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Age Differences Between Sexual Partners In the United States

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Context: Researchers have examined the age of partners of young women at first intercourse and of young women who have given birth, but little is known about the age of partners of young women in current sexual relationships or young women who have had an abortion.

Methods: Data from the 1995 National Survey of Family Growth (NSFG) were used to examine age differences between women and their current partner and women's use of contraceptives at last intercourse, by marital status and by the age difference between women and their partner. Data from the NSFG and the 1994-1995 Alan Guttmacher Institute Abortion Patient Survey, with supplemental information from other sources, were used to estimate 1994 pregnancy rates for women by their age and marital status, according to the age difference between the women and their partner.

Results: Among all sexually active women aged 15-44, 10% had a partner who was three or more years younger, 52% a partner who was within two years of their age, 20% a partner who was 3-5 years older, and 18% a partner who was six or more years older. In contrast, 64% of sexually active women aged 15-17 had a partner within two years of their age, 29% a partner who was 3-5 years older, and 7% a partner who was six or more years older. Among women younger than 18, the pregnancy rate among those with a partner who was six or more years older was 3.7 times as high as the rate among those whose partner was no more than two years older. Among women younger than 18 who became pregnant, those with a partner who was six or more years older were less likely to have an unintended pregnancy (70%) or to terminate an unintended pregnancy (21%) than were those whose partner was no more than two years older (82% and 49%, respectively). Among women younger than 18 who were at risk of unintended pregnancy, 66% of those who had a partner who was six or more years older had practiced contraception at last sex, compared with 78% of those with a partner within two years of their own age. Young women who were Catholic and those who had first had sex with their partner within a relatively committed relationship were less likely to be involved with a man who was six or more years older than were young women who were Protestants and those who first had sex with their partner when they were dating, friends or had just met. Young women who had ever been forced to have sex were twice as likely as those who had not to have a partner who was 3-5 years older.

Conclusion: Although the proportion of 15-17-year-old women who have a much older partner is small, these adolescents are of concern because of their low rate of contraceptive use and their relatively high rates of pregnancy and birth. Research is needed to determine why some young women have relationships with an older man, and how their partner's characteristics affect their reproductive behavior.

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» article in pdf
» table of contents
» search the FPP archive
» guidelines for authors

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In the United States, men are generally somewhat older than their female sexual partners. Men are, on average, two years older than women at first marriage.[1] Likewise, fathers are typically older than mothers: For 44% of the births occurring in 1988, for example, the father was three or more years older than the mother. When only babies born to teenage mothers are considered, such age differentials are even more common: Sixty percent of mothers aged 15-17 and 51% of those aged 18-19 reported that the father of their child was at least three years older than they were.[2]

Such age differences are generally of little public interest. However, when adolescents younger than 18 are involved with men who are substantially older than they are, differences between partners in such factors as maturity, life experience, social position, financial resources and physical size may make such relationships inherently unequal, and the young women may therefore be vulnerable to abuse and exploitation by their partners.[3] This long-standing concern is reflected in the fact that every state prohibits sexual relationships between adults and minors in at least some circumstances, although individual state laws define the crime of statutory rape differently.[4]

Public concern about relationships between young women and older men has grown in recent years in response to research showing that a high proportion of babies born to teenage mothers are fathered by adult men.[5] This concern has been sharpened by the perception that teenage mothers are responsible for high welfare caseloads and costs.[6] The intensified interest in the age of the sexual partners of teenagers has resulted in calls for revamping pregnancy prevention services to include older partners and for more rigorous enforcement of statutory rape laws (which had, until recently, been virtually ignored) to deter sexual relationships between young women and older men.[7]

There is no standard definition, however, of an "older" man in current research and discussion about adolescents. One study, which focused on women younger than 19, defined adult partners as men aged 19 or older.[8] Other researchers defined older male partners as those five or more years older than a woman younger than 20, and separated nonmarital births to women 15-17 and an older partner from births to married women in that age-group. In a prior article, we categorized women aged 15 or older by whether their partner was no more than two years older, 3-5 years older or six or more years older than themselves.[9] Little research exists on the current relationships of women younger than 15 years, because most nationally representative data sets do not sample this age-group.[10] Moreover, state laws defining age of consent and statutory prohibitions on sexual relationships between minors and adults set varying age limits and age differences, and usually apply to adolescents aged 16 or younger.[11]

In this article, we look at a number of questions involving age differences between women and men in sexual relationships. Which social and demographic subgroups of adolescent women younger than 18 are most likely to have a much older partner? What are the age patterns of sexual relationships involving teenage women? Does the age difference between the young woman and the man affect whether a contraceptive is used, or whether an intended or unintended pregnancy occurs? If a young woman

becomes pregnant unintentionally, does her choice of birth or induced abortion vary by her partner's age? How do these patterns compare with those involving older women?

DATA AND METHODOLOGY

The principal data used in these analyses come from Cycle 5 of the National Survey of Family Growth (NSFG), a nationally representative survey of 10,847 civilian noninstitutionalized women aged 15-44 in 1995. In Cycle 5, the NSFG for the first time asked women to provide data on the characteristics of their male sexual partners, as well as on contraceptive use and fertility.[12] To estimate pregnancy rates, we supplemented these data with information from 9,985 women who participated in a nationally representative abortion patient survey conducted by The Alan Guttmacher Institute (AGI) in 1994-1995.[13] In addition, data on the numbers and ages of women giving birth were taken from natality data collected from the states by the National Center for Health Statistics (NCHS).

SEXUAL RELATIONSHIPS

We used the NSFG data, weighted to the 1995 national population of women aged 15-44, to describe sexual relationships of couples according to the woman's marital status and the age of her current male partner. This group includes all NSFG respondents who had had sex in any of the three months before their interview.

We used responses to several NSFG questions to identify the male partner with whom each woman had most recently had sex. NSFG respondents were asked for information on their first sexual partner, all men to whom they had been married, all men with whom they had cohabited and every other male sexual partner they had had since January 1991. The information collected from respondents on each male sexual partner included the dates they had first and last had sex with him (unless he was a current partner) and his age in years.

We were able to identify a partner for all but 469 unmarried, noncohabiting women (4% of the unweighted total number of women who had had sex in the previous three months). Although these respondents stated that they had been sexually active in the three months prior to the interview and provided information on contraceptive use, they did not identify a partner at any time during the period. An additional 182 women identified a partner in the last three months but did not report his age. Sexually active women who did not report a partner or the age of their partner tended to be younger, to be unmarried, to be black or Hispanic and to have less education and fewer children ever born than those who provided information on their partner. We imputed the age of partner for these missing cases, using an unweighted hot-deck procedure.[14*]

Among the remaining respondents, 94% (98% of women who were married or cohabiting and 83% of other women) had had only one partner during the three-month period. For the other 6% (482 cases), we attempted to identify a "main" sexual partner. For the 102 women who were married or cohabiting, we assumed that the main partner and partner at last sex was the husband or cohabiting partner. Of the 380 unmarried, noncohabiting women who had had multiple partners during the previous three months, 73% reported two partners and 27% more than two partners. Women with multiple partners during that period were not asked which they considered their

"main" partner or with which of their current partners they had last had sex; therefore, we used the following hierarchy (based on the partners' relationship to the respondent) to designate one of those partners as the main partner—the woman's former husband; a former cohabiting partner; or a nonmarital, noncohabiting partner, starting with the most recently begun relationship reported.

Because the date of birth was not collected for all partners, we calculated the age difference between NSFG respondents and their male partners by subtracting the woman's age, in completed years, from the partner's age, also in completed years.

CONTRACEPTIVE USE

We calculated contraceptive use from the weighted NSFG responses of women who said they had had sex in the previous three months and who reported at the time of the interview that they were not pregnant, postpartum or trying to become pregnant and that neither they nor their partner was sterile for any reason other than contraception.

NSFG respondents who were not exclusively using a long-acting contraceptive during the three months prior to interview were asked which methods they or their partner had used at last intercourse in that period. Women were asked to include contraceptive methods used for any reason, not just for birth control, in recognition of the increased use of condoms for disease prevention. (Few women, however, reported that they had used condoms solely for disease prevention.) For our analysis, women were classified as using a contraceptive at last intercourse if they relied on sterilization; used long-acting temporary methods, such as the injectable, the implant or the IUD; or used another temporary method, such as oral contraceptives or the condom.[†]

PREGNANCIES

We estimated pregnancies and pregnancy rates for 1994 for women according to their age and marital status at conception, their original intention regarding the conception and the age difference between themselves and their partner. We estimated pregnancies as the sum of conceptions that ended in births and conceptions that ended in induced abortions.

•*Births.* To calculate the number of pregnancies ending in birth by the age and marital status of the mother at conception, we used the number of births that occurred from October 1994 through September 1995 as a proxy for the number of conceptions occurring during 1994 that resulted in a birth. We obtained these data from NCHS national vital statistics reports, which provide breakdowns by the age of the mother when she gave birth.[15] We set the age of women at birth reported in vital statistics back by nine months to determine their age at conception.

The NCHS natality data provide information on the mother's marital status at the time the birth occurred rather than at the time she conceived; however, information on the woman's marital status at conception is contained in the NSFG, along with data on the mother's age at conception. Based on the NSFG birth interval file, women who had never been married at the time they conceived (including those who were cohabiting) and those who were divorced, separated or widowed were classified as unmarried, while married women who were not separated when the pregnancy occurred were categorized as married. We estimated age at conception for NSFG respondents from

their reported age, the date they gave birth and the gestation of their pregnancy. With this information, we were able to calculate percentage distributions of all births during the five years before interview by marital status at conception, according to age at conception. To estimate the number of births resulting from conceptions in 1994 by the marital status and age of the mother at conception, we then applied the percentage distribution by marital status for each age-group (from the NSFG) to the numbers of births resulting from conceptions to women in that age-group (from vital statistics data).‡

The NSFG contains information from which age differences between partners at conception can be determined.§ For each subgroup defined by women's age and marital status at conception, we calculated the distribution of births by the age difference between the woman and her partner. We then applied the age-difference distribution for each subgroup to the estimated national number of births to women in that subgroup.

NSFG respondents who had given birth in the five years before the survey were asked to report retrospectively about their intentions at the time of conception. Births whose conception had not been intended so soon, or at all, were classified as unintended. All other births were classified as intended, including cases in which the woman said she had wanted a child at that time and those in which the woman said she did not care when or whether she had a child. We calculated the distribution of conceptions that ended in birth by intention status for each subgroup defined by the woman's age and marital status at conception and the age difference between the woman and her partner. These subgroup-specific distributions from the NSFG were then applied to the estimated number of pregnancies in each subgroup that ended in births.

ABORTIONS

We used national estimates of the number and age of women having abortions between April 1994 and March 1995 as proxies for the number of pregnancies occurring in 1994 that ended in abortion and for the age of the women at conception.[16] We set the age of women at abortion reported in national data back by three months to estimate their age at conception.[17]

To estimate marital status at conception for women who conceived pregnancies in 1994 that ended in abortion, we assumed that their marital status at the time of the abortion was the same as at the time of conception. We applied the age-specific percentages of women who were married or unmarried at the time of the procedure (determined from AGI's nationally representative 1994-1995 Abortion Patient Survey) to the estimated national number of abortions to women in each age-group.[18]

For information on the age of men involved in conceptions that resulted in abortion, we used the AGI Abortion Patient Survey. The survey asked women the age of the man by whom they had become pregnant. In about 3% of cases, the age of the male partner involved in the conception was not reported. We imputed the age of the partner by using the hot-deck procedure that we applied to cases missing the age of father for births.** We tabulated the percentage distribution of conceptions ending in birth according to the age difference between the partners for age-and-marital-status subgroups of women in the AGI Abortion Patient Survey. To estimate the number of

conceptions in 1994 that ended in abortion according to the difference between the man's and woman's ages, we applied these distributions to the estimated number of women in each age-and-marital-status subgroup who aborted a pregnancy conceived in 1994.

TOTAL PREGNANCIES

To calculate total pregnancies, we added conceptions ending in births and conceptions ending in induced abortion. Miscarriages were not included.[††] The pregnancy numbers and rates presented in this article differ slightly from those in an earlier analysis; the estimates we present are for pregnancies that *began* in 1994, classified by age and marital status at *conception*, while the earlier study estimated pregnancies that *ended* in 1994, and measured age and marital status at *outcome*.[19] To distribute pregnancies by the woman's intention status at conception, we calculated unintended pregnancies as the sum of unintended births and of induced abortions. Although the proportion of births resulting from unintended conceptions is likely to be underestimated, the proportion of abortions resulting from unintended conceptions is probably overestimated.

Pregnancy rates among sexually experienced women of reproductive age were computed as the total number of pregnancies per 1,000 sexually experienced women aged 15-44. From the 1995 NSFG, we calculated the proportion of women in each age-group who had ever had intercourse, since that statistic is a closer approximation of the proportion of women exposed to pregnancy in a year's time than the proportion sexually active in the previous three months.[‡‡] We applied these percentages to the Census Bureau estimates of the number of women by age in 1994.[20]

We also estimated the number of women in each age-group who were married or unmarried as of July 1, 1994, calculating an average from the 1993, 1994 and 1995 March Current Population Surveys.[21] To derive the total number of sexually experienced unmarried women in each age-group, we subtracted all married women from the total number of women in each age-group who were estimated to have had intercourse.

To estimate the number of sexually experienced women in each age-and-marital-status subgroup by the age difference between themselves and their partner, we applied the subgroup-specific distribution of women who were sexually experienced in the last three months by the age difference between themselves and their most recent partner to the estimated total number of women in that age-and-marital-status subgroup who had ever had intercourse.

To have enough cases to conduct our analysis of pregnancy rates by age of partner, we had to define the oldest age-group as women aged 35 or older. The denominator for women aged 35 or older is women aged 35-44.[§§]

ANALYSES

Certain calculations—the age-specific distributions of women according to the age difference between themselves and their partner and the proportions in each subgroup using a contraceptive at last intercourse—were based solely on NSFG data. Because the NSFG relies on a complex sample (a stratified, multistage design with individual

sampling rates), we used the software package Stata to conduct tests of significance for cross-tabulations.[22]

The numbers and rates of pregnancies, intention status and outcome, however, are estimates compiled from a variety of sources. We did not perform tests of statistical significance on these estimates.

We used logistic regression to examine the relationship of the characteristics of women aged 15-17 to the likelihood that their male partner was 3-5 years older or six or more years older than they were. A second logistic regression analysis explored whether the characteristics of women and the age difference between women and their partner predict use of a contraceptive at last sex. We used Stata to calculate tests of significance for these logistic regressions.

FINDINGS

All Women

•*Sexual relationships.* About half of all sexually active women aged 15-44 in 1995 had a partner who was within two years of their age (Table 1). Teenagers and women in their early 20s were more likely than older women to have a partner within two years of their age: The proportion declined from 64% among women younger than 18 to about 50% among women aged 25 or older. Only 10% of women aged 15-44 in 1995, and fewer than 1% of teenage women, reported a sexual partner who was more than two years younger than they were.

Table 1. Percentage distribution of U.S. women aged 15-44 who had sex in the previous three months, by the difference between their age and that of their partner, according to women's age and marital status, National Survey of Family Growth, 1995

Age and marital status of woman	N	Age difference between woman and partner				
	(000s)	≥3 yrs. younger	0-2 yrs. older or younger	3-5 yrs. older	≥6 yrs. older	Total
Total	**46,773**	**9.8**	**52.1**	**20.3**	**17.8**	**100.0**
15-19	3,615	0.6**	62.5**	27.6*	9.3**	100.0
15-17	1,517	0.0**	64.1**	29.2*	6.7**	100.0
18-19	2,098	1.1**	61.3**	26.4*	11.2**	100.0
20-24	6,927	3.1**	59.3**	20.5	17.1	100.0
25-29	8,251	10.7	51.4	20.5	17.4	100.0
30-34	9,705	9.5	49.2	19.4	21.9**	100.0
35-39	9,863	12.7	49.9	18.2	19.2	100.0
40-44	8,412	15.0**	48.2	20.6	16.2	100.0
Currently married	**28,995**	**7.8*****	**54.0*****	**21.0**	**17.2**	**100.0**
15-19	341	0.0**	46.8	34.3	18.9	100.0
20-24	2,460	0.7**	56.5	23.4	19.4	100.0
25-29	4,958	5.0	56.0	22.1	16.9	100.0
30-34	6,976	6.7	53.3	20.5	19.5	100.0
35-39	7,528	10.6**	54.6	18.8	16.0	100.0
40-44	6,732	10.8**	52.0	21.8	15.4	100.0
Currently	**17,779**	**13.0**	**49.1**	**19.1**	**18.8**	**100.0**

unmarried						
15-19	3,274	0.7**	64.1**	26.9*	8.3**	100.0
15-17	1,460	0.0**	65.5**	29.0**	5.5**	100.0
18-19	1,814	1.3**	63.0**	25.2*	10.5**	100.0
20-24	4,467	4.4**	60.8**	19.0	15.8	100.0
25-29	3,293	19.5	44.4	18.1	18.1	100.0
30-34	2,729	16.8	39.2	16.0	28.0**	100.0
35-39	2,336	19.7	34.8**	16.1	29.5**	100.0
40-44	1,680	31.4**	33.4**	15.9	19.3	100.0

*Percentage is significantly different from percentage for women aged 25-29 at p<.05. **Percentage is significantly different from percentage for women aged 25-29 at p<.01. ***Percentage is significantly different from percentage for currently unmarried women at p<.01. *Note:* Respondents were aged 15-44 as of April 1, 1995; their actual age range at interview was 14-45.

Some 37% of women aged 15-19 and 38% of all women aged 15-44 had a partner who was at least three years older. Adolescents were significantly more likely than older women to have a partner who was 3-5 years older than they were (29% of women younger than 18 and 26% of those aged 18-19, compared with 18-21% of older women). Teenagers were, however, considerably less likely than women aged 20 or older to have a partner who was six or more years older than they were. Just 7% of sexually active women younger than 18 and 11% of those aged 18-19 had a partner six or more years older, compared with 16-22% of women aged 20 or older.

Overall, the age differences between partners were similar for married women and unmarried women—about half had a partner who was within two years of their age, and almost four in 10 had a partner who was three or more years older than they were. However, unmarried women were slightly more likely than married women to have a partner who was three or more years younger than they were (13% vs. 8%).

The overall differences in age patterns between women in their teens and early 20s and women aged 25 or older resulted primarily from differences among unmarried women. There were no significant differences across age-groups among married women in whether women had a partner 3-5 or six or more years older than they were. Among unmarried women, on the other hand, teenagers were significantly more likely than women aged 25-29 to have a partner who was 3-5 years older than they were (at least one in four unmarried teenagers, compared with fewer than one in five older women). But unmarried teenagers were significantly less likely than unmarried women aged 25-29 to have a partner who was six or more years older (6% of women younger than 18 and 11% of those aged 18-19, compared with 16-30% of older women).

•*Pregnancy*. An estimated 5.3 million women became pregnant in 1994 and either gave birth or had an induced abortion (Table 2). At the time of conception, some 8% of these women were younger than 18 and 9% were aged 18-19 (not shown). Almost half (47%) of the women who became pregnant were unmarried at the time, including 85% of pregnant teenagers.

Table 2. Estimated number and percentage distribution of pregnancies occurring in 1994, pregnancy rates, percentage of pregnancies that were unintended and percentage of unintended pregnancies ending in abortion, by women's age, according to marital status and age difference between women and their partner

Measure	All women	Married at conception	Unmarried at conception

and age	Total	Younger to 2 yrs. older	3-5 yrs. older	≥6 yrs. older	Total	Younger to 2 yrs. older	3-5 yrs. older	≥6 yrs. older	Total	Younger to 2 yrs. older	3-5 yrs. older	≥6 yrs. older
Pregnancies												
Total	5,334,300	3,001,500	1,259,500	1,073,300	2,815,400	1,615,800	681,100	518,600	2,518,800	1,371,500	590,800	556,500
<20	943,800	485,400	275,800	182,600	144,200	57,100	47,300	39,800	799,700	427,600	228,600	143,500
<18	447,100	223,400	137,800	85,900	†	†	†	†	409,200	212,500	122,800	73,900
18-19	496,700	262,000	138,000	96,700	†	†	†	†	390,500	215,100	105,800	69,600
20-24	1,485,800	755,700	377,000	353,100	626,900	317,200	176,700	133,100	858,900	434,500	203,300	221,000
25-29	1,368,500	776,100	310,600	281,800	922,100	507,900	227,100	187,100	446,400	263,600	88,100	94,700
30-34	1,042,000	650,500	214,300	177,100	785,000	495,100	174,500	115,400	257,000	152,700	42,700	61,700
≥35	494,100	333,700	81,800	78,700	337,200	238,500	55,500	43,200	156,900	93,100	28,200	35,600
% distribution												
Total	100.0	56.3	23.6	20.1	100.0	57.4	24.2	18.4	100.0	54.4	23.5	22.1
<20	100.0	51.4	29.2	19.3	100.0	39.6	32.8	27.6	100.0	53.5	28.6	17.9
<18	100.0	50.0	30.8	19.2	†	†	†	†	100.0	51.9	30.0	18.1
18-19	100.0	52.8	27.8	19.5	†	†	†	†	100.0	55.1	27.1	17.8
20-24	100.0	50.9	25.4	23.8	100.0	50.6	28.2	21.2	100.0	50.6	23.7	25.7
25-29	100.0	56.7	22.7	20.6	100.0	55.1	24.6	20.3	100.0	59.1	19.7	21.2
30-34	100.0	62.4	20.6	17.0	100.0	63.1	22.2	14.7	100.0	59.4	16.6	24.0
≥35	100.0	67.5	16.5	15.9	100.0	70.7	16.5	12.8	100.0	59.3	18.0	22.7
Pregnancy rate‡												
Total	100.6	91.6	116.5	113.9	94.6	87.9	108.8	101.3	108.4	95.8	133.6	123.6
<20	216.4	176.0	230.1	450.6	453.7	383.8	433.9	662.7	197.7	162.9	211.2	425.3
<18	228.0	176.6	244.0	653.8	†	†	†	†	214.2	168.7	225.4	691.1
18-19	206.8	175.4	217.7	353.1	†	†	†	†	183.0	157.5	196.7	301.9
20-24	186.2	151.8	230.5	258.8	243.7	215.5	293.4	266.6	158.9	123.3	197.9	258.8
25-29	149.8	136.8	164.2	179.3	178.7	161.4	199.1	214.5	112.2	103.9	119.7	134.5
30-34	96.2	102.3	102.5	74.3	108.6	114.2	117.8	81.9	71.3	76.5	73.1	60.2
≥35	23.9	25.7	20.5	21.3	23.3	25.7	19.0	19.0	25.3	25.6	28.4	22.5
% unintended												
Total	49.4	48.8	50.6	49.8	26.4	25.9	25.7	28.9	75.0	75.1	80.0	69.4
<20	75.8	76.2	80.5	67.6	37.7	40.6	41.1	29.5	82.6	80.7	88.7	78.3
<18	79.0	81.5	80.9	69.5	†	†	†	†	83.8	83.3	88.2	77.8
18-19	72.9	71.6	80.1	65.9	†	†	†	†	81.2	78.0	89.3	78.9
20-24	55.1	58.4	53.1	50.2	28.7	29.8	26.4	29.2	74.2	78.7	76.7	63.1
25-29	38.8	38.0	38.4	41.2	22.8	21.1	25.7	23.9	71.5	69.4	73.8	75.3
30-34	32.8	31.2	27.9	44.6	22.0	21.4	18.8	29.3	65.7	61.8	69.2	73.2
≥35	46.5	46.3	44.1	49.5	37.4	36.8	32.1	47.5	65.8	70.4	69.8	50.9
% of unintended pregnancies ending in abortion												

Total	53.7	55.9	49.6	52.4	34.4	32.4	35.4	39.0	61.3	64.9	56.2	58.1
<20	42.6	49.9	37.2	30.7	14.4	14.4	13.0	17.0	45.0	52.1	39.7	32.8
<18	39.4	48.9	33.9	20.5	†	†	†	†	39.9	49.6	34.3	20.9
18-19	45.8	50.8	40.6	40.3	†	†	†	†	50.5	54.9	45.8	45.2
20-24	57.4	58.7	58.0	53.7	29.2	26.2	33.2	31.6	65.5	67.2	66.3	60.5
25-29	57.7	58.1	50.5	64.0	36.3	36.0	33.2	41.2	71.9	70.3	69.5	78.3
30-34	57.9	55.5	63.7	59.8	37.1	31.7	45.5	45.8	79.2	80.8	87.2	70.8
≥35	58.9	58.4	53.1	66.4	43.8	40.3	54.0	49.6	77.5	81.5	57.4	84.6

†Because the number of observations for married women younger than 18 is small, the age categories <18 and 18-19 were combined for analysis. ‡Number of pregnancies per 1,000 sexually experienced women. *Notes:* For women younger than 18 and those younger than 20, the denominators are women aged 15-17 and those aged 15-19, respectively, and the numerators include all events to those younger than 18 and those younger than 20, respectively. Numbers may not add to totals because of rounding.

In 44% of all pregnancies, the male partner was at least three years older than the woman; this proportion ranged from 43-50% of conceptions to women in their teens and 20s to 32-38% of those to women aged 30 or older (Table 2). About three in 10 pregnancies to adolescent women occurred in a relationship with a man who was 3-5 years older. In two out of 10 pregnancies to teenagers, the man was six or more years older than the woman.

The proportion of marital and nonmarital conceptions in which the man was three or more years older was similar—43% of all pregnancies to women who were married at the time of conception and 46% of those to unmarried women. Among teenagers, however, marital conceptions were more likely than nonmarital conceptions to be to women with partners who were three or more years older (60% vs. 47%).

In all age-groups younger than 30, women with a partner who was three or more years older were more likely to have become pregnant than were those with a partner who was no more than two years older. These differences were greatest among teenagers. For adolescents younger than 18, the pregnancy rate among those whose male partner was six or more years older was 3.7 times the rate among those whose partner was no more than two years older, and the rate for those whose partner was 3-5 years older was 1.4 times as high.

Whether they were married or unmarried, sexually experienced teenagers with much older partners were more likely to conceive than were young women whose partner was closer to their own age. For example, 66% of married teenagers whose husband was six or more years older became pregnant in 1994, compared with 43% of those whose husband was 3-5 years older and 38% of those whose husband was no more than two years older. The comparable proportions among unmarried adolescents were 43%, 21% and 16%. Unmarried adolescents younger than 18 were especially likely to become pregnant when involved with an older partner: Sixty-nine percent of those whose partner was six or more years older became pregnant, compared with 23% of those whose partner was 3-5 years older and 17% of those whose partner was no more than two years older.

Roughly half (49%) of all conceptions were unintended by the woman; i.e., she reported that the pregnancy had occurred too soon or had not been wanted at all, or had ended in abortion (Table 2). The proportion of pregnancies that were unintended was highest among teenagers (79% of those to women younger than 18 and 73% of

those to women aged 18-19) and lowest among women aged 30-34 (33%).

For both 18-19-year-olds and younger teenagers, the proportion of pregnancies that were unintended was lowest in relationships in which the man was six or more years older (66% and 70%, respectively). However, 18-19-year-olds were most likely to have an unintended pregnancy if their partner was 3-5 years older (80%), while younger teenagers were most likely to do so if their partner was similar in age (82%).

About a quarter (26%) of conceptions to married women were unintended, compared with 75% of those to women who were not married when the pregnancy occurred. Married adolescents with a considerably older husband were more likely to have intended to become pregnant than were those whose husband was closer to their age. Similarly, unmarried adolescents whose partner was six or more years older were somewhat less likely than other unmarried teenagers to have had an unintended pregnancy.

More than half (54%) of unintended pregnancies in 1994 ended in abortion—34% of of those to married women and 61% of those to unmarried women (Table 2). Among unmarried adolescents who had unintended pregnancies, those whose partner was close to their own age were most likely to have an abortion. The greatest variations by age difference between partners occurred among women younger than 18: About half of unintended pregnancies ended in induced abortion when the partner was no more than two years older, compared with 34% when he was 3-5 years older and 21% when he was six or more years older. Among unmarried women aged 18-19, the proportion of unintended pregnancies ending in abortion ranged from 55% when the partner was no more than two years older to about 45% when he was at least three years older.

The proportion of unintended pregnancies ending in abortion was lower for teenagers than for adult women. The proportions were fairly similar across age-groups for women whose partner was similar in age (49-59%); however, unintended pregnancies to teenage women whose partner was at least three years older were much less likely to end in abortion than were those to older women with such a partner.

15-17-YEAR-OLDS WITH OLDER PARTNERS

The greatest concern about wide age differences between women and men in sexual relationships focuses on adolescent women with older partners. Thus, it is worthwhile to look in greater detail at women younger than 18.

•*Sexual relationships.* As Table 3 shows, 29% of the 1.5 million women younger than 18 who were sexually active at the time of the 1995 NSFG were in a relationship with a man who was 3-5 years older, and 7% were involved with a man who was six or more years older. Further investigation using logistic regression identified few characteristics distinguishing between young women with partners 3-5 years older or six or more years older and other sexually active teenage women; however, the small number of cases available for analysis (241) limited the power to detect significant differences. Young women who had been going steady or had been engaged to their partner when they first had intercourse were significantly less likely to have a partner six or more years older than were those who had just met the man, had been friends or were dating when they first had sex with him (odds ratio of 0.16). Young women who were Roman Catholics were less likely than those who were Protestants to be involved

with a much older partner (odds ratio of 0.26). The only variable significantly related to the odds of having a partner 3-5 years older was having ever been forced to have intercourse. (The data collected from the NSFG respondents were not specific enough to indicate whether women had had forced intercourse with their current partner or with someone else.)

Table 3. Among sexually active women aged 15-17, the percentage having an older partner and the odds of doing so, according to age difference between partners; and among those at risk of an unintended pregnancy, percentage who practiced contraception at last sex and odds of doing so; all by selected characteristics of the woman

Characteristic	Weighted N (000s)	3-5 yrs. older		≥6 yrs. older		Practiced contraception at last sex†		
		%	Odds ratio	%	Odds ratio	Weighted N (000s)	%	Odds ratio
Total	**1,517**	**29.2**	**na**	**6.7**	**na**	**1,280**	**81.9**	**na**
% of poverty level								
0-99	304	31.7	0.98	7.5	1.07	192	70.4	0.88
100-199	413	30.2	1.14	7.7	1.38	349	80.5	1.01
≥200	800	27.8	1.00	5.8	1.00	739	85.6	1.00
Race/ethnicity								
Black	300	24.0	0.81	5.8	0.46	271	72.5	0.30*
Hispanic	269	39.4	1.55	9.9	2.44	170	62.6	0.22*
White/other	947	28.0	1.00	6.0	1.00	839	88.9	1.00
Married/cohabiting								
Yes	175	41.9	1.29	16.3	1.75	100	81.8	‡
No	1,342	27.6	1.00	5.4	1.00	1,180	82.0	‡
High school completion								
Dropped out	190	36.3	1.43	14.5	2.72	134	52.7	0.25*
Enrolled or completed	1,327	28.2	1.00	5.6	1.00	1,146	85.4	1.00
Both parents present during childhood								
Yes	502	25.7	1.00	7.1	1.00	467	84.3	1.00
No	1,015	31.0	1.12	6.5	0.91	813	80.6	0.77
Religion								
Protestant	700	27.5	1.00	8.0	1.00	637	86.4	1.00
Roman Catholic	376	30.8	0.95	4.2	0.26*	308	75.7	0.36
None/other	441	30.6	0.91	6.7	0.38	335	79.1	0.75
Relationship with current partner at first sex								
Just met/friend/dating	343	24.6	1.00	12.9	1.00	307	80.5	1.00
Going steady/engaged	963	29.0	1.28	3.3	0.16*	821	84.5	0.88
Information missing	212	38.0	1.35	12.2	0.47	152	70.8	0.54
Ever forced to have sex§								
Yes	307	29.3	2.10*	9.0	1.08	235	71.5	0.53
No	1,200	25.3	1.00	6.1	1.00	1,035	84.2	1.00
Partner's age								
≤2 yrs. older/younger	na	na	na	na	na	879	77.6	1.00
3-5 yrs. older	na	na	na	na	na	328	75.8	0.78

≥6 yrs. older	na	na	na	na	na	73	66.0	0.20*

*Statistically significant at p<.05. †Among women who were neither pregnant, trying to become pregnant, postpartum, or sterile for noncontraceptive reasons. ‡Too few cases to permit analysis. §Ns do not sum to column total because of missing data. *Notes*: na=not applicable. Odds ratios result from a logistic regression that controlled for the effects of all characteristics shown in the table. Ns for some subgroups may not add to column total because of rounding.

•*Contraceptive use.* Most (85%) of the young women younger than 18 who had had sex in the three months before being interviewed in the 1995 NSFG were at risk for unintended pregnancy—i.e., they were neither pregnant, postpartum or trying to become pregnant, nor were they or their partner sterile for noncontraceptive reasons (data not shown). Some 82% of these women reported that they and their partner had relied on a contraceptive method the last time they had sex (Table 3).

Logistic regression based on the 201 NSFG respondents younger than 18 who were at risk for unintended pregnancy shows that young teenagers whose partner was six or more years older were significantly less likely to have practiced contraception at last intercourse than were women whose partner was within two years of their age (odds ratio of 0.20). Few other personal characteristics of the young women were significantly related to the likelihood of contraceptive use. Young women were significantly less likely to report current contraceptive use if they were Hispanic (odds ratio of 0.22) or black (0.30). Use was also less likely for young women who had dropped out of school (odds ratio of 0.25).

•*Pregnancy, birth and abortion.* In 1994, some 447,100 women younger than 18 had a conception that ended in a birth (308,000) or in an induced abortion (139,100). As we saw in Table 2, the pregnancy rate was substantially higher among those whose partner was 3-5 years older or six or more years older (244 and 654 per 1,000, respectively) than it was among those whose partner was no more than two years older (177 per 1,000). As a result, even though only 36% of sexually active women younger than 18 had a sexual partner who was three or more years older, 50% of the pregnancies and 56% of the births occurring among these young women were to those with a partner who was at least three years older; in contrast, only 36% of abortions to women younger than 18 were to those with considerably older partners (Table 4). Those with partners 3-5 years older accounted for 31% of all pregnancies, 28% of intended births, 34% of unintended births and 27% of all abortions to women younger than 18. Young women whose partner was six or more years older accounted for 19% of all pregnancies, 28% of intended births and 22% of unintended births, but only 9% of abortions among adolescents in their age-group.

Table 4. Percentage distribution of pregnancies, births and abortions to women aged 15-17, by age of partner

Age of partner	Women (N=1,517,000)	Pregnancies (N=447,100)	Intended births (N=93,900)	Unintended births (N=214,200)	Abortions (N=139,100)
≤2 yrs. older/younger	64.1	50.0	44.1	43.4	64.1
3-5 yrs older	29.2	30.8	28.1	34.4	27.1
≥6 yrs. older	6.7	19.2	27.9	22.2	8.8
Total	100.0	100.0	100.0	100.0	100.0

Note: Numbers may not sum to total due to rounding.

DISCUSSION

Sexual relationships in which the man is somewhat older than the woman have long been common in the United States. As our data show, the man is three or more years older than the woman in almost four in 10 relationships today. Although it is not surprising, given this general pattern, that a similar proportion of sexually active adolescent women have a partner at least three years older than they are, such age differences may have troubling implications for young women.

The fact that most sexually active young women have a partner who is fairly close to their own age does not, however, negate concern about those with much older partners. The more than 100,000 women younger than 18 whose sexual partner is six or more years older have much greater chances of becoming pregnant and having a baby than do other minors whose partner is closer to their age.

To date, much of the information about the ages of young women and men in sexual relationships has been limited to those involved in births. An earlier analysis found that 60% of women aged 15-17 when they gave birth in 1988 had a partner who was three or more years older than they were.[2,3] The data presented in this article show that 56% of births resulting from conceptions among women aged 15-17 in 1994 were fathered by men three or more years older than the woman. However, those who gave birth were not representative of all sexually active teenagers. Only 36% of all sexually active women aged 15-17 had a partner who was at least three years older.

The reason for this disparity is that teenagers who have older partners are much more likely than those with partners closer to their age to become pregnant and, once pregnant, to have a baby rather than to opt for abortion. Compared with the pregnancy rate among women aged 15-17 whose partner is no more than two years older, the pregnancy rate among those whose partner is six or more years older is 3.7 times as high and the rate for those whose partner is 3-5 years older is 1.4 times as high. Moreover, unintended pregnancies to young teenage women are less than half as likely to end in abortion if the man is six or more years older than if he is no more than two years older than the woman; if the partner is 3-5 years older, the proportion of unintended pregnancies ending in abortion is one-third lower. Teenagers in sexual relationships with partners fairly close to their age are also much less likely to be married than are those involved with a much older man, probably due in part to the greater ability of older men to support a wife and family.

Discouraging sexual relationships between teenage women, especially those younger than 18, and much older men has been seen as a way to substantially lower rates of teenage pregnancy and birth. It has become increasingly clear, however, that the situations and the solutions are not necessarily simple. There are many reasons why a young woman may have a much older partner; the data presented here cannot determine which young women had older partners because they were pressured into the relationship, because they were attracted to someone older than they were because they wanted to become "adults" more quickly or to escape an unhappy or deprived home environment, or because they simply happened to meet and form a bond with an older man. Instead, the findings suggest potential explanations and a need for more research.

The small number of sexually experienced women younger than 18 who participated in

the 1995 NSFG makes it difficult, at best, to predict which teenagers younger than 18 will have an older partner. The higher likelihood that these women would have an older partner if they had ever been forced to have intercourse or if they first had sex with someone outside a relatively long-term and committed relationship may reflect situations in which young women feel more pressure to enter such relationships, or feel they have fewer alternatives. And, it is not clear whether young Roman Catholics are less likely than Protestants to have a relationship with an older man because of their religious affiliation or because of other factors that vary by religion.

The reasons young women with much older partners have such high rates of pregnancy and birth are also not clear. One factor the analysis identified is that having an older partner independently decreases contraceptive use among young women who are not trying to become pregnant. Although most pregnancies to teenagers with older partners are reported by the women as unintended, they are less likely to be unplanned than those to teenagers with partners closer to their own age. Again, the data available here do not distinguish young women who themselves wanted to have a child from those who had been persuaded to want a child to please an older partner, and we do not have data from men on their intentions. The higher proportion of unplanned pregnancies that end in birth among teenagers with older partners than among those with partners closer to their own age probably includes both teenagers who are persuaded by a more forceful older partner to have a baby they have not planned for, and those who are swayed by the fact that an older man is more likely to be established and employed and thus better able to care for a family than is someone who is also a teenager.

It is clear that the high pregnancy rate among teenage women with older partners is only one factor contributing to the high numbers of teenage births in the United States. Women whose partner is no more than two years older account for half of all pregnancies to women aged 15-17. Thus, education and services regarding pregnancy prevention continue to be needed by all teenagers.

Pregnancy rates are clearly highest for the teenage women with the oldest partners; such a situation is troubling to the public because it raises the concern that the age difference may make it more difficult for young women to resist pressure to have sex and to become pregnant. Data from larger samples of young women are needed to identify more clearly what distinguishes young women who have partners close to their age from the minority who have much older partners and to explore in greater detail the effects of partner's age and other characteristics. Our analyses identified several characteristics that warrant further examination. For example, the odds of having a partner who was at least six years older were elevated for Hispanic adolescents (2.4) and high school dropouts (2.7), but the subgroup sizes were too small to allow us to detect significant differences.

Until we better understand why some young women have sexual relationships with much older men, and why some older men have sexual relationships with teenage women, it will be difficult either to formulate policies that will influence their behavior or to gauge the extent to which the high pregnancy rates among these young women result from pressure from the men to have sex and to have a child, from their own desire to move quickly into motherhood and adulthood or from difficulties in avoiding

unintended pregnancy and childbearing.

References

1. National Center for Health Statistics (NCHS), *Vital Statistics of the United States, 1987: Vol. III—Marriage and Divorce,* Washington, DC: U.S. Government Printing Office, 1991, Table 1-10.

2. Landry DJ and Forrest JD, How old are U.S. fathers? *Family Planning Perspectives*, 1995, 27(4):159-161 & 165.

3. Elstein SG and Davis N, *Sexual Relationships Between Adult Males and Young Teen Girls: Exploring the Legal and Social Issues*, Chicago: American Bar Association, 1997; and Moore KA and Driscoll A, *Partners, Predators, Peers, Protectors: Males and Teen Pregnancy. New Data Analyses of the 1995 National Survey of Family Growth*, Washington, DC: Child Trends, 1997.

4. Donovan P, Can statutory rape laws be effective in preventing adolescent pregnancy? *Family Planning Perspectives*, 1997, 29(1):30-34, 40.

5. Ibid.; Landry DJ and Forrest JD, 1995, op. cit. (see reference 2); Males M and Chew KSY, The ages of fathers in California adolescent births, 1993, *American Journal of Public Health*, 1996, 86(4):565-568; and Lindberg LD et al., Age differences between minors who give birth and their adult partners, *Family Planning Perspectives*, 1997, 29(2):61-66.

6. Burt M, Estimates of public costs for teenage childbearing: how much does it cost? Washington, DC: Center for Population Options, 1992; and Maynard RA, ed., *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing,* New York: The Robin Hood Foundation, 1996.

7. Moore KA and Driscoll A, 1997, op. cit. (see reference 3); Donovan P, 1997, op. cit. (see reference 4); Sonenstein FL et al., *Involving Males in Preventing Teen Pregnancy: A Guide for Program Planners,* Washington, DC: Urban Institute, 1997; Elstein SG and Davis N, 1997, op. cit. (see reference 3); and Elders MJ and Alert AE, Adolescent pregnancy and sexual abuse, *Journal of the American Medical Association,* 1998, 280(7):648-649.

8. Males M and Chew KSY, 1996, op. cit. (see reference 5).

9. Landry DJ and Forrest JD, 1995, op. cit. (see reference 2).

10. Abma J, Driscoll A and Moore K, Young women's degree of control over first intercourse: an exploratory analysis, *Family Planning Perspectives,* 1998, 30(1):12-18; and Elo IT, King RB and Furstenberg FF, Adolescent females: their sexual partners and the fathers of their children, *Journal of Marriage and the Family,* 1999, 61 (1):74-84.

11. Donovan P, 1997, op. cit. (see reference 4); and Lynch MW, Enforcing 'statutory rape?' *Public Interest,* 1998, No. 132, pp. 3-16.

12. Kelly JE et al., Plan and operation of the 1995 National Survey of Family Growth, *Vital and Health Statistics,* 1997, Series 1, No. 36; and Mosher WD, Design and operation of the 1995 National Survey of Family Growth, *Family Planning Perspectives*, 1998, 30(1):43-46.

13. Henshaw SK and Kost K, Abortion patients in 1994-1995: characteristics and contraceptive use, *Family Planning Perspectives*, 1996, 28(4):140-147 & 158.

14. Potter FJ et al., Sample design, sampling, weights, imputation, and variance estimation in the 1995 National Survey of Family Growth, *Vital and Health Statistics*, 1997, Series 2, No. 124, p. 20.

15. Unpublished data on 1994-1995 births by age of mother by month, Bethesda, MD: NCHS, Division of Vital Statistics.

16. Henshaw SK, Unintended pregnancy in the United States, *Family Planning Perspectives*, 1998, 30(1):24-29 & 46; Henshaw SK, Abortion incidence and services in the United States, 1995-1996, *Family Planning Perspectives*, 1998, 30(6):263-270 & 287; unpublished data on 1995 abortions by age of women, New York: The Alan Guttmacher Institute, 1999; and U.S. Bureau of the Census, *Statistical Abstract of the United States: 1998* (118th ed.), Washington, DC: U.S. Bureau of the Census, 1998, Tables 124 and 125.

17. Tietze C, *Induced Abortion: A World Review, 1983*, New York: Population Council, 1983, pp. 4 & 105-109.

18. Henshaw SK and Kost K, 1996, op. cit. (see reference 13).

19. Henshaw SK, Unintended pregnancy..., 1998, op. cit. (see reference 16).

20. Deardorff KE, Hollmann FW and Montgomery P, U.S. population estimates, by age, sex, race, and Hispanic origin: 1990 to 1994, No. PPL-21, Washington, DC: U.S. Bureau of the Census, 1995.

21. Saluter AF, Marital status and living arrangements: March 1993, *Current Population Reports*, 1994, Series P-20, No. 478, Table 1; Saluter AF, Marital status and living arrangements: March 1994, *Current Population Reports*, 1995, Series P-20, No. 484, Table 1; and Saluter AF, Marital status and living arrangements: March 1995, *Current Population Reports*, 1996, Series P-20, No. 491, Table 1.

22. Potter FJ et al., 1997, op. cit. (see reference 14), pp. 24-30.

23. Landry DJ and Forrest JD, 1995, op. cit. (see reference 2).

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*Cases not missing the partner's age were matched to those missing that information by the respondent's age, parity, marital status, race, ethnicity and education. Within these matched sets, the partner's age for a nonmissing case was randomly assigned to a missing case.

†A substantial proportion of women who reported use of the pill in the three months prior to interview also reported no use of a method at last sex. Because the pill is a systemic (rather than coitus-dependent) method, some users may not have associated it with use at the last act of intercourse. Therefore, we classified all current pill users who did not report use of any method at last sex as currently using a method.

‡The weighted number of births reported by NSFG respondents for the calendar years 1990-1994 is very close to the total number of U.S. births reported through birth certificates for that time period (Abma JC et al., Fertility, family planning, and women's health: new data from the 1995 National Survey of Family Growth, *Vital and Health Statistics*, 1997, Series 23, No. 19, pp. 3 & 17).

§Respondents who gave birth were asked: "How old was the father at the time you became pregnant?" In a few cases, the father's age was not reported in the NSFG (100 unweighted cases, or 2.3% of weighted births). Women who did not report the age of their baby's father tended to be unmarried, to be black or Hispanic, to be younger, to have less education and to have fewer children ever born than did other women. We used an unweighted hot-deck procedure to impute the father's age for missing cases. Cases not missing the father's age were matched to those missing that information by the respondent's age, marital status, race, ethnicity and level of education. Within these matched sets, the age of father for a nonmissing case was randomly assigned to a missing case.

**Imputing missing data on the male partner's age caused only small changes in the results; for instance, the percentage of women who became pregnant by a male partner who was six or more years older increased by 0.4 percentage points after imputation.

†† Miscarriages and stillbirths are often estimated at a level equivalent to 20% of the number of births and 10% of the number of abortions (source: H. Leridon, *Human Fertility: The Basic Components*, Chicago: University of Chicago Press, 1997, Table 4.20). Therefore, adding miscarriages would increase the number of pregnancies and the pregnancy rate, but it would not markedly alter the distribution of pregnancies by intention status.

‡‡ The percentages of women who had ever had intercourse, by age, are: 39% at age 15-17; 71% at age 18-19; 89% at age 20-24; 96% at age 25-29; 97% at age 30-34; and 99% at ages 35-39 and 40-44.

§§Birthrates and pregnancy rates fall rapidly after age 44. In 1994, for instance, there were 33.7 births per 1,000 women aged 35-39; 6.4 per 1,000 aged 40-44; and 0.3 per 1,000 aged 45-49 (source: Ventura SJ et al., Advance report of final natality statistics, 1994, *Monthly Vital Statistics Report*, 1996, Vol. 44, No. 11, Suppl., pp. 30 & 49).