

UC Irvine

UC Irvine Previously Published Works

Title

The ages of fathers in California adolescent births, 1993.

Permalink

<https://escholarship.org/uc/item/25q410ws>

Journal

American Journal of Public Health, 86(4)

ISSN

1541-0048

Authors

Males, M
Chew, K S

Publication Date

1996-04-01

Peer reviewed

The Ages of Fathers in California Adolescent Births, 1993

ABSTRACT

Officials, media coverage, and prevention programs have assumed that fathers of infants born to US school-age (10–18 years old) mothers are school-age peers. This study analyzes fathers' ages in 46 500 California births to school-age mothers in 1993, for which 85% of the fathers' ages were stated and whose distribution is similar to that of less complete national samples. Adult, postschool men father two thirds of the infants born to school-age mothers and average 4.2 years older than the senior-high mothers and 6.7 years older than the junior-high mothers. The extensive involvement of adult males in both school-age motherhood and its precursors represents a significant, undiscussed factor deserving greater attention. (*Am J Public Health*. 1996;86:565–568)

Mike Males and Kenneth S. Y. Chew, PhD

Introduction

Although teenage mothers have been subjected to increasingly intense attention, their male partners largely have escaped scrutiny.¹ The news media, policy makers, and scholars alike assume that the partners in teenage fertility are likewise teenagers.² Yet recent studies indicate that teenage sex, pregnancy, and childbearing are more complex than the teen-peer issues they are assumed to be.³ Evidence from birth tabulations (Stephanie Ventura, Division of Vital Statistics, National Center for Health Statistics, unpublished data, 1992), marriage records,⁴ and research^{5,6} focused on the age-of-partner issue, although incomplete, suggests that men aged 20 years or older father most infants born to teenage mothers. The partners of 445 teenage mothers in a 1989 study were often not age peers “but rather men who are at least five to ten years older than their early adolescent girlfriends”—an “age discrepancy” receiving “virtually no attention in the literature.”⁷

This analysis focuses on fathers' ages in school-age fertility: childbearing by mothers aged 18 years or younger. Most concern has been directed at school-age mothers on the premise that school-age childbearing involves age groups reachable through school programs. But if adult fathers play a significant role in childbearing among school-age females, then the present mix of youth-targeted education, abstinence and contraceptive promotion, and policy sanctions is likely to be insufficient.⁶ This article uses available birth statistics to estimate the extent of adult male involvement in school-age childbearing.

Methods

Data on School-Age Childbearing

Determining the ages of fathers of infants born to school-age mothers has proven difficult. Among the vital records for 518 000 US teenage births compiled by the National Center for Health Statistics in 1992, for example, 41% omitted the father's age (Stephanie Ventura, unpublished data, 1992). Fortunately, recent

tabulations by the California Center for Health Statistics through 1993 provide fathers' ages for 86% of the state's approximately 70 000 teenage births per year by single-year intervals for both mothers and fathers.⁸ For 1993, the California data include fathers' ages by race for 96% of marital and 81% of nonmarital school-age births (marital status is tabulated by the Center for Health Statistics with an inferential method validated by Berkov).⁹ In the most recent years for which both state (1993) and national (1992) figures are available, the two data sets are virtually identical in aggregate and separately by race and age of the mother (Table 1). The equivalence of age distributions, despite the large difference in response rate, suggests that the ages of fathers in any one age group are no more likely to be unstated than those of fathers in any other age group.

As in other states, California data on the ages of fathers are compiled from birth certificates that are derived from the statements of mothers. Two factors help explain the higher proportions of birth records on which fathers' ages are reported in California. First, because California birth certificates omit marital status, the mother may list an unmarried father (and his age) without concern that marital status will be publicly disclosed. Second, the state trains hospital birth clerks extensively to elicit information that is complete (Janet Strickland, Program Analyst, California State Office of Vital Records and Statistics, personal communication, January 10, 1995). Still, might these reports be systematically biased, either by ignorance or by falsification? Ignorance is unlikely. On average, teen couples are together for 18 months before the birth,⁵ offering ample occasion to learn a partner's true age. Falsification is

The authors are with the School of Social Ecology, University of California, Irvine, Calif.

Requests for reprints should be sent to Mike Males, Department of Environmental Analysis and Design, School of Social Ecology, University of California, Irvine, CA 92717-5150.

This paper was accepted December 7, 1995.

Note. The analysis and conclusions in this paper are solely the authors'.

TABLE 1—Father's Age in School-Age and Teenage Births, by Mother's Age and Race, United States and California, 1992 and 1993

Mother's Age and Race	Father's Age, % ^a						No.	Mothers Who Stated Father's Age, %
	10–14 y	15–19 y	20–24 y	25–29 y	30–39 y	> 40 y		
Age 10–14 y								
US 1992	4	67	24	4	1	b	12 220	32
Calif 1993	4	61	27	6	1	b	1 572	69
Age 15–17 y								
US 1992	... ^b	51	40	7	2	b	187 549	52
Calif 1993	... ^b	50	40	8	2	b	26 301	84
Age 18–19 y								
US 1992	... ^b	24	58	14	4	b	317 866	64
Calif 1993	... ^b	24	55	15	5	b	42 218	87
White/Hispanic								
US 1992	... ^b	31	53	12	3	b	359 456	69
Calif 1993	... ^b	33	50	13	4	b	58 312	86
Black								
US 1992	... ^b	41	48	8	3	b	157 951	35
Calif 1993	... ^b	41	44	10	3	b	7 913	86
Asian/other								
US 1992	... ^b	31	48	15	5	b	16 076	59
Calif 1993	... ^b	34	46	14	5	b	3 866	76
All mothers total								
US 1992	... ^b	33	52	11	4	b	517 635	59
Calif 1993	... ^b	34	49	12	4	b	70 091	86

^aTotals add to less than 100% due to rounding.

^bTotal > 0 but < 0.5%.

more likely, but could work either to inflate or deflate average ages. Mothers may overstate fathers' ages to acquire the cachet of having an older partner. Mothers may understate fathers' ages to avoid statutory entanglement or familial retaliation. Without further data, the relative weight of these countervailing influences cannot be gauged. In any case, the distribution of stated father ages for California school-age births is a smooth distribution with no evident heaping around socially significant milestones (e.g., ages 18 or 21). This increases our confidence that the 39 260 stated father ages provide a defensible starting point for estimating the age distribution of the 7251 unstated ages.

Three Approaches for Estimating Fathers' Ages

If we accept that the age-known data on the fathers are believable, the next step is to determine the range of plausible distributions for the age-unknown fathers. Three divergent approaches were used.

Age-peer approach. To estimate a lower-boundary (i.e., youngest possible) age distribution, we adopted the extreme assumption that all age-unknown fathers were the school-age peers of their part-

ners. This assumption is operationalized by distributing age-unstated fathers as if they were identical in age to their school-age female partners.

Adult-father approach. To estimate an upper-boundary (i.e., oldest possible) age distribution, we adopted the extreme assumption that all age-unknown fathers were adults significantly older than their school-age partners. Various age thresholds could be used to delimit births involving adult (nonpeer) fathers. By our definition, a nonpeer, adult father was at least 2 years older than the mother and beyond school age at the time of birth. In reference to 18-year-old mothers, for example, 19-year-old fathers were peers whereas 20-year-old fathers were adults; in reference to mothers aged 10 to 17 years, nonpeers would be 19 years of age or older. Thus, the adult-father assumption was operationalized by distributing age-unstated fathers (within each category of race and mother's marital status) in proportion to the age distribution of age-known fathers age 20 years or older.

Interpolation from known ages. The two preceding approaches bracket an intermediate one that is based on the assumption that father ages are missing at random, an assumption supported by the

close resemblance noted earlier between California and US age-of-father patterns (Table 1). Thus, our third, most realistic estimate interpolated omitted ages from known ages with simple proration.¹⁰ Specifically, age-unknown fathers were prorated by mother's marital status (married or not married), race (White, Black, Hispanic, Asian/Other), and age. Median ages of mothers and fathers and partner age gaps within each age group were calculated with cumulation differencing for the distribution as a whole.¹⁰

Results

Figure 1 compares the range of results among 17-year-old mothers (the average age of school-age mothers at time of birth). Under the lower-boundary age-peer approach, 66% of the infants born to 17-year-old mothers would be fathered by postschool adult men ages 19 years and older, compared with 76% under the upper-boundary adult-father assumption and 71% under the intermediate interpolated estimate. Under all three scenarios, at least two thirds of the partners would be postschool adult men. For 15-year-old mothers (data not shown), 47% of the infants would be fathered by

postschool adult men under the lower-boundary assumption, 63% under the upper-boundary assumption, and 52% under the interpolated estimate. At ages younger than 15 years, where cases are fewer and missing data more prevalent, the estimates diverge somewhat more and should be viewed with less confidence.

As the terms *peer* and *adult* imply, partners of school-age mothers comprise two divergent groups of males. Table 2 presents the median ages of mothers and their peer or adult partners, incorporating estimates for age-unknown fathers under the intermediate assumption. (A detailed table of single-year age distributions of fathers and teenage mothers by race, using 1993 California data and the interpolated approach, is available from the authors.) In the total 16 065 births involving school-age peer couples, the mother's median age at time of birth was 17.1 years and the father's median age was 18.2 years, a gap of around 1 year. For the total 30 446 births involving school-age mothers and postschool adult fathers, the mother's median age was 17.8 years and father's was 22.1 years, a gap of 4.3 years. Moreover, the younger the mother, the wider the partner age gap. The median age of 18-year-old mothers was 0.3 year younger than school-age fathers and 4.2 years younger than adult partners; for 10- to 14-year-old mothers, these gaps widen to 2.4 and 6.7 years, respectively. If *average* (mean) rather than median ages are used, age gaps between post-school-age fathers and school-age mothers increase to 5 years.

Adult fathers account for a substantial majority of school-age births irrespective of mother's race or marital status. Adults were fathers in 67.8% of births ($n = 28\ 399$) to Hispanic mothers, 62.9% of births ($n = 10\ 148$) to non-Hispanic Whites, 58.8% of births ($n = 5466$) to Blacks, and 63.6% of births ($n = 2498$) to Asians/others. Adults were fathers in 74.7% of births ($n = 12\ 217$) to married mothers and 62.2% of births ($n = 34\ 294$) to unmarried mothers.

Discussion

What we call school-age childbearing is predominantly a teen-adult phenomenon. In 1993, only a minority (34.5%) of California's 46 500 school-age mothers gave birth after liaison with a school-age peer; by contrast, about two thirds (65.5%) had a post-school-age adult partner who, on average, was more than 4 years older. Overall, half of the fathers were fully 3 or

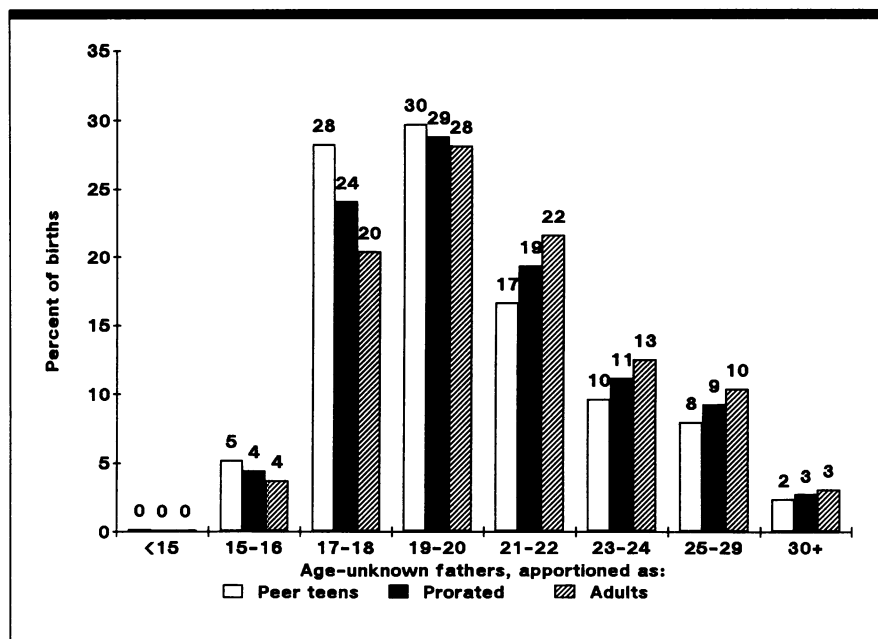


FIGURE 1—Ages of fathers of infants born to 17-year-old mothers, California, 1993.

TABLE 2—Median Ages of Partners in School-Age Births, California, 1993

Mother's Age, y	School-Age Fathers ^a				Adult Fathers ^a			
	Mother's Age, y (Median)	Father's Age, y (Median)	Age Gap, y	No. Pairs	Mother's Age, y (Median)	Father's Age, y (Median)	Age Gap, y	No. Pairs
10-14	14.5	16.9	2.4	867	14.6	21.2	6.6	704
15-17	16.8	17.9	1.2	5478	17.1	21.4	4.3	16 989
18 ^a	18.6	18.9	0.3	9720	18.5	22.7	4.2	12 753
Total (10-18)	17.3	18.2	0.9	16 065	17.7	22.0	4.3	30 446

Note. Median ages were calculated on the basis of the "intermediate estimate" (unknown father ages estimated by interpolation).

^a19-year-old fathers with 18-year-old mothers were considered "school age." See text for discussion.

more years older than their female partners; indeed, 13% of males were at least age 25 years. Thus, the 2-year age gap estimated as typical in earlier studies¹¹ may be grossly understated. The gap is especially significant because teenage mothers with much-older partners are disproportionately the childhood victims of sexual assault by adult men.^{7,12} The possibility that much early childbearing represents an extension of rape or sexual abuse by male perpetrators averaging one to two decades older remains a serious question.^{7,12,13}

Until now, research, policy, and prevention/intervention programs concerning school-age fertility have focused on peer-age couples, not the adult male involvement that characterizes the sub-

stantial majority of relationships. If the California results are supported by other data, school-age fertility may not be a distinct phenomenon that can be addressed separately from adult fertility. If prevention of early childbearing is the goal, then the predominant involvement of much-older adult males in the sexual assault of children,^{7,13} the initiation of young adolescent females into sex (often by rape),³ and the impregnation of school-age females in voluntary relationships must become central in research and policy. □

Acknowledgments

Appreciation for information and data retrieval is extended to Charles Chan (California

Center for Health Statistics), Janet Strickland (California Office of Vital Records and Statistics), and Stephanie Ventura (National Center for Health Statistics).

References

1. Furstenberg FF Jr, Harris KM. When fathers matter/why fathers matter: the impact of paternal involvement on the offspring of adolescent mothers. In: Lawson A, Rhode DL, eds. *The Politics of Pregnancy*. New Haven, Conn: Yale University Press; 1993:189–209.
2. Hayes CD, ed. *Risking the Future*. Washington, DC: National Academy Press; 1987.
3. Alan Guttmacher Institute. *Sex and America's Teenagers*. New York, NY: Alan Guttmacher Institute; 1994.
4. Marriages—age differences of bride and groom, by age: 1987. Table 132. *Statistical*

Abstract of the United States, 1993. Washington, DC: US Dept of Commerce, Bureau of the Census; 1994:88.

5. Lamb ME, Elster AB, Tavaré J. Behavioral profiles of adolescent mothers and partners with varying intracouple age differences. *J Adolesc Res*. 1986;1:399–405.
6. Males M. School-age pregnancy: why hasn't prevention worked? *J Sch Health*. 1993;63:429–432.
7. Gershenson HP, Musick JS, Ruch-Ross HS, Magee V, Rubino KK, Rosenberg D. The prevalence of coercive sexual experience among teenage mothers. *J Interpersonal Violence*. 1989;4:204–219.
8. California Center for Health Statistics. California resident live births, 1993. Births by inferred marital status, married, unmarried; by race of mother; by age of mother, age of father (printout). Sacramento, Calif: Department of Health Services; 1994.

9. Berkov B. An evaluation of California's inferred birth statistics for unmarried women. *Vital Health Stat* [2]. 1985;97. HQ 763 S8.
10. Shryock HS, Siegel JS and Assoc. *The Methods and Materials of Demography*. Condensed ed. by Stockwell EG. New York, NY: Academic Press; 1976.
11. Adams G, Pittman K, O'Brien R. Adolescent and young adult fathers: problems and solutions. In: Lawson A, Rhode DL, eds. *The Politics of Pregnancy*. New Haven, Conn: Yale University Press; 1993:216–237.
12. Boyer D, Fine D. Sexual abuse as a factor in adolescent pregnancy and child maltreatment. *Fam Plann Perspect*. 1992;24:4–11, 19.
13. Timnick L. The Times Poll: 22% in survey were child abuse victims. *The Los Angeles Times*. August 25, 1985:1, 34.

ABSTRACT

To explore weapon carrying among young, inner-city adolescents, a survey was administered in fall 1993 to 2005 predominantly Hispanic students (mean age = 12.8 years) in three New York City junior high schools. The survey revealed that 21% of students reported personally carrying a weapon; guns and knives were the weapons most commonly carried. Most of those who carried guns reported that they bought them. Forty-two percent indicated that they had a family member or close friend who had been shot. Boys and older students were more likely to report carrying weapons. Preventive efforts may need to begin before or on entry into junior high school rather than high school. (*Am J Public Health*. 1996;86:568–572)

Carrying and Using Weapons: A Survey of Minority Junior High School Students in New York City

Roger D. Vaughan, MS, James F. McCarthy, PhD, Bruce Armstrong, DSW, Heather J. Walter, MD, MPH, Pamela D. Waterman, and Lorraine Tiezzi, MS

Introduction

Violence is the major cause of mortality among American youth, with accidents, suicide, and homicide accounting for 75% of all adolescent deaths.¹ Minority youth are disproportionately represented in terms of deaths from suicide and homicide. More than one third (36%) of all deaths among Hispanic youth are caused by homicide and suicide, in comparison with one fifth (22%) for similarly aged Whites.² The overall death rate for Black youth is twice that for Whites, and whereas the leading cause of death among adolescent Whites is accidents, the leading cause of death among teenage Blacks is homicide.³ Firearms play a key role in these grim statistics. They are the leading means of homicide for these young victims,⁴ and the presence of a handgun in the home greatly increases the risk that someone who lives there will be killed.⁵

Several studies have investigated access to and availability of weapons (particularly guns) among high school students.^{6–8} Far less is known about the weapon experience of younger adolescents, although it has been suggested that an adolescent's first experience with weapons may be as early as 12 years of age.⁹ No

literature is available about young, minority adolescent involvement with weapons. The data presented in this paper begin to document the weapon experience of younger, minority, inner-city adolescents and may help to guide the timing and content of violence prevention programs.

Methods

Procedure

In the fall of 1993, a two-page anonymous questionnaire was administered by trained staff members to 2005 seventh- and eighth-grade students (70% of those eligible) in three junior high schools in a New York City school district. As in many other inner-city neighbor-

Roger D. Vaughan, James F. McCarthy, Bruce Armstrong, Pamela D. Waterman, and Lorraine Tiezzi are with the Center for Population and Family Health, Columbia University School of Public Health, New York City. Heather J. Walter is with the Department of Psychiatry, Children's Memorial Hospital, Chicago, Ill.

Requests for reprints should be sent to Roger D. Vaughan, MS, Center for Population and Family Health, Columbia University School of Public Health, 60 Haven Ave Level B-3, New York, NY 10032.

This paper was accepted December 20, 1995.