November 15, 1994

ECONOMIC
COMMENTARY

Federal Reserve Bank of Cleveland

Understanding Differences in Regional Poverty Rates

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The U.S. poverty rate is among the most widely used indicators of the nation's economic success—and of how that success is shared. However, the national rate masks tremendous variation in the regional numbers. In 1992, for example, the official poverty rate ranged from a low of 8.3 percent in New England to a high of almost 16 percent in the East South Central states.

If we accept the poverty rate as a legitimate yardstick of national achievement, then policymakers have several reasons to be concerned about this disparity. First, interregional equity is a legitimate policy concern in and of itself, analogous to concerns about how income is distributed among individuals. In fact, interregional poverty differentials may be another dimension along which the well-being of the nation is judged—a premise that casts doubt on the desirability of having means-tested cash transfers (commonly termed "welfare") determined by the states. Second, even *if* equalization of poverty across regions is not a policy goal, understanding the marked and persistent differences in the regional statistics can shed light on the factors contributing to poverty. And finally, it is important to determine whether interregional disparities truly reflect meaningful differences in well-being.

Poverty is the product of a multitude of factors, including market conditions, demographic characteristics, and fiscal policy. Its accurate measurement is complicated by interregional differences in the cost of living and the quality of life, among other factors.

A common feature of all these determinants is their great variation across regions. The burdens of recession are generally distributed unevenly over the country, as illustrated by the disparate experiences of the West and Midwest during the last downturn. Demographic types that are overrepresented among the poor, such as female-headed households, are more prominent in some areas than in others. State fiscal policies, which are presumably uncoordinated, are an obvious source of interregional poverty variation. Federal fiscal policy also plays a role through both intended and unintended interregional transfers. Finally, the official poverty level is not adjusted for regional cost-of-living differences, which may contribute to large and persistent disparities in *measured* rates. Recent legislative interest has made it particularly important to understand how such adjustments might change perceptions of the poverty picture, since the flow of federal dollars to the states would be affected by changes in the measured distribution of poverty.

The official U.S. poverty rate, often cited as a measure of our nation's economic strength, hides a huge variation across regions. Here, the authors examine the reasons for this disparity, focusing on differences in demographic, economic, policy, and cost-of-living factors across the nine U.S. census divisions. Results show that although all of these elements have some influence on the poverty gap, economic factors are key.

In this *Economic Commentary*, we employ a simple method (see box) to attribute poverty differences across the nine standard census regions to demographic, economic, policy, and cost-of-living factors.[1] Our results show that economic factors are the primary source of the disparity, with weak economies accounting for a large share of the above-average poverty rates seen across the United States. Surprisingly, government fiscal policy, although poverty-reducing on an absolute basis in every region, is less effective in areas with weak economies. Our findings also show that demographic patterns play an important role. Interestingly, a crude cost-of-living correction would result in a very different poverty picture, implying a major change in the flow of funds from the federal government to state coffers.

DECOMPOSING REGIONAL POVERTY DIFFERENCES

Our method for decomposing differences in regional poverty rates can best be illustrated by working through a comparison of the East North Central (ENC) region and the United States. First, families are sorted into three classifications: female-headed households with children, two-parent families with children, and other family units. Data from the March *Current Population Survey* are used to compute the fraction of each type of household in poverty in both the ENC states and the United States as a whole. To compare the difference in poverty rates attributable to demographic characteristics peculiar to the ENC, we compute the total poverty rate using U.S. family-specific rates, but apply the ENC proportions of the three types. Comparing this rate with the actual U.S. poverty rate reveals whether poverty in the ENC is above or below average due to the special demographic characteristics of the region. Dividing this difference by the U.S. poverty rate yields the entry of 3.25 percent for the ENC demographic factor in table 2. Policy effects are derived similarly.

TABLE 1 FAMILY POVERTY RATES AND RANKINGS, 1992

Region	Official Rate	After Taxes, Transfers, and Some In-Kind Benefits	Adjusted for Cost of Living
Northeast			
New England	8.30 (9)	7.73 (9)	9.16 (8)
Mid-Atlantic	10.80 (5)	10.29 (5)	11.70 (3)
Midwest			
East North Central	10.27 (7)	9.68 (7)	9.58(6)
West North Central	10.12 (8)	9.09 (8)	7.92 (9)
South			
South Atlantic	12.18 (3)	11.36 (3)	10.08 (5)
East South Central	15.81 (1)	14.87 (1)	12.56 (2)
West South Central	15.36 (2)	14.20 (2)	11.43 (4)
West			
Mountain	10.36 (6)	9.85 (6)	9.31 (7)
Pacific	11.50 (4)	11.02 (4)	12.85 (1)
United States	11.68	10.97	10.72

NOTE: Regional rankings are in parentheses.
SOURCE: Authors' calculations based on data from the March 1993 *Current Population Survey*.

Measuring Poverty

In the late 1950s, the federal government developed poverty thresholds based on cash income. At that time, data revealed that the average American family devoted about one-third of its budget to food. Thus, a subsistence food budget was multiplied by three to yield a subsistence income, or poverty line. The poverty line varies by family size, composition, and age of householder. Larger families are assigned higher poverty thresholds, while older families face lower ones. With minor modifications, these guidelines have been in use since 1961 and are updated yearly using the Commerce Department's Consumer Price Index for all items. The official family poverty rate is determined by computing the fraction of all families whose pre-tax cash income falls below their family-appropriate levels.[2]

Since the development of the original poverty statistic, there have been two important policy changes that might affect the measurement of poverty. First, the tax burden on low-income families has increased since the late 1950s, when it was about zero.[3] Thus, we calculate our poverty measure based on after-tax and cash transfer income. Second, "in-kind" transfer programs (primarily Medicare, Medicaid, food stamps, and housing subsidies) that did not exist in 1961 now account for a significant portion of the total value of transfers, particularly for low-income families.[4] Consequently, we count as income the value of some normally excluded in-kind benefits.[5]

This more complete measure does not change the basic picture of interregional poverty. Table 1 presents the official family poverty rate for the nine census regions in column 1 and our measure in column 2. Official rates range from a low of 8.3 percent of families in New England to more than 15 percent in the South Central divisions. As has historically been the case, the South has the highest poverty rates by far. The Northeast has the lowest overall rate, thanks to the influence of New England. Poverty rates in the West have been rising steadily and now surpass those of the Midwest. The difference between the rates in columns 1 and 2 is due entirely to tax and in-kind transfer policy. Note that all of the adjusted rates are lower, indicating that the effect of in-kind transfers dominates, but that the poverty ranking of the divisions remains unchanged. Unless otherwise stated, the term "poverty rate" will refer to this tax- and transfer-adjusted measure.

Decomposing Poverty Differences: An Overview

The first step toward understanding regional poverty differentials is to decompose them into their demographic, policy, and economic components. We compare regional poverty to the national rate for income reported in 1992, the latest year for which data are available.[6] One advantage of using 1992 data is that it was a fairly typical year—neither a peak nor trough of the business cycle (at least not nationally), and free from any major fiscal policy changes that would dramatically affect the level or distribution of poverty rates. Table 2 compares each division's family poverty rate to the national average and, implicitly, to each other, based on regional characteristics. (The divisions are listed from least to greatest poverty for convenience.) The first column is the percent deviation of the region's rate from the nation's. A negative number indicates that the regional rate lies below the national

TABLE 2 PERCENT DEVIATION OF POVERTY RATE FROM NATIONAL AVERAGE BY FACTORS, 1992[a]

Region	Total	Demographic Conditions	Government Policy	Economic Conditions[b]
New England	**–29.50**	–6.50	–9.76	–13.25
West North Central	**–17.14**	–4.47	–5.86	–6.81
East North Central	**–11.75**	3.25	–6.41	–8.59
Mountain	**–10.21**	–1.85	1.14	–9.50
Mid-Atlantic	**–6.20**	–1.69	0.22	–4.74
Pacific	**0.44**	0.51	1.45	–1.52
South Atlantic	**3.60**	0.24	1.24	2.12
West South Central	**29.44**	0.27	6.89	22.28
East South Central	**35.61**	4.55	3.72	27.34

a. National average = 10.97.
b. Residual after demographic factors and government taxes and transfers are taken into account.
SOURCE: Authors' calculations based on data from the March 1993 *Current Population Survey*.

average, while a positive number indicates the opposite. For example, New England has a family poverty rate of 7.7 percent, about 30 percent below the national average of 10.97.

These divisional deviations from the U.S. average can be attributed to several factors. The demographic factor conveys the role of the relative regional distributions of family types in poverty. For example, the West North Central division's poverty rate is 4.5 percent below the national average due to the region's more favorable demographic conditions (primarily an above-average concentration of two-parent families), accounting for about one-quarter of the total difference. The "government policy" factor measures the net impact of all federal, state, and local taxes and transfers on poverty. Government policy appears to do a better-than-average job of poverty relief in New England, for example, reducing its rate nearly 10 percent below the national level and accounting for a full one-third of the difference between the region's rate and the U.S. average. Finally, "economic conditions" captures both transitory (business-cycle-related) and long-run regional differences in economic status. The effects are not surprising: Relatively strong economies have below-average poverty, while less-than-average economic performance boosts the poverty rate in the two poorest southern divisions from 22 to nearly 30 percent above the national average.

To get an overview of the primary causes of regional poverty differences, it is convenient to group the nine census divisions into those with below-average, average, and above-average poverty. We designate the four regions with poverty rates less than 90 percent of the national average as the below-average group—New England and the West North Central, East North Central, and Mountain states. Demographic compositions favorable to lower poverty are fairly important in New England and the West North Central area. Unfavorable demographics are overcome by other factors in the East North Central division, and have little effect in the Mountain states.

What all four divisions do have in common is above-average economic performance. Perhaps surprisingly, the contribution of government policy to below-average poverty in New England and the North Central states is nearly as large as that of relative economic success. The salutary effects of government policy are particularly important in the East North Central division: If policy had its typical impact, poverty rates there would be little better than the national average.

The poverty status of the Mid-Atlantic, Pacific, and South Atlantic divisions follows the national average quite closely. While these areas appear to be similar to the nation in demographic, policy, and economic factors, we shall see that the Pacific region is actually much different from the national norm along several dimensions.

Finally, the West and East South Central poverty rates are 129 percent and 136 percent of the national rate, respectively. Demographics can account for only a modest portion of the disparity in the East South Central division, which has the highest concentration of single-parent families in the nation. Government policy also has somewhat below-average effectiveness at reducing poverty in both divisions. The most significant influence on the huge poverty gap between the South Central states and the rest of the country appears to be a less robust economy: More than 75 percent of the area's deviation from the national rate is accounted for by economic conditions.

A Closer Look at Government Policy

While we have seen that government policy plays an important role in areas of extreme poverty, its overall impact can mask crucial differences between state and federal policy. The detailed components of the "government policy" category from table 2 are presented in table 3. Both federal and state policies exert large and often offsetting influences on poverty rates.[7] However, because federal and state taxes do not have great differential impacts on poverty over regions, we do not describe their effects in detail.

States have primary responsibility for cash welfare payments, so state transfer policy is an obvious source of interregional poverty differences.[8] Consistent with the known facts about welfare,

TABLE 3 PERCENT DEVIATION OF POVERTY RATE FROM NATIONAL AVERAGE BY PUBLIC POLICY FACTORS, 1992[a]

Region	Total Government	Total Federal Government	Federal Transfers	Federal Taxes	Total State and Local Government	State and Local Transfers	State and Local Taxes
New England	**–9.76**	**0.90**	–1.05	1.95	**–10.66**	–11.11	0.45
West North Central	**–5.86**	**–9.45**	–8.59	–0.86	**3.59**	3.90	–0.31
East North Central	**–6.41**	**–6.59**	–6.75	0.17	**0.18**	–0.38	0.56
Mountain	**1.14**	**–5.64**	–5.10	–0.54	**6.78**	7.78	–1.00
Mid-Atlantic	**0.22**	**1.90**	1.34	0.56	**–1.68**	–2.14	0.46
Pacific	**1.45**	**10.80**	10.26	0.54	**–9.34**	–10.24	0.90
South Atlantic	**1.24**	**–2.01**	–1.41	–0.60	**3.25**	3.45	–0.20
West South Central	**6.89**	**2.37**	2.42	–0.04	**4.52**	5.52	–1.00
East South Central	**3.72**	**1.93**	2.44	–0.52	**1.79**	2.08	–0.29

a. National average = 10.97.

SOURCE: Authors' calculations based on data from the March 1993 *Current Population Survey.*

table 3 illustrates that the poorest states also have relatively less effective transfer programs. Part of this can be explained by the wider gap between pre-transfer income and the poverty line in these regions.[9] That is, poorer regions have relatively more individuals whose pre-transfer income is well below the poverty line, whereas relatively better-off regions have more people whose pre-transfer income is near the line. Hence, even if all nine divisions offered identical welfare benefits, the poverty-reducing effect of state transfer programs would be smaller in the South. This effect is reinforced by state policy, since southern welfare benefits are known to be well below the national norm. Evidence from table 3 also indicates major differences in state transfer policy, as can be seen from the wide variation in the effectiveness of state transfers for areas with similar poverty rates (for example, the Pacific and South Atlantic divisions).

Table 3 also shows that the effectiveness of *federal* transfer policy varies a great deal across census regions. Federal transfer payments to individuals are made for the most part without regard to residence. The question, then, is what accounts for this tremendous variation?

As before, there is the measurement issue based on the poverty "gap." However, it is also clear from comparing regions with similar poverty rates that a wide disparity exists in the effectiveness of federal transfers. There are several reasons for this. Although the primary federal welfare program—food stamps —helps to equalize the generosity of state welfare programs, thus reducing interregional inequality, the vast majority of federal transfers are not welfare but rather non-means-tested cash benefits (primarily Social Security) that remove many elderly from the nation's poverty rolls. Since Social Security benefits are based on lifetime work experience and average wages, higher benefits flow both to areas with solid labor market histories (as table 3 makes apparent for the two midwestern divisions, where poverty is reduced more than 5 percent below the national average by federal transfer policy) and to retirement havens, particularly in the South Atlantic and Mountain regions. The Earned Income Tax Credit has become a significant transfer program to the poor and near-poor, but because it targets workers, it does not have a neutral poverty-relieving effect across regions either.

The Pacific region is a case where large policy effects are masked at the aggregate level. Federal transfers have the weakest poverty-reducing effect there, but this is almost completely offset by state and local transfers. However, the outcome of these opposing forces is not a neutral government policy. The Pacific states have a well-below-average poverty rate for single-parent families (due to relatively more generous state transfer policies), but the plight of the elderly and others counting on federal dollars appears to be relatively worse.

Adjusting for Cost-of-Living Differences

Poverty guidelines have long been criticized for ignoring regional differences in the cost of living. If, for a given amount of income, a family can attain more or better food and clothing, a larger apartment, etc., in Iowa than California, then perhaps having a single poverty line for both states makes little sense. Based on recent cost-of-living estimates, the California poverty line would presumably have to be set as much as 20 percent higher to enable the state's lowest-income families to consume the same quantity and quality of items as does an officially poor family in Iowa.

Recently, policymakers have expressed interest in implementing state-specific poverty lines. Because federal aid for the Head Start program, community development block grants, home energy assistance, and remedial education for poor children is distributed to states according to their poverty rates, the potentially large changes to relative rates from a cost-of-living adjustment are of more than just academic interest.

To explore the poverty implications of regional price indexing, we use an index of state prices to adjust the official poverty line in each state.[10] The resulting rates are presented in the third column of table 1. Because the poverty line is lowered in states with below-average costs

TABLE 4 PERCENT DEVIATION OF POVERTY RATE FROM NATIONAL AVERAGE BY FACTORS, ADJUSTED FOR THE RELATIVE COST OF LIVING, 1992[a]

Region	Total	Demographic Conditions	Government Policy	Adjusted for Cost of Living	Economic Conditions[b]
West North Central	**–26.20**	–4.61	–5.99	–10.02	–5.57
New England	**–14.58**	–6.70	–9.99	20.26	–18.16
Mountain	**–13.23**	–1.91	1.17	–3.15	–9.33
East North Central	**–10.71**	3.35	–6.56	1.08	–8.58
South Atlantic	**–6.02**	0.25	1.27	–9.37	1.83
West South Central	**6.60**	0.27	7.05	–18.08	17.35
Mid-Atlantic	**9.10**	–1.74	0.23	16.59	–5.98
East South Central	**17.09**	4.69	3.80	–14.10	22.70
Pacific	**19.82**	0.52	1.49	19.38	–1.57

a. National average = 10.97.
b. Residual after demographic factors and government taxes and transfers are taken into account.
SOURCE: Authors' calculations based on data from the March 1993 *Current Population Survey*.

and raised in states with above-average costs, poverty rates decline in the Midwest and South and rise dramatically for the high-cost coastal areas. These changes are large enough to alter the poverty status of some divisions significantly. The Pacific region, which contains the high-cost states of California, Alaska, and Hawaii, zooms from a position of average poverty to the poorest of all divisions. By contrast, the low-cost West South Central division, formerly among the poorest areas, boasts a poverty rate little different from the national average after cost adjustment. The New England and East South Central divisions are so firmly ensconced at the poles of poverty that they remain near the extremes even after huge cost-of-living adjustments.

Table 4 recreates the calculations from table 2, but includes the cost of living as an additional factor. Because poorer areas tend to have lower costs and richer areas higher costs, overall interregional inequality is reduced. With the exception of the Mountain and West North Central states, areas with below-average costs also demonstrate below-average economic performance. Thus, extremely high poverty rates no longer appear to be a "southern problem," because although economic forces continue to drag down the South Central regions, cost-of-living adjustments substantially mitigate these forces.

This different picture of poverty should be interpreted cautiously, however. Living costs also reflect the presence of amenities that people value, such as warm weather and proximity to recreational resources. As is true for any other desirable goods, high demand bids up the price of access to these items. Although it is difficult to put a price tag on amenities, they make some contribution to individuals' well-being—including the low-income population—implying that it is probably inappropriate to adjust the poverty lines of any two regions by the *full*, conventional cost-of-living differential. The true interregional distribution of poverty may be intermediate between the extremes of columns two and three in table 1.

It is tempting to conclude that an appropriate state-by-state cost-of-living adjustment would result in a superior measure of poverty. However, this is not necessarily the case, since the cost of living *within* a state often varies by more than that between states. This is particularly true when comparing rural and urban areas. For example, rural family poverty in a high-cost state might be overstated, while urban poverty in an overall low-cost state might be understated. These biases could be as great or greater than those that arise from applying the same poverty line cutoff to the entire country. The point is not that these adjustments could not be made, but that crudely deflated poverty measures, such as those presented here and elsewhere, should be viewed as highly preliminary and are probably not an appropriate basis for policy.

Conclusion

Cost-of-living adjustments aside, disparities in economic conditions across states are the most important determinant of regional poverty variation in the United States. Some of these economic differences reflect transitory economic shocks whose effect on income might appropriately be smoothed by government policy. More persistent differences in economic performance—such as the long-standing gap between the South and other areas—are well-known puzzles. Whether these permanent differences should engender permanent redistributory schemes depends on one's beliefs about why these gaps exist and whether alternative policies would provide better incentives.

Another significant finding is that current government transfer policies tend to have below-average effectiveness in poorer regions, enhancing measured differences in regional poverty rates. Social Security, the most effective poverty-reduction program by far, obviously is not geared toward interregional income smoothing, but rather is linked to recipients' past labor market performance. It seems unlikely that much sentiment could be aroused among policymakers or the public for reducing the unequal regional impact of federal transfers on measured poverty through changes in

non-welfare programs. One alternative would be to federalize the welfare system, since the poverty-reducing effectiveness of state transfer policy varies greatly from region to region. This would not be a complete solution, however, because most of the differences seen in regional poverty rates are not attributable to state welfare programs.

Footnotes

1. The census divisions are as follows: **New England** (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut), **Mid-Atlantic** (New York, New Jersey, Pennsylvania), **East North Central** (Ohio, Indiana, Illinois, Michigan, Wisconsin), **West North Central** (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas), **South Atlantic** (Delaware, Maryland, Washington, D.C., Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida), **East South Central** (Kentucky, Tennessee, Alabama, Mississippi), **West South Central** (Arkansas, Louisiana, Oklahoma, Texas), **Mountain** (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada), and **Pacific** (Washington, Oregon, California, Alaska, Hawaii).

2. For example, in 1992, the poverty threshold for a two-parent nonelderly family with two children was $14,228.

3. After peaking in the mid-1980s, the tax effect on poverty has declined, however.

4. These programs deliver benefits in the form of vouchers for goods and services rather than cash.

5. We exclude Medicaid and Medicare, since the determination of their equivalent values in cash remains controversial.

6. This article was written before revised population weights for the March 1993 *Current Population Survey* became available.

7. Local transfers and taxes are included in the state categories.

8. Unemployment insurance and workers' compensation payments are also included in state transfers, but because they have a minimal impact on poverty rates, we do not discuss them separately.

9. This bias is somewhat mitigated, however, since areas of low poverty have relatively fewer people who can potentially be brought up to the poverty line, which reduces the effectiveness of transfers in areas with low pre-transfer poverty.

10. None of the available price data are ideal for such an adjustment. We use an index constructed by the American Federation of Teachers from data collected by the American Chamber of Commerce Researchers Association. Since costs are assumed to be those of a middle-manager's family, the index is somewhat inaccurate for poor families.

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