Poverty is pronounced deprivation in well-being. But what precisely is deprivation? The voices of poor people bear eloquent testimony to its meaning (box 1.1). To be poor is to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled. But for poor people, living in poverty is more than this. Poor people are particularly vulnerable to adverse events outside their control. They are often treated badly by the institutions of state and society and excluded from voice and power in those institutions.

Poverty's many dimensions

This report accepts the now traditional view of poverty (reflected, for example, in World Development Report 1990) as encompassing not only material deprivation (measured by an appropriate concept of income or consumption) but also low achievements in education and health. Low levels of education and health are of concern in their own right, but they merit special attention when they accompany material deprivation. This report also broadens the notion of poverty to include vulnerability and exposure to risk—and voicelessness and powerlessness. All these forms of deprivation severely restrict what Amartya Sen calls the “capabilities that a person has, that is, the substantive freedoms he or she enjoys to lead the kind of life he or she values.”

This broader approach to deprivation, by giving a better characterization of the experience of poverty, increases our understanding of its causes. This deeper understanding brings to the fore more areas of action and policy on the poverty reduction agenda (chapter 2). Another important reason for considering a broader range of dimensions—and hence a broader range of policies—is that the different aspects of poverty interact and reinforce one another in important ways (chapter 2). This means that policies do more than simply add up. Improving health outcomes not only improves well-being but also increases income-earning potential. Increasing education not only improves well-being—it also leads to better health outcomes and to higher incomes. Providing protection for poor people (reducing vulnerability in dealing with risk) not only makes them feel less vulnerable—it also allows them to take advantage of higher-risk, higher-return opportunities. Increasing poor people's voice and participation not only addresses their sense of exclusion—it also leads to better targeting of health and education.
services to their needs. Understanding these complementarities is essential for designing and implementing programs and projects that help people escape poverty.

Measuring poverty in its multiple dimensions

Measuring poverty permits an overview of poverty that goes beyond individual experiences. It aids the formulation and testing of hypotheses on the causes of poverty. It presents an aggregate view of poverty over time. And it enables a government, or the international community, to set itself measurable targets for judging actions. In what follows, the chapter discusses the measurement of income poverty and the indicators of education and health—and then turns to vulnerability and voicelessness.

Income poverty

Using monetary income or consumption to identify and measure poverty has a long tradition. Though separated by a century, Seabohm Rowntree’s classic study of poverty in the English city of York in 1899 and the World Bank’s current estimates of global income poverty share a common approach and a common method (box 1.2). Based on household income and expenditure surveys, the approach has become the workhorse of quantitative poverty analysis and policy discourse. It has several strengths. Because it is based on nationally representative samples, it allows inferences about the conditions and evolution of poverty at the national level. Moreover, since household surveys collect information beyond monetary income or consumption, the approach makes it possible to obtain a broader picture of well-being and poverty, investigate the relationships among different dimensions of poverty, and test hypotheses on the likely impact of policy interventions.

Poverty measures based on income or consumption are not problem free. Survey design varies between countries and over time, often making comparisons difficult. For example, some countries ask respondents about their food spending over the past month, while others do so...
for the past week. One-month recall data tend to result in higher poverty estimates than one-week recall data. Converting the information on income or consumption collected in household surveys into measures of well-being requires many assumptions, such as in deciding how to treat measurement errors and how to allow for household size and composition in converting household data into measures for individuals. Poverty estimates are very sensitive to these assumptions (see, for example, the discussion in box 1.8, later in the chapter). 2 Moreover, income or consumption data collected at the household level have a basic shortcoming: they cannot re-
veal inequality within the household, so they can under-
state overall inequality and poverty. One study that dis-
aggregated household consumption by individual members
found that relying only on household information could
lead to an understatement of inequality and poverty by
more than 25 percent. In particular, the conventional
household survey approach does not allow direct mea-
surement of income or consumption poverty among
women. That is one reason why data on education and
health, which can be collected at the individual level, are
so valuable—they allow a gender-disaggregated perspec-
tive on key dimensions of poverty.

A key building block in developing income and con-
sumption measures of poverty is the poverty line—the
critical cutoff in income or consumption below which an
individual or household is determined to be poor. The in-
ternationally comparable lines are useful for producing
global aggregates of poverty (see box 1.2). In principle, they
test for the ability to purchase a basket of commodities
that is roughly similar across the world. But such a uni-
versal line is generally not suitable for the analysis of
poverty within a country. For that purpose, a country-
specific poverty line needs to be constructed, reflecting
the country's economic and social circumstances. Similarly, the
poverty line may need to be adjusted for different areas
(such as urban and rural) within the country if prices or
access to goods and services differs. The construction of
country profiles based on these country-specific poverty
lines is now common practice.

Once a poverty line has been specified, it remains to
be decided how to assess the extent of poverty in a par-
ticular setting. The most straightforward way to measure
poverty is to calculate the percentage of the population
with income or consumption levels below the poverty line.
This "headcount" measure is by far the most commonly
calculated measure of poverty. But it has decided disad-
vantages. It fails to reflect the fact that among poor people
there may be large differences in income levels, with
some people located just below the poverty line and oth-
ers experiencing far greater shortfalls. Policymakers seek-
ing to make the largest possible impact on the headcount
measure might be tempted to direct their poverty allevia-
tion resources to those closest to the poverty line (and
therefore least poor).

Other poverty measures, which take into account the
distance of poor people from the poverty line (the poverty
gap) and the degree of income inequality among poor peo-
ple (the squared poverty gap), can be readily calculated.

In comparing poverty estimates across countries or over
time, it is important to check the extent to which con-
clusions vary with the selection of poverty measure.

Health and education

Measuring deprivation in the dimensions of health and
education has a tradition that can be traced back to such
classical economists as Malthus, Ricardo, and Marx. De-
spite Rowntree's primarily income-based approach to
measuring poverty, he devoted an entire chapter of his
study to the relation of poverty to health and went on to
argue that the death rate is the best instrument for mea-
suring the variations in the physical well-being of peo-
ple. Classifying his sample into three groups ranging from
poorest to richest, he found that the mortality rate was
more than twice as high among the very poor as among
the best paid sections of the working classes. Calculating
infant mortality, he found that in the poorest areas one
child out of every four born dies before the age of 12
months. According to this argument, mortality could be
used as an indicator both of consumption poverty and
of ill-being in a broader sense.

The tradition of measuring deprivation in health and
education is well reflected in the international develop-
ment goals (see box 2 in the overview). But data on these
nonincome indicators have their own problems. For ex-
ample, infant and under-five mortality rates derived
mostly from census and survey information are available
for most countries only at periodic intervals. A complete
vital registration system would be the best source for
mortality data, but such a system exists in only a few de-
veloping countries. For the period between censuses or
surveys, estimates of vital rates are derived by interpola-
tion and extrapolation based on observed trends and
models, such as life tables that estimate survival from one
year to the next. Infant mortality rates are available for
most developing countries for only one year since 1990,
and the year differs because surveys are conducted at
different times. The data situation is even worse for life
expectancy, because it is often not measured directly.

Education data are also far from satisfactory. The
most commonly available indicator, the gross primary en-
rollment rate, suffers from serious conceptual short-
comings. The greatest is that school enrollment is only
a proxy for actual school attendance. Moreover, the gross
primary enrollment rate can rise if grade repetitions in-
crease. The much-preferred net primary enrollment rate
(showing the ratio of enrolled primary-school-age children
to all primary-school-age children) is available for only around 50 developing countries for 1990–97—not enough to make reliable aggregations by region. A number of ongoing survey initiatives, however, are improving the quantity and quality of data on health and education.

**Vulnerability**

In the dimensions of income and health, vulnerability is the risk that a household or individual will experience an episode of income or health poverty over time. But vulnerability also means the probability of being exposed to a number of other risks (violence, crime, natural disasters, being pulled out of school).

Measuring vulnerability is especially difficult: since the concept is dynamic, it cannot be measured merely by observing households once. Only with household panel data—that is, household surveys that follow the same households over several years—can the basic information be gathered to capture and quantify the volatility and vulnerability that poor households say is so important. Moreover, people’s movements in and out of poverty are informative about vulnerability only after the fact. The challenge is to find indicators of vulnerability that can identify at-risk households and populations beforehand.

Many indicators of vulnerability have been proposed over the years, but there is now a growing consensus that it is neither feasible nor desirable to capture vulnerability in a single indicator. If the government provides an effective workfare program, for example, households may do less than they otherwise would to diversify their income or build up their assets. Similarly, a household that is part of a reliable network of mutual support may see less need for large buffer stocks of food or cattle. So a vulnerability measure based solely on household assets—or on income and its sources—may not reflect the household’s true exposure to risk (box 1.3).

**Voicelessness and powerlessness**

Voicelessness and powerlessness can be measured using a combination of participatory methods (box 1.4), polls, and national surveys on qualitative variables such as the extent of civil and political liberties (box 1.5). However, measuring these dimensions of poverty in an accurate, robust, and consistent way so that comparisons can be made across countries and over time will require considerable additional efforts on both the methodological and data-gathering fronts.

**Multidimensionality and measuring progress**

Defining poverty as multidimensional raises the question of how to measure overall poverty and how to compare achievements in the different dimensions. One dimension might move in a different direction from another. Health could improve while income worsens. Or an individual might be “income poor” but not “health poor.” One country might show greater improvement in health than in vulnerability—while another shows the converse.

This brings to the fore the relative value of the different dimensions: how much income are people willing to give up for, say, a unit of improvement in health or in voice? In other words, what weights can be assigned to the different dimensions to allow comparisons across countries, households, or individuals and over time? There are no easy answers.

One approach to addressing comparability is to define a multidimensional welfare function or a composite index. An alternative is to define as poor anybody who is poor in any one of the dimensions—without attempting to estimate tradeoffs among the dimensions—or anybody who is poor in all dimensions, and to define the intensity of poverty accordingly (box 1.6). This report does not try to define a composite index or to measure tradeoffs among dimensions. Instead, it focuses on deprivation in different dimensions and, in particular, on the multiple deprivations experienced by the income-poor. This is a necessary first step in developing a comprehensive multidimensional framework.

How should indicators be selected to monitor progress? The international development goals are a good starting point. But in practice, these goals will have to be adapted (by lengthening or shortening the time span, for example) and modified (increasing the number of dimensions), depending on context. The specific goals will have to emerge from a participatory process in which governments and civil society agree on priorities. This process is already under way in many countries, and multilateral organizations are helping with resources and technical assistance (box 1.7).

**Investing in measurement and monitoring**

Measurements of poverty thus must cover many dimensions. So far, the income and consumption dimension has received most attention. Thanks to efforts over the past 20 years by such international agencies as the United Nations, the World Bank, and the regional development
Since vulnerability is a dynamic concept, its measurement centers on
the variability of income or consumption or on the variability of
other dimensions of well-being, such as health or housing. In
much of the literature on risk, this variability is measured by the
standard deviation or coefficient of variation of income or con-
sumption. From the perspective of poor people, this measure is
flawed in several ways:
- It gives equal weight to upward and downward fluctuations. Yet poor people are concerned primarily with downward
fluctuations.
- It has no time dimension. Given 10 fluctuations, the coefficient
of variation is the same whether good and bad years alternate
or five bad years are followed by five good ones. Yet bunched
downward fluctuations are more difficult for poor people to cope
with.
- A scenario with many small and one large fluctuation may yield
the same coefficient of variation as a scenario with equal mod-
erate fluctuations. Yet poor people are likely to be hurt more
by the first scenario.

The coefficient of variation is, moreover, a measure after the
fact. Needed are indicators that make it possible to assess a
household’s risk exposure beforehand—information both on the
household and on its links to informal networks and formal safety
nets:
- Physical assets. A household’s physical assets—those that
can be sold to compensate for temporary loss of income—are
a measure of its capacity to self-insure. What matters
is not just the total value of the assets, but also their liquidity.
Thus knowledge of the functioning of asset markets is
needed to determine the usefulness of the assets as
insurance.
- Human capital. Households with limited education tend to be
more subject to income fluctuations and less able to manage
risk—for example, through access to credit or multiple in-
come sources.
- Income diversification. The extent of diversification of income
sources has often been used to assess vulnerability. In rural
settings analysts might look at nonfarm income, which tends
to fluctuate less than farm income, thus providing a measure
of protection against weather-related risks. But income diver-
sification can be a misleading indicator of risk exposure. A sin-
gle low-risk activity could be preferable to multiple high-risk
activities that are strongly covariant. So more diversification
is not necessarily less risky. Diversification needs to be evaluated
in the context of the household’s overall risk strategy.
- Links to networks. Family-based networks, occupation-based
groups of mutual help, rotating savings and credit groups, and
other groups or associations to which a household belongs—
all part of the household’s social capital—can be a source of
transfers in cash or kind in the event of a calamity. An as-
essment of vulnerability should be based not only on the ob-
erved transfers but also on the household’s expectation
about the assistance it will receive in a crisis. It is this expec-
tation that determines the household’s decisions about en-
gaging in other risk management activities. Unfortunately,
household surveys rarely include direct information on networks
or on expectations of assistance.
- Participation in the formal safety net. A household’s vulnera-
bility is reduced if it is entitled to social assistance, unem-
ployment insurance, pensions, and other publicly provided
transfers—and if it can benefit from workfare programs, so-
cial funds, and similar mechanisms. So information on such pro-
grams and their rules of eligibility is also important in assessing
vulnerability and risk exposure.
- Access to credit markets. Similarly, a household’s vulnerabil-
ity is reduced if it has access to credit for consumption
smoothing.

Clearly, assessing vulnerability is more complex than mea-
suring poverty at a point in time. The length of time over which
vulnerability is to be assessed is of great importance and may
well differ across people and circumstances. Conventional an-
nual measures of income or consumption may often be too
long. Furthermore, measuring vulnerability requires data on
household assets (physical, human, and social capital) in com-
bination with data on formal safety nets, the functioning of mar-
kets, and the economic policies that determine a household’s
opportunity set and the range of activities it can pursue to man-
gerisk. Many of today’s household surveys do not provide the
needed information.

Cross-sectional surveys need to expand their standard ex-
penditure modules by adding questions on assets, links with net-
works, perceptions of sources of emergency assistance, and
participation in formal safety nets. One World Bank survey has taken
a step in this direction: the recent Local-Level Institutions Surveys
combine asset data with detailed questions on households’ links
with local associations. Some Living Standards Measurement
Surveys have also begun to incorporate modules on social capi-
tal. Ultimately, such enriched cross-sectional surveys need to be
combined with panel surveys, monitoring the same households
over time, to allow direct observation of how households deal with
shocks.

Vulnerability to nonincome risks can be measured by the preva-
ence of these risks (crime, natural disasters, and so on) in special
modules of household surveys. A program sponsored jointly by the
Inter-American Development Bank, World Bank, and Economic
Commission for Latin America and the Caribbean, the Program for
the Improvement of Surveys and the Measurement of Living Con-
ditions (known as Mecovi for its Spanish acronym) is incorporat-
ing such modules in specific countries in Latin America (the
questionnaire can be found in IDB 2000).

banks, 85 percent of the developing world’s population lives in countries with at least two household income or expenditure surveys. These surveys need to be improved greatly and made more accessible to the public. Efforts such as the Living Standards Measurement Surveys at the World Bank and Mecovi in Latin America (see box 1.3) need to be supported. But the efforts need to go much farther than this, focusing on improving information on education and health indicators. The Demographic and Health Surveys need to be continued and expanded. As important are efforts to expand and improve the very small database on indicators of vulnerability and on voicelessness and powerlessness.

The evolution of poverty

What are the magnitudes and patterns of poverty in the developing world? How has poverty evolved over the past decade? The answers to these questions are important in framing the challenge of attacking poverty.

The rest of this chapter describes global trends in the income (consumption), education, and health dimensions of poverty and shows the large diversity of outcomes—across dimensions, regions, countries, communities, households, and individuals. The differences in performance reflect differences in growth, in the distribution of assets, in the quality and responsiveness of state institutions, in the degree of inclusiveness in societies (lower social barriers for women, ethnic minorities, and the socially disadvantaged more generally), and in how countries and people manage risks.

Highlighting the diversity in outcomes is important for at least two reasons. It allows the identification of successes and failures in poverty reduction and thereby enhances the understanding of what causes poverty and how best to reduce it. And it brings to the fore the fact that aggregate trends can hide significant differences in poverty outcomes—for different ethnic groups, regions, and sectors within a country, for example. Awareness of these differences will help policymakers set priorities, concentrating actions where they are most needed.

Global and regional patterns: income poverty and social indicators

Between 1987 and 1998 the share of the population in developing and transition economies living on less than $1 a day fell from 28 percent to 24 percent (table 1.1). This decline is below the rate needed to meet the international development goal of reducing extreme income poverty by half by 2015 (see box 2 in the overview).

Because of population growth, the number of people in poverty hardly changed. But there are large regional variations in performance. East Asia and the Middle East...
and North Africa have reduced their numbers in poverty—East Asia dramatically so. But in all other regions the number of people living on less than $1 a day has risen. In South Asia, for example, the number of poor people rose over the decade, from 474 million to 522 million, even though the share of people in poverty fell from 45 percent to 40 percent. In Latin America and the Caribbean the number of poor people rose by about 20 percent.
Two regions fared particularly badly. In Europe and Central Asia the number in poverty soared from 1.1 million to 24 million. In Sub-Saharan Africa the number of poor people increased from an already high 217 million to 291 million over the same period, leaving almost half the residents of that continent poor.

These variations in regional performance are leading to a shift in the geographical distribution of poverty. In 1998 South Asia and Sub-Saharan Africa accounted for around 70 percent of the population living on less than $1 a day, up 10 percentage points from 1987 (figure 1.1).

While these numbers provide a sense of broad trends, they should be treated with caution in light of the shortcomings of the data mentioned above and the fact that figures for 1998 are tentative because of the limited number of surveys available (see box 1.2).

**Relative poverty.** The poverty estimates in table 1.1 are based on a poverty line that reflects what it means to be poor in the world’s poorest countries (see box 1.2). This definition judges poverty by standards common in South Asia and much of Sub-Saharan Africa, regardless of the region for which poverty is being measured. An alternative definition of poverty—expounded by the British sociologist Peter Townsend, among others—is lack of the resources required to participate in activities and to enjoy living standards that are customary or widely accepted in the society in which poverty is being measured.  

Table 1.2 presents estimates of poverty based on a combination of absolute and relative poverty concepts. The
poverty estimates are based on the same data and procedures as those in table 1.1, but a different poverty line. A country-specific poverty line was used, equal to one-third of a country’s average consumption level in 1993 at 1993 purchasing power parity (PPP), if that figure is higher than the $1 a day poverty line. Otherwise, the $1 a day line was used. The effect of using a relative poverty line—instead of the $1 a day poverty line—is that poverty is now much higher in regions with higher average consumption. It is also higher in regions with greater inequality. In Latin America, for example, where roughly 15 percent of the population was below the $1 a day poverty line, more than 50 percent of the population was under the relative poverty line. Similarly, in the Middle East and North Africa and in Europe and Central Asia poverty estimates are much higher by the relative poverty criterion. But the time trends remain unchanged.11

Social indicators. Social indicators in developing countries have improved on average over the past three decades. For example, infant mortality rates fell from 107 per 1,000 live births in 1970 to 59 in 1998. But the decline between 1990 and 1998 was only 10 percent, while

Table 1.2
Relative income poverty by region, selected years, 1987-98

<table>
<thead>
<tr>
<th>Region</th>
<th>Regional average poverty line (1993 PPP dollars a day)</th>
<th>Share of population living on less than one-third of average national consumption for 1993 (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia and Pacific</td>
<td>1.3</td>
<td>33.0</td>
</tr>
<tr>
<td>Excluding China</td>
<td>1.9</td>
<td>45.1</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>2.7</td>
<td>7.5</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>3.3</td>
<td>50.2</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>1.8</td>
<td>18.9</td>
</tr>
<tr>
<td>South Asia</td>
<td>1.1</td>
<td>45.2</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>1.3</td>
<td>51.1</td>
</tr>
<tr>
<td>Total</td>
<td>1.6</td>
<td>36.3</td>
</tr>
<tr>
<td>Excluding China</td>
<td>1.8</td>
<td>39.3</td>
</tr>
</tbody>
</table>

Note: See text for a definition of the poverty line.
^a. Preliminary.
Source: Chen and Ravallion 2000.
meeting the international development goal would have required 30 percent.

These aggregate figures mask wide regional disparities. Life expectancy in Sub-Saharan Africa in 1997 was still only 52 years—13 years less than the developing world average—and 25 years—a full generation—less than the OECD average. One of the main causes is the still unacceptably high infant mortality rate in Sub-Saharan Africa, 90 per 1,000 live births. The rate is also very high in South Asia (77). Those levels are a far cry from the OECD average of 6 per 1,000. The AIDS crisis has aggravated the situation, leading to rising infant mortality in several African countries. Between 1990 and 1997 the infant mortality rate rose from 62 to 74 in Kenya and from 52 to 69 in Zimbabwe. Maternal mortality also remains exceptionally high in the region: of the 12 countries in the world with rates exceeding 1,000 deaths per 100,000 live births, 10 are in Sub-Saharan Africa.

Regional differences are equally obvious in education indicators. South Asia improved its gross primary enrollment rate from 77 percent to more than 100 percent in 1982–96. But Sub-Saharan Africa’s rate remained unchanged at 74 percent (between 1982 and 1993 it actually declined). Other education indicators confirm the importance of regional differences. Almost the entire decline in the illiteracy rate in the developing world has been in East Asia. By contrast, the number of illiterate people increased by 17 million in South Asia and by 3 million in Sub-Saharan Africa. Sub-Saharan Africa also has the lowest net primary enrollment rate.

**Variations in poverty across countries**

Detailed studies using national income poverty lines and national-level social indicators show equally large variations in poverty performance across countries within each region.

In Europe and Central Asia the proportion of the population living on less than $2 a day (at 1996 PPP) ranges from less than 5 percent in Belarus, Bulgaria, Estonia, Hungary, Lithuania, Poland, and Ukraine to 19 percent in Russia, 49 percent in the Kyrgyz Republic, and 68 percent in Tajikistan. Among seven African countries with data spanning the 1990s, four (Burkina Faso, Nigeria, Zambia, and Zimbabwe) experienced an increase in poverty, matching the regional pattern for the decade, while three (Ghana, Mauritania, and Uganda) had a decline (table 1.3). Available national poverty estimates for Latin America show that between 1989 and 1996 the incidence of poverty fell in Brazil, Chile, the Dominican Republic, and Honduras—and rose in Mexico and República Bolivariana de Venezuela.

In East Asia poverty trends in the 1990s were influenced by the impact of the recent economic crisis. Indonesia, the Republic of Korea, and Thailand all suffered increases in poverty, though to differing degrees (see chapter 9). In Indonesia one recent study estimated that poverty increased from around 11 percent in February 1996 to 18–20 percent in February 1999.

### Table 1.3
**Income poverty in seven African countries, various years**

<table>
<thead>
<tr>
<th>Country and period</th>
<th>Area</th>
<th>Year 1 (percent)</th>
<th>Year 2 (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burkina Faso</td>
<td>Rural</td>
<td>51.1</td>
<td>50.7</td>
</tr>
<tr>
<td>1994, 1998</td>
<td>Urban</td>
<td>10.4</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>44.5</td>
<td>45.3</td>
</tr>
<tr>
<td>Ghana</td>
<td>Rural</td>
<td>45.8</td>
<td>36.2</td>
</tr>
<tr>
<td>1991/92</td>
<td>Urban</td>
<td>15.3</td>
<td>14.5</td>
</tr>
<tr>
<td>1998/99</td>
<td>Total</td>
<td>35.7</td>
<td>29.4</td>
</tr>
<tr>
<td>Mauritania</td>
<td>Rural</td>
<td>72.1</td>
<td>58.9</td>
</tr>
<tr>
<td>1987, 1996</td>
<td>Urban</td>
<td>43.5</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.5</td>
<td>41.3</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Rural</td>
<td>45.1</td>
<td>67.8</td>
</tr>
<tr>
<td>1992, 1996</td>
<td>Urban</td>
<td>29.6</td>
<td>57.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>42.8</td>
<td>65.6</td>
</tr>
<tr>
<td>Uganda</td>
<td>Rural</td>
<td>59.4</td>
<td>48.2</td>
</tr>
<tr>
<td>1992, 1997</td>
<td>Urban</td>
<td>29.4</td>
<td>16.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>55.6</td>
<td>44.0</td>
</tr>
<tr>
<td>Zambia</td>
<td>Rural</td>
<td>79.6</td>
<td>74.9</td>
</tr>
<tr>
<td>1991, 1996</td>
<td>Urban</td>
<td>31.0</td>
<td>34.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>57.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Rural</td>
<td>51.5</td>
<td>62.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>37.5</td>
<td>47.2</td>
</tr>
</tbody>
</table>

* a. The dates in this column correspond to year 1 and year 2.
* b. Nutrition-based poverty lines. Comparisons between countries are not valid.

it is still substantially higher than precrisis levels.\textsuperscript{18} Trends in China in 1996–98 are sensitive to the choice of welfare measure. Income poverty measures based on the $1 a day or national poverty line show continued decline. But a consumption-based poverty measure shows a stalling in poverty reduction between 1996 and 1998, suggesting that poor households, especially in rural areas, have been saving an increasingly large share of their incomes.\textsuperscript{19} The most recent data for Vietnam show that between 1993 and 1998 the incidence of poverty, based on a national poverty line, fell from 58 percent to 37 percent.\textsuperscript{20}

Poverty reduction also varied in South Asia in the 1990s. Bangladesh turned in a good performance despite its worst floods in living memory, with GDP growth of 4.5 percent in 1998–99, thanks to a bumper rice crop after the floods. The concerted relief efforts by the government, NGOs, and donors—and the ongoing food-for-work programs—limited the loss of life and the impact of the floods on poverty. Pakistan and Sri Lanka made little or no progress in poverty reduction in the 1990s.\textsuperscript{21} For India, there is an ongoing debate on the accuracy of the statistics. It provides a telling example of how difficult it is to track poverty over time, even within countries (box 1.8).

**Variations in poverty within countries**

Country aggregates of different dimensions of poverty provide a useful overview of performance. But they hide as much as they reveal. There are distinct patterns of poverty within countries, and different groups within a country can become better or worse off.

Poverty in different areas within a country can—and does—move in different directions. In Burkina Faso and Zambia rural poverty fell and urban poverty rose, but the urban rise dominated and overall poverty rose (see table 1.3).\textsuperscript{22} In Mexico, while overall poverty declined—though modestly—between 1989 and 1994, there were large variations across regions within the country.\textsuperscript{23} In China rapid income growth has been accompanied by ris-

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**Box 1.8**

**Tracking poverty in India during the 1990s**

Recent data from India’s National Sample Surveys (NSS) suggest that the pace of poverty reduction slowed in the 1990s, particularly in rural areas. This occurred against a backdrop of strong economic growth (GDP growth of 6.1 percent a year during 1990–98), according to the national accounts (NAS). There are signs of rising inequality nationally in the NSS data, due in large part to rising average consumption in urban areas relative to rural areas, though with some signs of higher inequality in urban areas. However, an important factor in the slow rate of poverty reduction was slow growth in average consumption, as measured by the NSS.

Closer examination shows that NSS consumption is an increasingly smaller fraction of private consumption as estimated in the NAS. NSS consumption has declined relative to NAS consumption during the past three decades; the two were much closer in the 1950s and 1960s (Mukherjee and Chatterjee 1974). If the average consumption figures from the NSS are replaced by the average consumption figures from the NAS, and everybody’s consumption is adjusted proportionately, poverty would show a downward trend during the 1990s (as found by Bhalla 2000).

But comparing NSS and NAS data is a complex matter, involving differences in coverage, recall biases in the NSS, price imputations (for example, for home-produced consumption and in-kind wages in the NSS and for nonmarketed output in the NAS), and sampling and nonsampling errors in both. Thus, without examining why the differences between the two have widened, adjusting the NSS mean upward to equal the NAS mean would be an arguable procedure. For one thing, it is not clear why the average consumption data from the NSS would be wrong but not the inequality data, the assumption made when everybody’s consumption is adjusted proportionately. For example, it cannot be ruled out a priori that nonresponse and nonsampling errors in measuring consumption may differ among income groups. Also, Visaria (2000) finds the differences between the NSS and NAS to be considerably less if one week rather than one month is used in the NSS as the reference period for consumption. Srinivasan (2000) presents a detailed discussion of these issues (Srinivasan and Bardhan 1974 present earlier discussions of these issues.)

There is also evidence that part of the observed trend in rural poverty in the earlier part of the 1990s may result from using inadequate price deflators for rural areas. As a result, \textit{“it is likely that the decline in rural poverty rates has been understated in the official poverty counts. Indeed, we are led to suggest as a working hypothesis that, between 1987–88 and 1993–94, there was no great difference in the rate of decline of urban and rural poverty, at least according to the headcount measure”} (Deaton and Tarozzi 1999, pp. 34–35).

It is plausible that the NSS-based poverty numbers are underestimating the rate of poverty reduction in India. The issues involved are important not only because of the Indian poverty figures’ weight in global poverty trends, but also because similar problems are likely to arise elsewhere. India has a stronger statistical tradition than most poor countries. And it is not simply a matter of getting accurate estimates of poverty. Such surveys are a key resource for identifying the characteristics of poor people and thus are a vital input for focusing policy. Research in this area is a high priority.
ing inequality between urban and rural areas and between provinces.24

Poverty tends to be associated with the distance from cities and the coast, as in China, Vietnam, and Latin America.25 In China many of the poor reside in mountainous counties and townships. In Peru two-thirds of rural households in the poorest quintile are in the mountain region, while fewer than a tenth are in the coastal region.26 In Thailand the incidence of poverty in the rural northeast was almost twice the national average in 1992, and although only a third of the population lives there, it accounted for 56 percent of all poor.

**Differences in health and education between low-and high-income households**

Social indicators in many countries remain much worse for the income-poor than for the income-nonpoor—often by huge margins. In Mali the difference in child mortality rates between the richest and poorest households is equal to the average gain in child mortality rates recorded over the past 30 years.27 In South Africa the under-five mortality rate for the poorest 20 percent is twice as high as the rate for the richest 20 percent, and in Northeast and Southeast Brazil, three times as high.

The picture is the same for malnutrition. A study of 19 countries found that stunting (low height for age—an indicator of long-term malnutrition), wasting (low weight for height—an indicator of short-term malnutrition), and being underweight (low weight for age) are higher among poor people in almost all countries.28 But the differences between poor and nonpoor tend to be smaller in countries with high average rates of malnutrition.29

The incidence of many illnesses, especially communicable diseases, is higher for poor people, while their access to health care is typically less. In India the prevalence of tuberculosis is more than four times as high in the poorest fifth of the population as in the richest, and the prevalence of malaria more than three times as high.30 In 10 developing countries between 1992 and 1997, only 41 percent of poor people suffering from acute respiratory infections were treated in a health facility, compared with 59 percent of the nonpoor. In the same period only 22 percent of births among the poorest 20 percent of people were attended by medically trained staff, compared with 76 percent among the richest 20 percent.31 Although HIV/AIDS initially affected the poor and the rich almost equally, recent evidence indicates that new infections occur disproportionately among poor people.

Similar disparities show up in access to schooling and in educational achievement. In some poor countries most children from the poorest households have no schooling at all. A study of Demographic and Health Survey data found 12 countries in which more than half the 15- to 19-year-olds in the poorest 40 percent of households had zero years of schooling: Bangladesh, India, Morocco, Pakistan, and eight countries in Sub-Saharan Africa. In contrast, the median number of years completed by 15- to 19-year-olds in the richest 20 percent of households was 10 in India and 8 in Morocco. In other countries the gap in educational achievement was much smaller: one year in Kenya, two in Ghana and Morocco, and three in Indonesia and Uganda.32 In Mexico average schooling was less than 3 years for the poorest 20 percent in rural areas and 12 years for the richest 20 percent in urban areas.

Primary enrollment rates show similar gaps. The enrollment rate for 6- to 14-year-olds is 52 percentage points lower for the poorest households than for the richest households in Senegal, 36 percentage points lower in Zambia, and 19 percentage points lower in Ghana. The gaps are also large in North Africa (63 percentage points in Morocco) and South Asia (49 percentage points in Pakistan).33

Within-country differences in social indicators also exist between urban and rural areas, across regions, and across socioeconomic classes. In China there has been a widening rural-urban gap in health status and health care use. While the rural population’s use of hospital services declined 10 percent between 1985 and 1993, the urban population’s increased by 13 percent.34 In Russia the increase in mortality during the transition has been concentrated among younger males, and stunting of children, relatively high for an industrialized country, has been most prevalent in rural areas and among poor people.35

**Gender disparities**

One of the key variations within a country is the different achievement of women and men. The allocation of resources within households varies depending on the age and gender of the household member. But estimating the number of poor men and women independently is difficult, if not impossible, because consumption data are collected at the household level.36 Even so, available health and education data indicate that women are often disadvantaged.
A recent study of 41 countries shows that female disadvantage, defined as the gap between male and female primary enrollment rates, varies enormously. In Benin, Nepal, and Pakistan the male-female gap in the primary enrollment rate is more than 20 percentage points, and in Morocco, 18. But in Brazil, Indonesia, Kenya, Madagascar, the Philippines, and Zambia the enrollment rates of boys and girls are almost the same. The gender gap in education is often lower for the richest households and highest for the poorest households. In India the gender gap in enrollment rates is 4.7 percentage points for children from the wealthiest 20 percent of households, compared with 11 percentage points for children from the poorest 20 percent of households.

Disparities by caste, ethnicity, and indigenous status
There may also be groups that face particular social barriers. Disadvantaged in many developing and developed countries and transition economies, ethnic minorities and racial groups often face higher poverty. The indigenous populations have a much higher incidence of income poverty in a sample of Latin American countries for which data are available. Schooling attainments for these disadvantaged groups are also lower than for other groups. The indigenous groups in Guatemala have 1.8 years of schooling, and the nonindigenous 4.9 years. In Peru indigenous people were 40 percent more likely to be poor than nonindigenous groups in 1994 and 50 percent more likely in 1997. In rural Guatemala children of indigenous mothers are more likely than those of nonindigenous mothers to be stunted. In the inner cities of the United States white married couples have an incidence of poverty of 5.3 percent, while black or Hispanic single-mother households have an incidence of more than 45 percent.

Evidence for India shows that scheduled castes and scheduled tribes face a higher risk of poverty. These are among the structural poor who not only lack economic resources but whose poverty is strongly linked to social identity, as determined mainly by caste. They also have worse social indicators. Among rural scheduled caste women in India the literacy rate was 19 percent in 1991, half that for the country, and among scheduled caste men, 46 percent, compared with 64 percent for the country. When several disadvantages are combined—being a woman from a socially excluded group in a backward region—the situation is worse. In Uttar Pradesh, one of India's poorest states, only 8 percent of rural scheduled caste women are literate, a third the rate for rural women in Uttar Pradesh. But new research suggests that literacy rates of rural scheduled caste women are on the rise across India. Although only 31 percent of rural scheduled caste or scheduled tribe girls in the primary school age group were enrolled in school in 1986–87, 53 percent were by 1995–96.

Volatility at the household level
Studies of income poverty changes for the same households over time show significant movement in and out of poverty. While some groups are chronically below the poverty line, other groups face a high risk of falling into poverty some of the time. Studies for China, Ethiopia, Russia, and Zimbabwe find that the “always poor” group is smaller than the “sometimes poor” group. However, these results should be treated with caution because observed changes reflect measurement errors as well as real changes.

One immediate question is whether some types of households are more likely to suffer from chronic (rather than transitory) poverty. The answer differs from country to country, but asset holdings often play a key role. In China a lack of physical capital is a determinant of both chronic and transitory poverty, but household size and education of the head of household determine the likelihood of chronic but not of transitory poverty. In the transition economies of Europe and Central Asia economic mobility has increased, but chronic poverty is emerging as a key issue. Whether a household joins the ranks of the new poor or the new rich depends very much on its characteristics, especially its links with the labor market. The transition has increased the disadvantage of “old poor” (pensioners, families with large numbers of children, and single-parent families) and given rise to “new poor” (long-term unemployed, agricultural workers, young people in search of their first job, and refugees displaced by civil conflict). In Poland the chronically poor constitute a distinct segment of the population. Larger households, those working on farms, and households dependent on social welfare are most at risk of staying poor. Russia has seen the emergence of new poor during the transition. In the early 1990s new groups of poor formed as a result of the erosion of real wages and pensions and the impact of unemployment, and poverty is becoming longer in term and more resistant to economic recovery.
This chapter has shown that progress in income poverty reduction and human development varies widely across regions, countries, and areas within countries. It has also shown the existence of significant gaps in performance by gender, ethnicity, race, and social status.

Much of the difference in performance across regions and countries can be attributed to differences in economic growth (chapter 3). The growth collapses in many countries in Africa and the former Soviet Union had a devastating impact on poverty. The economywide crises and natural disasters in East Asia, Latin America, Sub-Saharan Africa, and Europe and Central Asia also led to important setbacks in poverty reduction (chapter 9). By contrast, the spectacular growth performance in China resulted in a sharp drop in income poverty. In the rest of East Asia, despite the financial crisis, steady growth rates also translated into significantly lower poverty over the 1990s.

But the initial inequalities and the pattern of growth also account for the differences in performance in poverty reduction in its multiple dimensions as some geographic areas and social groups are left behind. In some cases initial differences include unequal access to assets, markets, and infrastructure and an uneven distribution of skills (chapters 3, 4, and 5). The differences in health and education among and within countries, for example, also reflect the extent to which state institutions are responsive and accountable to poor people (chapter 6). In other cases social barriers linked with gender, ethnicity, race, and social status help perpetuate income poverty and low levels of health and education among the socially disadvantaged (chapter 7). Policy biases against labor-intensive sectors such as agriculture and light manufacturing at the national (chapter 4) or international (chapter 10) level and skill-biased technological change (chapter 4) can result in lower reductions in income poverty at similar growth rates.

This chapter has also noted that there can be large volatility in incomes of households. This brings to the fore the importance of understanding the sources of risk that households face and the mechanisms best suited to managing those risks (chapters 8 and 9).

Finally, this chapter has argued that the experience of poverty goes beyond material deprivation and low levels of health and education. The inability to influence the decisions that affect one’s life, ill treatment by state institutions, and the impediments created by social barriers and norms are also dimensions of ill-being. Another is vulnerability to adverse shocks, natural disasters, disease, and personal violence. This broader conception of poverty leads to a deeper understanding of its causes and a broader range of actions for attacking it. These are outlined in chapter 2 and developed in more detail in subsequent chapters.