

Teenage Abortion and Pregnancy Statistics by State, 1996

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Context: State-level teenage pregnancy rates, birthrates and abortion rates are needed for state-specific programs and policies. Accurate and complete state-level data were last published in 1992.

Methods: Teenage abortion rates according to state of residence, race and ethnicity were calculated from the results of The Alan Guttmacher Institute's survey of abortion providers and from information compiled by state health statistics agencies and the Centers for Disease Control and Prevention. Natality data were obtained from the National Center for Health Statistics, and population denominators from the Census Bureau.

Results: In 1996, some 97 pregnancies, 54 births and 29 abortions occurred per 1,000 U.S. women aged 15–19. At the national level and in virtually all states, these rates have fallen since 1992, yet they remain higher than rates in most other developed countries. The decline in the teenage abortion rate (from 36 per 1,000 in 1992) has been proportionately greater than the drop in the birthrate (from 61 per 1,000), indicating that an increasing proportion of pregnant teenagers are continuing their pregnancies. Pregnancy rates, birthrates and abortion rates vary enormously among the states for reasons that are largely unexplained. Pregnancy rates and birthrates tend to be highest in the South and Southwest, while abortion rates are highest in the most urban states.

Conclusions: Teenage pregnancy is declining in all parts of the country. Although rates have fallen, further progress is possible, as is indicated by the low rates in certain states and in other developed countries. More research is needed to identify the factors influencing the reproductive behavior of adolescents.

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abortions with information from the CDC's compilation of health department data on the proportion of abortions provided to adolescents. The result is adjusted to the woman's state of residence. In this article, we update the information from the AGI report for 1992,⁷ the most recent year for which these calculations were published. We report national and state trends in teenage abortion rates, birthrates and pregnancy rates by race and ethnicity through 1996, the latest year for which complete abortion data are available.

Methods

The data sources and methods of estimation used in this study are similar to those used in the 1992 calculations.⁸ The number of adolescent pregnancies is calculated as the sum of births, miscarriages (including stillbirths) and abortions among teenagers. It is important to note that the data reflect the woman's age at pregnancy termination, not the age at which she became pregnant or decided between having an abortion and continuing the pregnancy. For that reason, the number of teenage conceptions in the United States is likely higher than the numbers presented here, since many women who become pregnant at age 19 do not have an abortion or give birth until age 20. Similarly, yearly data are calculated on the basis of the date of the pregnancy termination, not conception.

Adolescent birth data (the number of births to teenagers in each state and teenage birthrates) were acquired from NCHS, which obtains birth certificate information from state vital statistics agencies. Racial groups other than white and black are not shown separately because of the small size and heterogeneity of these populations. Hispanic women may be of any race, and the figures for whites include the large majority of Hispanics. The number of miscarriages was estimated as 20% of births plus 10% of abortions. This calculation attempts to account for miscarriages that occur after about eight weeks from the last

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Sexual intercourse at young ages is quite common in the United States: Eighty-one percent of women aged 20–24 had sexual intercourse before they were 20.¹ Although sexual activity before age 20 and before marriage has become the norm in developed countries,² pregnancy and childbearing among adolescents are seen by many as disadvantageous to both the individuals involved and society, and numerous programs attempt to reduce pregnancy rates among adolescents by encouraging abstinence and contraceptive use. It is therefore important to track trends in pregnancy rates, birthrates and abortion rates among teenagers (i.e., 15–19-year-olds) at both the national and the state levels.

Accurate birth data are collected and published by the National Center for Health Statistics (NCHS) of the U.S. Department of Health and Human Services. The most recent report gives fertility rates for women aged 15–17, 18–19 and 15–19 by state for 1998.³ The Centers for Disease Control and Prevention (CDC) has published teenage pregnancy rates, but not abortion rates, by state for 1995, 1996 and 1997.⁴ However, the abortion data that the CDC uses in calculating these pregnancy

rates have several limitations: They are tabulated by the state in which the abortion occurred, rather than by the woman's state of residence; no estimates are included for states with no data on the age of women having abortions; and, most important, the reporting of abortions to state health statistics agencies (the CDC's source of data) is incomplete in many states. The published pregnancy rates are therefore understated for states with abortion underreporting and overstated for those in which many out-of-state women obtain abortion services.

Another source of information on the number of abortions occurring in each state is a periodic survey conducted by The Alan Guttmacher Institute (AGI) of all known abortion providers. Because some providers do not report abortions to their state health department, the AGI survey yields more complete information than the CDC data for many states.⁵ In 1996, for example, AGI found at least 50% more abortions than the CDC reported in eight states and the District of Columbia, and at least 20% more in seven other states.⁶

For each state, AGI estimates the number of abortions provided to teenagers by combining this more complete count of

menstrual period, the time typically necessary for a woman to recognize that she is pregnant.⁹

The estimation of the number of abortions was more complex. In 1997, AGI conducted its latest survey of all known abortion providers in the country, from which we know the number of abortions performed in each state in 1995 and 1996.¹⁰ Similar surveys were conducted for 1991–1992, 1987–1988 and prior years. Data for other years shown here were interpolated between the AGI numbers, taking into consideration annual trends based on state health department data as compiled by the CDC. Sample surveys of physicians and hospitals indicate that the AGI surveys miss some providers performing small numbers of abortions; consequently, the AGI surveys may undercount the number of abortions by approximately 3% nationally.¹¹

The 1996 national numbers of abortions by race, age and Hispanic ethnicity were estimated using distributions obtained by summing the state health department reports, with adjustments for year-to-year changes in the reporting states.* The proportions of all abortions occurring in each state that were obtained by women aged 15–17 and 18–19 were taken from the state health department reports and applied to the AGI number of abortions in the state.

For states with no information on the age of women having abortions,[†] the proportion of abortions obtained by teenagers was estimated. We could have used the national median proportion (21%), since the proportion varies relatively little among the states. (In 38 of the 44 states with data, it is 18–23%.) To get a more accurate estimate, however, we used the average of the proportions in neighboring or nearby states that are similar in racial distribution and degree of urbanization. For California and Florida, which are somewhat different from their neighboring states, the states chosen for comparison yielded estimates of 20%.

We reassigned abortions from the state of occurrence to the woman's state of residence on the basis of special tabulations we requested from state health departments. For the 1996 data, we refined the 1992 methodology by obtaining separate tabulations of abortions occurring in each state among women aged 15–17 and 18–19 by the women's states of residence, and then using these distributions to assign state of residence for the two age-groups separately. The necessary age-specific tabulations were available from 30 states. For the remaining 20 states and the District of

Columbia, as we did in prior years, we assumed that the proportion of women having abortions who came from other states and the states from which they came were the same for teenagers as for all women.[‡]

The change in the age-specific adjustment for state of residence made little difference for most states, in part because 20 states were unable to provide the necessary data. For nine states with no information about the state of residence of women having abortions,[§] AGI's abortion provider survey contained this information for nonhospital abortion providers, who perform the large majority of all abortions. Again, we assumed that the proportion of nonresidents and the state of residence were the same for teenagers as for all women. In addition, we assumed that no out-of-state women obtained abortions in Alaska.

Teenagers having abortions were distributed by race and Hispanic ethnicity according to the health department data from each state. Information on the race of teenagers having abortions was unavailable for 13 states and the District of Columbia, and Hispanic ethnicity was unavailable for 32 states and the District of Columbia. No estimates were made for these jurisdictions, but we made national estimates by race and ethnicity, assuming that their distributions are the same as those of the states with data. As a check on whether the states with data on the Hispanic ethnicity of abortion patients are representative of the country as a whole, we compared the proportion of births that were to Hispanic mothers in these states with the proportion in the states without abortion data; we found that these were similar (17.6% and 18.4%, respectively).¹²

Because Hispanic women account for a significant proportion of the births and abortions to white teenagers in several states, we have estimated numbers and rates for non-Hispanic white women. The number of births to non-Hispanic white teenagers and the population denominators are readily available, but the race of Hispanic women having abortions is unavailable from most states. However, almost all Hispanic women classify themselves as white: 97% of Hispanic teenagers giving birth and 91% of all Hispanic women aged 15–19.¹³ In some states, however, a lower proportion of Hispanic women giving birth are white, including Massachusetts (88%) and New York (89%). Therefore, in estimating the number of abortions obtained by non-Hispanic white teenagers, we have assumed that the proportion of Hispanics having abortions

who are white is the same as the proportion of Hispanic teenagers giving birth who are white.

For the country as a whole, however, to be consistent with past practice,¹⁴ we have assumed that all Hispanic women having abortions are white. Had we adjusted the 1996 abortion rate among non-Hispanic white teenagers on the basis of the race of Hispanics having births in the same manner as we did for the states, the national abortion rate for non-Hispanic white teenagers would have increased by 1.1% (from 19.1 to 19.3 per 1,000). National abortion data are unavailable for Hispanic and black teenagers before 1990. An indication of trends for blacks may be seen in the statistics for nonwhites, since black women account for the large majority of pregnancies among nonwhite women.

All rates were calculated using population denominators estimated by the U.S. Bureau of the Census.¹⁵ For years before 1990, we used population estimates that have been adjusted on the basis of the 1990 census results.** Rates were not calculated if the population subgroup contained fewer than 500 women.

Researchers analyzing changes in pregnancy and abortion rates should be aware that these rates might contain errors beyond random fluctuations that occur in small populations. In particular, teenagers tend to go out of state for abortions to avoid parental notice or consent requirements, or to find a state where requirements are less stringent (for example, where only one parent needs to be involved).¹⁶ Although we have attempted to assign teenagers' abor-

*For a description of the AGI abortion provider survey methodology and methods for estimating the number of abortions according to women's characteristics, see: Henshaw SK and Van Vort J, *Abortion Factbook, 1992 Edition: Readings, Trends, and State and Local Data to 1988*, New York: AGI, 1992, p. 164. A minor difference from procedures used for earlier years is that 1996 abortion characteristics data were obtained from state health department reports or directly from the state agencies (including New York City and the District of Columbia), since the CDC annual surveillance report, which includes most of these data, was not available when the analysis was begun. Data for Wyoming, however, were added later from the CDC abortion surveillance report (see reference 5).

†California, Delaware, Florida, Iowa, New Hampshire and Oklahoma.

‡Since few women from other states obtain abortions in California, the distribution from the latest available year, 1982, was used. In that year, 0.5% of abortions were provided to women who came from out of state.

§Arizona, Delaware, Florida, Iowa, Louisiana, Massachusetts, New Hampshire, Oklahoma and Wyoming.

**The denominators are the same as those used by NCHS, except that for 1990, we used the July 1 population estimates, and NCHS used the April 1 census counts.

Table 1. Pregnancy, birth and abortion rates per 1,000 women aged 15–19, and abortion ratio, by race and ethnicity, 1986–1996

Race and measure	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
TOTAL											
Pregnancy rate*											
All women	106.7	106.6	111.4	114.9	117.1	115.8	111.9	109.3	106.1	101.1	97.3
Sexually experienced women	210.5	206.4	211.8	219.2	224.2	222.5	215.8	211.5	206.1	197.1	190.4
Birthrate	50.2	50.6	53.0	57.3	60.4	62.1	60.7	59.6	58.9	56.8	54.4
Abortion rate	42.3	41.8	43.5	42.0	40.6	37.6	35.5	34.3	32.2	30.0	29.2
Abortion ratio†	45.7	45.2	45.1	42.3	40.2	37.7	36.9	36.5	35.3	34.6	34.9
WHITE											
All											
Pregnancy rate*	90.0	89.6	93.0	95.8	98.3	97.0	93.0	90.9	88.9	86.0	82.6
Birthrate	42.3	42.5	44.4	47.9	50.8	52.8	51.8	51.1	51.1	50.1	48.1
Abortion rate	35.6	35.1	36.1	34.8	33.9	30.5	28.1	26.9	25.1	23.5	22.6
Abortion ratio†	45.7	45.2	44.9	42.1	40.1	36.6	35.2	34.5	33.0	32.0	32.0
Non-Hispanic											
Pregnancy rate*	u	u	u	u	87.3	83.3	77.5	75.0	72.4	69.5	66.1
Birthrate	u	u	u	39.9	42.9	43.4	41.7	40.7	40.4	39.3	37.6
Abortion rate	u	u	u	u	32.6	28.4	25.0	23.8	21.7	20.3	19.1
Abortion ratio†	u	u	u	u	43.2	39.6	37.5	36.9	34.9	34.1	33.7
NONWHITE											
All											
Pregnancy rate*	180.7	180.1	189.1	193.4	189.6	189.6	185.2	180.4	172.5	158.7	153.3
Birthrate	84.8	85.5	89.2	95.9	96.5	98.4	95.5	92.5	89.1	82.2	78.1
Abortion rate	71.8	70.4	74.6	71.3	67.1	65.1	64.2	63.1	59.6	54.6	54.2
Abortion ratio†	45.8	45.2	45.5	42.6	41.0	39.8	40.2	40.6	40.1	39.9	41.0
Black											
Pregnancy rate*	u	u	u	u	224.3	223.7	218.7	212.7	202.1	184.8	178.9
Birthrate	95.8	97.6	102.7	111.5	113.1	115.5	112.4	108.6	104.5	96.1	91.4
Abortion rate	u	u	u	u	80.5	77.4	76.2	74.9	69.7	63.2	62.9
Abortion ratio†	u	u	u	u	41.6	40.1	40.4	40.8	40.0	39.7	40.8
HISPANIC											
Pregnancy rate*	u	u	u	u	163.2	172.5	175.9	174.0	175.1	170.5	164.6
Birthrate	u	u	u	100.8	100.2	106.7	107.1	106.8	107.7	106.7	101.8
Abortion rate	u	u	u	u	39.1	40.4	43.1	41.7	41.7	38.6	38.6
Abortion ratio†	u	u	u	u	28.1	27.5	28.7	28.1	27.9	26.6	27.5

*Includes estimated number of pregnancies ending in miscarriages and stillbirths. †Abortions per 100 pregnancies ending in abortion or live birth. Notes: The pregnancy rates per 1,000 sexually experienced women for 1986–1992 differ from those published earlier because of changes in the way age and sexual experience have been computed from the National Survey of Family Growth. See: Singh S and Darroch JE, 1999 (reference 18). In this and subsequent tables, data are tabulated according to the woman's age at the pregnancy outcome and, for births, according to the mother's race (not the child's). u=unavailable.

tions to the correct state of residence, this was done on the basis of information for women of all ages in 20 states in 1996 and for all states in 1992 and 1988. Error could also be introduced by an undercount or overcount of abortions in AGI's abortion provider survey, or by the assumption that the age distribution of women obtaining abortions that were not reported to the state health department is similar to that of women whose abortions were reported. Special caution should be used with data from states for which the proportion of abortions that are provided to teenagers was estimated from other states, although as explained above, we believe the resulting rates to be reasonably accurate.

Findings

National Statistics

In 1996, roughly 10% of women aged 15–19 in the United States became pregnant and had a birth, abortion or miscarriage. The pregnancy rate among women in this age-group—97 per 1,000 (Table 1)—was higher than the teenage pregnancy rate in every

other developed country with accurate abortion data except Russia.¹⁷ In recent years, however, teenage pregnancy rates and the resulting rates of births and abortions have been falling nationally and in virtually all states. Nationwide, the teenage pregnancy rate declined 4% between 1995 and 1996, from 101 to 97 pregnancies per 1,000 women aged 15–19. The rate has dropped 9% since 1986 and, more significantly, 17% since peaking in 1990.

It is somewhat more telling to look at the adolescent pregnancy rate in terms of sexually experienced women aged 15–19 rather than all women in this age-group. According to the National Survey of Family Growth, which periodically interviews a nationally representative sample of 8,000–10,000 women of reproductive age, 53% of the female population 15–19 in 1988 had ever had sexual intercourse since menarche; in 1995, 51% had done so.¹⁸ The pregnancy rate per 1,000 sexually experienced teenagers in 1996 was 190, down substantially from an estimated peak of 224 in 1990 and from 211 in 1986 (Table 1).

Although the recent fall in the pregnancy rate is reflected in declines in both birthrates and abortion rates, the trends in these two rates have been somewhat different. The teenage birthrate increased 24% between 1986 and 1991, when it reached 62 births per 1,000 women aged 15–19; it then fell each year, reaching 54 per 1,000 in 1996. (Preliminary data for 1999 indicate that the rate fell to 49.6 per 1,000, slightly below the low point in 1986.¹⁹) The abortion rate per 1,000 teenagers, by contrast, began falling earlier, in 1989; by 1996, it had declined to 29, a level much lower than in 1986.

Another way to examine teenagers' reproductive behavior is to look at the abortion ratio, defined as the proportion of adolescent pregnancies (births plus abortions) that are terminated by abortion. Of all teenagers faced with a pregnancy (excluding miscarriages and stillbirths) in 1996, 35% had an abortion. This ratio has been declining steadily since 1986, when 46% of teenage pregnancies ended in abortion.

Race and Ethnicity

Patterns differ somewhat among demographic subgroups. In 1996, the pregnancy rate of non-Hispanic white teenagers (66 per 1,000) was less than half that of their black and Hispanic peers (179 and 165 per 1,000, respectively). The trend since 1990 also differed among the three groups: Non-Hispanic white teenagers and black teenagers experienced steady declines, resulting in substantial reductions in the pregnancy rate (24% and 20%, respectively). Among Hispanic young women, by contrast, the pregnancy rate continued to rise to 176 per 1,000 in 1992, then fell 6% by 1996, returning to roughly the 1990 level.

In 1996, Hispanic teenagers had the highest birthrate (102 births per 1,000 women), black teenagers the second-highest rate (91) and non-Hispanic white teenagers a much lower rate (38). The birthrates of both black and non-Hispanic white teenagers reached a high point in 1991 and then fell for the next five years. The decline was greater among blacks (21%) than among non-Hispanic whites (13%). (Both rates declined another 9–11% between 1996 and 1999. Among Hispanic teenagers, the birthrate did not begin to fall until after 1994, but then went down 14% by 1999.²⁰)

Like pregnancy rates, 1996 abortion rates per 1,000 teenagers were highest among black women (63), intermediate among Hispanics (39) and lowest among non-Hispanic whites (19). Abortion rates began to fall before pregnancy rates; for both white and nonwhite teenagers, abortion rates were highest in 1988 and fell steadily to 1996. Between 1990 and 1996, the abortion rate of non-Hispanic white teenagers fell a remarkable 41%, while that of black teenagers fell 22%. The Hispanic abortion rate peaked in 1992 (43 per 1,000), then fell 10% (to 39 per 1,000) by 1996.

Among teenagers who were pregnant in 1996 and whose pregnancy ended in a birth or abortion, about 41% of blacks had abortions, compared with 34% of non-Hispanic whites and 28% of Hispanics. Among both white and nonwhite teenagers, these proportions had declined during the late 1980s. After 1990, however, the proportion continued to fall sharply among non-Hispanic whites, but changed little among black and Hispanic teenagers.

Age Breakdowns

There are substantial differences in fertility statistics and behavior between women aged 18–19 and those aged 15–17. In 1996, approximately 880,000 pregnancies occurred among U.S. women aged 15–19 (Table 2, page 276): about 543,000 among

older teenagers and 338,000 among younger ones (not shown). In addition, 25,000 pregnancies occurred among women younger than 15.

Teenagers in both age-groups had high pregnancy rates in 1996, but the rate among women aged 18–19 (153 pregnancies per 1,000 women) was 2.5 times that among 15–17-year-olds (62 per 1,000). Most of the difference reflects that a lower proportion of younger teenagers than of 18–19-year-olds have ever had intercourse (39% vs. 71%²¹). For sexually experienced women, the pregnancy rate was 160 per 1,000 women aged 15–17 and 216 per 1,000 18–19-year-olds (not shown). The rate may be higher among older teenagers because they have more frequent intercourse²² and are more likely to be seeking pregnancy.²³

In 1996, pregnancies among adolescents ended in about 492,000 births, 264,000 abortions and 125,000 miscarriages. As was the case for pregnancy rates, older teenagers' birthrate (86 per 1,000) was 2.5 times that of younger teenagers (34 per 1,000). Similarly, the abortion rate among women aged 18–19 (45 per 1,000) was 2.4 times the rate among 15–17-year-olds (19 per 1,000). Thus, the abortion ratio is similar for the two age-groups—34 abortions per 100 abortions plus live births for older teenagers and 36 per 100 for younger ones. In other words, on the national level, the decision to end a pregnancy or carry it to term does not vary greatly by age within the teenage years.

State-Level Data

Tables 2 and 3 show numbers and rates of pregnancies, births and abortions by state. As expected, the states with the largest populations had the highest numbers of pregnant teenagers; thus, the rates are more useful than the numbers for comparing states with respect to the reproductive behavior of adolescents.

The District of Columbia ranks higher than any state on rates of teenage pregnancy (256 per 1,000), birth (102 per 1,000) and abortion (121 per 1,000). However, the District of Columbia, as a major city, has inner-city patterns of teenage reproductive behavior but no suburban regions or demographics to offset the urban statistics. Also, a large proportion of teenage women in the District of Columbia are black (61%),²⁴ and blacks have higher levels of teenage pregnancy and fertility than other groups.

Of the states, Nevada had the highest pregnancy rate per 1,000 women aged 15–19 (140), followed by California (125), Arizona (118), Florida (115) and Texas (113). At the other end of the scale, North Dakota had the lowest teenage pregnan-

cy rate in 1996 (50 per 1,000). Rates in Minnesota, Maine, New Hampshire and Iowa followed (56–58 per 1,000). In the states with the lowest rates, the ratio of the pregnancy rate of older teenagers to that of younger teenagers is relatively high, ranging from 3.4 in North Dakota to 2.8 in Minnesota and Iowa; by comparison, this ratio is 2.5 in the country as a whole.

There has been little change since 1988 in the states with the highest and lowest pregnancy rates. California and Nevada were among the top five states in 1988 and 1992 as well as 1996, and North Dakota had the lowest teenage pregnancy rate in all three years (57, 59 and 50 per 1,000, respectively). Minnesota and Iowa also were among the lowest five states for all three years. Between 1988 and 1992, about an equal number of states had an increase and a decrease in pregnancy rate. Between 1992 and 1996, however, the pregnancy rate decreased in every state except New Jersey, where it had declined 13% between 1988 and 1992, and then stabilized at 97 per 1,000. In 34 states, the decrease between 1992 and 1996 was 10% or more. Alaska and Hawaii experienced the largest reductions (31% and 27%, respectively); California, Delaware, South Dakota and Washington also had declines of more than 20%.

In 1996, Mississippi, Arkansas, Arizona and Texas had higher teenage birthrates than any other state (73–75 births per 1,000 teenagers); New Mexico came next (71 per 1,000). The lowest birthrate was in New Hampshire (29 births per 1,000 women). Vermont and Maine (30–31 per 1,000) followed; Massachusetts, Minnesota and North Dakota all had 32 births per 1,000 teenagers.

New York had the highest abortion rate among women 15–19 in 1996 (53 abortions per 1,000 women). Nevada had the second-highest teenage abortion rate (51 per 1,000), followed by New Jersey, Maryland and California (45–50). Utah had the lowest adolescent abortion rate—eight per 1,000 women. North and South Dakota followed with 10 procedures per 1,000 women, then West Virginia with 11, and Idaho and Iowa with 12.

For all three rates, the states with the highest rates among older teenagers almost always had the highest rates among younger teenagers, and similarly for the lowest rates. The rates for the two age-groups are very highly correlated: 0.95 for birthrates, 0.96 for abortion rates and 0.97 for pregnancy rates.*

*These correlations exclude the District of Columbia and states where abortion rates were estimated or unavailable.

Table 2. Numbers of pregnancies, births and abortions among women aged 15–19, and rates of these events among women aged 15–19, by age-group, 1996; and pregnancy rates among women aged 15–19, 1988 and 1992; all according to state

State	Pregnancies				Births				Abortions				Pregnancy rate	
	No.*	Rate			No.	Rate			No.*	Rate			1988	1992
		15–19	15–17	18–19		15–19	15–17	18–19		15–19	15–17	18–19		
U.S. total	880,170	97	62	153	491,577	54	34	86	263,890	29	19	45	111	112
AL	16,520	106	69	160	10,807	69	45	104	3,230	21	13	32	110†	117
AK	1,770	75	46	117	1,096	46	26	75	420	18	13	25	111†	109†
AZ	17,650	118	80	176	11,009	74	49	111	4,030	27	19	39	127	133
AR	10,090	108	65	174	7,026	75	45	122	1,510	16	10	25	115	116
CA†	126,300	125	80	196	63,222	63	39	99	45,850	45	30	70	154†	159†
CO	11,930	90	58	141	6,541	50	30	80	3,710	28	20	41	102	111
CT	8,220	86	58	131	3,578	37	24	58	3,570	37	26	55	107	96
DE†	2,220	95	65	137	1,334	57	41	80	560	24	15	37	117†	121†
DC‡	3,390	256	185	349	1,354	102	79	133	1,610	121	82	173	209	277
FL†	48,290	115	71	185	24,806	59	37	94	16,840	40	24	65	133†	127†
GA	28,220	109	72	167	17,648	68	45	103	6,400	25	16	39	122	127
HI	3,950	101	66	149	1,884	48	28	76	1,540	39	30	53	134	138
ID	3,680	70	40	114	2,486	47	26	78	630	12	7	19	73	77
IL	42,510	106	70	164	22,831	57	36	91	13,740	34	25	50	112†	112†
IN	18,670	88	52	143	11,875	56	33	91	4,020	19	11	30	89	95
IA†	6,220	58	34	96	4,047	38	21	64	1,240	12	7	18	69†	67†
KS	7,490	79	47	130	4,714	50	28	84	1,660	18	12	26	88	90
KY	12,670	89	54	140	8,786	61	37	98	1,930	14	9	21	96	99
LA	17,350	97	62	148	11,945	67	43	102	2,750	15	10	23	107	109
ME	2,420	57	32	96	1,333	31	17	55	750	18	11	28	82	70
MD	16,480	106	68	165	7,186	46	30	72	7,150	46	30	71	129	118
MA	14,170	79	48	126	5,761	32	20	51	6,600	37	22	59	97	87
MI	29,840	87	54	140	15,909	46	28	75	9,770	29	18	45	111	108
MN	9,440	56	33	93	5,417	32	19	54	2,670	16	10	25	69	64
MS	12,090	108	74	160	8,451	75	52	110	1,770	16	10	25	106	122
MO	16,410	86	52	140	10,262	54	31	90	3,730	19	13	30	99	100
MT	2,230	65	38	107	1,326	39	21	66	580	17	11	26	74	81
NE	3,870	62	36	101	2,434	39	22	64	870	14	8	22	75	71
NV	6,840	140	90	220	3,402	70	42	114	2,510	51	36	76	142	145
NH†	2,130	57	31	100	1,072	29	15	51	770	20	12	35	87†	62†
NJ	23,700	97	63	152	8,639	35	23	55	12,120	50	32	78	112	97
NM	7,400	110	73	168	4,775	71	46	111	1,510	22	16	32	124	129
NY	61,700	108	70	166	23,876	42	26	66	30,040	53	36	78	116	120
NC	25,230	105	68	161	15,296	63	41	97	6,250	26	17	40	122	121
ND	1,220	50	26	88	793	32	16	58	250	10	6	17	57	59
OH	31,780	81	48	131	19,851	50	30	83	7,240	18	11	29	96	93
OK†	11,030	90	53	149	7,780	63	37	105	1,540	13	7	21	105†	100†
OR	10,060	90	55	146	5,681	51	29	85	2,950	26	18	40	105	99
PA	27,130	70	42	112	15,330	39	24	63	7,940	20	12	34	87	84
RI	2,620	87	51	142	1,285	42	27	66	980	32	16	57	86	96
SC	12,990	98	65	145	8,362	63	41	94	2,690	20	14	29	114	110
SD	1,760	59	35	95	1,189	39	22	66	310	10	7	15	69	74
TN	18,160	100	62	158	12,061	66	40	106	3,350	18	12	28	110	112
TX	80,490	113	74	174	52,273	73	49	111	16,150	23	14	36	117	123
UT	6,210	60	34	95	4,438	43	24	69	800	8	5	12	69	65
VT	1,210	60	34	103	601	30	15	54	440	22	14	35	81	71
VA	19,040	87	54	136	9,912	46	28	72	6,500	30	19	46	106	101
WA	16,340	85	54	135	8,609	45	26	74	5,460	29	20	42	109	107
WV	4,960	73	43	117	3,420	50	29	82	780	11	8	17	78†	85
WI	11,560	61	37	100	6,965	37	22	61	2,910	15	10	24	74	73
WY	1,520	74	47	118	899	44	25	75	400	20	16	26	82	81

*Rounded to the nearest 10. †Abortion estimates are based on the proportion of abortions obtained by women of the same age in neighboring or similar states. ‡The partitioning of abortions among teenagers into age-groups 15–17 and 18–19 is based on the proportion among all black teenagers nationally. Notes: Numbers of pregnancies and pregnancy rates include estimates of the number of miscarriages and stillbirths. In states with parental notification or consent requirements for minors, pregnancy and abortion rates may be too low because minors may have traveled to other states for abortion services.

Of the 29 states with pregnancy data by race and Hispanic ethnicity (Table 3), the pregnancy rate per 1,000 non-Hispanic white teenagers was highest in Arkansas (93) and was also high in other Southern and Southwestern states: Alabama, Arizona, Tennessee, Kentucky and Georgia (82–85). New Jersey had by far the lowest pregnancy rate among non-Hispanic white teen-

agers (33 per 1,000). Other states with relatively low rates were Minnesota, Pennsylvania, South Dakota and Utah (44–52).

For adolescent pregnancy rates among black teenagers, the state rankings are quite different. Pregnancy rates were highest in New Jersey (239 per 1,000), Minnesota (207), Wisconsin (200), Pennsylvania (199) and New York (194). They were

lowest in Hawaii (66 per 1,000), New Mexico (97), Alaska (111), South Carolina (125) and Arizona (126).

All 50 states report data on birthrates by race and ethnicity, although in some states, the number of black or Hispanic teenage women is too small to permit calculation of a meaningful rate. As with pregnancy rates, the highest birthrates among non-

Table 3. Number of pregnancies and pregnancy, birth and abortion rates among women aged 15–19, by race and ethnicity, according to state of residence, 1996

State	White non-Hispanic				Black				Hispanic			
	No. of pregnancies*	Rate per 1,000			No. of pregnancies*	Rate per 1,000			No. of pregnancies*	Rate per 1,000		
		Pregnancy	Birth	Abortion		Pregnancy	Birth	Abortion		Pregnancy	Birth	Abortion
U.S. total†	404,840	66	38	19	255,570	179	91	63	192,232	165	102	39
AL‡	(8,500)	(85)	54	(18)	7,770	147	98	27	u	u	96	u
AK	u	u	34	u	110	111	61	35	u	u	86	u
AZ	7,420	84	45	27	820	126	75	33	8,010	189	133	27
AR‡	6,470	93	64	15	3,240	154	108	22	290	150	121	4
CA	u	u	32	u	u	u	77	u	u	u	104	u
CO	u	u	32	u	880	130	75	37	u	u	112	u
CT	u	u	19	u	u	u	79	u	u	u	114	u
DE	u	u	35	u	u	u	109	u	u	u	120	u
DC	u	u	9	u	u	u	149	u	u	u	104	u
FL	u	u	44	u	u	u	96	u	u	u	67	u
GA‡	12,700	82	51	18	14,030	154	95	37	1,270	173	132	13
HI	u	u	22	u	90	66	36	21	u	u	105	u
ID	2,960	63	42	12	20	§	§	§	580	138	103	13
IL	u	u	32	u	u	u	118	u	u	u	111	u
IN‡	(13,990)	(77)	49	(16)	3,890	177	105	46	u	u	94	u
IA	u	u	34	u	u	u	108	u	u	u	108	u
KS‡	5,310	66	41	16	1,120	169	106	38	870	150	111	15
KY‡	(10,530)	(82)	57	(12)	1,920	157	103	30	u	u	89	u
LA‡	(7,300)	(72)	47	(14)	9,710	137	97	19	u	u	41	u
ME	(2,320)	(56)	31	(17)	30	§	§	§	u	u	§	u
MD	u	u	30	u	8,610	170	79	68	u	u	59	u
MA‡	u	u	21	u	u	u	72	u	u	u	109	u
MI‡	u	u	35	u	u	u	94	u	u	u	95	u
MN‡	6,680	44	24	14	1,220	207	121	56	620	184	132	23
MS‡	4,390	76	52	12	7,550	145	102	21	40	49	36	5
MO‡	(11,160)	(70)	45	(15)	4,720	180	106	48	u	u	84	u
MT	(1,730)	(57)	31	(17)	10	§	§	§	u	u	97	u
NE‡	u	u	31	u	u	u	100	u	u	u	104	u
NV	u	u	50	u	800	175	100	49	u	u	127	u
NH	u	u	28	u	u	u	§	u	u	u	69	u
NJ	5,140	33	15	15	10,860	239	81	129	5,960	169	79	68
NM	2,010	74	43	20	180	97	55	28	4,390	141	94	25
NY	20,750	62	24	30	24,960	194	66	104	16,410	165	78	64
NC‡	u	u	47	u	10,250	148	91	35	u	u	175	u
ND‡	u	u	26	u	u	u	§	u	u	u	§	u
OH‡	(21,670)	(66)	42	(14)	8,910	168	101	43	u	u	89	u
OK	u	u	55	u	u	u	93	u	u	u	102	u
OR	7,650	80	43	25	500	186	86	76	1,440	180	128	23
PA‡	15,490	48	28	13	9,110	199	101	72	2,310	178	127	24
RI‡	1,750	70	28	33	330	155	82	52	400	157	127	4
SC‡	6,180	79	48	19	6,530	125	85	22	200	124	91	13
SD	(1,250)	(48)	30	(11)	20	§	§	§	u	u	§	u
TN‡	11,640	83	56	15	6,040	156	102	31	290	140	104	13
TX	26,930	78	45	21	14,270	141	88	32	38,490	154	109	20
UT‡	4,860	52	37	7	90	128	88	20	1,010	167	126	15
VT	1,180	62	31	22	10	§	§	§	0	§	§	§
VA	(10,330)	(69)	35	(25)	7,570	145	78	47	u	u	67	u
WA	u	u	37	u	1,200	150	72	58	u	u	112	u
WV‡	(4,620)	(71)	50	(11)	310	128	81	28	u	u	§	u
WI‡	u	u	25	u	2,780	200	130	41	u	u	113	u
WY‡	u	u	39	u	u	u	§	u	u	u	80	u

*Rounded to the nearest 10. †Includes estimates for states not shown separately. ‡Number of pregnancies and abortion and pregnancy rates shown may be too low because parental notification or consent was required during all or part of 1996 and minors may have obtained abortions in other states; rates in neighboring states may be too high. §Rate not calculated because population base of women aged 15–19 was less than 500. Notes: Numbers of pregnancies and pregnancy rates include estimates of the number of miscarriages and stillbirths. Race and ethnicity are not mutually exclusive. Numbers of pregnancies, pregnancy rates and abortion rates in parentheses include abortions obtained by Hispanic women; in these states, 10% or fewer of births to white women 15–19 are to Hispanics. u=unavailable.

Hispanic white teenagers occurred in Southern and Southwestern states: Arkansas, Kentucky, Tennessee, Oklahoma and Alabama. The lowest rate was in the District of Columbia; rates in New Jersey, Connecticut, Massachusetts and Hawaii followed. The range in rates is remarkably wide: The rate in Arkansas (64 per 1,000) is more than four times that in

New Jersey (15) and seven times that in the District of Columbia (nine). Forty-two states and the District of Columbia had black teenage populations large enough for accurate analysis. Birth rates for black teenagers in 1996 were highest in the District of Columbia, Wisconsin and Minnesota, and lowest in Hawaii, New Mexico and Alaska.

Like pregnancy rates, abortion incidence among non-Hispanic white teenagers varied enormously in 1996 in the states with this information. Rates ranged from seven per 1,000 in Utah to 33 per 1,000 in Rhode Island. Other states with high rates were New York, Arizona, Oregon and Virginia. Nine states in addition to Utah had rates lower than 15 per 1,000;

South Dakota and West Virginia had the lowest rates in this group.

Just as New Jersey had the highest pregnancy rate among black teenagers, it had the highest abortion rate among these young women (129 per 1,000). New York was the only other state with a rate above 100 for black young women. Louisiana had the lowest abortion rate among black teenagers (19 per 1,000); it was followed closely by Utah, Hawaii and Mississippi (20–21).

Although one might expect the state-level factors that influence non-Hispanic white teenagers' pregnancy rate to also influence black teenagers, socioeconomic and cultural factors that affect the races in different ways appear to be more important. The correlation between the pregnancy rates of the two groups is negative and statistically significant ($r=-0.60$, $p<.01$). Four of the states with the highest pregnancy rates among black teenagers—Minnesota, New Jersey, New York and Pennsylvania—have very low or below-average rates among non-Hispanic white teenagers. Similarly, in all but one of the 10 states where the black teenage pregnancy rate is below 150 and the non-Hispanic white is known, the rate for non-Hispanic white women is above the national rate for that group.

For birthrates and abortion rates, the correlations between the two groups are positive ($r=0.28$ and 0.31 , respectively) but not statistically significant. The low correlations mean that the ratio of the rates of black teenagers to those of white teenagers varies substantially among states. For the country as a whole, the birthrate of black teenagers is 2.4 times that of non-Hispanic white teenagers, but this ratio varies from 1.3–1.6 in Hawaii, New Mexico and West Virginia to 5.0–5.6 in Minnesota, New Jersey and Wisconsin, and to 16.6 in the District of Columbia.

The abortion rates of black teenagers are also extremely variable compared with those of non-Hispanic whites. Nationally, abortions occur at a rate of 63 per 1,000 black teenagers—3.3 times the rate among non-Hispanic whites (19). Twenty-four states have data for both groups: In two of these, Arizona and South Carolina, the abortion rate among black teenagers is only 1.1–1.2 times that among non-Hispanic whites. In several other states, however, the differential is greater: New Jersey (8.6), Pennsylvania (5.5) and Minnesota (4.0).

For Hispanic teenagers, only 17 states have data on the number of abortions performed and a large enough Hispanic population to calculate rates. (Unfortunately, data on the characteristics of

women having abortions are unavailable for California, the state with the largest Hispanic population.) Among these states, the range in birthrates and abortion rates is quite large. In the states with small Hispanic populations, the data should be interpreted with caution because of the possibility of random year-to-year fluctuations and errors in the population estimates. The pregnancy rate per 1,000 teenagers was highest in Arizona (189), Minnesota (184) and Oregon (180). The lowest rate was in Mississippi (49 per 1,000); this was followed, but at some distance, by the rates in South Carolina (124) and Idaho (138). Birthrates ranged from 175 per 1,000 in North Carolina to 36 per 1,000 in Mississippi. The range in abortion rates was even greater: The highest rates per 1,000 were reported in New Jersey (68) and New York (64), while rates were extremely low in Arkansas, Rhode Island and Mississippi (4–5).

States with high pregnancy rates and birthrates among Hispanic teenagers were often different from those with high rates among non-Hispanic white teenagers. In fact, the correlations between the pregnancy rates, birthrates and abortion rates of Hispanic and non-Hispanic white teenagers were not statistically significantly different from zero. There was a positive, statistically significant correlation between the abortion rates of Hispanic and black teenagers ($r=0.86$, $p<.001$), possibly reflecting the influence of the accessibility of abortion services on both groups and the economic disadvantage of many young women in both groups.

Discussion

After rising during the late 1980s, the teenage pregnancy rate fell 17% between 1990 and 1996. Little of this drop can be attributed to increased abstinence, since the proportion of teenagers who are sexually experienced has fallen little and the pregnancy rate has dropped approximately 15% among those who are sexually experienced. Thus, there apparently have been behavioral changes among sexually experienced teenagers: either a lower frequency of intercourse or more effective contraceptive use.

The decline in the teenage birthrate occurred principally among women who have already had children: Between 1990 and 1996, the birthrate among teenagers who have had one child fell 20%, while the birthrate among childless teenage women fell only 3%.²⁵ This suggests that much of the pregnancy decline resulted from contraceptive use, rather than delayed sexual ac-

tivity. The use of new long-acting hormonal contraceptive methods may have played a major role. Among teenage contraceptive users with children, 22% of non-Hispanic whites and a remarkable 53% of blacks were using injectables or implants in 1995. In contrast, relatively few teenagers without children were using these methods.²⁶

An analysis of trends in contraceptive use and sexual activity came to a similar conclusion: that about three-fourths of the decline in the teenage pregnancy rate resulted from changes in contraceptive behavior, and only about one-fourth from delayed onset of sexual activity. That analysis also concluded that the rate of contraceptive use at first intercourse increased substantially between 1988 and 1995 and that the proportion of sexually active female teenagers who were currently using a method rose slightly, although the proportion who were protected at most recent intercourse fell slightly.²⁷

The abortion rate has fallen more rapidly than the birthrate and pregnancy rate, indicating that a higher proportion of pregnant teenagers are choosing to give birth and not to have an abortion. This change was concentrated among non-Hispanic whites, with little change among black and Hispanic women. The preference for continuing a pregnancy has increased about equally among younger and older teenagers. Between the mid-1980s and early 1990s, teenagers who experienced an unintended pregnancy became more likely to continue the pregnancy and give birth, while older women became more likely to end unintended pregnancies by abortion.²⁸ The reasons for the trend among teenagers and the differences between non-Hispanic white and black and Hispanic teenagers merit further investigation. Among the possibilities are that antiabortion sentiment and acceptance of nonmarital childbearing may have increased among teenagers, especially among non-Hispanic white teenagers; that abortion services have become less accessible; that state requirements involving parental involvement and waiting periods may be posing new barriers; and that the teenagers who are most motivated to avoid childbearing are the ones who have adopted long-acting contraceptive methods.

Surprisingly, the proportion of *all* pregnancies ended by abortion is similar among younger and older teenagers (34% and 36%, respectively, excluding miscarriages), even though older teenagers are more likely to want a child.²⁹ Thus, when teenagers have *unintended* pregnancies,

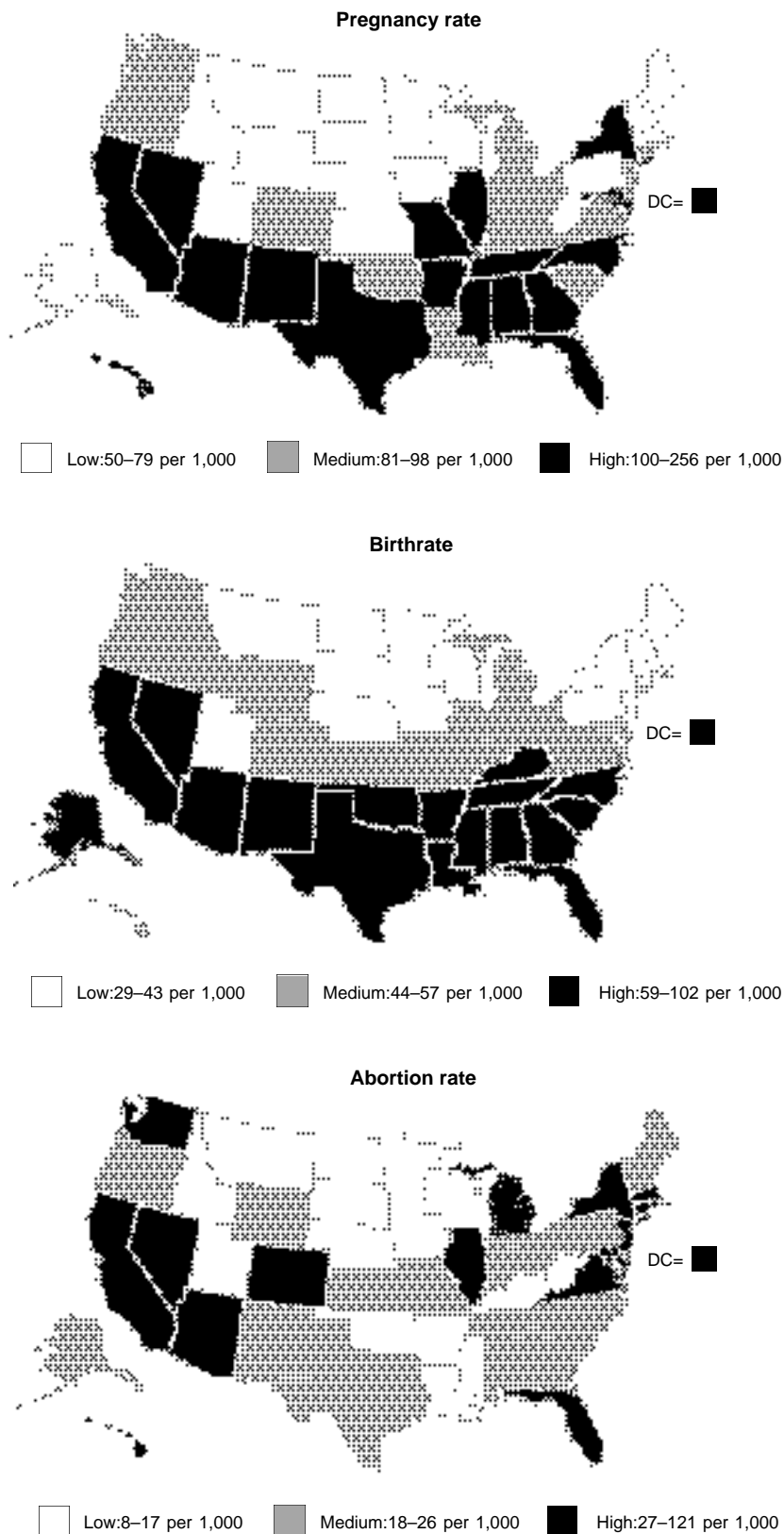
18–19-year-olds are more likely than 15–17-year-olds to have abortions. One would expect younger teenagers to be more likely to resolve pregnancies by abortion, given the level of financial and social support they need from their families and society to raise children. Among industrialized countries with data, the United States is the only one in which younger adolescents are not substantially more likely than older ones to terminate pregnancies by abortion.³⁰

Although birthrates have fallen among U.S. teenagers, they are still high in comparison with rates in other developed countries; even the rate for non-Hispanic white teenagers, who have the lowest rate among U.S. 15–19-year-olds (38 per 1,000), is higher than rates elsewhere in the developed world. In a few states, however, rates are comparable to those in other English-speaking countries, while still higher than those in Germany, France, Italy and Scandinavia. Similarly, the adolescent abortion rate is higher in the United States than in other countries, but the rate for non-Hispanic white teenagers is within the range of other English-speaking countries' rates, and the rate among non-Hispanic white teenagers in several states is comparable to or only slightly higher than the rates in the developed countries with the lowest rates.³¹

Teenage pregnancy rates, birthrates and abortion rates at the state level fall into distinct regional patterns (Figure 1). The states with the highest pregnancy rates (100 or more per 1,000) are generally in the South or Southwest; the exceptions are California, Hawaii, Illinois, Maryland, Missouri, Nevada and New York. The lowest pregnancy rates (below 80) are concentrated in the North Central and Northeast regions. With the exception of Massachusetts, Pennsylvania and Wisconsin, the states with pregnancy rates below 80 per 1,000 have no cities of population greater than 400,000.

Birthrates are even more geographically distinct. The highest rates (59–102 per 1,000) are found across the southern third of the country plus Alaska, California and Nevada. The lowest rates (29–43 per 1,000) are in the Northeast and North Central states, and a band of states with intermediate rates extends across the country. It appears that the social conservatism that is characteristic of Southern states does not protect against early pregnancy and child-bearing. Massachusetts, on the other hand, is considered one of the most liberal states, yet is well below the national average in teenage pregnancy and has one of the lowest adolescent birthrates.

Figure 1. Teenage pregnancy, birth and abortion rates, by state, 1996



Abortion rates follow a somewhat different pattern. In general, rates tend to be high in the most urban states. This could reflect in part the limited availability of abortion services in rural areas and small cities.

As in 1992, states with relatively high pregnancy rates and birthrates among white teenagers do not necessarily have high rates among black teenagers, and vice versa. This pattern suggests that within states, there is little relation between the relevant socioeconomic and cultural characteristics of black and non-Hispanic white teenagers. For example, high family income is associated with lower birthrates,³² yet, states where non-Hispanic white teenagers have high family incomes are not necessarily states where black teenagers also have high family incomes. Also, different factors could affect the pregnancy rates and birthrates of non-Hispanic white and black teenagers, or the same factors could affect the two groups differently.

Despite strong regional patterns in rates of pregnancy, birth and abortion among teenagers, virtually all states have experienced reduced teenage pregnancy rates, and the magnitude of the decline shows no strong regional pattern. All regions had some states with above-average and below-average declines. States that had high rates in 1992 and those that had low rates showed similar proportional changes between 1992 and 1996. It is evident that factors contributing to the increased prevention of teenage pregnancy are operative in all parts of the country.

Although rates have fallen, further progress is possible, as is indicated by the low rates in certain states and in other developed countries. States with above-average rates should seek ways to promote pregnancy prevention, including ensuring that long-acting hormonal contra-

ceptive methods and emergency contraceptive pills are available to all teenagers who are at risk of unintended pregnancy.

Much of the large interstate variation in teenage pregnancy rates, birthrates and abortion rates by race or ethnicity remains unexplained, and even less of the variation in trends is readily explained. More research is needed to shed light on the factors that influence the reproductive behavior of adolescents.

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