Poverty, or insufficient resources to meet the basic needs for food, shelter, clothing, education, and health care, usually measured as a shortfall in income, is a market failure. By market failure, we mean a condition that arises when the unrestrained operation of a market yields socially undesirable results. Market failures include public and merit goods, regulation of business and consumer behavior for the social good, macroeconomic instability, and poverty and divisive inequities in the distribution of income. There is considerable debate on whether these all qualify as market failures warranting government involvement and, if so, the most appropriate form of government intervention.

Briefly, a pure public good is a good or service for which the consumption by any one individual does not reduce the consumption of others, i.e., non-rival consumption, and for which it is difficult to exclude anyone from consuming the commodity in question, i.e., non-excludable consumption. Examples are national defense, the rule of law, police protection, lighthouses, and public roads. Restricting access to these public goods is not possible and asking for voluntary contributions to fund the provision of these goods is not effective because of the free-rider problem. As a result, these public goods are funded indirectly through tax revenues.

Merit goods are goods or services that society deems all individuals should have, regardless of the ability to pay. That is, the consumption of merit goods is in the best interest of society. Merit goods are also usually provided by or subsidized by the government and funded by tax revenues. Sometimes there may be user charges to defray part of the costs. Examples are public education, public health, and even public housing. An educated population is in the best interest of a democratic society and a productive economy. For example, in the United States, every child is entitled to schooling through high school. So too, a healthy population is good for society, not only for improving the qualities and extending the quantities of lives, but for labor productivity.
There is a need for **government regulation** of economic activity. In the pursuit of profits, businesses may not always act in the public interest, for example, producing unsafe, if less expensive, medicines and goods, exploiting labor in the workplace, and improperly disposing of their wastes, which results in pollution of the environment and public health hazards. So, governments set standards to regulate businesses. In the United States, the Food and Drug Administration, the Consumer Product Safety Commission, the Occupational Health and Safety Administration, and the Environmental Protection Agency, are among the regulatory bodies that ensure the public interest.

A third basic market failure might be **macroeconomic instability**. High unemployment or high inflation can have significant economic and social costs that adversely affect the general welfare. Whether or not the government through discretionary fiscal and monetary policies can help stabilize the economy and promote non-inflationary economic growth is controversial. Macroeconomists are divided on the efficacy of demand-management policies.

The near implosion of financial markets and severe recession in the U.S. that began in late 2007 and spread to the rest of the industrial world, resulted in extensive government intervention in the economy— with a large fiscal stimulus, massive increases in the money supply, and greater regulation of financial firms’ behavior to prevent economic collapse.

The Nobel laureate economist, Joseph Stiglitz (2010: 275–76 in *Free Fall: Free Markets and the Sinking of the World Economy*), reflecting on the financial crisis which defined the Great Recession, asserted:

*The crisis exposed not only flaws in the prevailing economic model but also flaws in our society...We have gone far down an alternative path--creating a society in which materialism dominates moral commitment, in which the rapid growth that we have achieved is not sustainable environmentally or socially, in which we do not act together as a community to address our common needs, partly because rugged individualism and market fundamentalism have eroded any sense of community and have led to rampant exploitation of unwary and unprotected individuals and to an increasing social divide.*

A fourth general market failure is **poverty** and undesirable income inequality. There are two issues here. First is absolute poverty, where individuals fall below a minimum standard of living. The second is relative poverty, reflected in income inequality, which may cause class conflict and the erosion of social capital.
Under the market mechanism, factor incomes earned reflect productivities. For example, wages and salaries received should reflect labor productivities, in turn a function of inherent abilities, education, and experience. Labor productivities also reflect the accompanying complementary factors, in particular technology and the physical and natural capital per unit of labor. In addition, those individuals with wealth, e.g., property and financial assets, receive incomes. Profits are the returns to owners of physical capital, e.g., stockholders in a corporation. Rent is the return to property owners, and interest is the return to savers.

The resulting distributions of incomes generated by free markets, however, do not guarantee that all will have adequate incomes. While those individuals with more capital, whether it is physical, human, or natural capital, will tend to earn more income, those with little capital will likely earn much less, perhaps even too little to escape poverty. Moreover, some in society are unable to earn income, e.g., children too young and seniors too old to work, as well as the disabled and infirm.

Even in the wealthiest economy in the world, we find poverty, although not the extreme kinds found in the less developed world. In 2009, during the severe economic recession, 43.6 million people, 14.3 percent of the population, in the United States, fell below the poverty line, a sharp increase from 39.8 million or 13.2 percent of the population in 2008. In that one year the U.S. poverty rate for children under eighteen years of age rose from 19.0 percent to 20.7 percent. ¹

In computing poverty status, the income used includes earnings, unemployment compensation, Social Security, retirement and pension income, and public assistance before taxes. Noncash benefits like food stamps and housing subsidies are not included. In fact, an individual working forty hours week at the federal minimum wage of $7.25 an hour, would have earned slightly over $15,000 a year, which fell well below the official poverty of $22,050 for a family of four in the United States. The U.S. poverty rate rose further in 2010 to 15.1 percent of the total population (and 22.0 percent of the population under eighteen). In 2014, the latest year with data, the U.S. poverty rate was 14.8%.

Low-income households often can’t afford health insurance. Individuals without health insurance may go without regular physical exams and delay getting medical attention when ill,
aggravating the health problems before resorting to highly cost-ineffective emergency room care. Concern with the lack of health insurance for so many Americans as well as the escalating costs of medical care motivated the Obama administration's health care reform, The Affordable Care Act of 2010.

Scholars have assessed the mental stress and diminished cognitive functioning associated with poverty. Just as children who are hungry will not perform as well in school, impairing their learning and achievement, parents who are poor and hard pressed to meet their family’s basic needs are less able to provide quality care for their children, e.g., personal attention with after-school reading or helping with homework. These psychological and cognitive tolls of poverty can perpetuate poverty across generations. Mullainathan and Shafir (2013: 152 in Scarcity: Why Having Too Little Means So Much) conclude,

*One broad theme emerges from decades of this research: the poor are worse parents. They are harsher with their kids, they are less consistent, more disconnected, and thus appear less loving. They are more likely to take out their own anger on the child...*

**Economic Growth, Poverty, and Income Distribution**

**Economic growth**, a rise in per capita incomes, allows for an improved material standard of living and tends to reduce absolute poverty. The primary sources of economic growth are technological progress and increased labor productivities with increases in the physical, human, and natural capital per worker.

The incomes of the poor tend to increase with economic growth. Rates of economic growth, however, vary across countries and within countries over time. Moreover, the extent to which economic growth reduces poverty depends, in part, on the distributions of income within the countries, the institutions in place and the economic policies implemented.

There are different measures of income poverty, including the **headcount index** (the absolute number of poor in a country or region), the **incidence of poverty** (the percentage of a population that is poor), and the **poverty gap** (the mean shortfall as a percentage of income from the poverty line), an indicator of the depth of poverty.

The Millennium Declaration of the United Nations, adopted by 189 countries in September 2000 set forth **Millennium Development Goals** (MDGs) with targets for improving
the human condition in poor nations. Eight major goals were set forth: 1. eradicating extreme poverty and hunger; 2. achieving universal primary education; 3. promoting gender equity and empowering women; 4. reducing child mortality; 5. improving maternal health; 6. combating HIV/AIDS, malaria, tuberculosis, and other diseases; 7. ensuring environmental sustainability; and 8. developing a global partnership. Associated with the eight major goals were 21 targets.

The first Millennium Development Goal, called for cutting in half the percentage of people living in extreme poverty, defined as less than $1.25 a day in purchasing power parity-adjusted dollars, between 1990 and 2015. The income threshold represented the mean of the poverty lines found in the poorest fifteen countries ranked by per capita consumption. PPP-adjusted incomes are used to estimate global poverty since they take into account the local prices of goods and services not traded internationally.

For evidence, refer to Table 1.1, “Statistics on World Poverty,” Globally, the incidence of extreme poverty in the developing nations, i.e., the low- and middle-income nations of Asia, Africa, the Middle East, Latin America, and Eastern Europe, was reduced between 1990 and 2011 from 43.4 percent to 17.0 percent of the populations, or from over 1.9 billion to a little over 1.0 billion people. This mostly reflected the extraordinary reduction of extreme poverty in East Asia and the Pacific, especially China.

This region, with the highest economic growth rates (6.2 percent from 1990-1999 and 8.6 percent from 2000-2011: yielding per capita incomes doubling every 8 to 11 years) was able to reduce the incidence of extreme poverty in the population from 57.0 percent (939.1 million) in 1990 to 7.9 percent (160.8 million) in 2011. South Asia, dominated by India, has also reduced the incidence of poverty with its impressive economic growth, although this region still had nearly 40 percent of the extremely poor in the developing world in 2011.

The more than doubling of the incidence of extreme poverty in Europe and Central Asia over the 1990s reflected the difficulties the former socialist states experienced in transforming their economies to more market-oriented systems. On average, output growth, not just economic growth, was negative in these nations over the last decade of the twentieth century.
Sub-Saharan Africa did not see much economic growth over the last quarter of the twentieth century. In the first decade of the twenty-first century, however, sub-Saharan Africa did generate moderate economic growth, averaging 2.4 percent annually, and reduced the incidence of extreme poverty (from 59.4 percent in 1999 to 46.8 percent in 2011, although the headcount or numbers of extreme poor increased from 385.8 to 415.8 million).  

--------------------------------------------------------------------------------------------------------------------------

3. The incidence of extreme poverty is still declining--the preliminary estimate for 2015 is 13.4 percent for the developing nations (11.5 percent for the world), which would mean over 830 million people are still afflicted. In sub-Saharan Africa, 2 in 5 people would still live in extreme poverty; in South Asia, almost 1 in 5.

--------------------------------------------------------------------------------------------------------------------------

In sum, economic growth makes possible a reduction in the incidence of poverty. Conversely, with economic recessions, poverty rates tend to rise. To the extent economic growth reduces poverty in a nation, however, depends on the distribution of income and the institutions in place that promote socioeconomic mobility.

**Income Distribution**

A comprehensive measure of the distribution of income in a society is the **Gini Index**, which ranges from zero, a completely equal distribution of income across the population, to 100, the most unequal distribution with the richest individual in the country having all the income. The more socialist economies, e.g., the Scandinavian countries of northwestern Europe, with high tax burdens and generous social welfare systems, have Gini indices in the mid-twenties (e.g. Sweden with Gini indices of 23.7 in 1987 and 26.1 in 2005). So too, former socialist states of Eastern Europe had fairly egalitarian distributions of income, with no private property or profits per se under communism. Even after their economic transitions their income distributions remained relatively egalitarian (e.g., Hungary with Gini indices of 25.1 in 1989 and 28.9 in 2011). The East Asian economies with their labor-intensive economic growth

--------------------------------------------------------------------------------------------------------------------------

4. Zanny Beddoes ("For richer, for poorer," *The Economist*, October 13, 2012: 20-21) notes how even Sweden, the most equalitarian country in the world, is becoming less so. Sweden’s Gini coefficient for disposable income of 24 is higher by a quarter than it was a generation ago. Beddoes attributes this in part to Sweden’s tax reforms which reduced taxes on capital and wealth. On the other hand, earned income tax credits for low wage workers and generous social welfare policies with state-financed child care and education have promoted greater equity for the Swedish population.

--------------------------------------------------------------------------------------------------------------------------
also have fairly equal distributions of income. In contrast, the distribution of incomes are far less equal in countries that relied on a more natural resource intensive growth, as the oil producers in the Middle East (where income distributions are not reported) or where the ownership of land and consequently power has been concentrated, as in Latin America with Gini Indices above fifty, e.g. Chile (57.3 in 1990 and 50.8 in 2011) and Brazil (60.5 in 1990 and 52.7 in 2012).

**Income Distribution and Poverty in the United States**

To illustrate how the Gini Index is calculated, we can use the example of the United States. (See Table 1.2.) Here the income distribution, based on money income received, including income transfers and social security, before taxes is given for quintiles of the population in 2013. The richest twenty percent of the U.S. population received over half of the money income. Plotting these shares of income against the population shares, gives the Lorenz curve. We can approximate the Gini Index for the U.S., the ratio of the area A (between the 45 degree line of perfect equality and the Lorenz curve) to the sum of areas A and B (the total area under the 45 degree line).

The Gini Index for the U.S. in 2013 was a fairly high 47.6. In fact, income inequality in the U.S., one of the wealthiest nations in the world, has risen over the past few decades, as it generally has in other developed nations. Reflecting the secular rise in the Gini Indices from 40.3 in 1980 to 47.0 in 2010, the ratio of the average incomes of highest to the lowest quintiles increased from 10.5 to 15.2.

Increased income inequality has implications for relative poverty or the percentage of the population falling below the national poverty line. While the incidence of extreme poverty is likely very low, and not reported in the high income countries, relative poverty is, and likely always will be, present.

As we can see in Table B1.1, real disposable income per capita in the U.S. increased by 71 percent from around $18,900 in 1980 to $32,300 in 2010, while the poverty line for a family of four (also adjusted for inflation) increased by only 11 percent (from around $18,100 in 1980
to $20,100 in 2010). The poverty rate only slowly declined from 13.0 percent in 1980 to 11.3 percent in 2000, before rising sharply during the Great Recession.

Moreover, poverty is not uniform across ages or races. As seen by the 2013 poverty rates for the U.S., when 14.5 percent of the population fell below the poverty line, the child poverty rate (19.9 percent) was more than twice the elderly poverty rate (9.5 percent), a reflection primarily of the influence of politically powerful lobbies for the elderly, resulting in generous Social Security and Medicare benefits. So too, we see poverty rates for Blacks and Hispanics twice as high as those for whites.

We should add that these figures on income distribution and poverty are based on money incomes, including income transfers like social insurance, but before taxes and excluding non-cash benefits like Food Stamps. The U.S. Census Bureau estimated the consequences of hypotheticals (DeNavas-Walt, et. al, 2014: 20 in *Income and Poverty in the United States: 2013*). For example:

* In 2013, the number of people aged 65 and older in poverty would be higher by 14.7 million if social security payments were excluded from money income, more than quadrupling the number of elderly people in poverty.

* If unemployment insurance benefits were excluded from money income, 1.2 million more people would be counted as in poverty in 2013.

* If SNAP (Supplemental Nutrition Assistance Program) benefits were counted as income, almost 3.7 million fewer people would be categorized as in poverty in 2013.

* Taking account of the value of the federal earned income tax credit would reduce the number of children classified as in poverty in 2012 by 2.9 million.

Poverty and income inequality can lead to class conflicts and undermine the social capital in a nation, i.e., the sense of unity, trust, and cooperation that gives cohesion to a nation. Moreover, poverty, especially for youth, is a disinvestment in the future, hindering socioeconomic mobility and economic growth. In fact, the chair of the Federal Reserve, Janet Yellen, expressed concern over the growing inequality in the United States, arguing that a major
underlying reason is the reliance in the U.S. on state and local funding for primary and secondary public education through taxation at the state and local levels.

_Half of U.S. public school funding comes from local property taxes, a much higher share than in other advanced countries, and thus the inequalities in housing wealth and income... enhance the ability of more-affluent school districts to spend more on public schools._

As supporting evidence we might refer to See Panel C in Table B1.1: Family Median and Mean Net Worth. We can see the correlation between education of the head of the family and net worth. The median net worth for a family headed by a college graduate is four times that of a family headed by a high-school graduate. Moreover, inequities can be perpetuated across generations. Individuals who attend college tend to marry other college graduates. With their higher incomes, they able to invest more in their children, not only sending them to better schools, but with additional enrichment, whether personal computers, travel abroad, or soccer camp. These children, in turn, are likely to attend college. In contrast, poor families, where the parents have little education, are less able to invest in their children, who then may be less likely to attend college.

In the last few decades, economic growth in the U.S. has not been shared. In a comprehensive study the Congressional Budget Office (2011: 3 in _Trends in the Distribution of Household Income Between 1979 and 2007_) found for American households between 1979 and 2007, the average real household income (after federal taxes and transfers) for the richest one percent of the population increased by 275 percent. For the others in the top quintile, i.e., the 81st through the 99th percentile, the increase in average real income was 65 percent. In contrast, for the poorest twenty percent of the population (the bottom quintile), average real income rose by only about 18 percent. Consequently, the share of household income after transfers and federal taxes going to the top one percent had more than doubled, from 8 percent in 1979 to 17 percent in 2007; and for the top quintile, the share rose from 43 percent to 53 percent. In contrast, the share of household income received by the bottom quintile declined from 7 percent to 5 percent.

Over this period, however, the equalizing effects of the taxes and transfers were reduced. In part, regressive payroll taxes on labor (for social security and Medicare) rose relative to the progressive income taxes. Also transfers became less progressive, in part, with
increased Medicare benefits that are relatively income independent. The Congressional Budget Office (CBO) reports that households in the bottom quintile received more than 50 percent of the transfer payments in 1979, but closer to 35 percent in 2007.

Among the underlying causes of the growing inequity in U.S. household income distribution, are the increased wage inequalities between educated, highly-skilled workers, who have benefitted disproportionately from technological progress, e.g., in information technology and advanced manufacturing, and the less educated, lower-skilled workers suffering job displacement. Decreases in the real minimum wage, increased foreign competition in basic manufacturing, and declines in unionization contributed to the growing wage gaps. According to the CBO (2011: 18) the sharply higher labor incomes for the top one percent, while most evident for superstars (in sports and entertainment) and in the salaries of major corporate executives, more reflected the high earners in the financial, legal, and medical professions.

Joe Stiglitz (2013: *The Price of Inequality: How Today’s Divided Society Endangers Our Future*) argues that the very rich (top 1 percent) skew the ‘rules of the game’ to perpetuate, if not enhance their dominance, securing lower income tax rates and favorable tax treatment on capital gains and estates, strategically making campaign contributions, hiring lobbyists to influence legislation, e.g., undermining the Dodd-Frank financial regulatory reforms. In describing the housing crisis, Stiglitz (2013: 252) points to the banks who “…in lending and in foreclosures…targeted the weak, the poorly educated, the poor. Moral scruples were set aside in the grand quest to move money from the bottom to the top.” 5

---

5. Stiglitz (2013: 269) lays out tax proposals that would not only reduce income inequality, but reduce the government budget deficit. Measures include raising tax rates on higher incomes, eliminating special treatment for income from capital gains, eliminating corporate tax loopholes, and raising the income levels subject to Social Security taxes. He illustrates, “With those in the top 1 percent getting more than 20 percent of the nation’s income, an incremental 10 percent tax on their income (without loopholes) would generate revenues equal to some 2 percent of the nation’s GDP.

---

**Income Distribution and Poverty in Latin America**

As stated, economic growth will more likely alleviate poverty when the distribution of income is more equitable. To illustrate this stylized fact of economic growth, refer to **Table 1.3**, where the incidence of extreme poverty (the percentage of the population living on less than
$1.25 a day) and the poverty gap (the average percentage shortfall in income below the poverty line) is given for selected Latin American nations.

The origin of the income inequality in Latin America was the exploitation of the indigenous populations by the conquering colonial powers Spain and Portugal. Land was expropriated by the elites and the Catholic Church and the native populations were denied education and forced to labor on plantations and in mines. Even after independence, property and wealth in these nations were concentrated and the income distributions remained highly inequitable. Nevertheless, it is the Latin American region that has made the greatest gains in reducing income inequality… albeit from very high levels.⁶

---

6. As Mara Hvistendahl (“While emerging economies boom, equality goes bust,” *Science*, 344 (6186) 2014: 834-35) notes, over the first decade of the twenty-first century, Gini indices fell in 13 of the 17 Latin American countries with reliable data. For example, Brazil and Mexico, the two largest nations in Latin America and the Caribbean, respectively, reduced their Gini indices from 59.9 and 54.8 in 1996 to 52.7 and 49.4 in 2012. These two nations have been international leaders in conditional cash transfers programs that not only increase the income of poor households, but build human capital in the lower classes.

---

To illustrate, observe the difference between per capita incomes in dollars and purchasing power parity-adjusted dollars, which accounts differences in the cost of living across countries. For example, in 2010 we see that Panama had significantly higher per capita national income than Peru, both in U.S. dollars and PPP$. The incidence of poverty and the poverty gaps in Peru, however, are lower than those in Panama, reflecting, in part, Peru’s somewhat less unequal income distribution.

For another example, in 2010 Colombia and the Dominican Republic had similar per capita incomes, but Colombia had a much higher incidence of extreme poverty and poverty gap. Colombia’s highly unequal distribution of income is reflected in the shares of income (e.g., 60.2 percent of the income received by the top twenty percent of the population) and more comprehensively in the high Gini index of 55.9.

**China and India**

With each well over a billion in population, China (1.36 billion) and India (1.30 billion) together account for more than a third of the world population (36.6%).
As noted the major reason for the significant reduction in the incidence of extreme poverty in the developing nations over the past two decades, from 43.4 percent of the populations of the low- and middle-income economies of Asia, Africa, Latin America, Eastern Europe and the Middle East, in 1990 to 17.0 percent in 2011 is the rapid economic growth in China. As Table 1.4 shows, with average annual economic growth rates of approximately ten percent (meaning a doubling of per capita income every seven years) China alone reduced incidence of extreme poverty (the share of the population living on $1.25 a day) from 60.7 percent in 1990 to 9.2 percent in 2010 (or from 689 million to 123 million Chinese). India too has experienced impressive economic growth, enabling a significant reduction in the incidence of extreme poverty from nearly half of the Indian population in 1993 to less than one-third in 2009. But, in both cases, the income distributions in the two countries have deteriorated.

We see that in Table 1.4, the Gini Indices for both China and India have increased over the past two decades with their economic growth. We also notice that the incidence of poverty is much higher in rural areas than in urban areas where the economic growth is concentrated.

The answer to poverty and damaging income inequality, however, is not simply a redistribution of income with higher taxes on the wealthy transferred to the lower classes. Moreover, the goal is not complete income equality, even if possible, since incentives are important. The key is promoting socio-economic mobility with investments in human capital.

**Sustainable Development and Poverty**

The World Bank (2003: 184) in *World Development Report 2003: Sustainable Development in a Dynamic World* states that, “....ending global poverty is much more than a moral imperative—it is the cornerstone of a sustainable world.”

The World Commission on Environment and Development (Report of the World Commission on Environment and Development: Our Common Future. 1987) offered a definition of **sustainable development** that has become widely used:

*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of ‘needs,’ in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of*
technology and social organization on the environment’s ability to meet present and future needs.

The first sentence, which is the most frequently cited, establishes the importance of intergenerational equity, at least in terms of the opportunities for maintaining, if not improving, the quality of life. The second sentence in this definition, not nearly as well known, emphasizes the need to address current poverty and the notion of environmental limits.

Poverty Traps

There may be no greater guarantee of intergenerational poverty than the exploitation of children. Virtually all parents share the desire to see their children enjoy better lives than they themselves have experienced. Yet, across the world, overwhelming poverty has cut short the lives of millions of children and forced many other children prematurely into the labor force, forgoing the chance for schooling and limiting their opportunities for development.

In the extreme, children are sold into indentured labor or trafficked... contrary to Article 4 of the United Nations Universal Declaration of Human Rights, “No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all forms.” Moreover, Article 6 of the United Nations Convention on the Rights of the Child, enjoins states to “ensure to the maximum extent possible the survival and development of the child.” 7 Child labor, especially the more exploitive types, is not only a violation of human rights, but a disinvestment in children that perpetuates poverty across generations.

7. The Convention on the Rights of the Child was initiated in 1989 to protect children under eighteen from harm and to ensure their basic human rights to survive, develop their potential, and participate fully in family, cultural, and social life. Over 190 nations have ratified the Convention, more than any human rights treaty in history. The United States has signed, but not ratified, the Convention.

Incidence of Child Labor

The International Labor Office (ILO) defines child labor more narrowly than economically-active children, since those children aged 12 years and older who are working only a few hours a week in permitted light work and those aged 15 years and above whose work is not classified as ‘hazardous’ are excluded. According to the ILO (Marking progress...
against child labor: Global estimates and trends 2000-2012. 2013:16), hazardous work by children “is any activity or occupation that, by its nature or type, has or leads to adverse effects on the child’s safety, health and moral development.”

As described by the ILO (2013:16), hazardous work encompasses the worst forms of child labor, including:

- night work and long hours of work; exposure to physical, psychological or sexual abuse; work underground, underwater, at dangerous altitudes or in confined spaces; work with dangerous machinery, equipment, and tools, or which involves the manual handling or transport of heavy loads; and work in an unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging to their health.

For recent statistics on child labor, see Table 11.6. While accurate and current data on child labor are understandably difficult to collect, 168 million children (nearly 11 percent of all children in the low- and middle income economies between the ages of five and seventeen) were estimated to be child laborers in 2012. Of these children, 85 million (5.4 percent) were in hazardous work. While appalling, this is significantly less than the nearly 246 million child laborers a decade earlier, with 170 million of those children in hazardous work. In 2012 there were nearly fifty percent more boys than girls in child labor.

The majority of child labor is still found in the agricultural sector, usually as unpaid family members. Child labor in industry relates primarily to work in construction and in manufacturing, mainly in informal employment. In the services sector, child labor often includes domestic work, as well as work in hotels, restaurants, and street vending. The International Labor Office (2013: 23) notes that unpaid family workers account for more than two-thirds (68 percent) of child laborers. Perhaps half of children working also attended school, although in many if not most cases, their attendance and performance were likely adversely affected by their working.

The incidence of child labor is the greatest in sub-Saharan Africa, with 59 million child laborers (over one-fifth of the children of ages 5 to 17). Absolutely, Asia has the most child workers, nearly 78 million (or 9.3 percent of children ages 5 through 17).

Of greatest concern is hazardous work, the work in dangerous or unhealthy conditions. Half of the child laborers in sub-Saharan Africa (10.4 percent of the children aged five through seventeen) work in hazardous conditions. The estimates of hazardous work understate the
exploitation and abuse of children. As the ILO (2013: 20-22) notes, “Global estimates of children in worst forms other than hazardous are not measured directly, owing to the often hidden and illicit nature of these activities and lack of reliable data in most countries.” This activity includes indentured servitude, sex trafficking, forced recruitment into militias, and illegal drug trade. Rough estimates of these worst forms of labor indicate as many as 5.5 million children involved, or a quarter of the total forced labor world-wide.

A vicious cycle of poverty can be perpetuated by child labor. In traditional societies, children, especially sons, are viewed as economic assets. This reality bolsters high fertility, in turn, limiting parental and societal investment in the human capital of their children. Child workers increase the supply of labor, keeping wages low and perpetuating the reliance of poor parents on their children’s labor. Children forced to work are often unable to attend school...at least regularly...and are deprived of education and the means to earn better incomes as adults. Poverty, high fertility, and child labor are perpetuated across generations.

Eradication of Child Labor

The ILO (2013: 38) identifies four related keys in reducing, if not ending, child labor. First is ensuring universal coverage of quality education. Second is social welfare to prevent poor families from relying on child labor, if even during economic crises. Third is providing decent work opportunities for youth after their schooling is completed so that families will invest in the education of their children. And fourth is enforcement of all the laws against child labor, especially hazardous work.

Perhaps the keystone of the contemporary international effort to address child labor is the International Program on the Elimination of Child Labor (IPEC), launched in 1992. The initial focus of IPEC was to eliminate the worst forms of child labor. In particular, Conventions Nos. 138 and 182 set the boundaries of the types of work that are unacceptable under international standards. Convention 138 establishes minimum ages at which children can begin work. For example, light work that does not hinder the health or education of the child is permitted after age 12. Hazardous work, however, is prohibited before the age of eighteen. ILO Convention No. 182 stipulates that any person under eighteen is to be protected from
employment in the worst forms of child labor, including slavery, debt bondage, forced
recruitment in armed conflicts, prostitution, pornography, illicit activities, and work that has
adverse effects on the child’s safety, health (physical or mental), and moral development.⁹

---

⁹. See International Labor Organization, “ILO Conventions and Recommendations on child labor.” Conventions No. 138 and 182 have been ratified by 168 and 179 nations, respectively. Among the nations that haven’t ratified Convention No. 138 are Australia, Bangladesh, Canada, India, Iran, Mexico, Saudi Arabia, and the United States. With the exception of India, however, these nations have ratified Convention No. 182.


---

Eradication of child labor should be an international priority, not only for human rights,
but for promoting sustainable development. The ‘solution’ to child labor, however, is not to be
found simply in legislation prohibiting the practice, but with economic development and
universal quality schooling for children and improved wages for adults. Enforcing existing
legislation against exploitive or hazardous child labor is especially important. So too are
programs for the rehabilitation of former abused children, including remedial schooling,
counseling, and vocational training. Special attention should be accorded to former child
soldiers, children who were sex trafficked, and indentured child laborers.

The ILO (Accelerating action against child labor. 2010: 21) cites Brazil as a leader in
combatting child labor. Brazil joined IPEC in 1992 as one of the original participating countries.
A new constitution in the late 1980s made eight years of education compulsory. An engaged
civil society, a vigilant press, and a large rural worker’s union all mobilized to protect children’s
rights. In 1996, a conditional cash transfer program designed to keep children in school
targeted the rural poor. The incidence of child labor between the ages of five and fifteen in
Brazil fell from 13.6 percent in 1992 to 5.8 percent in 2008. In addition to providing accessible
schools staffed by qualified and motivated teachers, increasing the enrollment of poor children
may be encouraged by conditional cash transfers—as Brazil has done. As described by the
87):

 Introduced in the late 1990s, particularly in Latin America, they provide cash to poor young
people conditional on school attendance, [and quickly become] popular in other parts of the
world. Mexico’s Oportunidades, the best documented, has increased secondary school attendance rates by 8 percent, the transition to secondary school by nearly 20 percent, and grade attainment by 10 percent, with significantly larger effects for girls than for boys.

Investing in children’s education with quality schooling would not only reduce child labor, but would also decrease child marriage and early fertility. In its *State of the World Population 2013: Motherhood in Childhood*, the United Nations Population Fund (2013: 10) reported that “one in nine girls in developing countries is forced into marriage before age 15.” Child brides are not only usually deprived of higher education, but are more vulnerable to abuse, violence, and sexually-transmitted diseases. Laws prohibiting marriage before the age of 18 are often not enforced. 10

Moreover, girls subjected to early childbearing experience more difficult deliveries with health complications. The incidences of miscarriage, low-birth weight babies, and neonatal mortality are greater with younger mothers.

In sum, improvements in health and education and decreases in the incidences of child labor and adolescent fertility promote economic development. Such investments in youth are a key to sustainable development. The vicious cycle of intergenerational poverty needs to be turned into a virtuous cycle of intergenerational mobility with early investments in child survival and improved education opportunities. Then with increased earnings, delayed marriage and lower fertility, better child care and greater investment in the next generation of children will be realized.

**Social Capital**

Noted earlier was the importance of social capital, the shared values, mutual trust, and social networks that give cohesion and foster cooperation in society. Mistreatment of people, whether with intolerance of differences or discrimination by age, race, ethnic group, sexual orientation, or income class, undermines the social capital and indeed the sustainable
development of a nation. Drawing on often eloquent testimony from the poor, a World Bank study cites, in addition to their material deprivation, the poor are vulnerable to “rudeness, humiliation, and inhumane treatment.”

In an insightful study in experimental economics, Karla Hoff and Priyanka Pandey (“Belief Systems and Durable Inequalities: An Experimental Investigation of Indian Caste,” 2004) investigated the effects of the discrimination of the caste system on Indian youth achievement. Using groups of six Indian junior high school students from high and low castes competing to solve mazes for monetary rewards, the authors found evidence of the debilitating effects of social discrimination. In particular, in the trials when the boy’s castes were not announced, the low- and high-caste boys performed comparably. In contrast, announcing the castes before the trials significantly reduced the low-caste boy’s performances, especially when they perceived the possibility of the experimenter’s discretion in the rewarding of good performances. Hoff and Pandey (2004: 3) conclude, “…when caste identities are salient, low-caste individuals anticipate they will be judged prejudicially. Mistrust undermines motivation.”

The caste system has characterized Indian culture for centuries, and despite laws and official attempts to address it through affirmative action in education and employment, still lingers, undermining not only the social capital in the nation, but productivity in the economy. Needless to say, discrimination and the mistreatment of various minorities exist in all nations.

**Sustainable Development Goals**

As 2015, the end of the period for the Millennium Development Goals drew near, the UN began setting forth **Sustainable Development Goals** (SDGs) for the next fifteen years. There are nearly twice as many SDGs (17) as MDGs (8), and over eight times as many targets (169 for SDGs vs. 21 for MDGs). There is considerable overlap with the earlier MDGs, reflecting the unfinished business in improving the human condition, whether education, health, nutrition, equity, resource management, or the environment.

Some of the SDG Targets are explicit: e.g.,

° Target 3.1: By 2030 reduce the global maternal mortality ratio to less than 70 per 100,000 live births;
° Target 17.2: Developed countries to implement fully their ODA commitments, including to provide 0.7% of GNI in ODA to developing countries of which 0.15-0.20% to least-developed countries. And, some of the SDGs are necessarily vague: e.g.,

° Target 1.4: Strengthen efforts to protect and safeguard the world’s cultural and natural heritage

° Target 10.2: By 2030 empower and promote the social, economic and political inclusion of all irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. And, some of the SDGs are especially important, e.g.,

° Target 8.7: Take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labor, eradicate forced labor, and by 2025 end child labor in all its forms including recruitment and use of child soldiers.

In the Global Monitoring Report 2014/2015, the World Bank and International Monetary Fund (2015: 1) set forth two primary goals: ending extreme poverty in the world by 2030 and increasing the incomes of the bottom forty percent of the populations in all nations. The target for extreme poverty is reducing the share of the world population living on less than $1.25 a day (in PPP$) to less than three percent. The second goal reflects the emphasis on shared prosperity, where economic growth is more equitable. There are three related policy emphases: investing in human capital, especially for the poor; proving an effective social support system; and promoting more environmentally sustainable growth.

As noted, conditional cash transfers to parents for ensuring their children attend school and receive regular health care are important. In higher income nations, earned income tax credits that provide income transfers to working parents in low- and moderate income households have contributed to reducing poverty. 11

11. The Earned Income Tax Credit is designed to encourage work since a working parent’s tax credit rises with the income earned, up to a point. In the U.S. in 2013, the EITC is estimated to have lifted approximately 6.2 million people out of poverty, with over half (3.2 million) children. In particular, research indicates that the EITC encourages large numbers of single parents to leave welfare for work, especially when the labor market is strong.
Other government programs in the U.S. that work to both address poverty and invest in human capital include Head Start (which promotes school readiness for children in low-income families with early educational, nutritional, health, and social services) and WIC (Women, Infants, and Children) program (which provides Federal grants to States for supplemental foods, health care and nutrition education for low-income mothers, infants and young children). The benefit-cost ratios for these programs are estimated at 9 to 1 and 4 to 1, respectively.\(^\text{12}\)

---

12. Established in 1965, **Head Start** promotes school readiness for children in low-income families by offering educational, nutritional, health, social, and other services. Since its inception, Head Start has served more than 32 million children, birth to age 5, and their families. In 2014, Head Start was funded to serve nearly one million children and pregnant women in centers, family homes, and in family child care homes in urban, suburban, and rural communities throughout the nation. [https://eclkc.ohs.acf.hhs.gov/hslc/hs/about](https://eclkc.ohs.acf.hhs.gov/hslc/hs/about)

Head Start’s return on investment has been estimated at 9 to 1. [http://www.lacca.org/files/HS-ROI.pdf](http://www.lacca.org/files/HS-ROI.pdf)

Through the **Special Supplemental Nutrition program for Women, Infants, and Children** (WIC), low-income and nutritionally vulnerable pregnant and breastfeeding moms, and children up to 5 years of age receive essential nutrition through science-based supplemental food packages created to enhance the diets of women and young children, providing only foods that are inadequately consumed in their diets. Currently in its 41st year, WIC serves 53% of all infants born in the US. WIC supports breastfeeding mothers through education and peer counseling and by connecting families to medical homes and improving access to prenatal care, immunization rates, and routine health maintenance.

Every $1 spent on preventative services for a pregnant woman in the WIC program saves Medicaid up to $4.20 by reducing the risk of pre-term birth and associated costs. Pregnant women who participate in WIC have longer pregnancies leading to fewer premature births; have fewer low weight babies; experience fewer fetal and infant deaths; seek prenatal care earlier in pregnancy and consume more of key nutrients such as iron, protein, calcium, and Vitamins A and C. [https://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Pages/WIC.aspx](https://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Pages/WIC.aspx)

---

Since the title of this talk is “Preventing and Alleviating Poverty: What Works and What Doesn’t Work,” in the latter category, let me briefly mention “supply-side economics,” the economic theory that cutting taxes on individuals and businesses will increase economic activity, income earned, and investment, leading to stronger economic growth, increased prosperity for all and reduced poverty. The first Reagan administration at the beginning of the 1980s and later the George W. Bush administration at the beginning of the 2000s both embraced supply-side economics, with extensive tax cuts and rollbacks in social support.
Among other outcomes were sharp increases in the federal government budget deficits, more income inequality, and greater poverty.\textsuperscript{12}

\begin{tabular}{|c|c|c|c|}
\hline
 & Poverty Rates (% population) & Poverty Rates (% population) \\
\hline
1981 & 14.0\% & 2001 & 11.7\% \\
1984 & 14.4\% & 2004 & 12.7\% \\
\hline
\end{tabular}

\textbf{Veil of Ignorance}

The World Bank (2009: 1) opened the 2009 \textit{World Development Report: Reshaping Economic Geography}, with the statements, “Place is the most important correlate of a person’s welfare...and... “The best predictor of income in the world today is not \textit{what} or \textit{whom} you know, but \textit{where} you work.” The point was illustrated with two examples.

\begin{quote}
In the next few decades, a person born in the United States will earn a hundred times more than a Zambian, and live three decades longer “
\end{quote}

and

\begin{quote}
A Bolivian man with nine years of education earns an average of $460 per month (in PPP\$)...But the same person would earn about three times as much in the United States.
\end{quote}

That is, luck (where one is born or lives), even as much as ability and achievement, can determine one’s life. So too, one’s perspective on the appropriate role for the government and the adopted policies will likely depend on their position in the society. The political philosopher, John Rawls, recognized this vested interest. In contemplating what would constitute a \textbf{just society}, Rawls proposed a \textbf{veil of ignorance}. That is, when you conceive of a just society, you would not know your position in that society, i.e., your socioeconomic status, gender, race, religion, age, or inherent abilities. You might be the CEO of a Fortune 500 company in New York City or a beggar living on the streets of Delhi, India. You might attend a prestigious university in England or be a young girl sold into slavery in Sudan. You might be an acclaimed artist in Japan or an aged, peasant farmer scratching a living off a small plot of land in Bolivia. You would not even know whether you were a member of the present or a future generation. Adopting this veil of ignorance, what kind of society would you prefer—especially in terms of opportunities and redistributive institutions?
Virtually every policy change will make some in society better off, while making others worse off in terms of individual welfares. Nevertheless, policy change should be undertaken whenever there is an improvement in the overall social welfare. Determining this is difficult and inevitably controversial. There is a well-known bias among elected officials in favor of policies that provide benefits (especially to their constituents) in the short run, while delaying costs. Mitigating climate change, for example, is likely to incur significant costs in the short run, with much greater benefits only in the long run. Consequently, there has been little effective mitigation policy.

In a just society, Rawls favored the assurance of basic human rights and equality of opportunity. Moreover, Rawls suggested that no redistribution of resources within a just state would occur unless benefiting the least well off. In particular, in his principle of redress, Rawls (1971: 100) held that "...to provide genuine equality of opportunity, society must give more attention to those with fewer native assets and to those born into less favorable social positions." In the Human Development Report 2010: The Real Wealth of Nations, the United Nations Development Program (2010: 104) echoed this sentiment, "Equity and poverty reduction must be at the forefront of policy design, not add-ons."

Therefore, whenever any policy is contemplated, a veil of ignorance might be adopted. Whether world leaders or local officials, policy makers would make decisions considering less how they and their constituents are advantaged and more whether it is just and promotes the common good. Underlying sustainable development will be the alleviation of extreme poverty.

The great revolutions over time, the Agricultural Revolution ten thousand years ago (with the shift of humans from hunting and gathering food to farming and cultivating crops), the Industrial Revolution two centuries ago (with the advances in technology and harnessing of fossil fuel energy for large scale manufacturing), and the Information Technology Revolution in the last generation (with computers, the Internet, and smart phones), have all been based on technological change. Perhaps the next great revolution will be based on human behavior, an Ego Evolution where humans voluntarily change their behavior to take greater care of the environment and show greater concern for the welfare of others, not only those less fortunate, but future generations to come.