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ABSTRACT

This paper traces the history of "The Right Start," discussing differences between the 50 largest cities and the nation overall and differences among states. It highlights eight measures reflecting a healthy start: teen births, repeat teen births, births to unmarried women, births to mothers with low educational attainment, late or no pregnancy care, smoking during pregnancy, low-birthweight births, and preterm births. Mother's age, educational attainment, and marital status are often related to the newborn's socioeconomic and social status. Poverty rates for children born to unmarried, teenage high school dropouts are 10 times those of children born to unmarried high school graduates over age 20 years. Low birthweight and short gestation are closely linked to newborn health. Mortality rates for low-birthweight babies are 20 times those of normal-birthweight babies. Conditions such as inadequate prenatal care and/or smoking during pregnancy affect birth outcomes. Between 1990-99, five of the eight measures improved nationally, though births to unmarried women increased substantially. The largest cities lagged behind the nation on everything but smoking during pregnancy. The 50 cities made important progress during the 1990s on the same five measures that improved nationally. (SM)

Child TRENDS kids count

Working Paper

THE RIGHT START FOR AMERICA'S NEWBORNS

A DECADE OF CITY AND STATE TRENDS (1990-1999)

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To obtain additional copies of this publication, call 410.223.2890, or write to the Annie E. Casey Foundation, Attn: KIDS COUNT Working Paper, 701 St. Paul Street, Baltimore, MD 21202.

This report is also available on the Internet at www.childtrends.org and www.kidscount.org.

KIDS COUNT and Child Trends extend a special thanks to the National Center for Health Statistics (NCHS), the federal government's principal vital and health statistics agency and the source of the data presented in this publication. For several decades, NCHS has consistently gathered, disseminated, and explained health and vital statistics to the American public and the research and policy communities. Its staff has consistently carried out its mission with exceptional attention to quality and accuracy. The agency performs a valuable and often overlooked public service, for which we are most grateful.

Executive summary

Conditions surrounding a child's birth often reflect the forces that will shape a young person's life. Whether an expectant mother smokes, whether she receives prenatal care, how much education a new mother has, and her age when she gives birth are valuable predictors of the resources that are likely to be available to a child.

Using birth certificate data provided by the National Center for Health Statistics, we focus on eight measures which reflect a healthy start to life. These measures are provided for the country as a whole, for all 50 states and the District of Columbia, and for the 50 largest cities.

The eight measures are:

- Teen Births
- Repeat Teen Births
- Births to Unmarried Women
- Births to Mothers with Low Educational Attainment
- Late or No Prenatal Care
- Smoking During Pregnancy
- Low-Birthweight Births
- Preterm Births

It is important to track these measures because they are all related in some way to the life prospects of a newborn. Among the measures examined in this study are the age, educational attainment and marital status of the mother which are often related to the social and economic status of a newborn's family. For example, the poverty rate for children born to an unmarried, teenage high school dropout (80%) is ten times that of children born to married woman over age 20 who has completed high school (8%). Some measures used in this study, such as low birthweight and a short gestation period, are closely linked to the health of a newborn. The infant mortality rate for low-birthweight babies is 20 times that of babies born at normal birthweight. Conditions a woman experiences during pregnancy, such as lack of adequate prenatal care and/or smoking, affect birth outcomes. Studies show that tobacco use during pregnancy is linked to negative consequences for child health and development.

National results. Between 1990 and 1999, five of the eight measures of a healthy start to life improved;

- teen births,
- repeat teen births,
- births to mothers with low educational attainment,
- late or no prenatal care, and
- smoking during pregnancy.

However, there was some bad news as well during the 1990s. There was a substantial increase in the percentage of births to unmarried women, as well as small increases in the percentages of births that were low-birthweight and births that were preterm.

City results. Conditions surrounding births in the largest cities were clearly not as good, on average, as births elsewhere. The largest cities lagged behind the nation as a whole on all but one measure (smoking during pregnancy). On the other hand, the 50 cities as a group made important progress during the 1990s. There were improvements in the same five measures that improved nationally (see above). Moreover, in six out of the seven cases where cities lagged behind the rest of the country, they have narrowed the gap during the 1990s. Nonetheless, the percent of births to unmarried women was substantially higher in 1999 than it was in 1990, the percent of births that were low birthweight increased very slightly, and there was virtually no change in the percent of births that were preterm.

While some patterns and trends are clear, it is equally clear that there is enormous variation across the 50 states and among large cities. This indicates that, for most states and localities, there is plenty of room for improvement The wide variations across the country also indicate that social policies designed to help children and families need to be developed within the context of state and local conditions.

This Working Paper updates previous *Right Start* reports by providing a text update focused on the nation and on the 50 largest cities as a whole. Updated data are also available for the 50 largest cities (plus 5 additional cities that are of special interest to the Annie E. Casey Foundation) and the 50 states through 1999 (including an abbreviated text update) on the KIDS COUNT website, http://www.kidscount.org.

Conditions surrounding a child's birth often reflect the forces that will shape a young person's life. Whether an expectant mother smokes, whether she receives prenatal care, how much education a new mother has and her age when she gives birth all are valuable predictors of children's outcomes. ***The Right Start for America's Newborns: A Decade of City and State Trends*** *shows that babies born at the end of the 1990s were generally more likely to get off to a healthy start to life than children born during the earlier part of the decade. In five out of eight measures of a healthy birth, the nation made modest improvements. Nevertheless, wide variations persisted across the 50 states, indicating that, for many localities, much room for improvement remains. This is certainly the case for the country's 50 largest cities, where, as a group, all but one birth measure lagged behind the national average. Even though the cities made improvements during the decade on many measures of a healthy birth, babies born in urban areas remain less likely than children born elsewhere to get off to a healthy start to life.*

Introduction

This Working Paper begins by tracing the history of *The Right Start* including a discussion of what motivated the original project, why we decided to focus on both cities and states, and how we selected specific birth indicators for inclusion. Next, we discuss the differences between the 50 largest cities and the nation as a whole, pointing out that healthy birth measures in the 50 largest cities are generally not as good as elsewhere. We then discuss differences among the states and provide the reader with guidance for interpreting these differences.

The second part of the working paper is divided into separate sections for each of the eight indicators. Within each section, we begin by describing why the indicator is important. We then provide a brief analysis of the indicator for both cities and states, including a listing of the five cities and five states whose levels for that indicator were the most desirable (which we label the "Top 5") and the five cities and states whose levels for the indicator were the least desirable (which we label the "Bottom 5"). We conclude the second part of the working paper with a brief discussion of racial and ethnic differences in the various indicators.

History of *The Right Start*

In 1999, the Annie E. Casey Foundation published *The Right Start: Conditions of Babies and Their Families in America's Largest Cities,* which provided 1997 city-level data for ten measures that characterize the well-being of newborns in the United States. Similar data for states were presented in the Appendix of that report.

In 2001, in an effort to increase the usefulness of these indicators, we expanded the original *Right Start* in several ways. First, we updated the data through 1998, the most recent year then available. Second, we provided annual data for each year back to 1990. Third, we provided a one-page narrative description of how each city fared during the 1990-1998 period. Fourth, we published a separate companion book focused on state-level data.

The resulting publications were two Child Trends/KIDS COUNT Special Reports: *The Right Start City Trends* and *The Right Start State Trends.*[1]

In 2002, we are updating these reports by providing a nationally focused text update in this Working Paper, plus updated data for 55 cities and the 50 states through 1999 (including an abbreviated text update of key findings for each city and state) on the KIDS COUNT website, http://www.kidscount.org.

We focus on large cities because healthy birth measures in the large cities generally lag behind those for the nation as a whole. Moreover, a host of indicators and countless studies have shown that cities, and particularly distressed neighborhoods in cities, have the most pressing needs. To place our city-level results in context, we also present the value of each indicator averaged across the 50 largest cities.

We also focus on states because they are a prime focus of policy-making for many of the programs that make a difference in healthy birth indicators. State decision-making power has increased significantly during the "devolution" era of the 1990s. In addition, since previous KIDS COUNT Data Books have traditionally focused on states, providing data on states in this book will allow readers to easily mesh the data provided here with data provided in other KIDS COUNT publications. Finally, states are large enough to provide reliable measures but small enough to reflect significant regional differences. To place our state-level results in context, we also present the value of each indicator for the U.S. as a whole.

We selected indicators that describe the well-being of infants at birth

because conditions at birth often reflect the forces that will shape a young person's life. Indicators such as lack of timely prenatal care and smoking during pregnancy reflect conditions prior to birth that can affect the health of an infant. Other measures, such as birthweight and gestation period, often reflect health status at the time of birth. Finally, we included three characteristics of the mother (marital status, age, and education) that are likely to reflect conditions a newborn might experience early in life. Analysis shows that the poverty rate for children born to an unmarried, teenage, high school dropout is ten times the poverty rate among children born to a married women over age 20 with at least a high school diploma.[2]

We utilize birth certificate data compiled and provided by the National Center for Health Statistics (NCHS) because they provide one of the few sets of systematic measures reflecting child well-being that are available consistently for all large cities. From the birth certificates we were able to construct eight measures, which reflect some dimension of well-being:

1) Teen Births

2) Repeat Teen Births

3) Births to Unmarried Women

4) Births to Mothers with Low Educational Attainment

5) Late or No Prenatal Care

6) Smoking During Pregnancy

7) Low-Birthweight Births

8) Preterm Births

While these measures can hardly capture the full range of forces shaping the lives of newborns, the indicators used in this working paper reflect several important dimensions of a newborn's life. Moreover, these indicators are consistently measured across all of the cities and states and over time, permitting legitimate comparisons. Since many of the conditions related to a birth are linked to later developmental problems, the data illuminate future prospects for children.

The 55 cities that are the focus of this working paper include the 50 largest cities as of 1997* (according to population estimates from the U.S. Census Bureau) plus 5 other cities which are of special interest to the Casey Foundation.

Five cites are included in this report but not ranked because they are not among the 50 largest cities in the United States. The five cities are:

- Des Moines, IA
- Hartford, CT
- Louisville, KY
- Providence, RI
- Savannah, GA

These cities are included in the report, but they are not included in the rankings because they are smaller than the 50 largest cities. With smaller populations, whatever rank they would have been given relative to the 50 largest cities might misrepresent their standing relative to cities of comparable size.

Differences between the 50 largest cities and the nation. This compilation of ten years of data continues to show that, collectively, cities lag behind the rest of the country for most measures of a healthy birth. Although the measures show enormous variation across the 50 cities, birth measures in the largest cities are clearly not as good, on average, as birth measures elsewhere. Table 1 shows how birth measures in the 50 largest cities compare to those nationwide. Here we show the simple 50-city averages, rather than weighted averages, because cities are treated as the unit of analysis in this study. In all but one case (the exception is smoking during pregnancy), the measures in large cities are worse than for the nation as a whole.

Birth data are reflective of a larger constellation of disadvantages faced by city kids. As shown in Figure 1, children in central cities are more likely to experience each of five risks associated with negative child outcomes.

On the other hand, as shown in Table 2, the 50 cities as a group made

* We are using 1997 population to determine the 50 largest cities to be consistent with previous *Right Start* data books.

important progress during the 1990s. Among the eight measures of a healthy start to life, there were improvements in five measures:

- teen births,
- repeat teen births,
- births to mothers with low education,
- late or no prenatal care, and
- smoking during pregnancy.

Only one measure—births to unmarried women—was substantially higher in 1999 than it was in 1990. The percentage of births that were low weight was just slightly higher in 1999 than in 1990, and the percentage of births that were preterm remained stable.

Moreover, when compared with the U.S. average for each measure (see Table 3), the gap between the 50 cities as a group and the U.S. average narrowed for six of the seven measures in which the cities lagged behind.

Although, for the 50-cities as a whole, the percentage of births to teens declined from 15 percent to 14 percent, seven states experienced an increase in this percentage. However, in the case of repeat teen births, where the 50-city average decreased from 27 percent to 23 percent, only 1 city showed an increase, and 31 cities recorded a decrease.

There was a somewhat similar mixed pattern for births to mothers with low educational attainment. As the percentage of births to women with less than 12 years of education decreased from 29 percent to 27 percent, 30 cities experienced a decrease in the percentage of births to mothers with less than 12 years of education, and 15 cities experienced an increase.

In the case of late or no prenatal care and smoking during pregnancy, where the 50-city average declined substantially for both measures, the overwhelming majority of cities showed decreases. However, in the case of low-birthweight births and preterm births, a plurality of states showed increases

It is important to recognize that the citywide numbers presented here may mask important variations within a city. For example, studies in Baltimore and Cleveland show that negative outcomes such as low-birthweight births and infant mortality are concentrated in neighborhoods with high poverty and/or low per capita income.[3] Studies suggest that negative birth outcomes are part of a constellation of measures that point toward particular neighborhoods with concentrated poverty and diminished opportunity.[4]

National Trends and Differences among the states. Our compilation of 10 years of state-level data has also revealed a number of interesting patterns among the states and significant trends for the nation as a whole.

As shown in Table 3, U.S. birth statistics improved for five measures of a healthy start to life—teen births, repeat teen births, births to mothers with low educational attainment, late or no prenatal care, and smoking during pregnancy. However, there was a substantial increase in the percentage of births to unmarried women, as well as small increases in the percentages of births that were low-birthweight and births that were preterm.

Nationwide the percentage of births to teens declined from 13 percent to 12 percent, but 11 states actually experienced an increase in this percentage during the decade. In the case of repeat teen births , where the U.S. percentage decreased from 24 percent to 21 percent, no state showed an increase and 45 states recorded a decrease.

There was a somewhat similar pattern for births to mothers with low educational attainment. As the percentage of births to women with less than 12 years of education decreased from 24 percent to 22 percent, 36 states experienced a decrease in the percentage of births to mothers with less than 12 years of education, and 10 states experienced an increase.

In the case of late or no prenatal care and smoking during pregnancy, where the U.S. percentage declined substantially for both measures, nearly all the states showed decreases. However, in the case of low-birthweight births and preterm births, nearly all states showed increases.

Interpreting the data. The key measures of a healthy start to life used here are all taken from data compiled by National Center for Health Statistics (NCHS) and reflect the official data for each indicator. While these measures are not derived from samples, some are based on relatively small numbers of births and therefore may exhibit a degree of random fluctuation from year to year. Since small differences among cities may reflect random fluctuations rather than "real" distinctions in the well-being of children, we urge readers to focus on those differences and changes over time that are relatively large.

In the following pages we describe each of the measures in more detail, explain why each measure was selected as an indicator of well-being, discuss how the measure is related to broad, long-term outcomes, and

present an updated summary for each measure.

Findings

Teen births

Teenage childbearing is problematic because it is associated with diminished opportunities for both the child and the young mother.[5] Teen births are particularly troublesome because most of these mothers are unmarried, and a large segment has not completed high school.

If a large share of births in a city is occurring to teenagers, it means that a significant number or proportion of children are starting life with a parent who is unlikely to have the resources needed to provide for a child. Most teenage mothers are not settled in a job or career, and many young fathers are not able to help. Data from the Census Bureau indicate that only 10 percent of mothers ages 15 to 17 received child-support payments in 1997.[6] Many young fathers are not fully prepared to take on all the responsibilities of fatherhood. Data for all men between the ages of 16 to 19 from the March 2001 Current Population Survey show that only 56 percent had any earned income in 2000 and that the average annual income for those who worked was slightly less than $6,200.[7]

Percentage of births to teens, 1999	
Top 5 cities	
San Francisco, CA	6%
Seattle, WA	7%
Honolulu, HI	7%
San Jose, CA	9%
New York, NY	9%
Bottom 5 cities	
Cleveland, OH	20%
New Orleans, LA	20%
Memphis, TN	20%
Milwaukee, WI	20%
Baltimore, MD	22%

Teenage mothers are also more likely to receive late or no prenatal care, and they also are more likely to smoke during pregnancy than older mothers.[8] Moreover, unlike other age groups, the percent of teen mothers who smoke has increased during the mid to late 1990s while smoking rates for older women decreased.[9] "As a consequence of these and other factors, babies born to teenagers are more likely to be born preterm (less than 37 completed weeks of gestation) and low birthweight (less than 5½ pounds), and thus are at greater risk of serious and long-term illness, developmental delays, and of dying in the first year of life."[10]

Children born to teenage mothers are also less likely to obtain the emotional and financial resources they need to develop into independent, productive, well-adjusted adults. Thus, babies born to teens reflect a group of children who will have to overcome high odds to thrive. (It should be noted that the measures used here is not the teen birth rate. That measure was not available.)

City summary. In 1999, 14 percent of all births in the 50 largest cities occurred to teenagers. San Francisco had the lowest percent of total births to teenagers (6 percent), while Baltimore had the highest (22 percent). For the 50 cities as a whole, the average percent of births to women under age 20 fluctuated between 15 and 16 percent from 1990 to 1995, remained at 15 percent between 1995 and 1998, and then decreased to 14 percent in 1999 (See Table 2). It is important to note that the percent of total births to teenagers is influenced by the fertility of older women (above age 20) as well as by the childbearing patterns of teens.

U.S. and State summary. In 1999, 12 percent of all births in the U.S. occurred to teenagers. Massachusetts, New Hampshire, and New Jersey had the lowest percentage of total births to teenagers (7 percent), while Mississippi had the highest (20 percent).[11] Nationally, the share of births to teenagers decreased slightly from 13 percent in 1990 to 12 percent in 1999 (see Table 3), although *birth rates* for teens dropped sharply during the decade.[12]

Percentage of births to teens, 1999	
Top 5 states	
Massachusetts	7%
New Hampshire	7%
New Jersey	7%
Connecticut	8%
Minnesota	8%
Bottom 5 states	
Oklahoma	16%
Louisiana	18%
Arkansas	18%
New Mexico	18%
Mississippi	20%

Repeat teen births, 1999	
Top 5 cities	
Boston, MA	14%
San Francisco, CA	16%
Honolulu, HI	16%
San Jose, CA	18%
Albuquerque, NM	18%
Bottom 5 cities	
Cleveland, OH	28%
Tulsa, OK	28%
El Paso, TX	30%
Atlanta, GA	31%
Memphis, TN	31%

Repeat Teen Births

Most teen mothers are ill equipped to provide for one child, and a second one severely compounds that challenge. Therefore, children born to a teenage mother who already has one or more children are unlikely to receive the kinds of support that children need to thrive. In addition, teens who give birth a second or third time face a higher risk of a very preterm birth (less than 33 weeks).[13] Moreover, a high percentage of repeat

teen births signals a problem with pregnancy prevention programs and offers a key opportunity for policy or program intervention.

City summary. In 1999, 23 percent of all teen births in the 50 largest cities were repeat births. The percent of teen births to young women who were already mothers ranged from a low of 14 percent in Boston to a high of 31 percent in Memphis and Atlanta. The 50-city average for this indicator fluctuated throughout the 1990s. After increasing slightly from 27 percent in 1990 to 28 percent in 1992, the average fell every year from 1993 until 1995, when it reached 23 percent. It has fluctuated narrowly since 1995, ultimately returning to 23 percent in 1999 (see Table 2).

U.S. and State summary. Twenty-one percent of all births to teens were repeat teen births in 1999. The percentage of teen births to young women who were already mothers ranged from a low of 12 percent in New Hampshire to a high of 25 percent in Mississippi. Across the nation, the percentage of teen births that were repeat births decreased from 24 percent in 1990 to 21 percent in 1999 (see Table 3).

Repeat teen births, 1999	
Top 5 states	
New Hampshire	12%
Vermont	12%
Maine	15%
North Dakota	16%
Massachusetts	16%
Bottom 5 states	
Louisiana	23%
Tennessee	23%
Georgia	24%
Texas	25%
Mississippi	25%

Births to Unmarried Women

Research shows that children growing up with a single mother "are more likely to drop out of school, to give birth out of wedlock, to divorce or separate, and to be dependent on welfare."[14] Numerous recent studies document the importance of fathers in the lives of their children. "Children develop best when they are provided with the opportunity to have warm, intimate, continuous, and enduring relationships with both their fathers and their mothers."[15] Also, in 1998, the infant mortality rate of children born to an unmarried mother was almost twice that of children born to married mothers (10.2 compared to 5.7 deaths per 1,000 live births).[16] Finally, unmarried mothers are more likely to receive inadequate prenatal care than are their married counterparts.[17]

Births to unmarried women, 1999	
Top 5 cities	
San Francisco, CA	25%
San Jose, CA	25%
Virginia Beach, VA	26%
Colorado Springs, CO	26%
Seattle, WA	27%
Bottom 5 cities	
New Orleans, LA	64%
Cleveland, OH	65%
St. Louis, MO	67%
Detroit, MI	68%
Baltimore, MD	69%

Even if a marriage fails, children born into a married-couple family have several advantages over those born to unmarried women. In 2000, the poverty rate for single-parent families headed by a never-married mother was 37 percent, compared to 21 percent for families headed by a divorced or separated mother.[18] Moreover, the likelihood of a child receiving a child-support award reflects the marital status of parents at the time of birth. Data from 1997 indicate that among never-married single mothers, only 47 percent had a child-support award in place, compared to 70 percent of divorced single mothers. It should be noted, moreover, that many custodial parents with child-support awards in place never receive the money that they are due. Only 22 percent of never-married single mothers actually received child-support payments in 1997, compared to 47 percent of divorced single mothers.[19]

City summary. Forty-three percent of all births in the 50 largest cities occurred to unmarried women in 1999. The percent of total births to unmarried women ranged from a low of 25 percent in San Francisco to a high of 69 percent in Baltimore. The 50-city data show that nonmarital childbearing increased during the early 1990s. The percent of total births to unmarried women increased from 41 percent in 1990 to 45 percent in 1993 and was 43 percent in 1999 (see Table 3). A recent report details some of the factors associated with these trends.[20]

Births to unmarried women, 1999	
Top 5 states	
Utah	17%
Idaho	22%
New Hampshire	24%
Colorado	25%
Nebraska	26%
Bottom 5 states	
Delaware	39%
South Carolina	39%
Louisiana	45%
New Mexico	45%
Mississippi	46%

U.S. and State summary. Nationwide in 1999, 33 percent of all births occurred to unmarried women. The percentage of total births to unmarried women ranged from a low of 17 percent in Utah to a high of 46 percent in Mississippi. The percentage of total births to unmarried women increased from 28 percent in 1990 to 33 percent in 1994 and and has varied little since (33 percent in 1999) as shown in Table 3.

Births to Women with Low Educational Attainment

Research has consistently shown that the education level of a child's mother is a good predictor of many child outcomes.[21] Consequently, children born to women who have not graduated from high school face tough odds. The infant mortality rate for births to women with less than 12 years of education was 9.1 deaths per 1,000 live births in 1998, compared to 6.3 for women with at least a high school education.[22] Women who do not get a good formal education are often less likely to provide the kind of educational and intellectual stimulation that their children need. In addition, parents with less education are less likely to be effective advocates for their children when they enter school or encounter problems with other institutions or public systems.

Low educational attainment, 1999	
Top 5 cities	
Virginia Beach, VA	10%
Honolulu, HI	10%
Seattle, WA	11%
Colorado Springs, CO	13%
Pittsburgh, PA	14%
Bottom 5 cities	
Fresno, CA	40%
Phoenix, AZ	42%
Houston, TX	43%
Los Angeles, CA	44%
Dallas, TX	45%

Finally, mothers with less than 12 years of education are more likely to smoke during pregnancy and to receive inadequate prenatal care.[23]

City summary. For the 50 largest cities, 27 percent of all births were to women with less than 12 years of education in 1999. The percent of total births to mothers with low levels of education ranged from a low of 10 percent in Virginia Beach and Honolulu to a high of 45 percent in Dallas. The percent of total births in the 50 largest cities to women with less than 12 years of education was 29 percent in 1990, 30 percent in 1991, 28 percent in 1995, and 27 percent in 1999 (see Table 2).

U.S. and State summary. Twenty-two percent of all U.S. births in 1999 occurred to women with less than 12 years of education. The percentage of total births to mothers with low levels of education ranged from a low of 10 percent in North Dakota and New Hampshire to a high of 33 percent in Texas.

Low educational attainment, 1999	
Top 5 states	
North Dakota	10%
New Hampshire	10%
Hawaii	11%
Vermont	11%
Minnesota	11%
Bottom 5 states	
New Mexico	28%
Nevada	28%
Arizona	30%
California	30%
Texas	33%

Nationally, the percentage of total births to mothers with low levels of education declined from 24 percent in 1990 to 22 percent in 1999 (see Table 3).

It is important to keep in mind that women born in countries where universal education is not prevalent are less likely to have a high school education. Large proportions of births to women in California, Texas, and Arizona are to Hispanic women who, as a group, tend to have lower educational levels.

Late or No Prenatal Care

Mothers who receive timely prenatal care are less likely to have babies with health problems. Many medical and behavioral risk factors, such as diabetes, anemia, smoking, and inadequate nutrition, which might affect pregnancy outcomes, are susceptible to intervention during prenatal care. Failure to obtain early prenatal care may reflect a mother's indifference to her pregnancy, or it may reflect a lack of available health care. Either situation is cause for concern. A woman who makes sure that she gets proper prenatal care is also likely to make sure that she does other things to protect her newborn. Failure to find timely prenatal care may also reflect the fact that a woman is in a precarious situation where many other kinds of resources are simply not available. Among women of childbearing age (15 to 44), those living in central cities are much less likely than those living elsewhere to have health insurance. In 2000, 23 percent of women between the ages of 15 to 44 living in central cities had no health insurance, compared with 16 percent of women in this age range living outside of central cities.[24] Since the availability of health insurance is related to obtaining good prenatal care, women in large cities are at a disadvantage.

Late or no prenatal care, 1999	
Top 5 cities	
Honolulu, HI	2.1%
Oakland, CA	2.2%
Charlotte, NC	2.5%
Fresno, CA	2.6%
Los Angeles, CA	2.7%
Bottom 5 cities	
Fort Worth, TX	8.4%
Washington, DC	9.3%
Detroit, MI	9.7%
Albuquerque, NM	12.2%
El Paso, TX	12.6%

City summary. In the 50 largest cities, 5.2 percent of all births in 1999 were to women who received late or no prenatal care. The percentages in 1999 ranged from a low of 2.1 percent in Honolulu to a high of 12.6 percent in El Paso. As a 50-city average, this indicator fell yearly from 1990 to 1996, and has remained nearly constant since then. The percent of total

births to mothers receiving late or no prenatal care started at 8.6 percent in 1990, fell to 5.3 percent in 1996, and stood at a decade-low 5.2 percent in 1999 (see Table 2).

Late or no prenatal care, 1999	
Top 5 states	
Rhode Island	1.4%
New Hampshire	1.5%
Maine	1.8%
Connecticut	2.0%
North Dakota	2.0%
Bottom 5 states	
New York	5.1%
Texas	5.5%
Nevada	6.7%
Arizona	7.0%
New Mexico	10.0%

U.S. and State summary. Nationwide, 3.8 percent of all births in 1999 occurred to mothers who received late or no prenatal care. Within the U.S., the share of births occurring to women who lacked timely prenatal care in 1999 ranged from a low of 1.4 percent in Rhode Island to a high of 10.0 percent in New Mexico. During the 1990s, the U.S. as a whole improved on this measure of a healthy start to life. The share of mothers who received late or no prenatal care fell from 6.1 percent in 1990 to 3.8 percent in 1999 (see Table 3).

Smoking During Pregnancy

Babies born to mothers who smoked during pregnancy are more likely to have health problems. "Smoking during pregnancy is associated with adverse outcomes, including low-birthweight, intrauterine growth retardation and infant mortality as well as negative consequences for child health and development."[25] In a recently published study, prenatal maternal smoking has been associated with both criminal behavior and substance abuse behaviors in both male and female children when they become adults.[26] Moreover, smoking during pregnancy may be symptomatic of other conditions that reflect an unhealthy approach to pregnancy and childbearing.

Smoking during pregnancy, 1999	
Top 5 cities	
Miami, FL	2%
New Orleans, LA	2%
Dallas, TX	3%
El Paso, TX	4%
Houston, TX	4%
Bottom 5 cities	
Oklahoma City, OK	18%
Milwaukee, WI	18%
Columbus, OH	19%
Indianapolis, IN	21%
Pittsburgh, PA	25%

City summary. For the 42 cities with data in 1999,* 10 percent of the total births were to mothers who smoked during pregnancy. The percentages ranged from a low of 2 percent in Miami and New Orleans to a high of 25 percent in Pittsburgh. The share of babies born to mothers who smoked during pregnancy has been declining, dropping from 18 percent in 1990 (excluding Indianapolis, New York City, and the California cities) to 10 percent in 1999 (see Table 2).

Smoking during pregnancy, 1999	
Top 5 states	
Texas	7%
Arizona	7%
Hawaii	8%
Utah	8%
Connecticut	8%
Bottom 5 states	
North Dakota	19%
Indiana	21%
Wyoming	21%
Kentucky	25%
West Virginia	26%

U.S. and State summary. Between 1990 and 1998, data on smoking during pregnancy from birth certificates in California, New York, Indiana, and South Dakota were either not available or not compatible with NCHS standards. Therefore, these data are missing for these states during this period, and the U.S. statistics in Table 3 for 1990 reflect only the 46 states, plus the District of Columbia, where these data were collected. In 1999, compatible data on smoking during pregnancy became available from all of New York State and Indiana. Thus, the U.S. statistics in Table 3 for 1999 reflect data for 48 states plus the District of Columbia.

Thirteen percent of all births in the U.S. were to mothers who smoked during pregnancy in 1999. Among the 48 states that collected these data in 1999, the percentages ranged from a low of 7 percent in Texas and Arizona to a high of 26 percent in West Virginia. The share of babies born to mothers who smoked during pregnancy dropped from 18 percent in 1990 to 13 percent in 1999, with declines reported in all 46 states that reported in both years (see Table 3).

Low-Birthweight Births (Less Than 5.5 Pounds)

While most American children get off to a healthy start, babies weighing less than 2,500 grams (about 5.5 pounds) at birth have a high probability of

* Data for 1999 on smoking during pregnancy in California were not compatible with NCHS standards. Therefore, data for California cities are not included in the average.

experiencing both motor and social developmental problems,[27] suffering from serious illnesses, and dying in the first year of life.[28, 29] Therefore, the percent of low-birthweight births reflects a group of children who are more likely to have health problems as they move through the growth stages than are children born at a normal weight.

Low-birthweight births, 1999	
Top 5 cities	
Portland, OR	5.4%
San Jose, CA	6.1%
San Diego, CA	6.3%
Seattle, WA	6.4%
Mesa, AZ	6.5%
Bottom 5 cities	
New Orleans, LA	12.9%
Memphis, TN	13.0%
Washington, DC	13.1%
Detroit, MI	14.7%
Baltimore, MD	14.7%

Nationally, over 300,000 babies were born weighing less than 5.5 pounds in 1999, accounting for 7.6 percent of all births. The relatively high percentage of low-birthweight births in the U.S. raises a number of troubling issues. Research shows that women who do not receive adequate early prenatal care are more likely to give birth to a low-birthweight baby and that mothers who lack health insurance are less likely to seek and obtain prenatal care. According to Census Bureau data for 1999, 33 percent of all Hispanics and 21 percent of all black non-Hispanics did not have health insurance. People living in poverty, high school dropouts, foreign-born non-citizens, non-elderly adults with no work experience, and young adults (ages 18 to 24) are the groups least likely to have health insurance.[30] Finally, as stated earlier, among women of childbearing age (15 to 44), 23 percent of those living in central cities lacked health insurance in 2000, compared to 16 percent of those living in the suburbs and rural areas. Among Hispanic women of childbearing age living in central cities, 38 percent lacked health insurance.[31]

Low-birthweight births, 1999	
Top 5 states	
Oregon	5.4%
Vermont	5.7%
Washington	5.8%
Alaska	5.8%
South Dakota	5.9%
Bottom 5 states	
Tennessee	9.2%
Alabama	9.3%
South Carolina	9.8%
Louisiana	10.0%
Mississippi	10.3%

City summary. Of all births in the 50 largest cities in 1999, 8.8 percent were low-birthweight. In 1999, Portland had the lowest percentage of low-birthweight births at 5.4 percent, and Baltimore had the highest percentage at 14.7 percent. During the 1990s, the share of babies born weighing less than 5.5 pounds in the 50 largest cities remained nearly constant at around 8.8 percent (see Table 2).

U.S. and State summary. Nearly 8 percent of the total births in 1999 in the U.S. were low-birthweight. Oregon had the lowest percentage of low-birthweight births at 5.4 percent, and Mississippi had the highest percentage at 10.3 percent. During the 1990s, the share of U.S. babies born weighing less than 5.5 pounds increased from 7.0 percent to 7.6 percent. However, this trend has been largely due to an increase in multiple births, which are much more likely to be low-birthweight.[32] The percentage of singleton births that were low-birthweight remained nearly unchanged during the 1990s.[33]

Preterm Births (Less Than 37 Completed Weeks of Gestation)

Preterm births, 1999	
Top 5 cities	
San Jose, CA	9%
San Francisco, CA	9%
Portland, OR	10%
Seattle, WA	10%
Sacramento, CA	10%
Bottom 5 cities	
New Orleans, LA	17%
St. Louis, MO	18%
Memphis, TN	18%
Baltimore, MD	19%
Detroit, MI	19%

More than 90 percent of all neonatal deaths occur among infants born preterm, and more than three-fourths of these deaths occur among those born at fewer than 32 weeks of gestation.[34] Moreover, preterm newborns are more likely to be neurologically impaired than infants born at longer gestations.[35] Finally, preterm delivery is associated with significant delays in motor and social development,[36] and there is recent evidence that educational disadvantage persists into adulthood.[37]

City summary. Thirteen percent of births in the 50 largest cities in 1999 were preterm births. San Jose had the lowest percent of births that were preterm in 1999 at 9 percent, while Detroit had the highest percentage at 19 percent. The 50-city average for this indicator stayed at 13 percent every year from 1990 to 1999, except in 1996 when it was 12 percent.

Preterm births, 1999	
Top 5 states	
Vermont	9%
New Hampshire	9%
Oregon	9%
Minnesota	9%
Washington	9%
Bottom 5 states	
South Carolina	14%
Tennessee	14%
Alabama	15%
Louisiana	15%
Mississippi	16%

U.S. and State summary. Nationwide,

nearly 12 percent of births in 1999 were preterm. Vermont had the lowest percentage of births that were preterm in 1999 at 9 percent, while Mississippi had the highest percentage at 16 percent. Nationally, the share of babies who were preterm increased from 11 percent in 1990 to 12 percent in 1999.

Race and Hispanic Origin

For every measure that characterizes the well-being of U.S. newborns in this volume, there are substantial differences by race and Hispanic origin. With the exception of smoking during pregnancy, births to (non-Hispanic) whites have a lower value for each measure than births to (non-Hispanic) blacks, as shown in Table 4. Values for Hispanics often, but not always, fall in between the values for whites and blacks. In 1999, for example, 9 percent of U.S. births to whites were to teen mothers, compared with 20 percent of births to blacks and 16 percent of births to Hispanics. However, for low-birthweight, smoking, and preterm births, values for Hispanics are either as favorable or more favorable than the values for non-Hispanic whites.

There was also a persistent (but narrowing) gap in both low-birthweight and preterm births between blacks and both non-Hispanic whites and Hispanics. In 1999, 13.2 percent of births to black mothers were low-birthweight. In contrast, 6.7 percent of non-Hispanic white births and 6.8 percent of Hispanic births were low-birthweight. There was a similar 1999 pattern for premature births with 18 percent of black births premature, compared with 11 percent of non-Hispanic white and Hispanic births.

The higher rates of negative outcomes for minorities on some of the measures used here might be explained by their lack of access to health care. Data from the Census Bureau indicate that only 13 percent non-Hispanic white women in childbearing age (15 to 44) lacked health insurance, compared to 23 percent of blacks and 36 percent of Hispanics women in the same age range.[38] Moreover, for all three groups, women in central cities are less likely to have health insurance than those in the suburbs.

Given these racial and ethnic differences, it is not surprising to note that differences seen among cities/states are often related to differences in racial/ethnic composition in those areas. Cities in which black and/or Hispanic births are a large percentage of total births tend to have higher values for most measures than cities in which most births are to whites.*

At the same time, it is important to recognize that many of the differences between whites and minorities reflect differences in things such as educational attainment, income, and the availability of high-quality services. For example, in 1999, if black mothers had had the same percentage of high school graduates and college graduates as white mothers, the percentage of black births that are low-birthweight would have dropped from 13.1 percent to 12.5 percent.[39]

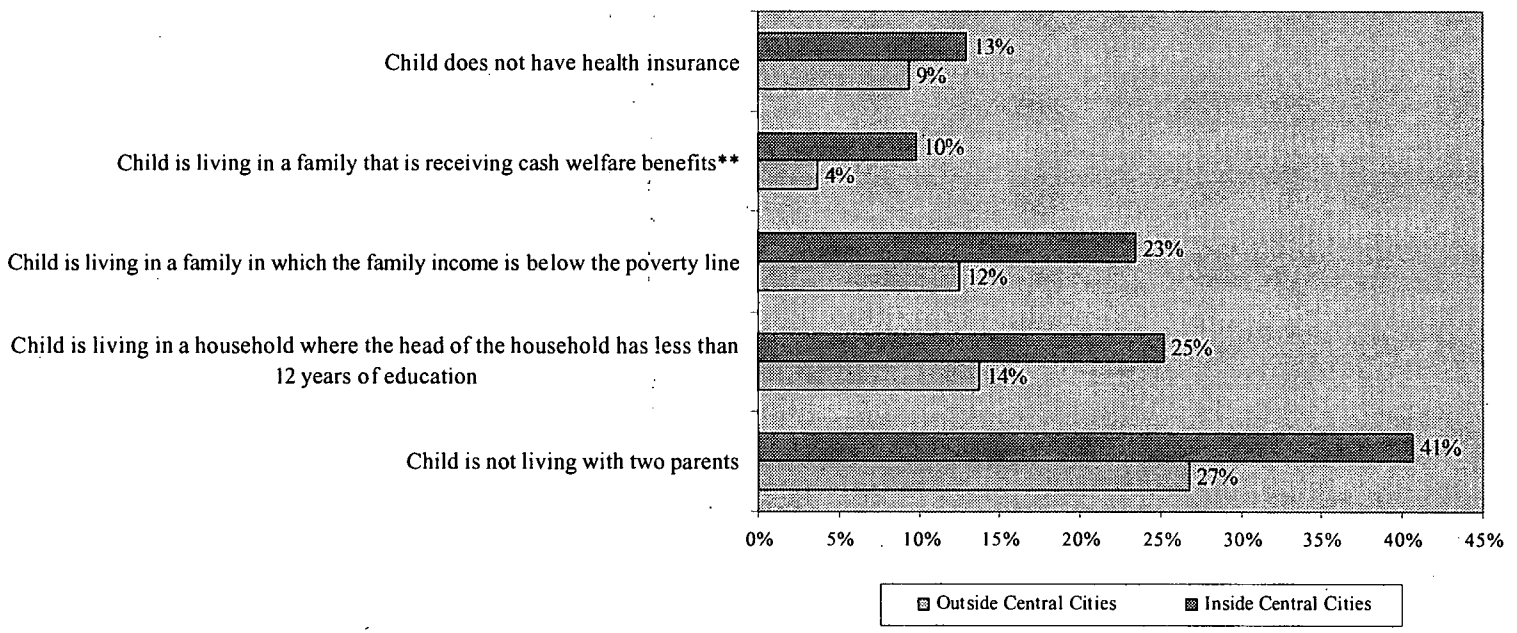
Birth measures are often examined by race and Hispanic origin because the data are easily available. Questions about race and Hispanic origin status are included on births certificates in all 50 states and the District of Columbia, while many important measures of socioeconomic status (*e.g.*, family income) are not. Consequently, while racial differences are easily calculated it is not possible to tabulate the measures used in this publication by critical measures such as the mother's poverty status.

In short, the racial differences in birth measures are real, but it is important to recognize that many of those differences actually reflect differences in things like income, education and availability of effective services.

* As noted in the text, exceptions are smoking, low-birthweight births and preterm births. Hispanics have about the same or better values for these measures as non-Hispanic whites.

FIGURE 1.

Characteristics of children inside and outside central cities,* 2000



SOURCE: Child Trends tabulation using the March 2001 Current Population Survey.

*Central Cities is a term used by the Census Bureau to identify large cities located at the core of metropolitan areas. Collectively, these figures represent about 500 cities nationwide. Outside central cities includes suburban as well as rural areas.

**Welfare benefits include payments from one or more of the following sources: TANF/AFDC, General Assistance/Emergency Assistance Program, Diversion Payments, Refugee Cash and Medical Assistance Program, or General Assistance from Bureau of Indian Affairs.

Note: The figures shown here represent about 90 percent of American children. The location (inside central city/outside central city) of some respondents was not revealed in the data file released by the Census Bureau in order to protect confidentiality.

TABLE 1

Key Indicators of Births in the 50 Largest Cities and Nationwide: 1999

Indicator	50-City Average	The Nation
Percent of total births to teens	14	12
Percent of teen births to women who were already mothers	23	21
Percent of total births to unmarried women	43	33
Percent of total births to mothers with less than 12 years of education	27	22
Percent of total births to mothers receiving late or no prenatal care	5.2	3.8
Percent of total births to mothers who smoked during pregnancy*	10	13
Percent low-birthweight births (less than 5.5 pounds)	8.8	7.6
Percent preterm births (less than 37 completed weeks of gestation)	13	12

SOURCE: The figures for the 50-City Average were calculated by Child Trends based on data provided by the National Center for Health Statistics. The figures for the nation come from Ventura, S.J., Martin, J.A., Curtin, S.C., Menacker, F., and Hamilton, B.E. (2001), "Births: Final Data for 1999," *National Vital Statistics Reports*, Vol. 49, No. 1. Hyattsville, MD: National Center for Health Statistics.

*Not all cities are included in the 50-city average and not all states are included in the national figure for this indicator because data were not collected in every state.

TABLE 2.
50-city averages: 1990-1999

Indicator	Percent										Number of cities with statistically significant changes from 1990 to 1999		
	1990	1991	1992	1993	1994	1995	1996	1997	1998	**1999**	**Increase**	**No change**	**Decrease**
Percent of total births to teens	**15**	16	15	15	16	15	15	15	15	**14**	7	18	30
Percent of teen births to women who were already mothers	**27**	28	28	27	25	23	24	24	24	**23**	1	23	31
Percent of total births to unmarried women*	**41**	43	43	45	44	43	43	43	43	**43**	39	5	10
Percent of total births to mothers with less than 12 years of education**	**29**	30	29	29	29	28	28	28	27	**27**	15	9	30
Percent of total births to mothers receiving late or no prenatal care	**8.6**	8.1	7.3	6.9	6.0	5.7	5.3	5.4	5.4	**5.2**	6	6	43
Percent of total births to mothers who smoked during pregnancy***	**18**	17	16	15	14	13	12	11	11	**10**	1	1	41
Percent low-birthweight births (less than 5.5 pounds)	**8.6**	8.8	8.7	8.8	8.8	8.8	8.7	8.8	8.8	**8.8**	10	39	6
Percent preterm births (less than 37 completed weeks of gestation)	**13**	13	13	13	13	13	12	13	13	**13**	19	26	10

SOURCE: 1990-1999 Natality Data Set CD Series 21, numbers 2-9, 11 and 13, National Center for Health Statistics.

*Not all cities are included in the 1990 50-city average for this indicator because data were not reliable in every city.

**Not all cities are included in the 1990 50-city average for this indicator because data were not collected for every city.

***Not all cities are included in the 1990 and 1999 50-city averages for this indicator because data were not collected for every city.

TABLE 3

U.S. Birth Measures: 1990 - 1999

	Percent										Number of states with statistically significant changes from 1990 to 1999		
Indicator	**1990**	1991	1992	1993	1994	1995	1996	1997	1998	**1999**	**Increase**	**No change**	**Decrease**
Percent of total births to teens	**13**	13	13	13	13	13	13	13	13	**12**	11	16	24
Percent of teen births to women who were already mothers	**24**	25	25	23	22	21	21	22	22	**21**	0	6	45
Percent of total births to unmarried women*	**28**	30	30	31	33	32	32	32	33	**33**	49	0	1
Percent of total births to mothers with less than 12 years of education**	**24**	24	24	23	23	23	22	22	22	**22**	10	3	36
Percent of total births to mothers receiving late or no prenatal care	**6.1**	5.8	5.2	4.8	4.4	4.2	4.0	3.9	3.9	**3.8**	3	2	46
Percent of total births to mothers who smoked during pregnancy***	**18**	18	17	16	15	14	14	13	13	**13**	0	0	46
Percent low-birthweight births (less than 5.5 pounds)	**7.0**	7.1	7.1	7.2	7.3	7.3	7.4	7.5	7.6	**7.6**	45	5	1
Percent preterm births (less than 37 completed weeks of gestation)	**11**	11	11	11	11	11	11	11	12	**12**	49	0	2

SOURCES: For 1990 data: "Advance Report of Final Natality Statistics, 1990." Monthly Vital Statistics Report, Vol. 41, No. 9, suppl. Hyattsville, MD: National Center for Health Statistics. For 1999 data: Ventura, S.J., Martin, J.A., Curtin, S.C., Menacker, F., and Hamilton, B.E. (2001), "Births: Final Data for 1999," National Vital Statistics Reports, Vol. 49, No. 1. Hyattsville, MD: National Center for Health Statistics.

*Not all states are included in the 1990 U.S. average for this indicator because data were not reliable for every state.
**Not all states are included in the 1990 U.S. average for this indicator because data were not collected for every state.
**Not all states are included in the 1990 and 1999 U.S. averages for this indicator because data were not collected for every state.

TABLE 4

Percentage of U.S. births with selected characteristics by race and Hispanic origin, 1999

Race/ethnicity	Teen births	Repeat teen births	Births to unmarried women	Births to mothers with low educational attainment	Late or no prenatal care	Smoking during pregnancy	Low-birthweight births	Preterm births
White non-Hispanic	9.1	17.6	22.1	12.6	2.3	15.9	6.7	10.5
Black non-Hispanic	20.1	26.6	69.1	25.9	6.6	9.4	13.2	17.6
Hispanic	16.3	23.5	42.2	49.1	6.3	3.7	6.8	11.4

SOURCE: Ventura, S.J., Martin, J.A., Curtin, S.C., Menacker, F., and Hamilton, B.E. (2001), "Births: Final Data for 1999," *National Vital Statistics Reports*, Vol. 49, No. 1. Hyattsville, MD: National Center for Health Statistics.

Additional information available on *Right Start* website: http://www.aecf.org/kidscount/rightstart2002/

- Cities ranked by indicator, 1999
- States ranked by indicator, 1999
- Eight measures of birth well-being, annual, 1990-1999, 50 largest U.S. cities plus 5 smaller cities
- Eight measures of birth well-being, annual, 1990-1999, 50 states plus District of Columbia
- Definitions, data sources, and reporting issues for cities
- Definitions, data sources, and reporting issues for states

In addition, the primary contacts for state KIDS COUNT projects are available at http://www.aecf.org/kidscount/contacts.htm

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[1] Copies of these publications are available from The Annie E. Casey Foundation, 701 St. Paul Street, Baltimore, MD 21202, 410-547-6600, 410-547-6624 (fax), and at www.kidscount.org.

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