

Smoking During Pregnancy, 1990–96

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Abstract

Objectives—This report presents trend data for smoking during pregnancy. Data are presented for various characteristics including age of mother, race and ethnic origin, place of birth of mother, and State of residence.

Methods—Descriptive tabulations were calculated using data reported on birth certificates between 1990 and 1996.

Results—The rate of smoking during pregnancy has declined each year between 1990 and 1996. In 1996 over 400,000 women reported smoking during their pregnancies (13.6 percent of all births). The rates of smoking during pregnancy for women 15–19 years of age declined between 1990 and 1994 but increased in the last two years, and now they have the highest rates of all age groups. Among race and ethnic groups, American Indian, non-Hispanic white, and Hawaiian women had the highest rates of smoking during pregnancy in 1996, while Chinese women had the lowest rates.

Keywords: smoking • maternal characteristics • birth certificate • teenagers

Introduction

Recently published data from the National Center for Health Statistics (NCHS) reported another decline in smoking rates during pregnancy based on birth certificate data for 1996 (1). Smoking during pregnancy is associated with adverse outcomes, including low birth-weight, intrauterine growth retardation, and infant mortality as well as negative consequences for child health and development (2–6).

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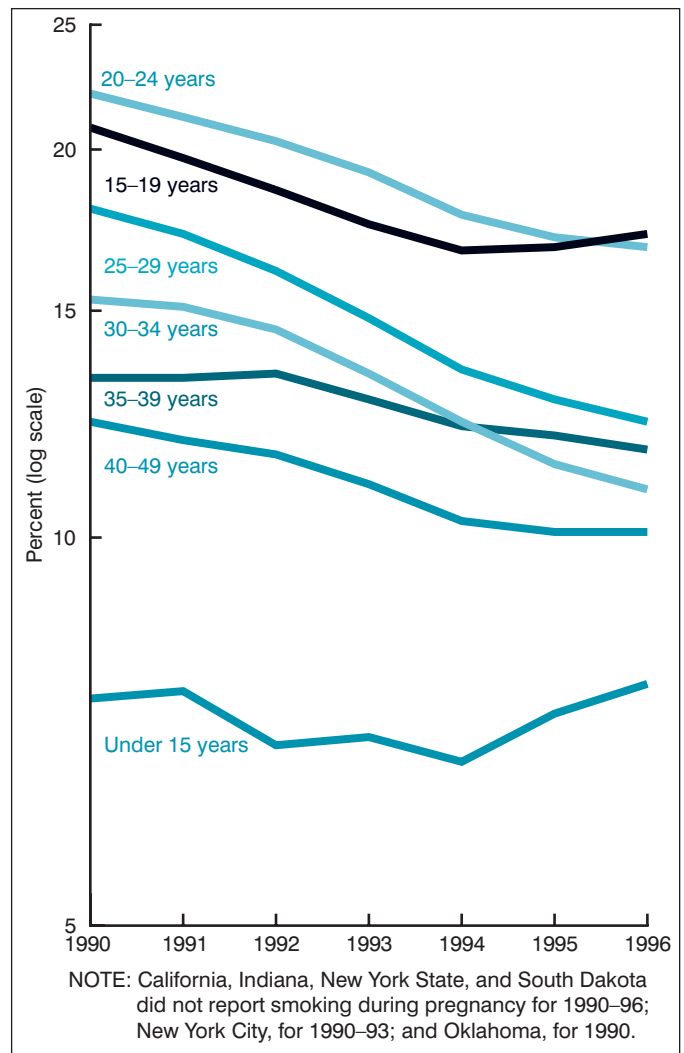


Figure 1. Percent of mothers who smoked during pregnancy by age: Total reporting areas, 1990–96

Estimates of smoking attributable costs of complicated births range from 1.4 to 2 billion dollars annually (7). This report is a more detailed follow up showing trend data by age of mother, State, race, Hispanic origin of mother, and place of birth of mother.

California, Indiana, New York State, and South Dakota either did not ask a question on smoking during pregnancy on their birth certificates from 1990 to 1996 or asked it in a form that was not compatible with the standard recommended by NCHS. Oklahoma began reporting smoking data on the birth certificate in 1991, and New York City, a registration area separate from that of New York State, began reporting in 1994. Therefore, the number of reporting areas included in the data shown here changed slightly over time. The 1990 data on smoking during pregnancy were based on 75 percent of all live births, and the data for 1996 were based on 79 percent of all live births. The smoking data for Asian or Pacific Islander and Hispanic women were based on smaller percentages of births compared to other race and ethnic groups (61 and 62 percent, respectively, in 1996), primarily because of the lack of data for California.

Smoking during pregnancy declines

The percentage of women who smoked during pregnancy declined every year from 1990 through 1996. The rate of smoking during pregnancy was 18.4 percent in 1990 and has declined by 26 percent to a rate of 13.6 in 1996.

Teenagers now have the highest rates of smoking during pregnancy

In 1995 and 1996 women 15–19 years of age reported the highest rate of smoking during pregnancy (17.2 percent in 1996). During the 1990–94 period, mothers 20–24 years of age had the highest rate. While the rate of smoking during pregnancy for 20–24-year-olds continued to decline over the entire period, the rate increased for teenagers during the last two years (from 16.7 percent in 1994 to 16.8 in 1995 and 17.2 in 1996). Still, the percent of teenage women who smoked during pregnancy in 1996 (17.2) was 17 percent lower than the percent who smoked in 1990 (20.8). In 1990 and 1996, the youngest (under 15 years of age) and oldest (40–49 years of age) women had the lowest rate of smoking during pregnancy (7.7 and 10.1 percent in 1996, respectively) (table 1 and figure 1).

Smoking rates decline for mothers over 20 years of age

Declines in smoking rates were observed for all age groups of mothers 20 years of age and over. The largest decline from 1990 to 1996 was found for mothers 25–29 years of age (32 percent) followed by 30–34-year-olds (29 percent). Mothers aged 20–24 years had a 24-percent decline, while the decline for 40–49-year-olds was 18 percent; the decline was smallest for 35–39-year-olds (12 percent).

Declines for all race/ethnic groups

Declines in smoking during pregnancy were reported for all race and Hispanic origin groups between 1990 and 1996 (table 1 and figure 2). Of all race and ethnic groups, American Indian women have the highest rate of smoking during pregnancy (21.3 in 1996); they also reported the smallest decline between 1990 and 1996 (5 percent).

Smoking rates were also high for non-Hispanic white mothers, 16.9 percent in 1996, a decline of 20 percent from 1990. Hispanic mothers and non-Hispanic black mothers had similar declines of 36 and 35 percent, respectively, to 4.3 and 10.3 percent in 1996. The rate of smoking during pregnancy for Asian or Pacific Islanders—who had the lowest rate among all race/ethnic groups—declined by 40 percent from 5.5 percent in 1990 to 3.3 in 1996. Similar declines by race and ethnicity have been observed not only for pregnant women but for all women in the United States (8).

Among teenage mothers non-Hispanic whites have the highest rates

Smoking rates for all Hispanic and Asian or Pacific Islander mothers were generally low for all ages from 1990 to 1996 (less than one-half the rates of non-Hispanic whites, non-Hispanic blacks, and American Indians) (table 1). Declines in smoking during pregnancy were found for Hispanic, non-Hispanic white, and Asian or Pacific Islander women in all age groups (figure 3). Hispanic mothers 25–29 years of age had a 42-percent decline in smoking rates. Declines for

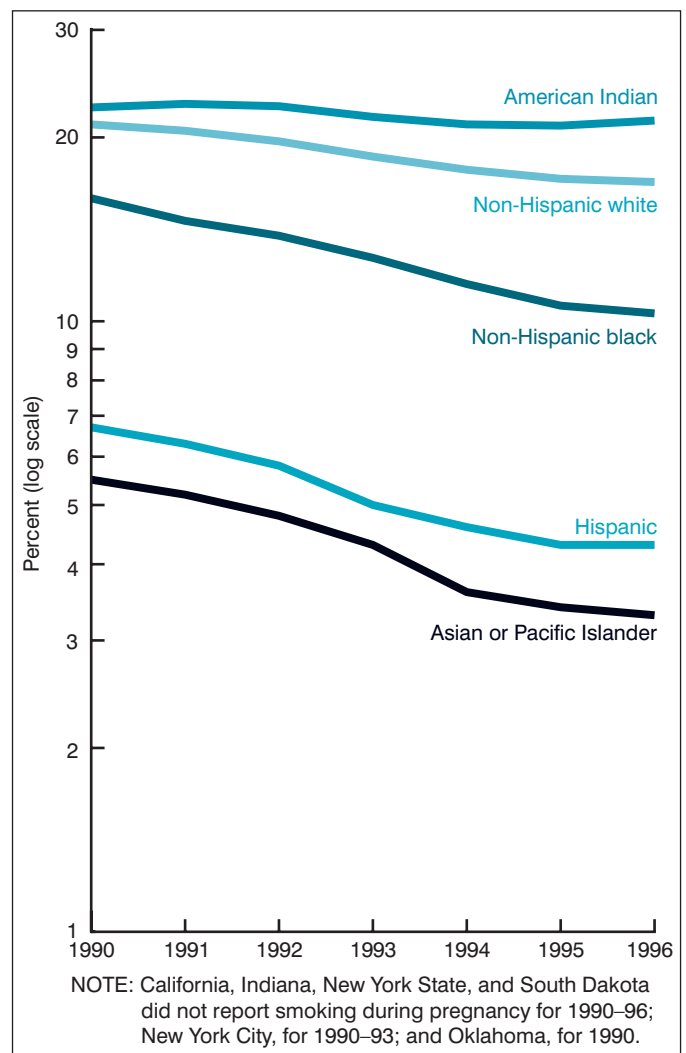


Figure 2. Percent of mothers who smoked during pregnancy by race and Hispanic origin: Total reporting areas, 1990–96

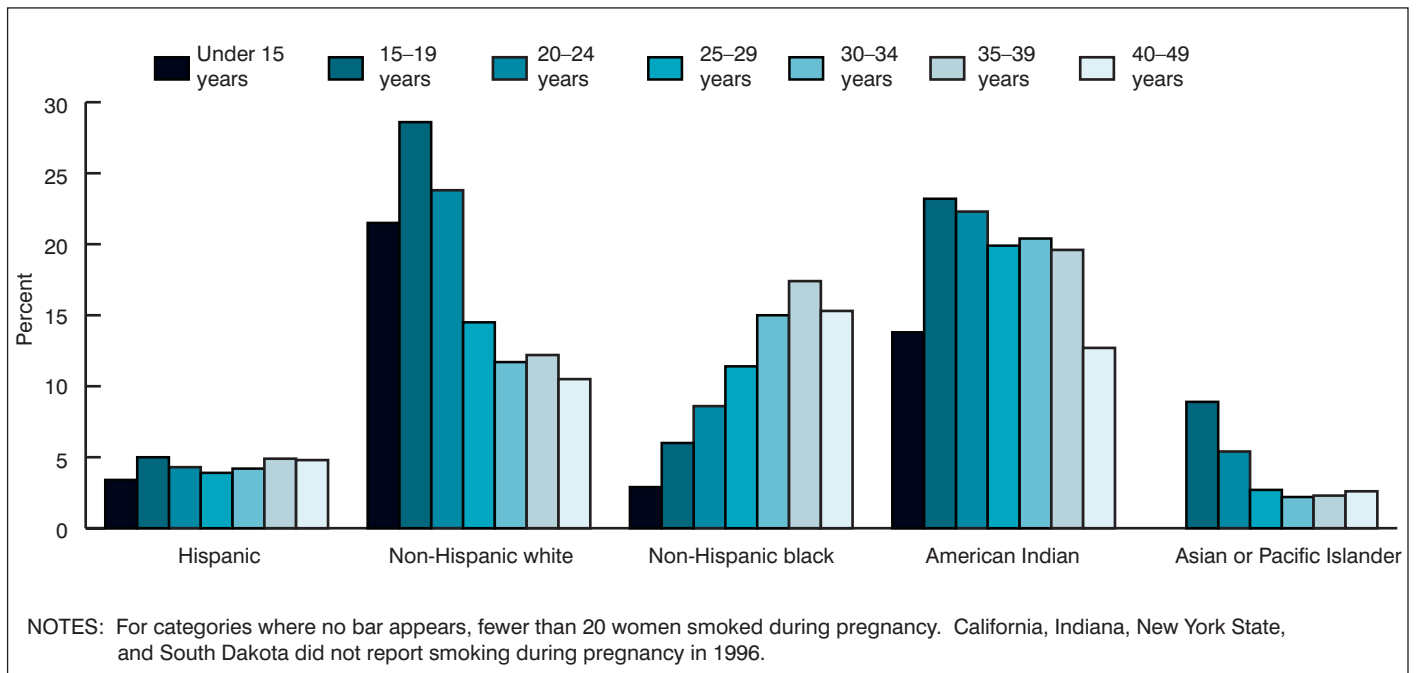


Figure 3. Percent of mothers who smoked during pregnancy by race, Hispanic origin, and age of mother: Total reporting areas, 1996

Asian or Pacific Islander mothers ranged from 25 to 55 percent by age. Non-Hispanic white mothers 15–19 years of age had the highest smoking rates in this age group over the entire period, despite the fact that their rate declined 11 percent between 1990 and 1996. At least one-fifth of American Indian women in the age groups 15–39 years smoked during pregnancy in 1996. American Indian mothers had declines for all age groups except for 30–34-year-olds and 35–39-year-olds who showed a 3- and 17-percent increase, respectively. Non-Hispanic black women showed a decline in smoking during pregnancy for all age groups except for those groups under 15 years of age who experienced an increase from 2.0 percent in 1990 to 2.9 percent in 1996.

Recent increases in 1995 and 1996 for 15–19-year-olds

After steady declines in rates of smoking during pregnancy among 15–19-year-olds from 1990 to 1994, rates increased in 1995 and again in 1996. Hispanic and non-Hispanic white teenage smoking rates during pregnancy increased only in 1996 (9-percent increase to 5.0 percent and 2-percent increase to 28.6 percent, respectively). Non-Hispanic black and American Indian teenage smoking rates during pregnancy increased in 1995 and 1996 (20-percent increase to 6.0 percent and 6-percent increase to 23.2 percent). Asian or Pacific Islander 15–19-year-olds had a decrease from 10.4 percent to 8.5 percent for 1994–96.

Puerto Rican mothers have higher rates than any other Hispanic groups

As previously stated, overall smoking rates for Hispanic and Asian or Pacific Islander mothers are low; however, rates differed considerably within Hispanic and Asian or Pacific Islander subgroups. Among Hispanic women Puerto Ricans had the highest rates of

smoking during pregnancy in 1996 (11.0 percent), over six times higher than the rate of 1.8 percent for Central and South American women (table 2, figure 4). Puerto Rican women 35–39 years of age had the highest rate (12.1 percent) of all Hispanic origin groups of any age. The age pattern for smoking during pregnancy is similar for Mexican and Cuban women, with those aged 25–29 years reporting the lowest rates.

Hawaiian mothers have higher rates than any other Asian and Pacific Islander groups; Chinese mothers smoke very little

In 1996 Chinese women had the lowest rates of smoking during pregnancy among Asian or Pacific Islanders and the lowest rates of any group by race and Hispanic origin (0.7 percent), while 15.3 percent of Hawaiian women smoked during pregnancy, 20 times the rate for Chinese women (figure 4). Among Hawaiian mothers the highest rate was for those 20–24 years of age with slightly lower rates in each category of older mothers. The rate of smoking during pregnancy steadily decline by age for Japanese and Filipino women.

Large differences by place of birth of mother

Among the areas that reported smoking in 1996, 15 percent of births occurred to women born outside the 50 States and the District of Columbia. Women born outside the 50 States and the District of Columbia were less likely to smoke during pregnancy than those born in the 50 States and the District of Columbia (figure 5) (9). Non-Hispanic black, Filipino, Central and South American, Mexican, and particularly Chinese women born outside the 50 States and the District of Columbia had strikingly low rates of smoking during pregnancy.

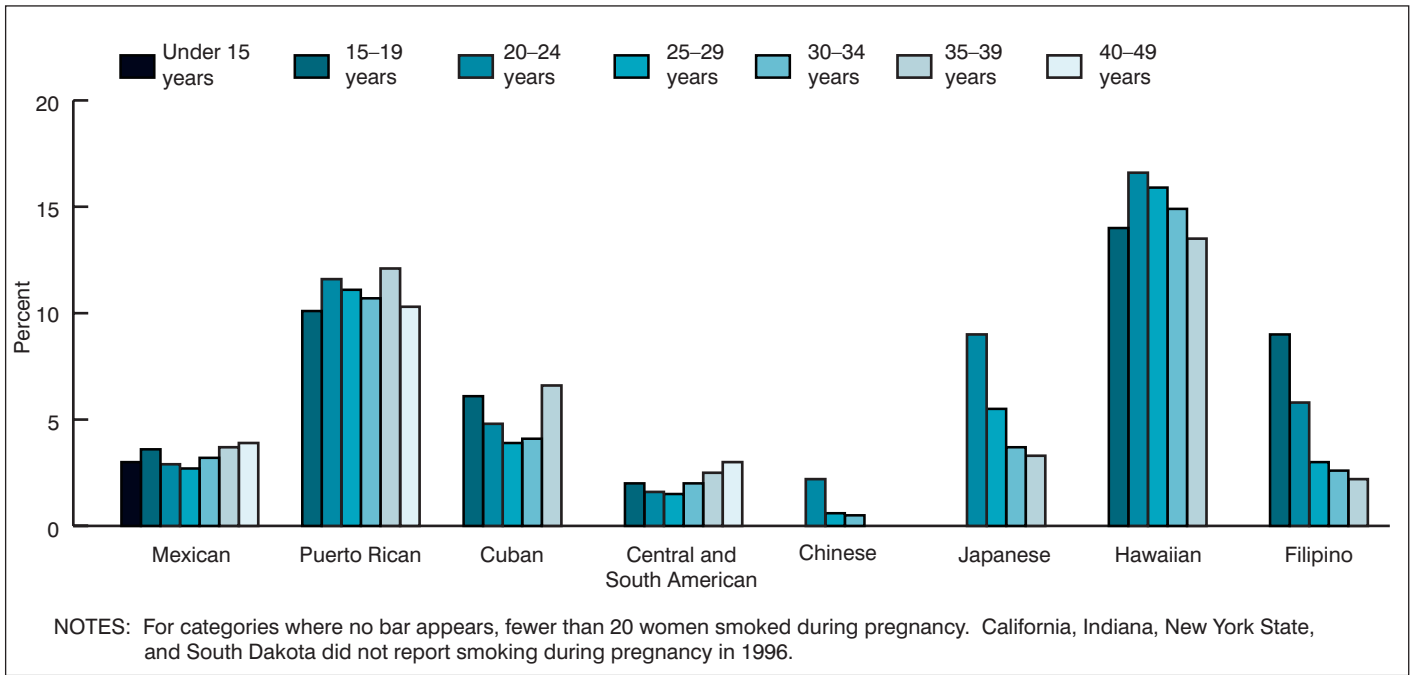


Figure 4. Percent of mothers who smoked during pregnancy by race, ethnic origin, and age of mother: Total reporting areas, 1996

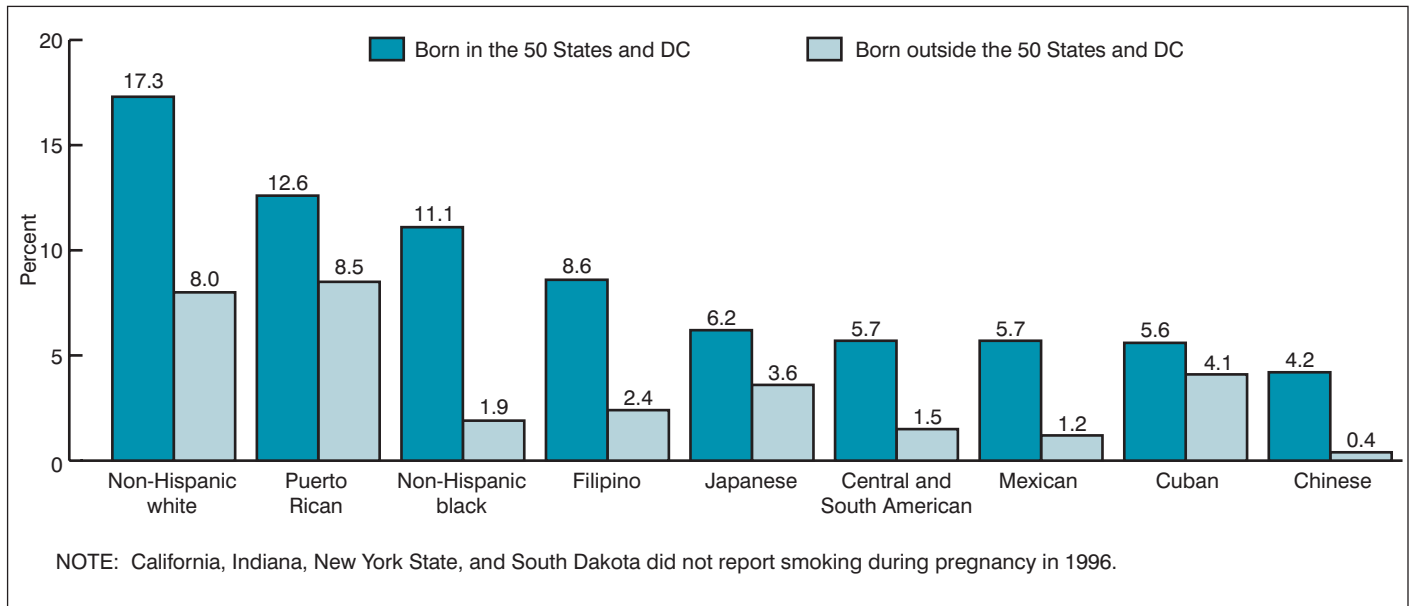


Figure 5. Percent of mothers who smoked during pregnancy by race and ethnic origin and place of birth of mother: Total reporting areas, 1996

All reporting areas show declines

Connecticut, the District of Columbia, Hawaii, New York City, Texas, and Utah reported smoking rates in 1996 that are at or below the Healthy People 2000 goal of 10 percent for smoking during pregnancy (10). In nine States the percent of women who smoked during pregnancy was 19 percent or higher. West Virginia had the highest rate; in 1996, 25.5 percent of women reported smoking during pregnancy.

Six States—Arizona, Colorado, Florida, Georgia, Hawaii, Massachusetts, and Nevada—had declines of 30 percent or more between 1990 and 1996 (figure 6). The District of Columbia reported a 57-percent decline in the rate of smoking during pregnancy. The percent of women who smoked during pregnancy has declined significantly in all reporting areas except for New Mexico, unchanged at 11.3 percent (table 3).

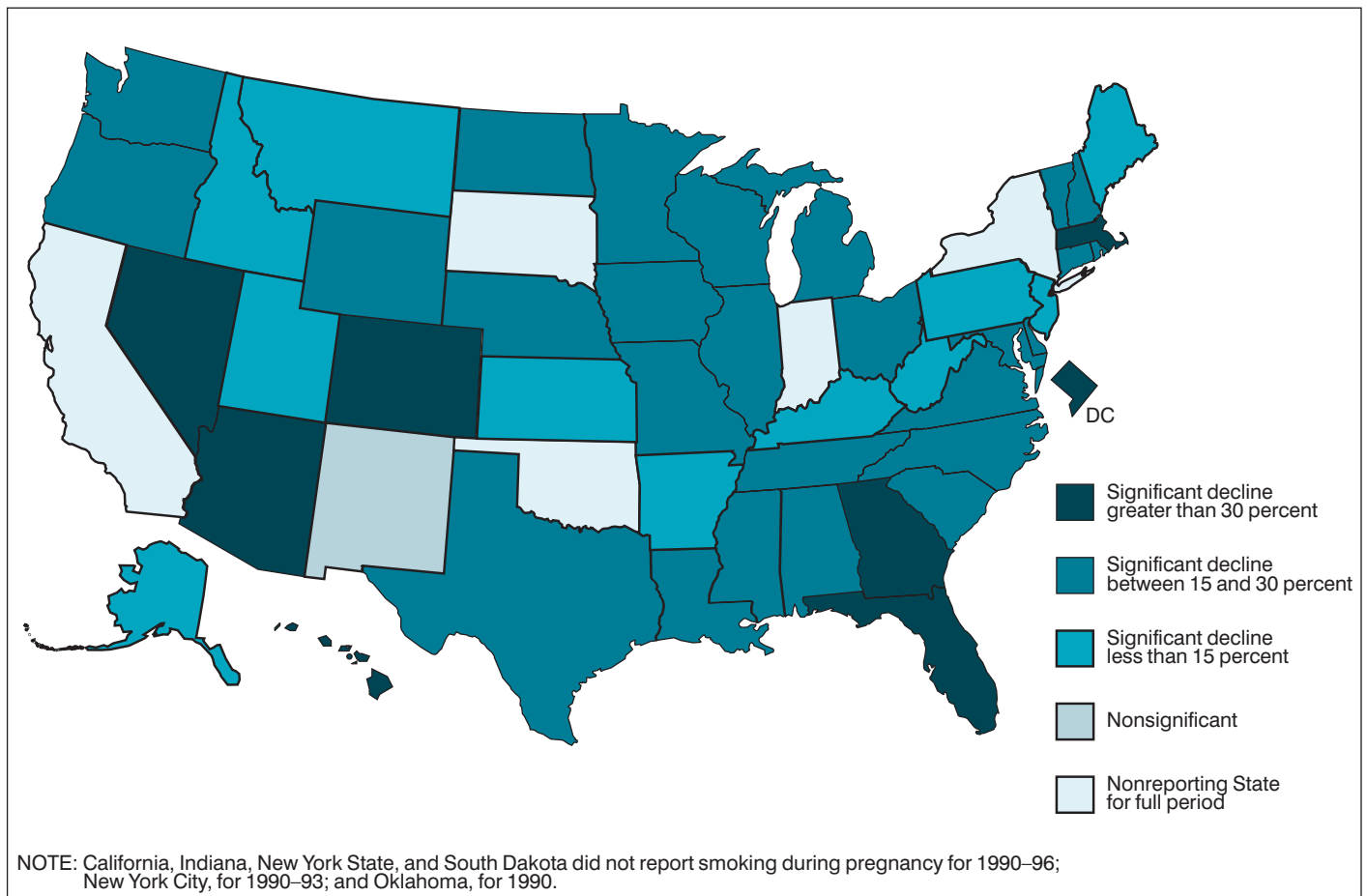


Figure 6. Change in percent of women who smoked during pregnancy by State: 1990-96

Among teenage mothers those in the District of Columbia have the lowest rate; Hawaiian teenage mothers have the largest decline

Table 4 and figure 7 present cumulative data for the years 1990-91 and 1995-96 to show State-specific changes in the percent of teenage women (15-19 years of age) who smoked during pregnancy. Thirty-four States showed significant declines during the period. Of those, nine States had declines of 20 percent or more. Hawaii had the largest decline in the rate of teenage women who smoked during pregnancy (34 percent). As stated previously, although the rates of smoking by teenage mothers increased in 1995 and 1996, rates were still 17 percent lower in 1996 than in 1990. The smoking rates for teenage mothers for the periods 1990-91 to 1995-96 show a similar decrease of 16 percent.

Fewer cigarettes smoked

The number of cigarettes smoked during pregnancy has also declined (1). Among women who smoked during pregnancy, 33 percent smoked at least a half pack a day in 1996, a decline from 42 percent in 1990. Data from the birth certificate show that the number of cigarettes smoked during pregnancy is greater for women in older age groups (1). In 1996, 24 percent of 15-19-year-old women who smoked during pregnancy smoked more than a half pack a day, down from 35 percent in 1990. More than one-third of mothers 25

years of age and over who smoked consumed more than a half pack a day in 1996, down from one-half of these women in 1990. It is a hopeful sign that cutting down on the number of cigarettes smoked is occurring at the same time that fewer women are smoking during pregnancy.

Data limitations

Smoking data collected on birth certificates have a number of important limitations. As stated earlier, from 1990 to 1996 a range of 75 to 79 percent of all birth certificates had information about smoking status. The smoking rates reported here are for the total of the reporting areas. The rates are not national rates. As noted previously, the lack of data for California limits the representativeness of data for Hispanic and Asian or Pacific Islander mothers. However, a 1992 study conducted in California corroborates low rates of smoking during pregnancy for Hispanic and Asian or Pacific Islander mothers (11). Rates of smoking during pregnancy for all Hispanic and Asian or Pacific Islander women may differ from those reported here because of the lack of data for California, Indiana, New York State, and South Dakota.

Smoking rates based on birth certificate data and trends in maternal smoking have been shown to be consistent with data from other sources in some studies (12), while others suggest that data from birth certificates underestimate smoking rates during pregnancy (13, 14). The question on the current birth certificate lacks a specific time

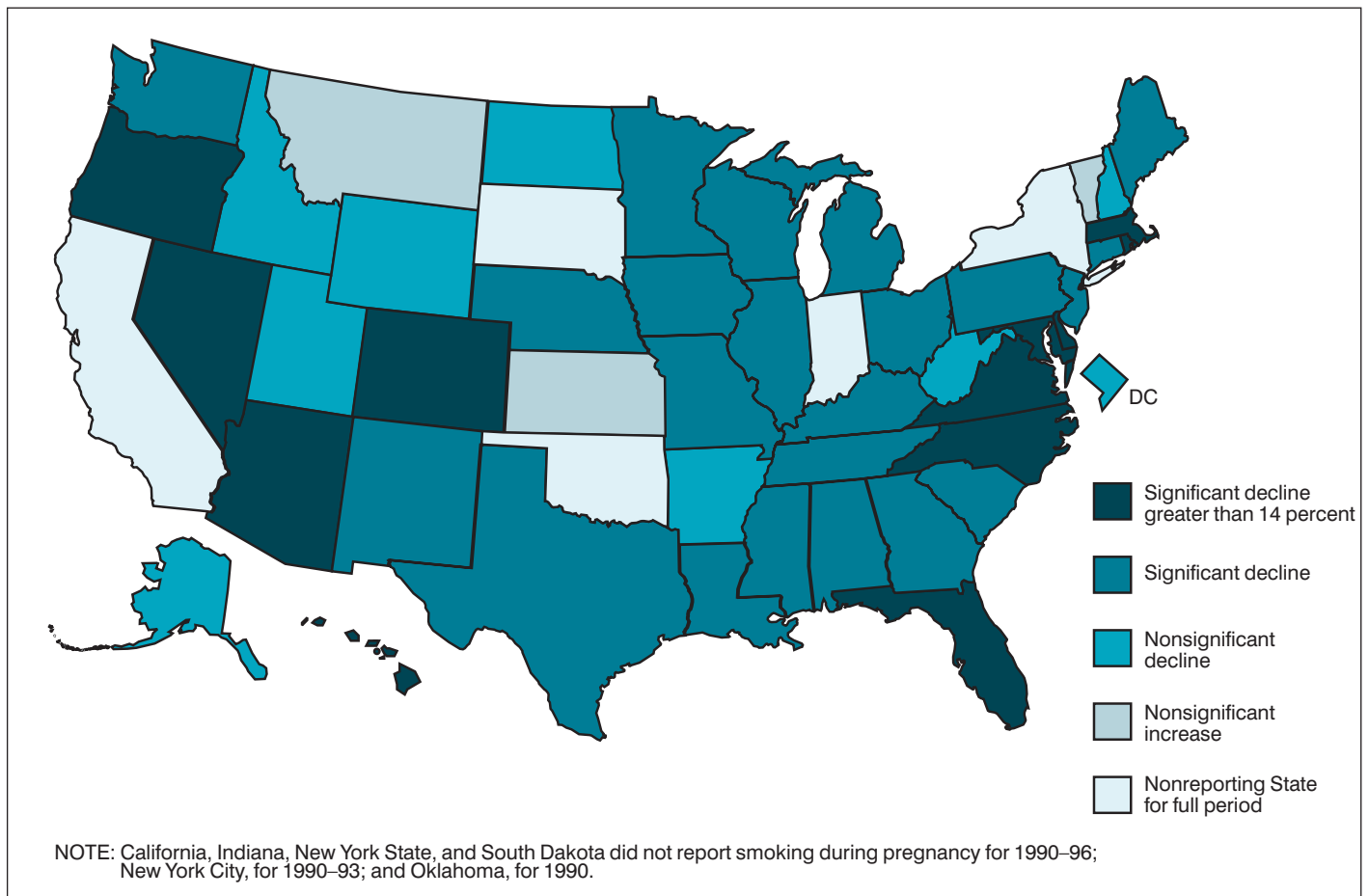


Figure 7. Change in percent of 15-19-year-old women who smoked during pregnancy by State: 1990-91 and 1995-96

reference, and the information provided may come from prenatal records or from the mother after delivery. Another recent study has examined alternative ways of asking about mother's smoking behavior during pregnancy on the birth certificate (15). It concluded that information about smoking before pregnancy and smoking cessation during pregnancy would be helpful in the collection of maternal smoking data.

The degree to which mothers say they have quit or do not smoke when the opposite is true is unknown. The stigma of smoking can hamper the complete collection of information. In cases of poor birth outcome (e.g., low birthweight), when the mother is asked about lifestyle factors, including smoking, it is possible that she would be less willing to admit having smoked.

Conclusions

There is strong evidence that public health education efforts to inform people in the United States about the dangers and costs of smoking have helped reduce smoking rates. National efforts to reduce overall smoking in the United States combined with those in individual States and those focused directly on pregnant women have evidently helped to reduce rates of smoking during pregnancy (16). There is evidence that a woman's knowledge that she is pregnant does cause some women to stop smoking (17). The low rates of smoking during pregnancy for some women (Japanese, Cuban, Filipino, Mexican, Central and South American, and particularly Chinese—all less than 5 percent) provide an excellent point of reference for women whose

rates are much higher (non-Hispanic black, Puerto Rican, Hawaiian, non-Hispanic white, and American Indian—all greater than 10 percent). Recent increases in smoking rates for teenage mothers and continued high rates for American Indian mothers indicate the need for additional education.

In October 1997 the American College of Obstetricians and Gynecologists launched a campaign to help women quit smoking. Much of their effort focuses on teenage women because "most smokers begin as teenagers, developing a habit that can be difficult to quit later—even during pregnancy" (18). This effort and others like them are essential to reducing the risks and costs of smoking during pregnancy.

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Table 1. Percent of women who smoked during pregnancy by race/ethnicity and age of mother and percent change between 1990 and 1996: Total reporting areas, 1990-96

Race, ethnicity, and year	Total	Age of mother						
		Under 15 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-49 years
Total¹								
1996 ²	13.6	7.7	17.2	16.8	12.3	10.9	11.7	10.1
1995 ²	13.9	7.3	16.8	17.1	12.8	11.4	12.0	10.1
1994 ²	14.6	6.7	16.7	17.8	13.5	12.3	12.2	10.3
1993 ³	15.8	7.0	17.5	19.2	14.8	13.4	12.8	11.0
1992 ³	16.9	6.9	18.5	20.3	16.1	14.5	13.4	11.5
1991 ³	17.7	7.5	19.7	21.1	17.1	15.1	13.3	11.9
1990 ⁴	18.4	7.5	20.8	22.1	18.0	15.3	13.3	12.3
1990-96 percent change	-26	3	-17	-24	-32	-29	-12	-18
Hispanic								
1996 ²	4.3	3.4	5.0	4.3	3.9	4.2	4.9	4.8
1995 ²	4.3	3.3	4.6	4.5	3.8	4.2	5.0	4.0
1994 ²	4.6	3.1	4.8	4.7	4.2	4.6	5.0	4.3
1993 ³	5.0	4.1	5.2	5.2	4.7	5.0	5.1	4.4
1992 ³	5.8	3.4	5.8	6.1	5.5	5.7	5.7	5.0
1991 ³	6.3	4.4	6.5	6.6	6.1	6.4	5.9	5.6
1990 ⁴	6.7	4.4	6.8	6.9	6.7	6.7	6.0	5.2
1990-96 percent change	-36	-23	-26	-38	-42	-37	-18	-8
Non-Hispanic white								
1996 ²	16.9	21.5	28.6	23.8	14.5	11.7	12.2	10.5
1995 ²	17.1	21.5	28.1	23.9	14.8	12.0	12.4	10.6
1994 ²	17.7	21.1	28.1	24.4	15.3	12.8	12.3	10.5
1993 ³	18.6	20.3	28.8	25.5	16.2	13.6	12.8	11.2
1992 ³	19.7	20.9	29.9	26.2	17.4	14.7	13.5	12.1
1991 ³	20.5	22.4	31.0	26.8	18.3	15.3	13.4	12.4
1990 ⁴	21.0	22.8	32.0	27.3	19.0	15.3	13.4	12.9
1990-96 percent change	-20	-6	-11	-13	-24	-24	-9	-19
Non-Hispanic black								
1996 ²	10.3	2.9	6.0	8.6	11.4	15.0	17.4	15.3
1995 ²	10.6	2.4	5.2	8.8	12.6	16.2	18.2	14.8
1994 ²	11.5	1.7	5.0	9.6	14.4	18.0	19.3	15.8
1993 ³	12.7	2.0	5.2	10.9	16.6	20.3	20.6	17.4
1992 ³	13.8	1.8	5.9	12.1	18.3	21.6	21.0	16.4
1991 ³	14.6	2.1	6.6	13.2	19.7	22.1	19.9	16.7
1990 ⁴	15.9	2.0	7.5	15.0	21.2	22.7	19.7	16.4
1990-96 percent change	-35	45	-20	-43	-46	-34	-12	-7
American Indian⁵								
1996 ²	21.3	13.8	23.2	22.3	19.9	20.4	19.6	12.7
1995 ²	20.9	14.7	22.1	22.1	19.8	19.7	19.3	16.4
1994 ²	21.0	16.9	21.9	21.6	19.9	21.1	19.3	17.6
1993 ³	21.6	14.6	22.5	22.2	21.4	21.7	17.9	18.1
1992 ³	22.6	*	23.7	23.6	22.0	21.4	20.0	17.3
1991 ³	22.7	16.4	23.4	23.4	22.6	21.6	20.0	17.3
1990 ⁴	22.4	*	24.7	23.6	22.4	19.9	16.8	13.6
1990-96 percent change	-5	...	-6	-6	-11	3	17	-7
Asian or Pacific Islander								
1996 ²	3.3	*	8.5	4.3	2.4	2.0	2.2	2.9
1995 ²	3.6	*	9.8	6.2	3.1	2.4	2.6	2.2
1994 ²	3.8	*	10.4	6.7	3.0	2.7	2.6	3.4
1993 ³	5.0	*	11.8	8.0	4.0	3.6	3.5	4.3
1992 ³	5.6	*	12.9	8.4	5.0	3.9	4.1	3.8
1991 ³	5.2	*	9.9	7.2	4.4	3.9	4.4	4.0
1990 ⁴	5.5	*	11.3	7.8	4.5	4.4	4.1	4.8
1990-96 percent change	-40	...	-25	-45	-47	-55	-46	-40

* Fewer than 20 births.

... Category not applicable.

¹Includes origin not stated.²Excludes California, Indiana, New York State, and South Dakota.³Excludes California, Indiana, New York City, New York State, and South Dakota.⁴Excludes California, Indiana, New Hampshire, New York City, New York State, Oklahoma, and South Dakota.⁵Includes births to Aleuts and Eskimos.

Table 2. Percent of women who smoked during pregnancy by specified race/ethnicity and age of mother: Total reporting areas, 1996

Race/ethnicity	Total	Age of mother						
		Under 15 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-49 years
Total	13.6	7.7	17.2	16.8	12.3	10.9	11.7	10.1
Hispanic	4.3	3.4	5.0	4.3	3.9	4.2	4.9	4.7
Mexican	3.1	3.0	3.6	2.9	2.7	3.2	3.7	3.9
Puerto Rican	11.0	*	10.1	11.6	11.1	10.7	12.1	10.3
Cuban	4.7	*	6.1	4.8	3.9	4.1	6.6	*
Central and South American	1.8	*	2.0	1.6	1.5	2.0	2.5	3.0
Other and Unknown	9.1	*	9.6	9.6	8.4	8.5	9.3	8.6
Asian or Pacific Islander	3.3	*	8.9	5.4	2.7	2.2	2.3	2.6
Chinese	0.7	*	*	2.2	0.6	0.5	*	*
Japanese	4.8	*	*	9.0	5.5	3.7	3.3	*
Hawaiian	15.3	*	14.0	16.6	15.9	14.9	13.5	*
Filipino	3.5	*	9.0	5.8	3.0	2.6	2.2	*
Other	2.7	*	7.3	4.0	2.1	1.9	2.2	2.7

* Fewer than 20 births.

NOTE: Excludes California, Indiana, New York State, and South Dakota.

Table 3. Percent of mothers who smoked during pregnancy by State and percent change between 1990 and 1996: Total reporting States and each State, 1990–96

State	1996 ¹	1995 ¹	1994 ¹	1993 ²	1992 ²	1991 ²	1990 ³	Percent change 1990–96
Total	13.6	13.9	14.6	15.8	16.9	17.8	18.4	-26.1
Alabama	13.0	13.4	13.7	14.6	15.1	16.4	16.5	-21.2
Alaska	20.5	19.2	21.6	21.6	23.3	23.2	21.9	-6.4
Arizona	10.3	11.5	12.2	12.4	12.6	14.3	15.0	-31.3
Arkansas	19.3	19.3	20.0	20.5	21.1	22.0	22.6	-14.6
California . . . . .	...	...	...	...	...	...	...	...
Colorado	12.6	12.7	13.3	14.9	15.5	17.8	18.1	-30.4
Connecticut	10.0	10.4	10.8	11.4	12.9	13.2	13.4	-25.4
Delaware	14.0	13.2	14.0	15.0	16.4	18.8	19.6	-28.6
District of Columbia	7.0	8.3	9.7	10.2	13.0	13.2	16.3	-57.1
Florida	12.2	12.9	13.8	15.1	16.3	17.0	18.3	-33.3
Georgia	10.4	11.2	11.8	12.5	13.4	14.1	15.5	-32.9
Hawaii	8.6	8.4	8.6	9.7	11.4	12.1	12.5	-31.2
Idaho	14.3	13.7	14.1	14.7	15.7	16.2	15.9	-10.1
Illinois	12.5	12.9	13.3	14.6	15.6	15.9	16.6	-24.7
Indiana . . . . .	...	...	...	...	...	...	...	...
Iowa	19.0	18.6	18.6	19.2	20.5	21.6	22.6	-15.9
Kansas	12.9	12.6	12.9	13.2	13.8	14.7	14.3	-9.8
Kentucky	24.5	24.7	24.6	26.4	27.0	27.9	28.5	-14.0
Louisiana	10.7	11.1	11.5	11.6	12.4	13.8	15.1	-29.1
Maine	19.3	18.2	18.8	20.6	20.7	21.7	21.5	-10.2
Maryland	11.3	11.8	11.7	12.8	13.7	15.1	15.8	-28.5
Massachusetts	13.2	13.6	15.0	16.5	23.3	24.5	25.3	-47.8
Michigan	17.6	18.3	18.6	19.9	21.2	22.3	22.6	-22.1
Minnesota	13.1	13.4	13.8	14.4	15.2	15.4	15.8	-17.1
Mississippi	12.8	13.0	14.3	14.3	14.9	15.4	15.8	-19.0
Missouri	19.6	20.1	20.7	22.1	23.4	24.2	24.8	-21.0
Montana	18.0	18.6	18.2	19.2	20.2	19.1	20.5	-12.2
Nebraska	16.5	17.5	18.5	18.9	19.9	19.7	20.8	-20.7
Nevada	13.4	16.1	17.8	18.5	19.6	20.8	20.1	-33.3
New Hampshire	16.8	17.5	18.2	18.5	19.6	20.7	20.8	-19.2
New Jersey	12.1	8.9	8.5	9.4	10.3	11.9	13.2	-8.3
New Mexico	11.3	10.2	10.0	11.1	11.8	11.8	11.3	†0.0
New York City	4.9	5.6	6.5	...	...	...	...	...
New York State . . . . .	...	...	...	...	...	...	...	...
North Carolina	15.8	15.9	17.1	17.8	18.6	19.7	20.7	-23.7
North Dakota	18.4	17.9	19.5	19.7	20.6	22.3	21.9	-16.0
Ohio	19.5	20.2	21.3	22.2	23.2	24.3	24.9	-21.7
Oklahoma	17.4	17.5	18.2	18.0	18.2	19.6	...	⁴ -11.2
Oregon	17.8	17.9	18.2	18.9	20.5	21.4	22.3	-20.2
Pennsylvania	18.1	18.6	19.3	19.9	20.5	20.7	20.9	-13.4
Rhode Island	16.4	16.6	18.5	19.0	20.4	21.5	22.4	-26.8
South Carolina	14.3	14.8	15.0	16.5	17.1	18.0	19.5	-26.7
South Dakota . . . . .	...	...	...	...	...	...	...	...
Tennessee	17.6	18.1	18.2	19.5	20.8	21.4	21.9	-19.6
Texas	7.7	7.9	8.4	8.6	9.3	9.6	10.4	-26.0
Utah	9.3	9.2	9.3	9.6	10.1	10.7	10.8	-13.9
Vermont	19.0	17.0	17.9	18.9	18.9	21.1	22.6	-15.9
Virginia	11.8	13.0	13.9	14.6	14.9	15.3	15.9	-25.8
Washington	16.0	16.2	17.0	18.3	19.9	19.5	20.2	-20.8
West Virginia	25.5	24.6	26.1	26.5	27.0	26.8	27.8	-8.3
Wisconsin	18.1	18.9	19.6	20.8	21.7	22.6	22.9	-21.0
Wyoming	20.5	19.8	21.8	21.5	23.6	24.3	24.3	-15.6

† Not significant at $p < 0.05$.

... Category not applicable.

¹Total excludes California, Indiana, New York State, and South Dakota.²Total excludes California, Indiana, New York City, New York State, and South Dakota.³Total excludes California, Indiana, New York City, New York State, Oklahoma, and South Dakota.⁴1991 to 1996.

Table 4. Percent of women 15–19 years of age who smoked during pregnancy and percent change 1990–91 and 1995–96: Total reporting States and each State, 1990 and 1991, 1995 and 1996

State	1995 and 1996 ¹	1990 and 1991 ²	Percent change	State	1995 and 1996 ¹	1990 and 1991 ²	Percent change
Percent				Percent			
Total	17.0	20.3	-16	Montana	29.5	28.3	†4
Alabama	13.6	14.8	-8	Nebraska	25.4	28.6	-11
Alaska	29.5	31.7	†-7	Nevada	14.5	19.3	-25
Arizona	10.9	15.3	-29	New Hampshire	34.6	37.2	†-7
Arkansas	19.9	20.6	†-3	New Jersey	13.2	15.1	-13
California . . . . .	...	...	...	New Mexico	10.5	12.0	-13
Colorado	17.9	24.9	-28	New York City	5.1	...	...
Connecticut	15.6	18.2	-14	New York State . . . . .	...	...	...
Delaware	15.1	19.6	-23	North Carolina	17.9	21.1	-15
District of Columbia	3.8	4.0	†-5	North Dakota	30.3	33.4	†-9
Florida	13.1	16.4	-20	Ohio	26.7	30.3	-12
Georgia	11.7	13.5	-13	Oklahoma	20.4	...	...
Hawaii	10.7	16.2	-34	Oregon	27.9	33.3	-16
Idaho	23.5	24.7	†-5	Pennsylvania	24.8	26.9	-8
Illinois	14.4	16.5	-13	Rhode Island	23.7	30.8	-23
Indiana . . . . .	...	...	...	South Carolina	15.0	17.5	-14
Iowa	29.4	33.0	-11	South Dakota . . . . .	...	...	...
Kansas	18.4	17.9	†3	Tennessee	19.8	22.8	-13
Kentucky	31.2	32.9	-5	Texas	8.5	9.7	-12
Louisiana	9.8	11.2	-12	Utah	20.6	22.0	†-6
Maine	33.2	37.3	-11	Vermont	38.2	36.9	†4
Maryland	13.1	19.1	-31	Virginia	15.5	18.5	-16
Massachusetts	22.5	31.3	-28	Washington	26.7	30.8	-13
Michigan	22.4	24.0	-7	West Virginia	32.3	33.4	†-3
Minnesota	25.3	28.2	-10	Wisconsin	26.8	31.3	-14
Mississippi	10.4	12.0	-13	Wyoming	29.0	29.6	†-2
Missouri	24.5	26.2	-6				

† Not significant at $p < 0.05$.

... Category not applicable.

¹Total excludes California, Indiana, New York State, and South Dakota.²Total excludes California, Indiana, New York City, New York State, Oklahoma, and South Dakota.

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