PAYING PEOPLE TO BE POOR

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EXECUTIVE SUMMARY

The U.S. welfare system is creating poverty, not destroying it. New statistical evidence shows that:

- At least 5.7 million people--about one-sixth of the poverty population--are living in poverty by choice as a result of the generosity of public welfare.
- Each additional $1 billion in welfare spending increases the poverty population by 250,000.

Since 1972, there has been a strong, positive relationship between the amount of welfare spending and the amount of poverty, after adjusting for other important factors, including the unemployment rate and the rate of economic growth. Put simply, we are experiencing more poverty because we have been increasing the amount we pay people to be poor.

One of the greatest tragedies of the welfare system is its effects on children. The statistical evidence shows that:

- The increasing attractiveness of welfare benefits throughout the 1970s has increased poverty among children by more than 20 percent.
- Almost 2.5 million more children are living in poverty today as a direct result of the expanded welfare state.

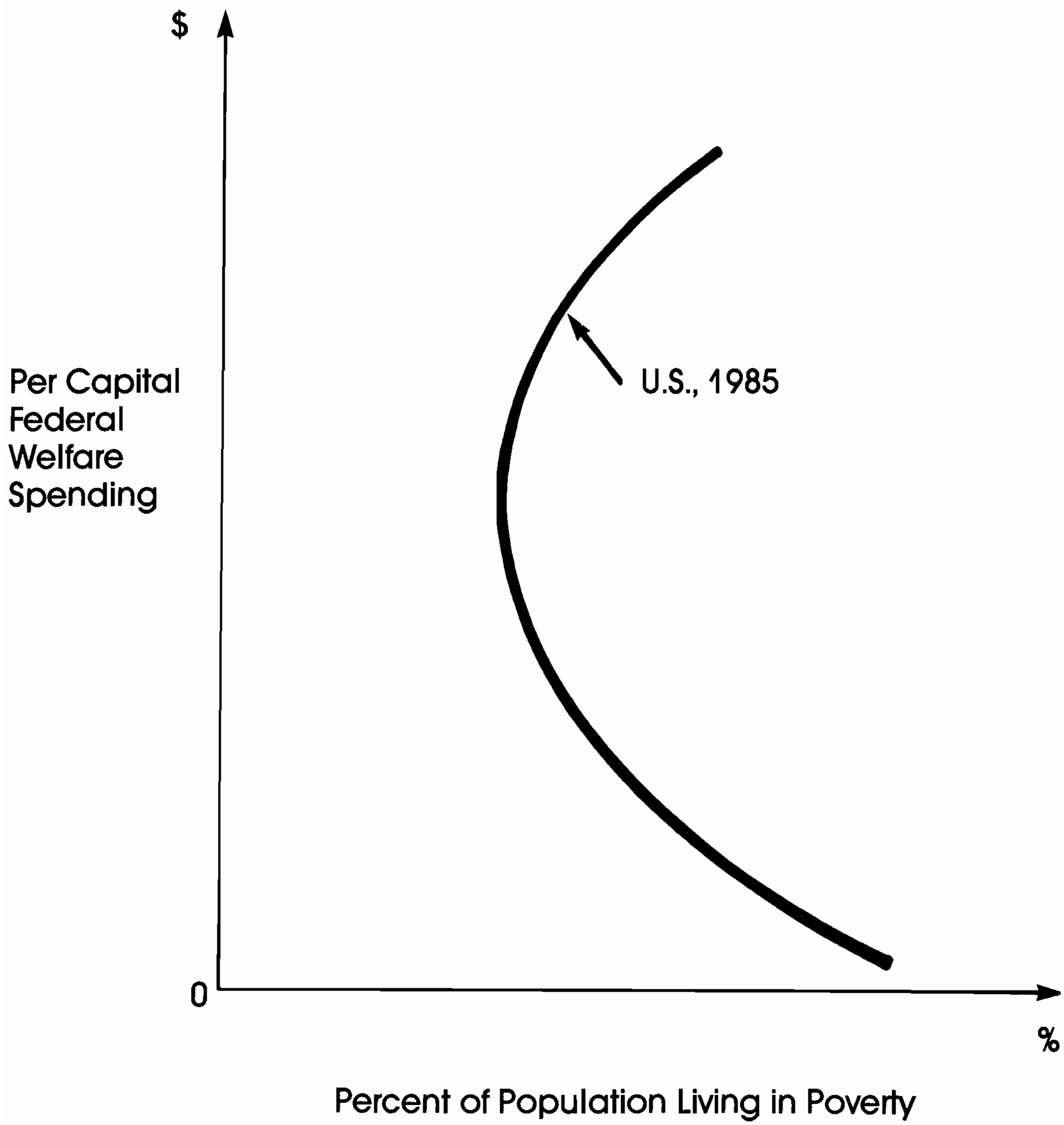
The states that have paid the most generous benefits to welfare mothers have experienced the greatest increases in child poverty. By contrast, states that have been the least generous have seen major reductions in child poverty.

- Between 1969 and 1979, the child poverty rate rose 27.9 percent in the 10 states with the highest welfare benefits.
- Over the same period of time, the child poverty rate fell by 17.4 percent in the 10 states with the lowest welfare benefits.

The welfare state is literally destroying the black family. Sixty percent of all black children now live in single-parent households.

Only by rolling back the welfare state and turning to private charity can we significantly reduce the amount of poverty, especially poverty among children.

THE WELFARE-POVERTY CURVE



PAYING PEOPLE TO BE POOR

It has been 20 years since the War on Poverty was started, enough time to evaluate its record. That some appraisal is needed is evident. The simplest of poverty statistics (the percentage of the population with a money income below the poverty level as measured by the federal government) shows that government programs aimed at reducing poverty have been singularly unsuccessful.[1]

Although the poverty rate in 1984 fell almost one percentage point,

- The poverty rate in 1984 (14.4 percent) was only slightly less than the poverty rate in 1966 (14.7 percent) when the War on Poverty was just getting started.

- Since 1973, when the poverty rate reached an all-time low of 11.1 percent, there has been a steady, almost unbroken upward trend in the percentage of the population living in poverty.

This has occurred despite a monumental increase in the amount of spending on welfare programs.[2]

- In 1966 federal welfare spending amounted to $56.57 (1980 prices) for every man, woman and child in the country.

- By 1983, that figure had grown to $197.54 (1980 prices)--almost three and one-half times the 1966 level of spending.

Two Views of Poverty

The paradox of increasing poverty rates accompanied by a rising tide of assistance to the poor has led to controversy. Two opposing explanations are being offered. On the one hand, Warren Brookes, George Gilder, and Charles Murray argue that the problem is a simple one: By subsidizing poverty through increased charity, we systematically are attracting people into poverty.[3] In short, the number of poor people is increasing because we have increased the amount of money we are spending on paying people to be poor.

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[1]In 1984, the poverty level income threshold for a family of four was $10,609.

[2]Federal welfare expenditures include public assistance, Supplemental Security Income, food stamps, refugee assistance, surplus food for the needy, and work experience training programs under the Comprehensive Employment and Training Act and the Economic Opportunity Act. Public assistance expenditures, which include Aid to Families with Dependent Children payments, make up the great majority of this spending.

[3]Warren T. Brookes, The Economy in Mind (New York: Universe Books, 1982), Chapter 7; George Gilder, Wealth and Poverty (New York: Basic Books, 1980); and Charles Murray, Losing Ground (New York: Basic Books, 1984).

The other explanation puts the blame on lagging economic growth and a rising unemployment rate. According to this view, we have had more poverty because economic opportunities available to low-income families have diminished.[4] For example:

- Since 1973 (when the unemployment rate was 4.9 percent) unemployment has averaged 7.5 percent.

- In addition, real per capita national income in 1984 was not much different from its 1973 level.

Which view is correct? Actually, there is a germ of truth in both explanations. Economic recessions and high unemployment rates do cause an increase in the poverty rate. However, so do high levels of welfare spending. This creates a difficult statistical problem: to separate the influence of general economic conditions from the influence of public charity.

We prepared a series of technical studies for the Joint Economic Committee of the U.S. Congress to analyze various determinants of poverty.[5] Our studies found that between 1952 and 1972, general economic conditions were a major determinant of the poverty rate.[6] However, after 1972, general economic conditions have become far less important and the level of public welfare spending has become more important in determining the extent of poverty.

Specifically, <u>after controlling for the impact of general economic conditions--unemployment and national income--we found that there has been a significant positive relationship between the poverty rate and the amount of public charity over the last decade.</u>

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[4]This has become the standard line of defense used by the "welfare lobby." It is fascinating to note how this same lobby, in the early years of the War on Poverty rejected the argument that economic growth, not welfare, was a more effective way to reduce poverty.

[5]Lowell Gallaway, Richard Vedder, and Therese Foster, "The 'New' Structural Poverty: A Quantitative Analysis," and Lowell Gallaway and Richard Vedder, "Suffer the Little Children: The True Casualties of the War on Poverty," in <u>The War on Poverty - Victory or Defeat?</u>, Hearing, Subcommittee on Monetary and Fiscal Policy, Joint Economic Committee of the Congress of the United States, 99th Congress, First Session, June 20, 1985 (Washington, D.C.: United States Government Printing Office, 1985).

[6]For other studies with similar findings, see Lowell Gallaway, "The Foundations of the War on Poverty," <u>American Economic Review</u>, March 1965; Henry Aaron, "The Foundations of the War on Poverty Reexamined," <u>American Economic Review</u>, December 1967; W.H. Locke Anderson, "Trickling Down: The Relationship Between Economic Growth and the Extent of Poverty Among American Families," <u>Quarterly Journal of Economics</u>, November 1964; and Oscar Ornati, <u>Poverty Amid Affluence: A Report on a Research Project</u> (New York: The New School for Social Research, The Twentieth Century Fund, 1966).

The Welfare-Poverty Curve

There are two ways public charity affects the poverty rate. On the one hand, welfare spending increases the income of the recipients and increases the likelihood they will be able to maintain an income above the poverty level. On the other hand, welfare spending discourages them from seeking productive work. By making poverty attractive, welfare spending encourages them to remain poor.

These two effects work in opposite directions. The first causes a decrease in the poverty rate. The second causes an increase in the poverty rate. Which effect is stronger depends on the level of welfare spending. If the level of welfare spending is low, then the incentives to be on welfare also are low, and welfare spending serves mainly to enhance the income of the recipients. However, as the level of welfare spending is increased, the incentives to be a welfare recipient also are increased. Eventually a threshold is reached, beyond which the economists' dictum "If you subsidize the production of something, you get more of it" begins to operate.

The Welfare-Poverty Curve, akin to the Laffer Curve on taxation, shows the relationship between the poverty rate and the level of welfare spending. Beginning at a low level of welfare spending, the poverty rate declines for an interval as aid is increased. Eventually, however, a threshold level is reached. Beyond that point there is a positive association between welfare spending and poverty: The more aid, the more poverty.

It is possible from statistical models to estimate the threshold beyond which increased welfare spending leads to a higher poverty rate. On average, the threshold level of public charity in the U.S. is about $150 per capita (1980 dollars), a level that was achieved in the early 1970s. Prior to that, the expansion of government poverty programs following President Johnson's committment to a War on Poverty led to a reduction in the poverty rate. Since the early 1970s, however, the net effect of federal public aid has been to increase the volume of poverty in America. Specifically,

- In every year since 1971, the per capita level of welfare spending has exceeded the threshold level of $150.

- Thus, for the last 14 years, federal public aid has resulted in more poverty than there would have been with less public aid.

For example, statistical models indicate:

- If the amount of public aid in 1984 had been the same as it was in 1971 (in real terms), the 1984 poverty rate would have been 2.4 percentage points lower.

- This means that in 1984, 5.7 million people were on the poverty rolls, simply because they were attracted to poverty by the generosity of public charity. This is about one-sixth of the total poverty population.

The statistical models also show that any further increase in spending on federal poverty programs will increase the poverty rate.

- Every additional $4,000 (1980 prices) of federal aid expenditures has the effect of putting one more person on the poverty rolls.

- Every additional $1 billion (1980 prices) of federal aid increases the poverty population by 250,000 people.

Poverty By Choice

These findings are consistent with other studies. Early on in the War on Poverty, compelling evidence emerged that indicated federal welfare payments were having a widespread effect on work incentives.[7]

Partly in response to these findings, the federal government designed and funded a number of Negative Income Tax (or Income Maintenance) experiments in the hopes they would dispel, once and for all, the notion that welfare created disincentives to work. The verdict on that question is now clear. Analysis of

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[7]For example, W.H. Locke Anderson, op.cit., identified three sub-groups of the population for which the "structuralist" hypothesis might be valid: (1) the aged, (2) females, and (3) those living in rural America. Not blacks, though! However, a disincentive, or labor supply adjustment, explanation for the aged is provided in Lowell Gallaway, "The Aged and the Extent of Poverty in the United States," Southern Economic Journal, October 1966. Also see Gallaway, "Negative Income Taxes and the Elimination of Poverty," National Tax Journal, September 1966; Michael Taussig, "Negative Income Tax Rates and the Elimination of Poverty: Comment," and Gallaway's "Reply", National Tax Journal, September 1967. Other evidence appeared but often was ignored. For example, see Hirschel Kasper, "Welfare Payments and Work Incentive: Some Determinants of the Rates of General Assistance Payments," Journal of Human Resources, Winter 1968, in which a strong empirical relationship between general assistance case loads and benefit levels is reported, only to have it discounted in the author's conclusions. Another frequently overlooked piece is Carl T. Brehm and Thomas R. Saving, "The Demand for General Assistance Payments," American Economic Review, December 1964. More evidence along these lines, dealing with the responsiveness of the unemployment rate to the availability of unemployment compensation benefits, may be found in Gene Chapin, "Unemployment Insurance, Job Search and the Demand for Leisure." Western Economic Journal, March 1971. These findings were confirmed later in Martin Feldstein, "Unemployment Compensation: Adverse Incentives and Distributional Anomalies, National Tax Journal, June, 1974. See also the more recent study by Sheldon Danziger and Robert Platnik, Children in Poverty, Committee Print, Committee of Ways and Means, U.S. House of Representatives (Washington, D.C.: United States Government Printing Office, 1985), pp. 157-159.

the experiments confirms, quite strongly, that direct cash transfers to low-income persons tend to reduce the volume of their work effort.[8]

What this mass of evidence tells us is simple: Much of today's poverty is different from the poverty of 20 years ago. Today there is a new form of structural poverty that is relatively insensitive to variations in general levels of economic activity. Earlier notions of structural poverty emphasized the notion of people being trapped in poverty because of a lack of economic opportunity. Today's structural poverty is something else. To a much greater extent it is poverty by choice. By that we mean that people choose poverty levels of income over non-poverty levels because they feel the combination of income and leisure which accompanies poverty to be preferable to non-poverty.

Voluntary poverty has implications different than poverty of an involuntary nature. In the case of voluntary poverty, it would seem that individuals who choose to join the ranks of the poor must feel they are better off. This being the case, the mere fact that they are observed as being in poverty does not mean society should regard them as automatic candidates for further public assistance. It is worth noting that if all observed poverty were voluntary, the poverty rate would be totally meaningless as an indicator of social malaise.

Differences Among States

So far we have focused on average welfare spending for the United States as a whole. There is, however, considerable difference in the amount of welfare spending among the 50 states. In 1984, for example, average payments under Aid to Families with Dependent Children (AFDC) ranged from a low of $91.57 per family in Mississippi to a high of $570.64 in Alaska. Levels of spending under AFDC are set by the individual state governments, although the state programs receive funding from the federal government.

Because of these differences, a less generous state, such as Texas, may be on the negative slope of the Texas Welfare-Poverty Curve, while a high-spending state, such as New York, may be on the positive slope of the New York Welfare-Poverty Curve. Thus, an increase in AFDC payments in Texas may decrease its poverty rate, while an increase in AFDC payments in New York may increase its poverty rate.

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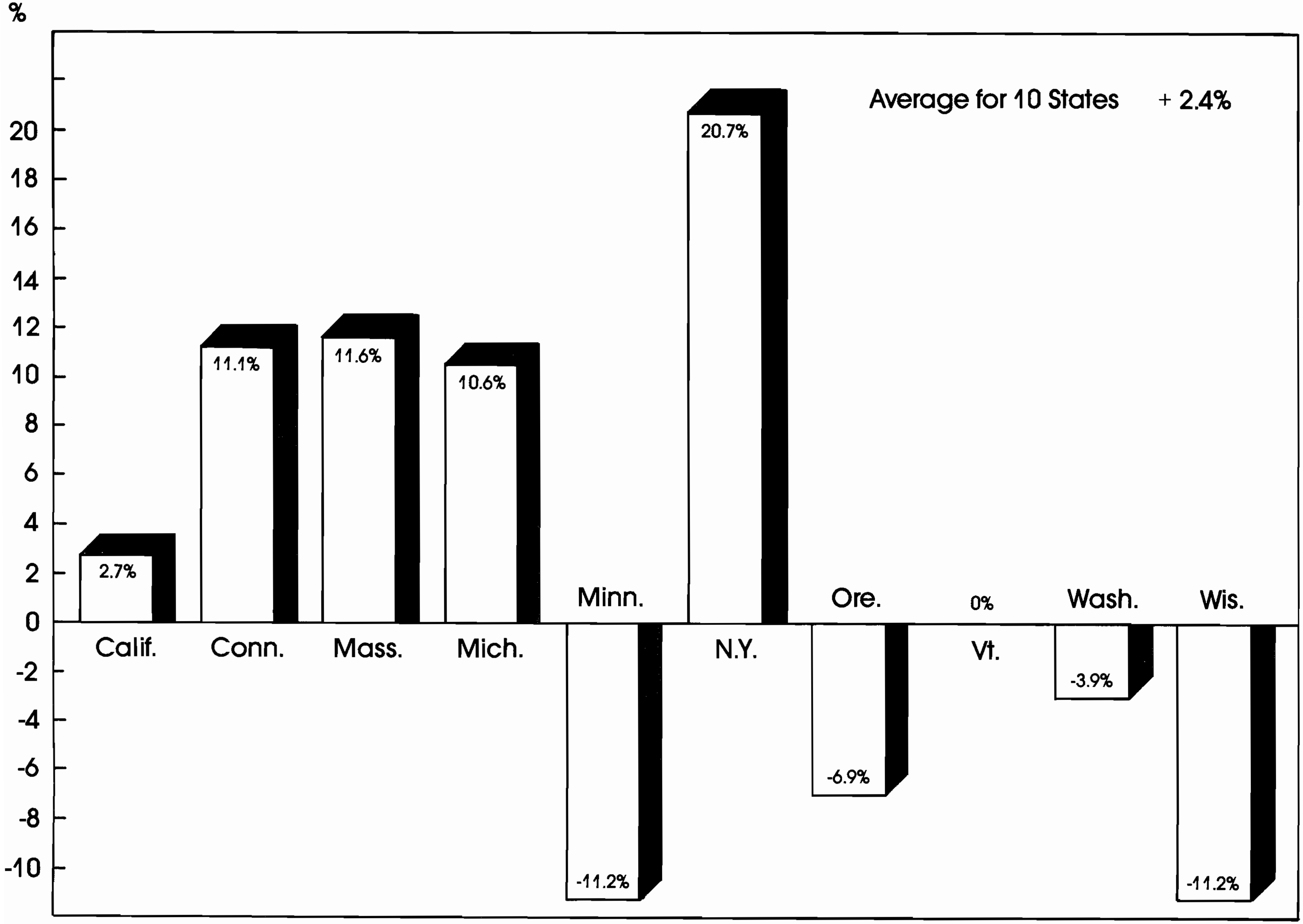
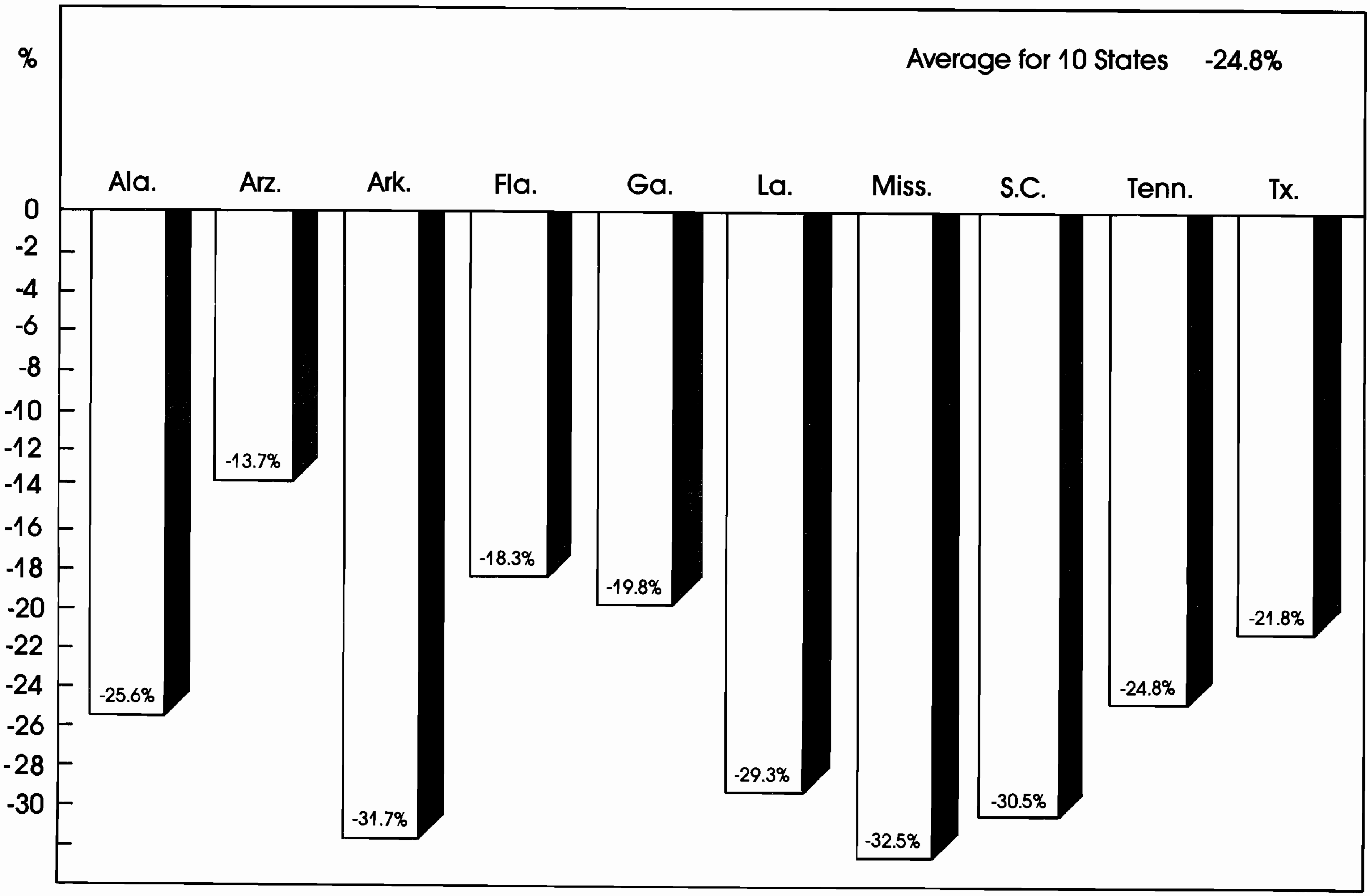
[8]For a discussion of the results of the income maintenance experiments, see Charles Murray, Losing Ground, op.cit., pp. 150-152. We would like to add that the results of these experiments have been received by the "poverty establishment" with almost studied indifference.

CHANGE IN THE POVERTY RATE, 1969-1979
(Ten Highest Welfare Spending States)



CHANGE IN THE POVERTY RATE, 1969-1979
(Ten Lowest Welfare Spending States)



This implies that high-benefit states might be less successful in reducing poverty than states with lower benefits. This suspicion is confirmed by looking at changes in individual state poverty rates over the decade of the 1970s.[9]

- Between 1969 and 1979, the poverty rate in the 10 highest AFDC benefit states rose by 2.4 percent on the average.

- Over the same period, the poverty rate in the 10 lowest AFDC benefit states fell by 24.8 percent on the average.

- Put another way, while the poverty rate was rising in the high-benefit states, the poverty rate was cut by one-fourth in the low-benefit states.

These statistics dramatically confirm that high levels of welfare benefits are not the magic road to eliminating poverty. All 10 of the low-benefit states show considerably more progress in eliminating poverty than the nation as a whole.

Children in Poverty

There is one very significant group of the new structurally poor that has not opted to live in poverty on a voluntary basis. These are children within family units, who, more often than not, are the rationale behind the welfare system that induces their parents to choose the poverty condition.

How serious is the problem? Very.

- The poverty rate for children fell from 26.9 percent in 1959 to a low of 13.8 percent in 1969. Since then it has been steadily rising.

- In 1984, the poverty rate among children stood at 21.1 percent, more than 50 percent greater than in 1969.

To what extent is this increase the result of the growing volume of welfare payments? A replication of the analysis that produces the overall Poverty-Welfare Curve reveals that a similar relationship exists for poverty among children under the age of 18. It differs from the general curve by having a lower threshold, and by the fact that the effects of public aid have a much greater adverse impact on children. According to the statistical models of child poverty,

- Had the level of public aid in 1984 (in real terms) been no higher than it was in 1969, the poverty rate among children today would be 3.9 percentage points lower.

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[9]Data reported by the U.S. Social Security Administration in the Annual Statistical Supplement to the Social Security Bulletin and in Public Assistance Statistics, monthly.

- Put simply, expanding levels of public aid have increased poverty among children by more than 20 percent.

- This amounts to almost 2.5 million children.

The link between high levels of welfare benefits and high poverty rates among children is apparent by looking again at the performance of the 10 highest and 10 lowest AFDC states. As in the case of the entire population, the high-benefit states show a marked deterioration in the poverty status of children over the decade of the 1970s, with the child poverty rate rising in every single one of these states. By contrast, the child poverty rate fell in every one of the low-benefit states.

- Between 1969 and 1979, the child poverty rate in the 10 highest AFDC benefit states rose by 27.9 percent, on the average.

- Over the same period of time, the child poverty rate in the 10 lowest AFDC benefit states fell by 17.4 percent, on the average.

The differences in child poverty in high and low-benefit states is illustrated dramatically by a comparison of New York and Texas.

- In 1969, the child poverty rate in Texas was 21.7 percent. In New York, it was 12.7 percent, a full nine percentage points lower.

- By 1979 New York's rate had soared to 19 percent while Texas' had fallen below New York to 18.7 percent.

To provide further insight into the relationship between child poverty and welfare benefits, we have developed some estimates of the costs and welfare benefits associated with the rearing of poor children during the latter part of the 1970s.[10]

An examination of these data indicates:

- Until a poverty child reaches age 12, the marginal welfare benefits associated with rearing a child exceed the marginal costs.

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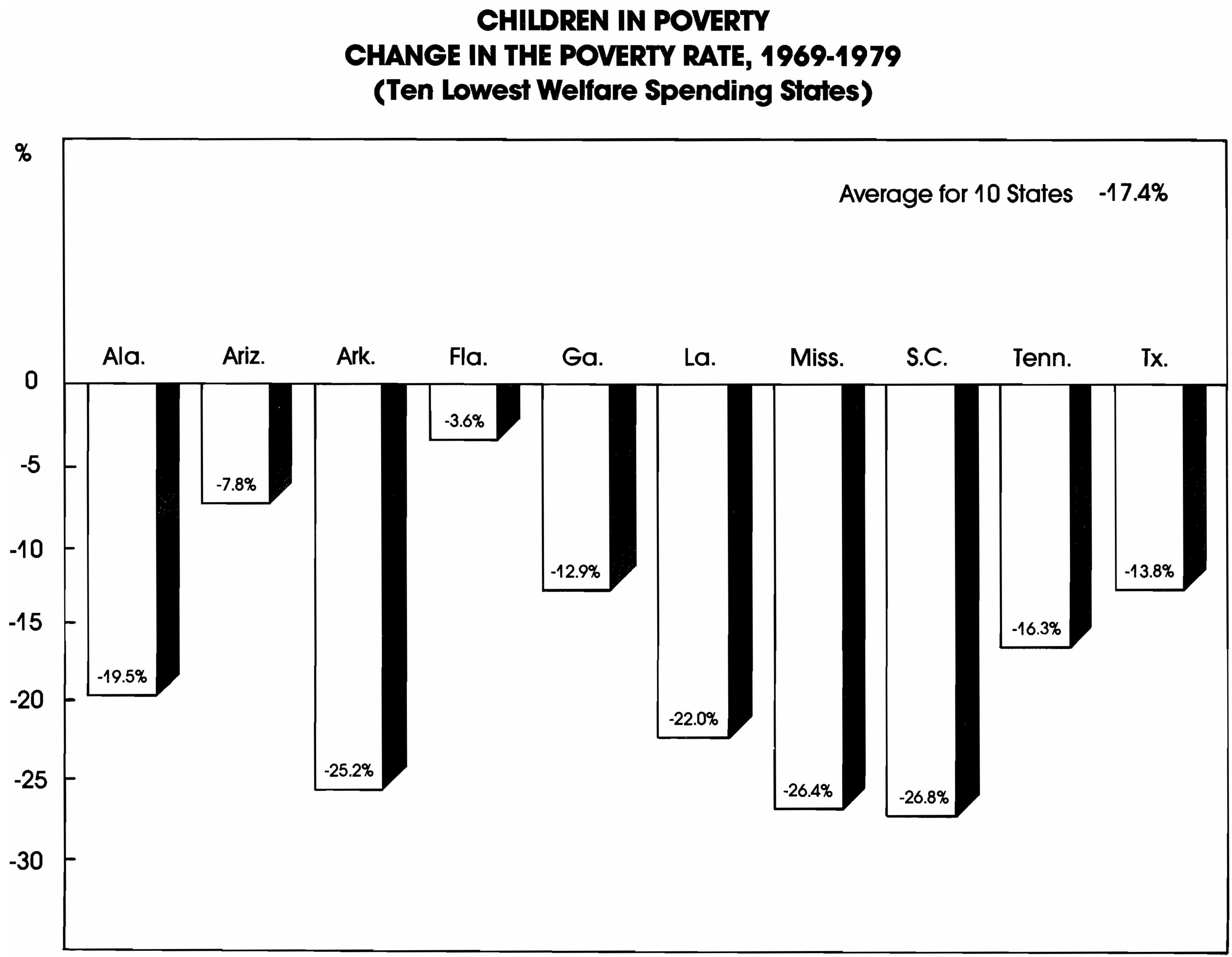
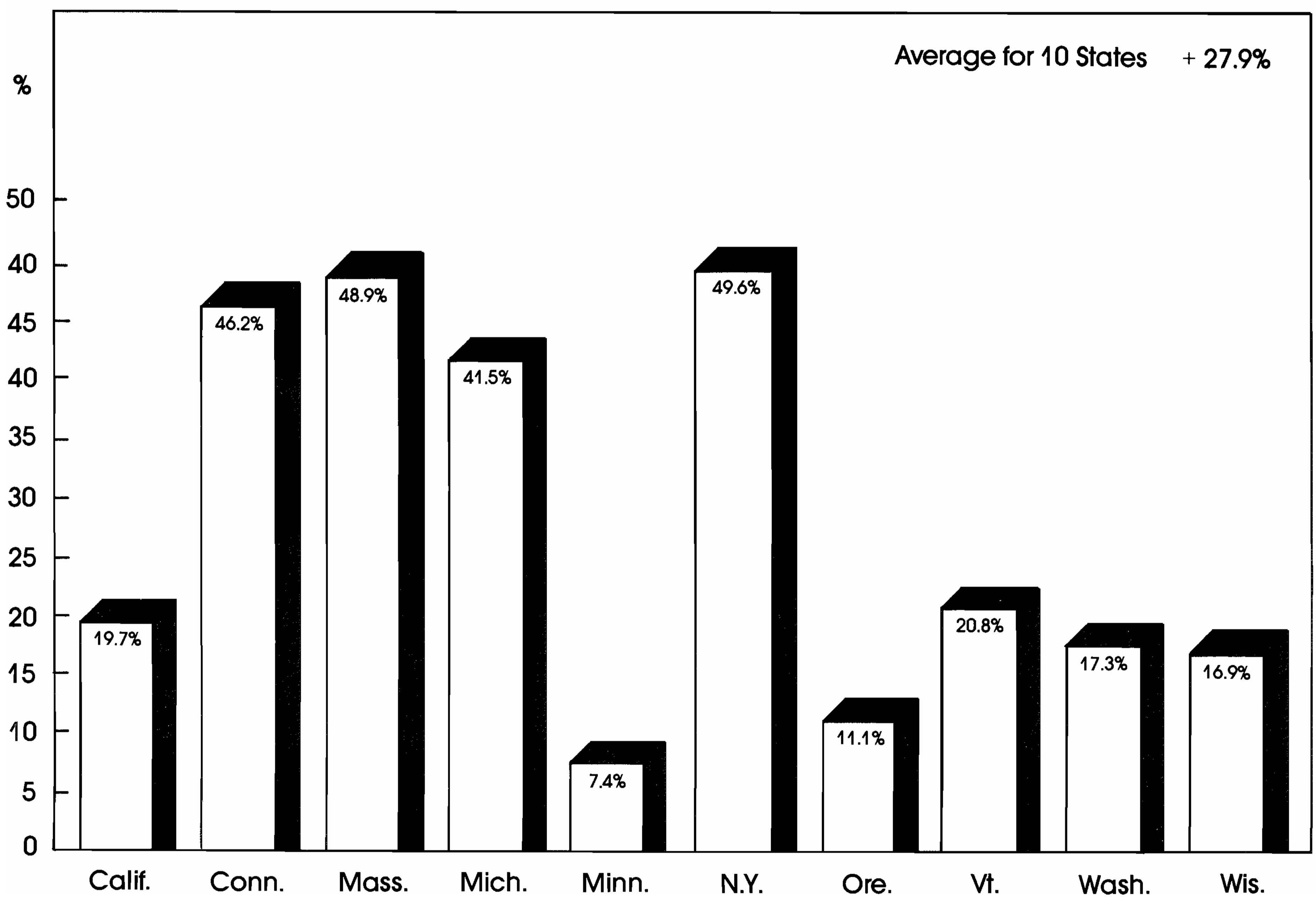
[10] On the cost side we used the U.S. Department of Agriculture estimates of child-rearing costs. We treat as marginal costs food, clothing, medical care, education, and certain miscellaneous expenditures. We use 90 percent of the "economy" budget cost levels estimated by the USDA, in 1983 dollars. The rationale for using 90 percent of the economy cost level is that the income brackets these estimates embrace are in excess of the poverty threshold level on the high side. We approximate the marginal welfare benefits of an additional child by the sum of the average cash and food stamp benefits available per poor child. For the years 1974-1979, the average yearly benefit level is $1,324 (1983 prices) according to data reported in the <u>Children in Poverty</u> study.


CHILDREN IN POVERTY
CHANGE IN THE POVERTY RATE, 1969-1979
(Ten Lowest Welfare Spending States)
%
Average for 10 States -17.4%
Ala.
Ariz.
Ark.
Fla.
Ga.
La.
Miss.
S.C.
Tenn.
Tx.
0
-5
-10
-15
-20
-25
-30
-19.5%
-7.8%
-25.2%
-3.6%
-12.9%
-22.0%
-26.4%
-26.8%
-16.3%
-13.8%

CHILDREN IN POVERTY
CHANGE IN THE POVERTY RATE, 1969-1979
(Ten Highest Welfare Spending States)



- For a child that stays in the household for 17 years, the present value of welfare benefits exceeds the cost of child-rearing by $3,000.[11]

Thus, the array of government programs oriented toward helping poor children, on average, has the effect of providing the mother with a lump sum grant of at least $3,000 for every child she rears in poverty. Having poor children can be a profitable activity, as many of the poor seem to accept. A recent Los Angeles Times poll found that, among the poor who were surveyed, almost three out of every four felt that "poor young women often have babies so they can collect welfare."[12]

Welfare and Family Stability

About the time academics began exploring the notion of structural poverty and the Johnson Administration inaugurated the War on Poverty, Daniel Patrick Moynihan issued his famous report detailing how black families are being undermined by public policy, especially by the welfare system.[13] In more recent years, George Gilder, Charles Murray, and other scholars have suggested that the eligibility rules for welfare recipients provide enormous economic incentives for households to be headed by single women. This is because the costs of marriage, in terms of lost welfare benefits, are greater than both the financial and nonfinancial benefits associated with the traditional two-parent nuclear family arrangement.[14]

Certainly the incidence of family instability has risen markedly since the 1960s.[15]

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[11]Assuming a three percent real discount rate, the exact figure is $2,969, in 1983 prices. For a variety of reasons, we feel this is a minimum value. Details are available in our "Suffer the Little Children"..., op.cit.

[12]The poll results are reported in I.A. Lewis and William Schneider, "Hard Times: The Public on Poverty," Public Opinion, June/July 1985, pp.2-7.

[13]See Daniel P. Moynihan, The Negro Family: The Case for National Action, (Washington, D.C.: U.S. Department of Labor, March 1965).

[14]See George Gilder, Wealth and Poverty (New York: Basic Books, 1980) and Murray, op.cit.

[15]See U.S. Bureau of the Census, Current Population Reports, series P-20, No. 389, or U.S. Bureau of the Census, Statistical Abstract of the United States, 1985 (Washington, D.C.: U.S. Government Printing Office, 1985), p. 46, for reference to the following statistics.

- In 1960, 20.6 percent of black children under the age of 18 lived with their mother only--more than three times the incidence observed for whites.

- By 1983, for the first time, the proportion of black children under age 18 living with only their mother exceeded 50 percent. The single-parent family is now the norm among blacks.

- The incidence of single-parent white families also has increased, rising from 6.2 to 15.0 percent between 1960 and 1983.

There are many different statistical measures of family instability. The one that has been tracked the longest and is perhaps the most straightforward is the divorce rate. Data are available on a regular basis from as far back as 1920, which allows an analysis with a long-term historical perspective. Table I shows the mean divorce rate was stable in the 1920s and 1930s, rose in the 1940s, remained stable for another generation, and then skyrocketed in the 1970s. The changes in the divorce rate seem to parallel changes in welfare expenditures, particularly in recent years.

Some researchers, however, believe the relationship between the rising divorce rate and increases in welfare payments is no more than a coincidence. Writing in the Wall Street Journal, Richard D. Coe and Greg J. Duncan assert, "There is no conclusive evidence of strong links between the generosity of existing welfare programs and the incidence of births, divorces, marriages or remarriages." David Ellwood and Mary Jo Bane conclude, "Welfare simply does not appear to be the underlying cause of the dramatic changes in family structure of the past two decades."[16]

Who is right? Moynihan, Gilder and Murray? Or Coe and Duncan, Ellwood and Bane? In our statistical models we were able to account for 96 percent of the considerable variation in the divorce rate over the last 40 years. From the beginning of the War on Poverty in 1965 to the end of the 1970s, the divorce rate more than doubled--rising from 2.5 to 5.1 divorces per 1,000 population. With respect to welfare spending, we conclude that:

- More than 50 percent of this increase in the divorce rate is explainable by the growth in welfare spending.

- This means that by the end of the 1970s the number of divorces had risen by about 300,000 per year because of increased welfare spending.

- Overall, an additional $1 billion in welfare spending leads to at least 5,000 additional families with a female head-of-household.

[16]Richard P. Coe and Greg J. Duncan, Wall Street Journal, May 15, 1985, p. 32.

TABLE I

U.S. DIVORCE RATE

Decade	Mean Divorce Rate*
1920s	1.56
1930s	1.65
1940s	2.78
1950s	2.36
1960s	2.66
1970s	4.57
1980s	5.10

*Per 1,000 population; mean is the average of the 10 years comprising the decade, except for the 1980s, when the mean is for the years 1980-1983.

Sources: U.S. Department of Commerce, Historical Statistics of the U.S., Colonial Times to 1970 and Statistical Abstract of the United States, various years.

Conclusion

Taken collectively, the statistical evidence we have reported presents a rather depressing picture, a scenario of an anti-poverty strategy that not only has failed but actually has produced more of what it was intended to eliminate. The result has been the creation of a new form of "structural" poverty--poverty by choice--which, as of 1984, accounted for a net addition to the poverty rolls of 5.7 million people. Worse yet, more than 40 percent of this group, almost 2.5 million young souls, are children under the age of 18. Not by choice, but by chance, the offspring of those who have chosen to enter the poverty ranks have been thrust, center stage, into the poverty arena.

Perhaps more than anything else, these children prove the ultimate failure of welfare as an anti-poverty strategy. Those who have marshalled society's resources to fight poverty in this fashion have condemned millions of children to a life of deprivation. These young people are a monument to the folly of social planning that ignores the behavioral responses of the individual members of society.

Unfortunately, there seems to be no end to such folly. In the 98th Congress, a bill entitled the Omnibus Anti-Poverty Act of 1984 was introduced. While it failed to pass then, it still is being bruited about the halls of Congress. Among other things, it would mandate minimum AFDC payments for the states, which would force 41 of them to raise their benefit levels by 1986. At the extreme, Mississippi would be forced to increase its AFDC benefits by a factor of more than four for a family of three. (Mississippi had one of the largest declines in poverty among children between 1969 and 1979!) If Congress deliberately set out to create a system that would ensure an increase in the rate of poverty among children, it could hardly do much better than this proposed legislation. In fact, the dimensions of the Omnibus Anti-Poverty Act approach sheer madness. It ignores the evidence and, unbelievably, prescribes a massive increase in the very poison that has led to more and more impoverishment among America's children.

We face a great dilemma at this point in our history. The intuitive, humane response to rising poverty is to want to "help" and to "do something" for the poor. The evidence at this juncture indicates that the conventional ways of helping--increasing public expenditures on anti-poverty programs--will have the opposite effect of what is intended. Rather than reducing the level of poverty, we will increase it. Hard-hearted as it may seem, cutting back public aid may be the only way to significantly lower poverty rates. The time has come for us, as a nation, to "bite the bullet" and face up to the realities of our time. We cannot eliminate poverty by the simple expedient of dumping money at the poor.

What is required is a structuring of the alternatives available to the potential poverty population so they will be encouraged to avoid poverty in the first place.

NOTE: Nothing herein should be construed as necessarily reflecting the views of the National Center for Policy Analysis, or as an attempt to aid or hinder the passage of any legislation before Congress or before any state legislature.

Technical Appendix

The method of analyzing the relationship between the poverty rate (P) and the level of public aid (A) hypothesizes a quadratic relationship between aid and poverty:

$$(1) \quad P = a + bA + cA^2$$

If the hypotheses we have advanced concerning public aid are valid, the value of the parameter b will be negative, c will be positive, and beyond some point, the quadratic term (A^2) will overwhelm the linear term (A) and additions to public aid will lead to a rise in the poverty rate.

The exact point (or threshold) at which public aid will become counterproductive from the standpoint of reducing the observed poverty rate can be determined by differentiating (1) and setting the result equal to zero:

$$(2) \quad dP/dA = -b + 2c\ A = 0$$

This implies that the threshold value occurs at b/2c. Any level of public aid greater than b/2c will lead to a higher poverty rate than at the threshold value for aid.

Employing a quadratic relationship between poverty and public aid means that the general relationship between poverty and the factors we hypothesize to affect it is:

$$(3) \quad P = f\ (Y, U, A, A^2)$$

A number of possible ways of specifying an estimating equation that embodies the relationships of expression (3) are possible, depending on the way in which the poverty, income, and unemployment variables are handled. Of special importance is the treatment of the unemployment variable. The evidence indicates that early in the period 1953-1983, the impact of unemployment on poverty was weaker than in the later years. A part of the problem is the upward drift in the unemployment rate associated with an increase in the "natural", or equilibrium, rate of unemployment in the American economy that is characteristic of the 1970s. Part of that rise in the natural rate of unemployment itself may be traced to the increasing volume of public aid. Such aid tends to modify people's labor market behavior in a way that is likely to produce increases in the observed unemployment rate. Thus, it may be hypothesized that the unemployment rate is a function of a certain set of factors and the level of public aid. Our preferred method of handling this problem is to invoke an unemployment model reported in a 1982 staff study for the Joint Economic Committee of the Congress of the United States and to hypothesize the following:

$$(4) \quad U = f\ (W, D, Pr, A)$$

where W denotes the level of money wage rates in the economy, D represents the Gross National Product (GNP) deflator, and Pr is the average product of labor. The advantage of this approach is that it permits the aid variable in a movement in the natural rate of unemployment that may be attributed to increases in public aid.

Employing standard U.S. Government data sources for these variables, a number of different versions of expression (3) have been estimated. Some contain the expanded unemployment notion embodied in (4) and others use the conventional measure of unemployment (in both linear and logarithmic form). In addition, several different forms of the income variable and both linear and logarithmic values for the dependent variable, the poverty rate, are employed. All told, some forty different versions of (3) have been estimated for purposes of this investigation. This was done in order to determine whether the statistical importance of the public aid variables is sensitive to the formulation of the statistical model. A compilation of the regression coefficients for the public aid variables follows.

PER CAPITA AID COEFFICIENTS AND THRESHOLD VALUES OF PER CAPITA AID*, 40 STATISTICAL MODELS OF POVERTY, UNITED STATES, 1953-1983

Model Form	Regression Coefficients		Nature of Income Variable **	Threshold Value of Public Aid
	Aid	Aid Squared		
LogPoverty-Ex-	-.0053256#	.00001821#	PCNYSQ	$146.23
panded Un-	-.0056175#	.00001665#	LRPCNY	169.71
employment-	-.0054970#	.00001757#	RPCNY	152.41
Autoregressive	-.0053556#	.00001470#	PCYREC	182.16
Adjustment	-.0055101#	.00001531#	PCNYSQ & RPCNY	163.86
LogPoverty-Log				
Unemployment-	-.0051557#	.00001441#	PCNYSQ	178.20
Autoregression	-.0047764@	.00001314#	LRPCNY	181.75
Adjustment	-.0051855#	.00001574#	RPCNY	164.72
	-.0054093#	.00001420#	PCYREC	190.47
	-.0057751#	.00001592#	PCNYSQ & RPCNY	181.38
LogPoverty-				
Unemployment	-.0057309#	.00001640#	PCNYSQ	174.72
Autoregression	-.0051387#	.00001475#	LRPCNY	174.19
Adjustment	-.0054337#	.00001565#	RPCNY	173.60
	-.0053903#	.00001501#	PCYREC	179.55
	-.0052453#	.00001514#	PCNYSQ & RPCNY	173.23

LogPoverty-Expanded Unemployment***	-.0052029#	.00001832#	PCNYSQ	142.00
	-.0051855#	.00001574#	LRPCNY	164.73
	-.0051912#	.00001719#	RPCNY	150.99
	-.0051562#	.00001419#	PCYREC	181.68
	-.0050897#	.00001553#	PCNYSQ & RPCNY	163.22
Poverty-Expanded Unemployment-Autoregessive Adjustment	-.0577287#	.0002622#	PCNYSQ	110.17
	-.0663234#	.0002418#	LRPCNY	137.14
	-.0595363#	.0002476#	RPCNY	122.24
	-.0808615#	.0002328#	PCYREC	173.67
	-.0560019	.0001445	PCNYSQ & RPCNY	193.78
Poverty-Log Unemployment-Autoregessive Adjustment	-.1029269#	.0002640#	PCNYSQ	194.94
	-.0957595#	.0002520#	LRPCNY	190.00
	-.0997982#	.0002586#	RPCNY	192.96
	-.0864614#	.0002314#	PCYREC	186.82
	-.0076700@	.0002022@	PCNYSQ & RPCNY	192.06
Poverty-Unemployment-Autoregressive Adjustment	-.1085783#	.0002949#	PCNYSQ	184.09
	-.0851431#	.0002418#	LRPCNY	174.52
	-.1002202#	.0002792#	RPCNY	179.48
	-.0702270	.0002102@	PCYREC	167.05
	-.0610323	.0001716	PCNYSQ & RPCNY	177.83
Poverty-Expanded Unemployment***	-.0577331#	.0002604#	PCNYSQ	110.85
	-.0595512#	.0002299#	LRPCNY	129.52
	-.0584523#	.0002479#	RPCNY	117.09
	-.0605617#	.0002087#	PCYREC	145.09
	-.0547999#	.0001881#	PCNYSQ & RPCNY	145.67

SOURCE: Authors' calculations.

* Real per capita federal public aid in 1980 prices.

** Real per capita national income in 1980 prices. The codes for the income variables are as follows: PCNYSQ=income squared; LRPCNY=log income; RPCNY=income; PCYREC=the reciprocal of income; and PCNYSQ and RPCNY make up a quadratic form of the income variable.

*** In the absence of an autoregressive adjustment, the Durbin-Watson statistics are important. The respective D-W s for the log poverty-expanded models are: 1.87, 1.55, 1.75, 1.36, and 1.57. For the poverty-expanded unemployment models, they are: 2.03, 1.79, 1.94, 1.58, and 1.53.

Significant at the five percent level or beyond. One-tailed test.
@ Significant at the ten percent level or beyond. One-tailed test.

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