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6 The Level and Distribution of Economic Well-Being

1. Alan S. Blinder
2. Irving Kristol
3. Wilbur J. Cohen

1. Alan S. Blinder

6.1 Introduction and Preview

The more things change, the more they remain the same.

The ultimate purpose of an economy, it may fairly be said, is to enhance the material well-being of its people. In the philosophical pecking order, such a crass and narrow goal may not appear as lofty as, let us say, inner peace and spiritual uplift. But, as has oft been remarked, it is difficult to feed the soul while the stomach is empty.

Because of the absolutely central position of the task of producing more and better goods, and distributing them equitably (what a loaded word that is!) among the citizenry, the topics of the other chapters in this book may justifiably be considered subservient to this one. Changes in the financial system, in taxation and public expenditure, in the structure of industry, or in international economic relations are all most

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My gratitude goes to C. R. Lindsey for skillful and diligent research assistance; to my NBER reading committee, Stanley Lebergott and Eugene Smolensky, for much good advice; and to Edgar Browning, Sheldon Danziger, Angus Deaton, Richard Easterlin, Benjamin Friedman, Victor Fuchs, Roger Gordon, Harvey Rosen, and Timothy Smeeding for helpful suggestions. I should also acknowledge the National Science Foundation for support over the years for my research on income distribution. None of these persons or institutions, however, is an accomplice in the conclusions. Finally, the occasion of this volume (and helpful hints from Milton Friedman and Arthur Burns) prompts me to point out that the NBER was started to learn "the facts" about income distribution in the United States. Apparently the task was more difficult than the founding fathers realized; but we are still working on it!

naturally appraised by asking how much they contribute to economic well-being. Thus this chapter may, without stretching the imagination too far, be thought of as the "outputs" produced by the other chapters' "inputs." At least this is the preeminence I claim for my topic.

How well has the United States economy performed the two central tasks of raising living standards and enhancing economic equality during the postwar period? The basic story is simple enough to summarize in a few words, though complex enough to require volumes for a complete account. Where the *average level* of economic well-being is concerned, the record is one of steady *improvement*. Not an unblemished record to be sure, and not as spectacular a record as the postwar "economic miracles" of Germany and Japan, but a creditable record nonetheless.

However, when we turn to consider the *distribution* of economic welfare—economic equality, as it is commonly called—the central stylized fact is one of *constancy*. As measured in the official data, income inequality was just about the same in 1977 (the last year for which data were available when this was written) as it was in 1947. Though this seems a straightforward conclusion, it actually conceals a host of controversies and puzzles. For the stability we observe in the income distribution is not the result of a boring, static economy, nor the result of some "natural economic law," as Pareto (1897) thought. Rather it is the result of a confluence of powerful forces, some pulling toward greater equality and some pulling toward greater inequality, which together produced a great underwater swirl while causing barely a ripple on the surface.

For example, the American population experienced substantial demographic changes during this thirty-year period. The causes of these changes were varied, complex, in part obvious and in part obscure, but in any case well beyond the scope of this chapter.[1] What matters for our purposes is that, given the way income distribution data are compiled, these demographic shifts would have produced a substantial trend toward greater inequality had not other factors intervened. It will not be giving away the plot to suggest that government transfer programs played a major role in that intervention.

Even the basic stylized fact that income inequality has remained constant since World War II has not gone unchallenged. It has been argued, for example, that if we measured income more comprehensively than we do, or if we measured it over periods longer than a year, a clearer trend toward equality would emerge. As we shall see, seemingly mundane issues like how to define and measure income are of considerable importance in appraising the economy's postwar performance; and they also raise some surprisingly profound (and perhaps insoluble) issues.

Since this chapter is a long one, it will be useful to provide a reader's guide at the outset. Section 6.2 disposes briefly of some preliminary issues of measurement—the measurement of welfare, the measurement

of income, and the measurement of inequality. The next two sections, which constitute the bulk of the paper, address the two central topics of the chapter—postwar trends in the *level* of income (section 6.3) and its *inequality* (section 6.4). Section 6.4, in particular, examines in some depth the controversies alluded to above. Section 6.5 then takes up several peripheral aspects of the distribution of income which seem to be of special interest—poverty, black–white income differentials, and male–female income differentials. Finally, in section 6.6, the myopic concentration on income is remedied by examining postwar developments in nonincome aspects of well-being such as leisure, wealth, and health. Section 6.7 offers some brief concluding remarks.

6.2 Preliminaries

6.2.1 From the Sublime to the Ridiculous

The essay begins with a strategic retreat which moves farther and farther from a concept that is interesting but unmeasurable (welfare) and closer and closer to a concept that is measurable but possibly uninteresting (money income as defined by the U.S. Bureau of the Census). Like most strategic retreats, this one does accomplish something. But it must be admitted that its direction is dictated more by expedience than by principle. The retreat takes place in several stages.

The first step is to admit that man does not live on bread alone. Political freedom, peace, inner tranquillity, a happy family life, and so on may be far more important to many people than the bill of goods and services they consume. Still, it would be the height of folly for an economist to write an essay on these more ephemeral aspects of human welfare. On grounds of comparative advantage, therefore, I will for the most part restrict my attention to what is normally considered *economic* well-being.

The second step is to concede that there is little scientific basis for deciding how much "utility" any specific individual gets at any particular time, and even less for deciding whether Laurel gets more or less than Hardy. Two avenues therefore remain open. We can look at levels and distributions of items which are presumed to yield utility, such as consumption goods and leisure time. Or we can look at peoples' opportunities, as summarized by their endowments and the prices they face, on the assumption that people with more generous opportunities achieve correspondingly higher levels of satisfaction.[2]

While part of our army will stop to fight the battle here, most of it will retreat one step more—to the use of current income to summarize the whole opportunity set. Now we know this is not quite right. Two individuals with identical opportunities will have different incomes if their preferences differ.[3] Ill health may mean that more current income

is necessary to achieve any given level of satisfaction, or a large store of accumulated wealth may mean that less is necessary. While several of these qualifications will be dealt with in what follows, the data dictate that the analysis be conducted mainly in terms of income.

6.2.2 The Measurement of Income

Perhaps the worst news is saved for last. The only reasonably consistent time series of income distributions covering a long period comes from the annual *Current Population Survey* (CPS), which uses an income definition that is far from the economist's (or anyone else's) ideal.[4] Economists define an individual's income as the amount he could consume without depleting his wealth—the sum of his expenditures plus any increase in his wealth. What does the CPS offer us? Basically, a distribution of money income in which some sources of income are grossly underreported, capital gains are excluded, cash transfers are included but transfers in kind are excluded, and from which no deduction is made for income and payroll taxes. Measured income thus falls far short of the ideal concept of income. Given the wide cleavage that already exists between well-being and even this ideal concept of income, one might well wonder if our data do not leave us with a grin without a cat. I proceed nonetheless in this essay to analyze the grin. However, some time will be spent in section 6.4 questioning whether a better measure of income might tell a different story about postwar trends in income inequality.

Our interest in the level and distribution of *income* clearly is motivated by a belief that we can use these two numbers as approximate indicators of economic *welfare*. Specifically, we would like to believe that higher or more equally distributed incomes mean that society is "better off." Having decided, for lack of a superior alternative, to use census money income, the next step is to decide on the recipient unit. Whose incomes shall we study?

This question, which may seem foolish and "academic" at first, is in fact very important because of the demographic changes mentioned earlier. For it appears that one of the items that Americans have purchased with their postwar prosperity has been the privilege of living apart from their relatives. Think what happens, for example, when higher living standards and/or more generous public transfer programs enable junior, or grandma and grandpa, to move into an apartment of their own. A new economic unit is formed, with a rather low income, thus bringing down the average level of income and raising its inequality. Both economic indicators will therefore signal a deterioration in welfare, though we may presume that these changes in living arrangements actually make the parties involved better off.[5]

We therefore must exercise extreme caution in interpreting postwar trends in income distribution. The Census Bureau offers separate income distributions for *families* ("a group of two or more persons related by blood, marriage, or adoption and residing together") and for *unrelated individuals*, as well as a *pooled* distribution that combines botb types of units. In this essay, we will pay attention to each of tbese distributions and to the interrelationships among them.

Further perplexities enter when we ask another question: why should we be interested in distributions of *annual* incomes instead of incomes measured over some alternative accounting period? One answer is straightforward and prosaic: that's the way the data come. But a deeper question is not so easily answered. If we could measure income over any accounting period we wished, what accounting period would be best?

It seems clear that periods like a day or a week are far too short to generate meaningful data on income inequality. All of us have weeks of zero income (at least on a cash accounting basis), without being "poor" in any real sense. So longer periods are necessary. But why stop at a year? Clearly a year is far too short an accounting period to place many people meaningfully within the income distribution. For example, since investment in human capital typically leads to rising age-earnings profiles, many people who are quite well off in a lifetime sense may appear quite "poor" during certain years. For these and other reasons many economists, including myself (1974; 1976), have been attracted to the distribution of *lifetime* incomes, though even this choice is not unobjectionable.

As we shall see, there is evidence that income distributions over multiyear accounting periods display less inequality than income distributions for a single year. More important, there is reason to believe that a stronger trend toward equality might emerge if somehow we were able to measure the distribution of lifetime income.

6.2.3 The Measurement of Inequality

There are many ways to measure how "equal" or "unequal" any given distribution of income is;[6] but the availability of data dictates tbat we concentrate on two. The first is straightforward and requires no elaboration: we can examine trends in the shares of total income accruing to specific income groups, such as the poorest fifth or the richest fifth, for example. The second is something called the *Gini ratio* and requires some explanation.[7]

Income distributions are typically displayed in a convenient graphical device invented by M. O. Lorenz (1905); two such *Lorenz curves* are depicted in figure 6.1. To construct a Lorenz curve, begin with a square wbose dimensions represent 100 percent. Along the horizontal axis, mea-

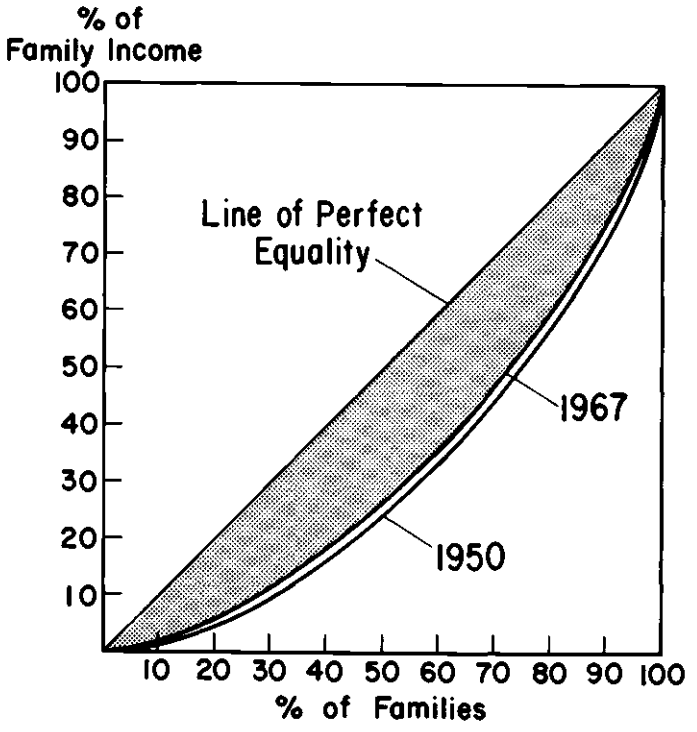

Fig. 6.1 Two Lorenz curves for family income.

sure the cumulative percentage of consumer units, starting from the poorest; along the vertical axis, measure the cumulative share of income received by these units. Data on income shares then appear as points within the square, and the curvilinear line connecting them is the Lorenz curve.

Every Lorenz curve has four basic properties:

1. It must begin at the origin, since zero units have zero income
2. It must end at the upper-right corner of the diagram since 100 percent of the units must receive all the income
3. If incomes were distributed equally, the Lorenz curve would be a diagonal line connecting these two points, since the "poorest" 20 percent of units would receive 20 percent of the income, the "poorest" 40 percent would receive 40 percent, and so on
4. In a real economy, in which significant income differentials exist, the Lorenz curve will "sag" downward from this diagonal line representing perfect equality. The reason is straightforward. If there is any inequality at all, the poorest 20 percent of units, for example, must receive less than 20 percent of the income, and the poorest 40 percent must receive less than 40 percent.

Lorenz curves are useful in depicting inequality because curves that lie *closer* to the diagonal represent distributions with *less* inequality. This is also illustrated in figure 6.1 which shows, for the family income distribution, the most equal and most unequal distributions during the entire postwar period. (The fact that they are so close together illustrates the aforementioned stability of the income distribution.) In fact, the area between the Lorenz curve and the diagonal (shaded in fig. 6.1), expressed as a fraction of the area beneath the diagonal,[8] is often used as a summary measure of inequality. This fraction is called the *Gini ratio*, after its inventor Corrado Gini (1936), and it is clear that higher Gini ratios connote greater inequality.

Since Gini ratios appear so frequently in this essay, a word on their interpretation is in order. The Gini ratio is a purely mechanical measure of inequality, while our interest in inequality is as an indicator of social welfare. Suppose in comparing two income distributions we find that distribution *A* assigns less income *both* to the poorest 20 percent of families *and* to the richest 20 percent than does distribution *B*. (Distribution *A* naturally has to assign more income to the middle 60 percent of families.) Which distribution has more "equality"? Clearly *A* is more equal at the upper tail (the rich are not quite so rich), but *B* is more equal at the lower tail (the poor are not quite so poor). But which distribution is "better"? It is clear that the answer is unclear. It depends on whether society attaches more importance to income differences at the high or low end of the income distribution. But the Gini ratio (or, for that matter, any summary statistic) tolerates no such ambiguity. It will state, for example, that the Gini ratio for distribution *A* is .36 while that for distribution *B* is .37. For this reason, we must take care in pronouncing distributions with lower Gini ratios as "better."

There is, however, one important circumstance in which the Gini ratio *can* be relied upon to rank different income distributions properly. This is the case where the Lorenz curves do not cross (as in fig. 6.1), for then the more unequal distribution will always get the higher Gini ratio. The conclusion then is this. When Lorenz curves cross, the Gini ratio may rank income distributions incorrectly, and thus cannot be taken very seriously. However, when Lorenz curves do not cross, such misrankings cannot occur and the Gini ratio provides useful information. Fortunately for us, most of the inequality comparisons we have to make are between Lorenz curves that do not cross.[9]

6.3 Trends in the Level of Income and Consumption

I turn now to the first of the two major concerns of this chapter: What has happened to the average level of economic well-being in the United States since World War II? As noted earlier, I will at first stealth-

ily translate this question to: What has happened to the average level of *income*?, postponing the consideration of nonincome aspects of well-being to section 6.6.

The basic story is, of course, extremely well known. The postwar United States economy has generally produced growth of per capita incomes, though that growth has been punctuated by periodic recessions.[10] This stylized fact is illustrated in figure 6.2, which charts the behavior of real disposable income per capita from 1947 to 1978. The trend in consumption, naturally enough, has followed the trend in income rather closely. But the aggregate data conceal some dramatic changes in patterns of consumption.

6.3.1 The Growth of Incomes, 1947–77

Many serious shortcomings of census income were mentioned in section 6.2. Fortunately, in studying trends in the *level* of income, we need not restrict ourselves to census income since much better measures are available in the national income accounts (NIA).

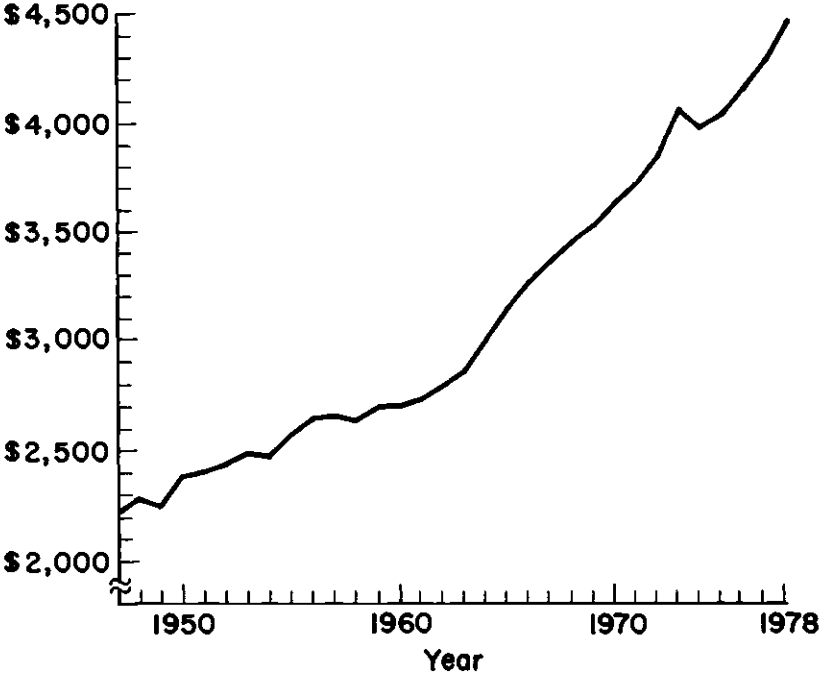

Fig. 6.2 Real disposable income per capita, 1947–78 (in 1972 dollars).

The NIA concept that comes closest to census income is personal income (PI). And it is easy to remedy several problems with census income by supplementing personal income with other NIA data. First, as a crude way of accounting for (a smoothed version of) capital gains, we can add corporate retained earnings to personal income. Second, we can put personal income on a more consistent posttransfer but pretax basis (like census income) by including not only the employee's share of the payroll tax but also the employer's share. Making both these changes in the NIA data leads me to an income concept that I call *augmented personal income.*[11]

A more fundamental problem with census income, however, is the illogic of adding in transfers but failing to deduct the taxes that pay for them. This is easily remedied in the aggregate data by deducting both personal income taxes and payroll taxes (both shares) from augmented personal income to arrive at an income concept that I call *augmented disposable income.*[12]

The decade-by-decade annual growth rates in real census income, real augmented personal income, and real augmented disposable income[13] are presented in table 6.1. Not surprisingly, for the postwar period as a whole the growth rates of census income and augmented personal income are almost identical, while the growth rate of real augmented disposable income is about one-third of a percentage point less. Compounded over thirty years, these figures mean that from 1947 to 1977 real augmented personal income per family increased 95 percent, while real augmented disposable income per family increased 77 percent. The gap is accounted for by an increasing burden of personal taxation (with, presumably, a corresponding increase in public services.)

Table 6.1 **Annualized Growth Rates (in Percentages) in Real Income per Family and per Unrelated Individual, by Three Different Definitions**

	Census Income		Augmented PI[a]		Augmented DI[a]	
Period	per Family	per UI	per Family	per UI	per Family	per UI
1947–77	2.22	2.14	2.25	2.17	1.92	1.84
1947–57	1.83	1.00	2.18	1.35	1.97	1.14
1957–67	3.01	2.71	3.01	2.72	2.68	2.39
1967–77	1.84	2.72	1.56	2.44	1.11	1.98

Sources: Computed by the author from data in U.S. Bureau of the Census, *Current Population Reports*, series P–60, no. 118; *Survey of Current Business*, July 1979; and *The National Income and Product Accounts of the United States, 1929–1974.*

[a]Augmented PI and augmented DI are defined in the text. It was assumed that each of these aggregates was divided between families and UIs in the same proportion as census income.

When we break the thirty-year period down into decades, the close agreement between census income and augmented personal income starts to melt away. More importantly, a striking difference between the postwar economic progress of families and unrelated individuals (UIs) emerges. For both groups, and for any of the income measures, the middle decade (which was dominated by the long boom of the 1960s) exhibited the strongest growth. But the rankings of the other two decades is reversed. Apparently, families fared much better than unrelated individuals between 1947 and 1957, while unrelated individuals fared much better than families during the most recent decade. Why? The reasons are to be found in the demographic shifts summarized in tables 6.2 and 6.3. These tables show that while demographic changes during 1947–57 were mostly minor for families, unrelated individuals became more likely to be female or elderly. By contrast, during the last decade unrelated individuals became much less likely to be female, while more families became female headed. (Both groups became younger on average.)

Where Did It Come From?

Naturally, all the components of personal income participated in the postwar growth, though certainly not equally. Table 6.4 shows that

Table 6.2 **Selected Changes in Family Structure, 1947–77**

Characteristic	1947	1957	1967	1977
Average Number of:				
Persons	3.64	3.65	3.67	3.33
Children	1.19	1.37	1.41	1.10
Earners			1.67	1.66
Percentage Headed by:				
Male	90.0	90.6	89.3	85.6
Female	10.0	9.4	10.7	14.4
Percentage Having:				
Two members	30.6	32.1	33.9	38.5
Three members	25.2	21.5	20.6	22.1
Four members	20.1	20.5	19.0	20.6
Five members	11.4	12.6	12.5	11.0
Six or more members	12.7	13.4	14.0	7.9
Percentage Headed by Person:				
Age 14–24	5.0	5.2	6.3	6.7
Age 25–34	22.8	22.1	19.7	23.5
Age 35–64	60.7	59.8	59.8	55.4
Age 65 and over	11.5	12.9	14.2	14.4
Percentage on Farms	17.5	11.0	5.4	3.8

Sources: *Current Population Reports*, Series P–60, no. 118; Series P–20, nos. 21, 80 and Technical Paper no. 17.

Table 6.3 **Selected Demographic Changes among Unrelated Individuals, 1947–77 (in Percentages)**

	1947	1957	1967	1977
Males	45.1	39.1	36.9	43.3
Females	54.9	60.9	63.1	56.7
Earners	65.5	67.2	61.8	63.7
Age 14–24	10.1	9.3	11.6	17.8
Age 25–34	13.0	11.8	9.3	19.7
Age 35–64	46.5	45.8	40.5	30.8
Age 65 and over	30.4	33.0	38.6	31.7
Living on Farms	11.8	6.2	2.6	1.7

Sources: *Current Population Reports*, Series P–60, nos. 5, 30, 59, 118, and Technical Paper no. 17.

wages, interest, and transfers accounted for greater shares of augmented personal income in 1977 than was true in 1947, whereas proprietor's income, rents, and corporate profits accounted for smaller shares.[14]

Where Did It Go?

The concept of augmented personal income as defined here can be divided into three principal uses:

1. Spending: the sum of personal consumption expenditures, interest paid to businesses, and transfers to foreigners, *minus* indirect taxes.
2. Saving: personal saving as in the NIA *plus* retained earnings.

Table 6.4 **Sources of Augmented Personal Income, 1947–77**

	Percentage Share					
Year	Wages[1]	Proprietor's Income	Rents	Interest	Corporate Profits[2]	Transfers
Postwar Average	67.6	10.9	2.7	5.7	5.6	7.5
1947	64.5	17.9	2.6	3.6	5.5	5.9
1957	68.7	12.0	3.3	4.6	5.5	5.8
1967	67.7	8.7	2.8	6.5	6.7	7.5
1977	67.7	5.9	1.4	8.3	4.5	12.2

Source: National income accounts.

[1]Compensation of employees.

[2]Corporate profits (with inventory valuation adjustment and capital consumption adjustment) minus corporate tax liabilities. This is equal to the sum of dividends and retained earnings.

3. Taxes: personal taxes as in the NIA *plus* contributions for social insurance *plus* indirect taxes. (This can be viewed as purchases of public consumption.)

Using this three-way split, table 6.5 shows that spending has commanded a dwindling share and taxes have commanded an expanding share during the postwar period. The share of savings exhibits no trend, though saving rates were unusually low in three of the last four years. Closer inspection of these data reveals that the share of consumption stabilized between 62 and 63 percent around 1966 or so, and the share of taxes stabilized near 30 percent around 1968. Thus, since 1968 American consumers have paid about 30 percent of their gross incomes to the tax collector, saved about 7 percent, and spent the remaining 63 percent.

6.3.2 Patterns of Consumption, 1947–77

So income and consumption have grown mightily over the postwar period. How have American consumers spent this largesse? An examination of postwar changes in consumption patterns is interesting for the profile it draws of the American way of life. And it also holds a few surprises. A logical place to start is with changes in budget shares. What fraction of each dollar of consumer spending was spent on various items in 1947 and 1977? Which items commanded an increasing share of the consumer's budget and which a decreasing share?

Table 6.6 contains some answers; but there are too many numbers in this table for it to "speak for itself," and many others hidden in the data that underlie it. Let us see what story these data tell.

Table 6.5 **Uses of Augmented Personal Income, 1947–77**

Year	Percentage Share		
	Spending[1]	Saving[2]	Taxes[3]
Postwar average	65.5	7.6	26.9
1947	72.4	4.7	22.8
1957	66.7	8.0	25.4
1967	62.2	9.7	28.1
1977	62.9	5.7	31.3

Source: U.S. Bureau of Economic Analysis (1976) and *Survey of Current Business*, July 1979.

[1]Personal outlays less indirect taxes.

[2]Personal savings plus retained earnings.

[3]Personal taxes plus contributions for social insurance plus indirect taxes.

Table 6.6 Selected Budget Shares, 1947 and 1977 (in Percentage Points)

Item	Share of Total Consumer Spending		Change
	1947	1977	1947–77
Food[1]	34.7	21.8	−12.9
Purchased meals	6.7	5.2	− 1.5
Alcoholic beverages	5.3	2.4	− 2.9
Housing—Rent	9.9	15.5	+ 5.6
Owner occupied	5.2	10.4	+ 5.2
Tenant occupied	3.5	4.0	+ 0.5
Household Operation	14.6	14.6	0
Household appliances	1.8	1.0	− 0.8
Electricity	0.9	2.1	+ 1.2
Fuel oil and coal	1.8	1.1	− 0.7
Telephone and telegraph	0.9	1.7	+ 0.8
Domestic service	1.5	0.6	− 0.9
Clothing[2]	14.1	8.0	− 6.1
Transportation	9.8	14.2	+ 4.4
User-operated[3]	8.0	13.4	+ 5.4
Purchased local	1.2	0.3	− 0.9
Purchased intercity	0.6	0.5	− 0.1
Airline	0.06	0.40	+ 0.34
Other	0.54	0.09	− 0.45
Recreation[4]	6.2	7.7	+ 1.5
Foreign travel[4]	0.5	1.0	+ 0.5
TV, radio, etc.[5]	0.9	1.5	+ 0.6
Toys, sports equipment, etc.[6]	1.2	1.8	+ 0.6
Admissions to spectator events	1.2	0.6	− 0.6
Personal Services	4.0	6.6	+ 2.6
Personal business	3.2	5.1	+ 1.9
Brokerage	0.15	0.36	+ 0.21
Life insurance	0.88	0.99	+ 0.11
Legal services	0.41	0.77	+ 0.36
Private education	0.80	1.5	+ 0.7
Medical Care	4.5	9.6	+ 5.1
Doctors and dentists	1.8	3.2	+ 1.4
Private hospitals	0.9	4.0	+ 3.1
Health insurance[7]	0.30	0.67	+ 0.37

Sources: Computed by author from data in U.S. Bureau of Economic Analysis *The National Income and Product Accounts of the United States, 1929–1974*, and *Survey of Current Business*, July 1979.

[1]Includes tobacco and alcoholic beverages.

[2]Includes shoes, accessories, and jewelry.

[3]Mostly costs of purchasing, maintaining, and operating automobiles.

[4]Includes expenditures abroad by United States residents.

[5]Radio and television receivers, records, and musical instruments.

[6]Wheel goods, toys, sports equipment, boats, and pleasure aircraft. Includes both durables and nondurables.

[7]For medical care, hospitalization, and income loss. Does not include workmen's compensation. Data pertain to 1948.

At the coarsest level of aggregation, the table shows just about what we expect. Americans are now spending more of their budgets on housing, medical care, private transportation, recreation, and personal services than they were in 1947. At the same time, they are spending less on food, clothing, and public transportation. But if we peer a bit below the surface, some fascinating details emerge.

Food

Spending on virtually every category of food declined in relative importance over this thirty-year period, including even *meals away from home* (which came as a surprise to me). They claimed 6.7¢ out of every dollar in 1947, but only 5.2¢ in 1977. (One can only imagine what the French would think of this!)

The most dramatic decline, again surprisingly, was for *alcoholic beverages*—which accounted for only 2.4 percent of the 1977 budget as against 5.3 percent in 1947. In fact, real consumption of alcoholic beverages per capita increased only 12 percent over the thirty-year period, despite the fact that its price relative to all consumption items fell by 26 percent. Americans are indeed drinking (relatively) less.

Accompanying the decline in relative spending on food came a noticeable *upgrading in diets* (though not necessarily in their nutritive content). As table 6.7 indicates, per capita consumption of beef almost doubled, per capita consumption of chicken almost tripled, and consumption of such luxury and convenience items as ice cream, processed fruits, and processed vegetables registered dramatic increases. Concurrent with these increases came sharp declines in per capita consumption of such obviously inferior goods as pork, lard, potatoes, and cornmeal. Consumption

Table 6.7 **Civilian per Capita Consumption of Selected Food Items, 1940 and 1970 (in Pounds per Year)**

Year	Beef and Veal	Chicken and Turkey	Processed Fruits[1]	Processed Vegetables[2]	Ice Cream
1940	62	17	34	35	11
1970	117	50	54	74	18

	Pork	Lard	Potatoes	Cornmeal and Corn Flour	Fresh Fruit	Fresh Vegetables
1940	74	14	139	22	139	117
1970	66	5	95	7	81	99

Source: U.S. Bureau of the Census, *Historical Statistics of the United States*, vol. 1, Series G881–915.

[1]Canned or frozen fruits and fruit juices; dried fruit.

[2]Canned or frozen.

of fresh fruits and vegetables also declined, though one may legitimately question whether this marked an increase in living standards. (Adelle Davis lives!)

Housing

The costs of owning or renting a home or apartment claimed 15.5 percent of consumer budgets in 1977 as against 9.9 percent in 1947. Almost all of the increase is accounted for by *owner-occupied housing*, as growing income levels and strong incentives set up by the income tax system combined to induce a substantial shift from renting to owning. In 1940 only 44 percent of Americans owned their own home; by 1970, 63 percent did (see table 6.8, part A).

It is worth noting that the rapid escalation of housing prices that we have experienced in recent years was *not* characteristic of the postwar period as a whole. In fact, between 1947 and 1977 housing prices increased only 151 percent while consumer prices in general increased 165 percent. Housing commanded an increasing budget share because real per capita consumption of housing tripled.

Some data compiled by Lebergott (1976) enable us to go somewhat beyond these rather dry statistics (see table 6.8, part A). Between 1940 and 1970, *crowding* diminished significantly. The fraction of housing units with more persons than rooms declined from 20 percent to 8 percent, and the average number of persons per room fell from .74 to .62.

Table 6.8 **Selected Changes in United States Housing, 1940–70**

A. Characteristics of Housing Units

Year	Average Age (in Years)	% Owner-Occupied	Persons per Room		Percentage with	
			Average	Percentage > 1.0	Running Water	Flush Toilets
1940	31.7	44	.74	20.3	70	60
1970	27.7	63	.62	8.0	98	96

B. Characteristics of Household Operation

Year	Percentage with		Energy Source for Heating		Percentage with	
	Central Heat	Electric Lighting	Wood or Coal	Oil or Gas	Mechanical Refrigerators	Television
1940	42	79	78	22	44	0
1970	78	99	4	82	99	99

Sources: Lebergott 1976; except for average age of (private nonfarm) housing stock and percentage owner-occupied, which came from *Historical Statistics*, Series 217 and 243.

The *quality* of housing also improved. The average age of the housing stock fell by four years, the fraction of housing units with running water increased from 70 percent to 98 percent, and the fraction with flush toilets increased from 60 percent to 96 percent.[15]

Household Operation

Other improvements in the way Americans are housed become apparent only when we look at expenditures on household operation. While the total budget share spent on this category did not change, its composition underwent radical surgery. Table 6.6 shows, for example, that the budget share allocated to *household appliances* fell almost in half between 1947 and 1977. What this conceals is that the very steep decline in the relative prices of these items enabled Americans to have more and more while spending less and less.[16] By 1977, *real* spending per capita on household appliances was more than double what it had been in 1947, and the *stock* of household durables must have increased by much more than this. Lebergott (1976) reports, for example, that the fraction of American families owning mechanical refrigerators increased from 44 percent to 99 percent between 1940 and 1970. The penetration of televisions went from zero in 1940 to virtually 100 percent by 1970.

Sources of power for household operation tell a fascinating tale. Spending on electricity more than doubled despite a decline in its relative price; real spending per capita increased more than fivefold. Concurrently, fuel oil and coal demanded a decreasing share of consumers' budgets despite a sharply increasing relative price. In fact, household usage of fuel oil and coal was unchanged in absolute terms between 1947 and 1977 despite a 53 percent increase in population. There was, in brief, a veritable revolution in the way homes were heated—away from dirty fuels such as coal and wood, which also require considerable effort to use, and toward such cleaner and more convenient fuels as oil, gas, and electricity. Lebergott (1976), for example, reports that the fraction of United States families heating by wood or coal dropped from 78 percent to 4 percent, while the fraction using oil or gas rose from 22 percent to 82 percent, between 1940 and 1970 (see table 6.8, part B).

There were other notable changes as well. The average American used the *telephone* about five and one-half times as much in 1977 as in 1947, but did so while allocating a budget share only twice as large.

One further item which is of trivial importance in consumer budgets nowadays, but is nonetheless interesting for the light it sheds on postwar changes in America, is spending on *domestic service*. In 1947, Americans spent 1.5 percent of their budget on domestic service—a sum almost as large as what they spent on doctors and dentists, and even larger than what they spent on either local public transportation or private education. About one household in fourteen had a domestic employee.

By 1977, the price of domestic service had increased 321 percent (versus 165 percent for consumer prices in general); only about one household in twenty-seven had a domestic worker;[17] and this budget item claimed only 0.6¢ out of every consumer dollar. In real terms, the consumption of domestic services declined *absolutely* by 31 percent (or 55 percent on a per capita basis). In the murder mysteries of the 1970s, the butler was never there to do it.

Clothing

Food, clothing, and shelter are supposed to be the three basic necessities. Like food, clothing gobbled up a smaller and smaller share of the consumer's budget during the postwar period. By 1977, consumers were spending only 8¢ of every dollar on clothing (including shoes, jewelry, and accessories) as compared to 14¢ in 1947. In part, this resulted from a decline in the relative price of clothing (by 28 percent from 1947 to 1977); but even *real* spending on clothing grew noticeably slower than total spending.

Food, clothing, and shelter together, it may be noted, absorbed fully 88 percent of total spending in 1947 but less than 75 percent in 1977. Room was being made for nonnecessities.

Transportation

Spending patterns on transportation goods and services reveal a pattern that is fascinating even though its basic outlines are well known. The almighty *automobile* was already well ensconced on the American scene by 1947—claiming 8 percent of consumer budgets for its purchase, care, and feeding (as compared with only 1.8 percent for all forms of purchased transportation). But the automobilization of America accelerated during the postwar period. By 1977, consumers were spending 13.4¢ out of every dollar on their cars, and a negligible 0.8¢ on purchased transportation.

When we recall that *air travel* was almost nonexistent in 1947, but dominated purchased intercity travel by 1977, the comparison is more dramatic still. Purchased transportation *excluding air travel* took 1.7¢ out of every consumer dollar in 1947, but only 0.4¢ in 1977. It is only a slight exaggeration to say that the postwar period witnessed the death of the train, the bus, and the subway.

Recreation

Spending patterns on recreational goods and services offer some surprises. Even including foreign travel as recreation,[18] the share of recreational spending in consumer budgets increased only 1.5 percentage points during the postwar period. This is much less than Madison Avenue has led us to expect. Furthermore, more than all of this increase

was accounted for by only three categories of spending: foreign travel (from 0.5 percent to 1.0 percent); purchases of televisions, radios, and similar goods (from 0.9 percent to 1.5 percent); and purchases of recreational hardgoods such as toys, sports equipment, bicycles, and boats (from 1.2 percent to 1.8 percent). Television sets are particularly remarkable since they claimed an increasing budget share despite a price that fell *absolutely* by 16 percent (that's right!).[19] America's love affair with the television is a notable feature of the postwar period.

Several categories of recreational spending actually made decreasing claims on the consumer's budget, notably *admissions to spectator events* (movies, theater, sports events) which received only 0.6¢ out of every consumer dollar in 1977 as compared to 1.2¢ in 1947. And this occurred despite the fact that prices for such events rose 300 percent (as compared to only 165 percent for overall consumer prices). Real purchases of such admissions actually *declined* 16 percent despite rising population and rising real income. So much for the alleged boom in movies and spectator sports.

Personal Services

Personal services are an odd mixture including such diverse items as private educational spending, life insurance, legal fees, and the costs of stock brokerage. All of these grew rapidly, with spending on stockbrokers displaying the fastest growth (increasing more than eighteen-fold) and life insurance costs having the smallest (increasing more than eight-fold).

Medical Care

Everyone knows that Americans are spending more on medical care than they did early in the postwar period (9.6 percent of consumer budgets as compared to 4.5 percent). And everyone knows that consumers are unhappy about the soaring costs of medical care. The tremendous increase in the share of the budget going to medical care is due both to its increasing relative price and to a rapid increase in real consumption of medical services, especially hospital services. While health has improved demonstrably during the last thirty years (more on this in section 6.6), this may have been due more to advances in public health than to increased personal expenditures on medical care.

Summary

During the thirty-year period from 1947 to 1977, real consumption per capita increased by more than 80 percent. As compared to their counterparts in 1947, Americans in 1977 traveled by airplane and watched TV vastly more. They replaced pork, lard, cornmeal, and fresh

vegetables in their diets with beef, poultry, and processed fruits and vegetables. They made much greater use of electricity, the telephone, and hospitals, and they spent much more on their own homes—which they heated by gas and oil rather than coal and wood. They bought more toys, sports equipment, and other recreational goods (but not more admission tickets), and devoted a good deal more of their budgets to nurturing their cars.

During the same period, travel by bus, rail, and subway diminished greatly; domestic servants nearly disappeared from the scene; and the basic necessities of life—food, clothing, and shelter—commanded ever decreasing shares of the consumer budget.

One seems forced to the conclusion that the average level of economic well-being both changed in content and improved drastically. Virtually everyone shared in economic growth, but not equally. I turn my attention now to trends in income inequality.

6.4 Trends in Income Inequality

Whereas the level of income was mostly increasing during the postwar period, the central stylized fact about income inequality has been its *constancy*. Table 6.9 displays the basic data that support this fact, and they certainly seem unequivocal. According to the Gini ratio, for example, 1957 was the most equal year and 1961 was the most unequal. Inequality in 1977 was the same as it was in 1947. If we accept these data at face value, there clearly is no postwar trend in income inequality.[20]

Table 6.9 **The Distribution of Income, Families and Unrelated Individuals Pooled, 1947–77**

	Percentage Share						
Year	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth	Highest Fifth	Top 5%	Gini Ratio
1947	3.5	10.6	16.8	23.6	45.5	18.7	.418
1952	3.5	10.9	17.3	24.1	44.3	18.4	.408
1957	3.4	10.9	18.0	24.7	42.9	16.5	.397
1962	3.4	10.4	17.5	24.8	43.9	16.8	.407
1967	3.6	10.6	17.5	24.8	43.4	16.5	.400
1972	3.7	10.0	16.9	24.7	44.8	17.4	.414
1977	3.8	9.7	16.5	24.9	45.2	17.3	.419
Highest	3.9	11.2	18.0	24.9	45.5	18.7	.420
Mean	3.5	10.5	17.3	24.6	44.1	17.2	.408
Lowest	3.1	9.7	16.5	23.6	42.9	16.5	.397

Source: *Current Population Reports*, Series P–60, no. 118, table 13.

But there are a host of very good reasons *not* to accept these data at face value—which is why this section occupies many pages instead of one sentence. First, the changing structure of the United States population by age, sex, and family composition raises questions about the comparability of the data over time. Rough "corrections" for these demographic shifts point to a slight trend toward equality which the raw data mask. Second, attempts to improve the measurement of income by such methods as subtracting taxes or adding transfers in kind seem to produce an income concept whose distribution displays greater equalization over the period than does census income. Third, and most speculatively, it has been suggested that the portion of measured inequality that is simply due to the fact that different people are at different stages in their life cycles has increased over the postwar period so that, if we could measure it, the distribution of *lifetime* incomes would show a greater trend toward equality than the distribution of *annual* incomes.

It turns out, most disagreeably for students of the subject, that the sensitivity of the distribution of income in the United States to subtle changes in the recipient population, the definition of income, or the choice of accounting period is extremely large—much greater in fact than any changes we can find in inequality through time. This, I think, is the most fundamental sense in which we can say that inequality has been relatively constant. But it also explains the urgency of sorting out these seemingly boring issues of definition.

Such issues will occupy the bulk of this section. But before getting buried in the details, I pause briefly to consider a prior question: Does the (relatively constant) postwar income distribution, with its Gini ratio in the .40–.42 range, represent a lot of inequality or a little?

6.4.1 Is the Bottle Half Full or Half Empty?

Clearly, to paraphrase the exceedingly wise words of Rufus Miles, where you stand on this question depends on where you sit in the income distribution. While an "objective" answer is clearly out of the question, let me attempt several ways of providing a frame of reference.

Comparisons over Time

I have already noted that changes in inequality during the postwar period have been too small to provide useful intertemporal comparisons. According to the Gini measure, 1957 had the most equal distribution while 1961 had the least equal. Yet the difference between their Gini ratios is a scant 6 percent (see also fig. 6.1). So if we want to draw useful comparisons through time, we will have to look back further into United States history. Naturally, the quality of the data tails off rather quickly as we do this; but some distributions for earlier years have been constructed. Budd (1967, introduction) has compiled more or less con-

sistent income distributions for several prewar and several postwar years (see table 6.10).[21] The conclusion seems to be that there was substantial equalization during the years of the Great Depression and World War II, but very little change since then. The postwar distribution seems noticeably more equal than the distribution in 1929.

Comparisons over Space

Instead of comparing the postwar income distribution of the United States with the United States income distribution in earlier years, we might compare the United States with other countries at the same time. The hazard here is that different countries use different concepts of income and different definitions of the recipient unit than the United States and, as just mentioned, income distributions can be quite sensitive to these choices. Of the many international comparisons that have been made, two seem worth reporting here. Some years ago Irving Kravis (1960; 1962) made a careful series of binary comparisons by taking the income distributions of ten foreign countries and comparing each one with a *different* United States distribution selected to be conceptually alike. His conclusion was that income inequality in the United States was rather less than in several less developed countries, but somewhere near the middle of a group of modern industrial nations. More recently, a study by Malcolm Sawyer for the OECD (1976) attempted to put the distributional statistics of the various OECD nations on an equal footing so that comparisons could be made. He found the United States and France to have the most income inequality among OECD nations.

The overall conclusion, then, seems to be that income inequality in the United States is higher than in many industrialized nations, but lower than in most less developed countries.

Table 6.10 Prewar and Postwar Income Distributions

	Percentage Share						
Year	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth	Highest Fifth	Top 5%	Gini Ratio
1929	3.5	9.0	13.8	19.3	54.4	30.0	.49
1935–36	4.1	9.2	14.1	20.9	51.7	26.5	.47
1941	4.1	9.5	15.3	22.3	48.8	24.0	.44
1947[a]	5.0	11.0	16.0	22.0	46.0	20.9	.40
1962[a]	4.6	10.9	16.3	22.7	45.5	19.6	.40

Source: Budd (1967, table 1, p. xiii).

Note: Families and unrelated individuals, pooled. Based on Office of Business Economics (now Bureau of Economic Analysis) income concept.

[a]These Lorenz curves cross.

Interpreting the 1977 Distribution

Another way to appraise the degree of inequality is to subject the most recent data on income shares to further scrutiny along the following lines (see table 6.11). Data for 1977 tell us that the richest fifth of American families received eight times as much income as the poorest fifth.[22] This 8:1 ratio, which is characteristic of the entire postwar period, strikes me as a very substantial income gap. But some further facts make this inequality seem less severe.

First, it turns out that richer families tend to be larger. The richest fifth of families in 1977 actually included 28 percent more persons than the poorest fifth. Adjusting income to a per capita basis would bring the 8:1 income ratio down to 6.25:1. Second, it turns out that the richest fifth of families in 1977 contained 29 percent of all the wage earners in the country, whereas the poorest fifth contained only 9.5 percent. Thus on a per earner basis, the income ratio was only 2.6:1. And even this ratio can be lowered by considering work effort. The richest fifth of families supplied over 30 percent of the total weeks worked in the economy during 1977, while the poorest fifth supplied only 7.5 percent. Thus, on a per-week-of-work basis, the income ratio between rich and poor was only 2:1. This certainly does not seem like an unreasonable degree of inequality.[23]

Thus we can use the very same data to show that the income gap between the rich and the poor is anything from 8:1 to 2:1—an ambiguity that will make propagandists (from either side) happy. Which ratio is "right"? I certainly do not know. On the one hand, if differences in family size are voluntary (richer parents "buy" more children), and decisions over whether and how much to work are involuntary (due mostly to whether jobs are available), then none of the corrections are warranted and the 8:1 ratio seems most meaningful. On the other hand, if we assume that people voluntarily choose their labor supply but not

Table 6.11 **Characteristics of the Upper and Lower Tails of the Distribution of Family Income, 1977**

	Percentage Share			
Income Group	Income	Persons	Earners	Weeks of Work
Top Fifth	41.6	22.4	28.9	30.4
Bottom Fifth	5.2	17.5	9.5	7.5
Top Tenth	25.6	11.4	15.1	15.7
Bottom Tenth	1.7	8.8	4.0	2.9

Source: *Current Population Reports*, Series P–60, no. 118, table 3, p. 21.

their family size, then all the corrections leading to a 2:1 ratio are appropriate. To state the issue this way is to demonstrate its irresolvability. Clearly, all of these choices have voluntary and involuntary aspects.

6.4.2 Demographic Changes and the Problems They Cause

I turn now to the first of our problems in interpreting the postwar income distribution data and in accepting the conclusion that inequality has not changed: demographic changes.[24] This section makes three main points. First, demographic changes have been substantial.[25] Second, measured income inequality is quite sensitive to the composition of the underlying population of recipient units. Third, many of the demographic changes that occurred were of the sort that raise measured inequality.

Families versus Unrelated Individuals

A logical place to start is with the division of the United States population between families and unrelated individuals. As table 6.12 shows, this division has changed dramatically over the postwar period, and especially over the last decade. In this ten-year period, the population of the United States over the age of sixteen increased 19 percent, but the number of census families increased only 14 percent, and average family size fell from 3.67 to 3.33 persons. By contrast, the number of unrelated individuals grew by an astounding 75 percent in these same ten years. These figures reflect several striking demographic trends, including a growing propensity for both the young and the old to live apart and an increasing incidence of broken marriages.

Table 6.13 shows why these developments are important for interpreting income distribution data. Unrelated individuals have always had much lower and much more unequally distributed incomes than have families, though there was some convergence in both respects during the last decade. Thus the demographic shifts that underlie table 6.12, many of which clearly represent improvements in well-being, lowered

Table 6.12 Composition of Income Units, 1947–77

	1947	1957	1967	1977
Percentage of Units that are				
Families	82.1	80.8	79.1	71.2
Unrelated individuals	17.9	19.2	20.9	28.8
Percentage of People in				
Families	93.4	93.0	93.3	89.2
Unrelated individuals	6.6	7.0	6.7	10.8

Source: *Current Population Reports*, Series P–60, nos. 59, 114, 118; and Series P–20, nos. 21, 33.

average income and increased income inequality when families and unrelated individuals are pooled in a single distribution.

A first step, therefore, is to look separately at trends in the distributions among families and among unrelated individuals. These are summarized in tables 6.14 and 6.15, but before considering these data one technical point must be made (with due apologies to the casual reader). Data on percentile shares for the years 1958 through 1977 were computed in the obvious way: by ranking consumer units and adding up

Table 6.13 **Comparison of Income Distributions among Families and among Unrelated Individuals, 1947–77**

	1947	1957	1967	1977
	Mean Real Income[1]			
1. Per Family	$9,620	$11,719	$15,974	$18,264
2. Per Unrelated Individual	4,306	4,834	6,403	7,981
3. Ratio (2)/(1)	.45	.41	.40	.44
	Gini Ratio			
4. Ratio Among Families	.376	.351	.348	.364
5. Among Unrelated Individuals	.552	.489	.490	.443
6. Ratio (5)/(4)	1.47	1.39	1.41	1.22

Source: *Current Population Reports*, Series P–60, nos. 114, 118.
[1]Mean income in 1977 dollars. Price deflation by Consumer Price Index.

Table 6.14 **The Distribution of Income among Families, 1947–77**

	Percentage Share						
Year	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth	Highest Fifth	Top 5%	Gini Ratio
1947	5.0	11.9	17.0	23.1	43.0	17.5	.376
1952	4.9	12.3	17.4	23.4	41.9	17.4	.368
1957	5.1	12.7	18.1	23.8	40.4	15.6	.351
1962	5.0	12.1	17.6	24.0	41.3	15.7	.362
1967	5.5	12.4	17.9	23.9	40.4	15.2	.348
1972	5.4	11.9	17.5	23.9	41.4	15.9	.360
1977	5.2	11.6	17.5	24.2	41.5	15.7	.364
Highest	5.6	12.7	18.1	24.2	43.0	17.5	.379
Mean	5.1	12.2	17.6	23.8	41.3	16.0	.361
Lowest	4.5	11.6	17.0	23.1	40.4	15.2	.348

Source: *Current Population Reports*, Series P–60, no. 118, table 13.

Table 6.15 The Distribution of Income among Unrelated Individuals, 1947–77

Year	Percentage Share						Gini Ratio
	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth	Highest Fifth	Top 5%	
1947	2.0	6.2	12.7	22.5	56.6	29.3	.552
1952	2.6	7.7	14.7	25.4	49.7	20.2	.480
1957	2.6	7.3	13.7	25.4	50.9	19.7	.489
1962	2.6	7.5	12.8	24.4	52.7	20.8	.502
1967	3.0	7.5	13.5	24.5	51.5	21.1	.490
1972	3.3	8.2	13.8	23.9	50.9	21.4	.478
1977	4.1	9.0	14.7	24.0	48.2	19.6	.443
Highest	4.2	9.0	14.8	27.0	56.6	29.3	.552
Mean	2.8	7.6	13.7	24.7	51.1	21.0	.489
Lowest	1.4	6.2	12.7	22.5	47.9	18.7	.442

Source: *Current Population Reports*, Series P–60, no. 118, table 13.

their incomes. For the years 1947–57, however, the micro data required to do this were unavailable, so shares were estimated and interpolated from grouped data. The post-1958 data are thus more trustworthy than the pre-1958 data, and we must keep this in mind in looking for trends.[26]

In the case of families, the data show some trend toward equality before 1957 though little since then—which raises the question of whether we are seeing a trend or a statistical illusion. Between 1947 and 1957, there were clear (if modest) upward trends in the shares of the second, middle, and fourth fifths. All of these gains came at the expense of the upper fifth (and especially the top 5 percent), whose shares declined quite markedly. Since 1958, however, there is little trend of any kind. The only development worth noting is the climb of the share of the lowest fifth from the 4.5–5 percent range to around 5.5 percent during the years 1961–66. The host of public assistance policies introduced or expanded around that time is, of course, the leading explanation for this improvement in the lot of poor families.

Using the Gini ratio to summarize these data, all of this can be said more concisely by noting that, once cyclical effects are removed, the Gini ratio exhibits a mild downward trend (about —.002 per year) until 1957 and no trend thereafter.[27]

The story with unrelated individuals seems to have been just the reverse: relative stability until 1957 followed by a marked trend toward equality.[28]

The share of the lowest fifth fluctuated aimlessly through 1957, apparently underwent a shift (not shown in table 6.15) when the nature of the data changed in 1958, and marched steadily upward thereafter. The shares of the second and third fifths did very little until about 1964 and

then also started to move up strongly. In total, the combined share of the lower 60 percent of the income distribution increased from 25.4 percent to 28 percent between 1964 and 1975—a substantial improvement. The upper 40 percent, naturally, were the losers. Beginning around 1960 or so, the shares of these two quintiles exhibit a noticeable downward trend.

In sum, the postwar data show:

1. An equalizing trend in the family distribution until 1957 but not after (table 6.14)
2. An equalizing trend in the distribution among unrelated individuals since 1957 but not before (table 6.15)
3. A decrease in the portion of the population in families (table 6.12)
4. A widening of the income gap between families and unrelated individuals between 1947 and 1957 and a narrowing of that gap from 1967 to 1977 (table 6.13)

All of these conflicting forces get amalgamated in the pooled distribution to produce very little overall trend despite some equalization in both component distributions.

The Changing American Family

But we do not solve the problem of demographic change simply by separating families from unrelated individuals. For, as we learned in tables 6.2 and 6.3, both the composition of families and the nature of the unrelated individuals population underwent substantial demographic change during the postwar period. To keep the discussion manageable, I limit myself to families in what follows. But the reader should keep in mind that equally dramatic changes were occurring in the demography of unrelated individuals, with corresponding effects on the income distribution.

Just what were the changes in the structure of the American family, and how did they affect the distribution of income? We can answer these questions with the help of table 6.2 which lists some important demographic changes, and table 6.16, which illustrates the extreme sensitivity of income inequality to the nature of the recipient unit.[29]

Average family size was constant between 1947 and 1967, but fell dramatically during the following ten years due to a sharp decline in the number of children. This means that family income *per capita* grew more rapidly than mean family income. The distribution of families by size shows that most of the statistical "action" came in the two tails. At one extreme the fraction of families with two members drifted up slowly from 1947 to 1967, and then skyrocketed between 1967 and 1977.[30] At the other extreme, the number of families with six or more members also drifted up slowly during the first two postwar decades, but then took a nosedive between 1967 and 1977. Relative to 1947, we now have

Table 6.16 Gini Ratios for Various Types of Families, 1964

A. By Family Size[1]		*D. By Age of Head*[2]	
Two persons	.408	14–24 years	.302
Three persons	.337	25–34 years	.291
Four persons	.311	35–44 years	.316
Five persons	.316	45–54 years	.330
Six persons	.335	55–64 years	.379
Seven persons or more	.355	65 years and over	.471
B. By Family Structure		*E. By Number of Earners*	
Female headed	.434	No earners	.418
Male headed	.343	One earner	.361
Married, wife present	.339	Two earners	.297
Working wife	.290	Three earners or more	.285
Nonworking wife	.365		
Other marital status	.365	*F. By Head's Work History in 1964*	
		Did not work	.452
C. By Residence		Worked	.327
Nonfarm	.347	At full-time jobs	.311
Farm	.433	At part-time jobs	.444
		G. By Color	
		White	.349
		Nonwhite	.399

Source: U.S. Bureau of the Census, *Trends in the Income of Families and Persons in the United States, 1947–1964*, Technical Paper no. 17 (Washington, D.C.: Government Printing Office), tables 23, 24, 25, 26, 28, 32, and 33.

[1]The Lorenz curves for three-person and six-person families cross between the 60th and 80th percentiles.

[2]The Lorenz curves for ages 14–24 and ages 25–34 cross between the 80th and 95th percentiles. The Lorenz curves for ages 25–34 and ages 35–44 cross between the 40th and 60th percentiles.

more childless couples, fewer families with four children or more, and fewer extended families. But since table 6.16 shows that the greatest degree of inequality is found among the largest and smallest families, it is not clear that these very large demographic shifts had much influence on the trend in inequality.

The next change in family composition worthy of note is the increased incidence of female headship. The fraction of families headed by females, which fluctuated in a range around 10 percent from 1947 to 1967, shot up to 14.4 percent by 1977. Since female-headed families normally have lower incomes than male-headed families, and since table 6.16 shows that they also typically have more unequally distributed incomes, this factor tended to retard the growth of income per family and to increase inequality.

The farm population dwindled remarkably during the postwar period. In 1947, more than one family in six lived on a farm. By 1977, this was down to one family in twenty-six. It is quite likely that this migration

from the farm reduced income inequality because farm incomes are much more unequally distributed than nonfarm incomes (see table 6.16) and because farm incomes are typically much lower than nonfarm incomes. However, there is a complication that bears mentioning. Census money income excludes income received in kind, which is probably far more important on farms than elsewhere. Since census data therefore overstate the gap between farm and nonfarm incomes, they probably also overstate the equalization caused by the migration from rural areas.

The age structure of families (as measured by the age of the family head) also changed dramatically. Between 1947 and 1977, the number of young (under 25) and old (65 and over) families grew much faster than the number in the prime earning years, ages 35–64 (table 6.2). Given the facts that families at the extremes of the age distribution always have much lower incomes than those in the middle and that the income distribution among the elderly is quite unequal (table 6.16), this development pushed inequality up.[31]

In summary, the changing age-sex composition of family heads pushed the distribution of income toward greater inequality while the movement off the farm pushed in the opposite direction. In addition, there were a host of other demographic changes, some of which may have had substantial effects on measured income inequality. Indeed, given the extreme sensitivity of income inequality to demography that table 6.16 documents, it is somewhat amazing that the distribution of income among families changed so little during a period when the demographic structure changed so much.

6.4.3 Measured Inequality and the Income Concept

It has already been mentioned that the concept of income used by the Census Bureau is far from ideal. Two obvious questions follow. First, if we could measure income better, would inequality appear less than in the official data? Second, if we could measure income better, would a stronger trend toward equality emerge? This section answers both of these questions in the affirmative.[32]

Specifically, this section deals with five potential improvements in the census income concept: subtracting personal taxes, adding in transfers in kind, adding in other types of income in kind, including capital gains, and correcting for underreporting of income. In addition, the influence of cash transfers on inequality is examined. As in the previous section, we shall see that changes in the definition of income typically cause changes in measured inequality that exceed anything we can find in the time series.

Personal Taxes

We can probably make sense of an income distribution that *excludes* both public transfer payments and taxes or one that *includes* both. But

census income is an awkward halfway house which includes transfers but fails to deduct taxes. Thus a first step in improving the census income concept is to subtract personal taxes.[33] In practice, most studies have deducted only *federal* taxes, thus leaving state income taxes in the alleged "posttax" income figures.[34] The federal income tax is decidedly progressive. The payroll tax, while regressive relative to *earnings*, is not quite so regressive relative to *income* because low income groups receive a large proportion of their total income in transfers. Deducting both income and payroll taxes thus *decreases* measured inequality noticeably, as table 6.17 shows.[35]

A similar study by Taussig (1973), using 1967 data and an income concept similar to census income, reported that federal personal taxes reduced the Gini coefficient from .376 to .361. It seems unlikely that including state and local income taxes would change these figures very much, but including sales, excise, and property taxes might.[36] I conclude that the distribution of posttax income in any one year is moderately more equal than the distribution of pretax income. The difference, however, is not dramatic.

Because personal taxes have grown faster than pretax income (table 6.5), it seems obvious that subtracting them from census income each year would increase the trend toward equality. Yet a careful study of the 1950–70 period by Reynolds and Smolensky (1977) belies this supposition. They conclude instead that while taxes equalized the distribution of any one year, taxes had almost no effect on the trend in inequality of aftertax income.[37] Why the discrepancy? Reynolds and Smolensky (1977) show that federal personal taxes became less progressive between 1950 and 1970 for several reasons, the most important of which were (a) the increasing importance of the payroll tax relative to the income tax and (b) the decreasing progressivity of the income tax.

Transfers in Kind

Recent years have witnessed a sharp controversy, both in academic journals and in the popular press, over the extent to which adding transfers in kind to income would change the portrait of inequality in post-

Table 6.17 **Effect of Federal Personal Taxes on the Distribution of Family Income, 1972**

Share of:	Before Tax	After Tax	Change
Lowest fifth	4.92	5.26	+0.34
Second fifth	11.59	12.23	+0.64
Middle fifth	17.22	17.69	+0.47
Fourth fifth	23.57	23.87	+0.30
Highest fifth	42.70	40.95	−1.75

Source: Radner 1979.

war America. The controversy is over the *quantitative* dimensions of the effect, not its *qualitative* direction, since no one disputes that (a) transfers in kind have grown much faster than factor incomes[38] and (b) the distribution of transfers in kind is much more favorable to the poor than the distribution of factor incomes. These undisputed facts are enough to conclude that more equality in any given year and a stronger trend toward equality would emerge if the distribution of income were adjusted to include transfers in kind. But how much more?

The reason for the controversy boils down to this. While it is straightforward to estimate the total volume of in-kind programs such as food stamps, public housing, public education, and medical services provided under Medicare and Medicaid, it is not quite so straightforward to distribute these totals among income groups. And it is even more difficult to decide how to price them out. Treating a dollar spent on a transfer in kind as equivalent to a dollar received in cash seems inappropriate unless the transfer in kind provides precisely what the consumer would have used the extra cash to purchase. However, there are two cases in which transfers in kind are just as good as cash.[39] The first is when the government provides goods that the consumer would otherwise have purchased anyway and provides *less* of them than the consumer would have bought for herself. In this case, the transfer in kind does not affect budget allocation decisions and is equivalent to a cash transfer. Food stamps come close to fitting this pattern; it is arguable whether Medicare and Medicaid do. However, it seems clear that public education and public housing are not of this character. The second case is where the good that is distributed can be resold with insubstantial transactions costs (e.g., a transferable ration coupon). It is clear, however, that few, if any, public programs fit this second model.

Apart from these exceptional cases, it is conceptually clear that transfers in kind are worth less to recipients than what they cost to provide.[40] But how much less? This question can only be answered by positing some utility function and assessing the cash equivalent (in utility terms) of each transfer in kind. An excellent recent study by Smolensky et al. (1977) did precisely this, and concluded that the cash equivalent of one dollar in either food stamps or rent supplements was essentially one dollar, but that one dollar spent on either public housing or Medicare/Medicaid was worth substantially less than one dollar to recipients.[41]

Table 6.18 summarizes the results of two conflicting studies of the effects of transfers in kind on the distribution of income in 1972, under the (possibly false) assumption that such transfers should be valued at full cost. The adjustment adds between 1.8 and 2.3 percentage points to the share of the poorest fifth of families, depending on whose assumptions about the volume and distribution of noneducational transfers we

Table 6.18 **Effect of Transfers in Kind on the Distribution of Income among Families, 1978**

Income Concept	Percentage Share	
	Lowest Fifth	Highest Fifth
1. Census income	5.40	41.36
2. Census income plus educational transfers	5.97	40.22
3. Census income plus noneducational transfers		
(a) Browning	7.29	40.09
(b) Smeeding	6.75	40.37
4. Census income plus *all* in-kind transfers		
(a) Browning	7.70	39.09
(b) Smeeding	7.21	39.35

Source: Calculated by author from data in Browning (1979) and Smeeding (1979a).

use,[42] and subtracts a like amount from the share of the richest fifth. These are substantial changes. However, the increment to the share of the lowest fifth would be reduced by about one-half percentage point if transfers in kind were valued at 70 percent of cost instead.[43]

We are thus far from agreement over how large the effect of transfers in kind has been on the postwar trend toward equality. After a series of papers by Browning (1976; 1979) and Smeeding (1979a; 1979b), airing this and a number of other issues, it appears (Smeeding 1979b) that Browning's adjustments (including one for transfers in kind) raise the share of the lowest fifth of families in 1972 from 5.4 percent in the raw data all the way to 8.5 percent. Smeeding's corrections, by contrast, raise it only to 6.5 percent. The difference is hardly inconsequential, though only part of it traces to their divergent treatments of transfers in kind.

Cash Transfers

This seems an appropriate time to ask how large an equalizing effect *cash* transfers have had on the distribution of income. Unlike the other concerns of this section, this does not constitute a "correction" of census income, since census income already includes cash transfers; but the issue seems important enough to merit special attention.

By how much do cash transfers reduce income inequality in any given year? A number of studies have tried to answer this question, with relatively good agreement that cash transfers have decreased the Gini ratio by about 12 percent in recent years.[44] Taussig's (1973) study shows

that the equalizing impact of cash transfers is much greater than that of taxes. The study by Smolensky et al. (1977) enables us to compare the equalizing effects of cash and in-kind transfers with the following results:

	Reduction in the Gini Ratio
From cash transfers	—.046
From in-kind transfers:	
valued at full cost	—.027
valued at cash equivalent	—.016

Clearly cash transfers are much more important as equalizers, even if transfers in kind (including educational transfers) are valued on a dollar for dollar basis. If we adjust for the estimated lower value of certain transfers in kind, the predominance of cash transfers is even clearer.

I conclude that cash transfers are a very major source of income equality—substantially more important than either personal taxes or transfers in kind. The equalization is accomplished mainly by raising the incomes of the lowest fifth. But what of the trend in inequality? As table 6.4 shows, transfers have become an increasingly important source of income since 1957, and especially since 1967. We also know that the lower income strata receive a disproportionately large share of these transfers.[45] Thus it is clear that cash transfers pushed the distribution of income in the direction of greater equality during the postwar period. For example, Danziger and Plotnick (1977) estimated that transfer payments reduced the Gini coefficient by .069 (or 14.4 percent) in 1974 compared to only .048 (or 11 percent) in 1965.

While this is a noticeable effect over so short a period of time, it is surprising that the explosive growth of transfers did not push inequality down even faster. Three reasons suggest themselves. First, transfer payments may create disincentives for earning income that disequalize the distribution of factor income. Second, these transfer payments may have helped finance the splitting up of family units that led to increasing inequality. Third, Reynolds and Smolensky (1978) have suggested that transfers and other government programs follow a typical life-cycle pattern that dulls their initial redistributive thrust. Specifically, as redistributive programs mature and reach a wider clientele, their benefits become less concentrated on the poor. Thus, as the benefits from these programs grow larger in the aggregate, they simultaneously start to be distributed in a manner less favorable to the poor.

Other Income in Kind

Transfers in kind have already been discussed, but some factor payments are also made in kind rather than in cash. Major items here in-

clude food and lodging consumed by farmers and farm workers, fringe benefits that are either partially or totally subsidized by employers (e.g., medical insurance, company cars), and the benefits that many self-employed individuals siphon out of their businesses (unbeknownst to the tax collector). On balance, it is quite unclear to me whether including this potpourri of items would increase or decrease measured inequality in any given year, though both Schultz (1975) and Henle (1972) have speculated that they are disequalizing. There are no studies that shed much light on this issue.[46]

Nonetheless, I would still hazard a guess that, were we able to measure it, the addition of (nontransfer) income in kind to the CPS data would lead to a more disequalizing trend. One reason is that food and lodging consumed on farms (which is distributed more favorably for the poor) has declined as a fraction of all income in kind, while fringe benefits (which are distributed in a more prorich pattern) have increased dramatically. Another reason was mentioned earlier: the farm/nonfarm income differential is exaggerated by omission of income in kind.

Capital Gains

It has often been suggested that the CPS understates the degree of income inequality because it excludes capital gains—which accrue almost exclusively to the rich. And the one scrap of evidence we have on this issue supports this idea. When Smeeding (1979a) distributed an aggregate of accrued capital gains constructed by Browning (1976) among families for the year 1972,[47] he found that the share of the highest fifth increased by 1.4 percentage points.

I am dubious about the value of this exercise because many, indeed most, capital gains are not gains of real purchasing power, but simply represent maintenance (or rather partial maintenance) of principle in an inflationary world. Obviously, if the inflation rate is 8 percent, a fifty dollar stock must increase four dollars per year just to maintain its real value. These four-dollar increments, if they occur, are not gains in real terms. A careful study by Eisner (1980) shows that over the 1946–77 period as a whole, the more than three trillion dollars in nominal capital gains that households received failed (by a very small margin) to provide compensation for inflation. "Real" capital gains, in a word, were as often losses as gains.

Because of the extremely prorich pattern by which capital gains are distributed, it is clear that their inclusion would *disequalize* the income distribution in any year for which aggregate real gains are positive (as Smeeding and Browning found). But it is equally clear that including capital gains would *equalize* the distribution of income in any year for

which aggregate real gains are negative. Since gains were roughly zero in an "average" postwar year, I conclude that the omission of capital gains in the CPS data is not misleading on average, though it does conceal some sizable variations in inequality from year to year.

What of the trend? Eisner's (1980, table 33) data on real capital gains as a fraction of disposable income show violent fluctuations but absolutely no trend.[18] It is thus highly unlikely that the omission of capital gains distorts our picture of the postwar trend in income inequality.

Underreporting of Income

The CPS is plagued by underreporting of all sorts of income. But the two biggest underreporting problems come at opposite ends of the income distribution: transfer payments (which are received mainly by the poor) and property income (which is received mainly by the rich). As a consequence, a correction for underreporting would raise the incomes of both the poor and the rich relative to the middle class, making it unclear whether measured inequality would rise or fall. What a series of such corrections might do to the postwar trend in inequality is totally obscure.

Summary

Table 6.19 summarizes this section by bringing together estimates, many of them admittedly dubious, of the effects on the distribution of income of all the adjustments discussed here.[19] The overall conclusion seems to be that patching up the census income concept probably would lead to a distribution of income with noticeably more equality in any one year but only a *slightly* stronger trend toward equality over the postwar period as a whole.

While there is a good deal of guesswork involved, it is conceivable that all the adjustments together might reduce the level of the Gini ratio by about .050 in any one year—a change which exceeds by far the difference between the highest and lowest Gini ratios recorded in table 6.14. For the share of the poorest fifth of families, it is clear that transfers in kind are the most important adjustment, though personal taxes and underreporting also matter. For the share of the richest fifth of families, transfers in kind, personal taxes, and (in some years) capital gains, are all quite important.

Where the trend in inequality is concerned, all the adjustments together seem likely to lead to more equalization through time, mainly because of transfers in kind. However, the effects of improving the income definition seem unlikely to be as strong as the effects of the demographic changes discussed in the previous section.

6.4.4 Measured Inequality and the Accounting Period

It is clear that the distribution of income would look more equal if income were measured over an accounting period longer than a year because: (1) some year-to-year fluctuations would be "smoothed out"; and (2) part of the inequality in any one year's income distribution is due to the fact that people are at different stages of their life cycles, and income varies systematically by age.

It is not obvious, however, that these considerations have much bearing on the *trend* in inequality. The fact that there are transitory income fluctuations will distort our picture of the trend only if the variability of income has increased or decreased systematically over time. It is far from evident that this is true. Similarly, the fact that life-cycle influences contribute to measured inequality will alter the trend only if these life-cycle influences have grown more (or less) important over time. Here, however, it has been claimed that this is in fact the case—that the gap between *annual* income inequality and *lifetime* income inequality has increased over the postwar period (Paglin 1975). An examination of this controversy is the major task of this section.

Transitory Income Fluctuations

The natural approach to correcting for transitory fluctuations in income is to follow households through time and average their incomes

Table 6.19 **Effects of Adjustments in the Income Concept on the Distribution of Income**

Adjustment	Effect on Gini Ratio	Effect of Share		Effect on Trend toward Equality[a]
		Lowest Fifth	Highest Fifth	
1. Subtract Personal Taxes	−.015[b]	+0.3[c]	−1.7[c]	0
2. Add In-Kind Transfers				
At full value	−.027[d]	+2.0[e]	−2.1[e]	+
At 70% value	−.016[d]	+1.5[e]	−1.6[e]	
3. Add other Income in Kind	?	?	?	−
4. Add Capital Gains	0	0	0	0
5. Adjust for Underreporting	n.a.	+0.3[f]	+0.1[f]	?

Note: n.a. = not available.

[a] + sign means the correction would *increase* the trend toward *equality*. − sign means the correction would *decrease* the trend toward equality. A zero means approximately no effect.

[b] From Taussig (1973).

[c] From Radner (1979).

[d] From Smolensky et al. (1977).

[e] Computed by author from data in Smeeding (1979a) and Browning (1979). Both educational and noneducational in-kind transfers are included. Since the two sources disagree on the latter, their estimates have been averaged.

[f] Calculated by the author from data in Smeeding (1979a).

over multiyear periods. Up until quite recently, there was a dearth of data with which to do this. Kravis (1962) had studied a panel of households for five years between 1949 and 1954, finding inequality (as measured by the Gini ratio) over five years to be about 10 percent less than inequality in a single year. He had also examined twelve years of Delaware tax returns (1925–36), and found the twelve-year Gini ratio to be 8 percent lower than the average of the one-year Gini ratios.

The availability of several panel studies in the United States in recent years has verified Kravis's findings. Various sets of panel data have been used by Benus and Morgan (1975), Kohen, Parnes, and Shea (1975), Hoffman and Podder (1976), David and Menchik (1979) and others to reach the following general conclusions.

1. Gini ratios for income over three years generally are about 3–5 percent lower than Gini ratios for one year,[50] though reductions as large as 10 percent have been found.[51]

2. If we stretch the accounting period to seven years, the drop in the Gini ratio increases to 9 percent, even if we restrict attention to families with the same head throughout the period (Hoffman and Podder 1976).

3. Because of the specific way it weights reductions in inequality at various points on the Lorenz curve, the Gini ratio seems to decline less as the accounting period is lengthened than do other measures of inequality.[52]

If these sound like small adjustments, it should be remembered that a 10 percent decline in the Gini ratio (e.g., from .360 to .324) is absolutely colossal compared to anything we can find in the time series data (see table 6.14).

Life-Cycle Influences

It is clear that inequality over the lifetime is lower than inequality in any one year, but here the absence of hard data makes it necessary to resort to simulation and estimation techniques.

My simulation study (Blinder 1974) "guesstimated" that inequality in lifetime income was about 30 percent lower than inequality in a single year if the Gini measure was used, but about 40–45 percent lower if the coefficient of variation was used to measure inequality.[53] Lillard (1977) estimated that the Gini ratio for lifetime *earnings* was about 45 percent less than that for annual earnings in a very special group of American men. Gordon (1976) estimated that for a sample of white male heads of households between thirty and fifty-five years of age, the share of the lowest fifth in lifetime income was 8.7 percent, compared to 6.7 percent in annual income. Without actual data, it is hard to know how accurate these estimates are.[54]

Our best guess is thus that the difference between lifetime inequality and annual inequality is very great. But is this important for interpreting

the postwar trend in inequality? To answer this, think of a population composed of different age groups. Inequality can increase if: (1) inequality within age groups increases; (2) the distribution of families across age groups shifts toward groups with greater inequality; or (3) income differences by age become more pronounced.[55]

What do the data tell us about each of these factors?

1. Data covering 1947–64 reveal only weak downward trends in age-specific Gini ratios.[56] Danziger, Haveman, and Smolensky (1977) found that if all age-specific Gini ratios had been constant at their 1965 levels, the Gini ratio for 1972 would have been (very slightly) lower than it was. Thus it seems that factor (1) was operative, but very weak.

2. As noted earlier (see page 442 and table 6.2), changes in the age structure of families were substantial and disequalizing. Over 1965–72, Danziger, Haveman, and Smolensky (1977) found that the shifting age distribution added .011 to the Gini coefficient (which increased in total by .016). Blinder and Esaki (1978) created a time series of hypothetical income distributions covering 1947–74 on the counterfactual assumption that the age distribution did not change. They found that the effect of the shifting age distribution on quintile shares, while disequalizing, was very modest.

3. The data do show an increased arching in the age-income profile, as figure 6.3 illustrates.[57] Danziger, Haveman, and Smolensky (1977) attributed a .005 increase in the Gini ratio between 1965 and 1972 to this factor. We lack a study of this factor over a longer period of time.

On balance, it seems clear that the shifting age distribution and the increased curvature of the age-income profile have caused income inequality to increase during the postwar period despite small declines in age-specific inequality. But the magnitude of the effect seems modest.

Yet, in a controversial paper, Paglin (1975) claimed that the shifting age distribution counteracted what would otherwise have been a very strong trend toward greater income equality among families. Whereas the raw data (see table 6.14) show rather little downward trend in income inequality between 1947 and 1972 (a 4 percent decline in the Gini ratio), Gini ratios that Paglin (1975) presented as "corrected" for age factors exhibit a very strong downward trend (dropping 21 percent). It behooves us to examine Paglin's calculations. Is his method a valid way to "remove" the influence of the changing age structure from the data?

Paglin's technique for decomposing the Gini ratio is straightforward. Begin by constructing a hypothetical Lorenz curve on the assumption that all families of the same age (as defined by the family head) have the same income, and use the area between this hypothetical Lorenz curve and the actual Lorenz curve (shaded in fig. 6.4) as a measure of inequality due to factors other than the life cycle. This simple decomposition seems appealing at first, but does not survive closer examination.[58]

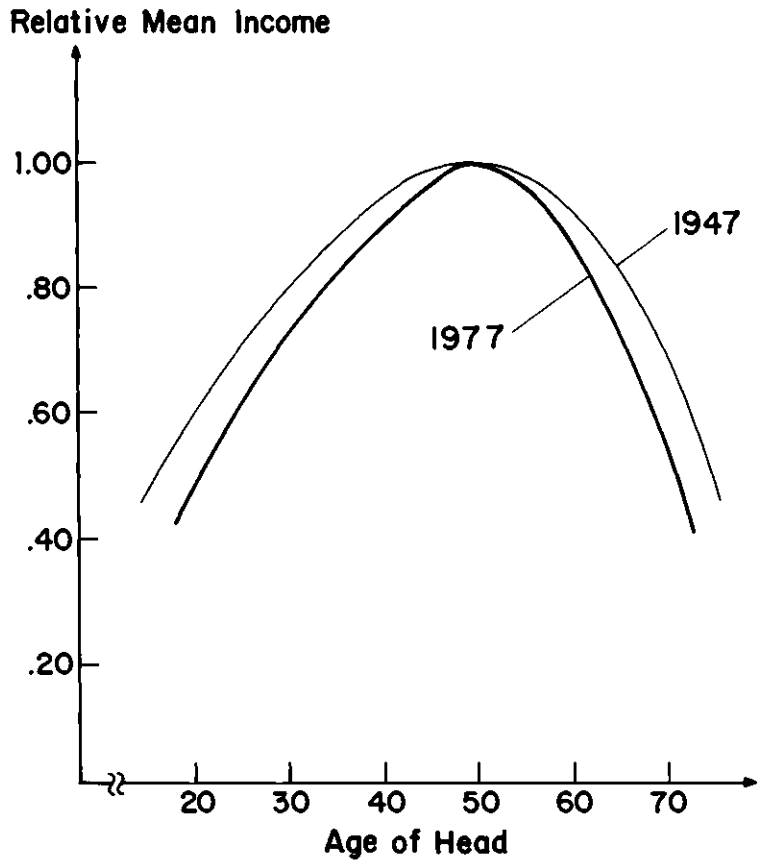

Fig. 6.3 Age-income profiles for families.

Pyatt (1976), and before him Bhattacharya and Mahalanobis (1967), have shown that the Gini ratio can be decomposed into *three* components (not two): (a) a weighted average of the age-specific Gini ratios (or of any other desired grouping), (b) a part dependent on the differences in average incomes across age groups, and (c) a part due to the overlapping of the groups.[59]

Paglin is presumably interested in isolating (a), but by subtracting term (b), he is actually left with parts (a) and (c). Since part (c) has no intuitive interpretation, the Paglin measure of age-corrected inequality can exhibit strange behavior, as Danziger, Haveman, and Smolensky (1977) have shown. In terms of the three age-related factors enumerated in section 6.4.4, Paglin's procedure does not succeed in isolating factor (1), the effects of changing inequality within specific age groups.

I conclude that while Paglin's basic point—that postwar changes in life-cycle influences on income distribution have masked some of the

trend toward equality—is correct, he has probably exaggerated its quantitative significance.

Income Equality versus Income Mobility

A related point should be dealt with here. There is considerable churning within the income distribution from year to year. The same families do not, for example, always populate the bottom fifth or the top 5 percent. If our real concern (for welfare purposes) is with income inequality over some lengthy period of time, then it is clear that we can get a good degree of equality in either of two ways:

1. Families could occupy essentially the same relative positions year after year, but the annual distribution (and hence the multiyear distribution) could be quite equal.
2. The annual distribution of income could be quite unequal, but families could move around within the distribution so much that the multiyear distribution of income could be quite equal.

In this sense, income *equality* and income *mobility* are substitutes for one another.[60] In fact, I am certainly not the first to speculate that mo-

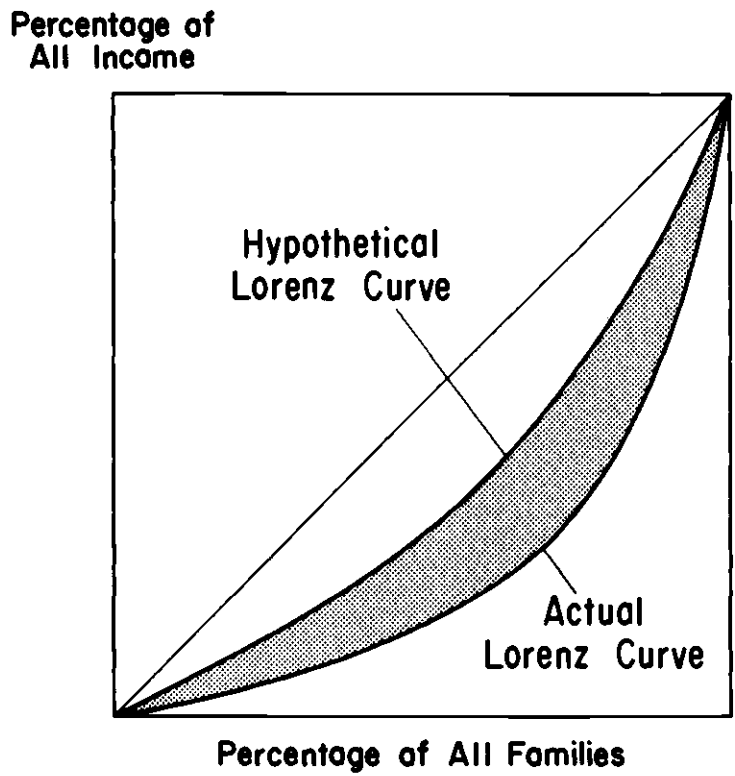

Fig. 6.4 Paglin's decomposition of the Gini ratio.

bility occupies a more exalted place in the American constellation of value judgments than does equality. Americans seem quite willing to tolerate gross disparities in incomes so long as there is a reasonable chance that low-income families in one year can become high-income families in another year. With very little mobility, on the other hand, even a Gini ratio of .300 might be considered intolerable.

The studies cited earlier, and several others as well, seem to suggest a good deal of mobility in the United States income distribution—especially near the bottom of the distribution (Mirer 1975; Benus 1974) and among the young (Kohen, Parnes, and Shea 1975). To cite just one summary statistic, Lane and Morgan (1975) found that the rank correlation for family money income between years one and six of the Panel Study of Income Dynamics was only .47 (or .64 among families with the same head in the two years). While ghetto dwellers rarely trade places with Rockefellers, ours is not a stratified society.

6.5 Special Aspects of Income Inequality

Social scientists and philosophers have long been intrigued by issues relating to equality in the abstract. Laymen and political figures, by contrast, have shown rather less interest in equality than in such related (and more concrete) issues as the plight of the poor, income differentials by race, and income differentials by sex. Each of these special aspects of income inequality has been the focus of a major public policy initiative during the postwar period. For these reasons, each of them merits special attention.

6.5.1 The Special Problem of Poverty

As just noted, the revealed political preferences of the American public show much less concern with inequality than with the plight of the inhabitants of the lower tail of the distribution—the poor. As Lampman (1973) has remarked, this country has never set a target for the Gini ratio. It has, however, declared war on poverty and set specific targets for its reduction. Who is winning the War on Poverty?

Defining Poverty

It turns out, however, not to be so easy to separate the specific problem of poverty from the more general problem of income inequality.[61] The reason is clear enough. Income is a continuous variable, whose distribution can be estimated. Poverty, however, is a dichotomous variable: a family is either poor or it is nonpoor. To decide who is poor, we must place a "poverty line" somewhere in the income distribution, as depicted in figure 6.5, and count how many families (or people) fall below it. Unfortunately, there are many ways to place the line.

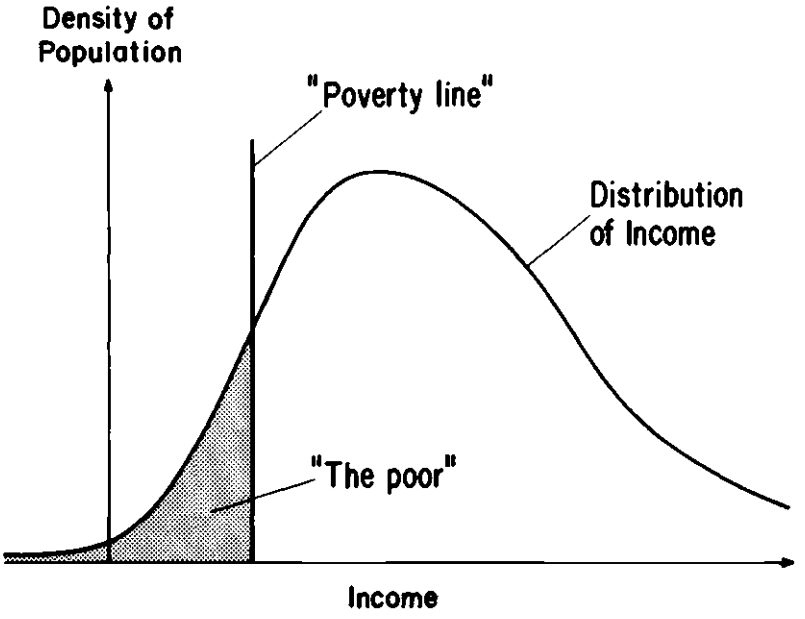

Fig. 6.5 Defining the poverty population.

At one extreme, we could base our poverty line on a *purely absolute standard* of poverty: a family is deemed poor if and only if its income is insufficient to purchase a prescribed bundle of goods and services. Since the bundle is fixed, the poverty line is increased only to adjust for inflation. This concept of poverty, which underlies the official poverty counts of the United States government, has been criticized on many grounds.

1. It seems to contradict public notions of what constitutes poverty. This point is obvious when we consider long periods of time: the rich of centuries ago lacked many of the conveniences that today's poor routinely have. But section 6.3, above, showed how dramatic changes in the standard of living have been even over a period as short as thirty years. It would be surprising indeed if the concept of poverty had not changed accordingly, and evidence from public opinion polls and elsewhere suggests that it has.[62]

2. The bundle of goods and services is inherently arbitrary. Who knows what items every family must have if it is not to be deemed "poor"? Answers to this question are arbitrary at best. Official defini-

tions of poverty in the United States are essentially obtained by defining a food budget and tripling it.[63]

3. It is clear that economic growth will eventually pull almost everyone above any purely absolute poverty line. This definition seems to make the War on Poverty too easy to win.

The unexceptionable idea that what constitutes poverty is culturally, not biologically, determined leads us away from a purely absolute standard of poverty. But where do we stop? We could go all the way to a *purely relative standard* and define the poor as the lowest 20 percent of the income distribution. Under this definition, the War on Poverty would be unwinnable *by definition*; and the Bible would be literally correct: ye have the poor always with you. Personally, I find this to be not an unattractive definition of poverty. However, it does require that we amend the poverty-reduction goal. Counting the poor will no longer do; instead, it is natural to study trends in the share of total income received by the lowest 20 percent. This, of course, has been done at length in this chapter. By this definition, the "special" problem of poverty has already been considered; the conclusion was that poverty has been eroding—but slowly.

There are, of course, intermediate grounds between purely absolute and purely relative standards of poverty. Poverty lines based on "minimum decency" budgets recognize psychological as well as physical needs, and are periodically adjusted to reflect changing norms and mores. Between adjustments, of course, they function just like fixed budgets and so are close cousins to strictly absolute definitions of poverty. They also share the arbitrariness of the fixed budget standard.[64]

A different intermediate choice comes much closer to the purely relative concept of poverty: define the poor as those families with incomes below x percent of the median. Fuchs (1967) suggested such a standard with $x = 50$. While this definition allows the poverty population to shrink or expand *in principle, in practice* it has amounted to defining the poor as the lowest 20 percent (Fuchs 1967, p. 89).

Not Again!

A related set of points is worth making here. If we are to enumerate the poor, we must decide what types of recipient units to count (families? persons?), we must select a definition of income, and we must pick an accounting period. This all sounds familiar. The issues and problems are exactly the same as in our lengthy discussion of income inequality —and so is the sensitivity of the poverty count to the choices we make. Official poverty counts, it should be noted, are based on census income —a concept which, we have seen, apparently hides an upward trend (of uncertain amount) in the share of the bottom fifth. The demographic

shifts studied earlier are also worth recalling, since many of them have served to increase the poverty population under official definitions. Finally there is the accounting period. Official poverty counts make no attempt to distinguish those who are permanently poor from those who are temporarily poor (owing, for example, to a large capital loss).[65] Given the amount of mobility that has been found at the lower end of the income distribution, this may be an important problem.

Who Are the Poor?

Having said all this, let us see who the official data classify as poor. According to the latest data (for 1977), 9.3 percent of all families and 22.6 percent of all unrelated individuals fell below the official poverty lines. Persons in families constituted about 80 percent of the poor, and almost half of these were in families headed by a female—a female headship ratio far higher than that for the population as a whole. The poverty rate was only 5.5 percent for male-headed families, but thirty-two percent for female-headed families. Among poor unrelated individuals, almost two-thirds were female.[66] Relative to the population as a whole, the poor were also more frequently black, less educated, and lived in larger families.[67]

Alternative definitions of income or concepts of poverty give rather different poverty counts, however. Table 6.20, for example, shows how the fraction of persons classified as poor changes as we adjust either the income concept or the definition of poverty. The upper left-hand entry is the official poverty count for 1976: just under 12 percent of all persons were considered poor. A relative poverty definition[68] raises the count to 15.4 percent of the population—a 30 percent increase in the number of poor people. Altering the definition of income by deducting direct taxes, adding income in kind, and correcting for underreporting (which, we know, is very serious for transfer income) cuts the poverty count drastically—to only 6.5 percent.

Table 6.20 **The Poverty Count for 1976, by Different Definitions (Percentage of All Persons)**

	Census Income	Census Income Adjusted[1]	Census Income Minus Transfers
Official Poverty Lines	11.8	6.5	21.0
Relative Poverty Standard[2]	15.4	—	24.1

Source: Danziger, Haveman, and Plotnick 1979, table 5, p. 31.
[1]Adjusted for income in kind (both transfers and otherwise), direct taxes, and underreporting by Smeeding (1977).
[2]Defines poor persons as those with income below 44 percent of the median income.

Trends in Poverty Counts

How has the poverty count behaved through time? Figure 6.6 plots four different estimates. The official data, using census income and an absolute definition of poverty, show rapid progress against poverty from 1959 (when the data begin) until 1969. Thereafter, the fraction of *families* who are classified as poor almost levels off (it is 9.7 percent in 1969 and 9.3 percent in 1977), while the fraction of *unrelated individuals* so classified continues to tumble. The other two series use persons as the recipient unit, and are available only since 1965 (and not for every year). There is no discernible trend in relative poverty based on census money income. Absolute poverty based on income adjusted for taxes, in-kind income, and underreporting does show a downward trend, though fluctuations are severe.[69]

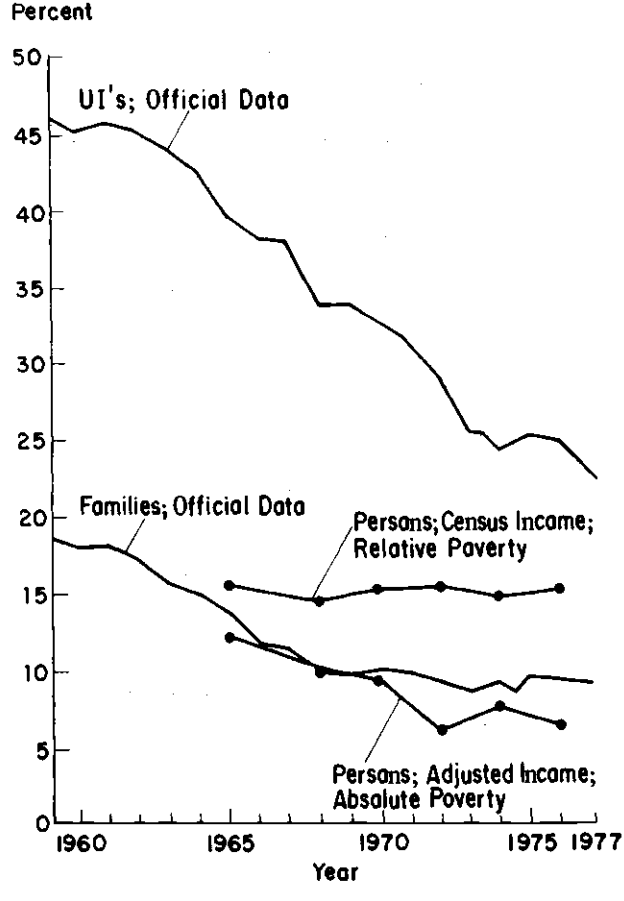

Fig. 6.6 Trends in poverty.

The conclusion, then, seems to run something like this. The official poverty count declined smartly through the 1960s, but has been stagnant since then. This constancy, however, is due to the dominant position of families in the aggregate; the incidence of poverty among unrelated individuals continued to fall. If we fix up some of the pitfalls with census income, there appears to have been considerably more progress in the War on Poverty. But if we adopt a relative poverty concept rather than the official poverty lines, there has been much less.

One final word seems in order. Whether we use official poverty lines or a relative poverty concept, table 6.20 shows that many fewer people are poor after (cash) transfers than before transfers. The trends in pre- and posttransfer poverty are also quite different. By official definitions, the poverty rate for all persons declined 24.4 percent between 1965 and 1976. But, there is almost no trend in the poverty rate based on income minus (cash) transfers (Danziger, Haveman, and Plotnick 1979, table 5, p. 31). Transfers, in a word, have been the chief weapon in the War on Poverty.

6.5.2 Black-White Income Differentials

It is, of course, well known that nonwhite individuals and families typically have lower incomes than whites.[70] For example, the ratio of mean income among nonwhite families and unrelated individuals to that among whites averaged .589 (with standard deviation .057) for the post-war period as a whole.

However, there was a substantial narrowing of the differential during the period. Figure 6.7 charts the behavior of the nonwhite/white income ratio since 1947, for families and unrelated individuals pooled. The upward trend from .52 in 1947 to .68 in 1975 is clear and unmistakable, though there has been some slippage since then. The gains scored by blacks between 1965 and 1968 are particularly impressive.[71]

The economic position of blacks relative to whites is far from uniform across different demographic groups. In 1977, for example, the black/white mean income ratio was .63 when averaged over all families. But for families with a head aged 18–24, it was .97 while for families headed by a 55–64 year old it was .57. Similarly, the ratio was .76 for male-headed families versus .64 for female-headed families.

Several demographic forces limited the economic gains achieved by blacks, however. First, there was a substantial increase in the fraction of families headed by females—which rose from 28 percent in 1967 to 37 percent by 1976.[72] Second, the labor force participation rate of black men declined somewhat—from 85 percent in 1954 to 71 percent in 1977, with much of the drop accounted for by the elderly (see Richard Freeman, chap. 5 of this volume). This occurred despite an increase in

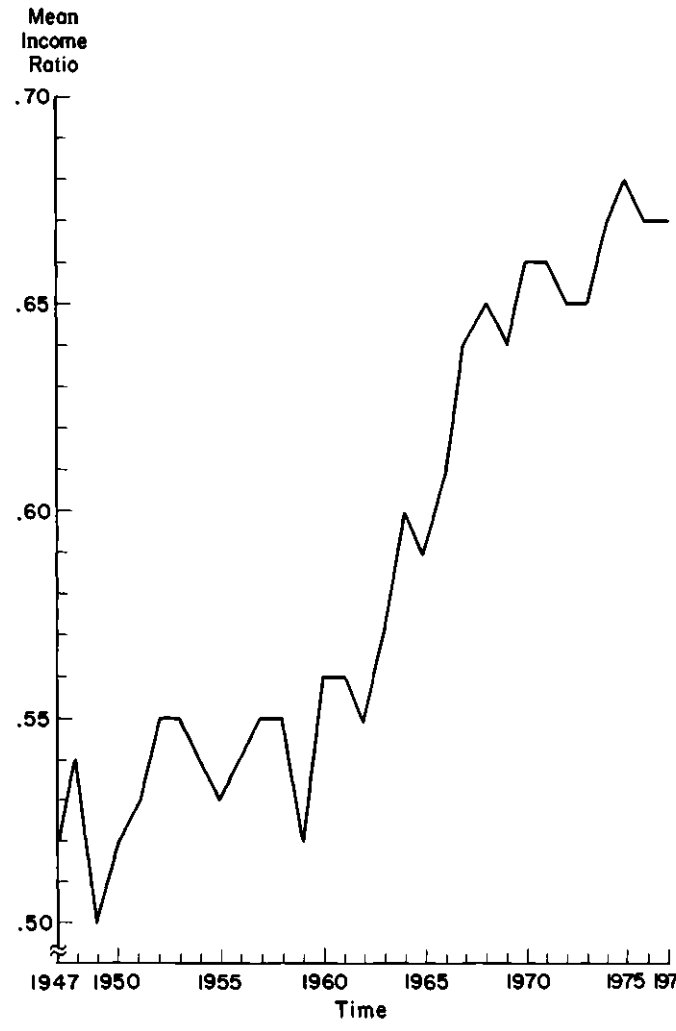

Fig. 6.7 Trend in nonwhite/white mean income ratio, for families and unrelated individuals.

black earning rates relative to those of whites. However, relative earnings gains were greater for women than for men. Indeed, something close to full parity between the races was achieved among females working full time full year. The black/white earnings ratio for such workers rose from .56 in 1955 to .93 in 1977.[73]

Thus the improvement in the black/white income ratio was the net result of a confluence of forces, some of which were equalizing and some of which were disequalizing. On balance, however, there can be no question that the relative economic position of blacks improved sub-

stantially during the postwar years. Equally clear is the fact that—except in isolated instances—parity has not yet been achieved.

6.5.3 Male-Female Income Differentials

When we come to consider income differentials between men and women (or between male- and female-headed families) a rather different picture emerges. As figure 6.8 shows, the ratio of female to male

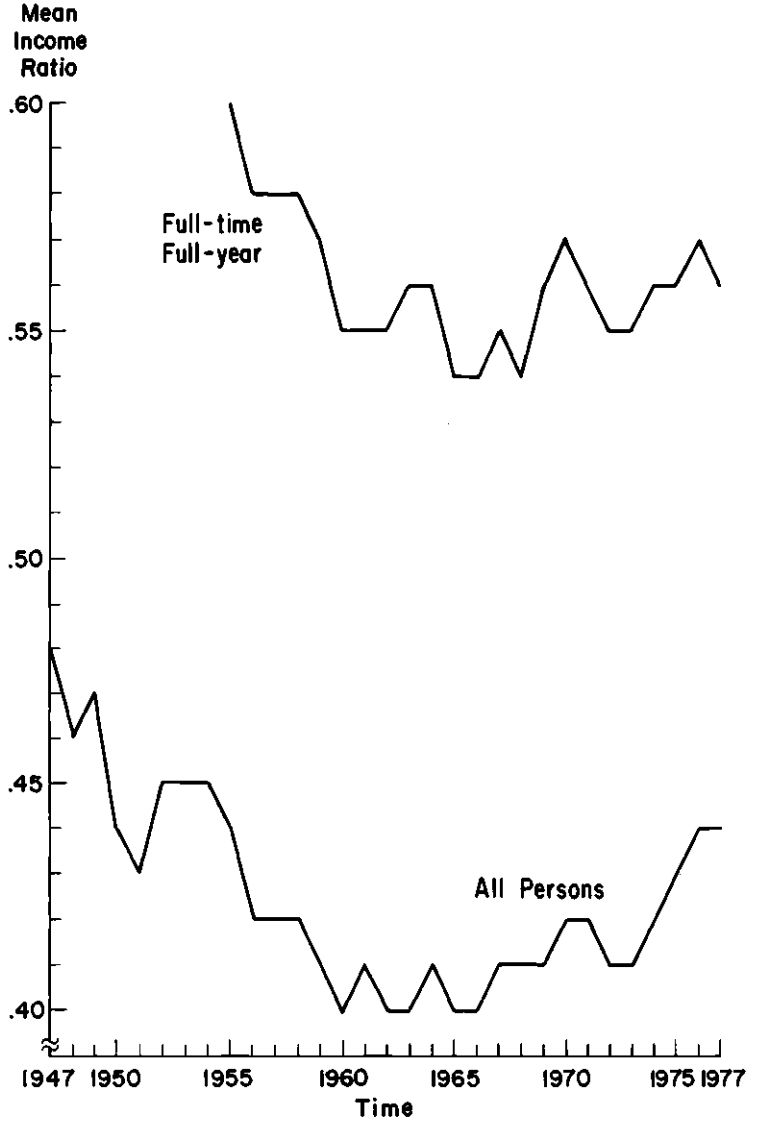

Fig. 6.8 Trends in female/male mean income ratios.

incomes dropped from 48 percent just after World War II to only 40 percent by 1960, hovered in a narrow range between 40 percent and 41 percent between 1960 and 1969, and rose in recent years to 44 percent.

Part of this huge income differential—which is wider than that between blacks and whites—is due to the fact that more women than men work part time or for only part of each year. But figure 6.8 shows that even women who worked full time for a full year typically had incomes only about 55 percent as large as those of their male counterparts. (Earnings differentials show much the same pattern.) Differentials in incomes between male- and female-headed families paint an even more pessimistic picture. Female-headed families averaged 73 percent of the income of male-headed families in 1947, but only 50 percent in 1977. Indeed, as Lampman (1977) has remarked, the lack of progress in narrowing male-female differentials is almost unique in a period when black-white, North-South and other differentials were being reduced. The sharp increase in female labor force participation rates suggests itself as the leading explanation of this lack of progress, although that just raises another question: why did female participation rates rise so much?[74]

6.6 Trends in Nonincome Aspects of Economic Well-Being

This section seeks to remedy some of the omissions caused by the myopic concentration thus far on *income* as the measure of well-being. The discussion is necessarily less systematic, less quantitative, and more impressionistic than the discussion of income.

6.6.1 Leisure Time

When an economist is asked to go beyond income as a measure of economic well-being, the first thing he thinks of is leisure. (Indeed, this is often also the *last* thing he thinks of.) It would seem that if two individuals have the same wage rate[75] but earn different incomes because they voluntarily work different hours, then the best first guess is that they are equally well off. Income inequality that arises from voluntary choices between work and leisure, then, is not to be considered a social "bad."[76]

Leisure time can be expanded in several ways. The number of hours worked per week can shrink.[77] The number of (full-time equivalent) weeks per year can decline because of longer vacations and more paid holidays. Or the number of years of retirement can be increased. As we shall see, each of these factors has been operative during the postwar period. I begin with hours of work.

Hours of Work per Week

It is, of course, well known that the work week has shrunk over the long sweep of history. Indeed, the extent of this shrinkage is often exaggerated. We have probably all heard stories about how a work week of six or seven twelve-hour days was "typical" around the turn of the century. But the data belie these grisly tales. The average manufacturing worker at the turn of the century apparently worked about six ten-hour days per week—an average work week of fifty-nine hours.[78] Hours outside of manufacturing were typically shorter yet, so the average worker in all industries worked only fifty-three hours (Moore and Hedges 1971). From 1900 to 1947 there was a steady downward trend in the average work week among manufacturing workers which reached 40.4 hours by 1947.[79]

It is often claimed that the decline in the typical work week ended around World War II, and that since then American workers have taken their increased leisure in the form of fewer weeks per year. This widely held view derives from looking only at hours per week *in manufacturing*, which by 1977 accounted for just 24 percent of total employment. Here the decline in the work week did indeed halt: it was 40.3 hours long in 1977. But more than three-quarters of the United States labor force works in other industries; and in these industries the decline in the average work week has continued throughout the postwar period, perhaps because of the increased use of part-time workers (see table 6.21). I conclude that American workers decreased their average work week by about 10 percent during the postwar period. Manufacturing workers (a shrinking minority) were a notable exception.

Weeks of Work per Year

Data are scarcer for the number of work weeks (or days) in a year. Lebergott (1976, p. 91) reports that the percent of nonfarm workers taking vacations increased from nearly zero in 1930 to 60 percent in 1950 and 80 percent in 1970. He also cites U.S. Bureau of Labor Statistics data that the typical American worker had seven paid holidays. While we do not know this for a fact, it is not hard to imagine that the

Table 6.21 Average Weekly Hours in Selected Industries, 1947–77

Year	All Private Nonagricultural	Manufacturing	Construction	Wholesale and Retail Trade
1947	40.3	40.4	38.2	40.5
1977	36.0	40.3	36.6	32.8

Source: *Economic Report of the President* (1979), table B–35, p. 224.

spreading incidence of vacations and paid holidays may have reduced the typical work year by two weeks (about 4 percent) or more.

Incidence of Retirement

Another remarkable development of the postwar period has been the increasing prevalence of retirement, especially for men.[80] The labor force participation rate for men 65 years of age and older fell from 47.8 percent in 1947 to only 20.1 percent in 1977; for men aged 55–64, the decline was from 89.6 percent to 74 percent.[81] Reimers (1976) compared men who reached age 65 around 1933 with men who reached age 65 around 1963 and concluded that the younger generation devoted about 2 percent fewer years of its life to work than did the older generation.

It takes more than a little *chutzpah* to combine this guesstimate with my seat-of-the-pants estimate that more vacations decreased the work year by about 4 percent, and with data showing a 10 percent decline in the average work week. But, if we do all this, we are led to conclude that working time over a typical career has decreased about 16 percent during the postwar period. While this is a substantial amount, it probably means that leisure time expanded more slowly than the consumption of market goods and services.[82] Evidence that leisure time is a luxury good is lacking.

Housework

There is, however, one other important aspect of declining work effort that ought not to escape our attention. Lebergott (1976) has estimated that the typical housewife spent about twelve hours on housework per day in 1900, but only five hours in 1966. Stafford and Duncan (1977) cite data from time diaries showing that married women spent about twenty-seven hours per week on work in the home. How much of this decline in the housewife's workday took place since World War II is not known. But if we attribute half of the eight-hour-per-day decline to the postwar period, then the postwar decline in the workday for housewives would be about 50 percent. This may be an overestimate,[83] but it does seem that housewives have improved their lot relative to paid workers in the postwar period.[84] Family leisure thus probably increased faster than leisure time of the principal breadwinner.[85]

The Valuation of Leisure

How much is this increasing leisure worth? There seem to be two basic approaches to the valuation of leisure time, though each has many variants. The first approach tacitly or explicitly posits a utility function that combines both income (or consumption) and leisure time into a composite measure of well-being. The major alternative is to convert

leisure time into money by using the market wage. While the utility-function approach is obviously conceptually superior, it faces one (insurmountable?) problem: who knows what the right utility function is?

The Distribution of Leisure and Income

What of the distribution of leisure time? Morgan and Smith (1969), using data from the Panel Study of Income Dynamics, found a slight negative correlation between leisure and income, but a slight positive correlation between leisure and the ratio of income to "needs." Sirageldin (1969) constructed a distribution of economic well-being based on leisure and the ratio of income to "needs" for data from the Productive Americans Survey. He found that well-being so defined was distributed more equally than income. Taussig (1973) valued leisure at the wage, using data from the Survey of Economic Opportunity, and obtained very similar results. "Full income" was slightly more equally distributed than money income. Browning (1976) and Browning and Johnson (forthcoming) made two different adjustments for nonworking time and found very substantial equalizing effects.

The conclusions seem to be, therefore, that (a) leisure is distributed somewhat more equally than income; (b) leisure has a slight negative correlation with income; and (c) more comprehensive measures of economic well-being that include both leisure and income are distributed more equally than income alone.

Involuntary "Leisure"

Having said this, we must not ignore the fact that not all "leisure" time is taken voluntarily. A person who is disabled or involuntarily unemployed does not want to "buy" all the leisure he gets at the going wage rate. For him, the wage clearly *over*estimates the marginal value of leisure time. While there is no satisfactory way at present to decompose unemployment time into "voluntary" and "involuntary" components,[86] it is at least worth pointing out that the incidence of total unemployment is highly uneven. The young, the black, and the female suffer most from unemployment. Involuntary leisure seems concentrated at the lower end of the income distribution. It is hard (for me at least) to imagine that this pattern is entirely the result of free choice.

6.6.2 Wealth

In purchasing the goods and services from which they derive satisfaction, people are not restricted to their current income if they have accumulated wealth on which they can draw. So, if our real concern is with the distribution of economic *well-being*, data on the distribution of wealth are a valuable supplement to data on the distribution of income.[87]

Sources of Data

We know far less about the distribution of wealth in the United States than about the distribution of income. Certainly nothing comparable to the annual CPS exists for wealth. What meager knowledge of the wealth distribution we have comes from three sources.

First, there have been a few surveys of wealth holding, of which the Survey of Financial Characteristics of Consumers (SFCC) for 1962 (Projector and Weiss 1966) is undoubtedly the best. But these surveys have been sporadic, scattered through time, and noncomparable; so they tell us little about trends in wealth inequality. In addition, it is apparently very hard to elicit accurate data on wealth holding from survey respondents: even the assiduously planned and executed SFCC was plagued by underreporting (Projector and Weiss, 1966, pp. 61–62; Lebergott 1976, pp. 217–223). Nonetheless, the SFCC data on the wealth distribution in 1962 is undoubtedly the best "snapshot" information we have.

Second, estimates of the wealth distribution have been made by the estate multiplier method. Briefly, this method involves treating individuals who die in a particular year as a random sample (perhaps after some adjustments) of those who were living in that year. Then estate tax records on the wealth of decedents can be used to infer the distribution of wealth among the living.[88] However, since only estates above a certain amount (which for many years was $60,000) are required to file tax returns, the estate multiplier method can yield information only about the extreme upper tail of the wealth distribution.

Finally, a clever investigator can piece together scraps of information from which he can create an estimate of the distribution of wealth (Lebergott 1976). While this technique may be promising, it involves considerable judgment and perhaps some guesswork in piecing together disparate pieces of information, making time series comparisons very difficult.

The Stylized Facts

The stylized facts of the wealth distribution in the postwar United States are allegedly as follows: (1) Inequality in the wealth distribution far exceeds that in the income distribution. (2) There is no noticeable trend in wealth inequality.

Qualitatively, fact (1) rests on a fairly secure base; but we remain uncertain of its quantitative dimensions owing to the paucity of data. The SFCC found the Gini coefficient for wealth to be .76, as compared to a Gini ratio for income in the same population of .43 (Projector and Weiss 1966, p. 30). Lansing and Sonquist (1969, p. 50) reported Gini ratios for wealth within age cohorts in the 1953 and 1962 Surveys of Consumer Finances ranging from .62 to .69.[89] Feldstein (1976), how-

ever, has pointed out that these wealth data exclude an important source of wealth which is both very large in the aggregate and very equally distributed: the discounted present value of future social security benefits. When he added estimates of this "social security wealth" to the fungible wealth of those consumer units in the SFCC with heads between thirty-five and sixty-four years of age, the Gini ratio dropped from .72 to .51. The top 1 percent of wealth holders held 28.4 percent of fungible wealth, but only 18.9 percent of total wealth. This adjustment, as dramatic as it is, does not overturn the conclusion that wealth is more unequally distributed than income.

George Stigler (1973) once asked in another context, "Is this fact in fact a fact?" Our second "fact" may not be. What we know from estate multiplier estimates by Lampman (1962) and Smith and Franklin (1974) is that the share of the very, very wealthy fell somewhat between the 1920s and the 1940s and has been relatively constant since then. Thus the alleged stability of the wealth distribution is based on the experience of the *top 0.5 percent* (or at best the top 1 percent). It hardly needs to be stated that the lower 99.5 percent might have had a different experience. Furthermore, Feldstein (1976) has pointed out that the explosive growth of (very equally distributed) social security wealth doubtless imparted some equalizing trend to the wealth distribution.

Combining Wealth and Income

This look at the wealth distribution was motivated by a need to supplement information on income inequality. For this purpose, however, we need to know the joint distribution of income and wealth across individuals. Only survey data can give us this information. The SFCC data show a strong positive correlation between income and wealth (Projector and Weiss 1966, pp. 6–7), which can hardly be considered surprising.

The most natural way to combine the distributions of wealth (a stock) and income (a flow) is to add the annuity value of net worth to census money income, and then subtract current property income to avoid double-counting. Weisbrod and Hansen (1968) did approximately this in combining the SFCC with the 1962 CPS, but were forced to merge the two data sources in a very crude way. They found that the Gini ratio of .37 for census income became .42 when the annuity value of net worth was added at a 4 percent interest rate and .47 when a 10 percent interest rate was used. Taussig (1973) combined income and net worth information from the same data source, using a 6 percent interest rate, and found that the Gini ratio was almost unchanged unless substantial corrections were made for underreporting of net worth. After those corrections, the Gini ratio rose from .361 to .393. Taking account of the distribution of wealth thus seems to increase the degree of inequality.

6.6.3 Living Apart from Relatives (and Nonrelatives)

Whatever benefits the extended family may have brought to its members, they came at a cost of increasing household congestion and loss of privacy. And, apparently, Americans in the postwar period prized the reduced congestion and increased privacy more than the benefits of the extended family. Data on the rapid growth of the number of unrelated individuals—especially young and old people living alone—were cited earlier in this chapter (see page 437). Table 6.22 offers further data on this subject.

The Census Bureau defines a *subfamily* as either a married couple (with or without children) or a single parent with one or more unmarried children, living in the same household as another family to which they are related. The number of subfamilies so defined thus seems a

Table 6.22 Selected Data on Living Apart and Privacy, 1940–70

A. Data on Subfamilies[1]

Year	Number of Subfamilies (Millions)			Ratio of Subfamilies to Primary Families
	All	Husband-Wife	Other	
1940	2.06	1.55	0.52	.065
1947	3.12	2.33	0.79	.089
1977	1.18	0.51	0.67	.021

B. Data on Married Couples without Own Household

Year	Number (Millions)	Fraction of all Married Couples
1940	1.95	.068
1947	2.93	.087
1977	0.53	.011

C. Data on Secondary Families[2]

Year	Number of Secondary Families (Millions)			Ratio of Secondary Families to Primary Families
	All	Husband-Wife	Other	
1940	0.68	0.40	0.28	.021
1947	0.83	0.60	0.23	.024
1977	0.14	0.03	0.21	.004

Sources: *Historical Statistics*, p. 41, Series A288–A319; *Current Population Reports*, Series P–20, no. 313, table 5.

[1]Defined by the Census Bureau as "a married couple with or without children, or one parent with one or more unmarried children under 18 years old, living in a household and related to, but not including, the head of the household or his wife."

[2]Defined by the Census Bureau as "two or more persons such as guests, lodgers, or resident employees and their relatives, living in a household and related to each other."

good indicator of the number of extended families, though single grandparents would not be counted as subfamilies. Part A of table 6.22 shows that the absolute number of subfamilies fell by almost two-thirds between 1947 and 1977.[90] In 1947 almost 9 percent of primary families had another related family living with them. By 1977 this fraction was down to barely over 2 percent. Furthermore, almost three-quarters of these subfamilies in 1947 included both parents, whereas by 1977 less than half of all subfamilies had two parents. Data in Part B of table 6.22 on the number and frequency of married couples living in the household of some other family (not necessarily a related family) tell a similar story.

A phenomenon related to living apart from relatives is the decline in the number of boarders and lodgers in American households—living apart from nonrelatives. According to data put together by Lebergott (1976), the percentage of urban households with a boarder or lodger decreased from 23 percent in 1900 to 14 percent in 1941 and to only 2 percent in 1970. The lodger, in other words, almost disappeared from the scene during the postwar period.

Data germane to this phenomenon appear in Part C of table 6.22. The Census defines a "secondary family" as two or more persons related to one another but not related to the primary family. This category includes guests, lodgers, or resident employees; but since single individuals are not counted as secondary families, most lodgers are excluded in this count. Nonetheless, as many as 2.5 percent of primary families shared their homes with such an unrelated secondary family in 1947. Almost none did by 1970.

6.6.4 Health

It will not be considered heretical to assert that, at equal levels of consumption and leisure, healthier people are better off. And it is quite clear that the health of the American people has improved considerably during the postwar period.

Perhaps the most useful summary statistic representing the state of health is life expectancy. Table 6.23 displays data on life expectancies at birth and at age twenty. Progress in increasing longevity breaks down naturally into three distinct periods. Life expectancies increased dramatically between 1940 and 1955, but improvement in this regard slowed for women and virtually ceased for men during the next fifteen years. However, since 1970 there has been a resurgence in extending life expectancies, especially for adults. In total, life expectancy of a man reaching adulthood increased by 8.5 years over the period 1940–77. For women, the increase was almost 12 years. The reduction in infant mortality was even more dramatic—infant mortality in 1970 was less than half what it was in 1940.[91]

Table 6.23 Changes in Life Expectancy, 1940–77

A. Life Expectancy at Birth (in Years)

Year	Males	Females
1940	60.8	65.2
1955	66.7	72.8
1970[a]	67.1	74.8
1977[a]	69.3	77.1
Change 1940–77	+8.5	+11.9

B. Life Expectancy at Age 20 (in Years)[b]

Year	Males	Females
1939–41	47.8	51.4
1955	50.1	55.8
1970[a]	50.2	57.2
1977[a]	51.9	59.1
Change 1940–77	+4.1	+7.7

Source: For 1940–45. Historical Statistics. ser. B108–9. B118–19. pp. 55–56: for 1970. U.S. Department of Health. Education and Welfare. Public Health Service. *Vital Statistics of the United States*. vol. 11. sec. 5. table 5–4 (Washington. D.C.: U.S. Government Printing Office. 1976): for 1977. U.S. Department of Health. Education and Welfare. *Monthly Vital Statistics Report. Advance Report: Final Mortality Statistics. 1977*. Publication no. (PHS) 79–1120. vol. 28. no. 1. suppl. (Washington. D.C.: U.S. Government Printing Office. 11 May 1979).

Note: Life expectancy is defined as expected years of life remaining.

[a]Excludes deaths of nonresidents of the United States.

[b]Whites only.

Mortality and morbidity from many. but not all, serious diseases has also fallen dramatically in the postwar period. as table 6.24 shows.

6.6.5 Social Indicators

Not all indicators of well-being are pointing upward. As table 6.25 shows. the postwar period has witnessed a stunning increase in the incidence of illegitimate children. a surge in the divorce rate, and little or no

Table 6.24 Selected Data on Illness and Disease, 1940–70

A. Deaths per 100,000 Population from Selected Diseases

Year	Tuberculosis	Syphilis	Influenza and Pneumonia	Diabetes	Malignant Neoplasms	Cardiovascular and Renal Diseases
1940	45.9	14.4	70.3	26.6	120.3	485.7
1970	2.6	0.2	30.9	18.9	162.8	496.0

B. Incidence per 100,000 Population of Selected Diseases

Year	Tuberculosis	Syphilis	Malaria	Measles	Whooping Cough	Hepatitis
1940	78.0	359.7	59.2	220.7	139.6	2.5[a]
1970	18.3	43.8	1.5	23.2	2.1	32.0

Source: *Historical Statistics*. Series B149–166: B291–304. pp. 58 and 77.

[a]Data pertain to 1950.

Table 6.25 Changes in Selected Social Indicators

Year	Illegitimate Birthrate[1]	Divorce Rate[2]	Suicide Rate[3]	Crime Rate[4]
1940	7.1	8.8	14.4	88.9
1955	19.3	9.3	10.2	79.8/83.5
1970	26.4	14.9	11.6	274.7

[1]Illegitimate live births per 1,000 married females. Data from: *Historical Statistics*, Series B29, p. 52.

[2]Divorces per 1,000 married females 15 years old and over. Data from: *Historical Statistics*, Series B217, p. 64.

[3]Suicides per 100,000 population. Data from: *Historical Statistics*, Series B166, p. 58.

[4]Crimes known to police per 1,000,000 population. Two series are spliced here. The right-hand series pertains to the entire United States, and the number reported for 1955 is actually for 1957. The left-hand series pertains to urban areas only and is constructed by the author from separate data on urban crimes and urban population. (Urban population for 1955 is interpolated between the 1950 and 1960 censuses.) Data from: *Historical Statistics*, Series H952; Series H962, p. 413; Series A57, p. 11.

progress against suicide. Furthermore, crime has been one of our biggest growth industries. There is little cause for cheer in any of this.

6.6.6 Happiness

"Early to bed, early to rise, makes a man healthy, wealthy, and wise." This rhyme, I suppose, is meant to be a formula for happiness. Americans, we have seen, are indeed considerably wealthier and healthier than they were thirty years ago. They are also better educated.[92] Are they happier?

This is not the sort of question an economist feels comfortable with —and with good reason. Nonetheless, a provocative paper by Easterlin (1974) attempted to answer this question by studying opinion poll data on people's self-proclaimed happiness. Easterlin's findings for the United States are easily summarized. At a given point in time, happiness seems clearly to increase with economic status. However, as we look over time, there is little if any upward trend in happiness despite noticeable improvements in the average standard of living.

These findings suggest one of two things. Either "happiness" is a relative concept which depends (only) on each person's situation relative to that of his peers, or that, regardless of how happy people really are in an absolute sense, they tend to answer a survey question like this by rating their happiness relative to that of their contemporaries. There is probably no operational way of distinguishing between these two competing hypotheses, though they are different. For example, if we compare a family with income of $18,264 in 1977 and one with $3,546 in 1947 (the means for the two years), the first hypothesis states that

they are equally happy while the second hypothesis states that the 1977 family is happier on an absolute scale, but no more happy on a relative scale—and responds to the questioner by reporting on relative happiness. I personally find the latter interpretation more appealing.

6.7 In Conclusion

> When *I* use a word . . . it means just what I choose it to mean—neither more nor less.
>
> Lewis Carroll

We have seen in this essay that, according to the official data, average incomes generally have been *rising* during the postwar period while income inequality has been relatively *constant*. Can we accept these "facts" at face value? What welfare implications, if any, follow from them?

6.7.1 Income Levels and Economic Well-Being

The data show that per capita income and consumption increased roughly 80 percent in real terms between 1947 and 1977. In addition to consuming *more* of most goods and services, Americans changed their patterns of consumption markedly. For the most part, these redirections of spending seem recognizable as improvements in the quality of life. In addition, longevity and health improved, leisure time expanded, and privacy increased. Yet over the same period a number of social indicators such as divorce, illegitimacy, and crime signal a deterioration in the quality of life, and people report themselves no happier than thirty years ago. What are we to make of all this? Must we abandon the use of income as a measure of well-being?

My own impression is that we need not. For one thing, our main use of income as a gauge of well-being is cross-sectional, and it still seems reasonable to view people with higher incomes as "better off" at any moment in time—despite some anomalies. Second, even looking across time, my guess is that rising average income does indeed improve the human lot—though perhaps not by as much as the data suggest. Various nonincome aspects of well-being, such as leisure time and health, may not grow as rapidly as material consumption; growth may produce a variety of well-known disamenities (e.g., pollution and congestion); and we should not entirely ignore the message that "happiness" is perhaps a relativistic concept. While it would be presumptuous to conclude that people are 80 percent "better off" now than they were in 1947, it seems preposterous to conclude that they are no better off.

6.7.2 Income Inequality and Economic Well-Being

Things get quite a bit murkier when we turn our attention to the trend (or lack thereof) in income inequality. During the postwar period, a

number of strong, and seemingly autonomous, forces pushed income inequality higher.[93] These include:

1. A shifting age distribution that left the 1977 economy with relatively more old and young (and thus lower paid) members than the 1947 economy.
2. An increasing incidence of female headship of families.[94]
3. Changes in living arrangements that produced more low-income units as extended families broke up, fewer families took in lodgers and boarders, and more young and old people formed their own households.

In brief, when we look at the United States economy from 1947 to 1977, we are not looking at a society unchanging in composition by age, sex, and family structure. And most of the demographic changes that occurred were the sort that produce greater inequality, given our measurement procedures. Two conclusions follow. First, if we could measure the income distribution at fixed demography, a trend toward equality would emerge—a trend that the official data mask. Second, most of the factors that served to increase inequality during the postwar period do not signify deteriorations in economic well-being. Indeed, the opposite seems more likely. Measured income inequality thus seems an unreliable indicator of economic welfare.

Despite these and other disequalizing factors, the overall income distribution—as measured—did not become more unequal. The main reasons seem to have been a variety of government redistributive activities, including:

1. The rapid growth of cash transfers which, we have seen, have been the principal weapon in the War on Poverty.
2. The equally rapid growth of transfers in kind, which are *not* included in the official data (another reason why the official data understate the trend toward equality).
3. Other programs such as affirmative action guidelines, equal opportunity and antidiscrimination laws. These programs have not been dealt with in this chapter because we lack estimates of their effects on income inequality.[95] But I would be remiss not to suggest a possible link between these governmental activities and the observed narrowing of black-white income differentials.

It appears that, on balance, these competing sets of factors—demography versus government—battled to a standoff. Income inequality, as measured in the official data, was unchanged between 1947 and 1977. But I would not want to push the analogy to a tug-of-war too far, because there is reason to suspect that the two sides were not independent. Specifically, government programs designed to equalize posttax posttransfer incomes may well have helped disequalize pretax pretransfer incomes. For example:

It has often been suggested that redistributive tax and transfer schemes have disincentive effects that, e.g., discourage labor supply among beneficiaries (such as the poor or the elderly).[96]

It is conceivable, though here we know much less, that transfer programs such as AFDC and social security may have contributed to some of the changes in family structure and living arrangements that were just labeled as disequalizing factors (e.g., increases in female headship, more elderly people living alone).

It is quite possible that expenditures on public education (an apparently "equalizing" transfer in kind) were among the factors leading to the more pronounced age-income profile—thus contributing to a growing gap between annual and lifetime inequality.

No wonder, then, that in the wonderland of inequality,

> it takes all the running *you* can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!
>
> Lewis Carroll

Notes

1. For a detailed treatment of postwar demographic changes, see Easterlin, chapter 4 of this volume.

2. For an extensive discussion of opportunity sets, see Gordon (1977).

3. Conversely, two people with equal incomes may have gotten there from very different opportunity sets.

4. Even the CPS data are not perfectly consistent over time. Minor changes in such factors as definitions and survey techniques have been made. For a more detailed discussion and critique of the census-income concept, see Taussig (1977).

5. On this, see Lebergott (1976, pp. 11–12) or Rivlin (1975).

6. For more detailed technical discussions of this issue, the interested reader is referred to Atkinson (1970), Sen (1973), or Rothschild and Stiglitz (1973).

7. Readers familiar with the Gini ratio may skip the rest of this section, which is a nontechnical explanation for lay readers.

8. By the formula for the area of a triangle, this area is always one-half.

9. But not all, as a well-known paper by Budd (1970) established.

10. A full account of these recessions can be found in the paper by Robert Gordon, chapter 2 of this volume.

11. Defined specifically as personal income plus retained earnings plus contributions for social insurance (both employee's and employer's shares).

12. Defined specifically as disposable income (as in the NIA) plus retained earnings, or alternatively as augmented personal income minus contributions for social insurance minus personal tax and nontax payments.

13. All deflation is done using the implicit deflator for personal consumption expenditures.

14. It hardly needs pointing out that the national income accounts measure *nominal* interest, not *real* interest. The share of interest has risen mainly because there is trend in the inflation rate.

15. Age of the housing stock refers to private nonfarm residential structures containing from one to four units. The increase in the incidence of running water and flush toilets came largely in rural areas.

16. Absolute prices rose only 15 percent over thirty years, which implies that relative prices fell 57 percent.

17. In 1940, there were 2,412,000 private household workers and 34,949,000 households. By 1970, the number of private household workers had fallen slightly to 2,347,000, while the number of households had risen to 63,401,000, according to *Historical Statistics*, Series D–567 and A–288.

18. A procedure the Commerce Department does not follow. I have taken several liberties with their way of organizing the data.

19. This category also includes radios, musical instruments, and records.

20. For detailed discussions of this topic, see Taussig (1977) and Danziger (1977).

21. The income concept underlying this table differs from census income, and so these distributions are not directly comparable to those in table 6.9.

22. Table 6.11 pertains to families, and excludes unrelated individuals.

23. A similar calculation comparing the richest tenth and the poorest tenth brings an apparent 15:1 ratio in the raw data down to only 2.8:1.

24. This issue has been stressed by Kuznets (1974), among others.

25. My discussion of this point is deliberately sketchy. For further details, see Richard Easterlin's chapter 4 of this volume.

26. Blinder and Esaki (1978) report detecting a statistically significant break in the trend for several percentile shares around 1958.

27. A regression was run with the Gini ratio as the dependent variable, and the following independent variables: the unemployment rate; a constant; a dummy variable which is 1 starting in 1958; time; and the interaction of time with the dummy. The coefficient of time was −.0022 (with standard error .0004). The sum of the coefficients of time and the interaction term, which is the post-1958 time trend, was −.0004 (with standard error .0017).

28. In a regression identical to that reported in note 27, the estimated time trend in the Gini ratio among unrelated individuals was −.0014 (standard error = .0013) until 1957 and −.0040 (standard error .0017) thereafter.

29. Table 6.16 summarizes the whole distribution by the Gini ratio only to keep the volume of data manageable. Inspection of the underlying distributions reveals, fortunately, that there are hardly any instances of crossing Lorenz curves—the circumstance that would render the Gini ratio potentially misleading. The few Lorenz curve crossings that occur are indicated in footnotes to table 6.16. The year 1964 was selected for this table because it comes closest to being a "typical" postwar year.

30. The reader is reminded that, by Census Bureau definitions, there are no one-person families.

31. I will have more to say on the subject of age and the income distribution when I discuss the accounting period, since the problems arise largely from measuring income in a particular year rather than over the lifetime.

32. The section is limited to the family income distribution both to save space and because most of the literature does the same.

33. Let us be clear about what this simple adjustment *does not* do. If we are interested in *income* as an indicator of *well-being*, as we are, then a proper "adjustment" for taxes and transfers really requires resolution of every complex and controversial issue in tax incidence theory. What portion of the value of any transfer payment actually accrues to the recipient? What part of the burden of a

sales tax falls on the consumer of the product? Can the income tax be shifted? It hardly needs saying that questions such as these are well beyond the scope of this chapter and indeed probably also beyond the scope of current economic knowledge. My aim here is much more modest: to get the bookkeeping straight. Specifically, subtraction of individual income tax payments and the employee's share of the payroll tax from census income (the employer's share is already excluded), is *not* meant to imply that the burden of these taxes falls entirely on those who pay them. Nor does the absence of any deduction for indirect taxes imply that they are totally borne by firms.

34. An exception is Smeeding (1979a), who also deducts indirect taxes.

35. This table is drawn from a detailed study of the 1972 distribution using micro data and the old Office of Business Economics (OBE) income concept. The findings correspond closely to those reported earlier by Budd (1967) for 1962. Table 6.17 shows much less redistribution than that implied by the data in Browning (1976).

36. On sales and excise taxes, see Smeeding (1979a). Sales taxes are usually viewed as regressive, but Browning (1978) argues that they should be considered as progressive. Smeeding (1979c) disagrees.

37. Browning (1976) reaches a similar conclusion.

38. According to Browning (1976), transfers in kind (including public education) increased from 7.2 percent of census income in 1952 to 9 percent in 1962 and 14.6 percent in 1972.

39. For further discussion, see Smolensky et al. (1977).

40. Their justification, I presume, is either on some externality argument or on grounds of paternalism.

41. Smolensky et al. (1977) did not try to price out public education by this method, which is difficult because the market for private education is so thin and because public and private education seem to be different products.

42. The volume and distribution of educational transfers are apparently not in dispute.

43. See Smeeding (1979a, p. 941).

44. Lorenz curves for income before and after cash transfers do not cross, so the Gini ratio is probably a satisfactory summary statistic. Studies alluded to include Danziger and Plotnick (1977), Taussig (1973), Smolensky et al. (1977), and Garfinkel and Haveman (1978), and cover years ranging from 1965 to 1974.

45. According to Browning and Johnson (forthcoming, table 1), in 1976 the lowest fifth of families (ranked by total income) received 63 percent of its income in the form of transfers.

46. Smeeding (1979a) attempted an adjustment for employer pension contributions but, as Browning (1979) pointed out, was guilty of double-counting since census income includes income from pensions. In principle, we might want to include *either* pension contributions when made *or* pension income when received, but not both.

47. His distribution assigned 68 percent of the gains to the top fifth and 3 percent to the bottom fifth.

48. Real capital gains as a percentage of disposable income varied from +38 percent in 1958 to −54 percent in 1946. A regression of this ratio against time produced a coefficient that was essentially zero.

49. A similar analysis can be found in Danziger (1977).

50. For the "typical" 3–5 percent reduction, see Benus and Morgan's (1975) calculations for a 1968–72 Office of Economic Opportunity panel and for a special

panel designed to study the impact of the 1964 income tax cuts; and Kohen, Parnes, and Shea's (1975) results with the National Longitudinal Survey (NLS) of mature men. Earlier, Vandome (1958) had reported similar results for the United Kingdom.

51. Benus and Morgan (1975) reported a 9 percent reduction in the Gini coefficient in a 1967–70 panel study of purchases of durable goods, and Kohen, Parnes, and Shea (1975) found a 10 percent reduction among the NLS young men.

52. Hoffman and Podder (1976) report declines in several measures of inequality ranging from 13 percent to 21 percent when the accounting period is lengthened from one year to seven years. David and Menchik (1979) find an even stronger effect: the coefficient of variation declines 14 percent when income over three years is used instead of annual income.

53. The coefficient of variation, a common measure of dispersion, is the ratio of the standard deviation to the mean.

54. Soltow's (1965) study of the distributional history of the town of Sarpsborg, Norway from 1928 to 1960 found that the thirty-three-year Gini ratio was 27 percent lower than the average of the one-year Gini ratios. Blomquist (1976) estimated that the Gini ratio for lifetime income among employed males in Sweden was about half as large as the Gini ratio for annual income.

55. This classification follows Danziger, Haveman, and Smolensky (1977).

56. The data are from U.S. Bureau of the Census, Technical Report no. 17, (Washington, D.C.: Government Printing Office), and are not reproduced here.

57. Figure 6.3 shows smooth curves fitted (by eye) to grouped data. Each mean income is expressed as a fraction of the income of families headed by a 45–54 year old.

58. For criticisms of Paglin's method, see Danziger, Haveman, and Smolensky (1977) and Minarik (1977).

59. The third part arises from the fact that the upper part of the low-income groups have higher incomes than the lower parts of the high-income groups. For a lucid explanation of Pyatt's decomposition and a discussion of how it relates to Paglin's technique, see Murray (1978).

60. For further discussion see Shorrocks (1978) or Blinder (1976).

61. For a fuller discussion, see Weinstein and Smolensky (1976).

62. Kilpatrick (1973) used Gallup poll surveys of minimal income needs to argue that the man on the street's concept of the poverty line rises with average income, though less than in strict proportion. Lebergott (1976, pp. 53–60) collected data showing that payments to poor on relief remained about 30 percent of the wage for common labor for more than a century. See also Rainwater (1974, esp. chaps. 3 and 5).

63. Based on the work of Orshansky (1965).

64. Lebergott (1976, pp. 70–76) has objected eloquently to the "scientific" budgets that underlie the minimum decency standard.

65. This is no trivial problem. The CPS each year finds a number of families with *negative* income (and census income *excludes* capital losses). For example, in 1977 the mean income among the 2 percent of families with incomes below $2,000 was −$1,700. One wonders how many families with negative income are "poor" in any meaningful sense.

66. U.S. Bureau of the Census *Current Population Reports*, Series P–60, no. 119.

67. Non-whites constituted 34 percent of all poor persons; among heads of poor families, 63 percent had not finished high school; the average family size was 3.67. See *Current Population Reports*, Series P–60, no. 119.

68. The poor are those below 44 percent of the median income.

69. These fluctuations may be due to inconsistencies in estimation methods over time. See Plotnick and Smeeding (1979, fn. 16).

70. For data on black-white *earnings* differentials, see Richard Freeman, chapter 5 of this volume.

71. The data pertain to "nonwhites," rather than to blacks. However, blacks predominate in this group.

72. Versus 9 percent and 11 percent for white families in the two years. Data are from Danziger and Lampman (1978).

73. The same ratio for men was also .56 in 1955, but improved only to .69 in 1977. See Thurow (1979).

74. Freeman addresses this issue in chapter 5 of this volume.

75. And the same wealth. More on wealth later.

76. The crucial words in these last two sentences, of course, are "voluntarily" and "voluntary." Not all interpersonal differences in hours of work are voluntary. More on this below.

77. Or there can be more leisure time on the job. On this, see Stafford and Duncan (1977).

78. *Historical Statistics.* The work week comes from series D–765, p. 168; the work day is reported as 9.89 hours in Series D–847, p. 172.

79. The older and newer hours series are not entirely comparable, though both display downward trends. The data series cited in my note 78 ends in 1926, when average weekly hours are 50.3. The newer series used for postwar comparisons records a value of 45 for that same year.

80. Gordon and Blinder (forthcoming) explore reasons for this phenomenon.

81. Reimers (1976) shows that these data need not imply that the mean age of retirement *among those who actually retire* has decreased; and she estimates that it has been fairly constant at around 65 years of age. The reason is that there are fewer and fewer people who never retire.

82. Real consumption per capita rose about 80 percent. The percentage *increase* in leisure is the percentage *decrease* in working time multiplied by the initial ratio of work to leisure. If that initial ratio was two, for example, then leisure time rose 32 percent.

83. But it is not clear that it is. Most of the work-saving machinery that has helped the housewife became widespread only after World War II.

84. It should be noted, however, that housewives were more overworked in 1900 than were paid workers. Housewives, it seems, really did work the proverbial six or seven twelve-hour days.

85. Yet one more qualification. Women are spending far more time in the paid work force than they used to. So the reduction in housework often may not represent more leisure time.

86. Taussig (1973) makes an attempt at this. Browning (1976) and Browning and Johnson (forthcoming) treat all nonworking time as voluntary leisure.

87. Were the lifetime used as the interval for measuring income, there would be little need for separate data on wealth. The present value of income would differ from (human plus nonhuman) wealth only to the extent that inheritances differ (in present value) from bequests.

88. For a discussion of the method, and examples of its use, see Lampman (1962) or Smith (1974).

89. Since Gini coefficients within these age cohorts were .70–.71 in the SFCC, the agreement between the two sources is close.

90. The year 1940 is included also to show the increase in living together brought about by the war.

91. Twenty deaths per one thousand live births in 1970 versus forty-seven in 1940.

92. I resist the temptation to equate education with wisdom.

93. The word "autonomous" needs some explanation. I do not mean to imply that these forces were God-given or exogenous in some ultimate sense, but only that they probably were not themselves effects of the changing income distribution.

94. Among the many factors contributing toward this development were higher divorce rates, more illegitimate births, and changing social mores regarding the role of women. For a full discussion, see Ross and Sawhill (1975).

95. They are dealt with by Richard Freeman in chapter 5 of this volume.

96. A possible counterweight to this is that withdrawal of labor supply may push up the relative wages of these groups.

2. *Irving Kristol*

Some Personal Reflections on Economic Well-Being and Income Distribution

It is my understanding, from surveying various studies of trends in income distribution in the United States over the past three decades, that economists have found very little significant change to have taken place. There does seem to have been a slight increase in the proportion of national income received by the very poor, a slight decrease in the proportion received by the very rich. What goes on in between is such a complex muddle that economic analysis can tease few unquestionable inferences from the data. Moreover, the very methodology of studying income distribution has, over these decades, become ever more controversial. Just what is to be included in the concept of "income" becomes less clear every time a new governmental "entitlement" program is launched (whether it involves food, housing, medicine, or whatever). And it has become ever more apparent that in order to take account of normal age differentials in earnings, of changing demographies, and of economic mobility (both up and down), the distribution of "lifetime earnings" would give us a far more valid report than any cross-sectional survey at a moment in time. The trouble is that economists have not come up with any accepted procedure for measuring any such distribution of lifetime earnings, and there are even some grounds for thinking they never will.

Does it matter? What, precisely, is the point of all of these studies and of the interminable controversies they generate?

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When one raises this issue among economists, one discovers that they tend to feel that, in some way or other, income inequalities *ought* to have a significant relation to other larger issues such as the rate of economic growth, economic stability or instability, social and historical stability or instability, or even that sense of well-being we vaguely call "happiness" or "contentment." And yet it is astonishing how little by way of any such relationships economic and social research have come up with. Increases and decreases in income inequalities, as conventionally measured, appear to be indifferently compatible with social turbulence as with social stability, with economic decline as with economic growth, with political order as with political chaos, with an increase in individual and social pathologies (e.g., suicide, alcoholism, drug addiction, crime) as with a decrease. Inequality, one gets the impression, is an important issue for today's social scientists *despite* the fact that such importance escapes all empirical verification.

To complicate matters even further, any effort to relate income inequality even to strictly economic well-being is plagued by the fact that the concept of economic well-being is itself not so unambiguous as some economists believe. An improvement in economic well-being can be quite rigorously defined as an increase in (actual or potential) purchasing power over the material goods of this world (i.e., the goods that money can buy). But this brute statistical fact is always "processed" through people's minds, and it is the ideas and attitudes in these minds that ultimately determine the meaning we give to any brute statistical fact. Fortunately for the science of economics, those ideas and attitudes are not utterly disparate, incoherent, and inconstant. One can therefore say, with some confidence, that most people, most of the time, and most anywhere, wish to see their purchasing power increase and are pleased when that occurs. Having said that, however, one must also go on to say that particular circumstances can modify or even overwhelm any purely statistical measure of economic well-being. Both poverty and affluence can have ambiguities that escape the strictly economic perspective.

It is an observable fact that not all people who are statistically poor are everywhere equally miserable or have an equal sense of being "badly off." The past and the future always shape our sense of the present. So much, therefore, depends on the hopes one may have for one's children, the faith one may have in the ultimate benignity and "fairness" of Providence, on the assurance and solace one may derive from traditions. Poverty does not always dehumanize, and relative affluence can have its costs in human terms—costs that are actually, if often dimly, felt. Anyone who has seen *Fiddler on the Roof* and contrasted the lives portrayed there with the lives of Jews in Long Island's Great Neck today, will appreciate the immense difficulties involved in disentangling economic well-being from other kinds of well-being.

Similarly, on the street where I lived until recently there was a Chinese family, recent immigrants, who ran a basement laundry. The parents and their five children shared the two tiny rooms at the back of the tiny store, and I shudder to think what this family did to our official poverty statistics. Still, those parents expressed great confidence that their children would "get ahead"—and, in fact, all five ended up as college graduates. Ought not one to incorporate that *prospect* in any estimate of the family's economic well-being? In contrast, on that same street there were several welfare families whose incomes, in cash and kind and services, may well have been larger than that of our Chinese family, but who were in various stages of a dependency-induced corruption, with little family stability and with the children involved in drugs and delinquency. Would an increase in their welfare receipts really have improved their economic well-being? If it had merely accelerated their demoralization, how would that relate to economic well-being?

Or, at the other extreme, take the case of a statistically affluent suburban child who has every advantage, as we say, but who comes to experience those advantages as bars in a "gilded cage," to use Max Weber's prescient phrase. He perceives the improbability of his surpassing his successful father in either economic or professional terms. He finds family and community life empty of meaning, and school a distracting bore. So he "drops out" of the world he was born into and becomes a "bohemian," a pseudobohemian, or a drifter, living—perhaps placidly, perhaps miserably—off handouts and odd jobs. What meaning are we to ascribe to the statistics of his economic well-being, before and after? When affluence can demoralize as vigorously as poverty, can we take the statistics on economic well-being with the solemnity that economists are naturally inclined to do?

And, of course, this matter becomes infinitely more complicated if we try somehow to incorporate the idea of economic equality into the idea of economic well-being, as so many economists think proper. Here, ordinary people seem to have an intuitive respect for existential complexities that economists often seem to lack. The intensity with which economists work out their Gini coefficients, and the subtlety with which they measure income trends in the quintiles or deciles of the population, is matched—so far as I can see—by the utter lack of interest of the average American in their findings. To some extent, perhaps, this is because those findings are never definitive—every piece of research seems to give rise to an exercise in counterresearch, and the arguments soon unravel into microdisputations. But mainly, I think, it is because the average person is far less interested in economic inequality—or is interested in it in quite a different way—than is the average social scientist.

Why? One reason, I would say, is that the social scientist links the issue of inequality to the issue of poverty more rigorously than does the

average person. It is certainly true that as a society becomes more affluent, the "poverty line," as popularly perceived, will also move upward. Today, for example, no one would dispute the fact that the absence of private, indoor toilet facilities—an absence our grandparents would have found not at all shocking—is a sure sign of poverty. On the other hand, the average person feels free to distinguish between "needs" and "wants" in ways that the average economist, *qua* economist, is prohibited from doing. People who have what are perceived to be minimally adequate food, shelter, and clothing may be seen as poor, but not as *problematically* poor, regardless of how far down they are in the income distribution. And if one looks at poverty in this way, then the percentage of the American people who qualify as poor is small—well under 10 percent. A social scientist might retort that any such "absolute" definition of poverty is arbitrary, as compared with a definition in terms of relative income. But it is precisely this question to which economics can never hope to give an authoritative answer.

This popular perception of poverty is closely linked to a popular perception of opportunity—specifically, the opportunity to move out of poverty. To the degree that poverty is not viewed as a necessarily permanent condition, it will be of less concern. And the average American is strongly of the opinion that, leaving the physically handicapped (in which one would include the elderly) aside, there really is no reason for anyone in the lowest quintile of the income distribution to interpret his condition as permanent, since opportunities for "bettering one's condition" will and do exist. It may be recalled that Adam Smith had earlier suggested that the modus operandi of a market economy is such that economic mobility—and the eventual distribution of income as well—would of a certainty be less unequal than in any other kind of society. The reason for this is that the talents requisite for success in such an economy are so mundane, and the role of sheer luck is so great, that economic mobility should be greater, and eventual economic inequalities less significant, than in noncapitalist orders. Americans on the whole tend to accept this thesis as a fact of life. Social scientists, in contrast, think it important either to prove or disprove this thesis by research.

I carefully say "social scientists" because sociologists are perhaps even more prominent in this endeavor than economists. It is they who have created a sizable library of ever more technical literature on the question of "social mobility," of which income mobility is the major component. It is an open question whether this literature provides more enlightenment than obfuscation. We do know, without benefit of research, that if economic growth tends to create new and better-paying jobs and occupations and professions (as it does), then the statistics will obviously reveal considerable upward social and economic mobility (as they do). But what sociologists appear to be worried most about is

whether everyone benefits *equally* from these changes, and they do seem to be especially concerned as to whether those who are already in the top decile manage to hang in there. The statistical procedures of sociologists are such that one begins with a rigorously egalitarian definition of social mobility, one in which the children of upper-class parents are downwardly mobile, while their places are taken by the upwardly mobile—a world turned upside-down indeed!—and then measure the actuality in the light of this "ideal." The fact that there has never been such a society, or that the very idea of such a society is inherently absurd, somehow is lost sight of.

It is sociologists, too, who have popularized the concept of "relative deprivation," which is supposed to explain why people's views of their own economic well-being are inextricably intertwined with the idea of equality. Now, there certainly is such a thing as a sense of relative deprivation, but it turns out to have only a limited connection with the larger idea of equality and to be more intimately related to the idea of justice or fairness ("to each his due"). Thus, there have been innumerable strikes in the United States over pay differentials among workers ("equal pay for equal work!"), yet I do not recall a case of there being a strike over the chief executive officer's very high salary. If sociologists tacitly assume—as practically all seem to do—that a more egalitarian society is (and will be perceived to be) a more just society, that is an assumption which derives from ideology, not from history or contemporary experience.

And much the same is true, I would say, for the way in which—and the intensity with which—economists study income inequalities. One begins blandly with the premise that absolute equality is the ideal state and then one measures degrees of departure from this ideal. Yes, I know, there is nothing "normative" about such a statistical procedure—it is merely a mathematical convenience that zero inequality is taken as the base for all measurements. But is it not odd that it is impossible to point to a study that breathes satisfaction (as distinct from *Schadenfreude*) at discovering an increase in economic inequality? This whole literature is as profoundly suffused with ideology as it is liberally bespattered with statistics.

What, really, is the point of this keen interest among economists and sociologists in the issue of inequality? There is precious little evidence to the effect that it responds to a widespread popular concern and much evidence to the contrary. Indeed, one gets the distinct impression that much of the research is directed toward "raising the consciousness" of the public about the issue—and that the rest of the research is directed toward rebutting such "consciousness raising" efforts. It is hard to believe that even the most casual reader can fail to perceive the essentially ideological nature of this disputation.

My own view—admittedly a bit extreme—is that when you need an economist or a sociologist to bring you intelligence about inequalities of income or social class, that is in itself proof that neither issue is of serious concern to the citizenry. There are simply no "mysteries" to be elucidated about income inequality and social class, since there is no reason to think that common opinion, based on observation and experience and gossip, is likely to be self-deceiving about a matter of such interest to everyone. The very notion that such self-deception is probable derives from the Marxist idea—an ideological conception of the role of ideology—that bourgeois society is constantly at work instilling "false consciousness" into the populace.

At this point a social scientist might object that opinion poll data do reveal that people misconstrue the social and economic reality they inhabit—that, for instance, households with incomes of $100,000 a year blandly report themselves to be "middle class." To this objection, there are two rejoinders.

First, if a $100,000-a-year household thinks itself to be middle class, then it *is* middle class. And the same is true for a $10,000-a-year household. What on earth gives social scientists the authority to dismiss such "subjective" conceptions of class and to impose a presumably more "objective" one? Here again we are dealing with a Marxist derivative that has been unthinkingly adopted by modern social science. Class may (or may not) find phenomenological expression, but at root it is a mode of self-definition. There are aristocrats in England who are as poor as church mice but are definitely "upper class." And there are immigrants to the United States who are also as poor as church mice but are definitely "middle class" from the moment they set foot here. The very thought that there is someone ("up there?") who knows better than we do what class we are in is as breathtaking in its intellectual presumption as it is sterile for all serious purposes of social research.

Second, when poll data reveal vast, apparent misconceptions about *other people*—about how rich or poor they are, or how powerful or weak they are—such data ought not to be taken too seriously. No economic, social, or political system could function for a moment if people actually had wildly unrealistic notions of their economic, social, and political reality. The interesting question here for social research is why people express such opinions and beliefs to pollsters, not why they have them.

My own explanation for the keen interest of social scientists in the nonobvious issue of equality is that this is but one manifestation of how nineteenth-century ideologies—and most especially the socialist ideology—have so decisively shaped modern social science. Thus, it is my understanding that the National Bureau of Economic Research was itself originally founded, back in the 1920s, to take a serious look at the issue

of economic inequality—an issue then posed by socialist, quasi-socialist, or "progressive" critics who maintained that, under capitalism, the rich were getting richer while the poor were getting poorer. It was they who defined the issue—and it is they who have been defining it ever since. It is fascinating to note the way in which research does *not* dispose of this issue. One might have thought, as the evidence accumulated to the effect that nothing very novel or exciting has happened to the distribution of income in recent decades—and there is even evidence to suggest that nothing very exciting has happened in the past century—that social scientists would simply lose interest in the question. They have not. Instead the studies become ever more sophisticated, ever more incomprehensible to the noninitiated, ever more "scholastic" in the pejorative sense of that term—and they still don't bring us tidings of significance. The impulse behind such studies can hardly be designated as routinely "scientific."

It can, however, be quite easily recognized as "ideological." The prominence of the issue of equality, I should say, reflects the degree to which egalitarian, quasi-socialist conceptions of justice have permeated our culture, including the thinking of many social scientists who do not regard themselves as in any way socialist but who, as a matter of course, use the ideal of a socialist society—classless and egalitarian—as a proper criterion for the judging of capitalist reality. Of all the social sciences, economics has been the least influenced by this ideological impulse, in part because the discipline of economics is truly more rigorous than the other social sciences; in part because a respect for market processes is indigenous to the methodology of this discipline. But economists are human, and it could not remain unaffected. One has only to recall the ingenuity and persistence with which distinguished professors of economics elaborated quite fanciful justifications for the progressive income tax—for which there is no *economic*, as distinct from moral or political —justification since it involves an interpersonal comparison of utilities which is beyond the scope of economics.

It is understandably irksome to many economists that the science of economics, strictly considered, should not offer answers to many important questions that *appear* to be economic in nature but in fact belong to moral and political theory. Indeed, we have witnessed recently a vigorous dissenting movement by advocates of something called "political economy"—sometimes "normative economics," sometimes simply "radical political economy"—who argue in favor of a candid union of economics with ideology. These are for the most part younger economists who are discontented with the limits of their social-scientific discipline and who wish to import into economics all of those intellectual and moral considerations that used to constitute the body of political philosophy when *that* discipline still flourished. (One such consideration

is equality, as an ideal or nonideal for a good society.) One may sympathize with the moral and intellectual passions behind this movement while realizing they are destructive of the integrity of economics as a scientific discipline.

What it comes down to, in the end, is the need for economists to recognize their severe limitations *qua* economists. Economics has many useful and important things to tell us, but it really has nothing to say about the larger features of a good society, or about the status of equality or inequalities in such a society, and it only has something to say about "economic well-being" on a fairly narrow—though not unimportant—definition. Those economic statistics we are being deluged with do tell us something valid about the real world; but they often tell us less of the truth about the real world than economists are—by virtue of their *déformation professionelle*—inclined to think.

3. Wilbur J. Cohen

Economic Well-Being and Income Distribution

I have been asked to present my personal reactions to the issues dealing with income transfer programs as they affected the economic well-being and income distribution during the postwar period. The basis for my comments derives from Alan S. Blinder's broad-gauged and informative essay on this important topic.

I am not quite sure what Martin Feldstein had in mind when he asked me to do this. I assume he thought that one of the significant developments of both the post-1929 depression and the post–World War II economy was the striking growth of transfer payments, public and private, and because of my participation in these developments, I should be prepared to explain and defend my previous actions in this area.

Perhaps it passed through his mind that at this reflective stage of my life as a Senior Citizen I might admit my role in the expansion of our income transfer programs was all a mistake, and I would ask forgiveness for my sins and errors. Or perhaps I might review the postwar developments in these programs and say enough was enough and let's stop, look, and listen before going any further. Or I might express some doubts about the wisdom of some past specific decisions as they affect savings, investment, and productivity.

But then maybe he assumed I would vigorously defend past policy decisions and we could have a rousing controversy about such issues as

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compulsion, regressive payroll taxes, the adverse impact on work incentives, and the abuse and fraud involved in the programs.

As you will see, I am not going to do any of these things.

There is some advantage in reaching age sixty-five and reflecting about one's past activities. It is easy to conclude that we had complete freedom of choice at each juncture or to conclude that, on the basis of the choices at the time, we chose the only one we could have selected. I really can't—or won't—comment on which of these seems to me now to be the correct one. But I will say that we should be willing to learn from past experience and revise decisions in the light of new developments. But I would quickly add the latter isn't always feasible or simple. Sometimes the good is the enemy of the better. Sometimes it is better not to substitute unknown and untried proposals for known and current evils.

I was seventeen years old in 1930 when I entered the University of Wisconsin. My fellow students were troubled and concerned about the collapse of the economy and the values in which they and their parents believed. Although they did not then utilize the term "quality of life," they embraced the concept. We read Henry Adams, Lincoln Steffens, Thorstein Veblen, and Karl Marx, along with Aristotle, Plato, and Thucydides. We searched for explanations and, of course, permanent solutions to the vexing problems of the times.

Within a short time I gravitated to the Economics Department, where the dominating influences were John R. Commons, Selig Perlman, Edwin E. Witte, and other faculty members who became identified as "institutionalists." After several courses it began to dawn on me that one could improve the quality of life of people by changing, creating, or restructuring some of the institutions, particularly economic ones. John R. Commons had studied and advocated state worker accident compensation programs, health insurance, and unemployment insurance programs. Here were specifics I could comprehend which would improve the quality and standard of living. I believed that the creation of these institutions would improve the health and welfare standard of living and the quality of life.

I was fortunate shortly thereafter to be assigned a minor role in the effort to create the various institutional proposals which eventually became the Social Security Act of 1935 and then later in the additions to it, such as survivors insurance, disability insurance and Medicare, and in 1950–51 to help accelerate the role of the private sector in health, welfare, and pensions as chairman of the Wage Stabilization Board committee in this area.

It is now about forty-five years since I started this work. It has been exciting, controversial, and challenging. Although there are some—even

many—who increasingly doubt the wisdom of specific programs or provisions, I doubt if there are many, or any, who would question the generalization that the overall health and welfare standard of living has improved since 1930, 1940, 1950, or 1960, and even since 1970. The questions of how much of an improvement and for whom may defy precise measurement. But there certainly is evidence of improvement in that infant mortality has declined; life expectancy has increased; absolute poverty has declined; individuals have more choice about work, leisure, and retirement; and more persons have access to education, medical care, housing, transportation, and recreation.

The questions today are not as simplistic as they were in the thirties. There are questions as to how and why these improvements occurred and what would have happened if all of the programs had developed in the private sector.

There are different ways of looking at the changing standard of living. Economists look at income, measure it, and compare it over time. We draw certain conclusions from such measurements. But I think there are other elements to be considered: the range of choices, continuity of income, future expectations, educational attainment, opportunities for self-fulfillment, the balance between work and leisure, not to mention clean air and water, and freedom from chemical and nuclear wastes.

In addition, the predominant lesson to be derived from recent experiences is that we live—and will continue to live—in a very imperfect world. We have experienced major miscalculations on the part of presidents and other politicians, business, labor, social reformers, and even economists. We are all living in glass houses. We find we cannot control the forces around us as simply, quickly, or effectively as we would like.

Alan S. Blinder's essay "The Level and Distribution of Economic Well-Being" reviews not only a wide range of economic data relating to the issue of equality and inequality of income in the postwar period, but in addition he deals with such topics as black-white income differentials, the poor and poverty, leisure time, health, "the privilege of living apart from relatives," illegitimate birth, divorce, suicide, and crime rates as social indicators, and even happiness!

This is indeed a wide range of controversial topics. However, I miss a reference to such other related questions as smoking, abortion, drug use, and some other questions such as women's use of time in the home and office, the Equal Rights Amendment, changes in life-styles and other questions which relate to health, education, welfare, and happiness.

A significant aspect of his paper seems to me the brief inclusion of some social indicators in an economic review. I had almost given up on the possibility that economists would attempt to interrelate economic and social indicators.

One of the key issues in Mr. Blinder's essay is the impact of the income transfer programs on equality and inequality of income. Table C6.1 displays the increases which took place in the twenty-five-year period from 1950 to 1975.

In 1950 all *public* and *private* expenditures for health, education, and welfare were equivalent to 13.4 percent of gross national product. By 1970, this indicator had risen to 21.8 percent, by 1975 to 27 percent, by 1976 to 27.5 percent, but then decreased to 27.1 percent in 1977 and 26.8 percent in 1978.

All income maintenance program expenditures were only 4 percent of GNP in 1950, reached 6 percent in 1960, 7.5 percent in 1970, 10.6 percent in 1975 and peaked at 10.9 percent in 1976 with a decrease to 10.6 percent in 1977 and 10.2 percent in 1978.

Are we at the end of an era of significant expansion of the income maintenance programs? Or will the continued increase in the number and proportion of the aged result in further increases?

Health program expenditures were 4.5 percent of GNP in 1950, then 5.2 percent in 1960, 7.2 percent by 1970, 8.4 percent by 1975 and continued to increase to 8.6 percent in 1976, 9 percent in 1977 and 9.2 percent in 1978. It is likely that this figure will reach 10 percent of GNP during the 1980s.

However, I do not think the overall total of such expenditures as a percentage of GNP will be lower in 1990 than the figure for 1980. The private pension plan area is still expanding. Social security benefits are indexed to increasing wages and prices. The increasing number of aged will increase expenditures for medical services under Medicare and supplementary private arrangements. Proposals for catastrophic health in-

Table C6.1 **Public and Private Expenditures for Social Welfare Purposes, 1950 and 1975, as Percentage of Gross National Product, and Increase, 1975 over 1950**

	1950	1975	Increase, 1975 over 1950
Net Total	13.4	27.0	2.015 times
Income Maintenance	4.0	10.6	2.65 times
Health	4.5	8.4	1.86 times
Education	4.1	6.8	1.66 times
Welfare and Other Services	0.8	1.7	2.13 times

Source: Alfred M. Skolnik and Sophie R. Dales, "Social Welfare Expenditures, 1950–75," *Social Security Bulletin* 39, no. 1 (January 1976): 19, with 1978 revisions from table 2 supplied by the Social Security Administration, Office of Research and Statistics.

Table C6.2 Public and Private Expenditures for Social Welfare Purposes, Selected Fiscal Years, 1950–78

Type of Expenditure	1950	1955	1960	1965	1970	1974	1975	1976	1977	1978[1]
	All Expenditures (in $ Millions)									
Total, Net[2]	35,395	49,957	78,743	117,792	209,330	332,104	392,320	447,154	497,375	548,291
Public	23,508	32,640	52,293	77,175	145,856	239,358	290,332	331,744	361,253	393,897
Private	12,227	17,997	27,829	42,687	67,353	99,592	110,164	124,998	146,769	165,978
Income Maintenance	10,723	17,304	29,827	42,550	72,473	126,373	153,300	177,572	194,093	208,640
Public[3]	9,758	15,409	26,292	36,575	60,813	107,648	131,670	153,166	166,293	177,240
Private	965	1,895	3,535	5,975	11,660	18,725	21,630	24,406	27,800	31,400
Health	12,027	17,330	25,856	38,892	69,201	106,057	122,584	139,316	164,514	186,977
Public	3,065	4,421	6,395	9,535	25,391	41,522	51,236	58,539	67,271	76,199
Private	8,962	12,909	19,461	29,357	43,810	64,535	71,348	80,777	97,243	110,778
Education	10,981	14,206	21,781	34,129	61,746	87,172	99,452	109,487	116,222	124,094
Public	9,366	11,863	18,036	28,149	51,863	73,740	85,266	93,072	98,346	104,594
Private	1,615	2,343	3,745	5,980	9,883	13,432	14,186	16,415	17,876	19,500
Welfare and Other Services	2,004	1,793	2,658	4,291	9,789	19,348	25,160	30,367	33,193	40,164
Public[4]	1,319	947	1,570	2,916	7,789	16,448	22,160	26,967	29,343	35,864
Private	685	850	1,088	1,375	2,000	2,900	3,000	3,400	3,850	4,300
	Public Expenditures as Percentage of Expenditures for Specified Purposes									
Total[5]	65.8	64.5	65.3	64.4	68.4	70.6	72.5	72.6	71.1	70.4
Income Maintenance	91.0	89.0	88.1	86.0	83.9	85.2	85.9	86.3	85.7	85.0
Health	25.5	25.5	24.7	24.5	36.7	39.2	41.8	42.0	40.9	40.8
Education	85.3	83.5	82.8	82.5	84.0	84.6	85.7	85.0	84.6	84.3
Welfare and Other Services	65.8	52.7	59.1	68.0	79.6	85.0	88.1	88.8	88.4	89.3

Table C6.2—*continued*

Type of Expenditure	1950	1955	1960	1965	1970	1974	1975	1976	1977	1978[1]
	All Expenditures as Percentage of Gross National Product									
Total, Net[2]	13.4	13.2	15.8	17.9	21.8	24.4	27.0	27.5	27.1	26.8
Income Maintenance	4.0	4.6	6.0	6.5	7.5	9.3	10.6	10.9	10.6	10.2
Health	4.5	4.6	5.2	5.9	7.2	7.8	8.4	8.6	9.0	9.2
Education	4.1	3.7	4.4	5.2	6.4	6.4	6.8	6.7	6.3	6.1
Welfare and Other Services	.8	.5	.5	.7	1.0	1.4	1.7	1.9	1.8	2.0

[1]Preliminary data.

[2]Total expenditures adjusted to eliminate duplication resulting from use of cash payments received under public and private social welfare programs to purchase medical care and educational services.

[3]Includes cash benefits and administrative costs under social insurance, public assistance, supplemental security income, and veterans' and emergency employment programs. Excludes cost of medical services provided in conjunction with these programs and for other welfare programs.

[4]Includes food stamps, surplus food for the needy and for institutions, child nutrition, institutional care, child welfare, economic opportunity and manpower programs, veterans' welfare services, vocational rehabilitation, and housing.

[5]Before adjustment for elimination of duplication.

surance coverage and for coverage of services for all mothers and children are under Congressional discussion as is welfare reform.

Several years ago I estimated that the total of these expenditures might reach 33 percent of GNP between 1980 and 1990. I am not so sure of this now but I have not withdrawn this speculative projection because I believe the built-in elements related to economic and demographic factors eventually will overweigh the political constraints on growth.

Several possible lines of change, however, must be recognized.

1. Program changes are likely to be considered for reallocating resources in relation to priorities. In health this could take the form of cost constraints in the expansion of health maintenance organizations, for example, and other changes in the health delivery system. In education, it could involve closure of some doctoral programs, closing of some elementary schools, and pressures to constrain salary improvements.

In social security it could involve changes in the retirement age or freezing the minimum benefit for persons with short periods of coverage in the social security system.

I am not sure that all of these changes are necessary, desirable, or feasible, but I do think there will be more questioning of prior decisions and more controversy about priorities, and such issues at the program margins will produce strong emotional responses.

2. There probably will be greater emphasis on redistribution of income measures. The rise in the payroll taxes since 1950 has now resulted in pressures to limit the increase in such taxes and even proposals for a rollback. The recent recommendation of the Advisory Council on Social Security for an earmarked income tax for financing Medicare illustrates this development.

3. Expenditures will continue to expand in the *private* sector. Proposals for catastrophic health insurance will surely involve mandating employer coverage under private health insurance.

As the size and importance of income maintenance and health programs have grown, there has been an increased recognition of the interrelationships between tax, expenditure, economic, and fiscal policy on the one hand and income maintenance policy on the other. But I am not at all sure where we will come out on this matter over the next several years. There is more to the resolution of this issue than economic policy alone: Psychology and politics play important roles. There are, therefore, many different options available to the American people and to the Congress.

While redistribution of income in terms of income classes is of vital concern to economists and some of the American people, redistribution

of income over one's own lifetime is probably of greater interest to most working people. The average head of family is concerned about the distribution of his or her income over time for such purposes as purchasing a home; providing for accidents, disability, premature death, or for retirement and medical costs; and, in many cases, meeting the cost of educating his or her children.

Because of the nature of the relationship between the private and public sectors in this country, the resolution of the crucial issues in income maintenance and health has been related more to the philosophy underlying this relationship than to income redistribution. It is therefore essential, in my opinion, for us to comprehend the larger context within which our social welfare programs and expenditures operate rather than judging them solely in relation to the way they affect the Lorenz curve or the Gini ratio.

I believe the size and nature of both national and family obligations and expenditures will determine the choice of options for future policy in health, social security, and welfare reform.

I think that, by and large, in the American situation, there is no substantial political pressure for equality of income, though there is a consensus on equality of opportunity—and that is a very important distinction. There is wide recognition that certain factors in our society impair equality of opportunity—that is, access to jobs, education, health services, or housing. Over the years, those persons who have been advocating improvement in the income maintenance, education, and health programs have not attempted to obtain absolute equality or even to approach equality of income, but rather to provide a greater degree of equality of opportunity, which is what the middle class and the blue-collar workers (as well as others) stress as an important objective.

Summary of Discussion

Peter Peterson expressed unease over the uncertainties surrounding future costs of various United States income transfer programs. Noting that we "operate in a sea of ignorance" about the full, discounted costs of public policies, he suggested that we undertake a policy of "truth-in-spending" as we have "truth-in-lending." Wilbur Cohen shared the concern, adding that until recently the expectation was that continued economic growth would finance the programs.

References

Atkinson, Anthony B. 1970. On the measurement of inequality. *Journal of Economic Theory* 2 (September): 244–63.

Benus, Jacob. 1974. Income instability. In *Five thousand American families*, vol. 1, ed. J. N. Morgan et al. Ann Arbor: Institute for Social Research, University of Michigan.

Benus, Jacob, and Morgan, James N. 1975. Time period, unit of analysis, and income concept in the analysis of income distribution. In *The Personal Distribution of Income and Wealth*, ed. James D. Smith, pp. 209–24. NBER Studies in Income and Wealth, vol. 39. New York: Columbia University Press.

Bhattacharya, N., and Mahalanobis, B. 1967. Regional disparities in household consumption in India. *Journal of the American Statistical Association*, vol. 62 (March).

Blinder, Alan S. 1974. *Toward an economic theory of income distribution*. Cambridge: M.I.T. Press.

———. 1976. Inequality and mobility in the distribution of wealth. *Kyklos* 29, fasc. 4: 607–38.

Blinder, Alan S., and Esaki, Howard Y. 1978. Macroeconomic activity and income distribution in the postwar United States. *Review of Economics and Statistics* 60 (November): pp. 604–9.

Blomquist, N. Soren. 1976. The distribution of lifetime income: A case study of Sweden. Ph.D. diss. Princeton University.

Browning, Edgar K. 1976. The trend toward equality in the distribution of net income. *Southern Economic Journal* 43 (September): 912–23.

———. 1978. The burden of taxation. *Journal of Political Economy* 86, no. 4: 649–71.

———. 1979. On the distribution of net income: Reply. *Southern Economic Journal* 46 (January): 945–59.

Browning, Edgar K., and Johnson, William R. Forthcoming. Taxes, transfers, and income inequality. In *Regulatory change in an atmosphere of crisis: Current implications of the Roosevelt years*, ed. Gary Walton. New York: Academic Press.

Budd, Edward C. 1967. *Inequality and poverty*. New York: Norton.

———. 1970. Postwar changes in the size distribution of income in the U.S. *American Economic Review* 60 (May): 247–60.

Danziger, Sheldon. 1977. Conference overview: Conceptual issues, data issues, and policy implications. *Conference on the trend in income inequality in the U.S.* Madison, Wisc.: Institute for Research on Poverty.

Danziger, Sheldon; Haveman, Robert; and Plotnick, Robert. 1979. Income transfer programs in the United States: An analysis of their structure and impacts. Paper prepared for the Joint Economic Com-

mittee of the United States, Special Study on Economic Change (mimeographed). Madison, Wisc. (May).

Danziger, Sheldon; Haveman, Robert; and Smolensky, Eugene. 1977. The measurement and trend of inequality: Comment. *American Economic Review* 67, no. 3 (June): 505–12.

Danziger, Sheldon H., and Lampman, Robert J. 1978. Getting and spending. *Annals of the American Academy of Political and Social Science* 435 (January): 23–39.

Danziger, Sheldon, and Plotnick, Robert. 1977. Demographic change, government transfers, and the distribution of income. *Monthly Labor Review* 100 (April): 7–11.

David, Martin, and Menchik, Paul. 1979. Aspects of the lifetime distribution of income and wealth (mimeographed). Madison, Wisc. (May).

Easterlin, Richard A. 1974. Does economic growth improve the human lot? Some empirical evidence. In *Nations and households in economic growth: Essays in honor of Moses Abramovitz*, ed. P. A. David and M. W. Reder. New York: Academic Press.

Eisner, Robert. 1980. Capital gains and income: Real changes in the value of capital in the United States, 1946–1977. In *The measurement of capital*, ed. Dan Usher. NBER Studies in Income and Wealth, vol. 45. Chicago: University of Chicago Press. Forthcoming.

Feldstein, Martin S. 1976. Social security and the distribution of wealth. *Journal of the American Statistical Association* 71 (December): 800–807.

Fuchs, Victor R. 1967. Redefining poverty and redistributing income. *The Public Interest*, no. 9 (summer).

Garfinkel, Irwin, and Haveman, Robert. 1978. Capacity, choice, and inequality. *Southern Economic Journal* 45, no. 2 (October): 421–31.

Gini, Corrado. 1936. On the measure of concentration with especial reference to income and wealth. Unpublished Cowles Commission paper.

Gordon, Roger H. 1976. Essays on the causes and equitable treatment of differences in earnings and ability. Ph.D. diss., M.I.T.

———. 1977. A search for consistent welfare measures (mimeographed). Princeton University (July).

Gordon, Roger H., and Blinder, Alan S. 1980. Market wages, reservation wages, and retirement decisions. *Journal of Public Economics*, in press.

Henle, Peter, 1972. Exploring the distribution of earned income. *Monthly Labor Review* 95, no. 12 (December): 16–27.

Hoffman, Saul, and Podder, Nripesh. 1976. Income inequality. In *Five thousand American families—patterns of economic progress*, vol. 4, ed. G. J. Duncan and J. N. Morgan, pp. 333–56. Ann Arbor: Institute for Social Research, University of Michigan.

Kilpatrick, Robert W. 1973. The income elasticity of the poverty line. *Review of Economics and Statistics* 55 (August): 327–32.

Kohen, Andrew I.; Parnes, Herbert S.; and Shea, John R. 1975. Income instability among young and middle-aged men. In *The personal distribution of income and wealth*, vol. 39, ed. J. D. Smith, pp. 151–207. New York: Columbia University Press.

Kravis, Irving B. 1960. International differences in the distribution of income. *Review of Economics and Statistics* 42 (November): 408–16.

———. 1962. *The structure of income: Some quantitative essays.* Philadelphia: University of Pennsylvania Press.

Kuznets, Simon. 1974. Demographic aspects of the distribution of income among families: Recent trends in the United States. In *Econometrics and economic theory: Essays in honor of Jan Tinbergen*, ed. Willy Sellekaerts, pp. 223–45. London: Macmillan Press.

Lampman, Robert J. 1962. *The share of top wealth-holders in national wealth 1922–1956.* Princeton: Princeton University Press.

Lampman, Robert J. 1973. Measured inequality of income: What does it mean and what can it tell us? *Annals of the American Academy of Political and Social Science* 409 (September): 81–91.

———. 1977. Changing patterns of income, 1960–1974. In *Toward new human rights: The social policies of the Kennedy and Johnson administrations*, ed. David Warner. Austin: Lyndon B. Johnson School of Public Affairs.

Lane, Jonathan P., and Morgan, James N. 1975. Patterns of change in economic status and family structure. In *Five thousand American families—patterns of economic progress*, vol. 3, ed. G. J. Duncan and J. N. Morgan. Ann Arbor: Institute for Social Research, University of Michigan.

Lansing, John B., and Sonquist, John. 1969. A cohort analysis of changes in the distribution of wealth. In *Six papers on the size distribution of wealth and income*, ed. Lee Soltow. NBER Studies in Income and Wealth, vol. 33. New York: Columbia University Press.

Lebergott, Stanley. 1976. *The American economy: Income, wealth, and want.* Princeton: Princeton University Press.

Lillard, Lee A. 1979. Inequality: Earnings versus human wealth. *American Economic Review* 67 (March): 42–53.

Lorenz, Max O. 1905. Methods for measuring concentration of wealth. *Journal of the American Statistical Association* 9: 209–19.

Minarik, Joseph J. 1977. The measurement and trend of inequality: Comment. *American Economic Review* 67 (June): 513–16.

Mirer, Thad. 1975. Aspects of the variability of family income. In *Five thousand American families—patterns of economic progress*, vol. 4, ed. G. J. Duncan and J. N. Morgan, pp. 201–12. Ann Arbor: Institute for Social Research, University of Michigan.

Moore, Geoffrey H., and Hedges, Janice N. 1971. Trends in labor and leisure. *Monthly Labor Review* 94, no. 2 (February): 3–11.

Morgan, James N., and Smith, James D. 1969. Measures of economic well-offness and their correlates. *American Economic Review* 59 (May): 450–62.

Murray, David. 1978. Sources of income inequality in Australia 1968–69. *Economic Record* 54, no. 146 (August): 159–69.

Orshansky, Mollie. 1965. Counting the poor: Another look at the poverty population. *Social Security Bulletin* 28, no. 1 (January): 3–29.

Paglin, Morton. 1975. The measurement and trend of inequality: A basic revision. *American Economic Review* 65 (September): 598–609.

Pareto, Vilfredo. 1897. *Cours d'economie politique*. Rouge: Lausanne.

Plotnick, Robert, and Smeeding, Timothy. 1979. Poverty and income transfers: Past trends and future prospects. *Public Policy* 17 (summer).

Projector, Dorothy S., and Weiss, Gertrude S. 1966. *Survey of financial characteristics of consumers*. Washington, D.C.: Board of Governors of the Federal Reserve System.

Pyatt, Graham. 1976. On the interpretation and disaggregation of Gini coefficients. *Economic Journal* 86 (June): 243–55.

Radner, Daniel B. 1979. Federal income taxes, social security taxes, and the U.S. distribution of income, 1972. Working Paper no. 7, Office of Research and Statistics, Social Security Administration, Washington, D.C. (April).

Rainwater, Lee. 1974. *What money buys: Inequality and the social meaning of income*. New York: Basic Books.

Reimers, Cordelia. 1976. Is the average age at retirement changing? *Journal of the American Statistical Association* 71, no. 355 (September): 552–58.

Reynolds, Morgan, and Smolensky, Eugene. 1977. *Public expenditures, taxes, and the distribution of income: The U.S., 1950, 1961, 1970*. New York: Academic Press.

———. 1978. The fading effect of government on inequality. *Challenge* 21 (July/August): 32–37.

Rivlin, Alice M. 1975. Income distribution: Can economists help? *American Economic Review* 65 (May): 1–15.

Ross, Heather L., and Sawhill, Isabel V. 1975. *Time of transition*. Washington, D.C.: Urban Institute.

Rothschild, Michael, and Stiglitz, Joseph E. 1973. Some further results on the measurement of inequality. *Journal of Economic Theory*, 6: 188–204.

Sawyer, Malcolm. 1976. Income distribution in OECD countries. *OECD Occasional Studies*, July, pp. 3–36.

Schultz, T. Paul. 1975. Long-term change in personal income distribution: Theoretical approaches, evidence, and explanations. In *The "inequality" controversy*, ed. D. M. Levine and M. J. Bane, pp. 147–69. New York: Basic Books.

Sen, Amartya K. 1973. *On economic inequality*. New York: Norton.

Shorrocks, Anthony. 1978. Income inequality and income mobility. *Journal of Economic Theory* 19 (December): 376–93.

Sirageldin, Ismail. 1969. *Nonmarket components of national income*. Ann Arbor: Survey Research Center, University of Michigan.

Smeeding, Timothy M. 1977. The antipoverty effectiveness of in-kind transfers. *Journal of Human Resources* 12 (summer): 360–78.

———. 1979a. On the distribution of net income: Comment. *Southern Economic Journal* 46 (January): 932–44.

———. 1979b. Still more on the distribution of net income: Further comment (mimeographed). University of Utah.

———. 1979c. Are sales taxes progressive? (mimeographed). University of Utah.

Smith, James D. 1974. The concentration of personal wealth in America, 1969. *The Review of Income and Wealth*, series 20, no. 2, pp. 143–80.

Smith, James D., and Franklin, Stephen D. 1964. The concentration of personal wealth, 1922–1969. *American Economic Review* 64 (May): 162–67.

Smolensky, Eugene, et al. 1977. Adding in-kind transfers to the personal income and outlay account: Implications for the size distribution of income. In *The distribution of economic well-being*, ed. F. Thomas Juster. NBER Studies in Income and Wealth, vol. 41. New York: National Bureau of Economic Research.

Soltow, Lee. 1965. *Toward income equality in Norway*. Madison, Wisc.: University of Wisconsin Press.

Stafford, Frank, and Duncan, Greg. 1977. The use of time and technology by households in the United States (mimeographed). Ann Arbor: University of Michigan (July).

Stigler, George J. 1973. General economic conditions and national elections. *American Economic Review* 63 (May): 160–67.

Taussig, Michael K. 1973. *Alternative measures of the distribution of economic welfare*. Princeton: Industrial Relations Section, Princeton University.

———. 1977. Trends in inequality of well-offness in the United States since World War II. *Conference on the trend in income inequality in the U.S.* Madison, Wisc.: Institute for Research on Poverty.

Thurow, Lester C. 1979. Manpower programs as income redistribution (mimeographed). Cambridge: M.I.T. (July).

United States Bureau of the Census. Various issues. *Current population reports*, series P–20. Washington, D.C.: United States Government Printing Office.

United States Bureau of the Census. Various issues. *Current population reports*, series P–60. Washington, D.C.: United States Government Printing Office.

United States Bureau of the Census. 1975. *Historical statistics of the United States, colonial times to 1970*, part 1 and part 2. Washington, D.C.: United States Government Printing Office.

United States Bureau of the Census. 1967. *Trends in the income of families and persons in the United States: 1947–1964*. Technical Paper no. 17. Washington, D.C.: United States Government Printing Office.

United States Bureau of Economic Analysis. 1976. *The national income and product accounts of the United States, 1929–1974*. Washington, D.C.: United States Government Printing Office.

United States Bureau of Economic Analysis. Various issues. *Survey of Current Business*. Washington, D.C.: United States Government Printing Office.

United States President. 1979. *Economic report of the president, 1979* Washington, D.C.: United States Government Printing Office.

Vandome, Peter. 1958. Aspects of the dynamics of consumer behavior: Income and savings over two years from the 1954 reinterview savings survey. *Bulletin of the Oxford University Institute of Statistics* 20 (February): 65–106.

Weinstein, Michael M., and Smolensky, Eugene. 1976. Poverty (mimeographed) University of Wisconsin (March). Forthcoming in *Dictionary of American economic history*.

Weisbrod, Burton A., and Hansen, W. Lee. 1968. An income–net worth approach to measuring economic welfare. *American Economic Review* 58 (December): 1315–29.