

Statewide and County Teenage Birth Rates

Executive Summary

The 1993 Legislature passed ESHB 1408, which established a statewide media campaign and local community-based programs to prevent teenage pregnancy. The overall goal of the legislation was to reduce teen births. The legislation called for the community-based programs to be evaluated by changes in teenage pregnancy rates in each county.

This report provides the results of a review of teenage child birth rates for Washington State and for each of the 39 counties. We have used *birth* rates, rather than *pregnancy* rates, because births provide a more accurate measurement. Some pregnancies may not be reported and may not result in a birth. The most recent birth data available for teens are from 1993. The *birth* rates are shown for three standard age ranges: 10-14, 15-17, and 18-19 years. Birth and pregnancy rates for a given year are not available until the autumn of the following year; therefore, actual county birth data cannot be used to assess the effectiveness of a community-based program. The birth rates presented here may be used to understand the pattern of teenage births in the counties *before* ESHB 1408 went into effect.

We also examined factors that might affect county teenage birth rates, including: poverty (as measured by Aid to Families With Dependent Children caseloads and unemployment rates), school dropout rates, and demographic changes. This analysis was conducted to test the possibility that birth rates might increase due to factors beyond the control of the community-based program.

Findings

- **No effects upon county birth rates could be attributed to demographic, economic, or school dropout data in the aggregate.** Only 14 years of county birth and population data were available for each age range, and more years of data are necessary to definitely rule out effects.
- **Birth rates for the entire state have increased since 1980, with moderate changes from year to year.**
- **Birth rates in counties with small populations often showed sharp increases and decreases from year to year, due to the small number of teens and the small number of births** (see the graphs for Adams, Columbia, Garfield, Jefferson, and Wahkiakum Counties in the Appendix).
- **More than half of all teen births were to teens 18 and 19 years old. In 1993, the birth rate for this age group was 89 per 1,000. The birth rates for this age group increased markedly from 1989 to 1991.**
- **In 1993, the birth rate for 15 to 17-year-olds was 31 per 1,000. The birth rates for this age group have shown a steady increase since 1986.**
- **In 1993, the birth rate for 10 to 14-year-olds was 1 per 1,000. The birth rates for this age group have increased since 1980, but the rate is still very low.**

Background

In 1993, the Washington State Legislature passed ESHB 1408, the Teenage Pregnancy Prevention Act. The goal of the legislation was to reduce the number of births by teens. The Act called for a statewide media campaign and for local community-based service programs to prevent pregnancies. The Department of Health (DOH) was named as the state agency to implement the Act. The Act specified that the community-based programs should represent different communities throughout the state, and that the programs should be varied, offering education and services that emphasized abstinence, prevention, and contraception.

The Washington State Institute for Public Policy signed an interagency agreement with DOH to conduct **impact evaluations** of the 12 community-based programs that DOH had selected to receive state funds. The legislation called for the impact evaluations of the effectiveness of these local programs to be based on the teenage *pregnancy* rates in each county. The DOH also signed a contract with Washington Alliance Concerned with School Aged Parenting (WACSAP) to write a **process evaluation** to describe how the 12 community-based programs implemented their programs.

The Institute staff discussed the value of using county *birth* rates, rather than *pregnancy* rates with the legislative sponsor of ESHB 1408 and staff at DOH. County *birth* rates are preferable because they provide a more accurate number for a county. Some pregnancies are not reported or counted, and some pregnancies do not result in a live birth. Child birth most often occurs in the county of residence, but some pregnancies may be terminated in a county *other* than the county in which the teen resides, so that an accurate measure of pregnancies for a county cannot be obtained. For these reasons, it was agreed that the Institute would examine county *birth* rates.

The Institute staff also discussed the value of examining factors that might affect birth rates in a county, that are beyond the control of a community-based program, including: demographic changes, poverty (as measured by Aid to Families With Dependent Children and unemployment), and school dropout rates.

Birth Rates

Birth rates are presented in three standard age groups: 10-14, 15-17, and 18-19 years. An annual birth rate is calculated by dividing the number of actual births to teens in a county by the number of female teens in that age group in the county. The birth rates are presented as births per 1,000 females. Birth data by county are available from the Center for Health Statistics of the DOH. Teen female population data are available from the Forecast Division of the Office of Financial Management (OFM). Statewide birth rates are available from 1970, but county population data, by age, are only available from 1980; therefore, actual birth rates for counties, by age groups, are only available from 1980 through 1993.

How the Birth Rate Trends Can Be Used

Because it was not possible to have an actual birth rate for each county for 1995 by June 30, 1995, birth rate trends are presented. These trends can be used to understand birth rates *before* the programs began.

An examination of birth rates in counties, by standard age groups, often showed considerable variation from year to year. In counties with small populations, a few births could greatly increase or decrease the birth rate. If the latest county birth rate is used to evaluate the success of a community-based pregnancy prevention program, the program could claim miraculous success, or be charged with dismal failure. Using county birth rate trends over several years is a better method of roughly assessing the effectiveness of a community-based program.

There is a time lag before actual birth rates are available and when they can be used to evaluate current programs. County birth rates cannot be calculated until county birth data are available, and this is generally in the autumn of the following year. Of course, the most accurate way to determine the effectiveness of a program is by a rigorous evaluation.

Most of the community-based programs funded through ESHB 1408 began their direct services from March to July 1994. If the programs caused a reduction in teen births in their respective counties, the teenage birth rate would begin to decline in 1995 and in 1996. However, the actual 1995 and 1996 birth rates will not be available until the autumn of 1997 and 1998. The draft of the preliminary outcome evaluation of the programs was to be delivered to DOH by May 15, 1995, and the final evaluation by June 30, 1995.

Findings

No effects upon county birth rates could be attributed to demographic, economic, or school dropout data in the aggregate.

Only 14 years of county birth and population data were available for each age range, and more years of data are necessary to definitely rule out such effects. With more years of data, effects of these demographic, economic, and dropout variables may become evident. This is not to imply that dropping out of school or living in poverty has no effect on **individual** teens.

Birth rates for the entire state increased since 1980, with moderate changes from year to year. The forecast birth rates for 1994-96 show a steady increase (see Chart 1).

Because entire statewide data has provided a large number of cases over the past 14 years, and birth rates did not change sharply from year to year, we found moderate changes in birth rates from 1980 to 1993. The 18 to 19-year-old age group is relatively large and thus affects the total birth rate. There are different trends for the three age groups:

Approximately half of all teen births are to 18 to 19-year-olds, and the birth rate for this age group is important to follow. The actual birth rate increased markedly for this age group in 1989.

The birth rate for 15 to 17-year-olds is approximately half that of 18 to 19-year olds, and the birth rate increased steadily from 1987 to 1992.

The birth rate for 10 to 14-year-olds has increased steadily, but has remained essentially flat, at 1 per 1,000 females.

Birth rates in counties with small populations often showed a sharp increase or decrease from year to year, due to the small number of teens and the small number of births.

A difference of one or two births in a year can greatly affect the birth rate. For example, see the graphs for Adams, Columbia, Garfield, Jefferson, and Wahkiakum Counties in the Appendix. The sharp increases and decreases in these counties show that a birth rate in any one year should not be used to prove effectiveness of a community-based program.

Discussion and Conclusions

County birth rates over time can be used to understand trends *before* ESHB 1408 went into effect. It is a rough measurement against which to assess community-based teenage pregnancy prevention programs.

If there is a decrease in a county's birth rate over several years, it could be concluded that a change in behavior is occurring. This change might be due to the work of the community-based program, a local media campaign, or some other combination of factors. It would be misleading to attribute the success or failure of a community-based program, especially in a small county, to only one or two years of birth rate information. The best method to assess the effectiveness of a program is to conduct a rigorous evaluation, using experimental design where possible, or a comparison group design when an experimental design is not possible.

Each autumn, when a new year of county teen birth data are available from DOH, and county population data are available from OFM, another year of birth rates can be added to continue analyzing the county birth rate trends.

Institute staff will give the data prepared for this analysis, and a model that could be used to forecast birth rates, to DOH and the Forecast Division of OFM, to test and maintain.

Appendix

The birth rates for the state and for the 39 counties are included. The charts show the birth rates from 1980, when data were available by age for each county, through 1993.

Chart 1 shows the birth rates for three age groups, 10-14, 15-17, and 18-19.

The 10 to 14 age group has increased, but the increase is within a very low rate. The 1993 rate was 1 per thousand. The trend appears as a heavy, black line at the bottom of the graph.

The 15-17 year old age group shows a steady increase since 1986, with a slight decrease in 1993. The 1993 rate was 31 per 1000 females.

The 18-19 year old age group shows a marked increase from 1989-1991. The 1993 rate was 89 per 1000 females.

Chart 2 shows the detail of the birth rates for the 15-17 and 10-14 year old age range.

This chart was necessary because the scale of Chart 1 could not show the detail.

The 39 county charts are shown in alphabetical order.