Author: Doug Geverdt
Title: The Impact of Geographic Cost of Living Adjustments on School Lunch Eligibility

Extended Abstract:

Research questions

The National School Lunch Program (NSLP) and Title 1 of the No Child Left Behind Act distribute billions of dollars to school districts each year based on the number of poor school-age children living in the district. These estimates of poor school-age children are based on the federal government's official poverty threshold which is adjusted each year with a cost of living index (COL) to reflect changes in the cost of goods. However, although the officially poverty thresholds are adjusted for change over time, they are not adjusted for cost differences by geographic location. Therefore, in 2005 a three-person family with two related children under the age of 18 with a cash income of less than $15,735 was considered to be living in poverty, regardless of whether they lived in rural Kansas or downtown San Francisco. This analysis examined whether and how a geographic COL would impact the spatial distribution of school district poverty. More specifically, since school district poverty estimates play a significant role in federal education policy, the analysis specifically examined how spatially adjusted estimates would impact the school-age population eligible for Free, Reduced-price, and Paid lunches from the NSLP.

Methods

This analysis relied on two fundamental data sources. First, Census 2000 microdata records were used to identify the poverty status of school-age children enrolled in public school. Second, the U.S. Department of Housing and Urban Development's annual assessment of fair market rents was used to create a geographic cost of living index. These COL factors were based on county-level geography, except in the New England states where factors for sub-county areas were available. HUD location-specific fair market rents are based on the dollar amount below which 40% of the standard-quality rental housing units are rented. Rents are then indexed to the national average. Once the COL adjustments were applied to Census 2000 microdata, records for publicly enrolled school-age children were aggregated to school districts based on the reported district grade range, and unadjusted and adjusted estimates were produced for the population of Free-lunch eligible students (income to poverty ratio at or below 130%), Reduced-price eligible students (130% - 185%), and Paid lunch eligible students (above 185%). Standard errors were calculated for each of these estimates to determine differences resulting from the adjustment. Finally, these estimates were mapped to school district boundaries in a GIS to examine changes in the spatial distribution of district poverty resulting from the location-based adjustments.

Results

The geographic cost of living adjustments increased eligible populations in some districts by 25% or more. However, on average the adjustments increased the estimate of Free-lunch eligible students by only about 2%. Similarly, the geo-specific adjustments increased the average size of district Reduced-price eligible population by less than 1%. District maps showing the spatial distribution of adjusted and unadjusted poverty estimates offer a somewhat more interesting, though not unexpected picture. As a general trend, school districts that primarily served distant and remote rural areas experienced a decline in Free-lunch eligible students, while districts that primarily served large, densely-populated urban areas saw their population of Free-lunch eligible students increase. However, a closer look at individual metropolitan areas indicates that the simple urban/rural status doesn't fully explain district changes resulting from the COL adjustments.

Conclusions

This analysis suggests that spatially-sensitive cost adjustments may significantly affect some districts and specific geographic regions, but are likely to produce a small net national effect. Geographic cost of living adjustments involve a complex set of considerations, and no index will fully reflect all of the important nuances related to standard of living. Aside from the theoretical and methodological challenges, the results of this analysis suggest that the implementation of such adjustments could also produce substantial political challenges

as well. Most school districts in the U.S. primarily serve rural areas and small towns – places that would likely experience a decline in eligible program population as a consequence of geographic COL adjustments. Yet most students – and poor students – attend school in large city districts that would likely gain eligible population and associated program resources. Therefore, consideration of a geographic COL adjustment for federal education programs is sure to be controversial.