that arise from variations in the types and levels of development—are what geographers try to understand as their specialized task in social science.

MEASURING GROWTH AND DEVELOPMENT

Development is important because it produces an economy, and more broadly a society and culture, that determines how people live—in terms of income, services, life chances, education, and so on. As we have said, "development" is conventionally measured as economic growth, with "level of development" seen in terms of "size of the economy." The size of a nation's economy, under what is called the "income approach" to accounting, is derived from totaling the wages, rents, interest, profits, nonincome charges, and net foreign factor income earned by that country's people—thus, the gross national income (GNI) is basically what everyone earns. Total expenditures on goods and services must, by definition, in this kind of national accounting practice be equal to the value of the goods and services produced, and this must be equal to the total income paid to the factors (workers, shareholders, etc.) that produced these goods and services. Thus, gross national product (GNP) is the total value of final goods and services produced in a year by a country's residents (including profits from capital held abroad). Nominal GNP measures the value of output during a given year using the prices prevailing during that year. Over time, the general level of prices tends to rise due to inflation, leading to an increase in nominal GNP even if the volume of goods and services produced is unchanged. So, real GNP measures the value of output adjusted for inflation. When economic growth over a number of years is measured, change in "real GNP" is the figure usually used to express that growth. Dividing the GNP or GNI by a country's population yields the GNP or GNI per capita. In general, the higher the per capita production or income, the more "developed" a country's people are conventionally said to be, and the higher the annual growth rate per capita, the more rapidly a country is said to be developing.

In 2005 the World Bank (2005: 288–289), the global institution that publishes much of the basic data on such matters, divided countries into three categories depending on their income level: low income, middle income, or high income. As shown in Table 1.1, in 2005 the world had roughly 6.5 billion people, a total income of $45 trillion (a trillion is a thousand billion), and an average per capita income of some $7,000 a year. Just over 1 billion people live in high-income countries, where the total GNI is $35.5 trillion and GNI per capita averages $35,131 a year—in other words, 15.7% of the world's people (those living in rich

TABLE 1.1. Development Indicators, 2005

	Population	Gross national income		Life expectancy (years)		Adult literacy rate
	(millions)	$ billions	$ per capita	Male	Female	(%)
World	6,438	44,983.3	6,987	65	69	80
Low income	2,353	1,363.9	580	58	60	62
Middle income	3,073	8,113.1	2,640	68	73	90
High income	1,011	35,528.8	35,131	76	82	99

Source: World Bank (2007: 289).

countries) get almost 80% of global income. At the other extreme, 2.4 billion people living in low-income countries have only $1.36 trillion in total income and an average GNI per capita of only $580 a year—the 37% of the world's people that live in the poorest countries get just 3% of global income. Moreover, global inequality is increasing. In 1960 the 20% of the world's people living in the richest countries had 30 times the income of the 20% of the world's people living in the poorest countries; in 1973 the figure was 44 to 1; and in 1997 the ratio was 74 to 1 (United Nations Development Program 1999: 36–38). As statisticians find out more about it, the world is turning out to be even more unequal than was previously thought, both in terms of the differences among countries and the differences among groups of the world's people. National poverty rates in the low-income countries lie in the range of 45–70% of the population, while the percentage of people living on less that $2 a day varies from 50% to 90%, depending on the country (Milanovic 2007).

Even so, geographic differences are only the beginning of the inequality story. Class, ethnicity, gender, and regional location distribute incomes extremely unequally *within* each country. Of the almost 80% of global income that ends up in the rich countries, 50% typically goes to the highest-income 20% of their people, while the lowest-income 20% in the rich countries get only 5–9%, depending on the country. In other words, *200 million of the richest people living in the rich countries (3% of the global population) get 40% of total global income.* At the other extreme, in the low-income countries, the richest 20% there typically get 50–85% of national income, depending on the country, while the poorest 20% typically get only 3–5% of the 3% of global income that these poor countries receive (World Bank 2004). In other words, *571 million of the poorest people living in the poorest countries (9% of the world's people) get only 0.12% of global income.* Space and class conspire to

produce inequality so severe that one wonders how global society can endure.

One of the great unmentioned facts about global income distribution is this: poverty results from extreme inequalities. Poor people are poor because rich people take so much of the income the economy produces. So, what has been happening to inequality recently? The key factor causing secular changes in class incomes is an even greater divergence in the ownership of wealth, especially financial wealth—that is, bank accounts, ownership of stocks and bonds, and life insurance and mutual fund savings. Particularly important is the ownership of stocks and mutual fund shares. Despite a reported trend in financial markets toward "democratization" (retirement savings invested in mutual funds, etc.), only 27% of U.S. families own stocks. While 78% of the richest families own stocks and mutual funds, only 3% of the poorest families do so. The equalizing trends in wealth ownership of the period between the 1930s and the 1970s reversed sharply during the 1980s so that by 1989 the richest 1% of households owned almost half of the total financial wealth of the United States (Wolf 1995), a concentration of ownership that has only become more extreme since then (Harvey 2005b: 16–17). Within this rich 1%, the super-rich—that one-thousandth of households (145,000 people) making an average of $3 million a year—doubled its share of total national income between 1980 and 2002, to 7.4% (see Figure 1.1), while the share earned by the bottom 90% of the population fell (Johnston 2005: 1).

All this however refers to income and economic growth, conventionally understood—although discussions of inequality are usually left out in conventional accounts. There are many other datasets frequently used, even by such conventional agencies as the World Bank, to measure not only growth but the levels and changes in average age of death, infant mortality, population per physician, secondary education, and use of electricity—for instance, see the right-hand side of Table 1.1. An alternative summary measure that takes these into account is the Human Development Index (HDI) calculated by the United Nations Development Program (UNDP). This measure derives from a different conception of development than that usually presented—what the UNDP calls "enlarging people's choices," especially in terms of access to knowledge, nutrition and health services, security, leisure, and political and cultural freedoms. The HDI measures development in terms of longevity (life expectancy at birth), knowledge (adult literacy and mean years of schooling), and income sufficiency (the proportion of people with sufficient resources for a decent life). In 2007–2008 the countries at the top of this index were, in order, Iceland, Norway, Australia, Canada, Ireland, Sweden, Switzerland, Japan, Netherlands, France, Finland, and the United States—all

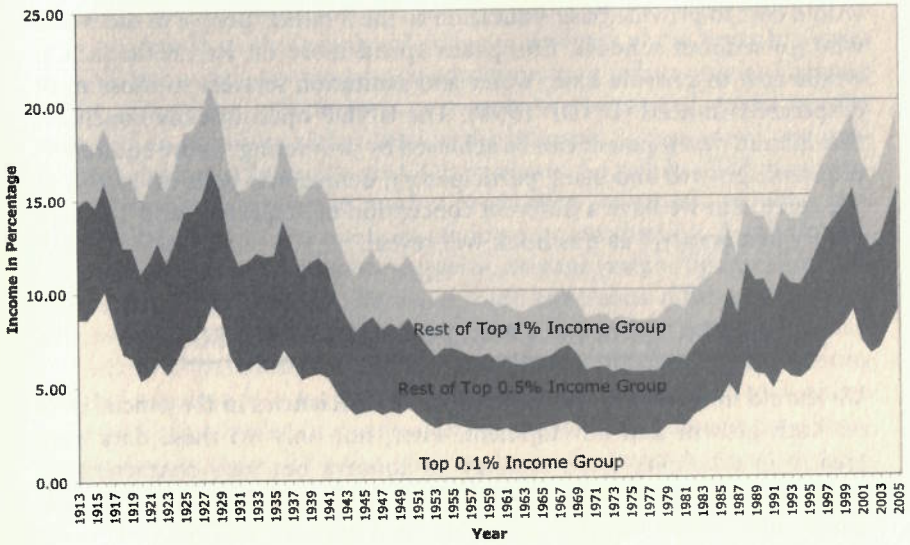

FIGURE 1.1. Percentage of income earned by three top brackets, United States, 1913–2005. Source: Piketty, Hess, and Saez (2006).

scoring over 0.9 out of a maximum of 1.0 (the United Kingdom ranked 16th and New Zealand 19th; UNDP 2008). An HDI score below 0.5 represents low development, and 29 of the 31 countries in that category are located in Africa, the others being Haiti and Yeman. The lowest-ranked HDI countries are Sierra Leone, Burkina Faso, Guinea-Bissau, and Niger (UNDP 2008). The idea behind this kind of work is to capture more, and different, aspects of the human condition in a redefinition of development (ul Haq 1995; UNDP 2006). This notion of human development defends the project of intervening to improve conditions in the developing countries. In this light, for the UNDP (1991: 14), development

> has succeeded beyond any reasonable expectation. ... Developing countries have achieved in 30 years what it took industrial countries nearly a century to accomplish. ... The overall policy conclusion is clear. The development process *does* work. International development cooperation *has* made a difference.

However, the UNDP also documents that during roughly this same time span when "development ... succeeded beyond expectation" the gap between rich and poor countries actually *widened* and that the average household in Africa now consumes 20% less than it did about a quarter-century ago (UNDP 2001). Americans spend more on cosmetics than it

would cost to provide basic education to the 2 billion people in the world who go without schools. Europeans spend more on ice cream than it would cost to provide basic water and sanitation services to those most desperately in need (UNDP 1998). The UNDP optimistically concludes that human development can be achieved by promoting "more equitable" economic growth and using participatory, democratic political methods. We agree. But we have a different conception of "eqitable" and "participatory democracy," as this book will reveal.

CRITICISMS OF DEVELOPMENT MEASURES

We should immediately note two kinds of deficiencies in the official data on both growth and development. First, not only do these data vary greatly in reliability from country to country but also characteristics such as production, income, or education are, in reality, culturally specific rather than universal. Yet, national and international agencies report only that which can be measured using "conventional" accounting procedures. Whose conventions are used? Those of the First World market economies. Thus, GDP measures that part of production sold for a price in a formal market—but not products consumed within the family nor services exchanged informally. Thus, a major portion of the economic activity in many Third World countries is either ignored completely or simply estimated. Much of this unreported product results from women's work (Rogers 1980: 61); for example, 60–80% of the food is produced in the "informal sector," and 70% of informal entrepreneurs are women (Snyder 1995: xv). All of this informal activity literally does not count when measuring the economy. Even estimates made in France, generally considered to be a highly organized market economy, show informal exchanges of income, such as gifts, amounting to some 75% of the official GNP (Insel 1993). The proportion is much higher in Third World countries, where far more economic activity lies outside the formal market sphere. In other words, the "official" economy, whose measurements serve as the main indicators of growth, may be only a minor part of the *real* economy, whose true measurements are unknown. This has to be remembered when arguments about growth, development, and poverty are made on the basis of existing statistics: these people literally do not know what they are talking about. Similarly, education is officially measured as enrollment in an official school and therefore excludes informal educational institutions, while energy consumption excludes such traditional fuels as firewood and dried animal excrement; and so on.

In view of these shortcomings, many critics conclude that GNP and GDP measure economic modernization in the prejudiced sense of how

closely a country replicates the characteristics of the West rather than development in a whole range of indigenous senses of the term. Increases in GNP per capita, energy use, or education may reflect only an increase in the proportion of activity occurring in the organized, taxed market sector of an economy rather than in the informal sector—total real production can actually decline as GDP increases. So, while GDP may measure quantitative change in market production (economic growth), it is a gross indicator of the qualities of domestic production. Furthermore, as the discussion on inequality suggests, average (mean) figures like GDP per capita, or people per physician, hide enormous differences among groups within countries, as between classes or genders, or between rural and urban populations. Means are meaning*less* in terms of representing the real situation in a society. In summary, the available data give only a poor and often misleading indication of the level and movement of economic development, if by this term we basically mean the level of material standards of living for the majority of the population.

Second, we move to a more profound criticism of the use of GNP and GDP data to measure development. Even when qualified by the unreliability and insufficiency of the data, conclusions drawn from income figures are increasingly suspect to those theorists intensely skeptical about modernity, development, progress, and many similar notions previously taken for granted in the post-(European) Enlightenment world. The argument is increasingly made that GNP per capita and even more benign statistical devices such as the HDI have *nothing* whatsoever to do with variations in the quality of life. This arugment applies not only to peasants on the margins of a supposedly good earth but also to the richest people ensconced in the suburbs of Western cities, whose lives are in truth *impoverished* by an abundance of gadgets and whose aspirations are limited merely to getting more. Take "happiness," for instance. Despite a massive increase in income and wealth in the West over the past 50 years, levels of happiness have not increased. "Standard of living has increased dramatically and happiness has increased not at all, and in some cases has diminished slightly" (Kahneman and Krueger 2006). It is true that people in rich countries say they are happier than people in poor countries. But once people have a home, food, and clothes, any extra income does not seem to make them much happier. It appears that the level of happiness sufficiency is reached at average national incomes of about $20,000 a year (Rudin 2006). So, why not redistribute income from the rich, who don't need it in terms of life happiness, to the poor, who could certainly use it to be a lot better off?

Even so, statistical tables of GNP per capita and even tables of happiness can be seen as instruments of power rather than neutral methods of measurement. This is because their structures, as comparative series,

imply a hierarchy—a kind of league table—with a ladder reaching from bottom to top that must be climbed by people and countries aspiring to "development" or even some kind of "universal happiness." High per capita GNP, reached through economic growth, becomes the objective of a society's best efforts, and the economic and political methods used in the past by the rich countries become the development policy for the aspiring poor countries, with "success" measured by change in tabular ranking. Some theorists strangely persist in saying that people are not statistics but living beings. And there is the underlying contradiction that, as GNP increases, resource use and environmental damage increase even faster, with such proven consequences as global warming and climate change, destruction of the protective ozone layer, and El Niño's effects exacerbated by warmer ocean currents. In discourses that transcend developmentalism (discourses in the "postdevelopmentalist" tradition), a high GNP per capita may most accurately signify cultural blindsidedness, environmental degradation, and the capturing of the world's imagination by dreams of American-style consumptive happiness.

THE FACE OF POVERTY

The reader might notice that, while we (the authors of this book) voice various qualifications, we too, sometimes, use statistical data to talk about growth, development, and poverty. We do this because we are part of a scientific tradition that values statistical data as the way of proving statements—showing them to be "true" in the sense of accurately representing reality. But we would like to confess that when we think about unequal development and the poverty it produces, we ourselves do not think primarily in terms of figures. We, the authors of this book, are not numbers people. In fact, we think that too many numbers numb the imagination and make it dead to the real, permitting our minds to contemplate "objectively," as though from a distance, the scarcely imaginable horrors of human existence. Distanced contemplation through the dry data of statistics encourages the institutional manipulation of poverty. So, we use figures but mistrust them, not just in terms of "reliability" but more so in terms of the impoverishment of the statistical or mathematical mind. When *we* think about poverty, graphic images come to mind. Let us tell you about a few of these.

A few years ago, the two of us spent a few months in Johannesburg, South Africa. In that part of the country, illegal migrants cross the border mainly by walking through Krueger National Park, where the lions lie in wait for their nightly feast of human flesh. The migrants then walk a couple of hundred miles further to the city. There are hundreds of thou-

sands of immigrants in the city, but we encountered them dramatically when we got temporarily lost walking near the University of the Witwatersrand. We turned a corner to come across a street filled with a couple of thousand of recent arrivals from all over sub-Saharan Africa. These were dignified people. No one asked for money. No one spoke to us, in fact. They just stared at us in a way that haunts us still—because we had a house to go to, food to eat, a safe bed to sleep in that night, and they did not—in the city of their dreams that they had just risked their lives to reach.

Another quick flash of memory, this time summoning up India. One of us visited New Delhi and Mumbai in late 2007. As the reader may be aware of, both cities have huge slums that stretch for miles—Dharavi (in Mumbai) is in fact the largest slum in Asia. But also the sidewalks along the main streets and the edges to the railroad lines are home to further millions of poor people, who attempt to shelter themselves under blue plastic sheets and eat, wash, and defecate in public—the implications for public health are obvious. Think of a street filled to overflowing with trucks, cars, cabs, and three-wheeled motorcycle rickshaws, all pushing to gain a few yards, with drivers who do not spare the horn, and yet little naked kids tottering a few inches away, their mothers distractedly trying merely to ensure survival for their families that day. No person of conscience can see Mumbai, with its excessive financial wealth, big gated houses, and gracious colonial waterfront, on the one side, and six million people living in "informal settlements" (as the euphemism goes), on the other, and emerge the same person. But from this cataclysmic experience, two images stand out: in Mumbai, two boys flying a homemade kite in the only open space available to them, above the traffic filling the street that is their home; and in New Delhi, a 5-year-old girl singing to herself to relieve the rejection she received a thousand times a day while begging at a traffic light amid the hordes of people going to and fro. Kids desperately trying to experience bits of childhood lost to a life they know will be forever spent in abject poverty. Raw snippets forever seared into memory and learned in "real life," rather than statistical figures read from books, flood our minds as we compose these words.

CONTENTIONS OVER DEVELOPMENT

This volume explores some of the key debates surrounding the leading social and economic theories of development. The basic pattern of affluence and poverty that characterizes the contemporary geography of the world was already obvious by the 19th century, and it immediately stimulated intense social scientific interest. However, scientific interest