Trends in Child Poverty Using an Improved Measure of Poverty

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ABSTRACT

The official measure of poverty has been used to assess trends in children's poverty rates for many decades. But because of flaws in official poverty statistics, these basic trends have the potential to be misleading. We use an augmented Current Population Survey data set that calculates an improved measure of poverty to reexamine child poverty rates between 1967 and 2012. This measure, the Anchored Supplemental Poverty Measure, is based partially on the US Census Bureau and Bureau of Labor Statistics' new Supplemental Poverty Measure. We focus on 3 age groups of children, those aged 0 to 5, 6 to 11, and 12 to 17 years. Young children have the highest poverty rates, both historically and today. However, among all age groups, long-term poverty trends have been more favorable than official statistics would suggest. This is entirely due to the effect of counting resources from government policies and programs, which have reduced poverty rates substantially for children of all ages. However, despite this progress, considerable disparities in the risk of poverty continue to exist by education level and family structure.

KEYWORDS: children; poverty; social policy; Supplemental Poverty Measure; trends

ACADEMIC PEDIATRICS 2016;16:S60–S66

CHILD POVERTY REMAINS a persistent problem in many advanced democracies, not least among them the United States.* The official poverty rate for children under age 18 years in the United States in 2013 was 19.9%,[1] meaning almost 1 in 5 children was poor (or under 100% of the federal poverty limit). One way to gauge progress in the fight against child poverty is to compare children's poverty rates over time. The first year for which we have data on official poverty rates for children under the age of 18 is 1959, when the child poverty rate stood at 27.3%.[1] Set against that standard, we have made considerable progress in reducing child poverty over the past 50+ years. However, much of this progress was seen in the 1960s, when child poverty plummeted from 27.3% in 1959 to 14.0% in 1969.[1] Indeed, that 14.0% marks the lowest child poverty rate on record, at least according to the official measure. Since then, official rates have drifted upward for children, ebbing and flowing with wider trends in the economy.

However, the official poverty rate, while useful, is based on a flawed measure for assessing trends in poverty among children.[2–4] As outlined in Kathleen Short's[5] article in this issue, there are numerous problems with using the official poverty rate as the barometer of change in children's level of economic need.[5] First, the official poverty measure uses an outdated conception of need, one based on the cost of food and its place in family budgets in the 1950s and 1960s.[6] Second, it fails to account for the rapid growth in cohabitation and concomitant decline in marriage, treating cohabiting adults as independent units when it comes to sharing resources. Third, and in our view most important, it fails to count many of the very resources we direct toward families with children. These include tax benefits like the Earned Income Tax Credit and Child Tax Credit, which can provide low-income families with thousands of extra dollars every year, as well as near-cash benefits like those provided through the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program) or housing assistance programs. As both tax and in-kind benefits have taken on more importance in recent years as key components of government's response to the problem of poverty, the fact that our official poverty measure ignores these benefits has become increasingly problematic.

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*Most advanced industrialized countries use a relative poverty measure, but the United States uses an absolute one (and has for the past 50 years). The SPM thresholds are quasi-relative (adjusted over time for changes in spending on a basic bundle of goods) and thus represent a compromise between the 2 positions. Here we use a version of the SPM that uses an absolute threshold set in today's living standards. This measure is used to better illustrate the role of social policies in reducing poverty against a fixed living standard over time. Although most European countries use a purely relative measure, there is still considerable debate about the most appropriate way to define child poverty needs.

Here we present alternative estimates of child poverty using what we consider to be an improved measure of poverty. Our measure is modeled on the US Census Bureau and Bureau of Labor Statistics' (BLS) recently released Supplemental Poverty Measure (SPM), which is in itself the product of decades of research and commentary on the appropriate way to measure poverty.[3,7,8] Our alternative estimates show that, in contrast to what would be suggested by the official measure, we have made substantial progress in reducing child poverty over the past 50 years. Moreover, much of this progress has come as a result of resources from government policies and programs directed toward low-income families with children. Absent these policies and programs, child poverty would have risen. Nevertheless, a substantial share of US children remains poor, even under the improved measure. Moreover, sizable disparities continue to exist in child poverty rates by sociodemographic characteristics, which we illustrate by presenting long-term poverty trends by parental education and family structure.†

In the next section, we discuss the data and methods used to construct our alternative poverty estimates. We then present results by children's age (0 to 5, 6 to 11, and 12 to 17 years), highlighting the role of policies and programs in reducing estimated poverty rates as well as highlighting disparities by parental education and family structure. We then briefly conclude.

DATA AND METHODS

To assess long-term trends in children's poverty rates, we harnessed augmented data from the Census Bureau's Current Population Survey Annual Social and Economic Supplement (CPS ASEC). The CPS ASEC is a nationally representative household survey that currently contains information on income and other characteristics of over 200,000 individuals per year. It is the basis for official poverty statistics as well as the Census' and BLS's recently developed SPM measure.

All of the information required to produce the SPM exists only for 2009 forward, so we augment the data as follows in order to create an SPM-like measure that can capture trends in a historically consistent manner. We harnessed data from 1968 to 2013, which covers the years 1967 to 2012. Because we look at finer-grained age ranges here (eg, children aged 0 to 5 years), we present poverty rates using 3-year moving averages, which therefore cover the time period 1968 to 2011. Full details of our methodological procedures can be found in Fox et al.[4]

POVERTY THRESHOLDS

Like the BLS's SPM thresholds,[9] we construct 2012 poverty thresholds using 5 years of data from the Consumer Expenditure Survey, which is a nationally representative survey of consumer expenditures.[10] Poverty thresholds are based on all consumer units with exactly 2 children, and their expenditures on a core basket of goods defined as necessary to survive in contemporary society. This basket includes food, clothing, shelter, and utilities, plus a multiplier (1.2) to account for other necessities like toiletries and transportation.

Unlike Census and BLS procedures,[11] we use here what we refer to as an anchored SPM threshold. The Census/BLS SPM utilizes a quasi-relative threshold, which fluctuates over time with underlying expenditures on the core basket of goods outlined above.[12] Such thresholds are useful for assessing resources against temporal changes in the cost of living. The disadvantage of relative thresholds is that they make it more difficult to discern whether changes in poverty over time are the result of changes in income or resources or changes in underlying spending patterns. For this reason, we use a threshold that is fixed, or anchored, in contemporary living standards. Our thresholds are anchored in 2012 consumer expenditures and traced back in time using the CPI-U-RS (Consumer Price Index Research Series), the Census' preferred price index, for assessing changes in income and earnings.‡ Our research thus addresses the question of how incomes have changed in reference to what it takes in contemporary America to get by. All thresholds are adjusted for the size and composition of families using the so-called 3-parameter equivalence scale[13] used by the Census and BLS in constructing SPM poverty thresholds. This scale accounts for the differing needs of adults and children and the economies of scale of living in a larger household when considering how much a family needs to be classified as nonpoor.

POVERTY UNITS

Official poverty statistics rely on the family as the unit of analysis for aggregating resources and defining needs. The family is defined as anyone related by blood, marriage, or adoption. This definition, while more or less appropriate in the 1960s when it was implemented, neglects the profound changes in marriage and cohabitation that have occurred since then.[14–16] With many children now being raised by cohabiting parents or by a parent who is cohabiting with a new partner, counting cohabiters as residing in separate units may severely underestimate the resources available to children in contemporary society. We thus follow the Census and BLS in creating a poverty unit that expands

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† We do not document disparities by race, ethnicity, immigration, region, or urbanicity, though we know that important disparities exist by these factors in addition to family structure and education. Our historical SPM data are not adjusted for geographic differences in the cost of living, and we suspect this would be critical for understanding long-term trends in poverty rates and disparities by geography as well as by race/ethnicity and immigration. For these reasons, we focus here on disparities by education and family structure, 2 common markers of families' socioeconomic status.

‡ The anchored supplemental poverty rates are 17.0%, 17.8%, 18.2%, and 18.7% for 2009, 2010, 2011, and 2012, respectively, while our estimates using a quasi-relative poverty threshold are 17.4%, 18.5%, 18.9%, and 18.7% for the same years. It is worth noting that while the anchored SPM differs from the Census' SPM in the annual adjustment of the threshold (adjusted for inflation rather than relative to a bundle of goods) and nongeoadjustment of the threshold, the 2 measures are otherwise quite similar. These poverty rates are not estimated with 3-year moving averages.

the definition of the family to include cohabiting partners and their children. There are some other minor differences in the definition of the poverty unit, and details on how units are defined can be found in more detail in Fox et al.[4]

INCOME AND RESOURCES

Perhaps the biggest change in the definition of poverty underlying the SPM and our historical version of it is the definition of resources deemed available to meet underlying needs. In contrast to the official definition, which includes only pretax and cash income, the SPM defines resources as posttax cash income plus resources from in-kind or near-cash benefits and minus some nondiscretionary expenses like medical and work expenses, including child care expenses.

Elements of the SPM's definition of resources are not available in the CPS ASEC for various years. They therefore must be imputed. For instance, SNAP benefits were not available before the 1979 calendar year, so they must be imputed for years before that date. Details on these imputation procedures are available in Fox et al.[4] Taxes are estimated using Census values calculated using their tax calculator, or alternatively by using the National Bureau of Economic Research's TAXSIM when Census values are unavailable.[17] The SPM definition of resources, in addition to pretax income, includes the following in-kind benefits: 1) SNAP; 2) the National School Lunch Program (NSLP); 3) the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program; 4) the Low Income Heating and Energy Assistance Program (LIHEAP); and 5) the value of government housing assistance (both rental subsidies and public housing).§ Medical, child care, and work expenses were imputed in all years and are subtracted from the SPM definition of resources.

RESULTS

Figure 1 shows the long-term trends in poverty rates for children in 3 age groups: 0 to 5, 6 to 11, and 12 to 17 years. These 3 age groups correspond to early childhood, middle childhood, and adolescence. We show official poverty rates as well as our estimated anchored SPM poverty rates for each group.

Figure 1a shows the long-term trends for early childhood poverty. Trends using official statistics show the poverty rate for this age group rising by about two-thirds over the period, from 15.7% to 25.2%. If we were to accept these statistics, we would conclude that the economic situation of young children in the United States is much worse today than in the past. However, the long-term trend appears much different when using our anchored SPM poverty rates, with poverty declining from about 30.0% in 1968

to 20.9% in 2011—a reduction of approximately one-third. While poverty rates for this group remain disturbingly high, even using our improved measure, our measure nevertheless shows substantial progress in the fight against early childhood poverty since the 1960s, in contrast to what would be suggested by official statistics. Another interesting fact about Figure 1a is how little SPM poverty rates for young children rose in response to the Great Recession of 2007–2009 (in contrast to other major recessions in past years). In the most recent years, programs like SNAP and refundable tax credits were made more generous for families with children thanks to policy reforms like the American Recovery and Reinvestment Act, and these policies seem to have blunted what would have been substantial increases in child poverty in their absence.

Figure 1b shows similar trends for children in middle childhood (age 6 to 11 years). Whereas the official poverty rate for this group rises over the period from 15.2% to 22.1%, the anchored supplemental poverty rate falls from 27.6% to 18.0%. This is somewhat less of a decline in poverty than is seen for the 0- to 5-year age group, but is still noteworthy, especially compared to the substantial rise one would see using official statistics.

Figure 1c repeats the analyses for adolescents (age 12 to 17 years). The anchored supplemental poverty rate for this group falls from 24.3% to 16.0%, or about a 36% decline in poverty. Again, in contrast, the official rate for adolescents appears to rise over the same period, from 13.7% to 18.6%.

Thus, across all 3 age groups, if we only looked at official statistics, we would conclude that things are getting worse for America's children, when, in contrast, our improved measure of poverty suggests just the opposite.

ANTIPOVERTY POLICIES AND THEIR EFFECTS ON CHILD POVERTY RATES

Why have trends in children's poverty rates using the more comprehensive alternative measure been declining relative to trends using the official measure? Our results suggest that the progress has come as a result of resources from government policies and programs.

To illustrate this, we show anchored supplemental poverty rates before and after counting resources stemming from government policies in the Table. Because some stakeholders are interested in effects for very young children, we also break out in the Table the youngest age group into those 0 to 3 years old and 4 to 5 years old. In this exercise, we simply zero out resources from the government and then recalculate poverty rates. Although this ignores possible behavioral responses that might occur in the absence of government programs, research suggests these effects are small in the aggregate.[18]

The data in the Table are striking. For all age groups, estimated poverty rates would have increased substantially between 1968 and 2011 absent government programs. After including resources from government policies and programs, however, poverty rates fall substantially. For young children aged 0 to 5 years, the poverty rate would have

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§ Following previous research, we value in-kind benefits at their face value. While this may overvalue some benefits for some families due to inefficiencies related to preferences and ease of access, we follow current National Academy of Sciences guidelines for the inclusion of these resources at full value in our measure.

Figure 1. *(a) Official poverty rates versus anchored supplemental poverty rates for children aged 0 to 5 years, 1968–2011. (b) Official poverty rates versus anchored supplemental poverty rates for children aged 6 to 11 years, 1968–2011. (c) Official poverty rates versus anchored supplemental poverty rates for children aged 12 to 17 years, 1968–2011.*

Table. Anchored Supplemental Poverty Rates for Children Aged 0 to 5, 6 to 11, and 12 to 17 Years, 1968–2011 (Selected Years)

| Characteristic	1968	1978	1988	1998	2008	2011	2011–1968 % Point Change	2011–1968 Percentage Change
All children (0–17 y)								
SPM poverty	27.2%	23.3%	26.4%	20.5%	17.4%	18.2%	−9.0	−33.0
SPM poverty without all taxes and transfers	26.1%	25.8%	27.7%	25.5%	26.4%	29.5%	3.4	13.1
Three age groups								
Aged 0–5 y								
SPM poverty	30.0%	27.2%	30.2%	23.4%	20.0%	20.9%	−9.1	−30.4
SPM poverty without all taxes and transfers	27.0%	28.1%	30.5%	27.3%	28.6%	32.0%	5.0	18.5
Aged 6–11 y								
SPM poverty	27.6%	23.5%	26.2%	20.7%	16.6%	18.0%	−9.6	−34.7
SPM poverty without all taxes and transfers	26.4%	25.5%	27.7%	26.2%	26.4%	29.9%	3.6	13.5
Aged 12–17 y								
SPM poverty	24.3%	20.2%	22.2%	17.5%	15.6%	16.0%	−8.4	−34.4
SPM poverty without all taxes and transfers	25.0%	24.2%	24.6%	23.1%	24.3%	26.8%	1.7	7.0
Young age subgroups								
Aged 0–3 y								
SPM poverty	30.8%	27.5%	30.9%	23.6%	20.3%	21.6%	−9.2	−29.8
SPM poverty without all taxes and transfers	27.5%	28.3%	30.7%	27.1%	28.8%	32.2%	4.7	17.3
Aged 4–5 y								
SPM poverty	28.5%	26.5%	28.9%	23.1%	19.4%	19.5%	−9.0	−31.7
SPM poverty without all taxes and transfers	26.2%	27.9%	29.9%	27.7%	28.3%	31.7%	5.4	20.7

SPM indicates Supplemental Poverty Measure.

risen by 5.0 percentage points, or by 18.5%, over the period, absent counting resources from government and policies and programs. After including such resources, the poverty rate for this group instead falls by 9.1 percentage points, or by 30.4%. The trends and policy effects for the very youngest children (0 to 3 years) and those slightly older (4 to 5 years) are very similar.

We see a similar story for older children. For those aged 6 to 11 years, the poverty rate absent policies and programs

would have risen by 3.6 percentage points, or by 13.5%. However, with government policies and programs included, the poverty rate falls by 9.6 percentage points, or by 34.7%. Last, for adolescents aged 12 to 17 years, the poverty rate not including resources from government policies and programs would have risen by 1.7 percentage points, or by 7.0% in relative terms. In contrast, after including resources from these policies and programs, poverty falls by 8.4 percentage points, or by 34.4% in relative terms. Thus, for each
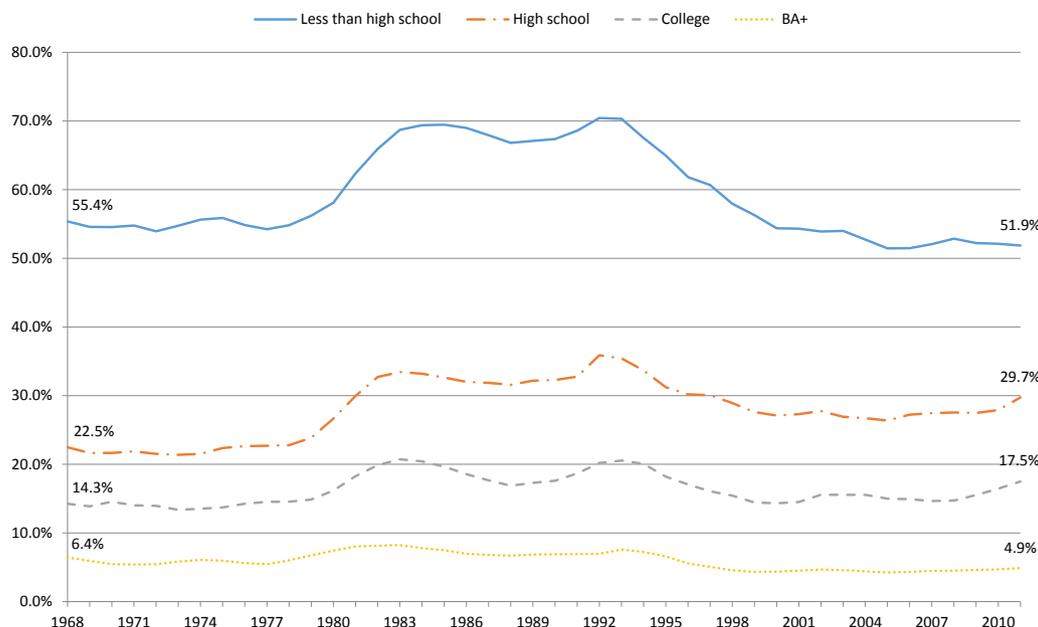
Figure 2. Anchored supplemental poverty rates for all children, broken down by parental education, 1968–2011.
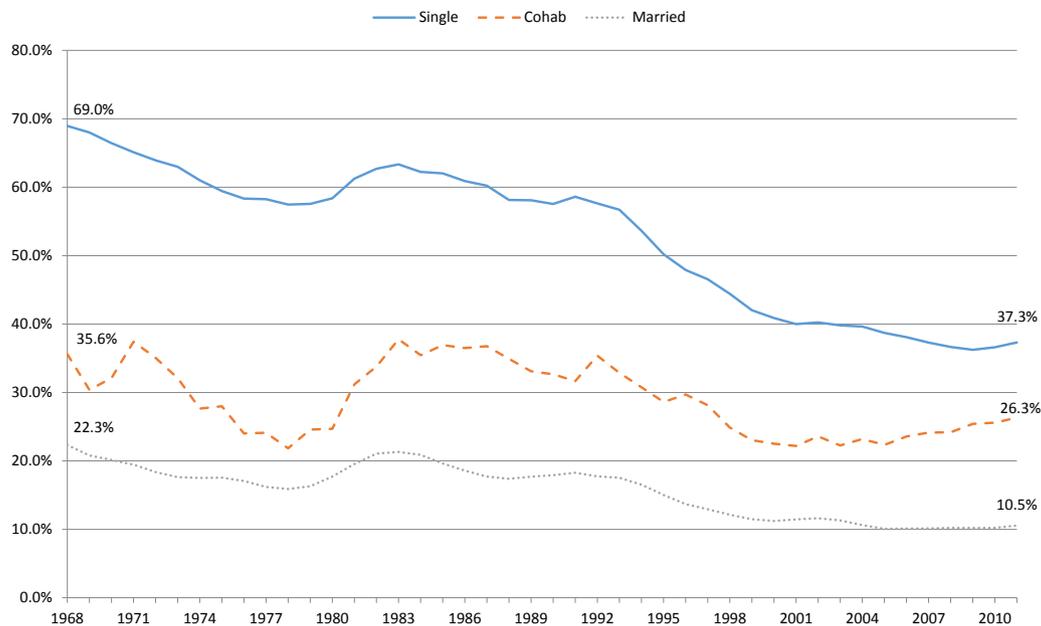
Figure 3. *Anchored supplemental poverty rates for all children, broken down by family structure, 1968–2011.*

of the 3 age groups considered here, it is resources from public policies that lead to the observed results of falling poverty rates over the past 5 decades.

DISPARITIES BY PARENTAL EDUCATION AND FAMILY STRUCTURE

So far we have seen that long-term poverty trends have been more favorable when measured using an improved measure of poverty rather than official statistics, which, as we have discussed, are based on some outdated assumptions and miss important government benefits. This is true for each of the 3 age groups of children considered here. In addition, reductions in poverty for these groups have come about mostly thanks to increased resources stemming from government policies. Absent these resources, child poverty rates would have actually risen.

In this last section, we document disparities in long-term trends by children's sociodemographic characteristics. Results indicate that despite overall progress in the fight against child poverty over the past 50 years, substantial disparities persist.

As shown in Figure 2, children in families where the highest educated adult has a high school diploma or less have substantially higher poverty rates than children in families where there is an adult with at least some college or higher. Poverty rates for the high school and some college groups have actually risen a bit over time, whereas poverty rates for the less than high school group and college degree or higher group have fallen. This may seem counterintuitive at first, given that child poverty rates overall have fallen quite substantially (Fig. 1). However, it is worth noting that education levels have generally increased over the period, meaning more children are residing in families with members who have more education, and those families have lower poverty rates than families with less education. For instance, the percentage of all children living with an adult who has at least some college

increased about 38 percentage points between 1968 and 2011. Increasing education, then, has acted as a buffer against rising or stagnant poverty rates.

Figure 3 shows anchored SPM poverty rates by family structure, here defined as whether someone in the family is married, cohabiting (if not married), or neither. The percentage of children in single, unmarried families has increased by about 14 percentage points between 1968 and 2011, the percentage in cohabiting families has increased by about 6 percentage points, and the percentage in married families has declined by about 20 percentage points. We see clear disparities in child poverty by family structure. Those in single, unmarried families always have the highest poverty rate, though this rate has dropped dramatically, from 69.0% to 37.3% between 1968 and 2011. Children in married families have the lowest poverty rate, and their poverty rate has also fallen substantially, from 22.3% to 10.5%. Children in cohabiting families occupy a middle ground, and their poverty rate has fallen less over time.

Together, Figures 2 and 3 highlight the fact that children from disadvantaged backgrounds, as measured here by education and family structure, continue to face substantially higher risk of experiencing poverty.

DISCUSSION AND CONCLUSION

Truly understanding child poverty in America requires an understanding of its measurement. Only with accurate measurement tools can we begin to understand what the trends in childhood poverty are, and thus how well we are doing as a society in reducing it. While not every researcher or expert agrees with every decision that went into creating the SPM, almost all agree that it is a far superior measure than the United States' official poverty measure. Critically, the official measure fails to count many of the vital resources directed at low-income families

with children. Once properly counted, we can see that more progress has been made than is conventionally understood in fighting child poverty, and that this has been almost entirely driven by government policies and programs. While this is worth celebrating, it is of course still true that child poverty rates remain distressingly high, and much work remains to be done.

Here we used an improved measure of poverty to document long-term trends in poverty rates among children at various developmental stages. This improved poverty measure is based on the Census' and BLS's recently developed SPM, with a key departure being that we use an anchored or absolute measure that better allows us to distinguish the role of government policies and programs in influencing long-term trends in child poverty.

Young children have the highest poverty rates, both historically and today. But among all age groups, long-term poverty trends have been more favorable than official statistics would suggest. This is entirely due to the effect of counting resources from government policies and programs, which have reduced poverty rates substantially for children of all ages. Despite this progress, poverty levels among young children remain substantially higher than in most other developed countries in the world, with important implications for the health and well-being of future generations.[19]

Considerable disparities in the risk of poverty continue to exist by education level and family structure. Improving parents' human capital and investing in resources that improve the financial capabilities of disadvantaged families therefore hold considerable promise for achieving further reductions in the material deprivation of our most disadvantaged families with children.

ACKNOWLEDGMENTS

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