
Yugoslavia, Fed. Rep.	5.6	51.0	49.0	50	..	2.0	..	5.3	..	12	2
Zambia	5.6	62.1	37.9	18	0.1	0.1	..	..	..	..	..
Zimbabwe	7.3	42.6	57.4	43	0.2	0.1	3.0	..	..	..	..
World	**9.3 w**	**59.4 w**	**40.6 w**	**482 w**	**1.1 w**	**.. w**	**4.0 w**	**.. w**	**9 w**	**.. w**	**.. w**
Low income	4.3	27.1	72.9	21	0.5	..	1.7	..	..	..	..
Middle income	5.9	51.8	48.2	116	1.2	1.9	3.4	3.3	6	11	..
Lower middle income	5.3	49.4	50.6	72	1.2	1.8	3.3	3.3	6	12	3
Upper middle income	6.6	54.2	45.8	309	..	1.6	..	3.2	6	..	..
Low & middle income	5.6	47.6	52.4	71	0.9	..	2.7	..	..	..	..
East Asia & Pacific	4.7	38.6	61.4	44	0.8	1.7	2.0	2.4	4	12	..
Europe & Central Asia	5.5	72.4	27.6	108	3.0	3.1	10.4	9.0	18	13	6
Latin America & Carib.	7.0	47.6	52.4	262	..	1.5	..	2.3	2	..	2
Middle East & N. Africa	4.6	61.9	38.1	171	..	..	..	..	..	..	..
South Asia	4.7	20.8	79.2	21	0.3	..	0.7	..	..	..	..
Sub-Saharan Africa	6.0	42.4	57.6	29	..	..	..	..	..	..	..
High income	10.2	62.2	37.8	2,736	1.9	3.0	8.6	7.4	15	14	8
Europe EMU	9.1	73.4	26.6	1,808	2.2	4.1	9.9	8.0	19	11	6

a. Data are for the most recent year available. b. Less than 0.5. c. Less than 0.05. d. Data are for 2001.

Health expenditure, services, and use 2.15

About the data

National health accounts track financial flows in the health sector, including public and private expenditures by source of funding. In contrast with high-income countries, few developing countries have health accounts that are methodologically consistent with national accounting approaches. The difficulties in creating national health accounts go beyond data collection. To establish a national health accounting system, a country needs to define the boundaries of the health care system and a taxonomy of health care delivery institutions. The accounting system should be comprehensive and standardized, providing not only accurate measures of financial flows but also information on the equity and efficiency of health financing to inform health policy.

The absence of consistent national health accounting systems in most developing countries makes cross-country comparisons of health spending difficult. Records of private out-of-pocket spending are often lacking. And compiling estimates of public health expenditures is complicated in countries where state or provincial and local governments are involved in financing and delivering health care because the data on public spending often are not aggregated. The data in the table are the product of an effort by the World Health Organization (WHO), the Organisation for Economic Co-operation and Development (OECD), and the World Bank to collect all available information on health expenditures from national and local government budgets, national accounts, household surveys, insurance publications, international donors, and existing tabulations.

Indicators on health services (physicians and hospital beds per 1,000 people) and health care utilization (inpatient admission rates, average length of stay, and outpatient visits) come from a variety of sources (see *Data sources*). Data are lacking for many countries, and for others comparability is limited by differences in definitions. In estimates of health personnel, for example, some countries incorrectly include retired physicians (because deletions are made only periodically) or those working outside the health sector. There is no universally accepted definition of hospital beds. Moreover, figures on physicians and hospital beds are indicators of availability, not of quality or use. They do not show how well trained the physicians are or how well equipped the hospitals or medical centers are. And physicians and hospital beds tend to be concentrated in urban areas, so these indicators give only a partial view of health services available to the entire population.

The average length of stay in hospitals is an indicator of the efficiency of resource use. Longer stays may reflect a waste of resources if patients are kept in hospitals beyond the time medically required, inflating demand for hospital beds and increasing hospital costs. Aside from differences in cases and financing methods, cross-country variations in average length of stay may result from differences in the role of hospitals. Many developing countries do not have separate extended care facilities, so hospitals become the source of both long-term and acute care. Other factors may also explain the variations. Data for some countries may not include all public and private hospitals. Admission rates may be overstated in some countries if outpatient surgeries are counted as hospital admissions. And in many countries outpatient visits, especially emergency visits, may result in double counting if a patient receives treatment in more than one department.

Definitions

• **Total health expenditure** is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. • **Public health expenditure** consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. • **Private health expenditure** includes direct (out-of-pocket) spending by households, private insurance, spending by nonprofit institutions serving households (other than social insurance), and direct service payments by private corporations. • **Physicians** are graduates of any faculty or school of medicine who are working in the country in any medical field (practice, teaching, research). • **Hospital beds** include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases beds for both acute and chronic care are included. • **Inpatient admission rate** is the percentage of the population admitted to hospitals during a year. • **Average length of stay** is the average duration of inpatient hospital admissions. • **Outpatient visits per capita** are the number of visits to health care facilities per capita, including repeat visits.

Data sources

The estimates of health expenditure come mostly from the WHO's *World Health Report 2002* and from the OECD for its member countries, supplemented by World Bank poverty assessments and country and sector studies, including the Human Development Network's *Sector Strategy: Health, Nutrition, and Population* (World Bank 1997a). Data are also drawn from World Bank public expenditure reviews, the International Monetary Fund's Government Finance Statistics database, and other studies. The data on private expenditure in developing countries are drawn largely from household surveys conducted by governments or by statistical or international organizations. The data on physicians, hospital beds, and utilization of health services are from the WHO and OECD, supplemented by country data.

2.16 Disease prevention: coverage and quality

	Access to an improved water source		Access to improved sanitation facilities		Tetanus vaccinations	Child immunization rate		Tuberculosis treatment success rate	DOTS detection rate
	% of population		% of population		% of pregnant women	% of children under age one		% of registered cases	% of estimated cases
	1990	2000	1990	2000	1996–2000 [a]	Measles 2001	DPT 2001	1999	1998–2000 [a]
Afghanistan	..	13	..	12	..	46	44	87	9
Albania	..	97	..	91	65	95	97	..	..
Algeria	..	89	..	92	52	83	89	87	129
Angola	..	38	..	44	24	72	41	..	..
Argentina	94	..	82	..	..	94	82	59	31
Armenia	..	..	..	..	..	93	94	88	39
Australia	100	100	100	100	..	93	92	84	18
Austria	100	100	100	100	..	79	84	77	58
Azerbaijan	..	78	..	81	..	99	98	88	6
Bangladesh	94	97	41	48	64	76	83	81	24
Belarus	..	100	..	..	..	99	99	..	..
Belgium	..	..	..	..	..	83	96	..	..
Benin	..	63	20	23	50	65	76	77	32
Bolivia	71	83	52	70	27	79	81	74	75
Bosnia and Herzegovina	..	..	..	..	..	92	91	90	47
Botswana	93	95	60	66	54	83	87	71	67
Brazil	83	87	71	76	45	99	97	11	1
Bulgaria	..	100	..	100	..	96	96	..	22
Burkina Faso	..	42	..	29	33	46	41	61	10
Burundi	69	78	87	88	9	75	74	..	30
Cambodia	..	30	..	17	31	59	60	93	44
Cameroon	51	58	77	79	49	62	43	75	16
Canada	100	100	100	100	..	96	97	..	..
Central African Republic	48	70	24	25	6	29	23	..	..
Chad	..	27	18	29	24	36	27	..	33
Chile	90	93	97	96	..	97	97	83	76
China	71	75	29	38	13	79	79	96	33
Hong Kong, China	..	..	..	..	..	..	..	78	33
Colombia	94	91	83	86	..	75	74	82	34
Congo, Dem. Rep.	..	45	..	21	10	46	40	69	51
Congo, Rep.	..	51	..	..	30	35	31	61	97
Costa Rica	..	95	..	93	..	82	88	81	147
Côte d'Ivoire	80	81	46	52	49	61	57	63	32
Croatia	..	..	..	..	..	94	94	..	..
Cuba	..	91	..	98	..	99	99	91	96
Czech Republic	..	..	..	..	..	97	98	78	49
Denmark	..	100	..	..	..	94	97	..	..
Dominican Republic	83	86	66	67	86	98	62	81	4
Ecuador	71	85	70	86	..	99	90	75	23
Egypt, Arab Rep.	94	97	87	98	36	97	99	87	36
El Salvador	66	77	73	82	..	99	99	78	56
Eritrea	..	46	..	13	34	88	93	44	13
Estonia	..	..	..	..	..	95	94	63	61
Ethiopia	25	24	8	12	17	52	56	76	29
Finland	100	100	100	100	..	96	99	..	..
France	..	..	..	..	..	84	98	..	..
Gabon	..	86	..	53	54	55	38	..	..
Gambia, The	..	62	..	37	96	90	96	..	67
Georgia	..	79	..	100	..	73	86	61	34
Germany	..	..	..	..	..	89	97	..	..
Ghana	53	73	61	72	51	81	80	55	29
Greece	..	..	..	..	..	88	88	..	..
Guatemala	76	92	70	81	39	90	82	81	47
Guinea	45	48	55	58	61	52	43	..	40
Guinea-Bissau	..	56	44	56	46	48	47	35	37
Haiti	53	46	23	28	52	53	43	70	22

Disease prevention: coverage and quality 2.16

	Access to an improved water source		Access to improved sanitation facilities		Tetanus vaccinations	Child immunization rate		Tuberculosis treatment success rate	DOTS detection rate
	% of population		% of population		% of pregnant women	% of children under age one		% of registered cases	% of estimated cases
	1990	2000	1990	2000	1996–2000 [a]	Measles 2001	DPT 2001	1999	1998–2000 [a]
Honduras	83	88	61	75	..	95	95	88	61
Hungary	99	99	99	99	..	99	99	..	22
India	68	84	16	28	67	56	64	82	11
Indonesia	71	78	47	55	54	59	60	50	19
Iran, Islamic Rep.	..	92	..	83	75	96	95	82	32
Iraq	..	85	..	79	56	90	81	85	23
Ireland	..	..	..	..	..	73	84	..	..
Israel	..	..	..	..	..	94	95	..	..
Italy	..	..	..	..	..	70	95	71	30
Jamaica	93	92	99	99	..	85	90	74	102
Japan	..	..	..	..	..	96	85	76	21
Jordan	97	96	98	99	15	99	99	88	40
Kazakhstan	..	91	..	99	..	96	96	79	80
Kenya	45	57	80	87	51	76	76	78	43
Korea, Dem. Rep.	..	100	..	99	5	34	37	94	26
Korea, Rep.	..	92	..	63	..	97	99	..	65
Kuwait	..	..	..	..	8	99	98	..	..
Kyrgyz Republic	..	77	..	100	..	99	99	83	37
Lao PDR	..	37	..	30	32	50	40	84	40
Latvia	..	..	..	..	..	98	97	74	50
Lebanon	..	100	..	99	..	94	93	96	57
Lesotho	..	78	..	49	17	77	85	69	64
Liberia	..	..	..	..	..	78	62	..	42
Libya	71	72	97	97	..	93	94	67	106
Lithuania	..	..	..	..	..	97	95	84	1
Macedonia, FYR	..	..	..	..	..	92	90	..	..
Madagascar	44	47	36	42	35	55	55	..	67
Malawi	49	57	73	76	81	82	90	71	40
Malaysia	..	..	..	..	71	92	97	90	74
Mali	55	65	70	69	32	37	51	68	17
Mauritania	37	37	30	33	63	58	61	..	..
Mauritius	100	100	100	99	78	90	92	87	32
Mexico	80	88	70	74	..	97	97	80	66
Moldova	..	92	..	99	..	81	90	..	..
Mongolia	..	60	..	30	..	95	95	86	57
Morocco	75	80	58	68	33	96	96	88	81
Mozambique	..	57	..	43	29	92	80	71	40
Myanmar	..	72	..	64	78	73	72	81	48
Namibia	72	77	33	41	70	58	63	50	105
Nepal	67	88	20	28	33	71	72	87	58
Netherlands	100	100	100	100	..	96	97	79	40
New Zealand	..	..	..	..	..	85	90	..	41
Nicaragua	70	77	76	85	42	99	92	81	76
Niger	53	59	15	20	41	51	31	60	22
Nigeria	53	62	53	54	44	40	26	75	12
Norway	100	100	..	..	..	93	95	77	31
Oman	37	39	84	92	96	100	99	67	159
Pakistan	83	90	36	62	58	54	56	70	3
Panama	..	90	..	92	..	97	98	80	45
Papua New Guinea	40	42	82	82	11	58	56	66	7
Paraguay	63	78	93	94	..	77	66	..	4
Peru	74	80	60	71	59	97	85	93	93
Philippines	87	86	74	83	35	75	70	87	45
Poland	..	..	..	..	..	97	98	69	3
Portugal	..	..	..	..	..	87	96	85	80
Puerto Rico	..	..	..	..	..	..	..	77	58

2.16 Disease prevention: coverage and quality

	Access to an improved water source		Access to improved sanitation facilities		Tetanus vaccinations	Child immunization rate		Tuberculosis treatment success rate	DOTS detection rate
	% of population		% of population		% of pregnant women	% of children under age one		% of registered cases	% of estimated cases
	1990	2000	1990	2000	1996–2000 [a]	Measles 2001	DPT 2001	1999	1998–2000 [a]
Romania	..	58	..	53	..	98	99	78	9
Russian Federation	..	99	..	..	..	98	96	65	3
Rwanda	..	41	..	8	43	78	86	67	29
Saudi Arabia	..	95	..	100	66	94	97	66	39
Senegal	72	78	57	70	64	48	52	..	49
Sierra Leone	..	57	..	66	42	37	44	75	46
Singapore	100	100	100	100	..	89	92	95	12
Slovak Republic	..	100	..	100	..	99	99	79	39
Slovenia	100	100	..	..	..	98	92	88	63
Somalia	..	..	..	..	..	38	33	88	27
South Africa	86	86	86	87	26	72	81	60	67
Spain	..	..	..	..	..	94	95	..	..
Sri Lanka	68	77	85	94	78	99	99	84	35
Sudan	67	75	58	62	55	67	46	81	37
Swaziland	..	..	..	..	..	72	77	..	..
Sweden	100	100	100	100	..	94	99	..	..
Switzerland	100	100	100	100	79	81	95	..	..
Syrian Arab Republic	..	80	..	90	53	93	92	84	24
Tajikistan	..	60	..	90	..	86	83	..	..
Tanzania	38	68	84	90	61	83	85	78	45
Thailand	80	84	79	96	81	94	96	77	46
Togo	51	54	37	34	41	58	64	76	16
Trinidad and Tobago	91	90	99	99	..	91	91	..	..
Tunisia	75	80	76	84	50	92	96	91	68
Turkey	79	82	87	90	30	90	88	..	..
Turkmenistan	..	..	..	..	..	98	95	..	18
Uganda	45	52	..	79	38	61	60	61	50
Ukraine	..	98	..	99	87	99	99	..	..
United Arab Emirates	..	..	..	..	..	94	94	..	29
United Kingdom	100	100	100	100	..	85	94	..	..
United States	100	100	100	100	..	91	94	76	89
Uruguay	..	98	..	94	..	94	94	83	83
Uzbekistan	..	85	..	89	..	99	97	79	4
Venezuela, RB	..	83	..	68	..	49	70	82	78
Vietnam	55	77	29	47	55	97	98	92	80
West Bank and Gaza	..	..	..	..	31	..	..	..	..
Yemen, Rep.	..	69	32	38	9	79	76	83	50
Yugoslavia, Fed. Rep.	..	98	..	100	..	90	93	..	..
Zambia	52	64	63	78	35	85	78	..	..
Zimbabwe	78	83	56	62	58	68	75	73	52
World	**74 w**	**81 w**	**45 w**	**55 w**		**72 w**	**73 w**		
Low income	66	76	30	44		60	61		
Middle income	76	82	47	59		86	85		
Lower middle income	74	80	42	55		84	83		
Upper middle income	84	88	75	79		94	94		
Low & middle income	71	79	39	51		71	71		
East Asia & Pacific	71	76	35	46		76	77		
Europe & Central Asia	..	91	..	..		95	94		
Latin America & Carib.	82	86	72	77		91	89		
Middle East & N. Africa	..	88	..	85		92	92		
South Asia	72	84	22	34		58	65		
Sub-Saharan Africa	53	58	54	53		58	53		
High income	..	..	..	..		90	94		
Europe EMU	..	..	..	..		85	96		

a. Data are for the most recent year available.

Disease prevention: coverage and quality 2.16

About the data

The indicators in the table are based on data provided to the World Health Organization (WHO) by member states as part of their efforts to monitor and evaluate progress in implementing national health strategies. Because reliable, observation-based statistical data for these indicators do not exist in some developing countries, the data are at times estimated.

People's health is influenced by the environment in which they live. Lack of clean water and basic sanitation is the main reason diseases transmitted by feces are so common in developing countries. Drinking water contaminated by feces deposited near homes and an inadequate water supply cause diseases accounting for 10 percent of the disease burden in developing countries (World Bank 1993c). The data on access to an improved water source measure the share of the population with ready access to water for domestic purposes. The data are based on surveys and estimates provided by governments to the Joint Monitoring Programme of the WHO and United Nations Children's Fund (UNICEF). The coverage rates for water and sanitation are based on information from service users on the facilities their households actually use rather than on information from service providers, who may include nonfunctioning systems. Access to drinking water from an improved source does not ensure that the water is safe or adequate, as these characteristics are not tested at the time of the surveys.

Neonatal tetanus is an important cause of infant mortality in some developing countries. It can be prevented through immunization of the mother during pregnancy. Recommended doses for full protection are generally two tetanus shots during the first pregnancy and one booster shot during each subsequent pregnancy, with five doses considered adequate for lifetime protection. Information on tetanus shots during pregnancy is collected through surveys in which pregnant respondents are asked to show antenatal cards on which tetanus shots have been recorded. Because not all women have antenatal cards, respondents are also asked about their receipt of these injections. Poor recall may result in a downward bias in estimates of the share of births protected. But in settings where receiving injections is common, respondents may erroneously report having received tetanus shots.

Governments in developing countries usually finance immunization against measles and diphtheria, pertussis (whooping cough), and tetanus (DPT) as part of the basic public health package. According to the World Bank's *World Development Report 1993: Investing in Health*, these diseases accounted for about 10 percent of the disease burden among children under five in 1990, compared with an expected 23 percent at 1970 levels of vaccination. In many developing countries, however, lack of precise information on the size of the cohort of children under one year of age makes immunization coverage difficult to estimate. The data shown here are based on an assessment of national immunization coverage rates carried out in 2002 by the WHO and UNICEF. The assessment considered both administrative data from service providers and household survey data on children's immunization histories. Based on the data available, consideration of potential biases, and contributions of local experts, the most likely true level of immunization coverage was determined for each year.

Data on the success rate of tuberculosis treatment are provided for countries that have implemented the recommended control strategy: directly observed treatment, short course (DOTS). Countries that have not adopted DOTS or have only recently done so are omitted because of lack of data or poor comparability or reliability of reported results. The treatment success rate for tuberculosis provides a useful indicator of the quality of health services. A low rate or no success suggests that infectious patients may not be receiving adequate treatment. An essential complement to the tuberculosis treatment success rate is the DOTS detection rate, which indicates whether there is adequate coverage by the recommended case detection and treatment strategy. A country with a high treatment success rate may still face big challenges if its DOTS detection rate remains low.

Definitions

• **Access to an improved water source** refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling. • **Access to improved sanitation facilities** refers to the percentage of the population with at least adequate access to excreta disposal facilities (private or shared but not public) that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained. • **Tetanus vaccinations** refer to the percentage of pregnant women who receive two tetanus toxoid injections during their first pregnancy and one booster shot during each subsequent pregnancy. • **Child immunization rate** is the percentage of children under one year of age receiving vaccination coverage for four diseases—measles and diphtheria, pertussis (whooping cough), and tetanus (DPT). A child is considered adequately immunized against measles after receiving one dose of vaccine, and against DPT after receiving three doses. • **Tuberculosis treatment success rate** is the percentage of new, registered smear-positive (infectious) cases that were cured or in which a full course of treatment was completed. • **DOTS detection rate** is the percentage of estimated new infectious tuberculosis cases detected under the directly observed treatment, short-course (DOTS) case detection and treatment strategy.

Data sources

The table was produced using information provided to the WHO by countries, the WHO's EPI (Expanded Programme on Immunization) Information System, and its *Global Tuberculosis Control Report 2002*; UNICEF's *State of the World's Children 2003*; and the WHO and UNICEF's *Global Water Supply and Sanitation Assessment 2000 Report*.

2.17 Reproductive health

	Total fertility rate		Adolescent fertility rate	Women at risk of unintended pregnancy	Contraceptive prevalence rate	Births attended by skilled health staff		Maternal mortality ratio	
	births per woman		births per 1,000 women ages 15–19	% of married women ages 15–49	% of women ages 15–49	% of total		per 100,000 live births	
	1980	2001	2002	1990–2001 [a]	1990–2001 [a]	1982	1996–2000 [a]	National estimates 1990–98 [a]	Modeled estimates 1995
Afghanistan	7.0	6.8	151	..	..	..	..	..	820
Albania	3.6	2.2	11	..	..	..	99	..	31
Algeria	6.7	2.9	17	..	51	..	92	220	150
Angola	6.9	6.6	209	..	..	34	23	..	1,300
Argentina	3.3	2.5	60	..	..	..	98	38	85
Armenia	2.3	1.4	44	12	..	..	97	35	29
Australia	1.9	1.8	18	..	..	99	100	..	6
Austria	1.6	1.3	20	..	..	..	..	..	11
Azerbaijan	3.2	2.1	44	..	55	..	88	43	37
Bangladesh	6.1	3.0	129	15	54	*2*	12	440	600
Belarus	2.0	1.3	21	..	..	..	100	28	33
Belgium	1.7	1.6	11	..	..	..	..	..	8
Benin	7.0	5.4	103	27	16	..	60	500	880
Bolivia	5.5	3.8	75	26	49	..	59	390	550
Bosnia and Herzegovina	2.1	1.6	29	..	..	..	100	10	15
Botswana	6.2	3.9	68	..	..	..	99	330	480
Brazil	3.9	2.2	68	7	77	*98*	88	160	260
Bulgaria	2.0	1.3	49	..	..	..	99	15	23
Burkina Faso	7.5	6.4	133	26	12	*12*	27	..	1,400
Burundi	6.8	5.9	50	..	..	..	25	..	1,900
Cambodia	5.7	3.9	57	33	24	..	34	470	590
Cameroon	6.4	4.7	127	20	19	..	56	430	720
Canada	1.7	1.5	20	..	..	..	..	..	6
Central African Republic	5.8	4.7	124	16	15	..	44	1,100	1,200
Chad	6.9	6.3	182	10	4	*24*	16	830	1,500
Chile	2.8	2.1	42	..	..	*92*	100	20	33
China	2.5	1.9	15	..	83	..	70	55	60
Hong Kong, China	2.0	0.9	6	..	..	*89*	100	..	..
Colombia	3.9	2.5	75	6	77	..	86	80	120
Congo, Dem. Rep.	6.6	6.1	210	..	..	..	70	..	940
Congo, Rep.	6.3	5.9	134	..	..	..	..	..	1,100
Costa Rica	3.6	2.4	69	..	..	..	98	29	35
Côte d'Ivoire	7.4	4.7	118	28	15	..	47	600	1,200
Croatia	*1.9*	1.4	18	..	..	..	100	6	18
Cuba	2.0	1.6	67	..	..	..	100	27	24
Czech Republic	2.1	1.2	23	..	69	..	..	9	14
Denmark	1.5	1.8	8	..	..	..	..	10	15
Dominican Republic	4.2	2.7	89	12	64	..	96	230	110
Ecuador	5.0	2.9	65	..	66	62	69	160	210
Egypt, Arab Rep.	5.1	3.2	46	11	56	..	61	170	170
El Salvador	4.9	3.0	87	..	60	..	90	120	180
Eritrea	*7.5*	5.4	110	28	8	..	..	1,000	1,100
Estonia	2.0	1.2	26	..	..	..	..	50	80
Ethiopia	6.6	5.6	143	36	8	*10*	10	870	1,800
Finland	1.6	1.7	10	..	..	..	..	6	6
France	2.0	1.9	10	..	71	..	..	10	20
Gabon	4.5	4.1	156	28	33	..	86	520	620
Gambia, The	6.5	4.9	139	..	..	41	51	..	1,100
Georgia	2.3	1.1	27	..	41	..	96	70	22
Germany	1.4	1.4	14	..	..	..	..	8	12
Ghana	6.5	4.1	79	23	22	..	44	210	590
Greece	2.2	1.3	17	..	..	..	..	1	2
Guatemala	6.3	4.4	100	23	38	..	41	190	270
Guinea	6.1	5.1	153	24	6	..	35	670	1,200
Guinea-Bissau	6.0	5.7	182	..	..	..	35	910	910
Haiti	5.9	4.3	72	40	28	34	24	525	1,100

Reproductive health 2.17

	Total fertility rate		Adolescent fertility rate	Women at risk of unintended pregnancy	Contraceptive prevalence rate	Births attended by skilled health staff		Maternal mortality ratio	
	births per woman		births per 1,000 women ages 15–19	% of married women ages 15–49	% of women ages 15–49	% of total		per 100,000 live births	
	1980	2001	2002	1990–2001 [a]	1990–2001 [a]	1982	1996–2000 [a]	National estimates 1990–98 [a]	Modeled estimates 1995
Honduras	6.5	4.1	110	..	62	..	55	110	220
Hungary	1.9	1.3	27	..	73	*99*	..	15	23
India	4.9	3.0	104	16	52	23	42	410	440
Indonesia	4.3	2.4	52	9	57	*27*	56	450	470
Iran, Islamic Rep.	6.7	2.6	45	..	73	..	86	37	130
Iraq	6.4	4.2	35	..	..	..	..	..	370
Ireland	3.2	1.9	14	..	60	..	..	6	9
Israel	3.2	2.8	19	..	..	..	..	5	8
Italy	1.6	1.2	8	..	..	..	..	7	11
Jamaica	3.7	2.4	84	..	65	*86*	95	120	120
Japan	1.8	1.4	3	..	..	..	100	8	12
Jordan	6.8	3.6	30	14	50	..	97	41	41
Kazakhstan	2.9	1.8	35	9	66	..	98	70	80
Kenya	7.8	4.3	100	24	39	..	44	590	1,300
Korea, Dem. Rep.	2.8	2.1	2	..	..	..	99	110	35
Korea, Rep.	2.6	1.4	4	..	..	70	100	20	20
Kuwait	5.3	2.6	30	..	..	..	98	5	25
Kyrgyz Republic	4.1	2.5	29	12	60	..	95	65	80
Lao PDR	6.7	4.9	91	..	25	..	21	650	650
Latvia	1.9	1.2	32	..	..	..	..	45	70
Lebanon	4.0	2.3	23	..	61	..	95	100	130
Lesotho	5.5	4.3	75	..	23	..	60	..	530
Liberia	6.8	5.9	196	..	..	..	..	..	..
Libya	7.3	3.4	35	..	45	..	94	75	120
Lithuania	2.0	1.3	33	..	..	..	..	18	27
Macedonia, FYR	2.5	1.8	31	..	..	..	97	3	17
Madagascar	6.6	5.3	157	26	19	..	46	490	580
Malawi	7.6	6.2	137	30	31	..	56	1,120	580
Malaysia	4.2	2.9	23	..	..	*88*	96	39	39
Mali	7.1	6.2	167	26	7	*14*	24	580	630
Mauritania	6.4	4.5	135	32	8	..	57	550	870
Mauritius	2.7	2.0	39	..	75	..	99	50	45
Mexico	4.7	2.5	64	..	65	..	86	55	65
Moldova	2.4	1.4	44	..	74	..	99	42	65
Mongolia	5.3	2.5	45	..	60	..	97	150	65
Morocco	5.4	2.8	44	20	59	*29*	..	230	390
Mozambique	6.5	5.1	153	23	6	..	44	1,100	980
Myanmar	4.9	2.9	29	..	..	97	57	230	170
Namibia	5.9	4.9	103	22	29	..	76	230	370
Nepal	6.1	4.2	112	28	29	..	12	..	830
Netherlands	1.6	1.7	5	..	75	*100*	100	7	10
New Zealand	2.0	2.0	31	..	..	..	..	15	15
Nicaragua	6.3	3.5	124	15	60	..	61	150	250
Niger	8.0	7.2	205	17	8	*26*	16	590	920
Nigeria	6.9	5.2	111	17	15	..	42	700	1,100
Norway	1.7	1.8	12	..	..	..	..	6	9
Oman	9.9	4.1	54	..	24	..	91	19	120
Pakistan	7.0	4.6	62	32	28	..	20	..	200
Panama	3.7	2.5	75	..	..	*80*	90	70	100
Papua New Guinea	5.8	4.4	68	..	26	..	53	370	390
Paraguay	5.2	3.9	75	15	57	..	71	190	170
Peru	4.5	2.7	61	10	69	*30*	56	265	240
Philippines	4.8	3.3	33	19	47	..	56	170	240
Poland	2.3	1.3	17	..	..	..	..	8	12
Portugal	2.2	1.5	22	..	..	..	100	8	12
Puerto Rico	2.5	1.9	64	..	78	..	..	..	30

2.17 Reproductive health

	Total fertility rate		Adolescent fertility rate	Women at risk of unintended pregnancy	Contraceptive prevalence rate	Births attended by skilled health staff		Maternal mortality ratio	
	births per woman		births per 1,000 women ages 15–19	% of married women ages 15–49	% of women ages 15–49	% of total		per 100,000 live births	
	1980	2001	2002	1990–2001 [a]	1990–2001 [a]	1982	1996–2000 [a]	National estimates 1990–98 [a]	Modeled estimates 1995
Romania	2.4	1.3	41	..	48	..	98	41	60
Russian Federation	1.9	1.2	46	..	34	..	99	50	75
Rwanda	8.3	5.8	52	39	13	*20*	31	..	2,300
Saudi Arabia	7.3	5.4	103	..	21	..	91	..	23
Senegal	6.8	5.0	89	35	11	..	51	560	1,200
Sierra Leone	6.5	5.7	182	..	..	..	42	..	2,100
Singapore	1.7	1.4	9	..	..	*100*	100	6	9
Slovak Republic	2.3	1.3	25	..	..	..	..	9	14
Slovenia	2.1	1.2	9	..	..	..	..	11	17
Somalia	7.3	7.0	204	..	..	2	34	..	..
South Africa	4.6	2.8	43	..	62	..	84	..	340
Spain	2.2	1.2	9	..	..	..	..	6	8
Sri Lanka	3.5	2.1	20	..	..	*85*	95	60	60
Sudan	6.1	4.5	56	..	10	*23*	..	500	1,500
Swaziland	6.2	4.3	103	..	..	..	..	..	..
Sweden	1.7	1.6	9	..	..	..	..	5	8
Switzerland	1.5	1.4	4	..	..	..	..	5	8
Syrian Arab Republic	7.4	3.6	39	..	45	*43*	..	110	200
Tajikistan	5.6	3.0	24	..	..	..	77	65	120
Tanzania	6.7	5.2	115	22	25	..	35	530	1,100
Thailand	3.5	1.8	72	..	72	*40*	95	44	44
Togo	6.8	5.0	81	32	24	..	51	480	980
Trinidad and Tobago	3.3	1.8	42	..	..	..	99	..	65
Tunisia	5.2	2.1	10	..	60	*40*	90	70	70
Turkey	4.3	2.3	51	10	64	*70*	81	130	55
Turkmenistan	4.9	2.3	14	10	..	..	97	65	65
Uganda	7.2	6.1	179	35	15	..	38	510	1,100
Ukraine	2.0	1.2	31	..	72	..	99	27	45
United Arab Emirates	5.4	3.1	64	..	..	..	99	3	30
United Kingdom	1.9	1.7	27	..	..	..	99	7	10
United States	1.8	2.1	48	..	64	..	99	8	12
Uruguay	2.7	2.2	64	..	..	..	..	26	50
Uzbekistan	4.8	2.5	37	14	56	..	96	21	60
Venezuela, RB	4.2	2.8	90	..	..	82	95	60	43
Vietnam	5.0	2.2	31	7	75	100	70	160	95
West Bank and Gaza	..	5.0	81	..	42	..	..	..	..
Yemen, Rep.	7.9	6.1	97	39	21	..	22	350	850
Yugoslavia, Fed. Rep.	2.3	1.7	32	..	..	..	93	10	15
Zambia	7.0	5.2	129	27	26	..	47	650	870
Zimbabwe	6.3	3.7	86	13	54	*37*	84	695	610
World	**3.7 w**	**2.6 w**	**69 w**		**44 w**				
Low income	5.3	3.6	104		44				
Middle income	3.2	2.2	40		61				
Lower middle income	3.1	2.1	34		61				
Upper middle income	3.7	2.4	62		..				
Low & middle income	4.1	2.8	74		44				
East Asia & Pacific	3.1	2.1	28		59				
Europe & Central Asia	2.5	1.6	43		64				
Latin America & Carib.	4.1	2.6	72		40				
Middle East & N. Africa	6.2	3.4	51		54				
South Asia	5.3	3.3	105		49				
Sub-Saharan Africa	6.6	5.2	138		21				
High income	1.9	1.7	24		..				
Europe EMU	1.8	1.5	11		..				

a. Data are for most recent year available.

Reproductive health 2.17

About the data

Reproductive health is a state of physical and mental well-being in relation to the reproductive system and its functions and processes. Means of achieving reproductive health include education and services during pregnancy and childbirth, provision of safe and effective contraception, and prevention and treatment of sexually transmitted diseases. Health conditions related to sex and reproduction have been estimated to account for 25 percent of the global disease burden in women (Murray and Lopez 1998). Reproductive health services will need to expand rapidly over the next two decades, when the number of women and men of reproductive age is projected to increase by more than 300 million.

Total and adolescent fertility rates are based on data on registered live births from vital registration systems or, in the absence of such systems, from censuses or sample surveys. As long as the surveys are fairly recent, the estimated rates are generally considered reliable measures of fertility in the recent past. Where no empirical information on age-specific fertility rates is available, a model is used to estimate the share of births to adolescents. For countries without vital registration systems, fertility rates are generally based on extrapolations from trends observed in censuses or surveys from earlier years.

An increasing number of couples in the developing world want to limit or postpone childbearing but are not using effective contraceptive methods. These couples face the risk of unintended pregnancy, shown in the table as the percentage of married women of reproductive age who do not want to become pregnant but are not using contraception (Bulatao 1998). Information on this indicator is collected through surveys and excludes women not exposed to the risk of unintended pregnancy because of menopause, infertility, or postpartum anovulation. Common reasons for not using contraception are lack of knowledge about contraceptive methods and concerns about their possible health side-effects.

Contraceptive prevalence reflects all methods—ineffective traditional methods as well as highly effective modern methods. Contraceptive prevalence rates are obtained mainly from Demographic and Health Surveys and contraceptive prevalence surveys (see *Primary data documentation* for the most recent survey year). Unmarried women are often excluded from such surveys, which may bias the estimates.

The share of births attended by skilled health staff is an indicator of a health system's ability to provide adequate care for pregnant women. Good antenatal and postnatal care improves maternal health and reduces maternal and infant mortality. But data may not reflect such improvements because health information systems are often weak, maternal deaths are underreported, and rates of maternal mortality are difficult to measure.

Maternal mortality ratios are generally of unknown reliability, as are many other cause-specific mortality indicators. Household surveys such as the Demographic and Health Surveys attempt to measure maternal mortality by asking respondents about survivorship of sisters. The main disadvantage of this method is that the estimates of maternal mortality that it produces pertain to 12 years or so before the survey, making them unsuitable for monitoring recent changes or observing the impact of interventions. In addition, measurement of maternal mortality is subject to many types of errors. Even in high-income countries with vital registration systems, misclassification of maternal deaths has been found to lead to serious underestimation.

The maternal mortality ratios shown in the table as national estimates are based on national surveys, vital registration, or surveillance or are derived from community and hospital records. Those shown as modeled estimates are based on an exercise carried out by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF). In this exercise maternal mortality was estimated with a regression model using information on fertility, birth attendants, and HIV prevalence. Neither set of ratios can be assumed to provide an accurate estimate of maternal mortality in any of the countries in the table.

Definitions

• **Total fertility rate** is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. • **Adolescent fertility rate** is the number of births per 1,000 women ages 15–19. • **Women at risk of unintended pregnancy** are fertile, married women of reproductive age who do not want to become pregnant and are not using contraception. • **Contraceptive prevalence rate** is the percentage of women who are practicing, or whose sexual partners are practicing, any form of contraception. It is usually measured for married women ages 15–49 only. • **Births attended by skilled health staff** are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period, to conduct deliveries on their own, and to care for newborns. • **Maternal mortality ratio** is the number of women who die from pregnancy-related causes during pregnancy and childbirth, per 100,000 live births.

Data sources

The data on reproductive health come from Demographic and Health Surveys, the WHO's *Coverage of Maternity Care* (1997) and other WHO sources, UNICEF, and national statistical offices. Modeled estimates for maternal mortality ratios are from Kenneth Hill, Carla AbouZahr, and Tessa Wardlaw's "Estimates of Maternal Mortality for 1995" (2001).

2.18 Nutrition

	Prevalence of undernourishment		Prevalence of child malnutrition		Prevalence of overweight		Prevalence of anemia	Low-birthweight babies	Exclusive breastfeeding	Consumption of iodized salt	Vitamin A supplementation
	% of population		% of children under 5				% of pregnant women	% of births	% of children under 6 months	% of households	% of children 6–59 months
	1990–92	1998–2000	Weight for age 1993–2001 [a]	Height for age 1993–2001 [a]	Year	% of children under 5	1985–2000 [a]	1992–2000 [a]	1995–2001 [a]	1997–2002 [a]	2000
Afghanistan	63	70	49	48	1997	4	..	20	..	..	70
Albania	..	..	14	15	1996–98	6	..	8	6	56	..
Algeria	5	6	6	18	2000	10	42	..	13	69	..
Angola	61	50	41	53	1996	1	29	..	11	10	100
Argentina	..	..	5	12	1995–96	9	26	7	..	90	..
Armenia	..	..	3	13	1998	6	..	..	30	84	..
Australia	..	..	0	0	1995–96	5	..	7	..	..	..
Austria	..	..	..	..		..	..	6	..	..	..
Azerbaijan	..	..	17	20	1997	4	..	6	7	41	..
Bangladesh	35	35	48	45	1996–97	1	53	50	46	70	85
Belarus	..	..	..	..		..	..	6	..	37	..
Belgium	..	..	..	..		..	..	..	..	..	..
Benin	19	13	23	31	1996	1	41	9	38	72	96
Bolivia	26	23	8	27	1998	7	54	9	29	63	73
Bosnia and Herzegovina	..	..	4	..		..	..	..	..	..	..
Botswana	17	25	13	29		..	..	..	34	66	..
Brazil	13	10	6	11	1996	5	33	8	..	95	11
Bulgaria	..	..	..	..		..	..	9 [b]	..	..	..
Burkina Faso	23	23	34	37	1998–99	1	24	..	6	23	93
Burundi	49	69	45	..	1987	1	68	16	62	68	96
Cambodia	43	36	45	45	1996	3	..	18	12	14	63
Cameroon	32	25	22	29	1998	5	44	..	12	84	100
Canada	..	..	..	..		..	..	6	..	..	..
Central African Republic	49	44	23	28	1995	1	67	..	17	87	100
Chad	58	32	28	29	1996–97	1	37	..	10	58	99
Chile	8	4	1	2	1999	8	13	5	73	100	..
China	16	9	10	14	2000	3	52	6	67	91	..
Hong Kong, China	..	..	..	..		..	..	5	..	..	..
Colombia	17	13	7	14	1995	3	24	17	32	92	..
Congo, Dem. Rep.	32	73	34	45		..	..	20	24	72	93
Congo, Rep.	37	32	..	..	1987	1	..	..	4	..	100
Costa Rica	6	5	5	6	1996	6	27	6	35	97	..
Côte d'Ivoire	18	15	21	25	1994	2	34	..	10	31	16
Croatia	..	..	1	1	1995–96	6	..	8	23	90	..
Cuba	5	13	..	..		..	47	8	41	0	..
Czech Republic	..	..	..	..	1991	4	23	6	..	..	..
Denmark	..	..	..	..		..	..	5	..	..	..
Dominican Republic	27	26	5	11	1996	5	..	14	11	18	9
Ecuador	8	5	14	26		..	17	17	29	99	25
Egypt, Arab Rep.	5	4	4	19	2000	9	24	9	57	28	..
El Salvador	12	14	12	23	1998	3	14	11	16	91	..
Eritrea	..	58	44	38	1995–96	1	..	..	59	97	74
Estonia	..	..	..	..		..	..	4	..	..	..
Ethiopia	..	44	47	52		..	42	9	55	28	65
Finland	..	..	..	..		..	..	4	..	..	..
France	..	..	..	..		..	..	6	..	..	..
Gabon	11	8	12	21		..	..	..	6	15	100
Gambia, The	21	21	17	30		..	80	..	26	8	87
Georgia	..	..	3	12	1999	13	..	5	18	8	..
Germany	..	..	..	..		..	..	..	..	..	..
Ghana	35	12	25	26	1998–99	2	64	8	31	28	89
Greece	..	..	..	..		..	..	..	..	..	..
Guatemala	14	25	24	46	1998–99	4	45	8	39	49	..
Guinea	40	32	33	41		..	..	13	11	12	99
Guinea-Bissau	..	..	25	..		..	74	..	37	2	91
Haiti	64	50	17	23	2000	3	64	15	24	11	32

Nutrition 2.18

	Prevalence of undernourishment		Prevalence of child malnutrition		Prevalence of overweight		Prevalence of anemia	Low-birthweight babies	Exclusive breastfeeding	Consumption of iodized salt	Vitamin A supplementation
			% of children under 5								
	% of population		Weight for age	Height for age		% of children under 5	% of pregnant women	% of births	% of children under 6 months	% of households	% of children 6–59 months
	1990–92	1998–2000	1993–2001[a]	1993–2001[a]	Year		1985–2000[a]	1992–2000[a]	1995–2001[a]	1997–2002[a]	2000
Honduras	23	21	17	39	1996	1	14	9	42	80	60
Hungary	..	..	..	..	1980–88	2	..	8	..	..	..
India	25	24	53	52	1998–99	2	88	34	37	49	22
Indonesia	..	6	25	42	1995	4	64	15	42	64	71
Iran, Islamic Rep.	4	5	11	15	1998	4	17	10	66	94	..
Iraq	7	27	..	..		..	18	24	..	40	..
Ireland	..	..	..	..		..	..	..	..	..	..
Israel	..	..	..	..		..	..	8	..	..	..
Italy	..	..	..	..		..	..	..	..	..	..
Jamaica	14	9	4	4	1997	4	40	11	..	100	..
Japan	..	..	..	..	1978–81	2	..	8	..	..	..
Jordan	4	6	5	8	1997	6	50	2	11	88	..
Kazakhstan	..	..	4	10	1999	3	27	9	36	20	..
Kenya	47	44	22	33	1998	4	35	..	5	91	90
Korea, Dem. Rep.	18	34	28	..		..	71	..	97	..	96
Korea, Rep.	..	..	..	..		..	..	..	..	..	..
Kuwait	22	4	2	3	1996–97	6	40	7	12	..	..
Kyrgyz Republic	..	..	11	25	1997	6	..	6	24	27	..
Lao PDR	29	24	40	41		..	62	60	23	76	58
Latvia	..	..	..	..		..	..	4	..	..	..
Lebanon	..	3	3	12		..	49	19	27	87	..
Lesotho	27	26	18	44		..	7	..	16	69	17
Liberia	33	39	..	..		..	78	..	73	..	83
Libya	..	..	5	15		..	..	4	..	90	..
Lithuania	..	..	..	..		..	..	4	..	..	..
Macedonia, FYR	..	..	6	7	1999	5	..	8	37	100	..
Madagascar	35	40	40	48	1997	2	..	15	41	76	58
Malawi	49	33	25	49	2000	7	55	..	44	49	54
Malaysia	3	..	20	..		..	56	8	..	..	..
Mali	25	20	27	49	1995–96	1	58	..	8	9	70
Mauritania	14	12	32	35		..	24	9	28	2	81
Mauritius	6	5	15	10	1995	4	29	..	16	0	..
Mexico	5	5	8	18	1998–99	5	41	9	38	90	..
Moldova	..	..	..	..		..	20	5	..	33	..
Mongolia	34	42	13	25	1999	5	45	11	51	68	87
Morocco	6	7	..	..	1992	7	45	4	31	..	..
Mozambique	69	55	26	36	1997	3	58	..	30	62	92
Myanmar	10	6	43	45	1997	8	58	24	11	46	67
Namibia	15	9	..	..	1992	3	16	12	14	63	81
Nepal	19	19	48	51	1997–98	1	65	23	69	63	82
Netherlands	..	..	..	..	1980	2	..	..	..	..	..
New Zealand	..	..	..	..		..	..	6	..	83	..
Nicaragua	30	29	12	25	1997–98	4	36	8	22	86	..
Niger	42	36	40	40	2000	1	41	..	1	44	92
Nigeria	13	7	31	34	1993	3	55	..	17	98	79
Norway	..	..	..	..		..	..	5	..	..	..
Oman	..	..	23	23	1994–95	1	54	8	31	61	..
Pakistan	25	19	38	36	1995	1	37	25	16	19	95
Panama	19	18	8	18	1997	4	..	8	25	95	..
Papua New Guinea	25	27	..	..	1982–83	2	16	16	59	..	..
Paraguay	18	14	..	..	1990	4	44	9	7	83	..
Peru	40	11	7	25	1996	6	53	6	71	93	..
Philippines	26	23	32	32	1998	1	48	11	37	22	90
Poland	..	..	..	..		..	..	8	..	..	..
Portugal	..	..	..	..		..	..	7	..	..	..
Puerto Rico	..	..	..	..		..	..	14	..	..	..

2.18 Nutrition

	Prevalence of undernourishment		Prevalence of child malnutrition		Prevalence of overweight		Prevalence of anemia	Low-birthweight babies	Exclusive breastfeeding	Consumption of iodized salt	Vitamin A supplementation
	% of population		% of children under 5				% of pregnant women	% of births	% of children under 6 months	% of households	% of children 6–59 months
	1990–92	1998–2000	Weight for age 1993–2001 [a]	Height for age 1993–2001 [a]	Year	% of children under 5	1985–2000 [a]	1992–2000 [a]	1995–2001 [a]	1997–2002 [a]	2000
Romania	..	..	..	..	1991	2	31	10	..	..	..
Russian Federation	..	..	3	13		..	30	5	..	30	..
Rwanda	34	40	24	43	1996	2	..	..	84	82	59
Saudi Arabia	4	3	..	..		..	..	5	31	..	..
Senegal	23	25	18	23	1996	3	26	..	24	31	93
Sierra Leone	46	47	27	..		..	31	..	4	23	77
Singapore	..	..	..	..		..	..	7	..	..	..
Slovak Republic	..	..	..	..		..	..	6	..	..	..
Slovenia	..	..	..	..		..	..	5	..	..	..
Somalia	67	71	26	23		..	78	..	9	..	100
South Africa	..	..	9	23	1994–95	7	37	..	6	62	..
Spain	..	..	..	..		..	..	..	..	..	..
Sri Lanka	29	23	33	20	1995	0	39	18	54	88	..
Sudan	31	21	11	34		..	36	15	13	1	99
Swaziland	10	12	10	..		..	..	..	24	54	..
Sweden	..	..	..	..		..	..	4	..	..	..
Switzerland	..	..	..	..		..	..	5	..	..	..
Syrian Arab Republic	5	3	13	21		..	..	7	..	40	7
Tajikistan	..	..	..	31		..	50	8	14	20	..
Tanzania	36	47	29	44	1999	3	59	17	32	67	45
Thailand	28	18	18	13	1995	3	57	7	4	74	..
Togo	28	23	25	22	1998	2	48	..	18	67	100
Trinidad and Tobago	13	12	..	..	1987	3	53	14	2	1	..
Tunisia	..	..	4	8	1998	5	38	16	12	97	..
Turkey	..	..	8	16	1998	2	74	..	7	64	..
Turkmenistan	..	..	12	22		..	..	5	13	75	..
Uganda	23	21	23	39	1995	3	30	..	65	95	42
Ukraine	..	..	3	16		..	..	8	..	5	..
United Arab Emirates	3	..	7	..		..	..	6	34	..	..
United Kingdom	..	..	..	..		..	..	6	..	..	..
United States	..	..	1	2	1988–94	5	..	7	..	..	..
Uruguay	6	3	4	10	1992–93	6	20	8	..	..	..
Uzbekistan	..	..	19	31	1996	14	..	6	16	19	..
Venezuela, RB	11	21	4	13	2000	3	29	12	7	90	..
Vietnam	27	18	34	37	2000	3	..	11	31	40	61
West Bank and Gaza	..	..	15	..		..	..	6	..	..	..
Yemen, Rep.	36	33	46	52	1997	6	..	26	18	39	95
Yugoslavia, Fed. Rep.	..	..	2	5	1996	13	..	..	11	73	..
Zambia	45	50	24	42	1996–97	3	34	10	11	54	86
Zimbabwe	43	38	13	27	1999	7	..	11	33	93	..
World	**21 w**	**18 w**	**.. w**	**.. w**			**57 w**	**18 w**		**67 w**	**.. w**
Low income	28	25	..	..			65	27		61	53
Middle income	15	10	13	25			44	8		69	..
Lower middle income	16	10	10	17			46	8		87	..
Upper middle income	9	9	9	..			36	8		67	..
Low & middle income	21	18	..	..			57	19		74	51
East Asia & Pacific	17	11	15	14			54	9		25	..
Europe & Central Asia	..	..	..	..			..	7		89	..
Latin America & Carib.	14	12	9	19			35	10		53	..
Middle East & N. Africa	7	8	15	..			28	11		66	..
South Asia	27	25	53	47			77	34		60	38
Sub-Saharan Africa	32	33	..	..			46	..		..	78
High income	..	..	..	..			..	7		..	..
Europe EMU	..	..	..	..			..	..		..	..

a. Data are for the most recent year available. b. Data are for 2001.

About the data

Data on undernourishment are produced by the Food and Agriculture Organization (FAO) based on the calories available from local food production, trade, and stocks; the number of calories needed by different age and gender groups; the proportion of the population represented by each age group; and a coefficient of distribution to take account of inequality in access to food (FAO 2000). From a policy and program standpoint, however, this measure has its limits. First, food insecurity exists even where food availability is not a problem because of inadequate access of poor households to food. Second, food insecurity is an individual or household phenomenon, and the average food available to each person, even corrected for possible effects of low income, is not a good predictor of food insecurity among the population. And third, nutrition security is determined not only by food security but also by the quality of care of mothers and children and the quality of the household's health environment (Smith and Haddad 2000).

Estimates of child malnutrition, based on weight for age (underweight) and height for age (stunting), are from national survey data. The proportion of children who are underweight is the most common indicator of malnutrition. Being underweight, even mildly, increases the risk of death and inhibits cognitive development in children. Moreover, it perpetuates the problem from one generation to the next, as malnourished women are more likely to have low-birthweight babies. Height for age reflects linear growth achieved pre- and postnatally, and a deficit indicates long-term, cumulative effects of inadequacies of health, diet, or care. It is often argued that stunting is a proxy for multifaceted deprivation.

Estimates of children who are overweight are also from national survey data. Overweight in children has become a growing concern in developing countries. Researchers show an association between obesity in childhood and a high prevalence of diabetes, respiratory disease, high blood pressure, and psychosocial and orthopedic disorders (de Onis and Blossner 2000). The survey data were analyzed in a standardized way by the World Health Organization (WHO) to allow comparisons across countries.

Adequate quantities of micronutrients (vitamins and minerals) are essential for healthy growth and development. Studies indicate that more people are deficient in iron (anemic) than any other micronutrient, and most are women of reproductive age. Anemia during pregnancy can harm both the mother and the fetus, causing loss of the baby, premature birth, or low birthweight. Estimates of the prevalence of anemia among pregnant women are generally drawn from clinical data, which suffer from two weaknesses: the sample is based on those who seek care and is therefore not random, and private clinics or hospitals may not be part of the reporting network.

Low birthweight, which is associated with maternal malnutrition, raises the risk of infant mortality and stunts growth in infancy and childhood. Estimates of low-birthweight infants are drawn mostly from hospital records. But many births in developing countries take place at home, and these births are seldom recorded. A hospital birth may indicate higher income and therefore better nutrition, or it could indicate a higher-risk birth, possibly skewing the data on birthweights downward. The data should therefore be treated with caution.

It is estimated that breastfeeding can save some 1.5 million children a year. Breast milk alone contains all the nutrients, antibodies, hormones, and antioxidants an infant needs to thrive. It protects babies from diarrhea and acute respiratory infections, stimulates their immune systems and response to vaccination, and, according to some studies, confers cognitive benefits as well. The data on breastfeeding are derived from national surveys.

Iodine deficiency is the single most important cause of preventable mental retardation, and it contributes significantly to the risk of stillbirth and miscarriage. Iodized salt is the best source of iodine, and a global campaign to iodize edible salt is significantly reducing the risks (UNICEF, *The State of the World's Children 1999*).

Vitamin A is essential for the functioning of the immune system. A child deficient in vitamin A faces a 25 percent greater risk of dying from a range of childhood ailments such as measles, malaria, or diarrhea. Improving the vitamin A status of pregnant women helps reduce anemia, improves their resistance to infection, and may reduce their risk of dying during pregnancy and childbirth. Giving vitamin A to new mothers who are breastfeeding helps to protect their children during the first months of life. Food fortification with vitamin A is being introduced in many developing countries.

Definitions

• **Prevalence of undernourishment** is the percentage of the population that is undernourished. • **Prevalence of child malnutrition** is the percentage of children under five whose weight for age and height for age are more than two standard deviations below the median for the international reference population ages 0–59 months. For children up to two years of age, height is measured by recumbent length. For older children, height is measured by stature while standing. The reference population, adopted by the WHO in 1983, is based on children from the United States, who are assumed to be well nourished. • **Prevalence of overweight** is the percentage of children under five whose weight for height is more than two standard deviations above the median for the international reference population of the corresponding age, established by the U.S. National Center for Health Statistics and the WHO. • **Prevalence of anemia,** or iron deficiency, is the percentage of pregnant women with hemoglobin levels less than 11 grams per deciliter of blood. • **Low-birthweight babies** are newborns weighing less than 2,500 grams, with the measurement taken within the first hours of life, before significant postnatal weight loss has occurred. • **Exclusive breastfeeding** refers to the percentage of children less than 6 months old who are fed breast milk alone (no other liquids). • **Consumption of iodized salt** refers to the percentage of households that use edible salt fortified with iodine. • **Vitamin A supplementation** refers to the percentage of children ages 6–59 months who received at least one high-dose vitamin A capsule in the previous six months.

Data sources

Data are drawn from a variety of sources, including the FAO's *State of Food Insecurity in the World 2002*; the United Nations Administrative Committee on Coordination, Subcommittee on Nutrition's *Update on the Nutrition Situation*; the WHO's *World Health Report 2002*; and the United Nations Children's Fund's (UNICEF) *State of the World's Children 2003*.

2.19 Health: risk factors and future challenges

	Prevalence of smoking		Incidence of tuberculosis	Prevalence of HIV		
	% of adults		per 100,000	% of	% of ages 15–24 [a]	
	Males	Females	people	adults	Male	Female
	2000	2000	2000	2001	2001	2001
Afghanistan	..	..	321	*<0.01*	..	..
Albania	60	18	29	*<0.01*	..	..
Algeria	44	7	46	0.10	..	..
Angola	..	..	275	5.50	2.23	5.74
Argentina	47	34	48	0.70	0.86	0.34
Armenia	64	1	69	0.20	0.22	0.06
Australia	21	18	8	0.10	0.12	0.01
Austria	30	19	15	0.20	0.22	0.12
Azerbaijan	30	1	74	<0.10	0.06	0.01
Bangladesh	54	24	242	<0.10	0.01	0.01
Belarus	55	5	88	0.30	0.58	0.19
Belgium	30	26	14	0.20	0.12	0.12
Benin	..	..	259	3.60	1.17	3.71
Bolivia	43	18	230	<0.10	0.11	0.05
Bosnia and Herzegovina	..	..	91	0.10	..	..
Botswana	..	..	757	38.80	16.08	37.49
Brazil	38	29	68	0.70	0.64	0.48
Bulgaria	49	24	41 [b]	<0.10	..	..
Burkina Faso	..	..	324	6.50	3.97	9.73
Burundi	..	..	406	8.30	4.95	11.05
Cambodia	66	8	572	2.70	0.96	2.48
Cameroon	..	..	341	11.80	5.44	12.67
Canada	27	23	7	0.30	0.28	0.17
Central African Republic	..	..	445	12.90	5.82	13.54
Chad	24	..	274	3.60	2.38	4.28
Chile	26	18	25	0.30	0.35	0.13
China	67	4	107	0.10	0.16	0.09
Hong Kong, China	..	..	91	0.10	0.00	0.00
Colombia	24	21	50	0.40	0.85	0.19
Congo, Dem. Rep.	..	6	320	4.90	2.92	5.91
Congo, Rep.	..	..	338	7.20	3.28	7.80
Costa Rica	29	7	16	0.60	0.58	0.27
Côte d'Ivoire	42	2	389	9.70	2.91	8.31
Croatia	34	32	59	<0.10	0.00	0.00
Cuba	48	26	14	<0.10	0.09	0.05
Czech Republic	36	22	19	<0.10	0.00	0.00
Denmark	32	29	13	0.20	0.14	0.06
Dominican Republic	24	17	147	2.50	2.10	2.76
Ecuador	46	17	176	0.30	0.31	0.15
Egypt, Arab Rep.	35	2	39	<0.10	..	..
El Salvador	38	12	64	0.60	0.77	0.35
Eritrea	..	..	289	2.80	2.78	4.30
Estonia	44	20	67	1.00	2.48	0.62
Ethiopia	..	..	397	6.40	4.39	7.82
Finland	27	20	11	<0.10	0.04	0.03
France	39	30	15	0.30	0.26	0.17
Gabon	..	..	293	*4.16*	*2.32*	*4.72*
Gambia, The	34	2	264	1.60	0.52	1.35
Georgia	61	15	75	<0.10	0.08	0.02
Germany	39	31	12	0.10	0.10	0.05
Ghana	28	4	286	3.00	1.36	2.97
Greece	47	29	22	0.20	0.14	0.06
Guatemala	38	18	85	1.00	0.90	0.85
Guinea	60	44	270	*1.54*	*0.57*	*1.43*
Guinea-Bissau	..	..	271	2.80	1.06	2.98
Haiti	11	9	350	6.10	4.06	4.95

Health: risk factors and future challenges

2.19

	Prevalence of smoking		Incidence of tuberculosis	Prevalence of HIV		
	% of adults		per 100,000	% of	% of ages 15–24 [a]	
	Males	Females	people	adults	Male	Female
	2000	2000	2000	2001	2001	2001
Honduras	36	11	91	1.60	1.20	1.50
Hungary	44	27	41	0.10	0.09	0.02
India	29	3	184	0.80	0.34	0.71
Indonesia	59	4	280	0.10	0.06	0.06
Iran, Islamic Rep.	27	3	53	<0.10	0.05	0.01
Iraq	40	5	132	<0.10	..	..
Ireland	32	31	14	0.10	0.06	0.05
Israel	33	24	11	0.10	*0.06*	*0.06*
Italy	32	17	9	0.40	0.28	0.26
Jamaica	..	..	8	1.20	0.82	0.86
Japan	53	13	36	<0.10	0.01	0.04
Jordan	48	10	10	<0.10	..	..
Kazakhstan	60	7	152	0.10	0.13	0.03
Kenya	67	32	484	15.00	6.01	15.56
Korea, Dem. Rep.	..	..	175	*<0.01*	..	..
Korea, Rep.	65	5	62	<0.10	0.03	0.01
Kuwait	30	2	31	*0.12*	..	..
Kyrgyz Republic	60	16	153	<0.10	0.00	0.00
Lao PDR	41	15	160	<0.10	0.05	0.03
Latvia	49	13	118	0.40	0.94	0.24
Lebanon	46	35	22	*0.09*	..	..
Lesotho	39	1	578	31.00	17.40	38.08
Liberia	..	..	275	*2.80*	..	..
Libya	..	..	24	0.20	..	..
Lithuania	51	16	111	0.10	0.16	0.05
Macedonia, FYR	40	33	52	<0.10	0.00	0.00
Madagascar	..	..	254	0.30	0.06	0.23
Malawi	20	9	447	15.00	6.35	14.89
Malaysia	49	4	111	0.40	0.70	0.12
Mali	..	..	267	1.70	1.37	2.08
Mauritania	..	..	226	*0.52*	*0.38*	*0.59*
Mauritius	45	3	69	0.10	*0.04*	*0.04*
Mexico	51	18	38	0.30	0.37	0.09
Moldova	46	18	135	0.20	0.46	0.14
Mongolia	68	26	216	<0.10	..	..
Morocco	35	2	118	0.10	..	..
Mozambique	..	..	433	13.00	6.13	14.67
Myanmar	44	22	168	*1.99*	*1.04*	*1.72*
Namibia	65	35	521	22.50	11.10	24.29
Nepal	48	29	208	0.50	0.26	0.28
Netherlands	37	29	9	0.20	0.20	0.09
New Zealand	25	25	11	0.10	0.05	0.01
Nicaragua	..	..	85	0.20	0.23	0.08
Niger	..	..	256	*1.35*	*0.95*	*1.50*
Nigeria	15	2	305	5.80	2.99	5.82
Norway	31	32	6	0.10	0.08	0.04
Oman	16	2	9	0.10	..	..
Pakistan	36	9	175	0.10	0.06	0.05
Panama	56	20	52	1.50	1.88	1.25
Papua New Guinea	46	28	262	0.70	0.33	0.39
Paraguay	24	6	66	*0.11*	*0.13*	*0.04*
Peru	42	16	212	0.40	0.41	0.18
Philippines	54	11	330	<0.10	0.01	0.01
Poland	44	25	36	0.10	0.09	0.05
Portugal	30	7	52	0.50	0.41	0.19
Puerto Rico	..	..	9	..	..	..

	Prevalence of smoking		Incidence of tuberculosis	Prevalence of HIV		
	% of adults		per 100,000	% of	% of ages 15–24 [a]	
	Males	Females	people	adults	Male	Female
	2000	2000	2000	2001	2001	2001
Romania	62	25	135	<0.10	*0.02*	*0.02*
Russian Federation	63	10	132	0.90	1.87	0.67
Rwanda	7	4	405	8.90	4.91	11.20
Saudi Arabia	22	1	45	*0.01*	..	..
Senegal	..	..	261	0.50	0.19	0.54
Sierra Leone	..	..	278	7.00	2.48	7.53
Singapore	27	3	48	0.20	0.14	0.16
Slovak Republic	55	30	25	<0.10	0.00	0.00
Slovenia	30	20	26	<0.10	0.00	0.00
Somalia	..	..	360	1.00	..	..
South Africa	42	11	526	20.10	10.66	25.64
Spain	42	25	34	0.50	0.51	0.24
Sri Lanka	26	2	58	<0.10	0.03	0.04
Sudan	24	1	193	2.60	1.08	3.13
Swaziland	25	2	600	33.40	15.23	39.49
Sweden	19	19	5	0.10	0.06	0.05
Switzerland	39	28	11	0.50	0.46	0.40
Syrian Arab Republic	51	10	85	*0.01*	..	..
Tajikistan	..	..	160	<0.10	0.00	0.00
Tanzania	50	12	359	7.80	3.55	8.06
Thailand	44	3	140	1.80	1.11	1.66
Togo	..	..	317	6.00	2.05	5.93
Trinidad and Tobago	42	8	13	2.50	2.41	3.23
Tunisia	62	8	37	*0.04*	..	..
Turkey	65	24	36	<0.10	..	..
Turkmenistan	27	1	84	<0.10	0.00	0.00
Uganda	52	17	351	5.00	1.99	4.63
Ukraine	51	19	79	1.00	1.96	0.88
United Arab Emirates	18	1	21	*0.18*	..	..
United Kingdom	27	26	12	0.10	0.10	0.05
United States	26	22	5	0.60	0.47	0.22
Uruguay	32	14	28	0.30	0.52	0.20
Uzbekistan	49	9	104	<0.10	0.01	0.00
Venezuela, RB	42	39	42	0.50	*0.65*	*0.15*
Vietnam	51	4	189	0.30	0.31	0.17
West Bank and Gaza	..	..	28	..	..	..
Yemen, Rep.	60	29	107	0.10	..	..
Yugoslavia, Fed. Rep.	52	42	45	0.20	..	..
Zambia	35	10	529	21.50	8.06	20.98
Zimbabwe	34	1	584	33.70	12.38	33.01
World	**46 w**	**11 w**	**145 w**	**1.27 w**	**0.77 w**	**1.34 w**
Low income	37	7	233	2.29	1.13	2.37
Middle income	56	10	107	0.67	0.61	0.77
Lower middle income	59	7	119	0.68	0.62	0.85
Upper middle income	42	24	55	0.62	0.57	0.43
Low & middle income	48	9	168	1.44	0.87	1.58
East Asia & Pacific	63	5	147	0.19	0.19	0.16
Europe & Central Asia	56	17	91	0.45	1.08	0.41
Latin America & Carib.	40	24	73	0.67	0.68	0.46
Middle East & N. Africa	37	6	64	0.10	..	..
South Asia	33	6	190	0.64	0.27	0.55
Sub-Saharan Africa	..	..	354	8.36	4.12	9.34
High income	36	21	18	0.33	0.26	0.14
Europe EMU	37	26	17	0.28	0.24	0.15

a. Data are an average of high and low estimates. b. Data are for 2001.

Health: risk factors and future challenges 2.19

About the data

The limited availability of data on health status is a major constraint in assessing the health situation in developing countries. Surveillance data are lacking for many major public health concerns. Estimates of prevalence and incidence are available for some diseases but are often unreliable and incomplete. National health authorities differ widely in their capacity and willingness to collect or report information. To compensate for the paucity of data and ensure reasonable reliability and international comparability, the World Health Organization (WHO) prepares estimates in accordance with epidemiological models and statistical standards.

Smoking is the most common form of tobacco use in many countries, and the prevalence of smoking is therefore a good measure of the extent of the tobacco epidemic (Corrao and others 2000). While the prevalence of smoking has been declining in some high-income countries, it has been increasing in many developing countries. Tobacco use causes heart and other vascular diseases and cancers of the lung and other organs. Given the long delay between starting to smoke and the onset of disease, the health impact of smoking in developing countries will increase rapidly in the next few decades. Because the data present a one-time estimate, with no information on the intensity or duration of smoking, they should be interpreted with caution.

Tuberculosis is the main cause of death from a single infectious agent among adults in developing countries. In high-income countries tuberculosis has reemerged largely as a result of cases among immigrants. The estimates of tuberculosis incidence in the table are based on a new approach in which reported cases are adjusted using the ratio of case notifications to the estimated share of cases detected by panels of 80 epidemiologists convened by the WHO.

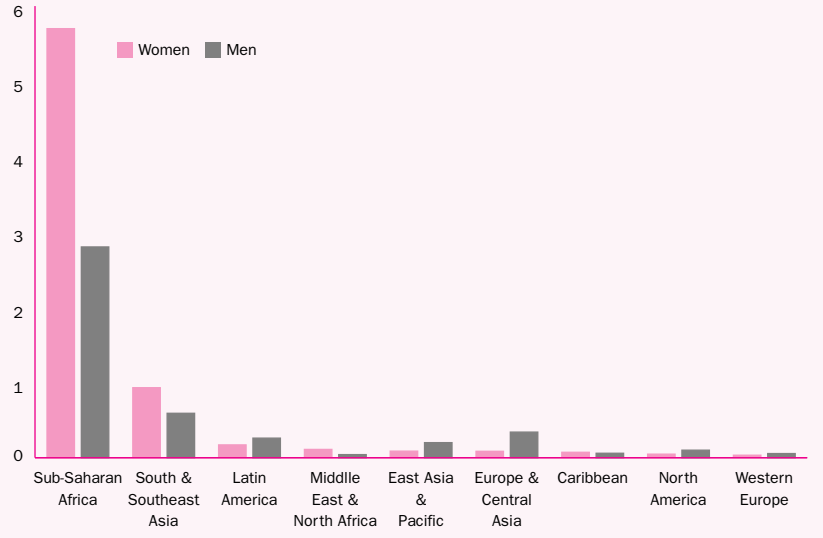
Adult HIV prevalence rates reflect the rate of HIV infection in each country's population. Low national prevalence rates can be very misleading, however. They often disguise serious epidemics that are initially concentrated in certain localities or among specific population groups and threaten to spill over into the wider population. In many parts of the developing world most new infections occur in young adults, with young women especially vulnerable. About a third of those living with HIV/AIDS are in the age group 15–24. The estimates of HIV prevalence are based on extrapolations from data collected through surveys and surveillance of small, nonrepresentative groups.

Definitions

• **Prevalence of smoking** is the percentage of men and women who smoke cigarettes. The age range varies among countries but in most is 18 and above or 15 and above. • **Incidence of tuberculosis** is the estimated number of new tuberculosis cases (pulmonary, smear positive, extrapulmonary). • **Prevalence of HIV** is the percentage of people who are infected with HIV.

2.19a In some regions more young women than men are living with HIV/AIDS

15- to 24-year-olds living with HIV/AIDS (millions), 2001



In regions where HIV/AIDS is spread mainly through heterosexual activity, young women are infected in far greater numbers than young men. For both biological and social reasons, young women are especially vulnerable to HIV infection. Adolescent girls have an immature reproductive tract that makes them susceptible to infection. Girls and young women often have older partners who have already been exposed to HIV, and they may lack the knowledge or self-confidence to resist sexual advances or persuade older men to use a condom. Poverty is also a factor, as girls and women may exchange sex for money or gifts.

Source: Population Reference Bureau 2002.

Data sources

The data are drawn from a variety of sources, including the WHO's *World Health Report 2002*, *Tobacco Atlas 2002*, and *Global Tuberculosis Control Report 2002*; the NATIONS (National Tobacco Information Online System) database (http://apps.nccd.cdc.gov/nations/); and the Joint United Nations Programme on HIV/AIDS (UNAIDS) and WHO's *AIDS Epidemic Update* (2002).

2.20 Mortality

	Life expectancy at birth		Infant mortality rate		Under-five mortality rate		Child mortality rate		Adult mortality rate		Survival to age 65	
							Male per 1,000	Female per 1,000	Male per 1,000	Female per 1,000	% of cohort	
	years		per 1,000 live births		per 1,000							
	1980	2001	1980	2001	1980	2001	1997–2001 [a]	1997–2001 [a]	2000–2001 [a]	2000–2001 [a]	Male 2002	Female 2002
Afghanistan	40	43	183	165	280	257	..	..	437	376	32	33
Albania	69	74	47	23	57	25	..	..	209	95	77	85
Algeria	59	71	94	39	134	49	..	..	155	119	73	79
Angola	41	47	158	154	265	260	..	..	492	386	34	39
Argentina	70	74	33	16	38	19	..	..	184	92	75	87
Armenia	73	74	48	31	..	35	5	3	223	106	70	83
Australia	74	79	11	6	13	6	..	..	100	53	84	92
Austria	73	78	14	5	17	5	..	..	124	59	83	91
Azerbaijan	68	65	76	77	107	96	..	..	261	150	58	72
Bangladesh	49	62	129	51	205	77	28	38	262	252	59	61
Belarus	71	68	21	17	26	20	..	..	381	133	54	81
Belgium	73	78	12	5	*15*	6	..	..	127	66	82	91
Benin	48	53	127	94	214	158	72	79	384	328	43	50
Bolivia	52	63	112	60	170	77	26	29	264	219	59	67
Bosnia and Herzegovina	70	74	31	15	..	18	..	..	200	93	75	86
Botswana	58	39	62	80	84	110	..	..	703	669	13	18
Brazil	63	68	70	31	92	36	..	..	259	136	62	79
Bulgaria	71	72	20	14	25	16	..	..	239	103	69	83
Burkina Faso	44	44	140	104	247	197	131	128	559	507	28	32
Burundi	47	42	116	114	195	190	..	..	648	603	26	29
Cambodia	39	54	110	97	190	138	34	30	373	264	42	48
Cameroon	50	49	105	96	173	155	69	75	488	440	35	41
Canada	75	79	10	5	13	7	..	..	101	57	83	92
Central African Republic	46	43	121	115	189	180	..	..	620	573	24	29
Chad	42	48	124	117	225	200	106	99	449	361	38	43
Chile	69	76	32	10	39	12	..	..	151	67	78	88
China	67	70	42	31	64	39	..	..	161	110	72	79
Hong Kong, China	74	80	11	3	..	..	..	..	99	51	85	92
Colombia	66	72	40	19	56	23	4	3	238	115	71	83
Congo, Dem. Rep.	49	45	130	129	210	205	..	..	571	493	31	35
Congo, Rep.	50	51	88	81	125	108	..	..	475	406	35	44
Costa Rica	73	78	19	9	26	11	..	..	131	78	82	90
Côte d'Ivoire	49	46	114	102	172	175	83	58	553	494	31	34
Croatia	70	74	21	7	23	8	..	..	152	114	71	87
Cuba	74	77	20	7	22	9	..	..	143	94	81	88
Czech Republic	70	75	16	4	19	5	..	..	167	75	75	88
Denmark	74	77	8	4	10	4	..	..	129	81	80	88
Dominican Republic	63	67	71	41	92	47	13	8	234	146	63	75
Ecuador	63	70	64	24	98	30	..	..	199	120	72	77
Egypt, Arab Rep.	56	68	119	35	175	41	15	16	210	147	69	75
El Salvador	57	70	84	33	120	39	..	..	250	148	68	81
Eritrea	44	51	112	72	200	111	..	..	493	441	37	42
Estonia	69	71	17	11	25	12	..	..	316	114	60	85
Ethiopia	42	42	143	116	213	172	83	86	594	535	26	30
Finland	73	78	8	4	9	5	..	..	144	61	80	91
France	74	79	10	4	14	6	..	..	137	59	82	92
Gabon	48	53	68	60	105	90	32	33	380	330	45	51
Gambia, The	40	53	144	91	231	126	..	..	373	320	40	47
Georgia	71	73	35	24	43	29	..	..	250	133	71	87
Germany	73	78	12	4	16	5	..	..	126	60	81	90
Ghana	53	56	92	57	157	100	53	51	379	326	47	51
Greece	74	78	18	5	23	5	..	..	114	47	82	90
Guatemala	57	65	97	43	139	58	15	18	286	182	58	72
Guinea	40	46	175	109	300	169	101	98	432	366	32	33
Guinea-Bissau	39	45	173	130	290	211	..	..	495	427	34	39
Haiti	51	52	132	79	195	123	52	54	524	373	38	47

2.20 Mortality

	Life expectancy at birth		Infant mortality rate		Under-five mortality rate		Child mortality rate		Adult mortality rate		Survival to age 65	
							Male per 1,000	Female per 1,000	Male per 1,000	Female per 1,000	% of cohort	
	years		per 1,000 live births		per 1,000		1997–2001 [a]	1997–2001 [a]	2000–2001 [a]	2000–2001 [a]	Male	Female
	1980	2001	1980	2001	1980	2001					2002	2002
Honduras	60	66	75	31	103	38	..	..	221	157	59	72
Hungary	70	72	23	8	26	9	..	..	295	123	66	85
India	54	63	113	67	173	93	25	37	250	191	61	65
Indonesia	55	66	79	33	125	45	19	20	230	178	64	72
Iran, Islamic Rep.	58	69	92	35	130	42	..	..	170	139	71	75
Iraq	62	62	63	107	83	133	..	..	258	208	63	67
Ireland	73	77	11	6	14	6	..	..	108	62	80	89
Israel	73	79	16	6	19	6	..	..	99	56	84	90
Italy	74	79	15	4	17	6	..	..	110	53	81	91
Jamaica	71	76	28	17	34	20	..	..	169	127	80	87
Japan	76	81	8	3	10	5	..	..	98	44	86	94
Jordan	64	72	52	27	67	33	4	7	199	144	74	81
Kazakhstan	67	63	50	81	60	99	11	6	366	201	47	71
Kenya	55	46	73	78	115	122	36	38	578	529	28	33
Korea, Dem. Rep.	67	61	32	42	43	55	..	..	238	192	54	62
Korea, Rep.	67	74	16	5	18	5	..	..	186	71	72	86
Kuwait	71	77	27	9	35	10	..	..	100	68	82	88
Kyrgyz Republic	65	66	90	52	115	61	10	11	335	299	56	75
Lao PDR	45	54	135	87	200	100	..	..	355	299	45	50
Latvia	69	70	20	17	26	21	..	..	328	122	60	84
Lebanon	65	71	38	28	44	32	..	..	192	136	71	79
Lesotho	53	43	115	91	168	132	..	..	667	630	26	29
Liberia	51	47	157	157	235	235	..	..	448	385	33	37
Libya	60	72	55	16	70	19	..	..	210	157	73	83
Lithuania	71	73	20	8	24	9	..	..	286	106	66	87
Macedonia, FYR	..	73	54	22	69	26	..	..	160	89	75	84
Madagascar	51	55	106	84	175	136	75	68	385	322	49	55
Malawi	44	38	157	114	265	183	101	102	701	653	20	23
Malaysia	67	73	31	8	42	8	..	..	202	113	72	83
Mali	42	41	171	141	295	231	..	..	518	446	25	29
Mauritania	47	51	118	120	175	183	38	38	357	302	43	49
Mauritius	66	72	33	17	40	19	..	..	228	109	70	85
Mexico	67	73	56	24	74	29	..	..	180	101	75	85
Moldova	66	67	41	27	53	32	..	..	325	165	58	75
Mongolia	58	65	97	61	140	76	..	..	280	199	65	71
Morocco	58	68	99	39	144	44	..	..	174	113	68	76
Mozambique	44	42	140	125	230	197	85	82	674	612	25	30
Myanmar	51	57	94	77	134	109	..	..	343	245	46	58
Namibia	53	44	84	55	114	67	..	..	695	661	22	25
Nepal	48	59	133	66	195	91	28	40	314	314	58	56
Netherlands	76	78	9	5	11	6	..	..	95	64	82	90
New Zealand	73	78	13	6	16	6	..	..	108	69	83	90
Nicaragua	59	69	85	36	120	43	12	11	225	161	67	77
Niger	42	46	191	156	320	265	184	202	473	308	30	37
Nigeria	46	46	117	110	196	183	66	69	443	393	33	36
Norway	76	79	8	4	11	4	..	..	106	60	83	91
Oman	60	74	41	12	95	13	..	..	187	135	78	84
Pakistan	55	63	105	84	157	109	..	..	221	198	64	70
Panama	70	75	34	19	46	25	..	..	145	93	78	86
Papua New Guinea	51	57	79	70	108	94	..	..	359	329	49	53
Paraguay	67	71	46	26	61	30	..	..	173	129	70	80
Peru	60	70	81	30	126	39	19	17	190	139	69	78
Philippines	61	70	65	29	81	38	21	19	249	142	70	77
Poland	70	74	26	8	29	9	..	..	226	88	71	87
Portugal	71	76	24	5	31	6	..	..	164	66	77	89
Puerto Rico	74	76	19	10	..	..	..	..	149	56	76	91

2.20 Mortality

	Life expectancy at birth		Infant mortality rate		Under-five mortality rate		Child mortality rate		Adult mortality rate		Survival to age 65	
							Male per 1,000	Female per 1,000	Male per 1,000	Female per 1,000	% of cohort	
	years		per 1,000 live births		per 1,000							
	1980	2001	1980	2001	1980	2001	1997–2001 [a]	1997–2001 [a]	2000–2001 [a]	2000–2001 [a]	Male 2002	Female 2002
Romania	69	70	29	19	36	21	..	..	260	117	64	81
Russian Federation	67	66	22	18	..	21	..	..	424	153	48	77
Rwanda	46	40	130	96	219	183	..	..	667	599	23	25
Saudi Arabia	61	73	65	23	85	28	..	..	181	116	76	83
Senegal	45	52	128	79	218	138	76	74	355	303	38	47
Sierra Leone	35	37	192	182	336	316	..	..	587	531	24	29
Singapore	71	78	12	3	13	4	..	..	114	61	83	89
Slovak Republic	70	73	21	8	23	9	..	..	210	83	70	86
Slovenia	70	76	15	4	18	5	..	..	170	76	76	89
Somalia	43	47	133	133	225	225	..	..	516	452	38	44
South Africa	57	47	65	56	90	71	..	..	594	543	27	33
Spain	76	78	12	4	16	6	..	..	122	49	82	92
Sri Lanka	68	73	35	17	48	19	..	..	244	124	76	84
Sudan	48	58	86	65	142	107	..	..	341	291	53	58
Swaziland	52	45	99	106	143	149	..	..	635	595	26	30
Sweden	76	80	7	3	8	3	..	..	89	56	86	92
Switzerland	76	80	9	5	11	6	..	..	99	58	85	92
Syrian Arab Republic	62	70	54	23	73	28	..	..	170	132	69	79
Tajikistan	66	67	..	91	..	116	..	..	293	204	62	75
Tanzania	50	44	106	104	175	165	61	58	569	520	27	31
Thailand	64	69	45	24	58	28	..	..	245	150	67	77
Togo	49	49	106	79	175	141	73	65	460	406	37	42
Trinidad and Tobago	68	72	35	17	40	20	..	..	209	133	74	82
Tunisia	62	72	72	21	100	27	..	..	169	99	75	83
Turkey	61	70	103	36	133	43	10	13	218	120	69	79
Turkmenistan	64	65	67	69	133	87	19	17	280	157	57	72
Uganda	48	43	108	79	180	124	78	70	617	567	25	28
Ukraine	69	68	22	17	27	20	..	..	365	135	56	80
United Arab Emirates	68	75	23	8	27	9	..	..	143	93	80	85
United Kingdom	74	77	12	6	14	7	..	..	109	66	81	89
United States	74	78	13	7	15	8	..	..	141	82	81	91
Uruguay	70	74	37	14	42	16	..	..	185	89	74	88
Uzbekistan	67	67	47	52	62	68	..	..	282	176	63	77
Venezuela, RB	68	74	34	19	42	22	..	..	178	99	75	85
Vietnam	60	69	50	30	70	38	10	13	203	139	68	78
West Bank and Gaza	..	72	..	21	..	25	..	..	157	100	74	83
Yemen, Rep.	49	57	135	79	205	107	33	36	278	226	50	53
Yugoslavia, Fed. Rep.	70	73	33	17	..	19	..	..	180	100	73	83
Zambia	50	37	92	112	149	202	..	..	725	687	16	21
Zimbabwe	55	39	69	76	108	123	35	31	650	612	18	20
World	**63 w**	**67 w**	**78 w**	**56 w**	**121 w**	**81 w**	**.. w**	**.. w**	**234 w**	**165 w**	**65 w**	**72 w**
Low income	53	59	109	80	171	121	..	..	312	256	55	60
Middle income	66	70	55	31	80	38	..	..	207	127	68	78
Lower middle income	65	69	55	33	83	41	..	..	205	130	68	77
Upper middle income	66	72	52	23	68	27	..	..	218	114	67	81
Low & middle income	60	64	86	61	132	88	..	..	255	186	62	69
East Asia & Pacific	64	69	53	34	79	44	..	..	184	129	69	75
Europe & Central Asia	68	69	43	30	..	36	..	..	317	137	60	80
Latin America & Carib.	65	71	61	28	84	34	..	..	221	124	66	80
Middle East & N. Africa	58	68	94	44	134	54	..	..	193	143	67	73
South Asia	54	63	115	71	176	99	25	37	252	202	61	64
Sub-Saharan Africa	48	46	118	105	192	171	..	..	520	461	39	44
High income	74	78	12	5	15	7	..	..	128	66	80	90
Europe EMU	74	78	13	4	16	6	..	..	125	58	80	90

a. Data are for the most recent year available.

About the data

Mortality rates for different age groups—infants, children, or adults—and overall indicators of mortality—life expectancy at birth or survival to a given age—are important indicators of health status in a country. Because data on the incidence and prevalence of diseases (morbidity data) are frequently unavailable, mortality rates are often used to identify vulnerable populations. And they are among the indicators most frequently used to compare levels of socioeconomic development across countries.

The main sources of mortality data are vital registration systems and direct or indirect estimates based on sample surveys or censuses. A "complete" vital registration system—one covering at least 90 percent of vital events in the population—is the best source of age-specific mortality data. But such systems are fairly uncommon in developing countries. Thus estimates must be obtained from sample surveys or derived by applying indirect estimation techniques to registration, census, or survey data. Survey data are subject to recall error, and surveys estimating infant deaths require large samples because households in which a birth or an infant death has occurred during a given year cannot ordinarily be preselected for sampling. Indirect estimates rely on estimated actuarial ("life") tables that may be inappropriate for the population concerned. Because life expectancy at birth is constructed using infant mortality data and model life tables, similar reliability issues arise for this indicator.

Life expectancy at birth and age-specific mortality rates for 2001 (or for the most recent year available) are generally estimates based on vital registration or the most recent census or survey available (see *Primary data documentation*). Extrapolations based on outdated surveys may not be reliable for monitoring changes in health status or for comparative analytical work.

To produce harmonized estimates of infant and under-five mortality rates that make use of all available information in a transparent way, a methodology that fits a regression line to the relationship between mortality rates and their reference dates using weighted least squares was developed and adopted by both UNICEF and the World Bank. (For further discussion of methodology for childhood mortality estimates, see Hill and others 1999.)

Infant and child mortality rates are higher for boys than for girls in countries in which parental gender preferences are insignificant. Child mortality captures the effect of gender discrimination better than does infant mortality, as malnutrition and medical interventions are more important in this age group. Where female child mortality is higher, as in some countries in South Asia, girls probably have unequal access to resources.

Adult mortality rates have increased in many countries in Sub-Saharan Africa and Europe and Central Asia. In Sub-Saharan Africa the increase stems from AIDS-related mortality and affects both men and women. In Europe and Central Asia the causes are more diverse and affect men more. They include a high prevalence of smoking, a high-fat diet, excessive alcohol use, and stressful conditions related to the economic transition.

The percentage of a cohort surviving to age 65 reflects both child and adult mortality rates. Like life expectancy, it is a synthetic measure based on current age-specific mortality rates and used in the construction of life tables. It shows that even in countries where mortality is high, a certain share of the current birth cohort will live well beyond the life expectancy at birth, while in low-mortality countries close to 90 percent will reach at least age 65.

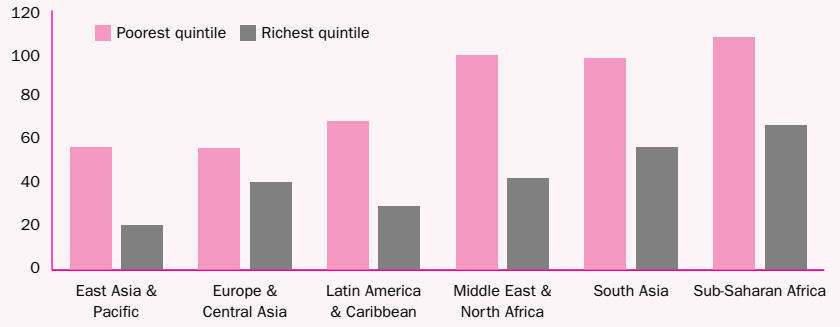
Definitions

• **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. • **Infant mortality rate** is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. • **Under-five mortality rate** is the probability that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. • **Child mortality rate** is the probability of dying between the ages of one and five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. • **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. • **Survival to age 65** refers to the percentage of a cohort of newborn infants that would survive to age 65, if subject to current age-specific mortality rates.

2.20a

Infant mortality rates reflect wide disparities between rich and poor

Infant mortality rate (deaths per 1,000 live births), 1990s



Wide disparities between the rich and poor in many countries indicate the persistence of deprivation among poor people. They have less access to basic health services, safe drinking water, adequate nutrition, and safe motherhood and child initiatives. All this is reflected in higher infant mortality among the poor.

Note: The figure covers the 45 developing countries for which survey data for various years between 1990 and 1998 have been converted into quintiles.
Source: Demographic and Health surveys; World Bank data files.

Data sources

The data are from the United Nations Statistics Division's *Population and Vital Statistics Report*, publications and other releases from national statistical offices, Demographic and Health Surveys from national sources and Macro International, and the United Nations Children's Fund's (UNICEF) *State of the World's Children 2003*.