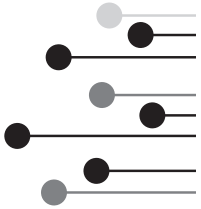




# Defining and Measuring



If you were asked to provide an image of poverty, what comes to mind? Hardship and struggle? A lack of money and overdue bills? Deteriorating neighborhoods? What about the neighbor down the street or the family next door? Maybe a small-town fast-food worker or a struggling farmer? Perhaps yourself sometime in the next 20 years?

As we shall see, all of these and more might be a part of a broad conception of what is meant by poverty. In our examination of the nature and scope of poverty, we begin with what is denoted by the term itself.

## Defining Poverty

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Over the centuries, poverty has been conceptualized and defined in a number of different ways. In ancient societies, the poor were often thought of as those who fell into particularly unfortunate categories such as beggars, the sick, or the widowed. In medieval times, those in poverty would have been considered the peasant class, which encompassed most of society.

More recently, Adam Smith in his landmark treatise, *The Wealth of Nations* (1776), defined poverty as a lack of those necessities that “the custom of the country renders it indecent for creditable people, even of the lowest order, to be without.” This type of definition is what is known as an absolute approach to defining poverty. A minimum threshold for adequate living conditions is determined, and individuals falling below that threshold are considered poor.

On its surface, many of us might agree with Smith’s description. However, our consensus would probably begin to break down over what exactly such necessities should encompass. Certainly most of us would include items such as food, clothing, and shelter, but what kind of food, clothing, and shelter? Furthermore, what additional items might we include—a cell phone, health insurance, internet access, a car, and so on?

If we turn to the dictionary for contemporary guidance in defining poverty, Webster defines poverty in three ways: “1. the state or condition of having little or no money, goods, or means of support; 2. deficiency of necessary or desirable ingredients, qualities, etc.; 3. scantiness; insufficiency.” Here again we have the notion that poverty consists of a shortage of basic goods and resources and that the lack of money is the cause of this shortage. Similarly, in defining poverty, the World Bank (2018) says, “A person is considered

poor if his or her income level falls below some minimum level necessary to meet basic needs.”

Yet another way of thinking about how we might define poverty is to conceptualize what such a shortage means in the daily lives of individuals. It is within this context that many countries speak of poverty in terms of social exclusion or deprivation. To be poor is often to be on the outskirts of society. The economist and social philosopher Amartya Sen defines poverty in terms of a lack of basic capabilities. According to Sen (1992), poverty implies an overall absence of individual freedom and agency. Individuals in poverty are less able to exert control over their lives. They are more likely to be stigmatized and discriminated against, less likely to be able to take advantage of certain fundamental rights such as voting, plagued by a lower life expectancy, and affected by a host of other constraints.

This introduces the idea that poverty may be more than simply a lack of money. It includes aspects of life that are diminished as a result of an inadequate income. The United Nations (UN) incorporates such a perspective into its definition of poverty for high-economy countries. The UN includes not only a lack of income but also long-term unemployment, lower life expectancy, and overall rates of illiteracy (United Nations Development Programme 2019).

Consequently, there are many ways in which we might define who is poor. Yet all of these definitions touch upon the idea that those in poverty are lacking the necessities to maintain a minimally adequate life.

## Measuring Poverty

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In 1964 President Lyndon Johnson historically declared a war on poverty. Delivering his State of the Union address to Congress and the American people, the President announced,

*This Administration today, here and now, declares unconditional war on poverty in America, and I urge this Congress and all Americans to join with me in that effort. It will not be a short or easy struggle, no single weapon or strategy will suffice, but we shall not rest until that war is won. The richest nation on earth can afford to win it. We cannot afford to lose it. (New York Times, January 9, 1964)*

Yet as the administration was to learn on both the domestic and foreign battlefields, a country marching off to war must have a credible estimate of the enemy’s size and strength. Surprisingly, up until this point in our nation’s history, we had no official measure of poverty and therefore no statistics on its scope, shape, or changing nature. The task was therefore to come up with a way of measuring how many people in America were poor.

There are several basic distinctions that can be made when seeking to measure poverty (Iceland 2005, 2013). Three of the most important are whether one should use an absolute versus a relative measure, whether one

should use a pretransfer versus a posttransfer measure, and whether one should use income or assets as the measuring stick for poverty.

## **Absolute Versus Relative Measures**

A first distinction in measuring poverty is between what is known as an absolute measure of poverty versus a relative measure. An absolute measure defines poverty as a household failing to have a particular amount of income to purchase those goods and services that are necessary for a minimally adequate life. As discussed earlier, these would include food, shelter, transportation, utilities, and so on. An absolute measure of poverty determines how much these items cost annually, and based upon that, estimates an overall dollar amount for the year. Households whose total annual income falls below this amount would be counted as poor, while those above this amount would be considered nonpoor.

The assumption is that there is an income floor that can be empirically calculated, and that living below that floor constitutes poverty. In this sense, such a measure is considered absolute—there is an absolute amount drawn dividing the poor from the nonpoor, with below that line representing material hardship.

On the other hand, a relative measure of poverty looks at where a household's income falls relative to the rest of the population. One relative measure of poverty would be to consider the poor as falling into the bottom 20 or 10 percent of the income distribution. Another relative measure widely used throughout the European Union is to consider those in poverty as having incomes below 50 percent of a country's median income. Consequently, if median income was \$60,000, then those earning less than \$30,000 would be counted as poor. If median income were to rise to \$70,000, then those below \$35,000 would be considered in poverty.

Underlying this type of measure is the concept of relative deprivation. Individuals are considered poor not because they fall below a particular set amount of income but rather by the fact that they fall at the bottom of the income distribution. One major advantage of a relative measure such as falling below 50 percent of median income is that it allows us to make comparisons across countries with respect to the extent and depth of poverty.

## **Pretransfer Versus Posttransfer Measures**

A second important distinction in measuring poverty is between what is known as a pretransfer versus a posttransfer measure of poverty. A pretransfer measure of poverty is based on a household's overall annual income but excludes any cash, in-kind benefits, or tax credits that it might have received from the government. On the other hand, a posttransfer measure of poverty will include personal earnings along with government cash programs (such as Social Security or unemployment

insurance) and/or in-kind programs (such as food stamps) and tax credits in calculating a household's overall income.

Policy analysts will often compare the difference in poverty rates between a pretransfer and posttransfer measure as a way of gauging the impact that government programs have upon reducing poverty. A posttransfer measure of poverty will always be lower than a pretransfer measure. How much lower varies widely across countries.

## **Income- Versus Asset-Based Measures**

A third important distinction to be made in measuring poverty is the difference between using income or assets as the measuring stick to determine whether or not a family is considered in poverty. The standard economic approach has been to use a household's income to determine whether or not they fall into poverty. It is through income that households are able to purchase those goods and services necessary for a minimally adequate lifestyle. Such a measure, however, does not take into account the value of any assets that the household may hold.

On the other hand, an asset-based measure of poverty gets at the idea of whether individuals have enough assets (i.e., savings and checking accounts) to allow them to get over a period where their stream of income has been stopped. The concept is one of protection from a rainy day. This type of measure often defines asset poverty as not having enough liquid assets to keep a household above the poverty line for three months.

## **How the Official Poverty Measure Is Constructed**

All of these approaches have been, and continue to be, discussed in policy circles (for an extended discussion on various ways of measuring poverty, see Smeeding 2016). At the time of President Johnson's declared war on poverty, any one of these approaches could have been taken to assess the federal government's efforts. The task fell upon an economist working for the Social Security Administration—Mollie Orshansky—to devise the country's yardstick for measuring poverty (see Fisher 1992, and Orshansky 1965, for a descriptive history of her approach).

The method that Orshansky took was consistent with Adam Smith's definition 200 years earlier. That is, poverty was conceptualized as a failure to have the income necessary to purchase a basic basket of goods and services that allows for a minimally decent level of existence. The approach was therefore absolute rather than relative.

The way that this was (and still is) calculated is straightforward. One begins by estimating the household costs of obtaining a minimally adequate diet during the course of the year. For example, in 2019 a family of three would need to spend \$6,778 to purchase such a diet. This figure is then multiplied by three (in the above case  $\$6,778 \times 3 = \$20,335$ ), which

constitutes the official poverty line for a family of three. The reason for using three as a multiplier is that Orshansky relied upon a 1955 Department of Agriculture survey showing that families with three or more persons spent approximately one-third of their income on food, and the remaining two-thirds on other items such as clothing, housing, heating, and so on. Thus, the logic in the above example is that if \$6,778 will purchase a subsistence diet for a family of three, then the remaining \$13,557 should provide enough income to purchase the other basic necessities needed for a minimal level of existence.

Several other points are important regarding the measurement of poverty. Each year the poverty levels are adjusted to take into account inflation. Obviously it costs more to purchase that basic basket of goods today than it did 55 years ago. Second, the measuring stick to determine whether individuals fall above or below the poverty threshold is household income. Household income is based on the annual income from all members in the household, calculated from pretax dollars, and does not include in-kind program benefits such as Medicaid or Food Stamps, or tax credits such as the Earned Income Tax Credit. It does include government cash programs such as Social Security. Third, the actual estimates of how many Americans fall below the poverty line are derived from the annual Current Population Survey of approximately 60,000 households conducted by the U.S. Bureau of the Census each March. Fourth, the levels of poverty established each year are for the entire nation and do not differentiate between the cost of living differences found in various parts of the country. Finally, the monetary amount necessary for a small household's basic needs will obviously differ from those of a larger household, and therefore the poverty levels are adjusted for household size. For example, in 2019 the poverty level for a household of one was \$13,011, while that of a household of nine or more was \$52,875 (U.S. Census Bureau 2020a).

In Table 1.1, we can see the percentage of the U.S. population experiencing various levels of poverty. Three different levels are shown: the official poverty measure (below 100 percent of the official poverty line), poverty and near poverty (below 150 percent of the official poverty line), and extreme poverty (below 50 percent of the official poverty line). For 2019, 10.5 percent of the population fell below the official poverty line representing 34.0 million individuals, 18.1 percent experienced poverty or near poverty, and 4.7 percent were living in extreme poverty.

In addition to the official measure of poverty, the Census Bureau has developed an alternative measure of poverty, called the Supplemental Poverty Measure (U.S. Census Bureau 2020b). This is intended to refine the official poverty measure by taking into account a wider variety of expenditures, adjusting for cost of living differences, and including noncash benefits along with received tax credits in determining income. The estimates of poverty using the Supplemental Measure tend to be slightly higher than when using

**Table 1.1 Percent and Number of the Population in Poverty for 2019**

Level of Poverty	Percent (%)	Number (in millions)
<i>Official Poverty Measure</i>		
0.50 Poverty	4.7	15.3
1.00 Poverty	10.5	34.0
1.50 Poverty	18.1	58.3
<i>Supplemental Poverty Measure</i>		
0.50 Poverty	3.9	12.7
1.00 Poverty	11.7	38.2
1.50 Poverty	25.7	83.6

Source: U.S. Census Bureau (2019)

the official measure of poverty. In addition, poverty rates for children tend to be lower than the official measure, while poverty rates for those over age 65 years tend to be higher.

In the bottom panel of Table 1.1, the extent of poverty in the United States using the Supplemental Poverty Measure is shown. According to this measure, 11.7 percent of the population fell into poverty, representing 38.2 million Americans. Furthermore, a quarter of Americans (25.7 percent) were in poverty or near poverty, while 3.9 percent experienced extreme poverty. We can see from this table that some differences exist between the official and supplemental measures, particularly with respect to the size of the population experiencing near poverty.

### **What Does Living Below the Poverty Line Mean?**

As discussed earlier, the manner in which poverty is officially defined in the United States is by falling below a specific level of income. Households earning less than a minimum level income are considered to be in poverty. Yet what exactly does it mean to be living below the U.S. poverty line?

In 2019, the poverty line for a household of three was set at \$20,335. Consequently, a three-person household that earned less than this amount would be counted as in poverty. This comes out to an average monthly income of approximately \$1,695. As noted above, the Census Bureau estimates that poor families will spend one-third of their income on food and the remaining two-thirds on other necessities such as housing, clothing, and transportation.

To illustrate what these numbers mean in a day-to-day sense, let us take the poverty level for a family of three. Using the one-third/two-thirds split, our hypothetical family would have \$6,778 available for food during the year. This comes out to \$130 a week, \$18.62 a day, or \$6.21 a day for each member of that family. Assuming that family members eat three meals per day, this works out to approximately two dollars per person, per meal, per day.

Taking the remaining two-thirds of the poverty line's threshold—\$13,557—provides our family with \$261 per week for all other expenses. Using the MIT Living Wage Calculator developed by Amy Glasmeier (2020), it is estimated that a family of two adults and one child in the St. Louis region (which is fairly representative of the country as a whole) would need to earn \$39,094 for the year in order to meet all of their other basic needs beyond food. This comes out to \$752 per week. We can quickly see that a family in poverty falls well short of what is considered minimally necessary to purchase an adequate basket of goods and services. Their \$261 a week for expenses is only one-third of what they really need to get by to cover their basic housing costs, utilities, medical expenses, and so on. Bringing the poverty line down to this level allows for a more meaningful sense of what these numbers represent in terms of people's lives and the extreme difficulty in trying to survive at this level.

However, it is important to keep in mind that this example captures poverty at its most opulent level, that is, families fall to varying degrees below the poverty line. In 2019, 45 percent of all poor persons were living in households where their incomes fell below one-half of their respective poverty thresholds, otherwise known as extreme poverty (U.S. Census Bureau 2020a). Therefore, rather than an annual income of \$20,335 for a family of three, many are trying to survive on an income of \$10,178 or less for a three-person household. If living at the poverty line is difficult, imagine trying to live below one-half of the poverty line.

It is also interesting to contrast what Americans feel is the minimum amount of income needed to get by on versus the poverty line. In 2013, the Gallup Poll asked a national sample, "What is the smallest amount of money a family of four needs to make each year to get by in your community." The average amount given was \$58,000 (Gallup Poll 2013). In 2013, the poverty threshold for a family of four was \$23,550. Consequently, it is obvious that most Americans would perceive surviving below the poverty line as extremely precarious.

Yet another way of translating the meaning of poverty into one's own life can be illustrated with the following statistic. In 2019, the median income for a household of three in the United States was \$91,894 (U.S. Census Bureau 2020a). On the other hand, as noted, the poverty threshold for such a household was \$20,335. Therefore, the income for a family of three at the edge of poverty is just 22 percent of the overall median income for such a family.

For some of you reading this book, your family may be near the median in terms of household income and may occasionally find it difficult to keep up with various household expenses and needs. Now imagine that instead of the income you currently have coming in for this month, next month you will be receiving only 22 percent of your income. The other 78 percent is suddenly gone. That 78 percent is the distance between the median standard of living and the standard of living for those at the edge of poverty. And as noted earlier, this represents poverty at its most opulent level. Forty-five percent of poor individuals fall below one-half of the poverty line. For a family of three this would be \$10,168, which represents 11 percent of the national median income.

Finally, in an important respect, today's poverty is harsher than it was 70 years ago. In 1947 the poverty threshold for a family of four would have stood at 69 percent of the median four-person family income. In 1959, it had dropped to just under 50 percent of the median. In 1980 it was 35 percent, and by 2019, the poverty threshold had dropped further to 25 percent (U.S. Census Bureau 2020a). Being categorized as poor today has meant living further afield from the economic mid-point than in the past. If we were to apply the economic distance that families in poverty were from the median income found in 1959, the poverty threshold for a family of four would rise from its current \$26,172 to \$53,074. As Howard Glennerster noted,

*Very few American voters can realize that the measure of poverty that dominates political discussion has been getting more and more mean as the years pass.... If the present rate of income growth continues and the poverty line remains unchanged, the poverty line will soon be equivalent not to half of median earnings, as it was when Mollie Orshansky invented the number, but to a quarter of median earnings. That would be twice as harsh a measure as other countries in the world adopt (2002, 90).*

In this sense, poverty has become more severe today than it was 70 years ago.

## Poverty Rates Over Time

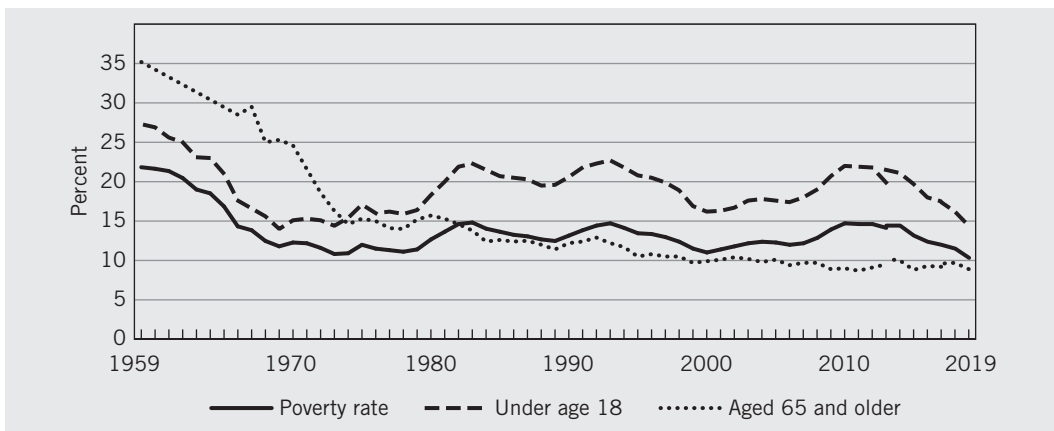
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As noted earlier, when President Johnson declared a war on poverty in 1964, there was a need to create an overall measure of poverty. As a result, a poverty line was established that determined how many people in the United States were in poverty in any given year. The measure was then backdated to 1959, which is why official statistics always begin with that year.

In Figure 1.1 we can see how the overall official poverty rates have changed over the 60-year period from 1959 to 2019, as well as the rates for children and the elderly. Several patterns are apparent. From 1959 to 1973, overall poverty in the United States was cut in half. In 1959, the poverty rate stood at 22.4 percent and by 1973 it had fallen to 11.1 percent.



Figure 1.1 Poverty Rate, 1959–2019



Source: Semega, Jessica, Melissa Kollar, John Creamer, and Abinash Mohanty, U.S. Census Bureau, Current Population Reports, P60-266(RV), Income and Poverty in the United States: 2018, U.S. Government Printing Office, Washington, DC, 2020.

Consequently, during a fairly short period of time, the overall rate of poverty was substantially reduced.

We can also see that since the early 1970s, poverty has varied between 10 and 15 percent. It has tended to go up during periods of recessions (e.g., the early 1980s and 2008–10) and has declined during periods of economic growth (e.g., the later 1990s and 2010s).

The overall rate of poverty is influenced by several broad factors. First, as mentioned, how well the economy is performing will influence the rate of poverty. Second, changes in the size of particular population groups can influence the overall poverty rate. The growth or decline of groups at a higher risk of poverty (i.e., single-parent families) can influence the percentage of the population in poverty. Finally, government programs directed at financially assisting those with low incomes can have an impact on reducing overall poverty. As such programs are expanded or contracted, poverty rates will often fall or rise.

With respect to the elderly, in 1959 those 65 years and over was the age group most at risk of poverty. Their rate of poverty was 35.2 percent. By 2019 it had fallen to 9.4 percent. This drop represents America’s greatest success story in reducing poverty. On the other hand, for children the story is different. Their rate of poverty fell from 26.9 percent in 1959 to 14.2 percent in 1973. However, since the mid-1970s poverty among children has not improved, standing at 14.4 percent in 2019.

## Concluding Thoughts

In this chapter, we have reviewed various aspects of defining and measuring poverty. These are important considerations to keep in mind as we explore the contours and dimensions of poverty in the pages ahead.

The manner in which we define and measure poverty can be considered somewhat arbitrary. While there are many important considerations that go into defining and measuring poverty, there is simply no definitive way to do this. Therefore, it is important to be very clear as to exactly what we mean when using this term. In many of our discussions throughout this book, we will rely on the U.S. Census Bureau's official definition of poverty. However, at various points, we will use alternative definitions of poverty as well. In certain circumstances, it may be more appropriate to use one definition over another.

It is also important to recognize that how we define and measure poverty can be influenced by wider social and political concerns. Those wishing to downplay the existence of poverty will define and measure poverty in a narrower manner, while those desiring to highlight the issue will define and measure poverty in a broader manner. Furthermore, the narrative that is told regarding American poverty over time can be influenced by the way in which poverty is defined and measured. The bottom line is that rather than just an academic question, the defining and measuring of poverty can have significant real-world implications.

## ONLINE ACTIVITIES

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### **confrontingpoverty.org**

Let us begin by going to the “Confronting Poverty” website ([confrontingpoverty.org](http://confrontingpoverty.org)). On the homepage, select the “Discussion Guide” box, and then select the “Module 1” box. On the sidebar, select the “MIT Living Wage Calculator” link.

This will take you to the Living Wage calculator that has been created by Amy Glasmeir at MIT. The idea behind this calculator and website was to develop a way of measuring what a living wage should be in various parts of the country by using cost of living data from hundreds of localities.

A logical starting point is to begin where you live right now. First, select the state that you are residing in. Once you do that, you can then select your county within the state you are living in. What will appear on the page is several sets of information. The first chart shows you what a living wage should be in your locality depending on the type of family one is in. This represents the wage at which someone who is working full-time is able to purchase the basic necessities of living for their family, including housing, food, and so on.

You can see that across the different household types, the living wage is much higher than the current minimum wage. In most states and localities, the minimum wage is significantly below what a living wage should be. In addition, you can also observe what the poverty wage is. This represents the wage at which someone working full-time would be at the poverty threshold through their earnings.

On the next chart are the average expenses that have gone into calculating a living wage. Here we find the annual estimates for food,

childcare, medical, housing, and transportation in a specific county. These give you a sense of the yearly expenses for someone earning a living wage.

Finally, after this chart you can observe what the average salaries are for a range of occupations in your region. You will notice that some of these are quite low. For example, someone who is working in a sales job is likely to be earning well below what a living wage should be.

After examining your own location, you can compare the costs of living and a living wage in other locations in the United States. As you explore these regions, you will discover that some areas of the country have extremely high costs of living, and therefore require a much higher living wage in order to get by. For example, the San Francisco Bay area on the West coast or the Boston and New York City areas on the East coast have extremely high costs of living, largely as a result of their expensive housing costs. These comparisons illustrate that for households earning minimum wages in these regions, their material conditions may be particularly dire.

We will return to the issue of a living wage in Chapter 13, but what this analysis shows is that much of poverty is the result of people not earning enough at their jobs to get them out of poverty or near poverty. We will also take up this issue in Chapters 5 and 6.

There are many other important pieces of information and research on this website. Take some time to explore these offerings with respect to the relationship between poverty and the lack of a living wage.