CHAPTER 5

Distribution of Income

IMPLICITLY OR EXPLICITLY, MOST DISCUSSIONS of the performance of the American economy and the economic role of the Government are concerned with the growth of national income and the way it is distributed.

Three fundamental principles of equity concerning the distribution of income are widely accepted: those who produce the same amount should be rewarded equally (horizontal equity); those who produce more should be rewarded more (vertical equity); and no individual or household should be forced to fall below some minimum standard of consumption regardless of productive potential. Although there is fairly general agreement on these principles, the desirability of any given amount of inequality in the income distribution remains a matter of personal judgment and of social and political debate.

One of the principal social debates has been about the extent to which those having high incomes should share with those having less. Among its chief objectives, the Government seeks the proper balance between redistributing income to the disadvantaged so that they may have the basic amenities of life and allowing a reward system which gives individuals incentives to work to their fullest capacity.

OUTLINE AND SUMMARY

This chapter looks at the distribution of income among families and individuals and examines some of the government policies which have influenced it. The chapter considers the distribution of income among individuals and families and among various classifications of the population: age, sex, and race.

While the inequality of family income is quite stable over the long term, it varies over the business cycle. Inequality increases during a recession and decreases in an expansion. This is a consequence of the variation in weeks worked that occurs because of changes in the unemployment rate.

Because the concept of income used to measure inequality is essentially limited to money income before taxes, these measures need not reflect the true inequality of economic well-being. Some sources of income which are omitted would increase measured inequality and others would decrease it, and estimates of some of these effects are given. While those omitted sources which would decrease family income inequality have been growing in importance over time, there exists no such presumption concerning the omitted sources that would increase it.

Many factors, such as schooling and on-the-job training, determine the inequality of earnings among workers. Differentials in the earnings of whites and blacks, and of males and females, are analyzed with respect to the contribution to the differential made by training and other factors that influence productivity. Past discrimination has contributed to current differences in productivity because of the once widespread barriers to equivalent schooling and on-the-job training. Because of the difficulties of measuring productivity, no conclusion could be reached about the magnitude of current labor market discrimination against blacks or women. For the same reason it is difficult to determine whether labor market discrimination has declined with time, although there is a strong presumption that it has. For men, the black-white earnings differential has narrowed, and much of the change may be due to a narrowing of educational differences. The narrowing of the differential has been much more dramatic for black women, however, and outside the South black women now receive a higher wage rate than white women. This development is largely due to black women's greater lifetime attachment to the labor force, and hence their greater level of experience and training.

The differential in hourly earnings between men and women has widened over time, and this change reflects the relative decline in education and experience of women in the labor force. With the rapid increase in the labor force participation of women, the female labor force has become increasingly composed of recent entrants with fewer years of schooling and of experience. Younger women are, however, showing less tendency to withdraw from the labor force for a prolonged period; as the age of these cohorts increases and they come to comprise a larger proportion of women in the labor force, the experience and earnings differential between men and women should decrease.

Widespread concern is felt about those whose incomes fall below a level needed to maintain an adequate living standard. There has been a marked decline in poverty, as conventionally defined, from 39 million persons in 1959 to 24 million persons in 1972, in large part because of economic growth, which increased wage rates and employment opportunities for men and women, and permitted larger social security and pension benefits. Increasingly the poor are living in families in which there is no adult worker, and increasingly the family is headed by a female.

The Federal Government has several programs—some operated on its own, others in conjunction with the States—which are intended to decrease poverty. Aid to Families with Dependent Children (AFDC) is the most important Federal-State program designed explicitly for poor families in which there is no employed male head. The 3.1 million AFDC families in 1972 represent nearly a threefold increase in the number of AFDC families since 1965. This increase can be partly explained by the spread of knowledge about the program and the lessening of the social stigma attached to it. In addition, the faster rate of increase of benefits to AFDC families, compared to average wages, contributed to the change by making the incentives greater for an existing female family head to apply for benefits, as well as giving women an incentive to head a family.

Social Security is the largest single Federal transfer program, with 28 million recipients of old age, survivor, or disability benefits in fiscal 1973. Many of the recipients of old age and survivors' benefits were in families classified as in poverty. For many others, however, social security kept their income above the poverty level.

The Federal Government also transfers economic resources to aged and low-income families by subsidizing the price of food, medical care, and housing. The Food Stamp Program, initiated in 1961, subsidized the purchase of food for 12.6 million recipients from low-income families in fiscal 1973. The average monthly subsidy (of $15.30 per individual recipient in July 1973) represents a substantial contribution to the economic well-being of many low-income families, although the food stamp subsidy is not counted in the measure of income used to define poverty.

A rapidly growing source of Federal transfers to the aged and the poor is medicare and medicaid, which lower the cost of medical care to the recipients. In fiscal 1973, 10.6 million people received medicare benefits, and 23.5 million received medicaid benefits.

The combined effects of the tax and transfer mechanisms of Federal, State, and local governments appear to redistribute income toward low-income families. Various studies have concluded that when accrued capital gains are included in income the tax system is roughly proportional in the income ranges in which most Americans are located, but regressive for very low incomes and progressive for very high ones. However, some government transfers have a strong effect of redistributing income to low-income families. These include public assistance programs, social security, food stamps, medicaid, and medicare.

THE CHANGE IN INEQUALITY OF FAMILY AND INDIVIDUAL INCOME

Between 1947 and 1972 median family income, adjusted for the rise in prices, doubled. This rapid increase in the overall level of income tells us much about the change in living standards, but it tells only part of the story. The extent to which the gains from economic growth have been diffused throughout the population is also important.

SECULAR CHANGES

There are various ways of illustrating the distribution of income among persons and of measuring the amount of inequality in the distribution.

Since families typically pool their incomes, the distribution of family income is a particularly useful indicator of the distribution of economic well-being. One common measure of inequality shows the percentage share of aggregate money income before taxes received by each fifth of families ranked by income. Quite remarkably, relative income shares measured in this way have hardly varied in the 25 years between 1947 and 1972 (Table 34). Thus in a relative sense the rich were not getting richer and the poor were not getting poorer. In this period the average income of each quintile increased at much the same rate. If anything, there seems to have been a slight tendency towards greater equality, since the share of measured income received by the top 5 percent declined somewhat from 1947 to 1972. The decline in the income share of the top 5 percent may be a consequence of the secular decrease in the share of national income received by the owners of nonlabor factors of production.

TABLE 34.—*Share of aggregate income before taxes received by each fifth of families, ranked by income, selected years, 1947–72*[1]

[Percent]

Income rank	1947	1950	1960	1966	1972
Total families	100.0	100.0	100.0	100.0	100.0
Lowest fifth	5.1	4.5	4.8	5.6	5.4
Second fifth	11.8	11.9	12.2	12.4	11.9
Third fifth	16.7	17.4	17.8	17.8	17.5
Fourth fifth	23.2	23.6	24.0	23.8	23.9
Highest fifth	43.3	42.7	41.3	40.5	41.4
Top 5 percent	17.5	17.3	15.9	15.6	15.9

[1] The income (before taxes) boundaries of each fifth in 1972 were: lowest fifth—under $5,612; second fifth—$5,612–$9,299; third fifth—$9,300–$12,854; fourth fifth—$12,855–$17,759; highest fifth—$17,760 and over; top 5 percent—$27,837 and over. Income includes wages and salaries, proprietors' income, interest, rent, dividends, and money transfer payments.

Note.—Detail may not add to totals because of rounding.

Source: Department of Commerce, Bureau of the Census.

The general impression that no significant trend has developed in the relative inequality of income among families is confirmed by other measures of inequality. For example, the variance of the natural logarithm of income, a measure which takes into account dispersion throughout all ranges of income, shows no trend in the dispersion of family income throughout the post-World War II period. (See the supplement to this chapter for an explanation of this measure.)

A family's income depends on the amount of work the different family members perform, on the earnings they receive, on the monetary return from property owned by the family, and on transfers received from the government. Underlying the distribution of family income then is the distribution of individuals' incomes. For males 35 to 44 years old or those 25 to 64 there is no trend during the post-World War II period in income inequality. However, in all years inequality is greater for the 25–64 age group than for the 35–44 age group, and this reflects the change in earnings with age. Thus, measures of inequality for broad age groups merge the inequality resulting from differences between lifetime incomes with the inequality that results because individuals do not earn the same income in successive phases of their lives.

An increase does occur over time, however, in the inequality of income for males 14 years of age and over, and in the inequality of income for all members (male and female) of the labor force. The increasing inequality for all male workers and all workers results mainly from the greater proportion of workers with part-time and part-year work schedules, rather than from an increase in the inequality of wage rates. The growth of part-time and part-year work may to some extent be attributed to a shift in industrial composition towards the service industries, where flexible hours are more common, and partly to the increasing desire among workers for flexible schedules with shorter hours. Such schedules are particularly attractive to students, semi-retired older workers, and married women. Associated with the increasing importance of these groups in the labor force has been a secular increase in the variability of annual hours worked and consequently in the variability of annual income for the labor force as a whole.

Since most families (75 percent in 1972) are husband-wife families with a working husband, the stability in the dispersion of adult male incomes has been one factor leading to stability in the distribution of family income. The increase in the proportion of wives with earned income evidently did not lead to increases in the relative inequality of family income, partly because husbands' and wives' annual earnings have not been positively correlated. In the future, if a strong positive correlation between husbands' and wives' annual earnings should develop, this correlation could be a factor in increasing the relative income inequality among families.

Stability of Income Inequality Among Adult Males

It is striking that there has been no change in the relative inequality of income among adult males. The greater opportunities for schooling among persons at all income levels and the larger subsidies for training less advantaged persons might have been expected to reduce earnings inequality in the past 20 years, but the relation between equal access to training or schooling and earnings inequality is not so straightforward.

The post-World War II period has brought a narrowing of differences in years of schooling among adult males, and this alone generally decreases the inequality of lifetime income. In the same period, however, the level of schooling has greatly increased. A recent study suggests that at higher levels of schooling the relative dispersion of wage rates tends to be greater than at lower levels, and that the effects on income inequality of the higher level and of the smaller variance in years of schooling have somewhat offset each other.

Greater equality of opportunity could also lead to increases in income inequality if investments in schooling or training became more closely related to ability. Generally, more able people receive a higher money return on an equal investment in education. In a world where financial access to schooling and training depend on family income (and assuming that family income and

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ability were not perfectly correlated), extending equal financial access to such investments for all people, regardless of income, could result in those with more ability investing more. In that case inequality could increase.

Obviously many factors other than education influence earnings. However, the distribution of adult males by age, marital status, health, and union membership, and the profitability of investments in school and post-school training, have been essentially stable over the past 25 years, and this stability has undoubtedly contributed to the stability of the income distribution.

CYCLICAL CHANGES

The inequality of income among families and among individuals fluctuates with the business cycle. Inequality increases in a recession and decreases in an expansion. During a recession, wage rates tend to be sticky, and there is no substantial change in the inequality of wage rates. However, layoffs increase and there is an increase in the relative inequality of weeks of employment. The increase in the relative inequality in weeks worked during a recession shows up both within and across demographic groups (age, sex, race, and schooling).

During a recession, unemployment within a group of the same skill, age, and other characteristics is not experienced uniformly; rather, in any one year it is likely to affect some workers to a disproportionate degree. Thus, an increasing rate and duration of unemployment have a greater effect on the weeks of employment of some workers than on others and result in a greater inequality of employment within the group.

A recession also intensifies the inequality of weeks of employment among groups with different characteristics. Workers with higher levels of skill—that is, more schooling and longer labor market experience—usually work more weeks per year at all stages of the business cycle. During recessions, however, the disemployment is relatively greater for workers with less skill. For this reason, in a recession one finds a larger inequality of weeks worked between skill groups than during a business cycle peak.

OMITTED SOURCES OF REAL INCOME AND THE INEQUALITY OF WELL-BEING

Because the concept of income used in the measures of inequality just presented omits some sources of real income, it gives an imperfect description of the resources that families actually command. The omitted items can be very important. They include the imputed value of rental income received by homeowners living in their own homes, as well as capital gains. Employee fringe benefits paid by the employer are omitted, and so is the monetary value to the recipient of Government transfers in kind, such as food stamps, medical benefits, and housing allowances. Many goods and services are produced at home and are excluded from these income measures because of the difficulty of placing a value on production outside the market. Families with a working husband and wife may thus have more measured income than some families in which the wife confines her work to caring for the home and children, although the extra expenses or loss of leisure time of the working couple could mean that they are really less well off. Finally, the data used here refer to income received in one year before payroll and income taxes.

The reason for not including these sources of income in census surveys of consumer income is that they are all extremely difficult to measure for individuals or families. Several studies have attempted to measure the magnitude and distribution of the different items, but so far the net effect on income inequality of all the items cannot be stated with complete confidence. Nor can we say how past changes in the importance of the different omitted sources may have affected the true trend in income inequality.

TABLE 35.—*Income inequality under alternative definitions of income, 1968*

Definition of income	Income inequality[1]
1. Money income	0.75
2. Line 1 plus rental value of owner-occupied homes	.74
3. Line 2 plus nonmoney wages and nonmoney farm income	.69
4. Line 3 plus medicare payments	.62
5. Line 4 plus imputed interest from banks and insurance companies	.61
6. Line 5 plus other imputations[2] equals money income plus imputed income	.61
7. Line 6 less direct taxes equals disposable family personal income	.52

[1] Income inequality is measured by the variance in the natural log of income. (See supplement to this chapter.) The income classes used are: Under $2,000; $2,000–$3,999; $4,000–$5,999; $6,000–$7,999; $8,000–$9,999; $10,000–$14,999; $15,000–$24,999; $25,000–$49,999; and $50,000 and over.

[2] Other imputations include services furnished without payment by banks and insurance companies, military clothing, and miscellaneous other items.

Sources: Department of Commerce (Bureau of the Census) and Council of Economic Advisers.

Table 35 presents estimates of the effect that some of these omitted sources of income would have had on measured income inequality. For convenience the basic measure of income dispersion used in the calculation is the variance in the natural logarithm of income (see supplement to this chapter). The measure is zero when there is perfect equality of income, and it increases for greater income inequality. However, while a reduction from 0.7 to 0.6 conveys an acceptable suggestion about a decline in inequality, and a decline from 0.7 to 0.5 an acceptable suggestion about a greater decline, the statement that the second of these two declines is twice the first would not be meaningful.

The rental value of owner-occupied dwellings can be imputed by assuming that it is proportional to the value of the house. When the imputed rental value of owner-occupied dwellings is added to money income, the inequality of family income does not change significantly. Although the imputed rental value of housing rises with money income, it does not rise as a percentage of income.

Farm wages and farm income received in kind (such as food and lodging) and medicare payments are generally concentrated among the poor, and they reduce income inequality. The inclusion of imputed interest from banks and insurance companies does not significantly change inequality. When personal income taxes and payroll taxes are deducted from money income plus imputed income, the dispersion of income declines.

Because of the extreme difficulties involved, no effort was made to compute the distribution of capital gains or losses among families. Nor was an effort made to remove the effect of transitory influences on income in any one year. Capital gains and losses, however, tend to be concentrated among upper-income families, and for years of net capital gains their inclusion in the income concept would clearly increase family income inequality. Several studies suggest that if accrued capital gains are included in income a very high proportion of families earn incomes falling in ranges in which the tax system is essentially proportional.

The huge growth in Federal food, medical, and other in-kind subsidies to the poor during the past 10 years would certainly reduce inequality if they were included in the income measures. In addition, families differ in their use of government-subsidized goods and services, such as manpower training programs, public schools, national parks, and roads, but the incidence of benefits by income level is not known.

Family Composition and Work in the Labor Market

Families vary considerably in the hours they work in the labor market to produce measured money income. The difficulty of imputing a value to work done at home has already been noted. The fact that a wife does not work in the market can be taken to mean that she considers her productivity at home to be of more value than what she could earn in the market. Knowing that she does not work in the labor market is not sufficient, however, to determine the money value of the wife's work at home.

Table 36 indicates roughly how families at three levels of income differ in their composition and work in the labor market, and how this has changed. In both 1952 and 1972, families in the lowest fifth were much more likely to be headed by a woman or by a person either less than 25 years of age or older than 65 years. Partly because of these differences in age and sex, the heads of lower-income families are less likely to participate in the labor market, and so are the other family members.

Such families consequently depend more on income from sources other than earnings, such as social security, other retirement incomes, and public assistance. By contrast, upper-income families generally have many earners per family and are more likely to include a wife who works. Presumably these families have less time for work at home, and they must buy with their earnings some of the services that would otherwise be produced at home.

TABLE 36.—*Selected characteristics of the lowest, middle, and highest fifths of families ranked by money income, 1952 and 1972*

[Percent]

Family characteristic	Lowest fifth		Middle fifth		Highest fifth	
	1952	1972	1952	1972	1952	1972
Total families	100.0	100.0	100.0	100.0	100.0	100.0
Female head	22.0	32.0	7.1	7.1	4.8	3.2
Head under 25 years of age	7.1	13.2	6.0	7.5	1.3	1.6
Head 65 years of age and over	30.1	32.8	7.8	7.9	7.9	5.9
No earners	25.3	36.4	1.2	2.4	.6	.8
2 earners or more	22.4	20.6	36.7	57.0	66.3	74.0
Husband-wife families	100.0	100.0	100.0	100.0	100.0	100.0
Wife in paid labor force	18.9	19.9	21.2	41.3	38.1	51.6
Mean number of children	1.14	1.09	1.43	1.35	1.10	1.25

Source: Department of Commerce, Bureau of the Census.

These differences in the characteristics of families by income class have become more intense. They raise problems of interpretation which are important for public policy designed to influence the distribution of income. Some of these issues are discussed below in the section on poverty.

DETERMINANTS OF DIFFERENCES IN EARNINGS AMONG INDIVIDUALS

Wage rates and annual labor market earnings of individuals vary considerably. Much of this variation can be related statistically to individual differences in measurable characteristics—schooling, post-school training, region of residence, and other demographic characteristics, as well as restrictions on entry into occupations. How far such unmeasurable characteristics as innate ability, diligence, personal attractiveness, and contacts explain the remaining differences is not known. Nor can it be ascertained how important luck is in determining the distribution of income.

Other aspects of earnings are not included in earnings data. Psychic earnings from having a pleasant job or living in a pleasant locality are not measurable. Earnings received by individuals in kind, such as free lodging and fringe benefits purchased by the employer, are measurable in principle, but difficult to measure in practice.

SCHOOLING

Schooling is an important determinant of the distribution of earnings. Table 37 shows average usual weekly earnings for males 35 to 44 years of age who worked full time. Those with more schooling have substantially higher earnings; and this relation has been persistent in many different sets of data.

TABLE 37.—*Average usual weekly earnings of male workers 35–44 years of age who worked full time, by years of schooling and race, 1973*

Years of schooling	White	Negro and other races
0–4	$150	$96
5–7	173	149
8	202	165
9–11	211	165
12	231	178
13–15	265	209
16	321	241
Over 16	333	284

Note.—Data are from a survey made in May 1973.
A full-time worker is defined as one who usually works 35 hours or more per week.

Source: Department of Labor, Bureau of Labor Statistics.

One suggested reason why schooling and earnings are positively related is that schooling increases a worker's productivity. A mobile labor force and competitive markets translate the increased productivity into higher income for the worker. To test the hypothesis that schooling increases productivity and thereby increases income, one must have some measure of productivity other than income itself. Several studies have investigated the association between schooling and the productivity of self-employed farmers, as well as the association between schooling and efficiency in household activities and in interregional migration, and in scores on standardized ability tests. They indicate that, controlling for other variables, those people with more schooling are more productive.

Some say that those capable of higher productivity receive more schooling and that business firms use the amount of schooling as a means of sorting out those capable of better performance. It is therefore important to distinguish between schooling as a means of changing productivity and schooling as a means of identifying the more productive members of the population. The sorting hypothesis implies that firms regard the number of years of schooling as an index of individual qualities that the educational system can identify more efficiently than they can. The educational system, according to this theory, is effective in attracting persons possessing these qualities and discouraging the schooling of those without these qualities. Empirical tests of the sorting hypothesis have not been conclusive.

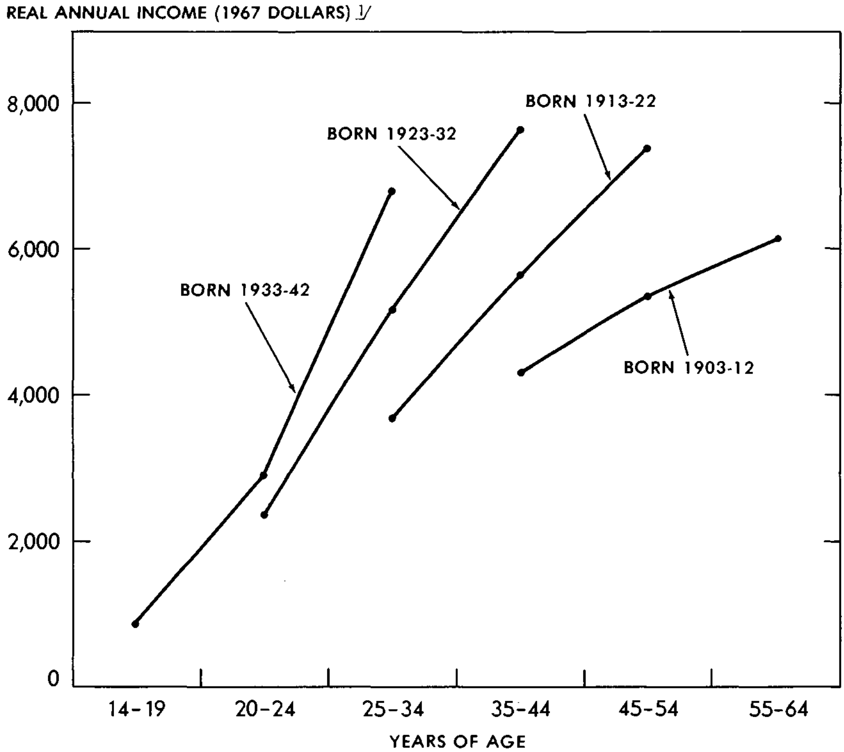
POST-SCHOOL TRAINING

Another important aspect of training is experience acquired on the job after schooling is completed. On-the-job training can vary from formal training programs within the firm to the informal process of learning by doing. Thus, particularly at younger ages, a worker may be involved in a process of investment with returns accruing later on. For this reason earnings would rise as age increases.

Charts 8 and 9 give the results of two different procedures to find the relation between age and income for males. Chart 8 presents the age-income profiles of a group of men over time (cohort profile). For a cohort, income

Chart 8

Real Income Profiles of Cohorts of Men Born in Selected Years



1/ MEDIAN TOTAL MONEY INCOME FOR EACH AGE DEFLATED BY THE CONSUMER PRICE INDEX.

SOURCES: DEPARTMENT OF COMMERCE AND DEPARTMENT OF LABOR.

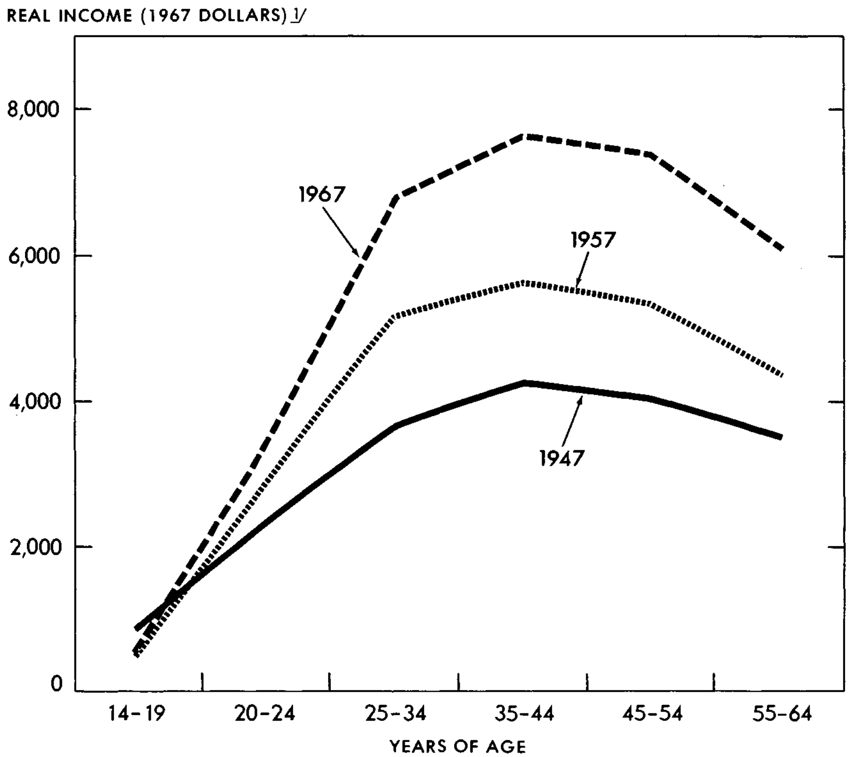
increases with age, but for adults it does so at a decreasing rate. Income increases with age because the workers are acquiring experience and because of the rising productivity of workers as technology improves and physical capital grows. The cohort profiles are higher for younger workers because they have not only more years of schooling but also the benefits that accompany a growth of technology and physical capital.

Chart 9 presents the age-income profiles obtained from plotting the income of males of different ages in the same time period (cross-sectional profile). The tipping down for the oldest age groups (45 to 54 and 55 to 64 years of age) of the cross-sectional profile for annual income reflects the lower income of retired persons and, compared to younger males, the lower level of schooling and obsolescence of knowledge of those older males still in the labor force.

There are too few comparable data to determine whether the cohort profiles are becoming steeper over time for adult males, although there are some

Chart 9

Real Incomes for Men in Different Age Groups



1/ MEDIAN TOTAL MONEY INCOME FOR EACH AGE DEFLATED BY THE CONSUMER PRICE INDEX.
SOURCES: DEPARTMENT OF COMMERCE AND DEPARTMENT OF LABOR.

hints to that effect. Increased high school and college attendance has increased the slope of the age annual income profile for younger males. If better data in the future indicate a steepening over time in the slope of the age-income profile, a constant income inequality within a broad age interval would imply a narrowing of income inequality for each age in the interval.

The relation between age and usual weekly earnings in 1973 for males with 12 and 16 years of schooling is shown in Table 38. For the same level of schooling, usual weekly earnings generally increase with age. The age-earnings profiles are steeper for those with more schooling and thus suggest a positive association of schooling and on-the-job training. Because women are more likely to participate discontinuously in the labor force, entering and leaving several times during their lives, their post-school training does not necessarily rise steadily with age.

TABLE 38.—*Average usual weekly earnings of males who worked full time, by age and years of schooling, 1973*

Age	Years of schooling	
	12	16
20–24 years	$158	$170
25–34 years	201	238
35–44 years	226	317
45–54 years	227	347
55–64 years	227	323

Note.—Data are from a survey made in May 1973.

Source: Department of Labor, Bureau of Labor Statistics.

EMPLOYMENT

The annual labor market earnings of a worker are a function of the worker's weekly earnings and the number of weeks of employment during the year. Weeks of employment can vary because of unemployment; but they also vary because of voluntary withdrawals from the labor force.

The number of weeks worked is greater for male workers 25 to 54 years of age than for younger, older, or married female workers. Younger persons work less because of school attendance and a greater incidence of unemployment. Students (who now make up 59 percent of the teenage labor force) ordinarily work during vacations or have part-time jobs for a few months during the year. Most new entrants and reentrants to the labor force are young people or married women, and most also experience some unemployment before taking their first job. One reason for the higher unemployment rate for young workers is that they voluntarily leave jobs to acquaint themselves with the labor market and to gain experience in various jobs. In addition, the instability of their employment is increased by the fact that their productivity is very close to the legal minimum wage, and they have a smaller amount of specific job training.

Employers make investments specific to the firm for some workers. Specific investments include the component of training a worker receives that is useful only in that firm, and also hiring and placement costs. The more important specific training is, the more costly it is for both the firm and the worker if the worker is separated from the firm. Workers with more specific training are therefore less likely to be subjected to layoffs or to quit, and they will work more weeks during the year. Workers with advanced schooling ordinarily work more weeks during the year, partly because their higher wage makes absence from work more costly, and partly because they have more specific training.

Married men work more weeks per year than men who have not married, but married women work fewer weeks than those who have never married. Most married women work less if they have young children. Older workers work less because of deteriorating health and partial retirement.

The weekly wage and the number of weeks worked are related. Those who work more weeks per year tend to have a higher weekly wage, partly, because they have acquired more experience. On the other hand, it has been suggested that the weekly wage for each week worked is higher in some seasonal occupations in which there are fewer weeks of employment during the year.

EARNINGS DIFFERENTIALS BETWEEN GROUPS

In the last quarter century there has been substantial public concern with the causes and consequences of the observed earnings differential between groups differentiated by race and sex. This discussion has focused on investments in training and current and past discrimination, as factors that may explain the differential.

DISCRIMINATION

Discrimination is said to exist when two or more groups that are differentiated on the basis of some characteristic irrelevant to an objective measure of productivity are not granted equal treatment in a particular activity. The differentiating characteristic may be race, sex, ethnic origin, marital status, age, or physical appearance. Obviously some forms of discrimination give rise to more social concern than others. Discrimination may also take several forms: the way individuals and business firms behave in the market place for jobs, housing, credit, and other goods and services; and discriminatory taxation or public expenditure policies by government. It may be so closely interwoven with the culture of a society that the stereotyping of roles is accepted by all with little or no question.

The income and employment of an individual can be influenced by past and present discrimination. Past discrimination affects the years and quality of an individual's schooling and the path to his present occupation and training. Current discrimination affects incomes when two workers are given a different wage for the same productivity and restrictions are placed on a worker's occupational mobility.

It is important to distinguish between the differences caused by discrimination and those from other causes. Observed differences between the wages or occupational distribution in two groups of individuals may be due to discrimination or to factors entirely unrelated to discrimination. Because many important variables are not measurable, one cannot fully quantify the effects of past or present discrimination on earnings and occupational choice. What can be quantified, however, is the extent of observed differences between groups that remain after making allowance for what is measurable.

RACE DIFFERENTIALS

Data on the income or occupations of white and black males and females indicate a substantial racial difference that has persisted for the last century.*

*Almost 90 percent of nonwhites are blacks, but many of the available data do not distinguish between blacks and other nonwhites.

The relative income difference widened in recessions or depressions and narrowed during periods of economic expansion, particularly during World War II. Evidence is accumulating, however, that there has been a long-run narrowing of the racial income difference. According to one recent study, for example, the median wage and salary income of black males increased at an annual rate of 3.2 percent from 1947 to 1971, compared to an annual increase of 2.6 percent for white males. For black and white females the rates were 4.9 percent and 1.7 percent respectively. In spite of this narrowing, substantial racial income differences continue, particularly for males.

Why the Differential Narrowed

There are several reasons for the narrowing of the black-white earnings differential. Important changes have occurred in the relative schooling of blacks and whites. The substantial discrimination against blacks that was evident in the public school expenditures of many States appears to have ended. For this and other reasons there has been a dramatic increase in the level of schooling for blacks. The median number of years of schooling among black males 18 years old and over in the labor force increased between 1952 and 1971 by 4.2 years, to 11.4 years. For white males the increase was 1.7 years, to a level of 12.5 years. During the same period, black females in the labor force increased their level of schooling by 4 years, to 12.1 years, compared to an increase for white females of only 0.4 year, to 12.5 years.

The substantial migration of blacks out of the South and into States in the northern and western regions may also have influenced the relative increase in the earnings of blacks. In 1940, 77 percent of the black population lived in the South; by 1970, the proportion was 53 percent. Earnings are lower in the South than in other regions for all workers, but the difference is particularly great for black workers, and in the past the difference between earnings in the South and elsewhere was even more pronounced. Thus blacks could increase their earnings by moving out of the South. Although whites have an even greater propensity than blacks to migrate between States or regions, this greater regional earnings differential for blacks, coupled with their greater concentration in the South, provided an important way for blacks to improve their earnings. Blacks are likely to have increased their earnings relative to whites through migration, despite their somewhat lower geographic mobility.

The changing occupational structure and labor force status of the population was another factor influencing the rate of growth of earnings. The labor force participation rate of married white females increased at a faster rate than that of married black females. The entry into the labor force of white females with little experience and the growth of part-time employment slowed the rate of growth of earnings among white females. The proportion of black females employed as household workers declined from 43 percent in 1949 to 18 percent in 1969.

Two important factors served as catalysts enabling these changes to take place. First, the American economy is highly competitive, and business firms whose owners or white workers have less discriminatory attitudes toward blacks will be likely to employ more blacks. These firms prosper if blacks receive lower wages. When such firms expand, the demand for black workers increases and the discriminatory differential declines.

Competition may not be a fully effective weapon against discrimination, however, if prejudice is very widespread. The second factor, working with the first, was a change in attitudes toward discrimination against blacks. This development improved the relative income and occupational status of blacks by directly reducing labor market discrimination. It also facilitated the passage of the 1964 Civil Rights Act and other Federal and State legislation as well as court decisions prohibiting discrimination in wages and employment. Such changes in the legal system made discrimination more costly and therefore lessened it. The reduction in discrimination in housing and in public accommodations brought about increased contact between blacks and whites and presumably expanded the information sources and job opportunities for blacks.

Dead-End Jobs

There is a widespread belief that, compared to white males, black males are relegated to poorly paid, dead-end jobs—that is, jobs in which earnings are initially low and do not rise with experience. This view originated as a result of examining the relation between age and income for white and black males at a moment in time (cross-section). For example, reading down the columns of Table 39 indicates a substantial decline for older age groups in the income of black males relative to white males. The appropriate procedure for a study of life-cycle income, however, is to follow a group (cohort) as it ages, as is shown along the diagonals of Table 39. For each

TABLE 39.—*Income of Negro males as percent of income of white males, by type of income and age, 1949, 1959, and 1969*

[Percent]

Type of income by age group	1949	1959	1969
Annual income:			
25–34 years	57	57	65
35–44 years	48	52	56
45–54 years	46	49	53
55–64 years	45	48	51
Weekly income:			
25–34 years	61	61	67
35–44 years	52	57	58
45–54 years	48	52	55
55–64 years	47	51	53

Note.—Data for 1949 and 1959 relate to Negro and races other than white end therefore are not strictly comparable with data for 1969 which relate to the Negro race only.

Sources: Department of Commerce (Bureau of the Census) and Council of Economic Advisers.

cohort, the ratio of black to white annual and weekly incomes either did not decline at all with age from 1949 to 1969, or declined at an appreciably slower rate than in the cross-section. Thus, experience appears to have a similar relative effect on the incomes of white and black males. Although some black and some white males may be in dead-end jobs, this is not the situation of the average black or white worker.

Current Differentials

Although the earnings differential between black and white females has become quite small, the differential that still exists between the earnings of black and white males is substantial. It does narrow, however, when the comparison is restricted to the States outside the South, and when differences in years of schooling are taken into account (Table 40). A further narrowing of the differential occurs if the comparison is restricted to married men. There are large differences in marital status between blacks and whites. In March 1972, 78 percent of white males 20 years old and over were married and living with their wives, compared to 61 percent for black males. Among both white and black males, marital status is closely related to earnings, married men having higher earnings than those not currently married. How the division of labor within the family affects the earnings of married men and women is discussed at greater length in the next section.

TABLE 40.—*Earnings of Negroes as a percent of earnings of whites, for persons 25–64 years of age, 1969*

[Percent]

Type of earnings by sex and region	All persons			Married, spouse present		
	All levels of schooling	High school graduate	College graduate or more	All levels of schooling	High school graduate	College graduate or more
EARNINGS OF MEN						
Annual earnings:						
All regions	60	68	71	61	61	72
South	53	60	64	55	61	(2)
North and West [1]	69	74	78	70	76	79
Hourly earnings:						
All regions	67	73	79	68	76	81
South	60	64	71	60	65	(2)
North and West [1]	77	81	87	79	85	93
EARNINGS OF WOMEN						
Annual earnings:						
All regions	80	93	104	88	102	108
South	69	80	105	75	88	112
North and West [1]	94	102	111	105	112	108
Hourly earnings:						
All regions	89	99	119	91	107	95
South	82	76	128	76	79	88
North and West [1]	101	118	109	111	128	107

[1] Includes Northeast and North-central.
[2] Fewer than 50 persons in the sample.

Note.—Education, region, marital status and age relate to 1970.

Sources: Department of Commerce (Bureau of the Census) and Council of Economic Advisers.

Several factors can be mentioned to explain why black males still receive lower earnings than white males after adjustment for schooling, age, region, and marital status. Prior investments made in the child at home are important in determining the extent to which a student benefits from schooling. Black youths are more likely to come from poorer homes where the parents have less schooling, to have poorer diets, and to be less healthy. They are likely to start school with fewer advantages and skills than the typical white youth. Moreover, at least in the past, there was discrimination against black youths in public school expenditures. Later on, as adults, blacks have poorer health, and may have poorer information about better jobs. Some of the current wage differences may thus be a consequence of past discrimination. Many factors, such as health and information about labor markets, are difficult to measure, however, and their actual effects on earnings differences between blacks and whites have not been quantified. One cannot then reliably measure the extent of the occupational and wage rate discrimination that now exists, or the effect that current discrimination has on earnings.

SEX DIFFERENTIALS

In 1972 the median annual earnings of women 14 years old and over who did full-time, year-round work were about 58 percent of that of full-time, year-round male workers. This low ratio cannot be taken as a measure of current market discrimination, however, since the average full-time workweek is shorter for women than for men, and their life time work experience has been vastly different.

Specialization and Working Women

Although the pattern is changing rapidly, the traditional economic organization of the family has been marked by a specialization of function: women tend to specialize in the work associated with child care and keeping up the home; men tend to specialize in labor market employment. In the past, when it was typical for families to have more children than they now do, this specialization of function was undoubtedly an efficient arrangement. Whether it now reflects societal discrimination or efficiency is a matter for speculation.

In many families a lesser degree of specialization and a greater sharing of home and labor market activities have come to be the preferred form of family organization, and women's participation in the labor force has increased greatly. In 1950, 28 percent of married women 35 to 44 years of age were in the labor force; in 1972 the proportion was 49 percent. However, most married men still work nearly continuously during their prime working years; and the labor force participation rate of married men from 25 to 55 years of age is over 95 percent.

The work histories of individual women cannot be ascertained from current labor force rates; special surveys are needed to provide information about lifetime work experience. The National Longitudinal Survey (NLS), a large data source sponsored by the Department of Labor, has recently become available and provides much more detailed information on the work histories of women than has ever been previously compiled. The survey indicates that in 1967, among married women 30 to 44 years old with children, only 3 percent had worked at least 6 months every year since leaving school. On the average, married women worked at least 6 months in 40 percent of their years after leaving school, but the work was not likely to be continuous.

One study which used the NLS showed that earnings of women do rise with experience and that continuity of experience, as opposed to intermittent participation, commands a premium. Withdrawal from the labor force for a time resulted in a decline in earnings when work resumed, since previously accumulated skills, or human capital, actually depreciate during extended periods away from work. For the married women in the sample, the hourly wage rate was about 66 percent of that of married men in the same age group (30–44 years) in the same year (1966), after controlling for differences in years of schooling. At least half of the 34 percent differential resulted from differences in their measured experience. The remaining differential is unexplained.

It is not known to what extent current discrimination, as opposed to other unmeasured factors, contributed to this differential. For example, the study could not provide direct measures of the nature of the investments made in the productivity of women and men, other than years of formal schooling. Women do not appear to obtain as much training on the job as men for the same length of time in the labor force. Thus, although women's earnings rise with experience, the study found that they do not rise as steeply as men's. This difference could result partly from a faulty measurement of a year's experience for women; as noted above, in these data a year's work could be as little as 6 months of part-time employment. However, the measured effect of experience could also be interpreted as the result of discrimination. That is, employers may deny a woman on-the-job training or a promotion because of her sex, sometimes from sheer prejudice, sometimes because they think a woman is more likely to quit for personal reasons. One can also surmise that women themselves may not choose to invest in training at a cost of either lower current earnings or additional hours of work, when the payoff might be lost because of the uncertainty of their future work patterns.

For example, women in school have a lower enrollment rate in programs oriented toward the labor market—engineering, accounting, electronics—and a higher enrollment rate in courses that may be more applicable to work or leisure in the home—child development, languages, literature. This pattern may reflect greater uncertainty among women about their future attachment to the labor force. A choice of field of study may also be influenced by social pressures, however, which make women feel less feminine and men feel less masculine if they enroll in courses traditionally selected by the other sex.

The study also relates lifetime work history to earnings for women who never married. A year's experience has a much greater effect on single women's earnings than on those of married women. Single women work much more continuously than married women, though less so than married men. Some single women may choose not to make investments related to work because they expect to marry. But many look forward to careers and may therefore delay marriage or never marry at all. This career orientation is consistent with the relatively greater number of years of schooling completed by single women compared to those who marry. It is also consistent with their observed higher earnings. Estimates of hourly wage and salary earnings from 1970 census data show that women 45 to 54 years of age who had never married earned 20 percent more than married women, and 28 percent less than married men, but only 2 percent less than men who had never married.

There is then also a differential between the earnings of married and single men, and it may be taken as another illustration of how specialization within families may affect career patterns and earnings. Single men have somewhat lower labor force participation rates; they also work fewer hours per year than married men. In part this may result from a higher incidence of disability, which influences both marriage and work. Although they have greater work participation than married women, single women also have higher disability rates than married women.

Because of differences in life-cycle participation in the labor force by women and men, the experience of women does not bear the same relationship to age as it does for men. Many women who have entered or reentered the market at older ages are really beginners. Men's earnings are at their peak when the men reach an older age, but women's earnings will represent a mixture in which a small minority have high earnings because of their considerable experience, but the majority have earnings closer to those at the start of a career. As age increases, it is therefore not surprising that the earnings differential between women and men widens. For example, a comparison of usual weekly earnings of workers who worked 35 hours a week or more in 1973 shows that the ratio of women's earnings to men's earnings declined from 0.70 at ages 20–24 to 0.59 at ages 45–54 for high school graduates. Of course the earnings ratios at older ages reflect the work histories of different cohorts of women. If the younger women maintain a greater attachment to the labor force during their lifetime (and there is some evidence that this is the case), then the ratio of women's earnings to men's may not decline as much with age in the future.

Differences in lifetime work experience also seem to explain why the ratio of black women's earnings to those of white women exceeds the ratio of earnings of black men to those of white men (Table 40). Indeed, in the regions outside the South, within educational levels, black women earn more than white women. The differential between whites and blacks in quality of schooling, family background, and discrimination can be assumed to be similar for women and men. Black women have a much greater life-cycle attachment to the labor force, however, than white women do, although this differential is largely confined to married women. For example, in 1972 among women 35 to 44 years of age, with 4 years of high school or more, 71 percent of the black women were in the labor force, compared to 53 percent of the white women.

The greater tendency of black married women to work, compared to white married women, may be due in part to the relatively lower earnings of their husbands. Partly because of the relatively high earnings and work participation of black wives, the ratio of annual income of black husband-wife families to that of white husband-wife families is higher than the ratio of black men's to white men's income. For families headed by males 35 to 44 years old the ratio in 1969 was 75 percent, compared to 56 percent for males alone (Tables 39 and 41).

TABLE 41.—*Median income of Negro husband-wife families as percent of white husband-wife families, by region and age of husband, 1959, 1969, and 1972*

[Percent]

Age of husband	1959	1969	1972		
			Total	South	North and West[1]
All families	57	72	76	69	86
Under 35 years	62	80	85	84	93
35–44 years	60	75	76	67	80
45–54 years	55	66	71	63	78
55–64 years	51	62	59	53	79
65 years and over	57	65	72	67	98

[1] Includes Northeast and North-central.

Source: Department of Commerce, Bureau of the Census.

Trends in the Earnings Differential

Much has been made of the rather puzzling observation that the ratio of earnings of all women to those of all men has declined during the past 20 years. This observation refers to annual earnings, or the earnings of full-time, year-round workers who are not necessarily representative of the total. But average hours and weeks worked during the year fell for women relative to men from 1949 to 1969. If annual wages and salaries are divided by total hours worked during the year, the result is a much modified decline in the hourly wage of women relative to the hourly wage of men (Table 42).

An additional factor which would produce a relative decline in women's earnings is the relative decline in their general educational level and their labor market experience during the period. In 1950, women in the labor force had on the average more schooling than men did; but this advantage

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TABLE 42.—*Relation of wage and salary earnings and of total money earnings of women to those of men, 1949, 1959, and 1969*

Type of earnings	Earnings of women as percent of earnings of men		
	1949	1959	1969
Mean wage and salary earnings: [1]			
Annual	56	50	47
Hourly	67	66	63
Hourly adjusted for education [2]	63	65	63
Mean total money earnings: [1]			
Annual	(3)	48	46
Hourly	(3)	65	62
Hourly adjusted for education [2]	(3)	64	62

[1] Earnings for any year are for those in the experienced labor force the following year.
[2] Approximate adjustment based on differences in the educational distributions of men and women in the labor force in 1950, 1960, and 1970.
[3] Not available.

Source: Council of Economic Advisers.

was eliminated by 1970. Since education has an effect on earnings—both men's and women's earnings increase with education—it is important to take these changes into account. An approximate adjustment for educational level increases the differential in 1949 and 1959, because women in the labor force then had more education than men. After the educational adjustment, the differential shows little change from 1949 to 1969.

What has not been accounted for is the experience differential between men and women. As has been explained above, this difference seems to be the most important factor causing a divergence in hourly earnings. But since the labor force participation of women, particularly married women, was increasing rapidly during the period, it is very likely that the constant flow of entrants into the labor force resulted in a decline in the average experience of women in the labor force during the 20 years.

The foregoing suggests that if we could compare women and men with a given amount of experience and education the ratio of women's hourly earnings to men's might well show an increase over the 20 years—a narrowing in the gap. This would, of course, be compatible with the fact that women have dramatically increased their participation in the labor force during the past 20 years. The rapidly increasing opportunities offered them would be one reason why they have done so.

OCCUPATIONAL DIFFERENCES

The occupational distribution of blacks differs from that of whites. In 1970, for example, 27 percent of employed white males and 9 percent of employed black males were managers or professionals, whereas 7 percent of white males and 19 percent of black males were hired farm or nonfarm laborers; and 18 percent of employed black females were domestic household workers, compared to only 2 percent of white females. There is also considerable occupational segregation by sex, and some believe that the sex segregation is even greater than the racial segregation. For example, 83 percent of managers and 87 percent of farm laborers were men; but only 3 percent of nurses and 16 percent of elementary school teachers were men.

Occupational segregation by race derives partly from differences in schooling and partly from the geographical distribution of blacks, who disproportionately live in the South. Moreover, there has been substantial discrimination against blacks who entered, or tried to enter, certain occupations. This discrimination, stemming from the attitudes of white employers, employees, and consumers of services, resulted in a smaller proportion of blacks entering these occupations. In some professions—for example, medicine, law, and the ministry—blacks were generally restricted to practicing in segregated black markets. In addition, blacks were not always granted equal opportunity to move up the occupational scale—for example, from laborer or operative to foreman or manager.

Some of the differences in occupational composition by sex can be attributed to differences in physical attributes. Undoubtedly, however, jobs requiring physical strength are on the decline, and it is questionable whether this factor was ever very important. One may also argue that prejudice on the part of employers, fellow employees, and consumers operates to exclude women from some activities in the labor market and to favor them in others.

Another hypothesis stresses the difference in role identification that leads to differences between the work careers and training of women and men. That is, women who anticipate combining some work with marriage seek occupations and work situations which are most complementary to home responsibilities, such as those in which hours are shorter or correspond to the children's school hours, or those offering work close to home. Another criterion is the penalty for interruptions in work. For example, women might avoid situations with rigid seniority rules, or they might choose careers in which skills are least likely to depreciate during a period spent at home. Some of the occupations stereotyped as women's, such as elementary school teaching and nursing, are indeed those where the same skills can be utilized in the home. According to this view occupational differences arise from choice, although the choice may be induced by a pervasive societal bias which dictates that home responsibilities are the women's major work. It is quite difficult to separate empirically the effects of discrimination in the labor market from the effects of personal considerations in women's occupational choices.

One may question whether the wage rates received by blacks and women have been affected by the occupational segregation. Earnings differ from occupation to occupation. If blacks or women were clustered in occupations that were low paying for all groups, including white males, then the lower average hourly earnings of blacks and women could be attributed to differences in their mix of occupations, rather than to earnings differences within individual occupations. To estimate the effect of occupational mix on the earnings of black males, indexes were calculated to measure what black males would earn if they had the white male occupational distribution but the earnings of black males within each occupation. Similar indexes were computed to measure what white women would earn if they had the same occupational distribution as white men, but the earnings of white women within occupations.

Preliminary results, using 1970 census data on 443 detailed occupations, indicate that black males would have hourly earnings about 18 percent higher if they had the white male mix of occupations. Since white males earned 50 percent more than black males, occupational differences would appear to "explain" 35 percent of the differential. However, those with high levels of education have a very different occupational distribution compared to those with lower levels of education. Hence it may be that in adjusting for occupation one is really adjusting for education. Indexes calculated for seperate education groups indicate a much smaller explanatory power of occupation. For example, among males who completed 12 to 15 years of schooling, the earnings of black workers would be increased by only 8 percent if they were given the white occupational distribution, and this would account for 22 percent of the race differential in earnings.

Comparing white women and white men 25 to 64 years old, the preliminary results for 1970 indicate that women would increase their earnings by about 11 percent if they had the occupational mix of men, and this would account for about 21 percent of the gross earnings differential between women and men. Since women have completed roughly the same average years of schooling as men, education would not be expected to interact so strongly with occupation. Within education groups, occupational mix seems to explain less for women below the college level than for women as a whole, but relatively more at the college level.

Since occupation alone does not explain very much of the overall earnings differential between men and women, it would seem that earnings differentials within occupations, as they are now defined, must be more important than earnings differentials between occupations. In other words, if custom or overt barriers to entry have relegated women to different occupations from those of men, this factor has not been the major one in lowering their earnings.

It has already been noted that earnings differences between women and men are in large part a consequence of differences in lifetime labor market experience. Since earnings differences between occupations may also be influenced by sex differences in the extent of post-school training between occupations, it may be necessary to make a distinction between the explanatory power of occupational mix per se and the explanatory power of occupational differences in experience. This requires data not currently available.

In conclusion, it appears that the different occupational distributions of white men, compared to black men and white women, explain at most about one-fourth of the existing earnings differentials between them. Because occupational differences can also be explained by other factors that differ between the races and the sexes, such as labor market experience (post-school training), and region, the true effect of occupation may be much smaller.

THE LOW-INCOME POPULATION

The Government has assumed an ever larger role in helping to see that those in need reach an adequate standard of living; and a considerable share of the Federal budget is now devoted directly and indirectly to that end.

THE DEFINITION OF POVERTY

There is not, and probably never will be, a consensus on any one definition of poverty. Many programs require, however, that we distinguish those who fall below a minimum income standard; and, accordingly, the concept of the low-income or poverty threshold has been developed. The Government concept is defined essentially as an amount about three times the estimated cost of a nutritionally adequate diet. The standard is adjusted for differences in family size, sex of family head, number of children, and farm-nonfarm residence; and different schedules are set for each group. The standard for each group is adjusted each year for changes in the overall consumer price index. Thus, the average threshold for a nonfarm family of four increased from $2,973 in 1959 to $4,275 in 1972.

Because the poverty threshold is, in real dollars, an absolute standard, it cannot be used to measure changes in the relative inequality of income. Indeed, as the average real income level of the population increases, the poverty standard lags farther behind the average. Thus the poverty threshold for a family of four declined from about 55 percent of median family income in 1959 to 38 percent in 1972.

Only cash income is used in determining low-income status, although a crude implicit adjustment is made for food grown at home by farm families. It has not been feasible to take account of the tremendous growth in the number and size of transfers in kind, such as public housing, food stamps, child care, and medical care. For example, in 1972, Federal and State government expenditures per poor person on the food subsidy and medicaid programs alone, valued at cost, were equal to about 50 percent of the money income of the average person in the low-income category.

It would be extremely difficult to determine the exact incidence or value of all the benefits. The programs for the low-income population are administered by different agencies and jurisdictions, they also have different aims and are distributed to somewhat different target populations. Moreover, the income in kind cannot be considered a perfect substitute, dollar for dollar, for cash income. For example, a public expenditure of $100 a month for public housing may be valued by the poor family at considerably less than $100. Nevertheless, it seems safe to conclude that some low-income families with in-kind benefits are receiving real incomes in excess of the low-income threshold and that the proportion exceeding the threshold has increased with the growth of the programs. On the other hand, some persons classified as above the low-income threshold, who receive no in-kind benefits and who have unusual expenses—for example, because of poor health—may have their real income position overstated.

THE DECREASE IN POVERTY

There has been a rapid decline in the number and proportion of persons in families with a cash income below the poverty line (Table 43). In 1972, 12 percent of all persons were classified as low income, compared to 22 percent in 1959. In all years the incidence of poverty is greater among blacks than among whites and much greater among female-headed families than among male-headed families. Since 1959 the decline in poverty has been particularly marked for both black and white male-headed families.

TABLE 43.—*Persons below the low-income level and percent below the low-income level by family status, selected years, 1959–72*

Family status	1959	1966	1969	1971	1972
Total persons below the low-income level (thousands)	39,490	28,510	24,147	25,559	24,460
Group below low-income level as percent of all persons in group:					
Total persons	22.4	14.7	12.1	12.5	11.9
65 years and over	(1)	28.5	(1)	21.6	18.6
Unrelated individuals	46.1	38.3	34.0	31.6	29.0
Persons in families with male head:					
White	14.7	8.0	6.0	6.2	5.6
Negro and other races	51.0	31.2	19.8	19.1	18.5
Persons in families with female head:					
White	40.2	29.7	29.1	30.4	27.4
Negro and other races	75.6	64.6	57.8	55.6	57.7

[1] Not available.

Note.—Persons below the low-income level are those falling below the poverty index adopted by the Federal Interagency Committee in 1969. See text for explanation of index.
Years are not exactly comparable because of changes in definition and methodology.

Source: Department of Commerce, Bureau of the Census.

The principal factor behind the decline in poverty is economic growth. The basic forces underlying economic growth have raised the productivity of even the least skilled worker and have enabled millions of workers to rise above the low-income threshold through higher wage rates for those in the labor force. In addition, economic growth has increased the labor force participation of wives by increasing their labor market wage relative to the cost of consumer durables and other substitutes for time in the home. Thus the decline in poverty has been most pronounced for the working poor. In

1959, 14.6 percent of family heads who worked at all, and 9.4 percent of those who worked full time, year round were classified as low income; by 1972, the percentages had dropped to 6.0 and 2.9 percent respectively. Those heads of families who do not work but are no longer in poverty have benefited from increases in social security and pension income, which were made possible by economic growth.

More and more the low-income population is composed of families headed by a person who does not work because of disability, age, responsibilities in the home, or perhaps simply inability to cope with work (Table 44). Unemployment, perhaps surprisingly, does not play a major role in withdrawal from the labor force. Of those low-income family heads who did not work in 1972, 4.8 percent cited inability to find work as the reason for not working. Thus, the vast majority of the poor who do not work seem to be in a situation where work is not a feasible alternative. For some the inability to work is a permanent condition, but for others it may be temporary.

TABLE 44.—*Work experience of family heads below the low-income level by sex, 1959 and 1972*

Work experience of head	Total		Male head		Female head	
	1959	1972	1959	1972	1959	1972
Total families (thousands)	8,320	5,075	6,404	2,917	1,916	2,158
Total families (percent)	100.0	100.0	100.0	100.0	100.0	100.0
Worked [1]	67.5	53.5	74.9	64.9	42.9	38.1
50–52 weeks, full time	31.5	19.8	37.6	29.4	10.9	6.9
1–49 weeks, part time or full time	31.0	30.1	32.1	31.3	27.1	28.5
Worked part of year because unemployed	14.4	11.1	17.3	14.9	4.9	5.8
Did not work	30.5	45.9	22.5	34.0	57.1	61.9
Unable to find work	1.2	2.2	1.0	1.9	1.5	2.6
Keeping house	10.9	19.0	(2)	(2)	47.5	44.7
Ill, disabled, retired, and other	18.3	24.6	21.5	32.2	8.1	14.6
Head in Armed Forces	1.9	.6	2.5	1.0	(2)	(2)

[1] Includes those who worked part-time hours for 50–52 weeks, not shown separately.
[2] Not reported.

Note.—Persons below the low-income level are those falling below the poverty index adopted by the Federal Interagency Committee in 1969. See text for explanation of index.
Data for 1959 and 1972 are not exactly comparable because of changes in definition and methodology.
Detail may not add to totals because of rounding.

Source: Department of Commerce, Bureau of the Census.

THE CHARACTERISTICS OF THE POOR

As the population in poverty has come to include a smaller proportion of families with a working adult, the demographic characteristics of the poor have changed. Male-headed families have decreased as a proportion of all poor families—dropping from 77 percent in 1959 to 57 percent in 1972—because male family heads are more likely to work than female family heads. The proportion of low-income families headed by a female has increased sharply from 1959 to 1972, from 23 to 43 percent for all females and from

8 to 20 percent for black females. In part this trend results from an increase in the proportion of all families headed by a woman, from 10 percent in 1959 to 12 percent in 1972. However, while the incidence of poverty among female-headed families declined in this period, it did not decline nearly as fast as for families headed by a male.

The Male-Headed Family

Among male-headed families, the presence of children has a direct influence on poverty status, since for a given income the more children there are, the higher the poverty-income threshold. Children also indirectly affect the family's income, because it is more difficult for a wife to work outside the home when young children are present. In 1972, 31 percent of low-income families with a male head had three or more children, compared to 17 percent for families above the poverty line. The presence of a working wife can bring an otherwise poor family above the poverty line. Only 22 percent of the wives in low-income families headed by a male worked in 1972, compared to 48 percent of wives in families above the poverty line.

The number of children and the work experience of wives are also important variables affecting the ability of the poor to move up from poverty. One longitudinal survey which followed the poverty status of a cohort for 5 years, starting in 1967, found that about 20 percent of nonaged families headed by a male experienced steady income increases and ended the period out of poverty. This group had significantly fewer children than those who remained poor during those 5 years, and a larger proportion of wives who increased their labor market work over the period. However, a period of 5 years is too short to determine whether this group is permanently upwardly mobile or simply experiences long-term fluctuations in its income position.

Low earnings, per se, are still an important reason for poverty among male-headed families. Educational levels are very low for this group. In 1972 only 29 percent were high school graduates or better, compared to 63 percent among other male family heads. As might be expected, the poor were also much more concentrated in low-income jobs, particularly farming: 20 percent of employed men heading low-income families were farmers or farm laborers, compared to 4 percent among those not poor. In the future, as the level of education rises and as productivity change continues to increase earnings, one would expect that the incidence of poverty (under a fixed standard) may come close to disappearing for this group.

The Aged Poor

The population 65 or more years old increased as a percentage of the poor from 1959 to 1970. Since then, however, the incidence of poverty has dropped sharply for this group, from 24.6 percent in 1970 to 18.6 percent in 1972, and the aged represent a declining proportion of the poor. This rapid change is primarily due to across-the-board increases in social security benefits of about 50 percent from 1970–72. Since 1972 there has been further expansion in social security benefits. The increase in a widow's benefits to 100 percent of her deceased husband's benefits should reduce the extent of poverty among widows.

Undoubtedly, however, cash income understates real consumption by the aged poor compared to that of the other poor. Many of the aged have income in the form of imputed rents from owner-occupied homes. Elderly people often consume out of past savings, and many widows receive life insurance benefits which are not included in income data. In addition, compared to others classified as poor, the aged poor derive a larger proportion of their measured income from sources which are not taxed, such as social security and some pension income. The aged also have fewer expenses related to employment. The aged benefit disproportionately from medicare and medicaid, which are not counted in money income statistics, although in this case obviously their need is often greater because of poorer health. Even excluding the benefits of medicare and medicaid, however, it would appear that on average a two-person aged family may have a higher level of consumption than a two-person family which has the same measured cash income but whose members are under age 65.

The Female-Headed Family

Perhaps the most important issue concerning poverty status in this country is the increasing identification of poverty with the female-headed family. Future progress in eliminating poverty will depend in large part on the extent to which poverty can be reduced for this group. If the proportion of families headed by women continues to increase, the problem may become still more difficult. Among families with a female head, 33 percent were classified as in poverty in 1972, compared to 6 percent for male-headed families. Among black female-headed families the proportion was 53 percent. The factors behind this very high incidence of poverty among families headed by women are complex.

As discussed earlier, the average married woman has not had the same labor market experience or vocationally oriented training as her husband. Since the incidence of marital breakup is greater among less educated couples, the woman who becomes a family head is more likely to have assumed during her marriage the traditional role of caring for children and the home, and she is less likely to have had work experience. Women who have children without having married tend to be young, with little work experience or formal education. Earnings for women in these circumstances tend to be much lower than for men of the same age and to be lower even than the earnings of other women, particularly those with considerable education. Moreover, the expenses of going to work are higher for a person with sole responsibility for child care. It is thus clear that if work is to be a sensible option in the single-parent family, earnings (after taxes) must be sufficiently high to cover the additional costs of child care and other home expenses.

Not surprisingly, poverty status among women is strongly related to presence of children and to work participation. As noted above, among women in general the presence of children, particularly young children, has a strong inhibiting effect on work participation. About 70 percent of female family heads under 65 years of age have children under age 18. As one would also expect, mothers who head families are more likely to work than mothers living with their husbands. In 1972, 30 percent of the former and 17 percent of the latter worked full time, the year round. However, mothers heading families are much less likely than men to work full time, the year round. Among males heading families, the proportion was 68 percent.

Of the small proportion of female family heads with children who did have full-time, year-round jobs in 1972, 9.5 percent were in poverty, a markedly lower incidence than the 42 percent for all female family heads with children. One cannot, however, infer from this statistic that poverty would fall to that level for all women with children if they did full-time, full-year work. It is likely that those women who work extensively are relatively more productive in the labor market because of higher educational attainment, greater work experience in the past, or greater ability.

The poverty status of female-headed families is often the result of a marital breakup, and this situation is temporary for many. One longitudinal study which followed the poverty status of a cohort over a 5-year period, starting in 1967, discovered that of those persons in nonaged female-headed families who were poor at the start of the period, 27 percent experienced consistent increases in income and had moved out of poverty by the end of the period. (The comparable percentage for male-headed families was 20 percent.) Remarriage of the female family head was the primary factor associated with this upward mobility.

About 32 percent of the persons in female-headed families who started as poor in 1967 remained poor throughout the 5 years. The demographic characteristics associated with this more permanently poor group were low education, a large number of children, and residence in low-wage, rural areas with low public assistance payments. For this group, the high costs of child care and poor prospects of high earnings suggest that training and increased work in the labor market by the female family head could not be relied on as a route out of poverty.

The remaining 41 percent of persons in female-headed families who started in poverty moved in and out of poverty during the 5-year period. A large part of this change in poverty status was associated with a change in household arrangements.

Because of the lower work participation of low-income female heads of families, the major source of income for this group is public assistance. In 1972, public assistance accounted on the average for 51 percent of the income of low-income, female-headed families. Many in-kind benefits are given automatically to families receiving public assistance, specifically those in the Aid to Families with Dependent Children program, which is largely a program for female-headed families. Moreover, because public assistance income is not taxed, the real consumption of female-headed families is probably understated, compared to that of husband-wife families whose income depends more heavily on earnings.

The increase in female-headed families may, per se, be an important variable in determining the size of the poverty population in future years. There is some evidence, discussed below, that our system of welfare payments, which has been an important way of increasing income for mothers heading families, may itself have promoted some of the increase in female-headed families through the structure of incentives. This is clearly an important issue in the future design of transfer payments to the poor.

GOVERNMENT TRANSFER PROGRAMS

All expenditures by government, directly or indirectly, have implications for the distribution of income. Analyses can be made of the direct income distribution effect of public transfers. It is far more difficult to identify the income distribution effects of other government expenditures.

Some of the transfer programs were initially viewed as public insurance mechanisms. Social security was intended as a public pension plan. Unemployment compensation and workmen's compensation are government mandated insurance. Veterans' compensation and benefits were adopted as a form of deferred payment for military service. Public assistance was and is explicitly intended as a mechanism for raising the income of those families that would otherwise fall below a socially desired level of consumption.

FEDERAL TRANSFERS IN 1973

The Government gives transfers to individuals and families in the form of cash or subsidization of the price of particular goods and services. Of the two, transfers in cash are easier to administer, and they also have the advantage that the recipients presumably know better than the Government does how to allocate the transfer income so as to maximize their own well-being. Some transfers are given in kind, however, on the presumption that the goods are of such importance that the recipients should consume at least a minimum quantity. Food, medical care, and housing are examples.

Table 45 presents a summary of the Federal Government transfer expenditures in fiscal 1973. The poverty status of recipients is based on money income, including cash transfers but excluding the value of transfers in kind.

TABLE 45.—*Federal Government transfer programs, fiscal year 1973*

Program	Total expenditure (millions of dollars)	Number of recipients (thousands)	Monthly benefits per recipient [1]	Percent of recipients in poverty [2]
Social Security:				
Old age and survivors insurance	42,170	25,205	$139	16
Disability insurance	5,162	3,272	132	24
Public assistance:				
Aid to families with dependent children	3,617	10,980	(3)	76
Blind	56	78	(3)	62
Disabled	766	1,164	(3)	73
Aged	1,051	1,917	(3)	60
Other cash programs:				
Veterans' compensation and benefits	1,401	7,203	74	(4)
Unemployment insurance benefits	4,404	5,409	68	(4)
In kind:				
Medicare	9,039	10,600	71	17
Medicaid	4,402	23,537	(3)	70
Food stamps	2,136	12,639	14	92
Public housing	1,408	3,319	(3)	(4)
Rent suppllements	106	373	24	(4)
Homeownership assistance (section 235)	282	1,647	14	(4)
Rental housing assistance (section 236)	170	513	28	(4)

1 The number of recipients is for individuals, not families.

2 Poverty is defined relative to the money income and the size of the recipient's family. Money income includes money transfer payments but excludes income received in kind. All percents are estimated.

3 Programs with Federal-State sharing of expenses.

4 Not available.

Source: Office of Management and Budget.

AID TO FAMILIES WITH DEPENDENT CHILDREN

Aid to Families with Dependent Children (AFDC) is now the primary cash assistance program run by the States with Federal assistance.

Eligibility

The original purpose of the program was to assist children in families where there was need for income because of the death, severe disability, or prolonged absence of the father. The financial aid was intended to enable mothers to stay at home and care for their children, rather than be compelled to work. If the mother did work, her welfare payments were generally reduced by one dollar for each dollar earned, a provision that eliminated the pecuniary incentive for her to go to work. Families with an able-bodied father present who earned little income were not eligible for any federally aided assistance.

The reasons why AFDC recipients lack the father's support have changed dramatically over time. In the 1930's, when the program began, about 75 percent of those receiving benefits from the program were children of fathers who had died or who were severely disabled. By 1971, only 14 percent of the fathers were in this category. The composition of AFDC families has thus shifted toward families with living fathers who are absent, either because of divorce or separation or because they are not married to the mother.

Attitudes have changed, and the AFDC rules have shifted toward encouraging mothers to work. Starting in 1956, appropriations were authorized to help mothers to become self-supporting through services such as child care for dependent children and rehabilitation assistance for the mother. The 1967 amendments to the Social Security Act provided a work incentive for families by reducing the implicit tax on earnings and granting assistance in preparing for work through appropriations for services such as training, counseling, and child care (the Work Incentive Program or WIN).

The AFDC program has also been liberalized to allow limited assistance to needy families with an able-bodied father present. Since 1961 States have had the option of providing aid to families with an unemployed father, and 22 States in fact do so.

Growth of the Program

During the 1950's the proportion of all families in the AFDC program was roughly stable (Table 46). Since then, however, the proportion of families receiving aid has grown dramatically, benefits per recipient have increased, and total expenditures in the program have increased even more sharply.

TABLE 46.—*AFDC benefits and families, selected years, 1950–72*

Year	AFDC benefits [1]		AFDC families	
	Total annual payments to recipients (millions of dollars)	Average December payment per recipient [2]	Total [3] (thousands)	Percent of all families [4]
1950	556	$21	651	1.7
1955	633	24	620	1.5
1960	1,055	27	803	1.8
1965	1,809	33	1,054	2.2
1967	2,280	40	1,297	2.6
1969	3,565	45	1,875	3.7
1971	6,203	52	2,918	5.6
1972	7,020	53	3,123	5.9

[1] Aid to families with dependent children (AFDC).
[2] Average of all States for December of each year.
[3] As of December of each year.
[4] AFDC families as of December, and total families as of March (except for April in 1955).

Source: Department of Health, Education, and Welfare (Social and Rehabilitation Service).

Several factors seem to have contributed to the rapid rise in the number of families receiving public assistance. One is the larger number of families with children and with a female as head, although this increase in turn may be partly a consequence of the large rise in benefits. From 1950 to 1960 such families increased by 829,000, while AFDC families increased by 152,000. When benefits increased dramatically from 1960 to 1972, however, female-headed families with children increased by 1.5 million, but AFDC families increased by 2.3 million. A larger proportion of female-headed families with children may have become eligible for AFDC, many eligible families may have learned for the first time that they could join, or a large number no longer hesitated to receive welfare. The publicity given to the problems of poverty during the 1960's may have informed the poor of their legal rights.

Undoubtedly, the AFDC program became more financially attractive during the period. The basic cash benefit level per recipient increased by 85 percent from 1960 to 1970; this may be compared to the increase in median earnings (full-time, year-round) in the same years amounting to 67 percent for men and 63 percent for women. In addition, AFDC families were made automatically eligible for many in-kind benefits which were introduced or expanded in this period. According to estimates, by 1971 virtually all AFDC families were eligible for medicaid, 68 percent actually participated in the food stamp or food distribution program, 59 percent benefited from the Federal school lunch program, and 13 percent from subsidized housing. In 1972 a family in New York City consisting of three children and a mother who did not work, which received all of the benefits listed above, would have received benefits which cost the government $5,912, of which $3,756 was cash income. Benefits vary widely, however, and in Atlanta the value of the same package of benefits for the same family would have been $3,606, of which $1,788 would be cash income. These amounts do not include the value of other benefits received, such as child care and manpower training.

The recipients may not, of course, value the various in-kind benefits at their actual cost. Benefits such as food stamps are similar to cash, and other benefits may subsidize basic goods and services. The value the recipients place on some programs, such as medicaid, would be more difficult to evaluate.

As the AFDC program with its related benefits became more generous, more people may have decided that the return was worth the difficulties and possible humiliation of applying. Much more study is needed before all the factors underlying the increase in the AFDC case load are understood.

AFDC and Family Formation and Stability

Another issue of social importance is how the increase in AFDC benefits affects the formation of female-headed families. One recent study of whether higher levels of stipends in AFDC did result in a higher rate of female headship used multivariate analysis to control for the effect of male wages and other relevant causal factors. The finding for 1960 was that across metropolitan areas, holding constant the male wage, a 10 percent higher AFDC stipend in an area was associated with a nearly 4 percent higher rate of female headship. Holding constant the AFDC stipend, an increase in the male wage was associated with a decline in female headships. The analysis was duplicated for 1970 with similar findings, although the relationships were somewhat weaker. By 1970, however, in-kind benefits would have formed a much larger unmeasured addition to the stipend; results for that year may consequently be less reliable.

From 1960 to 1970 women with children became more likely to head families. The proportion increased from 6 to 8 percent for white women and from 19 to 28 percent for black women. In this period widows declined as a proportion of all female heads of families with children, but unmarried mothers accounted for an increasing share. It is quite possible that rising AFDC payments provided one incentive for young women to forgo marriage and set up a household of their own with their children.

The majority of both black and white female heads of families with children are separated or divorced. During the period 1960 to 1970, disrupted marriages continued to play a part in the total increase in female headships. Some of this increase, however, was the result of a decline in the proportion of divorced and separated mothers who lived with other relatives and an increase in the proportion who set up their own households and would then be counted as family heads. Rising levels of AFDC benefits may have made it financially possible to do so. For this group the effect of AFDC was not to cause the separation of couples, but to induce the mother to live alone with her children.

Work Incentives

Important changes in the rules, intended to reduce welfare expenditures by providing a monetary incentive to work, were introduced during the 1960's. As noted earlier, AFDC recipients were initially subject to a dollar reduction in cash benefits for each dollar earned (an implicit marginal tax rate of 100 percent). In 1962 a modification of the tax on benefits was introduced, requiring the States to grant a deduction for work-related expenses. As a result of the 1967 amendments, AFDC recipients are allowed to retain the first $30 of their earnings without any loss in benefits, after which cash benefits are reduced by 67 cents for each additional dollar earned.

Mothers in the AFDC program show no major change in their work in the labor market since the actual start of WIN in 1969 (Table 47). Yet this was a period when the labor force participation of women with children was increasing. The recession in 1971 may have weakened employment prospects in that year. However, the large increase in the percentage unemployed in 1973 may well be the result of the work requirement provisions imposed in June 1972, as a result of the 1971 amendments, whereby all employable welfare recipients were, as a condition of payment, required to register for work or for training in the WIN program. It should be noted, though, that the full long-term results of the program changes introduced at that time are not yet reflected in the data.

One explanation of the puzzling lack of response to the work incentives introduced in 1969 is that the rapid growth of in-kind benefits, each of which is reduced in amount as earnings increase, served to increase the actual reduction in total benefits faced by a recipient who started working. As an AFDC recipient's earnings rise, she thus pays a price not only in loss

TABLE 47.—*Trends in the employment status of mothers in the AFDC program, selected years, 1961–73*

Status of mother	1961	1967	1969	1971	1973
Total mothers (thousands) [1]	743.2	1,109.0	1,463.0	2,345.7	2,795.3
Total mothers (percent)	100.0	100.0	100.0	100.0	100.0
Mothers not employed	84.3	85.5	85.3	85.1	83.8
Actively seeking work	(2)	6.5	5.9	5.7	11.5
Mothers employed	15.7	14.5	14.7	15.0	16.2
Full-time	5.6	7.0	8.3	9.0	9.9
Part-time	10.1	7.5	6.4	6.0	6.3

[1] Limited to mothers in the Aid to Families with Dependent Children (AFDC) program who were living at home.
[2] Not available.

Note.—Data refer to status in January of each year. Detail may not add to totals because of rounding.

Source: Department of Health, Education, and Welfare (Social and Rehabilitation Service).

of some of the AFDC grant but also in the loss of some food stamp, housing, and other benefits. According to this view, while the 1967 amendments alone would have given an incentive to work, their effects may well have been offset by the increasing benefits in kind, some of which would be lost for each increase in labor market earnings.

It is not clear, however, how important in practice this factor could be, since the reduction in cash benefits as earnings rise has become very small. Many States exempt large amounts of earnings before any reduction in benefits occurs, and this reduction is in addition to the $30 a month income disregard established by the 1967 amendments. In Mississippi, for example, the State income disregard is large, and it is unlikely that the reduction in cash benefits ever exceeds 10 percent of earnings net of work expenses (the average cash benefit tax rate). Moreover, a change in 1969 in the method of entering work-related expenses into the cash benefits reduction formula further lowered the effective tax rate. One study estimated that the average net tax rate paid by the average working AFDC mother in Illinois and New Jersey (two relatively high tax States) fell from 94 percent to 42 percent between 1967 and 1971. In general, it would appear that the average tax rate on earnings must have fallen since 1969, even after accounting for the growth of in-kind benefits and their effect on the overall implicit tax rate.

An important factor discouraging work may have been the increase in the benefit level itself (including in-kind benefits), which—since many persons eligible for AFDC have low potential earnings—made it possible for many to maintain a higher living standard than could be obtained through work. Moreover, the average AFDC mother incurs substantial work expenses including child care, payroll taxes, transportation, and additional outlays for clothing and food. These expenses are likely to make up a large proportion of earnings that are not high to begin with. Thus, the actual dollar increment of earnings that could be retained, even if the benefit tax rates were zero, could well be too low to make it profitable to work.

Equity and Welfare Reform

Many problems of equity have been raised with respect to the AFDC program. There are wide variations from State to State in the level of benefits. There are wide variations from family to family in the extent to which they receive in-kind benefits. And, perhaps most important, many poor families with a working parent earn less than the total benefits to a welfare family. In designing a reform of the public assistance program it will be important to pay attention to these inequities.

It will also be important to give women fewer incentives to have children without marrying or to separate if they are married. It may therefore be necessary to extend income supplements to the poor family with a working male head. In the long run, however, such a program would provide work disincentives for husbands and wives in intact families. This could be overcome by a moderate implicit reduction in benefits as earnings rise, but such a solution could be costly. Resolving the dilemma will be one of our most challenging problems.

SOCIAL SECURITY AND SUPPLEMENTAL SECURITY INCOME

Since the 1930's the Federal Government has provided funds for the aged, blind, and disabled and for the dependents of deceased workers. The current programs for these groups are known as Social Security and Supplemental Security Income.

Social Security

The transfer program with the largest disbursement of funds and number of recipients in 1973 was Old Age and Survivors Insurance (Table 45). OASI provided $42.2 billion in benefits to 25.2 million recipients. The recipients were either aged or the dependents of deceased workers. Approximately 16 percent of the recipients were classified as in poverty, on the basis of money income (including social security benefits). Over 3 million persons received disability benefits under social security, almost one-quarter of whom were in poverty.

Social security benefits have been rising rapidly in recent years. The minimum and maximum benefits for a worker retiring at age 65 under full benefits has increased from December 1970 to December 1973 by 54 percent and 66 percent respectively, to $84.50 and $266.10 per month. The consumer price index increased by 23 percent in the same period. In addition, across-the-board increases of 7 and 4 percent are scheduled for March and June 1974. Starting in 1975, social security benefits can be increased annually to reflect increases in the consumer price index.

One effect of the benefit increases is that the aged are now more likely to compose a separate family, rather than a subfamily within a larger family. Although increased social security benefits have reduced poverty in the past, most recipients at present are not in poverty. Across-the-board

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benefit increases greater than the increase in the cost of living cannot be expected to reduce poverty markedly in the future.

Accompanying the increase in social security benefits has been a rise in the social security payroll tax. From 1937 to 1950 the tax rate paid by both the employer and employee was 1 percent of the worker's earnings up to $3,000. In January 1974 the social security tax rate (for OASI, and disability and hospital insurance) was 5.85 percent of earnings up to $13,200. There is reason to believe that part of the employer's tax is shifted to employees. Viewed solely as a tax, the social security levy is regressive. As a percentage of all Federal Government receipts, social security taxes increased from 4 percent in 1949 to 24 percent in 1973. The social security tax is unique in that there tends to be far less public opposition to raising revenue from this source than from other sources.

Supplemental Security Income

As of January 1974, Federal grants-in-aid to States for public assistance to the aged, blind, and disabled were discontinued, and a new federally administered Supplemental Security Income program (SSI), financed out of general tax revenues, was instituted. The primary purpose of this new program is to provide a nationally established minimum income for these three specific categories of adults who in general cannot be expected to earn an adequate income. Most of the recipients of public assistance benefits under the old program for the aged, blind, and disabled were in poverty in 1973 (Table 45). The benefits under SSI for those with no other money income are $140 a month for a single person and $210 a month for a couple. These are to be increased to $146 and $219 respectively in July 1974. SSI recipients cannot purchase food stamps. With the federalization of assistance, benefits have increased for the aged, blind, and disabled poor in many States, and States can provide additional income supplements to SSI recipients.

FEDERAL FOOD SUBSIDY PROGRAMS

Ever since the Great Depression of the 1930's, the subsidization of food consumption has been a major Federal Government program to aid the poor.

Food Stamps

Food stamps are a Federal program, initiated in 1961, to supplement the income of the poor in participating counties. The growth of the program has been phenomenal. In June 1965, 425,000 persons received food stamps at a cost to the Federal Government of $33 million during fiscal 1965. By July 1973 there were 12.1 million recipients, and Federal costs in fiscal 1973 were $2.1 billion. In June 1973 food stamps were available in 48 States and the District of Columbia, and the program will be mandated for the entire Nation in July 1974. An eligible family can buy food coupons for a price that is lower than the redemption value at the grocery store. The difference between the redemption value and the price of the coupons to the family is the subsidy.

Families on public assistance are automatically eligible for the program. Almost 40 percent of recipients in July 1973 were not on public assistance, however, although 92 percent of food stamp recipients were in the poverty population.

The average monthly subsidy per person in recipient households was $15.30 in July 1973, or 55 percent of the redemption value of the average coupon. The maximum monthly subsidy for a family of four with no money income is $116, and the subsidy declines for each additional dollar of income. A family of four with monthly income in excess of $390 receives no subsidy. The income concept for eligibility is money income, including money transfers after deducting income and payroll taxes, child care expenses if needed because of work, rent payments exceeding 30 percent of money income, and other allowances.

Other Food Programs

There are two other Federal food programs. The family food distribution program provides free foodstuffs for low-income families. From a peak of 12.7 million recipients in fiscal 1939, the number has declined to 2.4 million in July 1973. Relatively few counties have both a food stamp and a food distribution program at the same time. The food stamp program has gradually replaced the family food distribution program, which will in general be terminated in July 1974.

The Federal school nutrition programs subsidize milk consumption as well as breakfast and lunch for children in participating schools, with larger subsidies for children from low-income families. In fiscal 1972, 25.4 million school children benefited from the school lunch program at a cost to the Federal Government of $726 million.

MEDICARE AND MEDICAID

Since 1965 the Federal Government has been more directly involved in the subsidization of medical care for the aged and the poor through two new programs, medicare and medicaid.

Medicare

Medicare is a Federal Government health insurance program covering hospital care, post-hospital extended care, physicians' services, home health services, and certain other benefits for all persons aged 65 years and older. Since January 1974 medicare has been extended to those under 65 who have been entitled to benefits from social security disability insurance for at least 2 years, as well as to all those covered by social security and their dependents who require treatment for chronic kidney disease. The benefits under medicare are broad but with defined limits, and there are deductibles and cost sharing (coinsurance) that the recipient must pay.

In fiscal 1973, 10.6 million persons received medical care paid for through the medicare program. The average benefit was $71 per month

(Table 45). Medicare is chiefly designed for the aged, many of whom are not poor. About 17 percent of the recipients of medicare benefits in fiscal 1973 were in poverty on the basis of current money income.

Medicaid

Medicaid is a Federal-State health assistance program for welfare recipients and the medically indigent. Medicaid is administered by the States on a cost-sharing basis with the Federal Government. The eligibility requirements and the benefits differ among the States.

The medically indigent are those who are not necessarily poor by the Bureau of the Census poverty standard but are judged by the States to have incomes sufficiently low or medical expenses sufficiently high to qualify for assistance. In fiscal 1973, 70 percent of the medicaid recipients were in the poverty population. Some of the 23.5 million persons receiving medicaid in fiscal 1973 were among the aged poor and were using medicaid to pay the premium, deductibles, and coinsurance required by medicare. Medicaid benefits are received by many persons, such as children on AFDC and their mothers, who are not chronically ill and hence have small annual medical expenses, but who are nevertheless in poverty.

The Growth of the Programs

Public expenditures for medicaid and medicare have been rising at an annual rate of 14 percent from 1970 to 1973. As knowledge of the programs has spread the number of recipients has increased. This source of increased expenditures is not likely to continue indefinitely. There has also been a large increase in the utilization of services per recipient, and in the prices charged per unit of service. Although part of the price increase may reflect quality improvements, some of it derives from pure increases in price.

Higher deductibles and coinsurance would reduce the growing cost of the programs due to the increase in services and prices per unit of service. At the same time, however, it would increase the out-of-pocket cost of medical care for the aged and the poor. A mechanism is needed that will provide adequate medical care for the aged and the poor and reduce the strong inflationary pressures built into medicaid and medicare, but that will do so without direct Government provision of medical care or extensive regulation of the medical care sector.

INCOME DISTRIBUTION EFFECTS OF MONEY TRANSFER PROGRAMS

The transfer programs discussed above, as well as other government transfers affect the incomes of families. Comparisons between these money transfer payments and the total money income of families show the income redistribution effects of the transfers. How participation in the labor market and family formation are affected by money transfers is an important issue, but too little is known at the present time to quantify what the distribution of family income would be if there were no transfers.

Money Transfers

As the data in Table 48 indicate, 38 percent of the families reported receiving some transfer payments in 1970. Social security and railroad retirement benefits were the most common form of transfer and were received by 24 percent of the families. Public assistance went to 7 percent of the families; both unemployment compensation and veterans' benefits were paid to approximately 5 percent of the families. Only 7 percent of money income was derived from transfers. The average transfer per family was $696, of which 56.6 percent was from social security, 13.1 percent from public assistance, and 30.2 percent from other sources.

TABLE 48.—*Proportion of families having transfer income from particular sources, 1970*

Income class[1]	Percent of families in each income class with transfer payments			
	Total	Social security and railroad retirement	Public assistance[2]	Other[3]
All families	38	24	7	15
Under $1,000	41	27	13	3
$1,000–$1,999	77	60	24	8
$2,000–$2,999	72	55	19	17
$3,000–$3,999	60	43	12	17
$4,000–$4,999	50	35	9	17
$5,000–$5,999	42	27	5	19
$6,000–$6,999	35	21	4	16
$7,000–$7,999	30	16	3	17
$8,000–$9,999	29	14	3	17
$10,000–$14,999	26	11	2	17
$15,000–$24,999	24	11	1	16
$25,000 and over	22	12	1	12

[1] Family income is family money income including transfer income in cash.
[2] Public assistance includes AFDC and assistance to the aged, blind, and disabled.
[3] Includes unemployment compensation, workmen's compensation, government employee pensions, veterans' benefits, and unidentified transfer payments.

Source: Department of Health, Education, and Welfare (Social Security Administration).

The higher the income, the smaller the proportion of families receiving a transfer. The percentage of income in each group derived from government transfers was also lower for higher levels of income. For example, those with incomes between $1,000 and $1,999 received an average of 68 percent of their income from transfers, but only 3 percent of the income in the $15,000 to $24,999 range was derived from transfers. Low-income families had approximately twice the dollar value of transfers that high-income families had. Except for the lowest two income groups, however, the mean income from government transfers for those who received transfer income was largely invariant with family income after transfers. High-income families receive a small proportion of their total income from government transfers, not because of a smaller dollar transfer per recipient, but because they have more income from other sources (earnings and property income) and fewer among them receive transfer income.

Public assistance is specifically designed to provide income supplements for those who would otherwise have little income. Since public assistance is heavily concentrated in the lowest income groups and the benefits per recipient are a very large fraction of the income of the poor, public assistance has a strong income redistribution effect. Social security and railroad retirement payments are largely received by aged families and younger families headed by a widow. Although these families tend to have low current income, the benefits are larger for those who had higher earnings in the past.

The target populations for the other forms of transfer payments, that is, the unemployed, those injured on the job, retired Government employees, and veterans, are not necessarily poor. Except for the lowest and highest income groups, approximately 17 percent of the families in each group received funds in 1970 from one or more of these four sources. Again except for the extremes of the distribution, there is virtually no change in dollar benefits per recipient for higher-income groups. The higher the other income of the family, the smaller the proportion of income derived from such benefits. These transfers have a mild income redistribution effect.

Within the category of other payments, unemployment compensation is more important for middle-income families ($4,000 to $15,000) than for the poorest and wealthiest of families. The members of the poorest families ordinarily have too little work experience to qualify for unemployment compensation. The income earners in the highest-income families have lower rates of unemployment.

Income Inequality Before and After the Transfers

Table 49 presents a measure of income inequality, the variance in the natural logarithm of income, for family money income and family money income minus particular transfers (see supplement to this chapter). This permits a determination of the extent to which the different types of transfers reduce income inequality. Such an approach implicitly assumes that the transfers do not give rise to labor market or family formation responses by

TABLE 49.—*The effect of money transfers on family income inequality, 1970*

Type of income	Income inequality [1]
All income	0.74
All, excluding "other" transfers [2]	.77
All, excluding social security	1.16
All, excluding public assistance [3]	.85
All, excluding social security and public assistance [3]	1.45
All, excluding all transfer income	1.57

[1] Income inequality is measured by the variance in the natural log of income. (See Supplement to this chapter).
[2] "Other" transfers include unemployment benefits, workmen's compensation, government employee pensions, and veterans benefits. The income classes used were: Under $2,000; $2,000–$2,999; $3,000–$3,999; $4,000–$4,999; $5,000–$5,999; $6,000–$6,999; $7,000–$7,999; $8,000–$9,999; $10,000–$14,999; $15,000–$24,999; and $25,000 and over.
[3] Public assistance includes AFDC and assistance to the aged, blind, and disabled.

Sources: Department of Health, Education, and Welfare (Social Security Administration) and Council of Economic Advisers.

the recipients. The data suggest that social security and public assistance dramatically decreased the measured relative inequality of family income. The combined effect of the other transfers is a small decrease in income inequality.

The Tax Transfer System

The success of the Government's programs for the redistribution of income cannot be judged from any one program or from an examination of taxes or transfers separately. Primarily because of public assistance, social security, medicaid, and food stamps, the transfer system is highly progressive in redistributing income to low-income families. It was shown above (Table 35) that the net effect of personal income and payroll taxes on cash and imputed income appears to be progressive. Several studies have examined the effect of the tax system on the distribution of income when accrued capital gains and losses are included in the income concept. These studies suggest that the tax system is roughly proportional over the income intervals in which most families belong, regressive for those with very low incomes, and progressive at the upper end. However, the combined direct effects of the tax and transfer systems clearly appear to be progressive.

SUPPLEMENT

The Variance of the Natural Logarithm of Income

The "variance of the natural logarithm of income" is the measure of overall income inequality used in the analysis of the distribution of income in this chapter. It can be written as:

$$S^2(\ln Y) = \frac{\sum_{i=1}^{N} (\ln Y_i - \overline{\ln Y})^2}{N} \tag{1}$$

where Y_i is the income of the *i th* observation (individual or family), ln designates natural logarithm, and there are N observations in the data. Larger values of S^2 mean greater inequality of income, and S^2 equals zero if there is no inequality. While a reduction of the measure from 0.7 to 0.6 conveys an acceptable suggestion about a decline in inequality, and a decline from 0.7 to 0.5 an acceptable suggestion about a greater decline, the statement that the second of these two declines is twice the first would not be meaningful.

The variance of the natural logarithm of income is a commonly used simple measure of relative inequality. A measure of relative inequality does not change in value if all of the observations have the same percentage change in income. If

$$Y^*_i = Y_i(1+k), \tag{2}$$

where k is the percentage change in income, the natural logarithm of both sides of equation (2) is

$$\ln Y^*_i = \ln Y_i + \ln(1+k). \tag{3}$$

Computing the mean of both sides of equation (3),

$$\overline{\ln Y^*} = \overline{\ln Y} + \ln(1+k). \tag{4}$$

Then, subtracting equation (4) from equation (3),

$$\ln Y^*_i - \overline{\ln Y^*} = (\ln Y_i + \ln(1+k)) - \overline{(\ln Y} + \ln(1+k)) = \ln Y_i - \overline{\ln Y,} \quad (5)$$

and

$$S^2(\ln Y^*) = S^2(\ln Y). \quad (6)$$

Thus, a proportional tax on income or a proportional cash subsidy does not change relative income inequality.

Relative inequality decreases (increases) if the income of each observation is increased (decreased) by the same dollar amount. A $100 per year grant to a poor family constitutes a larger percentage increase in income than an equal dollar grant to a wealthy family. Such a grant reduces the relative inequality of income.

A progressive tax is one in which the higher the level of income, the larger the proportion of income paid in taxes. In a regressive tax a smaller proportion of income is paid in taxes as income increases. A progressive tax reduces, and a regressive tax increases, relative income inequality ($S^2(\ln Y)$).