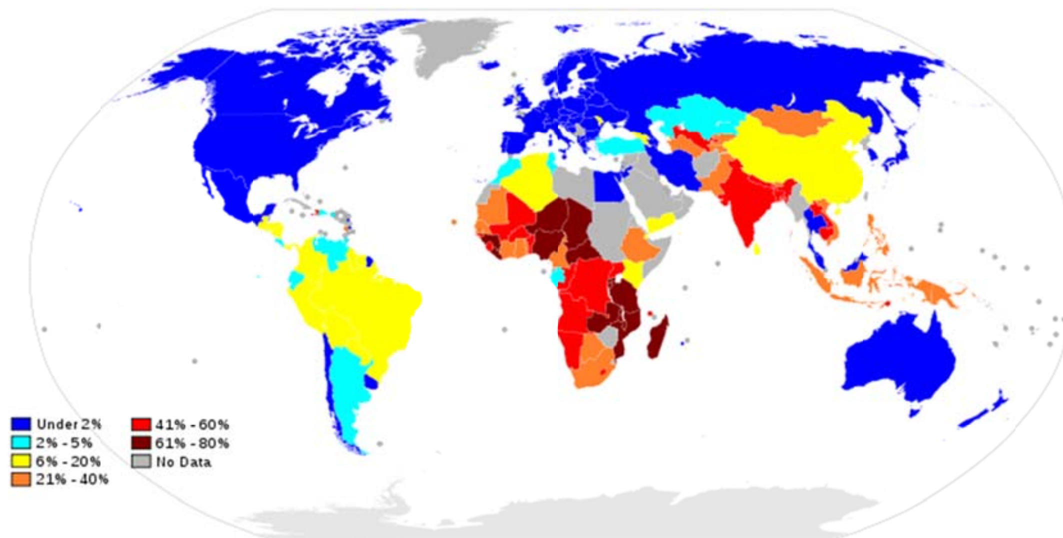
## Poverty in the World

People typically understand poverty to mean that a person or a family has too little necessities such as food, clothing, shelter, or health care. The definition begs as many questions as it answers. How much food, clothing, and housing are necessary? Who decides? The World Bank defines the international poverty threshold as $1.25 per day (severe poverty), and $2 per day. Figure 11-1 presents a global map of poverty rates based on the World Bank definition of severe poverty. Note that the blue areas of the map – North America, Europe (including Russia), Australia, Egypt, Israel, Japan, and South Korea – all have poverty rates below 2%. At the other extreme, many countries sub-Saharan Africa have poverty extreme rates in excess of 60%.

Figure 11-1: Map of World Poverty[1]




There are many causes of poverty throughout the world: (1) kleptocracies –literally "government by thieves" whereby autocratic governments feed on their people; (2) theocracies that repress women and prohibit reproductive rights, continuing the cycle of too many people relative to available resources; (3) inadequate education,[2] or simply too many people and too little production. There is growing interest among economists at the World Bank and in academia to conduct controlled experiments to determine which anti-poverty programs are most effective.[3]

## Defining Poverty in the United States

As scripture says, "The poor shall always be with you," and that certainly has been the case in American history. This country was a haven for poor Europeans seeking a new start. Those who could not afford passage to the *new world* worked as indentured servants. The European settlers found Native Americans who were primitive by their standards; their response was

[1]Source: http://en.wikipedia.org/wiki/File:Percentage_population_living_on_less_than_$1.25_per_day_2009.svg

[2]Meron Tilahun, a UNLV master's student, reports in her professional paper, "Child Labor on the Farm and Cattle Herding: Evidence of the Wealth Paradox," how Ethiopian parents often cannot afford to send their sons to school when the opportunity cost of child labor on the family farm is too great.

[3] See, for instance, Abhijit V. Banerjee and Esther Duflo, *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty,* New York: BBS Public Affairs, 2011.

genocide and confiscation of a continent. The slave labor developed the southern states; Africans enslaved their wretched fellows and sold them to Europeans. As Chapter 2 argued, there is nothing particularly egalitarian about the genesis of property rights, particularly when people are enslaved or exterminated.

Before the 1960s, there were several *unofficial* definitions of poverty. Any measure of poverty is necessarily subjective, since its definition requires a judgment about what income or consumption level is adequate or acceptable. We have seen that countries that are poor by the World Bank's standards of $1.25 or $2 expenditure per day tend to have correspondingly low national poverty standards. Many early British economists and statisticians focused on **Engel's law**, named for Ernst Engel[4] (1821–1896) who developed an empirical rule that as a family's income increases, the proportion of its budget spent on food tends to decrease.[5] Since most people agree that food is both necessary for life and a scarce commodity, economists sought to define *poverty* as (1) what the poor eat, and (2) how much of their budget the poor spend on food.

In 1962 President Kennedy declared war on poverty. Obviously, to fight a war, one must know one's enemy. Kennedy's Council of Economic Advisors recommended a standard of $3,000 per year. However, the government soon switched to a definition based on the work of Mollie Orshansky, a statistician with the Social Security administration. She based her definition on the cost of an **economy food budget,** an amount that a poor woman, who was a careful shopper and a good cook, could use to support her family for a short period of time. Since a typical poor family spent one-third of its income on food, the official poverty level was set at three times the cost of the emergency food budget. Since 1962 the **official poverty threshold** has been adjusted by the consumer price index. Table 11-1 shows the poverty thresholds for 2011, as defined by the U.S. Department of Health and Human Services. Because the cost of living is higher in Alaska and Hawaii, the poverty thresholds for those two states are consistently higher than for the 48 contiguous states.

**Table 11-1[6]**

**2012 HHS Poverty Guidelines**

| Persons in Family or Household | 48 Contiguous States and D.C. | Alaska | Hawaii |
|---|---|---|---|
| 1 | $11,170 | $13,970 | $12,860 |
| 2 | 15,130 | 18,920 | 17,410 |
| 3 | 19,090 | 23,870 | 21,960 |
| 4 | 23,050 | 28,820 | 26,510 |
| 5 | 27,010 | 33,770 | 31,060 |
| 6 | 30,970 | 38,720 | 35,610 |
| 7 | 34,930 | 43,670 | 40,160 |
| 8 | 38,890 | 48,620 | 44,710 |
| For each additional person, add | 3,960 | 4,950 | 4,405 |

[4] No relation to Karl Marx's colleague Friedrich Engels.
[5] In terms of demand theory, food is a normal good (expenditure increases as income increases), but is **income inelastic** (the percent increase in the consumption of food is smaller than the percent increase in income, causing the proportion of the budget spent on food to decease as income increases).
[6] Source: http://aspe.hhs.gov/poverty/12poverty.shtml

In theory, classifying a household as poor or non-poor is straightforward. In practice, however, there are a few qualifications. First, if household income falls below the poverty threshold for that family size, should every member of the household be considered poor, or should there be allowances for differences in consumption within households? Second, how should **income-in-kind**, such as food stamps, medical benefits, or housing subsidies be counted toward diagnosing poverty? Third, should pre-tax or post-tax income be used? In measuring poverty,[7] the United States Census Bureau adds the household's earnings, unemployment compensation, Social Security, public assistance, veterans' payments, survivor benefits, pensions and retirement income, interest, dividends, rents, royalties, income from estates, trusts, educational assistance, alimony, child support, and assistance from outside the household. The only form of cash income that is excluded is capital gains—the difference between the sales value of an asset and its original purchase price. The Census Bureau uses *pre-tax* income and ignores noncash benefits such as food stamps and housing subsidies. Once a household's income is computed, that income is compared with the relevant poverty threshold (there are 48 possible poverty thresholds). If household income is less than the relevant poverty threshold, that household, and each individual in the household, is labeled as below the poverty level. Statistically, we assign a "1" as the poverty variable for that household and all individuals within the household. If household income is greater than the relevant poverty threshold, the household and everyone in the household is labeled as non-poor, and we assign a "0" to that household.

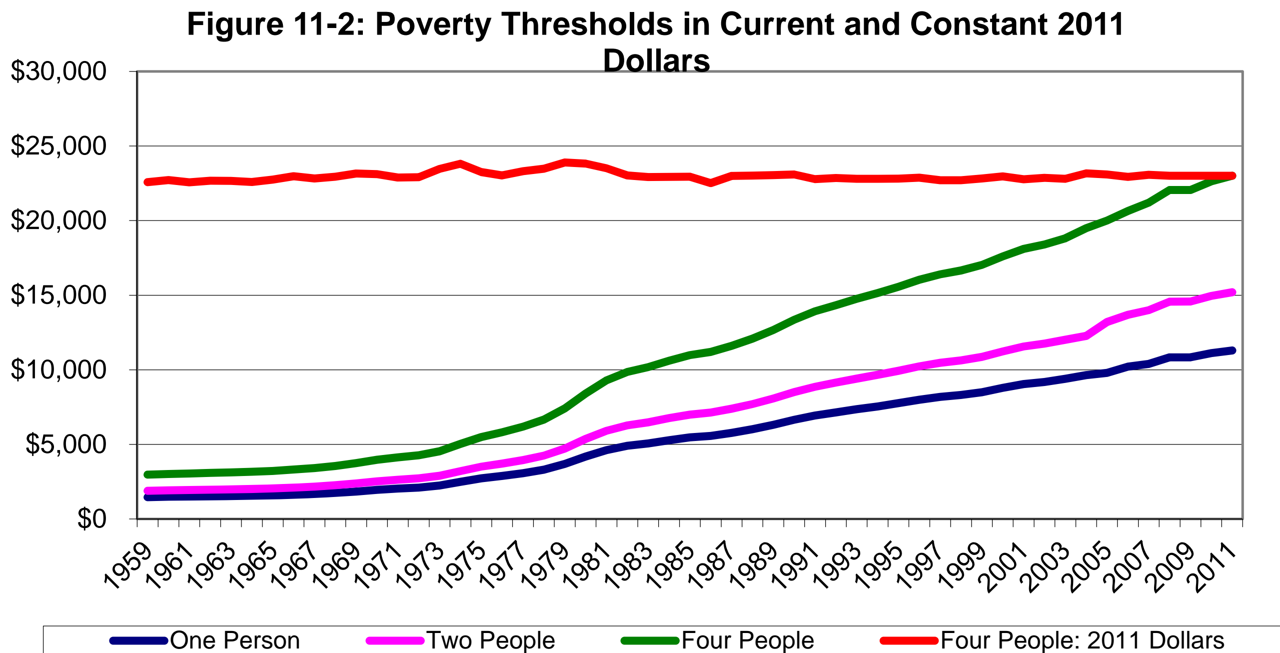



Figure 11-1 plots the official poverty levels (calculated backwards to 1959), for single adults, adult couples, and a family of four, against the consumer price index. Note how all four lines move together through time, with the poverty threshold for a family of four tracking the cost of living (consumer price index) almost perfectly. When we translate that poverty threshold into constant 2011 dollars, we find that the *inflation-adjusted poverty threshold* tracks as a horizontal line.The definition of poverty threshold in 2011was the same as in 1963, except for an adjust-

[7] See http://www.census.gov/hhes/poverty/povdef.html

ment for the cost of living.[8] In this sense the official definition of *poverty* is an **absolute poverty standard**, meaning that combinations of economic growth and/or reductions in economic inequality should reduce this standard over time.[9]

### The Incidence of Poverty

The word **incidence** comes from the word *incident*, meaning an occurrence or an event. Hence, the **incidence of poverty** measures where, when, and to whom poverty occurs. As mentioned above, at the individual level we identify poor households (and the individuals therein) by coding the "poverty" variable as a 1; households that are not poor are coded as a 0. Since everyone in a household is classified as poor if the household is poor, the poverty variable for all individuals residing in a "poor household" is coded as 1; for residents of non-poor households, the poverty variable is coded as 0. The average of this variable is the **sample proportion, *p*,** which is an estimate of the unknown population proportion $\pi$.[10]

## Figure 11-3

[8] The Obama Administration is considering a number of ideas for redefining the poverty threshold current. See http://www.ssa.gov/history/fisheronpoverty.html.

[9] It is reasonable to ask if the poverty threshold should be multiplied by the consumer price index for food, rather than the consumer price index for all goods. It turns out it does not matter. Between January 1913 and January 2011, the correlation between the CPI for food and the CPI for all goods is 0.9993. In January 2011 the CPI for all goods stood at 220.223, while the CPI for food stood at 222.912. Switching the inflation adjustment to the CPI for food would increase the 2011 poverty threshold by 1.22 percent.

[10] The convention in statistics is to designate (unknown) population parameters as Greek letters, and the relevant sample statistic as an equivalent Roman letter. So, we use *p* for the sample proportion (the ratio of poor households to total households), and the equivalent Greek letter $\pi$ to stand for the population parameter. Unfortunately, this use of $\pi$(pi) confuses some students because the Greeks used letters to stand for numbers, and so they designated the (constant) ratio of the circumference of a circle to its diameter as $\pi$, which is a transcendental number approximately equal to 3.14159, or 22/7.

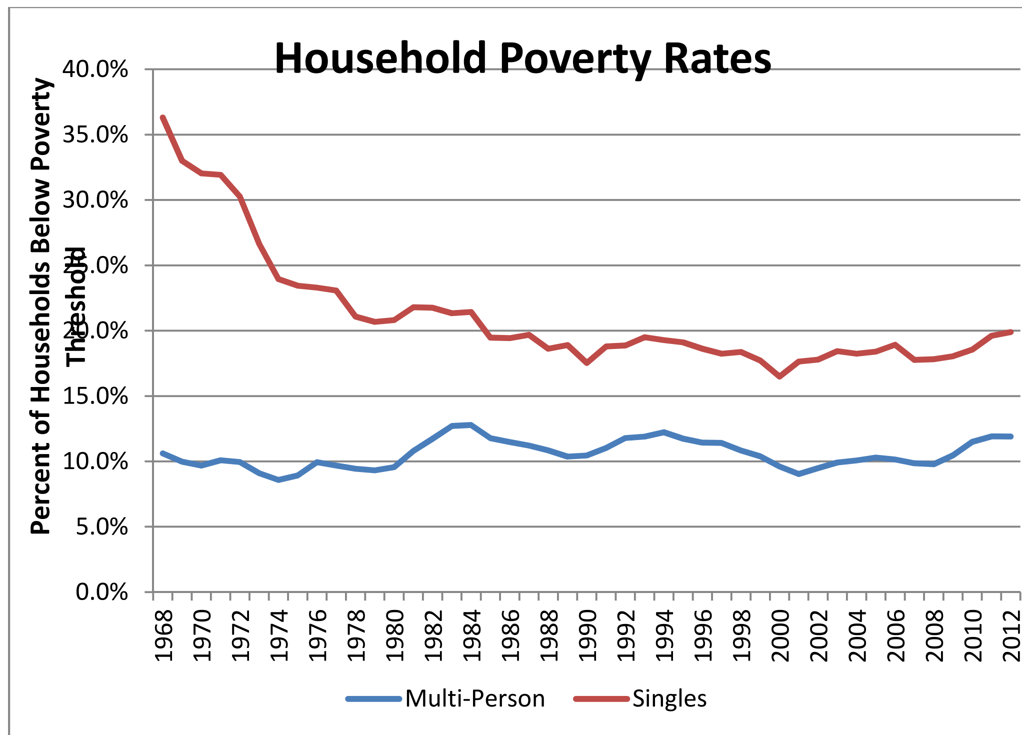



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Figure 11-4 shows the historical poverty rates for individuals; because the poverty threshold increases with family size, the poverty rate for individuals tends to be higher than the poverty rate for multi-person households. Like the poverty rates for multiple-person households, the poverty rates for all individuals fluctuates, but in 2012 ended up at a slightly higher level than where it started in 1968. The green line, showing the poverty rate for working-age adults, is slightly higher in 2012 than it was in 1968. The most dramatic patterns are for seniors, which dramatically decreased from 1968 to 1986, and then remained below the poverty rate for working-age people. In contrast, the poverty rate for children rose dramatically from 1968 until 1985 and remained high until decreasing slightly in 1996, the year of welfare reform. The poverty rate for children increased again in 2001through the current recession.

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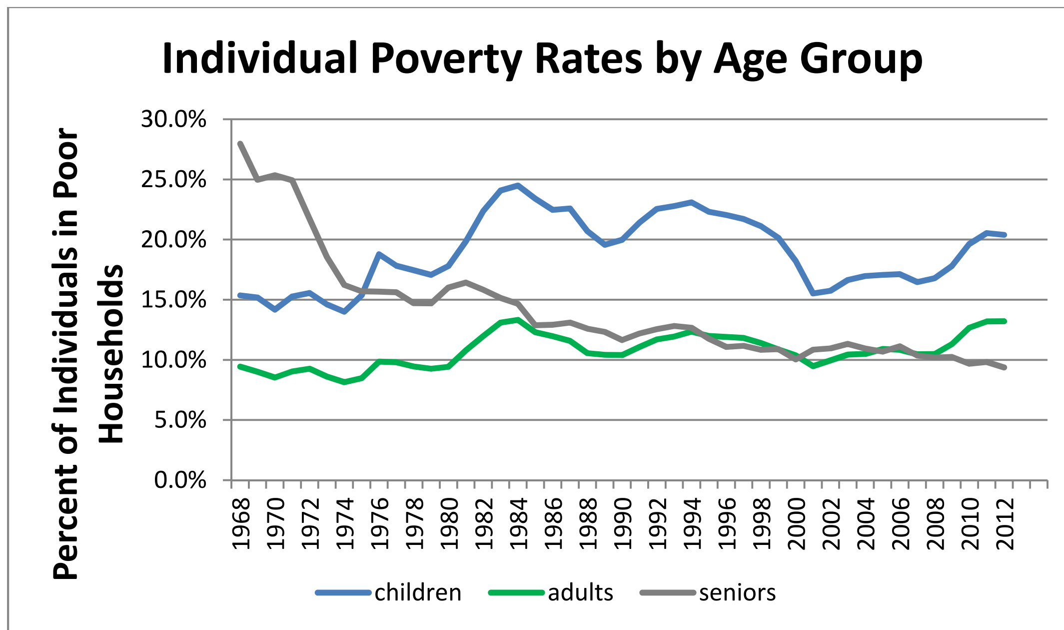



Table 11-2 shows the proportion of individuals residing in households with income below the poverty level by marital status. The overall incidence of poverty is 14.8% percent, which varies dramatically by gender. If we selected a person at random in March 2012, without regard to ethnicity or gender, the probability that that person would be a member of a household with below poverty income would have been between 14.64 percent and 14.95 percent. If we learned that the person was male, the probability of poverty declines to between 12.83 percent and 13.25 percent. Alternatively, if we learned the person was female, then the probability that she is a member of a poor household is between 15.43 percent and 15.86 percent. We say that gender has a *significant* impact on the likelihood of poverty because the two ranges for the poverty rates for men and women do not overlap. In other words, the probability that the differential poverty rates for men and women were due to sampling error, implying that they both have the same likelihood of poverty is smaller than 5 percent. The lowest incidence of poverty is for married couples: 6.11 percent overall.Among married members of the armed forces, women have a higher incidence of poverty (6.18%) than their husbands do (2.08%).When a married person's spouse is absent, the poverty rate among women (33.16%) is nearly twice the rate for men (17.86%). Among legally separated couples, men had a poverty rate of 14.53% and women had a poverty rate over twice as high (34.02%). Widows had a higher poverty rate (16.43%) than widowers did (12.66%). For adults that had never been married, the poverty rate among men was 16.09%, compared to the higher rate for women (21.52%). The key lesson from Table 11-2 is that married adults are significantly less likely to be poor than are single adults. A corollary to that lesson is that among single adults and those whose partners are absent, women have a significantly higher likelihood of poverty than men do.

**Table 11-2**

Individual Poverty Rates by Marital Status

| | Sample | Sample | Sample | Population Poverty Rate | |
|---|---|---|---|---|---|
| Marital Status/Gender | Poverty rate | Std. Dev. | Size | Minimum | Maximum |
| Married | 6.26% | 24.22% | 78,614 | 6.09% | 6.43% |
| Male | 6.27% | 24.24% | 39,547 | 6.03% | 6.50% |
| Female | 6.25% | 24.20% | 39,067 | 6.01% | 6.49% |
| Married, Armed Foces | 7.22% | 25.91% | 540 | 5.03% | 9.41% |
| Male | 3.33% | 18.26% | 30 | -3.48% | 10.15% |
| Female | 7.45% | 26.29% | 510 | 5.16% | 9.74% |
| Married, spouse absent | 24.07% | 42.76% | 2,152 | 22.26% | 25.88% |
| Male | 15.92% | 36.60% | 980 | 13.62% | 18.21% |
| Female | 30.89% | 46.22% | 1,172 | 28.24% | 33.54% |
| Separated | 28.44% | 45.12% | 3,344 | 26.91% | 29.97% |
| Male | 14.26% | 34.98% | 1,620 | 12.55% | 15.96% |
| Female | 16.68% | 37.28% | 6,229 | 15.75% | 17.61% |
| Widowed | 16.18% | 36.83% | 7,849 | 15.37% | 17.00% |
| Male | 15.08% | 35.78% | 6,162 | 14.18% | 15.97% |
| Female | 21.67% | 41.20% | 8,808 | 20.81% | 22.53% |
| Divorced | 18.96% | 39.20% | 14,970 | 18.33% | 19.59% |
| Male | 17.85% | 38.31% | 1,350 | 15.81% | 19.90% |
| Female | 35.61% | 47.90% | 1,994 | 33.50% | 37.71% |
| Never Married | 20.51% | 40.38% | 93,929 | 20.25% | 20.77% |
| Male | 18.90% | 39.15% | 48,113 | 18.55% | 19.25% |
| Female | 22.20% | 41.56% | 45,816 | 21.82% | 22.58% |
| Total | 14.80% | 35.51% | 201,398 | 14.64% | 14.95% |
| Male | 13.42% | 34.09% | 97,802 | 13.21% | 13.64% |
| Female | 16.09% | 36.75% | 103,596 | 15.87% | 16.32% |

## Ethnicity and Poverty

Table 11-3 presents the incidence of poverty for men and women by ethnicity. Further investigation shows within each ethnic group – except for other-nonwhites (e.g., Asians, Native Americans) – the poverty rates for women are significantly greater than the poverty rates for men. Holding gender constant, whites have the lowest incidence of poverty while blacks have the highest. Differences in poverty rates among ethnic groups are also statistically significant. Finally, we find that US citizens have significantly lower incidents of poverty than do non-citizens.

**Table 11-3**
**Impact of Ethnicity on Poverty Rates in 2012**

| Ethnic Group | Proportion | Std Dev | Sample | Minimum | Maximum |
|---|---|---|---|---|---|
| **White**[1] | 9.76% | 29.68% | 127,035 | 9.60% | 9.92% |
| **Male** | 8.87% | 28.43% | 62,275 | 8.64% | 9.09% |
| **Female** | 10.62% | 30.81% | 64,760 | 10.38% | 10.86% |
| **Black**[1] | 26.11% | 43.92% | 23,050 | 25.54% | 26.68% |
| **Male** | 24.06% | 42.74% | 10,459 | 23.24% | 24.88% |
| **Female** | 27.81% | 44.81% | 12,591 | 27.03% | 28.60% |
| **Other Non-white**[1] | 15.07% | 35.78% | 18,276 | 14.56% | 15.59% |
| **Male** | 14.44% | 35.15% | 8,693 | 13.70% | 15.18% |
| **Female** | 15.65% | 36.34% | 9,583 | 14.93% | 16.38% |
| **Hispanic** | 25.67% | 43.68% | 36,622 | 25.22% | 26.12% |
| **Male** | 24.15% | 42.80% | 18,030 | 23.53% | 24.78% |
| **Female** | 27.14% | 44.47% | 18,592 | 26.50% | 27.77% |
| **Citizens** | 14.03% | 34.73% | 190,127 | 13.87% | 14.19% |
| **Male** | 12.92% | 33.55% | 92,090 | 12.71% | 13.14% |
| **Female** | 15.07% | 35.77% | 98,037 | 14.84% | 15.29% |
| **Non-Citizens** | 26.25% | 44.00% | 14,856 | 25.54% | 26.95% |
| **Male** | 23.70% | 42.53% | 7,367 | 22.73% | 24.67% |
| **Female** | 28.75% | 45.26% | 7,489 | 27.72% | 29.77% |

**[1] Excludes Hispanics**

Table 11-4 shows the conditional probabilities of poverty by educational attainment. The first column shows the highest grade completed, and the second column shows the relative size of that group in the March 2011*Current Population Survey.* The incidence of poverty is the **sample proportion** of people within that educational category whose household income is below the poverty threshold. Children constitute 24.11 percent of the sample; their poverty status depends on their parent's income.[12] The standard deviation measures the variation of the poverty measure within each educational category.[13] The standard error of the mean is our measure of sampling error, since we are estimating the poverty rate for the entire U.S. population from a random sample of 206,404individuals.[14] The confidence interval is the range of most likely values for the population proportion—that is, we are 95 percent confident that the incidence of poverty for the population in that education group is within these two limits.

The strongest inference we can draw from Table 11-4 is that graduating from high school is an important determinant of whether or not someone is poor. For all groups with less than a high school diploma, including children under 15, the incidence of poverty for that group is significantly greater than for the population as a whole, for whom $14.23\% < \pi < 14.53\%$, where $\pi$ is the population incidence of poverty.[15]Indeed, the poverty rate for high school graduates (who

[12] The incidence of poverty is different for children in this table than in Table 11-2 because here children are those under the age of 15.

[13] For a sample, $s = \sqrt{\dfrac{p(1-p)}{n_i - 1}}$, where $p$ is the sample proportion for that group and $n_i$ is the number of observations in each educational category, out of the total sample of 206,639.

[14] $s_{p_i} = \dfrac{s_i}{\sqrt{n_i}}$, where $s_i$ is the standard deviation for that educational group, and $n_i$ is the sample size of that group.

[15] We infer that two population proportions are different when their confidence intervals do not overlap.

never attended college) is only slightly below the average for all education groups. The confidence intervals for all education groups without high school diplomas all overlap and the minimum probability for each group is greater than the maximum probability for high school graduates. Table 11-4 also shows that education does not prevent poverty. The incidence of poverty is significantly greater than zero for those who have professional degrees or doctoral degrees.

Table 11-4
2012 Poverty Rates by Educational Attainment of Survey Respondent

| | Sample Statistics | | | Population Proportion | |
|---|---|---|---|---|---|
| Education | Poverty | stdev | frequency | Minimum | Maximum |
| Less than first grade | 38.89% | 48.92% | 144 | 30.83% | 46.95% |
| 1st - 4th grade | 32.26% | 46.80% | 434 | 27.84% | 36.67% |
| 5th - 6th grade | 32.07% | 46.70% | 898 | 29.01% | 35.13% |
| 7th - 8th grade | 30.76% | 46.17% | 985 | 27.87% | 33.65% |
| 9thGrde | 34.16% | 47.45% | 928 | 31.10% | 37.22% |
| 10thGrde | 31.01% | 46.28% | 1,048 | 28.21% | 33.82% |
| 11thGrde | 32.60% | 46.89% | 1,362 | 30.11% | 35.09% |
| 12th grade, no diploma | 27.04% | 44.45% | 662 | 23.65% | 30.43% |
| High school graduate | 14.75% | 35.46% | 15,213 | 14.19% | 15.31% |
| Some college, no degree | 11.48% | 31.88% | 9,657 | 10.85% | 12.12% |
| 2-year vocational degree | 7.99% | 27.12% | 2,579 | 6.94% | 9.03% |
| 2-year academic degree | 6.74% | 25.08% | 2,937 | 5.83% | 7.65% |
| Bachelor’s Degree | 3.74% | 18.96% | 10,387 | 3.37% | 4.10% |
| Master’s Degree | 2.56% | 15.79% | 4,300 | 2.09% | 3.03% |
| Professional Degree | 2.20% | 14.67% | 819 | 1.19% | 3.20% |
| Academic Doctorate | 1.70% | 12.93% | 883 | 0.84% | 2.55% |
| Total | 11.91% | 32.39% | 53,236 | 11.63% | 12.18% |

Another important factor in predicting poverty is work status. We have seen that there is a high incidence of vulnerable populations like children, who cannot work, and senior citizens, who have retired. Table 11-5 shows the incidence of poverty by the labor-force participation and employment status of individuals. Those who have jobs are both **employed** and **labor-force participants.** Those who are **unemployed** do not have a job, but are available for a job, and are (1) awaiting recall while being laid off, or (2) actively looking for a replacement job. Those who are not available for work are nonparticipants, who include (1) retirees, (2) those who are too disabled to work, or (3) have other reasons for nonparticipation, including full-time household production or full-time study.

**Table 11-5**
**2012 Labor-Force Status and Probability of Poverty**

| Labor-Force Status | Proportion | Std Dev | Sample | Minimum Proportion | Maximum Proportion |
|---|---|---|---|---|---|
| Children | 21.12% | 40.82% | 48,810 | 20.76% | 21.48% |
| Employed, At Work | 6.53% | 24.71% | 88,801 | 6.37% | 6.69% |
| Employed, Not At Work | 7.99% | 27.12% | 2,778 | 6.98% | 9.00% |
| Unemployed, Layoff | 15.93% | 36.61% | 1,042 | 13.71% | 18.16% |
| Unemployed, Looking for Work | 27.44% | 44.62% | 8,062 | 26.46% | 28.41% |
| Not in Labor Force, Retired | 11.50% | 31.90% | 20,556 | 11.06% | 11.94% |
| Not in Labor Force, Disabled | 36.65% | 48.19% | 7,650 | 35.57% | 37.73% |
| Not in Labor Force, Other Reason | 24.54% | 43.03% | 27,284 | 24.03% | 25.05% |
| Total | 14.91% | 35.62% | 204,983 | 14.76% | 15.07% |

Children (those under 16) are not considered labor-force participants, and their poverty status depends on the income of their parents or guardians. Employment reduces the probability of poverty from 14.91 percent to 6.53 percent; nevertheless, 6.53% of members of the labor force are the **working poor.** Those who are employed but not at work (e.g., they are on unpaid leave) have a significantly higher incidence of poverty than do those who are working.[16] Those who are laid off from their jobs have a still higher incidence of poverty, typically because unemployment compensation covers only about half of their employment earnings, and because the long-term unemployed (those laid off whose jobs disappeared) exhaust their benefits. Those who are unemployed and looking for work (people who were fired, quit, or recently entered the labor force) have an incidence of poverty of over 27 percent. Retirees have a poverty rate of between 11.06% and 11.94%. Those who cannot work because of a disability have a better than 1 in 3 chance of being poor. Finally, those who do not participate in the labor force because they are full-time parents or full-time students have a 24.03 percent to 25.05 percent incidence of poverty.

In short, poverty results from those who do not succeed because they are too young, unmarried, uneducated, unemployed, or disabled. It would be wonderful if all children grew up in homes with married, responsible, well-educated, employed and caring parents. It would be wonderful if all ethnic groups experienced equal opportunity to succeed. It would be wonderful if employers could find meaningful work for the disabled. It is wonderful that old age is declining as a cause of poverty. But in a world of economic inequality, some people will not succeed, rather from lack of opportunity, lack of effort, or misfortune.

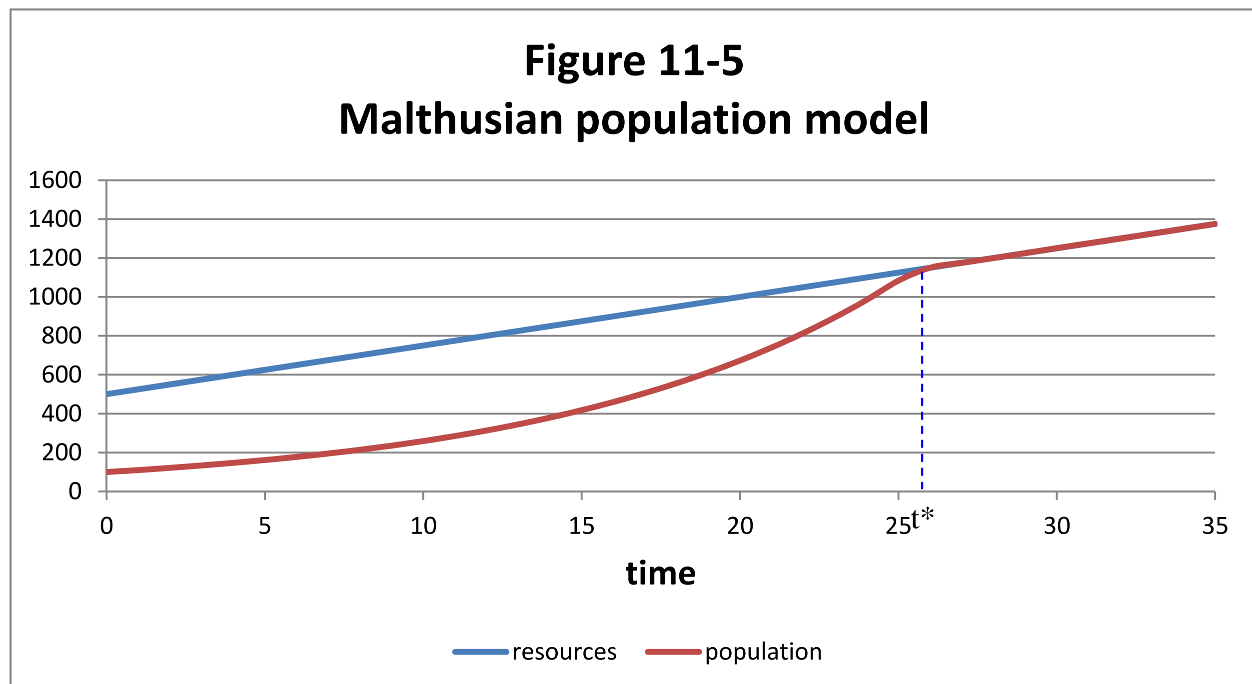
## Approaches to Poverty: Neglect, Prevention, Treatment, or Cure

Speaking of the *incidence of poverty* is very much like discussing the *incidence of a disease*. For instance, if babies are born with a disease, physicians look for a genetic cause; if a disease spreads quickly from one person to another, physicians look for an environmental cause. If the disease is based on behavior, physicians recommend behavior modification. Alas, some consider disease to be "god's will," and refuse to help. Depending upon what they know about the disease and its causes, physicians havefour options: (1) they can neglect the victim, (2) they may treat the symptoms, (3) they can quarantine the victim to prevent spread of the disease, or (4) they may cure the disease.

[16] That is, the minimum population proportion for those employed but not at work exceeds the maximum population proportion for those who are employed and at work.

**A History of Neglect**

For the first 150 years of our history – from 1776 until 1933 – Americans treated poverty as a reflection of indolence or sinfulness. Poor children were quarantined in orphanages and poor adults were locked up in debtors' prisons. People who failed often picked up and moved to the frontier, confiscating land from "savage" aboriginals. In fact, the economic theory that prevailed from the early 1800's was based on a self-serving theory developed by Thomas Robert Malthus, an Anglican minister and amateur demographer.[17] According to Malthus, the standard of living of the bulk of mankind is governed by an exorable "iron law of wages." The theory was based on two assumptions, both of which turned out to be false. First, Malthus assumed that people were governed by an insatiable drive to reproduce; that is, population would grow at a geometric rate: two parents have four children, who marry and have eight children, and so forth. Second, Malthus assumed that food and other necessities would increase at an arithmetic rate (i.e., a harvest might increase from 500 to 525, to 550, and so forth. Figure 11-5 shows a population of $P_0$ and resources of $R_0$ at time zero. Initially, the resources are adequate to support a larger population. Over time, however, population grows at a geometric rate[18] – $P_t = P_0(1+r)^t$ – while resources grow at an arithmetic rate – $R_t = R_0+dt$. Eventually, at time $t^*$, population exhausts the excess resources, and population growth is held in check by "**disease, high infant mortality, famine, war or moral restraint.**"




**According to Malthus, the British working class population had already pushed up against resource capacity, condemning them to a *David Copperfield* existence. Many mothers and children died in childbirth and most children died before age seven. If they survived to that age, children were apprenticed in a trade or sent to work in a factory, typically working a 12-hour shift. Malthus's pessimism led Thomas Carlisle to dub economics "the dismal science."In 1832 the Wig government in Parliament essentially repealed the 1601 "Poor Laws"**

[17] See http://www.economyprofessor.com/economictheories/malthusian-population-theory.php.

[18] In Figure 11-5, the population trend equation is $P_t = 100(1.1)^t$ while the resource equation is $R_t = 1000 + 100t$ .

designed to feed Britain's hungry. In supporting the repeal, Malthus and other economists argued that any financial assistance to the poor would simply cause more of their children to survive to working age which would increase the supply of labor and once again depress wages to a subsistence (starvation) level. Given the futility of helping the poor, and since taxes would detour job creation, the best way to help the poor is to leave them alone.

We have already seen that economic growth does not lead families to have more children; as the opportunity cost of time increases, families tend to reduce the number of children they have, although they tend to spend more resources on the children they have. Furthermore, Malthus's assumption that economic output could only increase at an arithmetic rate has also proved false. When Malthus wrote in the first quarter of the 19th century nearly 90% of Americans lived on farms. Today, less than 1% of the US population is employed in agriculture and food is our leading export.

Malthusian population theory is an excellent example of pseudo-science masquerading as truth. It was in the interest of both aristocrats and capitalists to maintain low tax rates. To this end they used Malthusian population theory as an intellectual cover for their stinginess. In our own time political conservatives preach the virtues of self-sufficiency for the poor, although they continue to practice welfare for the rich. Alas, it was not the empirical refutation of the premises of Malthusian theory that led to its (temporary) loss of popularity, but the widespread economic dislocation of the Great Depression of the 1930's. What is remarkable to me is that the spirit of Malthus is alive in the Tea Party movement which ironically is a conservative reaction to the economic dislocation of the Great Recession.

## Insurance-Like Anti-Poverty Programs

### Workers' Compensation

The first formal government anti-poverty program was workmen's compensation, (now known by the gender-neutral term, *workers' compensation*) which was enacted in 1907 to prevent poverty resulting from on-the-job workers' injuries. Today, workers' compensation is acollection of state-administered programs, where states set the standards for eligibility and benefits under federal government guidelines.

Like many other anti-poverty programs, workmen's compensation is designed much like an insurance program, in that it is intended to protect non-poor households from the hazards that otherwise would lead to poverty. Just as one must be healthy (have no preexisting conditions) to get health insurance, a person must first be employed to be covered by workers' compensation. Second, a beneficiary must be injured while working in that job. Like insurance programs that exclude preexisting conditions (the unemployed) and certain claims (injuries that are not work related), workers' compensation is a program of targeted benefits. And just as private insurance benefits can vary from company to company, workers' compensation benefits vary from state to state. That is because, while workers' compensation programs are based on federal legislation, their basic benefits are set by states, with federal government matching funds.

Any insurance-like program causes two major distortions of economic behavior. First is **moral hazard**, whereby individuals change their behavior because the harmful consequences of bad choices are reduced. If a worker knows that his or her family's economic security depends on the worker not having a debilitating injury, that person will be very cautious on the job. Workers' compensation reduces the risk of economic catastrophe, thereby reducing the workers' incentive to be careful. One could argue, however, that before the onset of workers' compensation, employers faced a moral hazard problem if they felt they would not be held responsible for

their workers' injuries. Early workmen's compensation programs[19] placed all employers in the same risk pool—that is, the tax or insurance rate[20]employers paid to insure their workers were independent of the likelihood that workers would be injured. Over time, states have adapted their insurance programs to correspond more to private insurance, whereby employers whose workers face a higher risk of on-the-job injury also have higher tax and/or insurance rates.

Another insurance-like problem is **adverse selection**, whereby the riskiest employers tend to drive out the least risky employees. In states in which employers can receive waivers to self-insure their employees, the employers of workers who are least likely to have on-the-job injuries, say office workers, will elect out of the state-sponsored system. This increases the risk pool, requiring a rate increase to cover the cost of insuring the remaining risk pool. As rates increase, more employers opt out of the system, until at last, the fund becomes insolvent.

Table 11-6 shows the average workers' compensation and unemployment benefits and the proportion of the 2010 *CPS* sample receiving benefits by state.[21] Nation-wide, about 250 workers in 10,000 who worked at least one week in 2010 received workers' compensation benefits. The average benefit was $9,181 and ranged from a low of $2,743 per recipient in Nebraska, to a high of $24,301 per recipient in Nevada. There is a insignificant relation between the average wage rate and the average workers' compensation benefit.[22] Unemployment compensation is awarded to workers who lose their job due to layoff or other reasons beyond their control; workers who quit their jobs or who are fired for any cause are not eligible for unemployment compensation.

### Unemployment Compensation

Unemployment compensation was started in the Great Depression, when widespread unemployment not only increased poverty, but also turned what could have been a temporary economic downturn into an economic pandemic. If one's wealth has already been lost through the stock market crash and associated bank failure, the loss of employment would immediately plunge the family into poverty. Fearing a similar economic disaster, fellow workers would begin to increase their saving as a means of **self-insurance**. However, the reduction in consumption increases business inventories, leading to the very layoffs for which the frugal workers were preparing. Hence, by replacing a portion (typically 50 percent) of former wages, unemployment compensation should reduce the *macroeconomic* repercussions of widespread unemployment.

In 1932, Wisconsin became the first state to offer unemployment insurance. The genesis of the federal unemployment insurance program was the Social Security Act of 1935, which used a payroll tax (equally imposed on workers and employers) to replace income lost to retirement or disability. Under the Social Security Act, the federal share of unemployment insurance covers the administrative costs, while state revenue from payroll taxes covers only benefits. Each state sets its own rules and has charge of program administration for that state. Hence, the benefits, eligibility rules, and number of weeks that benefits can be received vary from state to state. The

[19] The politically incorrect label should indicate that this was a historical problem.
[20] State workers' compensation systems in North Dakota, Ohio, Puerto Rico, the Virgin Islands, Washington State, West Virginia, and for the United States (federal employees) are exclusively operated by the state government. All the other states have private workers' compensation insurance coverage. Twenty-five states have a mixture of public and private insurance options, and the remaining states have only private insurance options.
[21] Recall, income reported in the March 2010 *CPS* refers to calendar-year 2009 income.
[22] The correlation is 0.0838, which is statistically insignificant at the .559-percent level.

original unemployment compensation system limited benefits to employees in certain industries, and required a waiting period of between two and four weeks. Since the 1970s however, the scope of unemployment compensation has been increased, with benefits typically limited to 26 weeks (six months). Coverage expands to 39 weeks when unemployment rates become high by historical standards.

**Table 11-6**
**Workers' Compensation and Unemployment Benefits in 2011 by State**

| | **Workers Compensation** | | | **Unemployment Compensation** | | | | **All Workers** | |
|---|---|---|---|---|---|---|---|---|---|
| State | Average Benefits | Per Worker | Percent of Workers | Average Benefits | Per Worker | Percent of Workers | Sample Size | Unemploy-ment Rate | Average Earnings |
| ME | $91.18 | $15,443 | 0.59% | $265.50 | $5,975 | 4.44% | 3,218 | 9.99% | $40,368 |
| NH | $25.96 | $6,041 | 0.43% | $162.60 | $6,654 | 2.44% | 3,724 | 6.16% | $47,025 |
| VT | $8.25 | $4,450 | 0.19% | $196.43 | $5,574 | 3.52% | 2,696 | 5.70% | $38,997 |
| MA | $56.31 | $18,727 | 0.30% | $300.44 | $9,176 | 3.27% | 2,993 | 6.94% | $52,138 |
| RI | $66.73 | $6,798 | 0.98% | $346.86 | $7,023 | 4.94% | 3,260 | 11.74% | $42,250 |
| CT | $55.71 | $10,121 | 0.55% | $265.84 | $7,500 | 3.54% | 4,542 | 8.44% | $56,412 |
| NY | $53.46 | $11,510 | 0.46% | $240.18 | $6,759 | 3.55% | 8,611 | 8.36% | $45,817 |
| NJ | $39.03 | $12,304 | 0.32% | $497.18 | $10,612 | 4.69% | 4,098 | 8.76% | $52,963 |
| PA | $45.11 | $11,555 | 0.39% | $313.69 | $7,248 | 4.33% | 5,892 | 7.35% | $43,665 |
| OH | $29.40 | $8,894 | 0.33% | $187.92 | $6,187 | 3.04% | 4,840 | 7.93% | $39,486 |
| IN | $6.19 | $3,115 | 0.20% | $129.54 | $5,589 | 2.32% | 3,020 | 8.05% | $43,490 |
| IL | $26.14 | $9,391 | 0.28% | $247.08 | $7,831 | 3.15% | 6,466 | 9.00% | $45,322 |
| MI | $32.54 | $7,143 | 0.46% | $230.71 | $6,078 | 3.80% | 4,610 | 8.74% | $40,929 |
| WI | $41.55 | $8,957 | 0.46% | $230.64 | $4,803 | 4.80% | 3,665 | 8.39% | $38,783 |
| MN | $21.00 | $5,503 | 0.38% | $208.85 | $6,235 | 3.35% | 4,717 | 7.20% | $44,512 |
| IA | $14.69 | $3,642 | 0.40% | $165.99 | $5,563 | 2.98% | 3,720 | 5.32% | $38,412 |
| MO | $8.36 | $4,263 | 0.20% | $137.00 | $5,176 | 2.65% | 3,060 | 7.56% | $42,195 |
| ND | $8.32 | $6,447 | 0.13% | $110.82 | $4,953 | 2.24% | 2,324 | 3.33% | $43,476 |
| SD | $26.05 | $4,611 | 0.56% | $53.97 | $3,961 | 1.36% | 3,009 | 5.37% | $36,846 |
| NE | $9.75 | $2,945 | 0.33% | $115.73 | $5,195 | 2.23% | 3,322 | 3.66% | $41,602 |
| KS | $29.05 | $7,599 | 0.38% | $157.93 | $5,223 | 3.02% | 2,877 | 7.08% | $38,798 |
| DE | $35.13 | $7,965 | 0.44% | $182.19 | $6,286 | 2.90% | 3,174 | 8.81% | $40,938 |
| MD | $23.97 | $14,940 | 0.16% | $182.26 | $7,902 | 2.31% | 4,986 | 8.03% | $51,174 |
| DC | $54.30 | $13,324 | 0.41% | $146.97 | $7,346 | 2.00% | 2,699 | 10.63% | $64,147 |
| VA | $23.80 | $13,136 | 0.18% | $107.23 | $6,229 | 1.72% | 4,415 | 6.77% | $48,398 |
| WV | $66.45 | $10,171 | 0.65% | $204.45 | $6,562 | 3.12% | 1,990 | 7.17% | $39,167 |
| NC | $25.44 | $6,358 | 0.40% | $219.89 | $6,979 | 3.15% | 3,999 | 9.15% | $41,138 |
| SC | $50.43 | $13,319 | 0.38% | $195.83 | $6,125 | 3.20% | 2,377 | 10.03% | $32,850 |
| GA | $22.53 | $8,903 | 0.25% | $170.70 | $6,744 | 2.53% | 4,346 | 9.44% | $42,443 |
| FL | $23.05 | $11,451 | 0.20% | $140.53 | $5,698 | 2.47% | 7,947 | 8.56% | $41,274 |
| KY | $38.50 | $7,469 | 0.52% | $172.37 | $5,394 | 3.20% | 2,910 | 9.10% | $35,765 |
| TN | $36.27 | $23,896 | 0.15% | $168.14 | $5,830 | 2.88% | 2,635 | 7.53% | $37,890 |
| AL | $33.62 | $9,253 | 0.36% | $171.23 | $5,627 | 3.04% | 2,202 | 8.17% | $39,548 |
| MS | $24.82 | $7,480 | 0.33% | $97.87 | $3,847 | 2.54% | 1,808 | 8.45% | $37,284 |
| AR | $22.67 | $8,774 | 0.26% | $118.95 | $4,262 | 2.79% | 1,935 | 7.21% | $33,938 |
| LA | $47.87 | $11,338 | 0.42% | $82.83 | $4,616 | 1.79% | 1,895 | 8.43% | $38,407 |
| OK | $13.78 | $3,760 | 0.37% | $68.68 | $4,817 | 1.43% | 2,455 | 4.58% | $43,212 |
| TX | $18.99 | $5,367 | 0.35% | $145.24 | $6,926 | 2.10% | 11,873 | 6.49% | $42,165 |
| MT | $26.35 | $9,542 | 0.28% | $169.36 | $5,112 | 3.31% | 1,811 | 7.39% | $32,681 |
| ID | $7.52 | $3,607 | 0.21% | $224.41 | $5,491 | 4.09% | 2,398 | 9.42% | $34,009 |
| WY | $42.12 | $9,228 | 0.46% | $136.75 | $5,447 | 2.51% | 2,629 | 6.50% | $40,611 |
| CO | $26.69 | $8,046 | 0.33% | $230.90 | $7,353 | 3.14% | 4,522 | 8.64% | $45,949 |
| NM | $23.83 | $9,110 | 0.26% | $199.30 | $7,324 | 2.72% | 1,911 | 6.68% | $39,683 |
| AZ | $12.08 | $6,308 | 0.19% | $175.27 | $7,502 | 2.34% | 2,611 | 8.54% | $40,500 |
| UT | $28.91 | $7,809 | 0.37% | $135.32 | $5,992 | 2.26% | 2,701 | 7.05% | $40,531 |
| NV | $17.93 | $6,209 | 0.29% | $306.20 | $7,695 | 3.98% | 3,116 | 11.47% | $37,469 |
| WA | $41.32 | $7,022 | 0.59% | $343.03 | $7,484 | 4.58% | 3,229 | 9.58% | $44,902 |
| OR | $21.33 | $5,663 | 0.38% | $319.11 | $6,139 | 5.20% | 2,655 | 9.62% | $39,803 |
| CA | $58.28 | $10,458 | 0.56% | $310.24 | $7,702 | 4.03% | 19,738 | 11.79% | $44,421 |
| AK | $97.00 | $17,388 | 0.56% | $169.41 | $4,390 | 3.86% | 2,151 | 8.19% | $45,961 |
| HI | $52.36 | $9,964 | 0.53% | $227.41 | $8,306 | 2.74% | 3,616 | 5.71% | $43,047 |
| Average | $34.99 | $9,035 | 0.39% | $211.95 | $6,705 | 3.16% | 201,398 | 8.22% | $43,170 |

Like workers' compensation, unemployment compensation also is plagued by problems of **moral hazard** and **adverse selection**. The moral hazard problem results from the distinction

between a layoff, a temporary unemployment condition that results from inadequate aggregate demand, and structural unemployment, which occurs because of a change in the supply and demand for labor. Unemployment compensation was meant to deal with temporary layoffs: While the economy undergoes a contraction phase, the unemployed have sufficient income to survive until their jobs return during the expansion phase. Structural changes in the labor market may mean that workers are waiting for jobs that no longer exist. For instance, during the recession of 1979–1983, the loss of jobs initially due to the anti-inflationary contraction in the economy under President Carter lasted through the increase in real interest rates following large budget deficits, which permanently destroyed blue-collar jobs in industries like steel and automobiles. Because their high-paying previous manufacturing jobs paid more than their replacement service jobs, many of the unemployed did not bother to look for work outside of manufacturing until their unemployment benefits were nearly exhausted.

Another problem with unemployment compensation is that employers in low-unemployment industries tend to subsidize firms in high-unemployment industries. Employers who have invested a large amount of **specific human capital** in their workforce would have to pay wages during economic downturns, lest their workers seek employment outside the industry. With unemployment compensation, those workers can continue to receive half their wages during high-unemployment periods, in this case at the expense of employers with small investments in specific human capital.

Another complication with state-operated insurance-like programs is that states may actually compete with each other to set low benefits as a strategy of attracting employers. Table 11-6 shows the variation in workers' compensation and unemployment compensation benefits by state during 2010. The first column gives the state name (postal abbreviation) and the next three columns give workers' compensation statistics. States with higher worker compensation benefits (a) are more attractive to employers whose workers might be injured on the job and (b) encourage workers who are injured on the job to take a longer period of time to recuperate.

In 2010, an average of 1 worker in 12 received unemployment compensation benefits. Not all workers receive unemployment benefits; one can receive those benefits only if one is an involuntary job loser, who is not fired for cause. Many economists believe, however, that many employers agree to report that they laidoff their workers for lack of work, rather than firing them for cause, if the employee agrees not to contest his or her discharge. Unemployment compensation ranges from the low of $5,167 in Nebraska to $11,239 in New Jersey; the average per worker is $301.70, or 1 percent of average annual earnings. Since individual unemployment benefits are a function of pre-unemployment earnings, we expect a stronger positive relation between unemployment benefits and the average wage rate in a state.[23]

## Social Security and Medicare

The two largest and most effective anti-poverty programs are the Social Security program and the Medicare program, both under attack by the Tea Party Congress. Congress enacted the Old Age and Retirement System in 1938, the same year it enacted unemployment compensation. Originally intended to start paying benefits in 1942, the first benefits were actually paid in 1940. The fact that retirees received benefits after little contributions to the system meant that Social Security was a **pay-as-you-go** system. Nevertheless, there is the widespread belief, fostered by

[23] The correlation is +.5383, which is statistically significant at the .01-percent level.

the Social Security administration itself,[24] that each person has a separate account with money or other assets set aside for his or her retirement. In fact, the Social Security trust fund is like a bathtub, whose water-level rises when taxes enter the system (like water from the faucet), and falls when benefits are paid out (like water seeping into the open drain). In 1983, Congress increased the **payroll tax**, the cutoff income for that tax, and phased in a delayed retirement age from 65 to 67. The **surplus** in the Social Security trust fund went to support the rest of the federal budget that was in deficit. In fact, the Social Security Trust Fund is now the largest creditor for the United States Treasury.

In order to qualify for Social Security retirement benefits, a person and his or her employer[25] must have paid Social Security taxes for a minimum of 40 quarters. In this sense, Social Security is set up like an insurance system because in order to be protected from poverty due to old age, the person must first have a job to be retired from. Furthermore, retirement benefits are loosely tied to one's payroll tax history; the more one contributes, the more one expects to receive, although Social Security benefits tend to decrease as a percentage of earned income. Finally, like unemployment compensation and workers' compensation, old age and survivor's benefits are not **means tested**. Social Security benefits are independent of **non-labor income** including interest, dividends, rents, and private pension income.[26]

Table 11-7 shows the trend in Social Security benefits and poverty among seniors. The second column shows seniors as a percent of the adult population, which increased from 9.21% percent in 1968 to 12.3% in 1994 before declining to 11.18% in 2012. The poverty rate among seniors is shown in column 3, showing a dramatic decrease from 27.74% in 1968 to only 9.37% in 2012. Expressed in constant 2011 dollars, Social Security benefits averaged $5,332 per senior citizen and $264 for younger people (who may receive disability or survivors' benefits) in 1967. In that year Social Security benefits averaged 36.96 percent of total income for seniors and only 1.08% for others. Social Security's share of total senior income 45.64% in 1995, and declined to 37.9% in 2010. Social Security benefits were 1.08 percent of the income of people younger than 65 in 1967, and were 1.74% percent in 2011.

The companion of the Social Security Old Age and Survivor's Insurance program is the Medicare program. Passed as part of President Lyndon Johnson's War on Poverty, Medicare was intended to assist senior citizens with their health care expenses. Medicare is an **in kind** transfer: Instead of receiving a supplement to Social Security income, seniors were given access to a government-administered health insurance program. As an insurance program, Medicare is not means tested; everyone reaching the age of 65 qualifies for Social Security coverage. Like any insurance program, Medicare generates a moral hazard problem; given that their health costs are subsidized by the government, seniors want the best medical care that (the taxpayer's) money can buy.

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[24] You may have received a letter from the Social Security administration documenting payroll taxes that you and your employer(s) paid, along with predicted benefits if you retire at age 62 or 67. However, Social Security will be able to pay you those benefits only if people working after you retire pay taxes that are sufficient to cover your benefits and those of other retirees.

[25] Self-employed workers pay the entire payroll tax; economic theory implies that the payroll tax is shifted from employers to workers.

[26] However, many companies reduce their pension payments by the amount of Social Security income workers receive.

**Table 11-7**

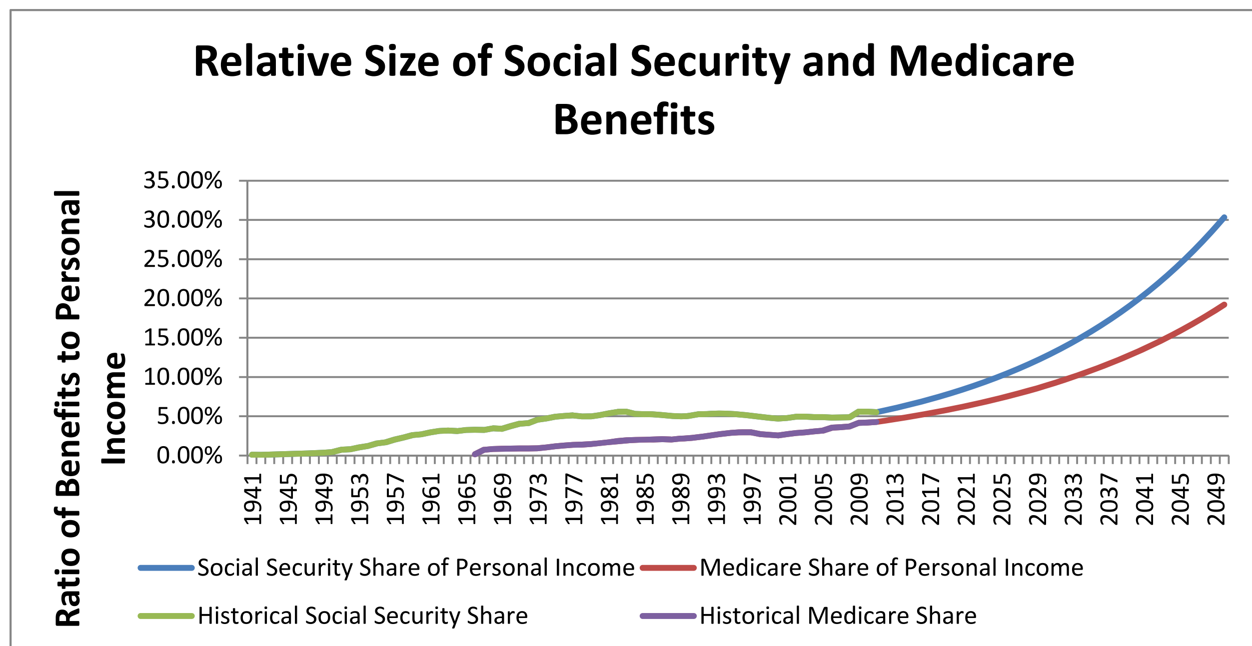
| CPS Survey Year | Percent Seniors | Senior Poverty Rate | 2011 Dollars Social Security Seniors | Social Security Others | Average Income Seniors | Average Income Others | Social Security Income / Total Income Seniors | Social Security Income / Total Income Others | Consumer Price Index |
|---|---|---|---|---|---|---|---|---|---|
| 1968 | 9.21% | 27.74% | $5,332 | $264 | $15,502 | $24,461 | 34.39% | 1.08% | 33.4 |
| 1969 | 9.29% | 24.76% | $5,695 | $275 | $16,993 | $25,642 | 33.52% | 1.07% | 34.8 |
| 1970 | 9.33% | 25.14% | $5,566 | $259 | $17,254 | $26,513 | 32.26% | 0.98% | 36.7 |
| 1971 | 9.38% | 24.71% | $6,094 | $287 | $17,071 | $26,386 | 35.70% | 1.09% | 38.8 |
| 1972 | 9.62% | 21.52% | $6,685 | $317 | $18,108 | $26,364 | 36.92% | 1.20% | 40.5 |
| 1973 | 9.73% | 18.40% | $7,468 | $367 | $19,165 | $27,951 | 38.97% | 1.31% | 41.8 |
| 1974 | 10.29% | 16.09% | $8,154 | $429 | $19,877 | $28,593 | 41.02% | 1.50% | 44.4 |
| 1975 | 10.26% | 15.58% | $8,242 | $434 | $19,443 | $27,372 | 42.39% | 1.59% | 49.3 |
| 1976 | 10.06% | 15.66% | $8,365 | $331 | $19,641 | $19,426 | 42.59% | 1.70% | 53.8 |
| 1977 | 9.98% | 15.61% | $8,626 | $340 | $20,072 | $19,955 | 42.97% | 1.70% | 56.9 |
| 1978 | 10.15% | 14.71% | $8,764 | $367 | $20,433 | $20,643 | 42.89% | 1.78% | 60.6 |
| 1979 | 10.35% | 14.70% | $8,859 | $379 | $20,855 | $21,267 | 42.48% | 1.78% | 65.2 |
| 1980 | 10.53% | 16.01% | $8,556 | $347 | $20,029 | $21,311 | 42.72% | 1.63% | 72.6 |
| 1981 | 10.59% | 16.43% | $8,595 | $345 | $19,893 | $20,273 | 43.21% | 1.70% | 82.4 |
| 1982 | 10.82% | 15.83% | $8,911 | $360 | $21,003 | $20,115 | 42.43% | 1.79% | 90.9 |
| 1983 | 10.99% | 15.14% | $9,319 | $346 | $21,994 | $19,945 | 42.37% | 1.74% | 96.5 |
| 1984 | 11.03% | 14.66% | $9,502 | $328 | $22,345 | $20,432 | 42.53% | 1.60% | 99.6 |
| 1985 | 11.28% | 12.87% | $9,630 | $324 | $23,519 | $21,596 | 40.94% | 1.50% | 103.9 |
| 1986 | 11.60% | 12.92% | $9,724 | $318 | $23,468 | $22,203 | 41.44% | 1.43% | 107.6 |
| 1987 | 11.65% | 13.10% | $9,844 | $321 | $24,068 | $22,926 | 40.90% | 1.40% | 109.6 |
| 1988 | 11.93% | 12.60% | $9,543 | $324 | $24,059 | $23,578 | 39.66% | 1.38% | 113.6 |
| 1989 | 12.26% | 12.32% | $9,559 | $328 | $24,220 | $23,782 | 39.47% | 1.38% | 118.3 |
| 1990 | 11.96% | 11.64% | $9,598 | $324 | $25,522 | $24,092 | 37.61% | 1.34% | 124.0 |
| 1991 | 12.02% | 12.19% | $9,539 | $315 | $25,097 | $23,254 | 38.01% | 1.35% | 130.7 |
| 1992 | 12.17% | 12.55% | $9,552 | $313 | $24,142 | $22,861 | 39.57% | 1.37% | 136.2 |
| 1993 | 12.29% | 12.82% | $9,727 | $337 | $23,535 | $22,797 | 41.33% | 1.48% | 140.3 |
| 1994 | 12.30% | 12.67% | $9,901 | $345 | $23,685 | $22,777 | 41.80% | 1.51% | 144.5 |
| 1995 | 12.15% | 11.76% | $10,659 | $350 | $24,052 | $23,364 | 44.32% | 1.50% | 148.2 |
| 1996 | 12.07% | 11.07% | $10,593 | $358 | $24,786 | $24,630 | 42.74% | 1.45% | 152.4 |
| 1997 | 12.10% | 11.17% | $10,658 | $361 | $25,180 | $25,171 | 42.33% | 1.43% | 156.9 |
| 1998 | 11.90% | 10.84% | $10,787 | $379 | $26,412 | $26,145 | 40.84% | 1.45% | 160.5 |
| 1999 | 11.96% | 10.89% | $10,836 | $356 | $27,478 | $26,965 | 39.43% | 1.32% | 163.0 |
| 2000 | 11.90% | 10.04% | $10,908 | $367 | $27,493 | $27,062 | 39.68% | 1.36% | 166.6 |
| 2001 | 9.45% | 10.85% | $10,828 | $331 | $26,898 | $27,174 | 40.26% | 1.22% | 172.2 |
| 2002 | 9.47% | 10.95% | $10,904 | $340 | $26,403 | $27,122 | 41.30% | 1.25% | 177.1 |
| 2003 | 9.42% | 11.33% | $10,893 | $352 | $26,012 | $26,667 | 41.88% | 1.32% | 179.9 |
| 2004 | 9.55% | 10.94% | $10,968 | $364 | $26,699 | $26,720 | 41.08% | 1.36% | 184.0 |
| 2005 | 9.76% | 10.69% | $11,010 | $377 | $27,032 | $26,689 | 40.73% | 1.41% | 188.9 |
| 2006 | 9.79% | 11.13% | $10,855 | $384 | $27,735 | $27,120 | 39.14% | 1.41% | 195.3 |
| 2007 | 9.92% | 10.35% | $11,056 | $390 | $28,418 | $27,733 | 38.90% | 1.41% | 201.6 |
| 2008 | 10.15% | 10.19% | $11,009 | $394 | $29,306 | $27,548 | 37.57% | 1.43% | 207.3 |
| 2009 | 10.29% | 10.23% | $11,219 | $405 | $29,043 | $26,745 | 38.63% | 1.52% | 215.3 |
| 2010 | 10.42% | 9.68% | $11,912 | $423 | $29,469 | $26,205 | 40.42% | 1.61% | 214.5 |
| 2011 | 10.71% | 9.83% | $11,313 | $437 | $29,420 | $25,831 | 38.45% | 1.69% | 218.1 |
| 2012 | 11.18% | 9.37% | $11,344 | $454 | $29,934 | $26,060 | 37.90% | 1.74% | 224.9 |
| Total | 10.66% | 13.52% | $9,682 | $356 | $24,081 | $24,510 | 40.21% | | |

Figure 11-5 shows the history of Social Security and Medicare benefits as a share of personal income between 1941 and 2011,[27]with their current growth trends extrapolated to the year 2050. While personal income increased at an annual rate of 7.54% (from 1929 to 2011), Social Security benefits increased at a rate of 12.35% per year (from 1941 to 2011) and Medicare benefits increased at an annual rate of 11.77% (from 1967 to 2011). When benefits grow faster than income, it follows that benefits absorb a greater share of personal income. In 2011, social securi-

[27] Medicare benefits were not available in the March 2008 *CPS*.

ty benefits absorbed 5.5% of all personal income. Note that this was substantially less than the combined payroll tax rate of 12.4% on employers and employees because non-labor income and labor income above $110,000 are not taxed. Medicare benefits constitute 4.28% of personal income, which exceeds the tax rate of 2.9% imposed on employers and employees (without a cap). It follows that Medicare will face a revenue crisis much sooner than Social Security will. If the relative rates of growth continue, Social Security income will grow to 30% of personal income, and Medicare will represent nearly 20% of personal income by the year 2050. Obviously, either the tax base must increase, or benefits must eventually be scaled back. The greatest problem for reform is that senior citizens have a much higher voting rate than working-aged adults do.

**Figure 11-5**




**The Future of Social Security**

Social Security and Medicare are the two most successful anti-poverty programs in American history. Between 1967 and 2012, the incidence of poverty among senior citizens decreased from 27.74 percent (over twice the national average) to 9.37 percent, which is lower than the incidence of poverty for working-age adults. Because conventional wisdom holds that Social Security is a pension program (although it is pay as you go), and because Medicare looks like a health-insurance program, neither program carries the stigma of **welfare**. However, the very success of Social Security and Medicare are likely to be their undoing. Because both programs are pay-as-you-go programs, future benefits for today's workers depend on taxes paid by future workers.

We have already seen that total OASDI benefits are rising much faster than the payroll tax base because (1) retired people are living longer, (2) OASDI benefits are automatically adjusted to the cost of living (which few pension programs are), and (3) senior citizens are reliable one-issue voters, making it tempting for politicians to "buy" the votes of seniors, who vote, rather than the younger citizens, who are less likely to vote. The demographics do not look good for either program.

In 1983, the Greenspan Commission (named for Federal Reserve Chairman Alan Greenspan) warned of impending cash shortages. As a result, Congress increased both the payroll tax rate and the maximum taxable earnings level, which was indexed to the cost of living. For the first time, Congress taxed one-half of Social Security benefits on recipients with total incomes in excess of $25,000 annually. In 1993, Congress made 85 percent of Social Security benefits taxable on individuals with incomes over $34,000 and couples with incomes over $44,000. Note how Social Security revenues increased, relative to Social Security transfers after 1983. However, the Social Security surplus was merely borrowed by the U.S. Treasury to fund first the Reagan tax cuts and expenditure increases, and now the Bush II tax cuts and spending increases.

Privatizing Social Security would combine the worst aspects of the current Social Security system and private retirement accounts. George W. Bush proposed that workers be allowed to "invest" a portion of their payroll tax in the stock market (that is, the government would encourage stock market speculation by picking which casinos workers could gamble their savings in). Although buying stocks and bonds is risky, Bush hoped that those accounts would grow faster than the payroll tax base, allowing for higher benefits without payroll tax increases. Just imagine what would have happened to retirement funds if they had been "invested" in the stock market during the market meltdown in 2008. My proposal: don't privatize social security; kill it (gently).

The end of Social Security would eliminate a major **moral hazard** problem. When people realize that Social Security is dead, they will increase the portion of their income they save and loan to the business sector for capital formation. The death of Social Security will mean new life for United States investment. Indeed, the U.S. deficit is currently bleeding international financial markets of much needed development funds for less-developed countries. The death of Social Security may, in a small way, improve the lot of the 60 percent of the world's population that consume only 10 percent of its output.

On the downside, the end of Social Security will increase the incidence of poverty among senior citizens. First, not everyone will prudently save for their retirement, and those too old to work will face a bleak future in what should have been their golden years. Further, since financial markets are risky, some unlucky financial investors will lose some or all of their savings in imprudent get-rich-quick schemes. Since senior citizens vote, it is unlikely that politicians will allow seniors to wallow in the type of poverty they are willing to tolerate in single-mom households. So welfare for seniors may improve the prospects for welfare for children.

So, if Social Security is going to die, how should we kill it: starve it to death (the Bush plan), or by lethal injection? I propose the latter. First, guarantee Social Security benefits to all seniors currently receiving them. That means a phase-out program of approximately 20 years. Over time, pay back to all current workers all their contributions into the Social Security program. To do this, I propose extending the payroll tax rate of 7.6 percent to all sources of income. The chief beneficiaries of the increase in Social Security taxes since 1983 have been the rich, who received the bulk of the Reagan and Bush tax cuts; it is only fair that these people support the phase out of the program that has served them so well for so long.

In 1935 there was sound reason for a government-mandated retirement system. The stock market and the banking system were reeling from the Great Depression. The consensus among Keynesian economists was that the household sector saved too much; they believed that the saving disincentive of the Social Security system was a good thing. But if we learn anything

in economics, it should be that what was good in the past is not necessarily good for the future. Currently, 48 percent of senior households rely on Social Security to raise household income above the poverty level. Eliminating Social Security would force nearly half of these households into anti-poverty programs. It is to those programs that our attention now turns.

## Programs that Treat Poverty's Symptoms

We have covered those programs designed mostly to keep the non-poor from becoming poor. These programs are typically designed to look like insurance programs, so that no stigma attaches to those who receive benefits. However, like insurance programs, workers' compensation, unemployment compensation, Social Security, and Medicare are fraught with problems of moral hazard and adverse selection. We now turn to the programs designed specifically to correct poverty. Just as a person with a preexisting medical condition does not qualify for health insurance, a person already in poverty does not qualify for anti-poverty insurance. Hence, anti-poverty programs for the poor tend to be modeled as charity: (1) they are restricted to the truly needy (that is, they are **means tested**), and (2) there is a stigma attached to receiving benefits.

The oldest and best-known anti-poverty program was Aid to Families with Dependent Children, which was born as Aid to Dependent Children in the Social Security Act of 1935. The inadequacy of ADC payments at combating childhood poverty was instrumental in launching the Kennedy-Johnson administration's war on poverty, which changed the name to Aid to *Families* with Dependent Children (AFDC). In 1996 AFDC became TANF (Temporary Assistance to Needy Families), which set time limits of two consecutive years and five total years during which a family could receive TANF payments. Figure 11-6 shows that, for all the publicity alleging welfare recipients feeding from the public trough, the proportion of households receiving cash welfare assistance was never more than 3 percent of all households. In fact, the proportion of *poor* households receiving AFDC payments peaked at about 35 percent in 1974. As the poverty rate rose from 1974 to 1983, the proportion of poor households receiving AFDC payments consistently fell. When the poverty rate fell from 1983 to 1989, the percent of poor families receiving welfare rose; this apparent anomaly probably reflects the fact that the working poor (who did not receive welfare) had a better chance of escaping poverty than did welfare recipients who faced a strong work disincentive.

Figure 11-7 shows the trend in the average value of payments in constant (2011) dollars.[28] The average payment per beneficiary reported in 1968 was $8,198 in 2011 purchasing power. Between 1968 and 1974, payment in 2011 dollars increased to $9,045, when real benefit levels peaked. Between 1975 and 2011, inflation-adjusted payments decreased to $3,551 in 2011. The red line shows welfare spending per poor household, which reflects the fact that only a minority of poor families actually received cash benefits in any year. Starting at $2,316 per poor household in 1968, average payments peaked at $5,085 in 1974, and then declined to $473 per poor household in 2010.

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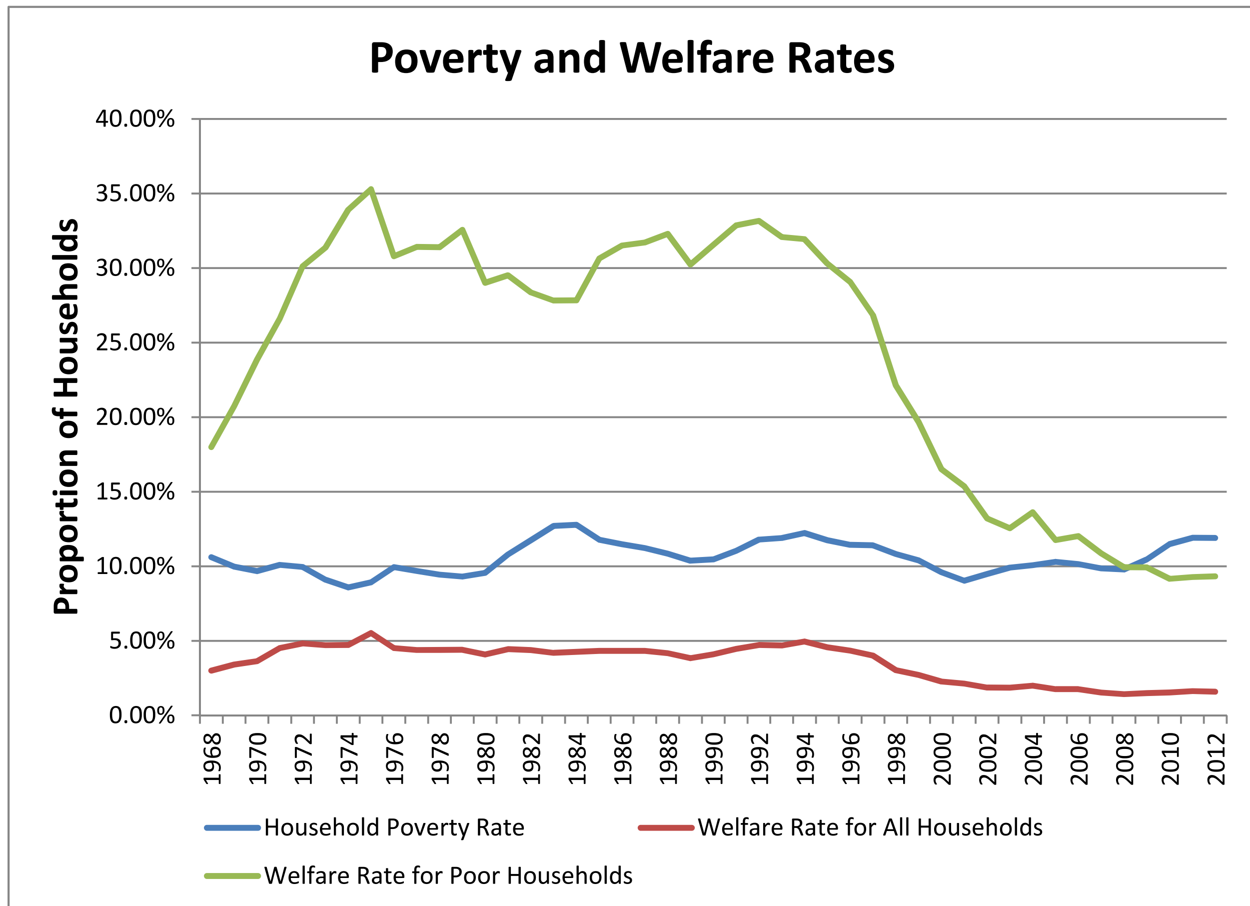
[28] To translate payments into base year dollars, we divide by the current year's consumer price index, and multiply by 100. To translates payments into a different year (i.e., 2003), we divide the nominal payment by the CPI, then multiply by the CPI for that year, in this case, $CPI_{2002}$ = 183.9.

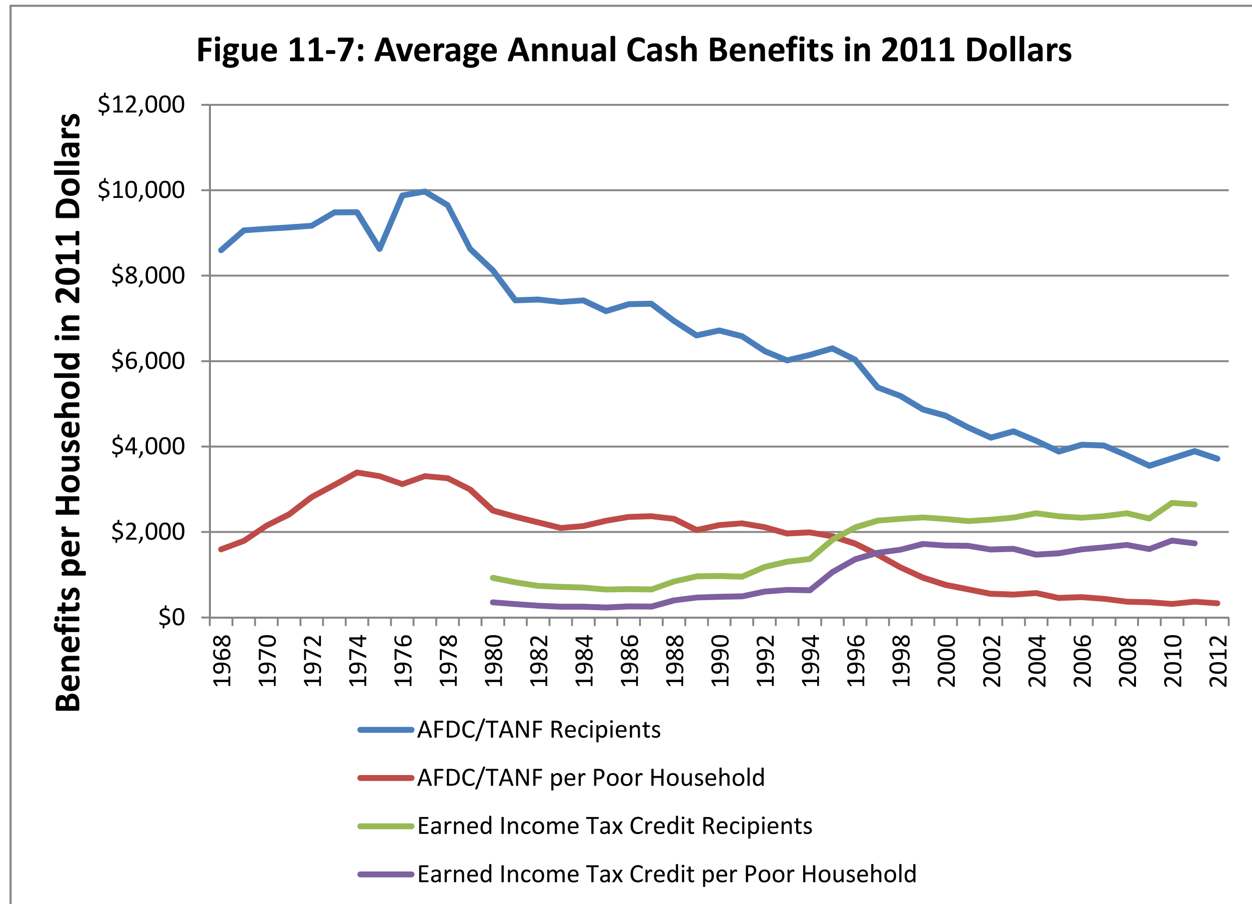
**Figure 11-6**




It was only during the Clinton Administration, 1993 to 2000, that the poverty rate and the AFDC payment rate tended to decline together. From 1996, when AFDC became TANF, the proportion of total households receiving cash welfare benefits began to decline, not because of a rapid decline of the poverty rate, but because limits on the time recipients could receive benefits cleared the welfare rolls. Indeed, Aid to Families with Dependent Children, whereby the government encouraged women to remain outside the labor force, TANF seeks to move welfare moms into the labor force. I can recall a speech by Texas Senator Phillip Graham, onetime economics professor at Texas A&M University, who proclaimed, "It is time that [welfare recipients] who have been riding in the wagon at public expense, get out of the wagon and push like everyone else." Indeed, since the majority of welfare recipients were then, as now, children, the missing piece of the welfare reform puzzle was a repeal of child labor laws, so that children without the foresight to pick responsible, financially endowed parents can truly fend for themselves.

The Reagan Administration, on the advice of conservative economist Milton Freidman implemented the Earned Income Tax Credit, which enhances the income of the working poor by supplementing the tax credits (i.e., the deposits in one's IRS account that provides tax refunds) for households with earned income that is still too low to surpass their poverty threshold. By 1995, the year *before* welfare reform, the typical poor family received more income from the earned income tax credit ($1900) than from welfare ($1,062). Conservatives had successfully

shamed the majority of the poor into bypassing cash benefits they were entitled to. The Personal Responsibility and Work Opportunity Reconciliation Act made sure that uppity poor folk could receive welfare benefits for no longer than two years in succession and five years lifetime. So much for the idea that a mother's job was raising her children!




The 1996, Congress passed the *Personal Responsibility and Work Opportunity Reconciliation Act*(PRWORA)**,** which President Clinton signed into law. The law became effective in July 1997, and replaced the Aid to Families with Dependent Children (AFDC) with the Temporary Assistance for Needy Families (TANF) program. PRWORA "changed the nation's welfare system into one requiring work in exchange for time-limited benefits."[29]

The adverse selection and moral hazard problems of cash welfare payments are well known. First, by attempting to restrict cash welfare to the *truly needy*, welfare programs are **means tested**, meaning that applicants for welfare must prove their eligibility by submitting to a financial evaluation, typically by the state welfare agency. If a welfare recipient finds a part-time job, her need decreases by a dollar for each additional dollar of earnings. The loss of welfare benefits as income increases has the same behavioral effect as a high marginal tax rate. Indeed, a welfare mother's welfare benefits decreased by a dollar for each pre-tax dollar of earnings. Since payroll taxes are paid on each dollar of earnings, and since working increases child-care, transportation, clothing, and other costs, AFDC recipients faced marginal tax rates well in excess of 100 percent.

[29] Administration for Families and Children (AFC) Fact Sheet: www.acf.dhhs.gov/news/facts/tanf.html

Once a single mother[30] qualified for welfare, she was trapped. The huge marginal tax rate deterred her from either seeking employment in a part-time or entry-level job, or from reporting her income if she did earn it. These disincentives also deterred welfare recipients from developing job skills. Table 11-9 shows the conditional probabilities of receiving welfare and having an income below the poverty threshold before and after welfare reform. Before 1997, the probability that a poor family would *go on welfare* was 6.06% if it had not received AFDC payments the year before, and the probability that they would *continue* on welfare was 77.56%. After welfare reform, first-time welfare rate decreased to 4.35% and the welfare continuation rate declined to 52.25%. For families that were poor the previous year, the probability of going on welfare if they were still poor declined from 17.93% under AFDC to 10.89% under TANF; the welfare continuation rate declined from 81.62% under AFDC to 56.82% under TANF. Not only did welfare reform move people off welfare, it also deterred the poor from applying for welfare benefits.

**Table 11-9**

| Poverty and Welfare Before and After Welfare Reform | | | | | | |
|---|---|---|---|---|---|---|
| | Welfare Rate | | | Poverty Rate | | |
| | all years | 1968 to 1996 | 1997 to 2012 | all years | 1968 to 1996 | 1997 to 2012 |
| Not Poor last year | | | | | | |
| No welfare | 0.48% | 0.59% | 0.31% | 3.83% | 3.80% | 3.88% |
| Previous welfare | 43.62% | 49.07% | 26.82% | 31.79% | 31.50% | 32.70% |
| Poor last year | | | | | | |
| No Welfare | 5.36% | 6.06% | 4.35% | 45.35% | 46.12% | 44.23% |
| Welfare | 71.28% | 77.56% | 52.25% | 79.62% | 80.77% | 76.12% |

Before welfare reform, there was a 3.8% probability that a household that was neither on welfare nor poor the year before would become poor. This probability increased to 3.88% after welfare reform. There was essentially no change in the probability of poverty for households that had received welfare benefits the previous year, despite not having been poor the previous year. Among households that did not receive AFDC or TANF, welfare reform had little effect on the probability of remaining poor, declining from 46.12% under AFDC to 44.23% under TANF. The only noticeable change involved modest reduction in the probability of *remaining* poor from 80.77% under AFDC to 76.12% under TANF.

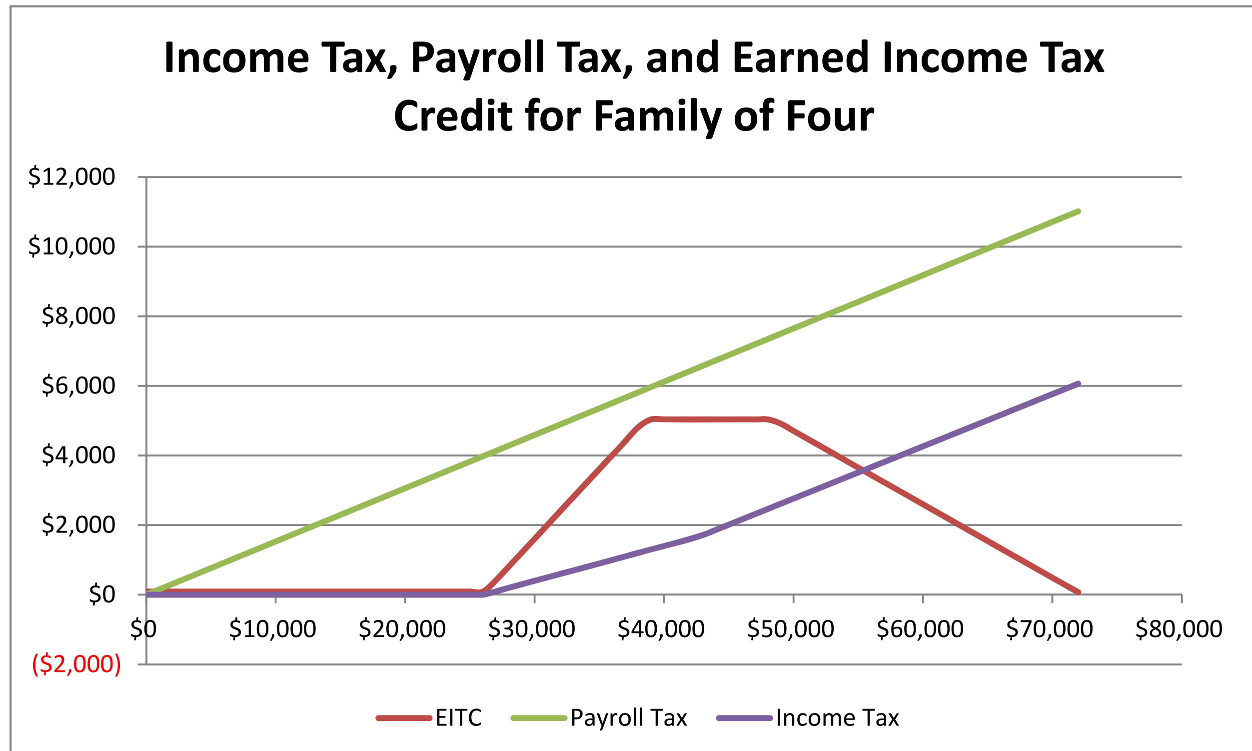
## Helping the Working Poor: The Earned Income Tax Credit

TANF created a work incentive by brute force: welfare recipients receive temporary assistance for two consecutive years (five years total lifetime eligibility), after which they must work or they (and their children) will starve. The Earned Income Credit provides some assistance for poverty level workers by giving them a credit against their income taxes. If their income-tax liability is lower than their tax credit, they receive the difference as a tax refund, much the same as if they had been "over-withheld" by their employer. Figure 11-8 shows how the

[30] Since part of the means test was the demonstration that her children did not have the financial support of their father, AFDC actually encouraged family breakups. Imagine the drama of an unemployed father leaving home because the state could better provide for his family than he could, but only if he abandons them. In no way was the AFDC program consistent with family values.

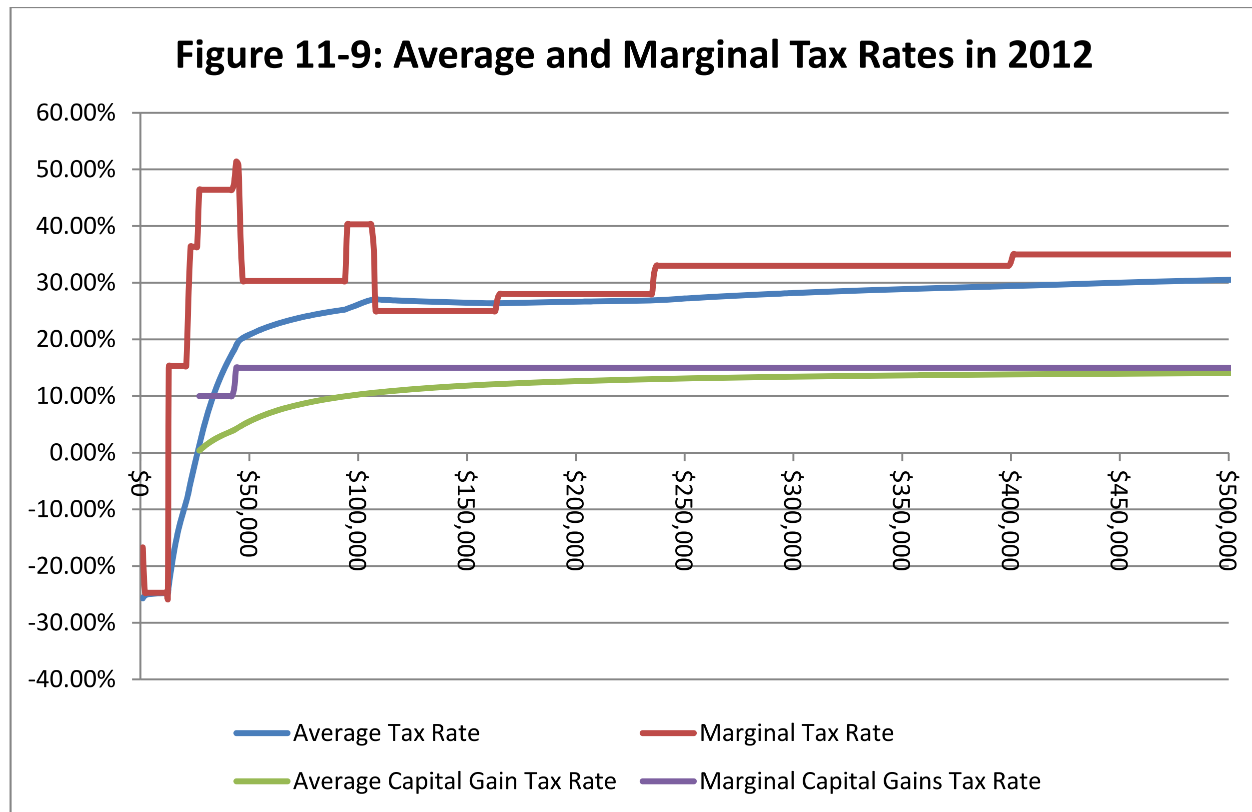
earned income tax credit works for a family of four taking a standard deduction.[31] Up to $26,000 of income, taxable income is zero and the earned income credit is worth $90. This modest savings is more than offset by the payroll tax – 7.56% imposed on both the employee and the employer, which the employee ultimately pays. Above $26,000, taxable income grows and the earned income credit grows faster than the income tax, causing an increase in take-home pay. The earned income credit reaches its maximum value of $5,036 when taxable income reaches $13,000, where it remains until taxable income reaches $22,000. Above $22,000, the earned income credit gradually decreases until it disappears at $46,000 of taxable income.

**Figure 11-8**




Ironically, the decline in the earned income credit itself functions as an income tax; ironically, the highest marginal tax rate – 51% when we include the effects of payroll taxes, the income tax, and the reduction of EIS – is paid just as the family is ready to break into the middle class, at about $44,000 of income (taxable income of $18,000). Because payroll taxes to support social security apply only to the first $110,100 of *labor* income ($113,700 in 2013), and because capital gains (i.e., speculative income) are taxed a maximum rate of 15%, the US tax system is actually regressive, as shown in Figure 11-9. Effective tax rates rapidly increase from a minimum of -25% to +51% between $14,000 and $18,000, drop to 30%, jump back to 40% near $1,000, and eventually rise to 35%. But for speculators – those who gave us the housing bubble and the financial crisis – tax rates never rise above 15%. Indeed, the *average* tax rate paid by the top 1% of the income distribution is only 17%.

[31] To simplify income-tax calculations, a family of four can take a "standard" deduction of $11,400 in addition to their exemption of $3,650 per person; this essentially makes their first $26,000 non-taxable.




**Fixing Welfare and the Tax System: The Negative Income Tax**

In one of his many speeches that had the effect of demonizing both political liberals and welfare recipients, Ronald Reagan proclaimed: "The War on Poverty is over and Poverty Won." Actually, the war on poverty, like the Korean War, is in the midst of a long and uneasy armistice. Since 1980, conservative politicians have dismantled the Great Society of Lyndon Johnson and now threaten to destroy the New Deal. The ultimate, if symbolic, indication of the ultimate victory of the neoconservatives will be to remove Franklin D. Roosevelt from the dime and replace his image with Ronald Reagan, who also is quietly replacing Abraham Lincoln as the soul of the Republican Party.

We saw in Chapter 10 that the United States has more economic inequality than does any other developed economy. The consensus of the 1960s and even the 1970s was that the well-to-do should share their largess with the less fortunate, both internationally (the Peace Corps and the United Nations), and intra-nationally (the Civil Rights Act and the War on Poverty). Today we flaunt international organizations and demonize the poor, including poor children, as responsible for their own fate.

The neoconservative movement that culminated in the 2001 tax cuts threatens an end to the Social Security and Medicare programs. The natural reaction of liberals is to become conservatives, to dig in our heels to protect the gains of the past. I recommend that liberals learn from conservatives and embrace markets and democracy as much as possible to solve persistent social problems. We should admit that welfare as we knew it was a failure; any attempt to resurrect a program that rewards the poor for remaining poor is not only foolish, but cruel. We should admit that the time for the Social Security program is passed; the idea of a pay-as-you go program, redistributing income from the middleclass and the working poor to those who may or may

not have saved for their retirement is pretty stupid. The moral hazard of Social Security is that Americans fail to save for their future, leading America to borrow from the rest of the world to support our investment and our budget deficits. Eliminate Social Security and the incentive to save will lead households to expand their share of property income, which heretofore has been concentrated among upper-income brackets.

The most impressive thing about senior citizens is their high propensity to vote. America got into this mess by purchasing the votes of seniors with the sweat of future generations. As long as only Democrats played this game we had an interesting divided government, with a liberal (and fiscally irresponsible) legislative branch and quasi-racist executive and judicial branches. But with the election of William J. Clinton, Democrats became fiscally responsible, leading Republicans to embrace the banner of tax cuts at any costs, resulting in deficits as far as the eye can see.

Republicans have long proclaimed "If it isn't broke, don't fix it."[32] Lately, the refrain has been expanded to "Even if it is broke, don't fix it, as long as we can benefit politically." The major cause of poverty is lack of education; No Child Left Behind is a cruel joke that does exactly nothing. Why not follow Gary S. Becker's recommendation: get rid of public schools entirely, allowing current schools to be re-chartered as free-standing private schools.[33] Middle-income and richer households would pay tuition for their children's education. Poor households would receive vouchers sufficient to compete for the best schools. This approach would go a long way toward eliminating the endowment effects that trap poor children in poor schools.

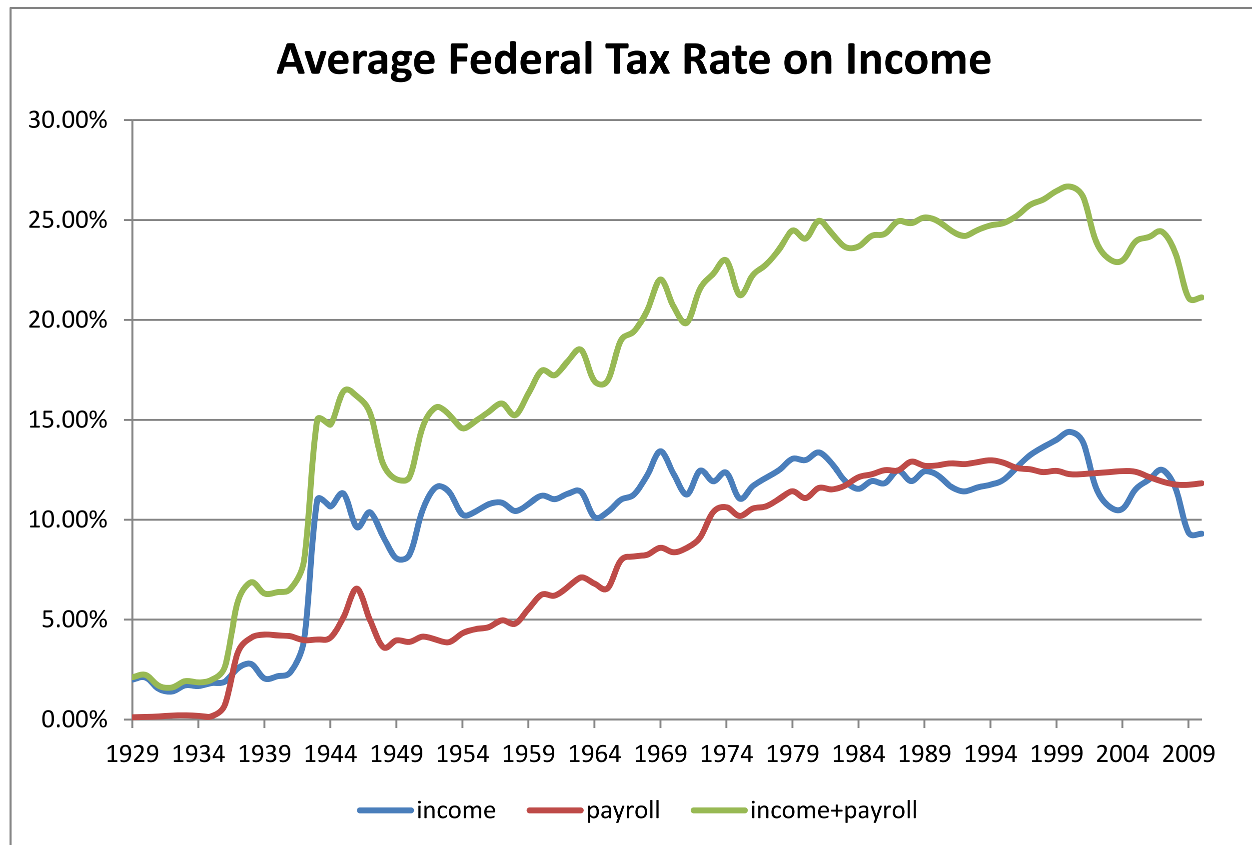
Similarly, problems with affordable health care would first be addressed from the supply side. Suppose we decided to increase the number of medical school slots by 10 percent a year for 10 years. Citizens of other countries would come to the United States to study medicine, instead of the United States raiding the brain trust of so many other countries. Once medical costs came down, we would then address the problem of insurance for the uninsured. But, in order to cure the malpractice crisis, we should have catastrophic health insurance at birth, covering undiagnosed birth defects,[34] calamitous accidents, and other events that create health care costs beyond those all but the wealthiest of households could handle. Indeed, private insurance would cover routine healthcare, while anyone with *preexisting conditions* would be covered by the NCIH (national catastrophic health insurance).

Finally, I recommend that we expand upon the idea of the earned income credit and literally cure poverty by setting the minimum income level at the poverty level. Figure 11-10 shows the average tax rates by year. The last time the federal budget was balanced was in the late 1990's when the average tax rate was about 12.5% each for the income tax and the payroll tax. It follows that Social Security and Medicare could be folded into the income tax by simply dropping the payroll tax and increasing the income tax rate to 25%. Finally, by beginning with an earned income credit of $22,210 (the poverty threshold for a family of four), and setting the marginal tax rate at 33%, a negative income tax could (1) create a work incentive, (2) eliminate pov-

[32] Actually, the quote is attributed to Burt Lance, President Carter's White House Chief of Staff.
[33] Think of this as privatization in the Yugoslavian mode, where schools are owned by the parent-teachers association, who sell their shares to new sets of parents as their own children graduate.
[34] Whether parents should be financially responsible for children born with preventable birth defects would throw a new wrinkle into the abortion debate. What about a tax surcharge for all anti-choice individuals to cover these costs?

erty, and (3) balance the budget, and (4) solve the moral hazard and adverse selection problems of Medicare, Medicaid, and Social Security.

**Figure 11-11**

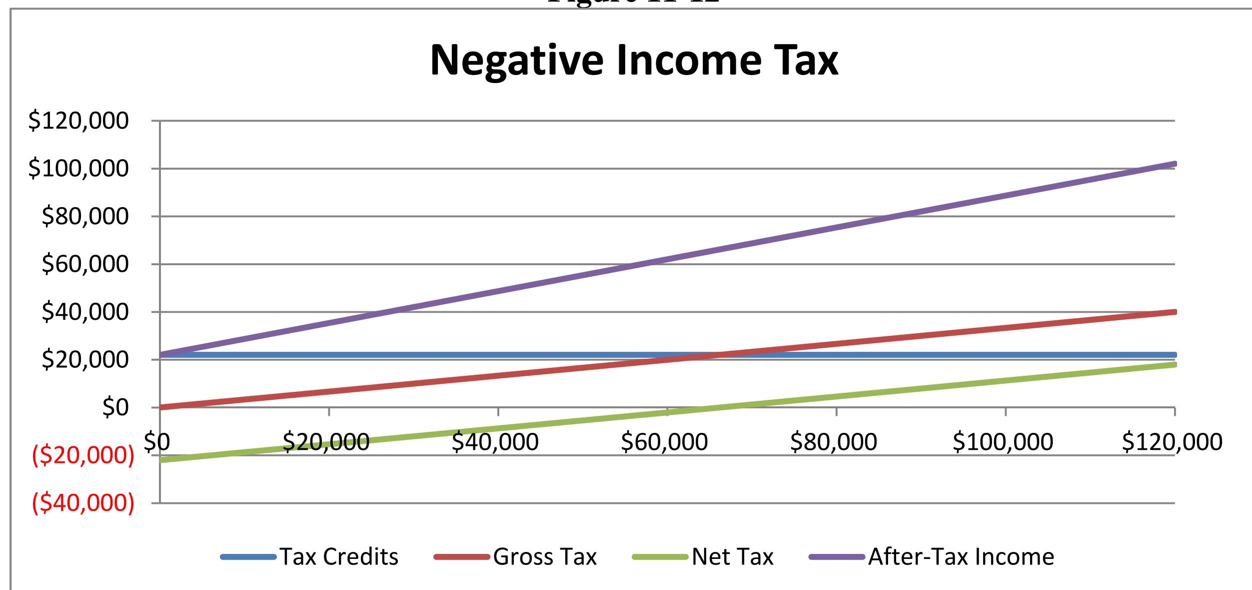



If a family had zero income – due to disability, lack of education, long-term unemployment, or fulltime parenting – that family would receive tax credits of $22,050. Since it would have no tax liability, its income would also equal $22,050. If one or more family members could secure a part-time job and earn, say, $6,000, their tax liability would be $2,000, leaving them with $20,050 in unused credits, and raising their total income to $26,050. Those who had saved for retirement would have their interest and capital-gains income taxed like any other. Those who had squandered their income would simply qualify for the negative income-tax credit. The break-even income level would be $66,150 – at that income, tax liability would exactly equal the income credit, and tax liability would be zero. As income increased – regardless of the level – families would always keep 2/3 of their *additional* earnings and pay 1/3 of *additional* earnings to help the less fortunate.

| Earned Income | Tax Credits | Gross Tax | Net Tax | After-Tax Income | Effective Tax Rate | Earned Income | Tax Credits | Gross Tax | Net Tax | After-Tax Income | Effective Tax Rate |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $0 | $22,050 | $0 | -$22,050 | $22,050 | −∞ | | $22,050 | | | | |
| $6,000 | $22,050 | $2,000 | -$20,050 | $26,050 | -334.2% | $1,200,000 | $22,050 | $400,000 | $377,950 | $822,050 | 31.5% |
| $12,000 | $22,050 | $4,000 | -$18,050 | $30,050 | -150.4% | $2,400,000 | $22,050 | $800,000 | $777,950 | $1,622,050 | 32.4% |
| $18,000 | $22,050 | $6,000 | -$16,050 | $34,050 | -89.2% | $3,600,000 | $22,050 | $1,200,000 | $1,177,950 | $2,422,050 | 32.7% |
| $24,000 | $22,050 | $8,000 | -$14,050 | $38,050 | -58.5% | $4,800,000 | $22,050 | $1,600,000 | $1,577,950 | $3,222,050 | 32.9% |
| $30,000 | $22,050 | $10,000 | -$12,050 | $42,050 | -40.2% | $6,000,000 | $22,050 | $2,000,000 | $1,977,950 | $4,022,050 | 33.0% |
| $36,000 | $22,050 | $12,000 | -$10,050 | $46,050 | -27.9% | $7,200,000 | $22,050 | $2,400,000 | $2,377,950 | $4,822,050 | 33.0% |
| $42,000 | $22,050 | $14,000 | -$8,050 | $50,050 | -19.2% | $8,400,000 | $22,050 | $2,800,000 | $2,777,950 | $5,622,050 | 33.1% |
| $48,000 | $22,050 | $16,000 | -$6,050 | $54,050 | -12.6% | $9,600,000 | $22,050 | $3,200,000 | $3,177,950 | $6,422,050 | 33.1% |
| $54,000 | $22,050 | $18,000 | -$4,050 | $58,050 | -7.5% | $10,800,000 | $22,050 | $3,600,000 | $3,577,950 | $7,222,050 | 33.1% |
| $60,000 | $22,050 | $20,000 | -$2,050 | $62,050 | -3.4% | $12,000,000 | $22,050 | $4,000,000 | $3,977,950 | $8,022,050 | 33.1% |
| $66,150 | $22,050 | $22,050 | $0 | $66,150 | 0.0% | $13,200,000 | $22,050 | $4,400,000 | $4,377,950 | $8,822,050 | 33.2% |
| $72,000 | $22,050 | $24,000 | $1,950 | $70,050 | 2.7% | $14,400,000 | $22,050 | $4,800,000 | $4,777,950 | $9,622,050 | 33.2% |
| $78,000 | $22,050 | $26,000 | $3,950 | $74,050 | 5.1% | $15,600,000 | $22,050 | $5,200,000 | $5,177,950 | $10,422,050 | 33.2% |
| $84,000 | $22,050 | $28,000 | $5,950 | $78,050 | 7.1% | $16,800,000 | $22,050 | $5,600,000 | $5,577,950 | $11,222,050 | 33.2% |
| $90,000 | $22,050 | $30,000 | $7,950 | $82,050 | 8.8% | $18,000,000 | $22,050 | $6,000,000 | $5,977,950 | $12,022,050 | 33.2% |
| $96,000 | $22,050 | $32,000 | $9,950 | $86,050 | 10.4% | $19,200,000 | $22,050 | $6,400,000 | $6,377,950 | $12,822,050 | 33.2% |
| $102,000 | $22,050 | $34,000 | $11,950 | $90,050 | 11.7% | $20,400,000 | $22,050 | $6,800,000 | $6,777,950 | $13,622,050 | 33.2% |
| $108,000 | $22,050 | $36,000 | $13,950 | $94,050 | 12.9% | $21,600,000 | $22,050 | $7,200,000 | $7,177,950 | $14,422,050 | 33.2% |
| $114,000 | $22,050 | $38,000 | $15,950 | $98,050 | 14.0% | $22,800,000 | $22,050 | $7,600,000 | $7,577,950 | $15,222,050 | 33.2% |
| $120,000 | $22,050 | $40,000 | $17,950 | $102,050 | 15.0% | $24,000,000 | $22,050 | $8,000,000 | $7,977,950 | $16,022,050 | 33.2% |
| $150,000 | $22,050 | $50,000 | $27,950 | $122,050 | 18.6% | $25,200,000 | $22,050 | $8,400,000 | $8,377,950 | $16,822,050 | 33.2% |
| $240,000 | $22,050 | $80,000 | $57,950 | $182,050 | 24.1% | $26,400,000 | $22,050 | $8,800,000 | $8,777,950 | $17,622,050 | 33.2% |
| $360,000 | $22,050 | $120,000 | $97,950 | $262,050 | 27.2% | $27,600,000 | $22,050 | $9,200,000 | $9,177,950 | $18,422,050 | 33.3% |
| $480,000 | $22,050 | $160,000 | $137,950 | $342,050 | 28.7% | $28,800,000 | $22,050 | $9,600,000 | $9,577,950 | $19,222,050 | 33.3% |
| $600,000 | $22,050 | $200,000 | $177,950 | $422,050 | 29.7% | $30,000,000 | $22,050 | $10,000,000 | $9,977,950 | $20,022,050 | 33.3% |
| $750,000 | $22,050 | $250,000 | $227,950 | $522,050 | 30.4% | $31,200,000 | $22,050 | $10,400,000 | $10,377,950 | $20,822,050 | 33.3% |
| $900,000 | $22,050 | $300,000 | $277,950 | $622,050 | 30.9% | $32,400,000 | $22,050 | $10,800,000 | $10,777,950 | $21,622,050 | 33.3% |

The point of this exercise is to show that persistence of poverty in the United States of America is not because the country lacks resources, but because the nation lacks the will. Eliminating income transfers for the privileged (workers' compensation, unemployment compensation, Social Security) would neutralize the adverse selection and moral hazard programs for a program where federal taxes depended only on family size and income. A variation on this theme would be to exempt savings (including savings for retirement) and convert the negative flat income tax into a negative flat consumption tax. In that case, people would no longer be taxed based on how much they contributed to national income, but to how much they took out of the system.

**Figure 11-12**



## Summary

1. Consistent with the data on world income (output) distribution, presented in Chapter 10, we find that some countries are poor because their average income falls below the international definitions of $1 or $2 per day, and other countries (like the United States) have poverty because of the way income is distributed.
2. Starting in 1963, the United States Department of Commerce had defined poverty thresholds as the amount of money necessary for a household to purchase enough raw food for a mother who is a careful shopper and a good cook to prepare healthy meals. This **emergency food budget** is multiplied by three to obtain the poverty threshold.
3. The Department of Commerce multiplies the basic poverty thresholds for 1963 by the ratio of the current year's Consumer Price Index to the Consumer Price Index in 1963 to obtain the current year's poverty threshold.
4. A household is defined as poor if its income (including cash government transfers but excluding income in kind like food stamps, Medicaid, and housing subsidies) falls below its poverty threshold. If a household's income is below the poverty threshold, all members of that household are considered as poor.
5. The incidence of poverty is the probability that a person will be classified as poor. The **unconditional probability of poverty** is the proportion of all households or all individuals who are classified as poor. The **conditional probability of poverty** relates the probability of poverty to personal characteristics, such as age, gender, education, and marital status.
6. The unconditional probabilities of poverty among households and individuals have remained roughly constant. In 2002, the probability of poverty among households and individuals was below their rates in 1967, but heading toward that rate.
7. The incidence of poverty is approximately the same for households with married male or female "heads" of household. Households with married heads are significantly less likely to be poor than households with unmarried male heads, which in turn are less likely to be poor than households with single females.
8. Children are more likely to be poor than adults, and adults under the age of 65 are slightly less likely to be poor than households headed by persons over the age of 65.
9. Households with white, non-Hispanic, and Asian heads have a lower than average poverty rate than does the average household. Households headed by AfricanAmericans, Hispanics, Native Americans, and Hawaiian/Pacific Islanders tend to have a higher than average incidence of poverty.
10. The incidence of poverty tends to fall with educational attainment, most dramatically with the earning of a high school diploma. Children and individuals with less than a high school diploma have a higher than average incidence of poverty. Adults with a high school diploma or better have a lower than average incidence of poverty.
11. Not surprisingly, having a job substantially reduces the incidence of poverty, as does retirement. Those who do not participate in the labor force have the highest incidence of poverty. In the middle are those who are unemployed, who have a lower incidence of poverty than nonparticipants do, but a higher incidence of poverty than for those who are employed. For

both households and individuals, the poverty rate declines as the number of weeks worked per year increases.

12. Despite the hopes of Congress and the administration, the passage of the Americans with Disabilities Act (ADA) has done little to reduce the incidence of poverty among the disabled. The poverty rate for the disabled in 2002 was slightly higher than their poverty rate in 1987, three years before ADA was passed. This seems to coincide with a reduced participation rate among the disabled.
13. A number of government transfer programs—workers' compensation, unemployment, and Social Security (with Medicare)—are designed to imitate insurance programs, in that the non-poor (and their employers) make contributions to the program as long as they are employed, and then receive "earned benefits" when they are injured on the job, lose their job, or reach retirement age. Like insurance policies, these programs have major problems of **moral hazard,** which increase program costs.
14. Since 1967, the poverty rate among seniors has declined steadily, while the percent that seniors rely on Social Security have remained roughly constant at about 40 percent. Because Social Security and Medicare are **pay-as-you-go** programs, workers contributing today can expect to receive benefits only from payroll taxes levied on future workers. Both Medicare and Social Security benefits have been increasing much more rapidly that the tax base. While the Social Security and Medicare programs have been operating with a surplus, the ability of the government to redeem those IOUs is compromised by the Bush tax cuts of 2001, which Republicans want to make permanent.
15. The most important anti-poverty program, Aid to Families with Dependent Children (originally ADC, latter AFDC), was established in 1935 as part of the Social Security Act. The program was flawed because its implied income tax rate exceeded 100 percent, so that a working mother would have to earn considerably more than a poverty-level income to be better off by working than by not working.
16. In 1996 Congress passed the Personal Responsibility and Work Opportunity Reconciliation Act that transformed AFDC into TANF (Temporary Assistance to Needy Families). TANF requires recipients to work outside the home as a condition of receiving benefits, and limits benefits to two consecutive years and five total years.
17. Initial experience with TANF indicates a modest success. Between 1989 and 1996, individuals on welfare were very likely to remain on welfare and to remain poor. After 1996, the probability of continuing on welfare declined from 71 percent to 54 percent, and the likelihood of poverty the next year declined from 82.13 percent to 74.85 percent. However, the poverty rate among individuals who were poor but not on welfare remained approximately the same.
18. Recently the Earned Income Tax Credit (EITC) has become the largest anti-poverty program. EITC is a form of negative income tax, although, unlike other proposals, only the working poor are eligible for benefits. The negative income tax, originally proposed by conservative economics Nobel laureate Milton Friedman, has the advantage of creating a work incentive by reducing benefits gradually as earned income increases.
19. It would be possible to replace the current income tax and transfer system with a negativeflat income tax system that would allow the phasing out of Social Security and would require an

average tax rate of 25 percent. So, the failure of the United States to eliminate poverty reflects priorities, rather than economic resources.

## Glossary

**Poverty:** The state of not having enough money to take care of basic needs such as food, clothing, and housing.

**Engel's law:** The empirical rule stipulating that the proportion of the budget applied to food purchases decreases and income increases.

**Economy food budget:** The basis of Mollie Orshansky's 1963 definition of poverty.

**Poverty threshold:** The amount of money a household requires to purchase the emergency food budget, times three.

**Absolution poverty standard:** A definition of poverty that remains constant from year to year. The official definition of poverty is an absolute standard because it is consistently defined as three times the emergency food budget.

**Income-in-kind:** Income received as commodities, such as food stamps, Medicaid, Medicare, or housing subsidies, rather than as money.

**Incidence of poverty:** The probability that someone's or some household's income will fall short of the poverty threshold.

**Sample proportion:** A statistic, $p$, estimated from a random sample of households or individuals, used to estimate the unknown population proportion $\pi$.

**Unconditional incidence of poverty:** The incidence of poverty for all individuals or households.

**Conditional incidence of poverty:** The incidence of poverty for a sub-population, based on characteristics such as gender, age, ethnicity, education, or marital status.

**Labor-force participants:** Individuals who have a job or are available for a job if they do not have a job.

**Unemployed:** A member of the labor force who does not have a job.

**Employment at will:** A feature of employment contracts that allows employers to terminate an employee without giving a cause. States with this feature of implied contracts make it difficult for discharged employees to sue for wrongful termination.

**Americans with Disabilities Act:** A law, passed by Congress in 1990 and became effective in 1992, that (1) requires businesses to make reasonable accommodations for the disabled, and (2) prohibits employers from discriminating against the disabled, requiring employers to make reasonable accommodations to an employee's disability.

**Asymmetric information:** A situation in a potential exchange situation where one party has more information about the quality of the good being exchanged than the other party does. Asymmetric information is especially prevalent in insurance policies, where the insured has more information about the hazard involved (e.g., poor health, death, unemployment) than the insurance company does.

**Moral hazard:** The tendency of individuals to alter their behavior when the consequences of their behavior are reduced, say, through an insurance policy. Health insurance reduces the

incentive for healthy living, and old age insurance reduces the incentive to save for one's retirement.

**Adverse selection:** Another consequence of asymmetric information, whereby the composition of a group changes in response to the relative costs and benefits of an insurance-like program. For instance, if a health insurance company raises rates to cover rising medical costs, it will find that it loses its healthiest policyholders and keeps its least healthy ones.

**Pay-as-you-go system:** A transfer program, like Social Security or Medicare, that taxes the current generation of workers to provide benefits to the previous generation of workers. Pay-as-you-go programs tend to build up large implied liabilities.

**Welfare programs:** Historically, programs designed to transfer money or in-kind benefits to the poor. To limit such programs to the poor, they tend to be **means tested**, which gives rise to high **effective tax rates** that create a **work disincentive.**

**Means-tested programs:** Programs that require that an applicant prove his or her need before receiving benefits.

**Effective tax rate:** The rate at which benefits are reduced as income is earned. The AFDC program had an implied tax rate in excess of 100 percent.

**Work disincentive:** A feature of means-tested program, where earning an extra dollar reduces benefits by a dollar or more, making the working poor no better off than the poor receiving welfare benefits.

**Negative income tax:** A proposal by conservative Nobel laureate Milton Friedman in the 1960s, where every household receives a basic grant (e.g., a poverty-level income), which is reduced gradually as income grows. Unlike most means-tested programs, a negative income tax would achieve a work incentive, either by allowing families above the poverty level to receive benefits, or by setting basic benefits below the poverty level, so that the **break-even point** is at or below the poverty level.

**Break-even point:** The level of income where the tax equals the basic grant, so that the household neither pays a tax nor receives a grant.