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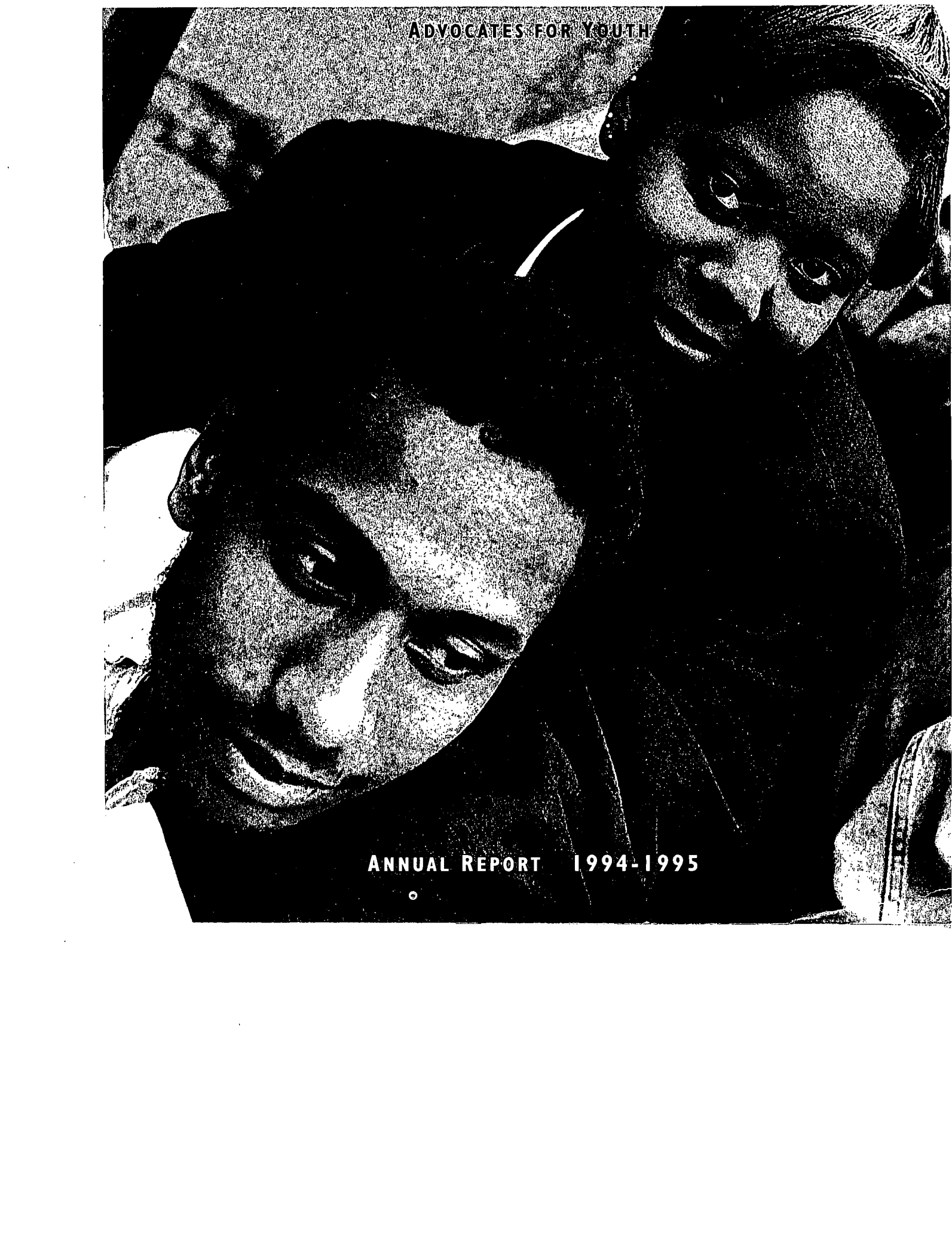
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ADVOCATES FOR YOUTH

ANNUAL REPORT 1994-1995

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## Pregnancy in Adolescence

In this issue of THE JOURNAL, Spitz et al<sup>1</sup> examine child-bearing rates for US teenagers in the decade of the 1980s. The authors wisely divide these data into 5-year periods. To have done otherwise would have been misleading, for these rates prove to have been mercurial: stable from 1980 to 1985, markedly increased for 1985 to 1990. An analysis of more recent data shows rates declining in 1991 to 1992.<sup>2</sup> Accordingly, before attributing meaning to these data, one must take a longer view. In the 1970s, birth rates among adolescents declined sharply, probably owing to the legalization and availability of abortion; for reasons that are not clear, these rates then leveled off until 1988, when they rose to a new peak for 10- to 17-year-olds.<sup>3(p334)</sup>

See also p 989.

Using as the denominator the numbers of sexually active adolescent girls rather than all those in a given age cohort is an important aspect of the report. Although it is intuitively obvious, not all studies make this distinction, which results in an underestimate of the dependent variable. Unfortunately, another more subtle refinement of risk is not reported because of the obvious difficulty in determining timing and frequency of intercourse. This is a particularly important issue for young adolescents whose sexual activity is sporadic.<sup>4</sup>

Biological factors also affect outcome rates. For example, teenaged girls within the first 2 years following menarche have lower fertility owing to their lower numbers of ovulatory cycles in comparison to older adolescents. Younger adolescents also have higher rates of spontaneous abortion and stillbirth, neither of which is addressed in this report.

A particularly interesting finding is the decline in legal abortions among sexually active adolescent girls over the course of the 1980s. This finding may be interpreted in a number of ways. Since marriage rates are not given, this decrease may represent an increase in adolescents' choosing to deliver their babies because of marriage. Changing attitudes toward out-of-wedlock parenthood and decreasing access to, or availability of, physicians who provide abortions are alternate explanations. There is actually evidence of an enormous increase in births to unmarried adolescents, from less than 15% of all births in this age group in 1960 to nearly 65% by 1988.<sup>3(p331)</sup> The complex reasons for this include changing societal attitudes toward out-of-wedlock births and improved support in schools for pregnant teenagers, as well as the increasing difficulty for adolescent fathers to find jobs and support families. The availability of abortion services clearly decreased over the course of the 1980s. It is estimated that 83% of counties had no providers of abortion services.<sup>5</sup>

Ethnic differences in attitudes toward marriage and abortion have been reported, and so racial differences in pregnancy, abortion, and birth rates are to be expected. Indeed, birth rates for blacks were twice those of white adolescents in the study by Spitz et al.<sup>1</sup> It is unfortunate that data for Hispanic adolescents were not available until the end of the decade.

A parallel trend in the rates of sexually transmitted diseases (STDs) among adolescents during the 1980s suggests that sexually active teenagers were not using effective birth control methods, including condoms. Here too, however, there were ethnic, gender, and age differences. For example, the rates of syphilis among 15- to 19-year-olds doubled from 1985 to 1990, with the greatest increase seen in women and African Americans. This recent rise in STD rates has been attributed to an increase in exchange of sex for drugs and in "survival" sex among the increasing numbers of homeless youth.

Multiple factors are responsible for the high rates of pregnancy and childbearing among adolescents. Comparisons with other developed countries with equally high rates of adolescent sexual activity but lower rates of pregnancy and STDs than ours<sup>6</sup> suggest some of these. Failure to provide age-appropriate education, both in home and in school, limited access to effective birth control methods and to systems of care that monitor and support sexual decision making, presentation of sex irresponsibly in the media, and poverty have all been cited as possible societal explanations. Personal factors such as poor self-image, depression, and substance abuse also contribute to vulnerability to adolescent pregnancy.

The solutions to the problem of adolescent pregnancy remain elusive. Research on effective pregnancy prevention has yielded inconsistent results. Accordingly, we continue to rely on common sense. Clearly, just as the problem is multifactorial, the solution must involve many levels: family, schools, religious and community organizations, government, the media, and physicians. And the ultimate solution will most likely involve changes in societal values regarding sexual activity and in the priority we give to adolescents' problems.

Three potential levels of intervention are needed. The first is the need to postpone initiation of sexual experimentation until psychosocial maturity guides protective behaviors. This is not as difficult a goal as it may appear, as its foundation is laid within those early childhood experiences of both boys and girls that can enhance self-esteem, promote intrafamilial communication, and model nonexploitive interactions and respect between the sexes. While family and community are key at this level, the primary care provider can play a role through anticipatory guidance beginning in the first decade of life. The second level includes preparation for first (and subsequent) intercourse by counseling about appropriate methods that protect against both pregnancy and STDs. Open communication within the family to enhance a young woman's self-esteem and self-confidence in communicating with a sexual partner is critical,<sup>7</sup> as is accurate information provided by physicians. The third level involves improved access to protective methods. Measures that reduce the obstacles to teenagers' receiving reproductive care, such as establishing school-based clinics, providing universal health insurance, and improving training of providers in adolescent health, are necessary to achieve this goal.

Iris F. Litt, MD

1. Spitz AM, Velebil P, Koonin LM, et al. Pregnancy, abortion, and birth rates among US adolescents—1980, 1985, and 1990. *JAMA*. 1996;275:989-994.

2. State-specific pregnancy and birth rates among teenagers—United States, 1991-1992. *MMWR Morb Mortal Wkly Rep*. 1995;44:677-684.

3. *Adolescent Health*. Washington, DC: Office of Technology Assessment, Congress of the United States; 1991:11.

4. Aral SO, Cates W. The multiple dimensions of sexual behavior as risk factor for sexually transmitted disease. *Sex Transm Dis*. 1989;16:173-177.

5. *Hearings Before the Subcommittee on Aging of the US Senate Committee on Labor and Human Resources*. (March 9, 1994) (testimony of J. E. Freedman, American Medical Women's Association).

6. National Academy of Sciences; Hayes CD, ed. *Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing*. Washington, DC: National Academy Press; 1987:1.

7. Fox GL. The family's role in adolescent sexual behavior. In: Ooms T, ed. *Teenage Pregnancy in a Family Context*. Philadelphia, Pa: Temple University Press; 1981.

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for Kathy Sylvester

Progressive Policy Inst  
Editorial

## Original Contributions

# Pregnancy, Abortion, and Birth Rates Among US Adolescents—1980, 1985, and 1990

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**Objective.**—To analyze pregnancy, abortion, and birth rates among US adolescent girls in 1980, 1985, and 1990.

**Design.**—Retrospective analysis of trends in data on pregnancies, abortions, and births.

**Population.**—US adolescent girls aged 13 to 19 years.

**Main Outcome Measures.**—Pregnancy, abortion, and birth rates (with and without adjustment for sexual experience) among teenaged girls aged 15 to 19 years and girls under 15 years.

**Results.**—Although pregnancy rates among all teenaged girls 15 to 19 years old remained fairly stable from 1980 to 1985, they increased by 9% during the last half of the decade, totaling 95.9 pregnancies per 1000 teenaged girls 15 to 19 years old by 1990. Because rates of sexual experience increased even faster, pregnancy rates among sexually experienced teens aged 15 to 19 actually declined between 1980 and 1990 by approximately 8%. Abortion rates among these teens remained stable during the 1980s, with 35.8 and 36.0 abortions per 1000 in 1980 and 1990, respectively. As with overall pregnancy rates, abortion rates among these sexually experienced teenaged girls declined during the 1980s. Between 1980 and 1985, birth rates among teenaged girls aged 15 to 19 years declined by 4%, but they increased by 18% during the latter half of the decade, totaling 59.9 births per 1000 in 1990. Among these sexually experienced teenagers, birth rates also declined between 1980 and 1985 and then increased over the next 5 years. In 1990, pregnancies and abortions among girls younger than 15 years accounted for only 3% of all adolescent pregnancies and abortions. However, the number of births among these younger adolescents increased by 15% over the decade. In that age group, trends in pregnancy, abortion, and birth rates over the decade were similar to those for older teens. However, during the late 1980s, the abortion rate declined and the pregnancy rate remained stable, resulting in a 26% increase in the birth rate.

**Conclusions.**—Despite efforts to reduce adolescent pregnancy in the United States, pregnancy and birth rates for that group continue to be the highest among developed countries. Considering that 95% of adolescent pregnancies are unintended, increased efforts to prevent these pregnancies are warranted.

(JAMA. 1996;275:989-994)

DESPITE EFFORTS to reduce adolescent pregnancy in the United States, pregnancy and birth rates among US adolescents were higher than those in most other developed countries in 1990.<sup>1,2</sup> Both the public health impact and the societal and individual costs of adolescent pregnancy are well known.<sup>4</sup> The financial costs of early adolescent childbearing are high, and the human costs to young mothers and their children are substantial.<sup>5,6</sup> Adolescent mothers are less likely to complete their education and are more likely to have limited career and economic opportunities, to rely on welfare, and to have failed marriages and future unintended pregnancies.<sup>4,7,8</sup> They also are less likely than older women to have the skills needed for parenting and have a higher incidence of pregnancy-related complications, such as hypertension, anemia, and cephalopelvic disproportion.<sup>9</sup> Infants born to adolescent mothers, particularly girls younger than 15 years, have a higher risk of negative health outcomes, such as prematurity, low birth weight, and death.<sup>10</sup>

For editorial comment see p 1030.

This article updates an earlier report that presented data through 1983 for 15- to 19-year-olds<sup>11</sup> and presents pregnancy, abortion, and birth rates for girls younger than 15 years. We examined national trends in pregnancy, abortion, and birth rates for girls younger than 15 years and for teens aged 15 to 19 years (divided into subgroups of those aged 15 to 17 and 18 to 19 years) separately because of differences among these groups in physical, social, and psychological development.

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Calif; Dr Velebil is with the Institute for the Care of Mother and Child, Prague, Czech Republic; Dr Wingo is with the American Cancer Society, Atlanta, Ga; and Ms Wilson is with the Division of Health Interview Statistics, National Center for Health Statistics. Reprints: Alison M. Spitz, MS, MPH, Centers for Disease Control and Prevention, Division of Reproductive Health, 4770 Buford Hwy, K-35, Atlanta, GA 30341-3724.

Table 1.—Number and Percentage of Abortions in Selected States and Births Among US Girls Aged 10 to 14 Years, by Single Years of Age, 1988\*

| Age, y | Abortions, No. (%) | Births, No. (%) |
|--------|--------------------|-----------------|
| 10     | 14 (0.6)           | 15 (0.1)        |
| 11     | 27 (1.1)           | 38 (0.3)        |
| 12     | 102 (4.3)          | 223 (2.1)       |
| 13     | 483 (20.4)         | 1804 (17.0)     |
| 14     | 1737 (73.5)        | 8510 (80.4)     |
| Total  | 2363 (100.0)       | 10588 (100.0)   |

\*Abortion data are from the National Center for Health Statistics (NCHS) and are reported from 14 states: Colorado, Indiana, Kansas, Maine, Missouri, Montana, New York, Oregon, Rhode Island, South Carolina, Tennessee, Utah, Vermont, and Virginia. Birth data are also from the NCHS. The data are for 1988 because that is the last year for which states reported exact ages of girls obtaining abortions to the NCHS. Percentages do not total 100.0 because of rounding.

Pregnancies, abortions, and births among girls younger than 15 years cluster around the ages of 13 and 14 years. However, researchers have used a wide variety of denominators in calculating pregnancy, abortion, and birth rates for these girls.<sup>12-17</sup> One study used the entire population of girls 10 to 14 years old as the denominator and reported a pregnancy rate of 3.3 per 1000,<sup>14</sup> whereas another study for that same year used only girls aged 14 years as the denominator and reported a pregnancy rate of 17.5 per 1000.<sup>17</sup> The lack of a standard denominator seriously limits our ability to compare pregnancy, abortion, and birth trends from different sources and times. Thus, we propose standardizing the ages included in the denominator for calculating rates for girls younger than 15 years.

Finally, when examining trends in pregnancy, abortion, and birth rates among adolescents, we take into account the changes in rates of sexual experience because they affect this population at risk for pregnancy and childbearing.

## METHODS

### Pregnancies, Abortions, and Births

In our study, pregnancies were calculated as the sum of live births and legal induced abortions among adolescent girls 19 years old or younger. Because of inadequate reporting, estimates of spontaneous abortions and stillbirths were not included. Abortions were calculated as the national estimate of induced abortions among adolescents 19 years old or younger. Births refer to the number of live births among adolescents aged 10 to 19 years.

### Data Sources

The number of induced abortions among adolescents was based on data compiled annually by the Centers for Disease Control and Prevention (CDC) as part of their ongoing abortion surveillance system of the 50 states, New York City, and the District of Colum-

Table 2.—Percentage of Adolescent Girls Who Had Ever Had Sexual Intercourse, by Race and Age Group, United States, 1982, 1988, and 1990\*

| Race  | Age Group, y | Sexually Experienced Adolescent Girls, % (95% Confidence Interval) |                  |                  |
|-------|--------------|--------------------------------------------------------------------|------------------|------------------|
|       |              | 1982                                                               | 1988             | 1990             |
| All†  | <15          | 8.5 (7.2-9.8)                                                      | 8.4 (6.8-10.0)   | 8.4 (6.8-10.0)   |
|       | 15-19        | 46.9 (42.8-51.0)                                                   | 52.9 (49.5-56.3) | 54.9 (50.4-59.5) |
|       | 15-17        | 32.2 (27.6-36.8)                                                   | 38.3 (33.5-43.0) | 41.0 (34.9-47.0) |
| White | 18-19        | 64.1 (58.1-70.0)                                                   | 73.9 (68.9-78.8) | 74.4 (68.7-80.2) |
|       | 15-19        | 44.9 (40.4-49.5)                                                   | 52.1 (48.2-56.0) | 53.0 (47.6-58.5) |
|       | 15-17        | 30.1 (25.0-35.2)                                                   | 35.8 (30.0-41.6) | 38.8 (31.4-46.2) |
| Black | 18-19        | 81.5 (74.7-88.3)                                                   | 74.3 (69.0-79.8) | 73.6 (67.4-79.8) |
|       | 15-19        | 58.0 (53.2-64.7)                                                   | 60.2 (54.2-66.1) | 69.8 (61.3-77.7) |
|       | 15-17        | 44.1 (35.4-52.7)                                                   | 50.4 (41.8-59.0) | 58.5 (46.7-68.2) |
|       | 18-19        | 78.5 (72.7-86.3)                                                   | 75.7 (66.0-85.4) | 83.2 (74.3-92.1) |

\*The data are from the National Surveys of Family Growth (NSFG) for 1982 and 1988 and from the NSFG Telephone Reinterview for 1990 except for girls under 15 years, for whom we used the 1988 NSFG.  
†Includes races other than white or black.

bia.<sup>12-20</sup> In 1969, the CDC began abortion surveillance to document the number and characteristics of women obtaining legal induced abortions and to assist efforts to identify and reduce preventable causes of morbidity and mortality associated with abortions. Abortion data in this report were based on data provided by state health agencies to the CDC. The total number of legal induced abortions was available from all reporting areas for each study year. However, not all of these areas collected information on the age of the women who obtained abortions (no abortion data by age were available for 10 states for 1980, 13 states for 1985, and 10 states for 1990).<sup>12-20</sup>

To obtain estimates for states with missing age-specific abortion data in any study year, we made assumptions about the data based on a standard comparison. The standard was either the neighboring state with the closest population and fertility characteristics or, if the characteristics of the neighboring states were dissimilar, the aggregate of data for all states that reported corresponding age-specific data. Additional details on our methods for estimating age-specific abortion data are available from the corresponding author (A.M.S.) upon written request.

In those areas that reported age, we assumed that women with unknown ages followed the age distribution of women with known ages for that state (ages usually are unknown in fewer than 5% of all abortions).

The number of states with incomplete reported data on abortions according to race and ethnicity was too large to make reasonable national estimates of abortion for these categories. Therefore, we do not present pregnancy data by race or Hispanic ethnicity.

We obtained information on the number of births by the age and race of the mother from the National Center for Health Statistics (unpublished data, 1980,

1985, and 1990). Data were available for births by age and ethnicity for 1990; however, data for births among Hispanic adolescents were available for only a limited number of states for 1980 and 1985.

### Rates

For teenaged girls aged 15 to 19 years, all rates were calculated per 1000 teens in the specific age group (15 through 19, 15 through 17, and 18 through 19 years). For girls younger than 15 years, to determine the appropriate ages to include in the denominator for rate calculations we examined the percentages of girls 10 to 14 years old who gave birth or had a legal induced abortion for each single year of age. To estimate the national single-year-of-age distribution of abortions in that group, we used data on 297 800 abortions performed in the 14 states that reported exact age in 1988,<sup>21</sup> the most recent year for which exact age data were available (Table 1). Because 97% of births and 94% of abortions among girls younger than 15 years occurred at age 13 or 14 years, we determined these ages to be the most appropriate for the denominator. Therefore, all rates calculated for girls younger than 15 years of age in this report are per 1000 girls 13 and 14 years old.

All rates are based on unrounded numbers.

### Population Estimates

We based estimates of the total population of US adolescent girls aged 13 and 14, 15 to 19, 15 to 17, and 18 to 19 years on census data for 1980 and 1990 and intercensal estimates for 1985 reported by the Bureau of the Census.<sup>22</sup>

### Estimates of Sexual Experience

We derived estimates of sexual experience from data collected in the National Survey of Family Growth (NSFG) for 1982 and 1988 and the 1990 NSFG Telephone Reinterview (Table 2). The

NSFG, a national household probability survey, collected data on 1888 teenaged girls aged 15 through 19 years in 1982, 1252 in 1988, and 743 in 1990; and data on 7969 women aged 15 through 44 years in 1982, 8500 in 1988, and 5686 in 1990. Respondents were chosen to be representative of US women of reproductive age. The 1980 sexual experience estimates were based on 1982 NSFG data, and the 1985 estimates were computed by straight-line interpolation between the 1982 and 1988 NSFG estimates. For teenagers 15 to 19 years old, the 1990 NSFG Telephone Reinterview data were used directly for computing the 1990 estimate.

The 1982 NSFG estimates of sexual experience for teenagers 15 to 19 years old were based on the percentage of teenaged girls who were 15 to 19 years old on the date of interview and who reported having had sexual intercourse by that date. In the 1988 and 1990 NSFGs, estimates of sexual experience were obtained by calculating the percentage of women who were 15 to 19 years old at the midpoint of the interviewing period and reported having had sexual intercourse by that date.

Because girls younger than 15 years were not surveyed in the NSFG, we estimated sexual experience rates for these girls by single year on the basis of recall data on age at first intercourse for sexually experienced respondents who were 15 to 19 years old in the NSFG study year. For girls younger than 15 years, the 1990 estimate was based on 1988 NSFG data because there were too few respondents in this age group in the 1990 telephone reinterviews to compute reliable estimates of age at first intercourse. Sexual experience estimates by race were calculated for 15- to 19-year-olds but not for girls younger than 15 years, because the number of girls in specific racial subgroups was too small to compute reliable estimates.

To estimate pregnancy, abortion, and birth rates for sexually experienced adolescents, we adjusted the denominator to include only those in a particular age group who reported ever having had sexual intercourse. To estimate pregnancy, abortion, and birth rates for sexually experienced girls younger than 15 years, we adjusted the denominator by using a weighted average of sexual experience rates for girls 13 and 14 years of age.

## RESULTS

### Pregnancies

Pregnancy rates among 15- to 19-year-old teenagers remained fairly stable from 1980 to 1985 but increased by 8% during the last half of the decade, reaching 95.9

Table 3.—Pregnancy Rates and Number of Pregnancies Among All Adolescent Girls and Sexually Experienced Adolescent Girls, by Age Group, United States, 1980, 1985, and 1990\*

| Group of Adolescent Girls | Age Group, y | Pregnancy Rate |       |       |
|---------------------------|--------------|----------------|-------|-------|
|                           |              | 1980           | 1985  | 1990  |
| All                       | <15          | 6.3            | 6.9   | 7.1   |
|                           | 15-19        | 88.8           | 87.7  | 95.9  |
|                           | 15-17        | 57.5           | 57.0  | 62.8  |
|                           | 18-19        | 133.1          | 131.9 | 138.3 |
| Sexually experienced      | <15          | 74.2           | 82.1  | 84.8  |
|                           | 15-19        | 189.3          | 175.8 | 174.6 |
|                           | 15-17        | 178.6          | 181.7 | 153.2 |
|                           | 18-19        | 207.7          | 191.3 | 185.9 |

|       | No. of Pregnancies |         |         |
|-------|--------------------|---------|---------|
|       | 1980               | 1985    | 1990    |
| <15   | 22 952             | 24 609  | 22 928  |
| 15-19 | 924 769            | 804 868 | 835 230 |

\*Rates are per 1000 teenaged girls except rates for girls under 15 years, which are per 1000 girls 13 and 14 years old. All rates are based on unrounded numbers.

Table 4.—Abortion Rates and Number of Abortions Among All Adolescent Girls and Sexually Experienced Adolescent Girls, by Age Group, United States, 1980, 1985, and 1990\*

| Group of Adolescent Girls | Age Group, y | Abortion Rate |      |      |
|---------------------------|--------------|---------------|------|------|
|                           |              | 1980          | 1985 | 1990 |
| All                       | <15          | 3.5           | 4.1  | 3.5  |
|                           | 15-19        | 35.8          | 36.8 | 36.0 |
|                           | 15-17        | 25.0          | 26.0 | 25.3 |
|                           | 18-19        | 51.0          | 52.3 | 49.7 |
| Sexually experienced      | <15          | 41.2          | 48.0 | 41.7 |
|                           | 15-19        | 76.3          | 73.7 | 65.5 |
|                           | 15-17        | 77.7          | 73.7 | 61.7 |
|                           | 18-19        | 79.6          | 75.8 | 66.8 |

|       | No. of Abortions |         |         |
|-------|------------------|---------|---------|
|       | 1980             | 1985    | 1990    |
| <15   | 12 683           | 14 389  | 11 271  |
| 15-19 | 372 608          | 337 383 | 313 404 |

\*Rates are per 1000 teenaged girls except rates for girls under 15 years, which are per 1000 girls 13 and 14 years old. All rates are based on unrounded numbers.

pregnancies per 1000 teenaged girls 15 to 19 years old by 1990 (Table 3). Between 1985 and 1990, pregnancy rates increased both among teens 15 to 17 years old and those 18 to 19 years old. In all study years, the pregnancy rate for 18- to 19-year-old teens was more than twice the rate for younger teens. With the increase in the pregnancy rate, there was an overall decline in the actual number of pregnancies among these teenagers, primarily due to the decline in the population of adolescent girls 15 to 19 years old from 1980 to 1990 (10.4 million in 1980, 9.2 million in 1985, and 8.7 million in 1990).

In 1990, pregnancies among girls younger than 15 years accounted for approximately 3% of all adolescent pregnancies.<sup>9,18</sup> In 1990, the pregnancy rate was 7.1 per 1000 girls 13 and 14 years old (Table 3). From 1980 to 1990, the pregnancy rate in that group increased by 13% (10% between 1980 and 1985 and 3% between 1985 and 1990).

In general, rates of sexual experience for 15- to 19-year-olds increased between 1982 and 1990 (Table 2). However, differences in these rates should be interpreted with caution because of the generally small sample sizes.

In contrast to overall rates, pregnancy rates among sexually experienced teens aged 15 to 19 declined between 1980 and 1990 by approximately 8%, mostly during the period 1980 to 1985 (Table 3). The decline among 15- to 17-year-olds (178.6 to 153.2) was greater than among teens aged 18 to 19 years (207.7 to 185.9).

The percentage of 13- and 14-year-old girls who reported being sexually experienced did not change significantly between 1980 and 1990. In 1990, the pregnancy rate for girls younger than 15 years was 84.8 per 1000 compared with 74.2 per 1000 in 1980 (Table 3).

### Abortions

Rates of abortions among all teenagers 15 to 19 years old remained stable

Table 5.—Birth Rates and Number of Births Among All Adolescent Girls and Sexually Experienced Adolescent Girls, by Race/Ethnicity and Age Group, United States, 1980, 1985, and 1990\*

| Race/Ethnicity                        | Age Group, y | No. of Births |         |         |
|---------------------------------------|--------------|---------------|---------|---------|
|                                       |              | 1980          | 1985    | 1990    |
| All adolescent girls                  |              |               |         |         |
| All races†                            |              |               |         |         |
|                                       | <15          | 2.8           | 2.9     | 3.6     |
|                                       | 15-19        | 53.0          | 51.0    | 59.9    |
|                                       | 15-17        | 32.5          | 31.0    | 37.5    |
|                                       | 18-19        | 82.1          | 79.6    | 89.6    |
| White                                 |              |               |         |         |
|                                       | <15          | 1.4           | 1.4     | 1.9     |
|                                       | 15-19        | 45.4          | 43.3    | 50.9    |
|                                       | 15-17        | 25.5          | 24.4    | 29.5    |
|                                       | 18-19        | 73.2          | 70.4    | 78.0    |
| Black                                 |              |               |         |         |
|                                       | <15          | 10.4          | 10.7    | 12.7    |
|                                       | 15-19        | 97.9          | 95.4    | 112.8   |
|                                       | 15-17        | 72.5          | 69.4    | 82.3    |
|                                       | 18-19        | 134.9         | 132.4   | 153.0   |
| Hispanic‡                             |              |               |         |         |
|                                       | <15          | ...           | ...     | 6.2     |
|                                       | 15-19        | ...           | ...     | 99.9    |
|                                       | 15-17        | ...           | ...     | 65.7    |
|                                       | 18-19        | ...           | ...     | 147.2   |
| Sexually experienced adolescent girls |              |               |         |         |
| All races†                            |              |               |         |         |
|                                       | <15          | 33.0          | 34.1    | 43.1    |
|                                       | 15-19        | 113.0         | 102.1   | 109.1   |
|                                       | 15-17        | 100.9         | 88.1    | 91.5    |
|                                       | 18-19        | 128.1         | 115.4   | 119.1   |
| White                                 |              |               |         |         |
|                                       | 15-19        | 101.0         | 89.2    | 95.9    |
|                                       | 15-17        | 84.4          | 74.0    | 76.0    |
|                                       | 18-19        | 119.1         | 103.8   | 105.9   |
| Black                                 |              |               |         |         |
|                                       | 15-19        | 166.0         | 160.3   | 162.1   |
|                                       | 15-17        | 164.5         | 146.9   | 145.8   |
|                                       | 18-19        | 189.7         | 170.8   | 183.9   |
| Births                                |              |               |         |         |
|                                       |              | 1980          | 1985    | 1990    |
| Sexually experienced adolescents      |              |               |         |         |
|                                       | <15          | 10 169        | 10 220  | 11 657  |
|                                       | 15-19        | 552 181       | 487 485 | 521 826 |

\*Rates are per 1000 teenaged girls except rates for girls under 15 years, which are per 1000 girls 13 and 14 years old. All rates are based on unrounded numbers.

†Includes races other than white or black.

‡Data are available for Hispanic births for all states and the District of Columbia for all adolescent girls only for 1980. Hispanics can be of any race.

during the 1980s, with 35.8 abortions per 1000 teenaged girls 15 to 19 years old in 1980 and 36.0 abortions in 1990 (Table 4). Like pregnancy rates, abortion rates among teens 18 to 19 years old were about twice the rates among teens 15 to 17 years old. Between 1980 and 1990, the overall number of abortions among these teenagers declined by 16%.

In 1990 the abortion rate among girls younger than 15 years was 3.5 per 1000 girls 13 and 14 years old (Table 4). Abortion rates among these girls increased by only 1% over the decade (before rounding) because a sharp increase of 16% from 1980 to 1985 was reversed by a decline from 1985 to 1990.

Whereas abortion rates among all teenagers aged 15 to 19 years remained stable, abortion rates among these sexually experienced teenagers declined during the 1980s. The greatest decline was among the 15- to 17-year-olds. In contrast, the abortion rate for sexually ex-

perienced girls younger than 15 years was approximately the same at the beginning and end of the decade (Table 4).

#### Births

Birth rates among teenagers 15 to 19 years old declined by 4% between 1980 and 1985, but they increased by 18% between 1985 and 1990, reaching 59.9 births per 1000 teenaged girls 15 to 19 years old in 1990 (Table 5). Although the greatest percentage increase in birth rates occurred between 1985 and 1990 among teens 15 to 17 years old, the birth rates for teens aged 18 to 19 years old were consistently more than twice as high as those among younger adolescents. Between 1980 and 1990, the population of teenage girls 15 to 19 years old declined by 16%, but the actual number of births among 15- to 19-year-olds declined by only 5%.

Between 1980 and 1985, birth rates among white and black teenagers 15 to 19 years old declined slightly; however,

rates for both groups increased substantially during the latter part of the decade. Similar patterns were noted for white and black teenagers 15 to 17 years old and 18 to 19 years old. For each of the study years, for teens in that age group, birth rates for black teens were approximately two times those for white teens. For 1990, the only year with complete data for Hispanics, birth rates for Hispanic teenagers were lower than those for blacks and higher than those for whites in each age group.

In 1990, the birth rate for girls younger than 15 years was 3.6 per 1000 girls 13 and 14 years old (Table 5). In contrast to the minimal change in abortion rates, birth rates in that group increased substantially—by 80% from 1980 to 1990—with most of this increase occurring in the latter half of the decade. For each of the study years, for girls younger than 15 years, birth rates for black girls were approximately seven times those for white girls (Table 5).

Among sexually experienced teenagers 15 to 19 years old, birth rates declined between 1980 and 1985 and then increased over the next 5 years, totaling 109.1 births per 1000 teenaged girls 15 to 19 years old in 1990.

Among sexually experienced white and black teenagers aged 15 to 19 years, there was an overall decline in birth rates between 1980 and 1990. In these groups, a large decline was observed between 1980 and 1985, followed by an increase between 1985 and 1990.

As with the pregnancy rate for sexually experienced girls younger than 15 years, the birth rate in this group increased (from 33.0 per 1000 girls 13 and 14 years old in 1980 to 43.1 per 1000 in 1990) (Table 5).

#### COMMENT

Between 1980 and 1990, pregnancy and birth rates among teenagers 15 to 19 years old increased by about 8% and 18%, respectively, whereas abortion rates remained fairly stable. In contrast to the trends for all teenaged girls 15 to 19 years old, pregnancy and abortion rates for sexually experienced teens 15 to 19 years old declined by about 8% and 14%, respectively, between 1980 and 1990. Birth rates for sexually experienced teenagers aged 15 to 19 years declined only slightly because the decline in abortions was proportionately larger than the decline in the number of pregnancies.

Between 1980 and 1990, pregnancy and birth rate trends for girls younger than 15 years were similar to those for older adolescents; pregnancy and birth rates increased (by 18% and 80%, respectively), and there was a slight in-

crease in the abortion rate (1%). However, during the second half of the decade, the abortion rate among girls younger than 15 years declined by 18% while the pregnancy rate remained nearly stable, resulting in a large increase in the birth rate (26%) during the decade in which the US Public Health Service had set a national goal to eliminate births among girls aged 14 years or younger by 1990.<sup>23</sup>

To focus on the magnitude of the problem of teenaged pregnancy for those at risk, we examined pregnancy, abortion, and birth rates exclusively among those adolescents who reported ever having had sexual intercourse. Examining pregnancy rates among sexually experienced adolescents should provide more accurate analyses for measuring the efficacy of family planning programs that target subgroups of adolescents at high risk for pregnancy.<sup>11</sup> The importance of examining trends both for adolescents who report being sexually experienced and for all adolescents is illustrated both by this report and by an earlier CDC study on teen pregnancy.<sup>11</sup> Both studies present contrasting pregnancy trends for all teenagers and for sexually experienced teenagers 15 to 19 years old. In the earlier study, we reported that between 1974 and 1980 the pregnancy rate among all teens increased by 8.2%, whereas the pregnancy rate among sexually experienced teens declined by 5.7%. Data from a larger sample would provide a more precise estimate of sexual experience. Ideally, estimates of the population of teens at the greatest risk for pregnancy would include only those who are currently sexually active; however, this information is not available for each of the study years.

The decline in pregnancy rates among sexually experienced teenagers 15 to 19 years old may be associated with the increased use of contraceptives by teenagers during the 1980s. The proportion of teens using contraception at first premarital intercourse increased from 53% during the period 1980 through 1982 to 71% during the period 1983 through 1988.<sup>24</sup> Most of the increase in use at first premarital intercourse was due to an increase in condom use from 28% to 55%. During the latter part of the decade, the birth rate among sexually experienced teens increased as abortion rates declined. Furthermore, the increasing proportion of sexually experienced teens suggests that efforts at primary prevention (encouraging sexual abstinence) have not been as effective on a population basis as needed<sup>25,26</sup>; however, recent reports suggest that the increase in rates of sexual experience that occurred during the 1980s slowed during the early 1990s.<sup>27</sup>

Consideration of sexual experience is even more critical for girls under 15 years. Only a small fraction of these young girls are sexually experienced, and their sexual activity tends to be sporadic and infrequent.<sup>1</sup> However, among sexually experienced girls younger than 15 years, more than 8% (84.8 per 1000) became pregnant in 1990, and about half of those had a live birth.

We used the population of girls 13 and 14 years of age as the denominator for this analysis rather than the more commonly used 5-year group including girls 10 to 14 years old because the factors we examined, such as when the girls gave birth and when they had abortions, indicated that the girls most at risk of pregnancy overwhelmingly were those aged 13 and 14 years and were not distributed evenly across the 5-year age group of 10 to 14 years. This narrower age denominator is more appropriate because it allows for the computation of rates that reflect more accurately the population at risk.

A teenaged girl's state of psychosocial development is an important determinant of her behavior in choosing to be abstinent or sexually active and in deciding to use or not use contraception to prevent pregnancy.<sup>28,29</sup> Because adolescents often deny (even to themselves) that they are sexually active when in fact they are, contraceptive compliance is a special concern for this age group.<sup>30</sup> Younger adolescents are less likely to use contraception at first intercourse than older adolescents, and they are less likely to use a contraceptive method consistently thereafter.<sup>1,30,31</sup> Only 39% of adolescent girls who had sexual intercourse before their 15th birthday reported using contraception at first intercourse, compared with 54% of teens who waited to have intercourse until they were at least 17 years of age.<sup>32</sup>

The estimated numbers and rates of abortions, and hence of pregnancies, in our analyses are conservative for several reasons. First, the number of legal abortions reported to the CDC is probably lower than the number actually performed. Estimates provided by public health agencies often are lower by about 12% to 15% than those obtained by direct surveys of abortion providers,<sup>13,33</sup> but those obtained by direct surveys do not supply data by age, race, or ethnicity. Second, we did not include estimates of the number of spontaneous abortions or stillbirths when computing pregnancy rates. There is no reason to believe that the proportion of pregnancies resulting in fetal loss varies from year to year or by age among teenagers. Finally, these data show pregnancy outcomes by age at resolution; thus, for example, those

teens who had become pregnant at the age of 19 years and had an induced abortion or birth at 20 years would have been excluded from this analysis.

National trends in adolescent pregnancy cannot be accurately assessed without complete information on abortion, as approximately 40% of all pregnancies among adolescents end in abortions. Accurate monitoring of pregnancy trends requires complete reporting of age, race, and Hispanic ethnicity from every state. We recommend, therefore, that states collect complete abortion data that include information on age, race, and Hispanic ethnicity.

To reduce teen pregnancies, two basic types of approaches are needed: interventions to delay the initiation of sexual activity among adolescents and interventions to prevent pregnancy among adolescents who are sexually active. Most evaluations of sex education programs suggest a positive effect on delaying sexual initiation.<sup>34</sup> There is evidence that appropriate family planning interventions for sexually active adolescents may increase contraceptive use among both youths who attend school and those who do not.<sup>35</sup>

Despite similar rates of sexual experience, rates of adolescent pregnancies and births are higher in the United States than in other developed countries, and an estimated 95% of pregnancies among adolescents are unintended.<sup>34</sup> Possible explanations include the continued controversy regarding sex education, the lack of access to contraceptives, and the reluctance of the media to present sexual behavior in a responsible manner.<sup>36</sup> National health objectives for the year 2000 include reducing the pregnancy rate for adolescent girls aged 17 years or younger to no more than 50 pregnancies per 1000.<sup>34</sup> Even without including fetal losses, the 1990 rate for teens 15 to 17 years old is about 26% higher than this goal. Considering the increase in pregnancy rates from 1985 to 1990 among teenagers 15 to 17 years old, substantially more efforts are needed to achieve this goal. Unfortunately, the data from the 1980s suggest that the public health goals for the year 2000 are unlikely to be achieved.

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## **Paternalism and welfare reform**

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**A**FTER years of collective denial, most politicians (and welfare policy makers) have finally acknowledged the link between unwed parenthood and long-term welfare dependency, as well as a host of other social problems. But it is one thing to recognize the nature of the problem and quite another to develop a realistic response to it. For, truth be told, there has been a fair amount of wishful thinking about what it takes to help these most disadvantaged parents become self-sufficient.

Young, unwed parents are extremely difficult to help. Besides living in deeply impoverished neighborhoods with few social (or familial) supports, many suffer severe educational deficits and are beset by multiple personal problems, from high levels of clinical depression to alcohol and drug abuse. As a result, even richly funded programs have had little success with these mothers; and they rarely, if ever, try to reach the fathers.

The best remedy, of course, would be to prevent unwed

parenthood in the first place. But, even if the number of out-of-wedlock births were somehow reduced by half, there would still be over 600,000 such births each year. Thus social programs must do a much better job of improving the life prospects of unwed mothers and their children (without, of course, creating more incentives for them to become unwed mothers). This will require de-emphasizing the voluntary approaches of the past that have proven unsuccessful, and, in their place, pursuing promising new policies that are more paternalistic.

### **Unwed mothers on welfare**

In the last four decades, the proportion of American children born out of wedlock has increased more than sevenfold, from 4 percent in 1950 to 31 percent in 1993. In that year, 1.2 million children were born outside of marriage. These children, and their mothers, comprise the bulk of long-term welfare dependents.

Images of Murphy Brown notwithstanding, the vast majority of out-of-wedlock births are to lower-income women: nearly half are to women with annual family incomes below \$10,000; more than 70 percent are to women in families earning less than \$20,000. In addition, most unmarried mothers are young (66 percent of all out-of-wedlock births were to 15- to 24-year-olds in 1988), poorly educated (only 57 percent have a high-school diploma), and unlikely to have work experience (only 28 percent worked full time and an additional 8 percent part time in 1990).

Consequently, most unwed mothers go on welfare. In Illinois, for example, over 70 percent of all unwed mothers go on welfare within five years of giving birth to a child. Nationwide, an unmarried woman who has a baby in her early twenties is more than twice as likely to go on welfare within five years than is a married teen mother (63 percent versus 26 percent). And, once on welfare, unwed mothers tend to stay there. According to Harvard's David Ellwood, who served as one of President Clinton's chief welfare advisors, the average never-married mother spends almost a decade on welfare, twice as long as divorced mothers, the other major group on welfare.

Unwed parenthood among teenagers is a particularly seri-

ous problem. Between 1960 and 1993, the proportion of out-of-wedlock births among teenagers rose from 15 percent to 71 percent, with the absolute number of out-of-wedlock births rising from 89,000 to 369,000.

Teen mothers are now responsible for about 30 percent of all out-of-wedlock births, but even this understates the impact of unwed teen parenthood on the nation's illegitimacy problem. Sixty percent of all out-of-wedlock births involve mothers who had their first babies as teenagers.

Because so many unwed teen mothers have dropped out of school and have poor earnings prospects in general, they are even more likely to become long-term welfare recipients. Families begun by teenagers (married or unmarried) account for the majority of welfare expenditures in this country. According to Kristin Moore, executive director of Child Trends, Inc., 59 percent of women currently receiving Aid to Families with Dependent Children (AFDC) were 19 years old or younger when they had their first child.

These realities have changed the face of welfare. In 1940, shortly after AFDC was established as part of the Social Security Act of 1935, about one-third of the children entering the program were eligible because of a deceased parent, about one-third because of an incapacitated parent, and about one-third because of another reason for absence (including divorce, separation, or no marriage tie). By 1961, the children of widows accounted for only 7 percent of the caseload, while those of divorced or separated and never-married mothers had climbed to 39 percent and 20 percent, respectively. In 1993, the children of never-married mothers made up the largest proportion of the caseload, 55 percent, compared to children of widows (1 percent) and divorced or separated parents (29 percent).

The face of welfare dependency has changed for many and infinitely complex reasons. But there should be no denying that the inability of most unwed mothers to earn as much as their welfare package is a major reason why they go on welfare—and stay there for so long. (A common route off welfare is marriage, but that is a subject for another article.) Hence, since the 1960s, most attempts to reduce welfare dependency have focused on raising the earnings capacity of young moth-

ers through a combination of educational and job-training efforts. Given the faith Americans have in education as the great social equalizer, this emphasis has been entirely understandable. However, the evaluations of three major demonstration projects serve as an unambiguous warning that a new approach is needed.

### Three demonstrations

Beginning in the late 1980s, three large-scale demonstration projects designed to reduce welfare dependency were launched. Although the projects had somewhat different approaches, they all sought to foster self-sufficiency through a roughly similar combination of education, training, various health-related services, counseling, and, in two of the three, family planning.

- New Chance tried to avert long-term welfare reciprocity by enhancing the "human capital" of young, welfare-dependent mothers. Designed and evaluated by Manpower Demonstration Research Corporation (MDRC), the program targeted those at especially high risk of long-term dependency: young welfare recipients (ages 16 to 22) who had their first child as a teenager and were also high-school dropouts. Its two-stage program attempted to remedy the mothers' severe educational deficits—primarily through the provision of a Graduate Equivalency Degree (GED) and building specific job-related skills.

- The Teen Parent Demonstration attempted to use education and training services to increase the earnings potential of teen mothers before patterns of dependency took root. Evaluated by Mathematica Policy Research, the program required all first-time teen mothers in Camden and Newark, New Jersey, and the south side of Chicago, Illinois, to enroll when they first applied for welfare. The program enforced its mandate by punishing a mother's truancy through a reduction in her welfare grant.

- The Comprehensive Child Development Program (CCDP), which is still operating, seeks to break patterns of intergenerational poverty by providing an enriched developmental experience for children and educational services to their parents. A planned five-year intervention is designed to enhance the intellectual, social, and physical development of

children from age one until they enter school. Although not a requirement for participation, the majority of families are headed by single parents. The program, evaluated by Abt Associates, also provides classes on parenting, reading, and basic skills (including GED preparation), as well as other activities to promote self-sufficiency.

These three projects represent a major effort to break the cycle of poverty and to reduce welfare dependency. New Chance involved 1,500 families at 16 sites and cost about \$5,100 per participant for the first stage, \$1,300 for the second, and \$2,500 for child care (for an 18-month total of about \$9,000 per participant). The Teen Parent Demonstration, involving 2,700 families at three sites, was the least expensive at \$1,400 per participant per year. The most expensive is the CCDP, which serves 2,200 families at 24 sites for \$10,000 per family per year. Since it is intended to follow families for five years, the total cost is planned to be about \$50,000 per family. These costs are in addition to the standard welfare package, which averages about \$8,300 per year for AFDC, food stamps, and so forth.

All three projects served populations predominantly comprised of teen mothers and those who had been teens when they first gave birth. The average age at first birth was 17 for New Chance and Teen Parent Demonstration clients, while half of the CCDP clients were in their teens when they first gave birth. As the project evaluators soon found, this is an extremely disadvantaged—and difficult to reach—population. Over 60 percent of Teen Parent Demonstration and New Chance clients grew up in families that had received AFDC at some point in the past. If anything, early parenthood worsened their financial situations. All Teen Parent Demonstration clients, of course, were on welfare, as were 95 percent of those in New Chance. The average annual income for CCDP families was \$5,000.

The mothers also suffered from substantial educational deficiencies. Although most were in their late teens or early twenties, few had high-school diplomas or GEDs. Many of those still in school (in the Teen Parent Demonstration) were behind by a grade. In New Chance and the Teen Parent Demonstration, the average mother was reading at the eighth-grade

level. Their connections to the labor market were tenuous at best. Almost two-thirds of the New Chance participants had not worked in the year prior to enrollment, and 60 percent had never held a job for more than six months. Only half of Teen Parent Demonstration mothers had ever had a job. These young mothers also had a variety of emotional or personal problems. About half of New Chance clients and about 40 percent of those in CCDP were diagnosed as suffering clinical depression. The mothers also reported problems with drinking and drug abuse. Many were physically abused by boyfriends.

### **Disappointing results**

Besides the intensity of the intervention, what set these three demonstrations apart from past efforts is that they were rigorously evaluated using random assignment to treatment and control groups. Random-assignment evaluations are especially important in this area because, at first glance, projects like these often look successful. For example, one demonstration site announced that it was successful because half of its clients had left welfare, and their earnings and rate of employment had both doubled. These results sound impressive, but the relevant policy question is: What would have happened in the absence of the project? This is called the "counterfactual," and it is the essence of judging the worth of a particular intervention.

Unfortunately, despite the effort expended, none of these demonstrations came anywhere near achieving its goals. After the intervention, the families in the control groups (which received no special services, but often did receive services outside of the demonstrations) were doing about as well, and sometimes better, than those in the demonstrations. In other words, the evaluations were unable to document any substantial differences in the lives of the families served. Here is a sample of their disappointing findings:

**Welfare reciprocity.** All three evaluations were unanimous: Participants were as likely to remain on welfare as those in the control groups. Robert Granger, senior vice president of MDRC, summed up the interim evaluation of New Chance: "This program at this particular point has not made people better off economically." At the end of 18 months, 82 percent

of New Chance clients were on welfare compared to 81 percent of the control group. The Teen Parent Demonstration mothers did not fare any better. After two years, 71 percent were receiving AFDC, only slightly fewer than the control group (72.5 percent). CCDP participants were actually 5 percent more likely to have received welfare in the past year than were those in the control group (66 percent versus 63 percent).

**Earnings and work.** Only the Teen Parent Demonstration program saw any gains in employment. Its mothers were 12 percent more likely to be employed sometime during the two years after the program began (48 percent of the treatment group versus 43 percent of the control group) and, as a result, averaged \$23 per month more in income. In most cases, however, employment did not permanently end their welfare dependency. Nearly one in three of those who left AFDC for work returned within six months, 44 percent within a year, and 65 percent within three years.

The other programs did not show even this small gain. Fewer New Chance clients were employed during the evaluation period than controls (43 percent versus 45 percent), in part because they were in classes during some of the period. Those who did work tended to work for a short time, usually less than three months. Given the lower level of work, New Chance clients had earned 25 percent less than the control group at the time of the evaluation (\$1,366 versus \$1,708 a year). Only 29 percent of the CCDP mothers were working at the time of the two-year evaluation, the same proportion as the control group; there was no difference in the number of hours worked per week, the wages earned per week, or the number of months spent working.

**Education and training.** All three demonstrations were relatively successful in enrolling mothers in education programs. Teen Parent Demonstration mothers were over 40 percent more likely to be in school (41 percent versus 29 percent), and about one-third of the CCDP clients were working towards a degree, 78 percent more than the control group.

About three-quarters more New Chance participants received their GED than their control-group counterparts (37 percent versus 21 percent). But the mothers' receiving a GED

did not seem to raise their employability—or functional literacy. The average reading level of the New Chance mothers remained unchanged (eighth grade) and was identical to that of the control group. This finding echoes those from evaluations of other programs with similar goals, including the Department of Education's Even Start program. Jean Layzer, senior associate at Abt Associates, concluded that, rather than honing reading, writing, and math skills, GED classes tended to focus on test-taking: "What people did was memorize what they needed to know for the GED. They think that their goal is the GED because they think it will get them a job. But it won't—it won't give them the skills to read an ad in the newspaper."

In this light, it is especially troubling that, while increasing the number of GED recipients, New Chance seems to have reduced the number of young mothers who actually finished high school (6 percent versus 9 percent). According to one evaluator, the projects may have legitimated a young mother's opting for a GED rather than returning to high school.

**Subsequent births.** Although the young mothers in New Chance and the Teen Parent Demonstration said they wanted to delay or forego future childbearing, the majority experienced a repeat pregnancy within the evaluation period, and most opted to give birth. Mothers in one project spent only 1.5 hours on family planning, while they spent 54 hours in another, with no discernible difference in impact.

All New Chance sites offered family-planning classes and life-skills courses that sought to empower women to take control of their fertility. Many also dispensed contraceptives. In the Teen Parent Demonstration, the family-planning workshop was mandatory. Despite these efforts, over 7 percent more New Chance mothers experienced a pregnancy (57 percent versus 53 percent). One-fourth of both Teen Parent Demonstration clients and the control group experienced a pregnancy within one year; half of each group did so by the two-year follow-up. Two-thirds of all pregnancies resulted in births. Although it was hoped that the CCDP intervention would reduce subsequent births, this was not an explicit goal of the demonstration; nor was family planning a core service provided by the sites. But, again, there was no real difference

between experimental and control groups: 30 percent of mothers in both had had another birth by the two-year follow-up.

**Maternal depression.** Two of the projects, New Chance and CCDP, attempted to lessen the high rates of clinical depression among the mothers. All New Chance sites provided mental-health services, most often through referrals to other agencies (although the quality of such services differed by site). Yet program participants were as likely as those in the control group to be clinically depressed (44 percent). CCDP clients likewise received mental-health services as needed. But, again, there was no discernible impact. Two years into the program, 42 percent of the mothers in both the program and control groups were determined to be at risk of clinical depression. Measures of self-esteem and the use of social supports also showed no differences.

**Child development and child rearing.** The CCDP sought to prevent later educational failure by providing five years of developmental, psychological, medical, and social services to a group of children who entered the program as infants. Developmental screenings and assessments were compulsory for all the children; those at risk of being developmentally delayed were referred to intervention programs.

A major CCDP goal was to improve the ability of the parents to nurture and educate their children. But, at the end of the first two years, the evaluation found only scattered short-term effects on measures of good parenting, such as time spent with the child, the parent's teaching skills, expectations for the child's success, attitudes about child rearing, and nurturing parent-child interactions. More disheartening, especially given the success of other early intervention programs, CCDP had small or no effect on the development of the children in the program. Participating children scored slightly higher on a test of cognitive development but about the same in terms of social withdrawal, depression, aggression, or destructiveness. They were only slightly more likely to have their immunizations up to date (88 percent versus 83 percent). CCDP's lack of success may be explained by its approach to child development (delivering about one hour per week of early childhood education through in-home visits by case managers or, sometimes, early-childhood-development specialists), which did not

focus large amounts of resources squarely on children.

All in all, it's a sad story. But what is most discouraging about these results is that the projects, particularly New Chance and CCDP, enjoyed high levels of funding, yet still seemed unable to improve the lives of disadvantaged families. There are several explanations for their poor performance: Many of the project sites had no prior experience providing such a complex set of services; some were poorly managed; and almost all were plagued with the problems that typically characterize demonstration projects, such as slow start-ups, inexperienced personnel, and high staff turnover. In addition, the projects often chose the wrong objectives and tactics. For example, most focused on helping the mothers obtain GEDs, even in the face of accumulating evidence that the GED does not increase employability. As for the two programs that attempted to reduce subsequent births, program staff tried to walk a fine line between promoting the postponement of births and not devaluing the women's role as mothers. Their sessions on family planning seemed to have emphasized that the mothers should decide whether or not to have additional children—rather than that they should avoid having another child until they are self-sufficient.

But even such major weaknesses do not explain the dearth of positive impacts across so many goals—and so many sites. One would expect some signs of improvement in the treatment group if the projects had at least been on the right track. Hence, one is impelled to another explanation: The underlying strategy may be wrong. Voluntary education and job-training programs may simply be unable to help enough unwed mothers escape long-term dependency.

#### **From carrot to stick**

Young mothers volunteered for both New Chance and the CCDP; no one required that they participate. That level of motivation should have given both projects an advantage in helping them break patterns of dependency. As social workers joke, you only need one social worker to change a light bulb, but it helps to have a bulb that really wants to be changed.

In both New Chance and the CCDP, however, initial motivation was not enough to overcome decades of personal, fam-

ily, and neighborhood dysfunction. In relatively short order, there was serious attrition. New Chance, for example, was designed as a five-days-a-week, six-hours-a-day program. Yet, over the first 18 months, the young mothers averaged only 298 hours of participation, a mere 13 percent of the time available to them. CCDP experienced similar attrition. Although clients were asked to make a five-year commitment to the program, 35 percent quit after the end of the second year and 45 percent after the end of the fourth.

These dropout rates make all the more significant the Teen Parent Demonstration's success at enrolling non-volunteers. Participation was mandatory for all first-time mothers and was enforced through the threat of a reduction in welfare benefits equal to the mother's portion of the grant, about \$160 per month. When teen mothers first applied for welfare, they received a notice telling them that they had to register for the program and that nonparticipation would result in a financial sanction. Registration involved a meeting with program staff and a basic-skills test. Over 30 percent came to the program after receiving this initial notice. Another 52 percent came in after receiving a letter warning of a possible reduction of their welfare grant.

The 18 percent who failed to respond to the second notice saw their welfare checks cut. Of these, about one-third (6 percent of the total sample) eventually participated. As one mother recounted, "The first time they sent me a letter, I looked at it and threw it away. The second time, I looked at it and threw it away again. And then they cut my check, and I said 'Uh, oh, I'd better go.'" Thus sanctions brought in an entire cohort of teen mothers—from the most motivated to the least motivated and most troubled. For example, no exceptions were made for alcoholic and drug-addicted mothers.

Moreover, the Teen Parent Demonstration was able to keep this population of non-volunteers participating at levels similar to the volunteers in New Chance and the CCDP. After registration, the mothers were required to attend workshops, high-school classes, and other education and training programs. In any given month, participation averaged about 50 percent, reaching a high of about 65 percent during the period when the projects were fully operational. Sanctioning was not un-

common: Almost two-thirds of the participants received formal warnings, and 36 percent had their grants reduced for at least one month.

### **More tough love**

Voluntary educational and training programs can play an important role in helping those welfare mothers (often older and divorced) who want to improve their situations. But, by themselves, they seem unable to motivate the majority of young, unwed mothers to overcome their distressingly dysfunctional situations. Mandatory approaches are attractive to the public and to policy makers because they seem to do just that. In the "learnfare" component of Ohio's Learning, Earning, and Parenting Program (LEAP), AFDC recipients who were under the age of 20 and did not have a high-school diploma or GED were required to attend school. Those who failed to attend school or did not attend an initial assessment interview had their welfare grant reduced by \$62 per month. This penalty continued until the mother complied with the program's rules. Conversely, those who attended school regularly got a \$62 per month bonus. Thus the monthly benefit for a teen with one child was almost 60 percent higher for those who complied with the program (\$336 versus \$212). The program also provided limited counseling and child care. Based on a random assignment methodology, MDRC's evaluation found that, one year after LEAP began, almost 20 percent more LEAP participants than controls remained in school continuously or graduated (61 percent versus 51 percent). Over 40 percent more returned to school after dropping out (47 percent versus 33 percent).

Despite early concerns, such behavior-related rules have not been burdensome to administer. Most have been implemented without creating new bureaucracies or new problems. According to MDRC's Robert Granger, these "large-scale programs have not been expensive." The cost of the LEAP program in Cleveland, for example, was about \$540 per client per year, of which about \$350 was for case management and \$190 for child care.

Nor do such rules seem unduly harsh on clients. The sanctioning in the Teen Parent Demonstration caused little dis-

cernible dislocation among the young mothers. In fact, very few of them were continuously sanctioned (and, besides, the sanction was applied against only the mother's portion of the grant). Rebecca Maynard, the director of the Mathematica evaluation, found that the "clear message from both the young mothers and the case managers is that the financial penalties are fair and effective in changing the culture of welfare from both sides." Clients viewed the demonstration program as supportive, although also serious and demanding. Case managers believe it motivated both clients and service providers. Similarly, the LEAP sanctions caused "no hardship whatsoever to the vast majority of participants and their children," according to David Long of MDRC, a co-author of the evaluation report. Mothers who had been sanctioned reported that they were able to "get by" either by trimming their budgets or by receiving assistance from others.

The early success of such experiments linking reductions (and increases) in welfare to particular behaviors led (as of May 1995) more than two-thirds of the states to adopt, and another nine to propose, one or more behavior-related welfare rules. (State reforms are authorized by a federal law that allows the Secretary of Health and Human Services to "waive" certain federal rules.) Between 1992 and 1995, 21 states adopted learnfare-type programs, which tie welfare payments to school attendance for AFDC children or teen parents (with federal waivers pending in three more); eight states adopted "family caps" that deny additional benefits to women who have more children while on welfare (with waivers pending in six more); 15 states adopted time limits for receiving benefits (with waivers pending in nine more); and 10 states adopted immunization requirements (with waivers pending in three more). In the coming years, expect more states to adopt such rules—and expect more behaviors to become the subject of such rules.

This attempt to regulate the behavior of welfare recipients is a sharp break from the hands-off policy of the past 30 years—and an implicit rejection of past voluntary education and training efforts. It was not so long ago that people such as Princeton's Lawrence Mead were widely derided for suggesting that welfare is not simply a right but an obligation that should be contingent upon certain constructive behaviors.

But, because of both political and practical experience, they are now in the mainstream of current developments.

### **The limits of reform**

No one, however, should expect such paternalistic welfare policies to eradicate dependency. Our political system is unlikely to adopt rules and sanctions tough enough to motivate the hardest-to-reach mothers—nor should it. No politician really wants tough welfare rules that result in large numbers of homeless families living on the streets. Although those who remain on welfare should feel the pinch of benefit reductions, they nevertheless need to be protected from hunger, homelessness, and other harmful deprivations. Thus there is a political limit to the amount of behavioral change that financial sanctions might potentially achieve.

Hence, in the coming years, states will have to grapple with issues such as: How many behaviors can be subject to regulation? How much can the sanctions be stiffened before becoming punitive (and counterproductive)? How should agencies handle clients who, because of emotional problems or substance abuse, seem unable to respond to financial incentives?

Even the experts can only guess about the impact of future rules. The jury is still out, for example, about the impact of New Jersey's family cap; and time-limited programs have yet to be tested in the "real world." Just as important, no sanctioning scheme can compensate for the inadequacy of existing programs for low-skilled and poorly motivated mothers. Programs need to hold out a palpable promise of higher earnings, otherwise participants will drop out—even in the face of financial sanctions. New Chance, the Teen Parent Demonstration, and CCDP all had high dropout rates, suggesting that they failed the consumer test. Describing the services available to the Teen Parent Demonstration, Maynard says: "We did not have much to offer. We had lousy public schools, boring and irrelevant GED programs, and very caring case managers."

Current approaches need to be fundamentally rethought. For example, many welfare experts now believe that education in basic skills is less effective than simply pushing recipients

toward work. A recently released evaluation of welfare-reform programs in three sites (Atlanta, Georgia, Grand Rapids, Michigan, and Riverside, California) by MDRC found that intensive education and training activities were only about one-third as effective in moving recipients off welfare as what it called "rapid job entry" strategies (6 percent versus 16 percent).

"The mothers were taught how to look for work and how to sell themselves to employers," according to Judith Gueron of MDRC. "The focus was on how to prepare a resume, pursue job leads, handle interviews, and hold a job once you got one." The programs also maintained telephone banks from which recipients could call prospective employers. And, she stresses, "The program was very mandatory, backed up with heavy grants reductions for mothers who did not comply with job search requirements." Institutionalizing such programs and developing others in all parts of the country will require creativity, clarity of purpose, and patience, and much trial and error. Still, success will be elusive.

Even if behavior-related rules do not sharply reduce welfare rolls, they could still serve an important and constructive purpose. The social problems associated with long-term welfare dependency cannot be addressed without first putting the brakes on the downward spirals of dysfunctional behavior common among so many recipients. Thus it would be achievement enough if such rules could stabilize home situations. Given the failure of voluntary approaches, the accomplishment of that alone would at least provide a base for other, more targeted approaches.

Aristotle is credited with the aphorism: "Virtue is habit." To him, the moral virtues (including wisdom, justice, temperance, and courage), what people now tend to call "character," were not inbred. Aristotle believed that they develop in much the same way people learn to play a musical instrument, through endless practice. In other words, character is built by the constant repetition of diverse good acts. These new behavior-related welfare rules are an attempt, long overdue in the minds of many, to build habits of responsible behavior among long-term recipients; that is, to legislate virtue.

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Douglas J. Besharov

## A Monster of His Own Creation

*Hearing Clinton repeatedly bad-mouth welfare gave credibility to the program's critics.*

The Republican-controlled Congress is now in the stages of producing a welfare reform bill that ends 60 years of guaranteed federal financial support to poor mothers and their children. It will mandate that most welfare mothers work or attend school for their benefits and will reduce federal support to the states while giving them a great deal more discretion in deciding who gets assistance and who does not.

How did we get to this point? Most people, whether they like or detest these radical changes, credit (or blame) the Republicans for them. But in fact, Bill Clinton is as responsible as the Republicans for what is happening to welfare in America.

It was Clinton who, as a candidate, single-handedly moved the welfare debate sharply to the right with his promise to "end welfare as we know it." Liberals could hear this wonderfully ambiguous phrase as a promise to improve the current system, and conservatives could hear it as a promise to dismantle it. But the overarching effect was to undercut support for the system among moderate voters. Hearing a Democrat repeatedly bad-mouth welfare gave credibility to the program's sharpest critics.

As he campaigned across the nation, Clinton introduced—and made politically acceptable—a radical idea: time-limited welfare. He said that welfare should "provide people with the education, training, job placement assistance and child care they need for two years—so that they can break the cycle of dependency. After two years, those who can work will be required to go to work, either in the private sector or in meaningful community service jobs."

Although Clinton was usually careful to repeat the entire formulation, most voters heard only a promise of "two years and they're out"—and he did little to dispel this misimpression.

After Clinton won in 1992, his campaign rhetoric was considered a stroke of political genius—allowing him to define himself as a New Democrat without alienating old-style liberals. Perhaps.

But Clinton's rhetoric had another effect. Before his campaign, no major Republican proposal had even remotely suggested time-limiting welfare. Now, it is the core of the Republican bills passed by both the House and Senate.

Once in office, Clinton still had time to tone down his anti-welfare rhetoric and propose a more modest approach to welfare reform. But his White House staff seemed to have been lulled into complacency by the absence of public criticism from the social policy establishment.

During the presidential campaign, most welfare specialists said privately that the Clinton plan was wildly impractical and could hurt many poor families. But most of these specialists were also liberals who, after 12 years of Republican presidents, were eager to see a Democrat in the White House. So they collectively held their tongues.

After the election, their voices stilled for another reason: Many of leading lights : ap-



pointed to develop a plan that would implement Clinton's campaign promise. Surely, they whispered, the new team at Health and Human Services (HHS) could be trusted to fashion a plan that paid lip service to the campaign's rhetoric—without actually implementing it.

But instead of trying to finesse Clinton's rhetoric, his HHS team tried to turn his campaign slogan into a concrete program. Unfortunately, as the administration soon discovered, providing job training, public service jobs and guaranteed child care would more than double welfare expenditures—without appreciably reducing caseloads.

As a result, the actual plan, when it was finally released, fell of its own weight. But the HHS team inadvertently did something that a generation of conservatives had been unable to accomplish. By honestly laying out the true costs and limited benefits of job training and public service jobs, they exposed the impracticality of traditional liberal nostrums about reforming welfare.

Into this policy vacuum came the new Republican Congress. The year before, when they were in the minority and had little chance of being taken seriously, Republicans had proposed an even more expensive version of the Clinton plan. Now, in the majority, and committed to reducing taxes while also balancing the budget, Republicans saw that a new multibillion-dollar federal welfare program of dubious promise was out of the question. Hence the idea of giving the program to the states and capping its growth.

But, everyone asks, why have so many governors accepted an approach that reduces federal support

to the states? One answer is that the alternative would probably be worse. With both the Clinton and the earlier Republican plan still fresh in their minds, the governors know all too well that another approach to welfare reform would likely cost them lots more.

No one can really predict what this new welfare regime will bring us. On the one hand, the spending cap and time limits could hurt many poor families. On the other hand, with the new freedom to experiment, states could uncover ways to break patterns of long-term dependency. But this tale has a larger moral:

"Ready, fire, aim" may be a good way to run a successful presidential campaign, but it's no way to make policy if you care about the final product (and the individuals affected). Before undercutting support for a controversial program, politicians should have a programmatically and politically viable substitute ready. And political loyalty should not keep experts from criticizing what they think are profoundly flawed proposals. Otherwise, both the politicians and the experts should be prepared to lose control of the unfolding policy process—and to see the program swept away by a tidal wave of unexpected developments. These days that's a good lesson for Republicans as well as Democrats.

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