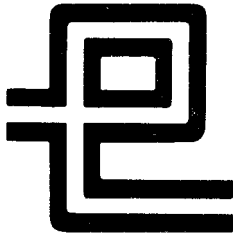


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DATE: March 31, 1989
MEMO TO: Deep South Workshop Participants
FROM: Douglas C. Bachtel *DB*
Extension Rural Sociologist
SUBJECT: Draft copy of Infant Mortality Report

Enclosed is a copy of the Infant Mortality paper Everett and I have been working on.

Since our new statistical fact book will be out in approximately two weeks, I will wait until that time to send you a copy.

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A State Partner in the Cooperative Extension System

Infant Mortality in Georgia

As part of the effort by a symposium of scholars from the Deep South States of Georgia, Alabama, Mississippi, and South Carolina, which aims at as wide a coverage of the Deep South's human resources as possible, we have computed rates of infant mortality by race for each county in Georgia and have compared them with rates for the United States and each of the 50 states. In order to arrive at statistically reliable rates for counties we have combined live births and infant deaths for the twelve-years, 1976-1987, and have arrived at a single rate for that period. To make statistical comparisons among the 159 counties of Georgia, one of which has only 2000 inhabitants, we have also restricted comparisons to those with at least 1000 white or black births in the 12-year period. Work now under way will permit us to utilize annual rates for the larger counties, and for combinations of the smaller counties, put together not only because of geographic proximity but also because of racial composition and economic and educational standing.

As has been true for the entire period for which vital statistics are available (since 1928 for our state), Georgia has ranked close to its neighbors in having the highest infant mortality rates in the nation. Since World War II Georgia has generally ranked 47th or 48th among the states, sometimes having a slightly lower and sometimes a slightly higher rate than Alabama, Mississippi, or South Carolina. In 1986, for example, Georgia's

rate of 12.5 compared with the national rate of 10.4 and the slightly lower state rate of 12.4 for Mississippi. Among the states only the Southern States of South Carolina and Alabama had higher rates, but so too did the Plains State of South Dakota.

All the states, however, had low rates as compared with that of 21.1 for the District of Columbia. Its rate is over twice that for the nation and well above that for Atlanta, which is also the central city of an expanding metropolitan area. Thus, in much the same way that Washington, the nation's capital, has also been dubbed the murder capital, it can also be thought of as the city of infant death.

Our aim in focusing upon county rates by race is to lessen the complacency which arises when attention is centered upon the lessening differences among the states, in 1986 a range of less than five points from 8.6 for Utah and 13.3 for South Carolina and South Dakota. It is all too easy to conclude that no special effort is required in Georgia because the rate of infant mortality is now only two points higher than that of the nation. Indeed, for either whites or blacks the departure from the national level is no more than half a point, less than one death per 1000 live births. To too many legislators, indeed, to too many health directors, the indication is that it is better to cut taxes than to throw money at a problem that is solving itself.

So convenient a restriction of comparisons fails to show that within a state there may be counties which have rates five times as high as those in Japan, now the world's leader with an infant

mortality rate of 5.3 in 1986. It also fails to show that almost every county has rates higher than those achieved in Taiwan or Hong Kong, a city more crowded and with higher proportions of recent migrants than Atlanta. More important is the demonstration that there are counties with surprisingly low rates of infant mortality surrounded by those with high rates, and that there are counties where rates for black infants are almost the same as those for whites though in other counties the black rate may be three times as high. Within both metropolitan and non-metropolitan counties there are extraordinary differences in the gap between black and white rates. Comparisons of race-specific rates for counties enable us to pick out those where surprising progress has been made and others which trail far behind Cuba and the Sultanate of Brunei. Does it not seem logical to look carefully at the local areas with similar social and economic characteristics, some of which have done so well while others have done so poorly, hoping to find out what works in preserving the lives of infants?

With the first runs off the computer we discover that, in the United States as well as in the Southern States, comparisons of rates for total populations are misleading. Recall that Georgia's rate of infant mortality, 20 percent above that for the nation was the 47th highest in the 50 states. However, when we make separate comparisons for whites and blacks a different pattern emerges. No fewer than 15 states had higher rates for whites than Georgia, and among these were Vermont, Ohio, Indiana, Delaware, Idaho, and Washington. A similar result arises for blacks. Of the 47 states

for which rates for blacks were published in 1986, 15 had higher rates than Georgia. These included the New England States of Massachusetts and Vermont and the Middle Atlantic States of Pennsylvania and New Jersey. In the Middle West there were Illinois, Indiana, and Michigan, and in the Far West there was Oregon. My colleagues on this program will doubtless point to similar improvements in the ranking of their states.

Among Georgia counties the range in rates for the total population was from 7.6 for Fayette, a county suburban to Atlanta, to 28.5 for Stewart County, one of the southwestern rural counties where cotton for long was king, where only 36 percent of the 1980 population had completed high school, and which ranked 157th among the 159 counties in income per capita. A glance at a map on which the rates are shown reveal that the counties with high rates are generally those of the Old Black Belt, that wide band that runs across the middle of the state and which before World War I had a population at least 50 percent black. The counties with low rates are generally of two types, the suburban counties of metropolitan areas and the mountain counties of northern Georgia.

That reasonable conclusions as to the prevalence of infant deaths cannot be reached unless race is taken into account is evident as soon as rates are shown separately for whites and blacks. The northern counties, which appear as a band of low infant mortality when rates for the total population are considered now appear as an area of high infant mortality. In fact, Union County, where there were no black births in the 12-year period, had

the highest rate in the state for whites. At the other end of the white spectrum, the rate for whites in Oconee County, 5.4, was only slightly above that for Japan and two points lower than that for the Sultanate of Brunei. Worthy of note is the range of rates within the state-- from 5.4 to 18.2, from half the state average to over half again as high. In passing we note that fewer than half of the persons aged 25 and over in Union County had completed high school in 1980, that in a county where there were only three blacks in 1980.

For blacks the range in rates was even greater-- from 9.6 in Wilkinson County to 37.9 in Grady County, from about half to over twice the state average. High rates for blacks are more concentrated in the Old Black Belt than was true of whites, perhaps because few blacks ever lived in the mountain counties. There is also less of the central city-ring county difference in rates. For example, the rate for Fulton County, which includes by far the greater part of Atlanta, was 20.1 while in the rapidly growing suburban counties of Gwinnett and Cobb it was 20.9 and 18.2.

But why was the rate for blacks in Wilkinson County so low, lower in fact than that for whites in the state and not significantly different from that for whites in the same county? Almost half of Wilkinson's population is black; less than half of those aged 25 and over had completed high school in 1980, and the county ranked 104th among the 159 counties in per capita income in 1986. It is surrounded by counties with high infant mortality rates. Perhaps it is useful to note that the crime rate was low.

Now we turn to comparisons of white and black infant mortality rates in the same county. In Bulloch County the rate for whites is 6.8, the third lowest in the State but that for blacks is 22.5, over three times as high. Among the other counties with similar, but not quite so extreme a racial differential, is Clarke County. In this county there are two hospitals, one a regional public hospital and the other a private hospital run by a religious order. There also is the University of Georgia. This is a county with relatively high personal income, 14th highest in the state, and where the educational level is second highest in the state. Nevertheless, the black rate of 20.3 is two and a half times as high as the white rate of 8.1. The white rate is 20 percent below that for the state; the black rate is almost the same as that for the state.

It is clear that the common explanations for differences within and between races apply in Georgia as elsewhere. Thus births to very young mothers, births to unmarried mothers, and low weight births do explain part of the differences among counties and between races. It is also true that income and education are negatively correlated with infant mortality rates. However, there are many exceptions, and we believe that in the close study of statistical outliers valuable leads can be found for reducing infant mortality.

A few examples will make that point. In Union County where white rates are the highest in the state relatively few children born out of wedlock and the proportion of low birth rate is below

average. The answers must be sought elsewhere but they are not to be found in income and education comparisons. Other counties with much lower rates have even worse income and educational levels.

Even more perplexing are the counties with especially low infant mortality rates for blacks. In Wilkinson County, where rates are low for whites and very low for blacks, almost two thirds of the black babies and a fifth of the white babies are born out of wedlock. Also the proportions with low birth rates are high, 10 percent for whites and 17 percent for blacks in 1987. On the other hand the rate for sexually transmitted diseases is well below the state average but it is 10 times that for Union County where infant mortality rates for whites are almost twice those for blacks in Wilkinson County.

If we had no other outlier counties we might conclude that we were probably looking at a couple of instances where by chance alone especially high or especially low rates are found. These always plague statistical analyses where one or more independent variables are used to predict a dependent variable. However, there are a number of other counties that vary from the expected at both ends of the spectrum, almost as much as Union and Wilkinson Counties. Because there is such a number of counties with rates far above or far below expectation we should go into these counties and try to see how much can be attributed to a single person, like the black obstetrician who entered a poor county, or to a program like WIC which we have heard might be part of the answer in Wilkinsen County.

And what could explain the difference in black and white rates in Clarke County. We know that blacks have higher rates of sexually transmitted disease than whites and that such diseases are relatively rare among college students and professionals who abound in this county. Could it be that the high rate of sexually transmitted diseases, 2872 per 100,000 inhabitants in 1986, means that blacks, about 15 percent of the total population, have a very high rate of sexually transmitted disease? The data are not available to answer that question, but we are also stayed from advancing it by the discovery that Oconee County, with an infant mortality at the Japanese level, has a rate of sexually transmitted diseases that is surpassed by only 10 of Georgia's 159 counties.

Back to the drawing board. Our work has just begun. We go, however, with some knowledge of the geography of infant mortality, and we know where to send the investigators who will extend our statistical work through on the spot investigation. Clearly there is much to learn about dealing with infant mortality that cannot be gained by sitting at the computer and working with standard sets of data.