# Estimates of Children Ages 0, 1, 2, 3, 4, and 5 Living below 100\%, 150\%, and 200\% of the Poverty Level by County for 1/1/2000-1/1/2010 

## Methodology and Assumptions

1) Disaggregate official population projections of $0-4$ year and $5-9$ year olds into single years of age ( $0,1,2,3,4,5$ )

Beginning with the Demographic Estimating Conference official projection of the 0-4 population for 1/1/2000-1/1/2010 by county, updated $9 / 2004$, the age group was disaggregated based on the percentage distribution of county population enumerated in the 2000 Census. Data for $4 / 1 / 2000$ were obtained from U.S Bureau of the Census, SF1, Table QT-P2, Single Years of Age Under 30 Years.

The same methodology was used to obtain estimates of the age 5 population.
Using 2000 Census single year age distributions to disaggregate county totals assumes that the distributions observed in 2000 are applicable to current data.
2) Obtain the poverty rate for the 0-4 and 5 year old population by county

The poverty rates for the 0-4 population and the aged 5 population used in the analysis were obtained from the U.S. Census Bureau, 2000 Decennial Census website. Even though these data were obtained for only a sample of households, it was a very large sample ( 1 in 6 households). Using these data assumes that the sample households were representative of all households. Using these data also assumes that children at each individual age experience the same incidence of poverty as the 0-4 group as a whole.
3) Estimate the number of persons 5 and under living under $100 \%$ of poverty by county, 1/1/2000-1/1/2010

The estimates of single year population ( $0,1,2,3,4$, and 5 ) for each of the years of interest (2000-2010) were multiplied by the poverty rates obtained from the 2000 Census to obtain estimated numbers of persons living under $100 \%$ of poverty.
4) Estimate the percentage of the $0-4$ population under $150 \%$ of poverty by county and produce estimates of children $0-4$ who are living below $150 \%$ of the poverty line for 1/1/2000-1/1/2010.

One of the tables available from the U.S. Census Bureau, 2000 Decennial Census (based on sample data) is PCT 50, "Age by Ratio of Income in 1999 to the Poverty Level." It is available at the county level and shows the number of persons in households in which the household income is, for example, less than .5 of the poverty level, 1.5 times the poverty level etc. The data are available for persons under 5 and age 5 . Persons with ratios below 1.0 were living in poverty and those with ratios of 1.0 or higher were not living in poverty. To derive estimates of the number of children ages 0-4 living below $150 \%$ (ratio $=1.49$ or less) of the poverty line, the percentage of children $0-4$ in a given county living at or below 1.49 of the poverty level was multiplied by the estimated number of children in each of the single-year age groups for 1/1/2000-1/1/2010.

This methodology assumes that the ratio of income to poverty data are still applicable and that the ratios for 0-4 by county are the same for all single age cohorts.
5) Estimate the number of children age 5 living below $150 \%$ of the poverty level by county for 1/1/2000-1/1/2010.

The methodology used for 5-year olds was the same as the one used for children 0-4.
6) Estimate the percentage of the $0-4$ population under $200 \%$ of poverty by county and produce estimates of children $0-4$ who are living below $200 \%$ of the poverty line for 1/1/2000-1/1/2010.

To derive estimates of the number of children ages $0-4$ living below $200 \%$ (ratio $=1.99$ or less) of the poverty line, the percentage of children 0-4 in a given county living at 1.99 of the poverty level was multiplied by the estimated number of children in each of the single-year age groups for 1/1/2000-1/1/2010.

This methodology assumes that the ratio of income to poverty data are still applicable and that the ratios for 0-4 by county are the same for all single age cohorts.
7) Estimate the number of children age 5 living below $200 \%$ of the poverty level by county for $1 / 1 / 2000-1 / 1 / 2010$.

The methodology used for 5-year olds was the same as the one used for children 0-4.

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