# American Sexual Behavior: <br> Trends, Socio-Demographic Differences, and Risk Behavior 

Tom W. Smith

National Opinion Research Center
University of Chicago

GSS Topical Report No. 25

Updated
December, 1998

This research was done for the General Social Survey (GSS) project directed by James A. Davis, Tom W. Smith, and Peter V. Marsden. The GSS is supported by the National Science Foundation, Grant No. SBR9717727 .

$$
\text { Version } 3.0
$$

## Introduction

Sexual behavior is not only of basic biological importance, but of central social importance. Not only does it perpetuate the human species, but it is the central behavior around which families are formed and defined, a vital aspect of the psychological wellbeing of individuals, and a component of a variety of social problems. Among current concerns tied in part to sexual behavior are the familial problems of marital harmony and divorce; criminal problems of rape, incest, child molestation, and prostitution; reproductive problems of infertility, sterility, unwanted and mistimed pregnancies, and abortion; and health problems related to sexually transmitted diseases (STDs).

About 17\% of adults 18-59 have had an STD and the lifetime infection rate is likely to be over 20\% (Laumann, Michael, Gagnon, and Stuart, 1994). ${ }^{1}$ Moreover, with the advent of AIDS the medical problem of STDs has taken on increasing urgency (Div. of HIV/AIDS Prevention, 1995 and Yankauer, 1994). Deaths from AIDS rose at a rapid pace in the 1980 s and early 1990s. By 1992 AIDS had become the number one cause of death among men $25-44$. Only recent improvements in medical treatments have curbed the rising levels of HIV to AIDS conversions and lowered the death rate from AIDS (CDC, 1998; "AIDS Falls," 1998; State and Local, 1998). Most HIV infections have resulted from sexual behavior and heterosexual intercourse is increasingly becoming a mode of transmission ("Heterosexuality," 1994; CDC, 1998).

Because of both the importance of sexual behavior in general and the health crisis of AIDS in particular, we need to arm ourselves with a thorough, scientifically reliable understanding of sexual behavior and especially to study high-risk behavior (Hewitt and Beverley, 1996). In this paper we will outline what is currently known about American sexual behavior. ${ }^{2}$ Attention will
${ }^{1}$ A 1998 study for the Kaiser Family Foundation by Princeton Survey Research Association indicates that 14\% of adults 18-44 who have ever had sexual intercourse have had an STD other than AIDS. For rates among youths see Ellen, Aral, and Madger, 1998.
${ }^{2}$ This report addresses a number of measurement issues, but does not focus on methodology and measurement error. For recent discussions of the reliability and validity of sexual behavior data see Auster, n.d.; Bachrach, Evans, Ellison, and Stolley, 1992; Biggar and Melbye, 1992; Binson and Catania, 1998; Boekeloo, et al., 1994; Brody, 1995; Brown and Sinclair, 1996; Catania, Binson, Canchola, Pollack, Hauck, and Coates, 1996; Catania, Canchola, and Pollock, 1996; Catania, Gibson, Chitwood, and Coates, 1990; Catania, McDermott, and Pollack, 1986; Catania, Turner, Pierce, Golden, Stocking, Binson, and Mast, 1993; Downey, Ryan, Roffman, and Kilich, 1995; Dunne, Martin, Bailyet, Heath, Bucholz, Madden, and Stalham, 1997; Edelman, 1998; Ellish, Weisman, Celentano, and
focus on 1) trends and 2) socio-demographic differences within the following areas:
a) Premarital and Adolescent Sexual Activity including Cohabitation and Non-marital Births
b) Adult and General Sexual Behavior including Extra-marital Relations, Gender of Sexual Partners, Frequency of Sexual Intercourse, and Sexual Inactivity
c) The Impact of AIDS on Sexual Behavior including Reported Changes in Sexual Behavior, Number of Sexual Partners, Relationships between Sexual Partners, Prostitution, and the Use of Condoms

## Premarital and Adolescent Sexual Activity

Premarital sexual intercourse become increasingly common over the last century (Table 1A, see also Hopkins, 1998 and Whitbeck, Simons, and Goldberg, 1996). This increase was not merely the result of the so-called sexual revolution of the 1960 s. The change was underway for decades prior to the 1960 s and has continued since then. Rates among men were moderately high even from the beginning (61\% of men born before 1910 report having had sexual intercourse before marriage) and climbed steadily. Women had low rates of premarital intercourse to begin with (only $12 \%$ of those born before 1910 had pre-marital sexual intercourse), but their rates grew more rapidly than those of men and the gap between men and women has narrowed over time. By the 1980s (roughly the 1965-1970 birth cohort) women had almost as much sexual experience as men prior to marriage (in 1988 of those 15-19 60\% of men and 51.5\% of women had engaged in premarital sex). This increase in premarital sexual experience is confirmed by community studies (Wyatt, Peter, and Guthrie, 1988 and Trocki, 1992) and longitudinal panels (Udry,

Zenilman, 1996; Giami, 1996; Hornsby and Wilcox, 1989; Huygens, Kajura, Seeley, and Barton, 1996; Jasso, 1985 and 1986; Johnson and Delamater, 1976; Kahn, Kalsbeck, and Hofferth, 1988; Karabatsos, 1997; Lauritsen and Swicegood, 1997; Maass and Volpato, 1989; Metzler, et al., 1992; Miller, 1995 \& 1996; Morris, 1993; Newcomber and Udry, n.d.; Orr, Fortenberry, and Blythe, 1997; Padian, Aral, Vranizan, and Bolan, 1995; Peterman, 1995; Seal, 1997; Shew, et al., 1997; Smith, 1992a; 1992b; Sonenstein, 1997; Tourangeau, Rasinski, Jobe, Smith, and Pratt, 1997; Tourangeau and Smith, 1996; 1998; Tourangeau, Smith, and Rasinski, 1997; Trivedi and Sabini, 1998; Turner, Rogers, Lindberg, Pleck, and Sonenstein, 1998; Upchurch, et al., 1991; Wadsworth, Johnson, Wellings, and Field, 1998; Weinhardt, et al., 1998; Wiederman, 1997; Zenilman, et al., 1995; and Zimmerman and Langer, 1995.

Bauman, and Morris, 1975).
Then in the early 1990s the century-long increase in the level of premarital and adolescent sexual activity reached a peak and then declined for the first time in decades (Table 1A and Bachrach, 1998; Besharov and Gardiner, 1997; Stossel, 1997; and Peipert, et al., 1997). The decrease appears to be greater for males than females, but both genders show a levelling-off and then some reversal. ${ }^{3}$

With the increase in levels of premarital sexual intercourse came a fall in the age of first intercourse (Table 1B). In 1970 5\% of women age 15 and $32 \%$ age 17 were sexually experienced, by 1988 this had grown to $26 \%$ at age 15 and 51\% at age 17 (see also Kahn, Kalsbeek, and Hofferth, 1988 and Hofferth, Kahn, and Baldwin, 1987). This trend may also have levelled-off and reversed since then, but the evidence is inconclusive (Table 1B and Strunin and Hingson, 1992).

When the increase in levels of premarital sexual intercourse is coupled with the rising age at first marriage, this means that men and women are spending longer and longer periods of their sexual life outside of marriage (Ehrhardt and Wasserheit, 1992; Bachrach and Horn, 1987; Laumann, Gagnon, Michael, and Michaels, 1994). Between 1960 and 1997 the median age at first marriage rose from 22.8 to 26.8 for men and from 20.3 to 25.0 for women. For women the median age of first premarital intercourse in 1960 was about 19.0 (Turner, Miller, and Moses, 1989 and Bachrach and Horn, 1987), meaning on average only a short period of premarital sexual activity. In 1990 the median age at first sex was 16.9 for women (Divs. of Epidemiology and Prevention; Adolescent and School Health; and Reproductive Health, 1992), meaning an average exposure of 8.1 years. For men the period of premarital sexual activity now averages 10.7 years (26.8-16.1).

With people spending longer periods engaged in premarital sexual activity the number of lifetime sexual partners has also grown for both men and women (Table 1C). Between the pre-1910 birth cohort and the 1940-49 birth cohort the portion of men with two or more premarital sexual partners rose from $49 \%$ to $73 \%$, while for women the gain was from $3 \%$ to $26 \%$. This trend continued until recent years. For example, among sexually experienced women ages 15-19 living in metropolitan areas $38 \%$ had had 2 or more sexual partners in 1971 while by 1988 this had increased to 61\%. More recently there is evidence of a reversal of this trend. On the Youth Risk Behavior Surveys (YRBS) the \% of male high school
${ }^{3}$ Work by Schuster, Bell, and Kanouse, 1996 suggests that precise definitions of sexual intercourse are needed to understand the trends and what sexual activities are occurring. In their sample of $9-12$ th graders in a Los Angeles County school district, they found that $35 \%$ of those who had never had vaginal intercourse had had gential sexual activity in the last year including masturbation with a partner and/or oral and anal sex.
students with 4+ sexual partners declined from 1989 to 1997, but the trend among females is unclear.

Cohabitation
The rise in premarital and adolescent sexual activity, coupled with delays in marriage, has led to more people living together. Since 1970 the rate of living together outside of marriage has increased more than 6 fold, from 1.1\% to $7.0 \%$ of couples (Table 2). Similarly, the portion of single mothers who were cohabitating grew from 2\% in 1970 to 12\% in 1995 (London, 1998). While the proportion of couples and adults cohabitating at any one point in time remains small, a large and growing percent live together at some point. Currently over a third of adults in their mid-twenties to midthirties cohabited before their first marriage and half of this age group has cohabited at some point in their lives (Table 3A). Cohabitation after and between marriages is even more common. According to the General Social Survey (GSS) among those 25-44 who are in a second marriage, 61\% cohabited with their new spouse before marriage (GSS, 1994).

Cohabitation differs little by gender or race. It is higher among younger adults, the divorced and never married, those in urban areas, and among those who attend church less frequently. Current, but not prior cohabitation with ones spouse, is higher among the less educated and those with lower incomes (Table 3B).

Cohabitation is usually a short-term arrangement, typically resulting in either marriage or a break-up after about a year (median duration of 1.3 years) (Thomson and Colella, 1992; Bumpass and Sweet, 1989; Thornton, 1988).

Cohabitation has often been characterized as a trial marriage and about 40\% lead to marriage within two years and about 60\% eventually culminate in marriage between the cohabiting partners (Bumpass and Sweet, 1989). However, marriages formed after cohabitation are rated as less stable and result in more divorces than marriages not preceded by living together (Axinn and Thornton, 1992; Brown and Booth, 1996; Clarkberg, Stolzenberg, and Waite, 1995; DeMaris and MacDonald, 1993; DeMaris and Rao, 1992; Lillard, Brien, and Waite, n.d.; Popenoe, 1993; and Thomson and Colella, 1992). Cohabitation thus "does not seem to serve very well the function of a trial marriage... (Popenoe, 1993)."

Those who are cohabiting have fewer sexual partners than those who are unmarried and not cohabitating. However, people who are cohabitating have more sexual partners than married couples (Waite and Joyner, 1996). For example on the 1993-94 GSS the married averaged 0.97 partners last year, the never married who were cohabiting had 1.38 partners, and the non-cohabitating, never married had 1.63 partners. That fact coupled with the transitory state of most cohabitations makes living together riskier than marriage when it comes to STDs (Turner, Miller, and Moses, 1989; Kost and Forrest, 1992).

Non-marital Births
With the link between sexual activity and marriage breaking down, the connection between marriage and procreation has also lessened. In the 1960 s (and presumably before) when premarital sexual intercourse resulted in conception, the women's pregnancy usually in turn led to a marriage before the child was born (Table 4). Since then, the propensity of unmarried parents to marry before the birth of their child has steadily fallen. By the 1990s less than $25 \%$ of women who conceived children before marriage got married before their child's birth.

As a result of the higher level of premarital sexual activity and the decline in marriages after a conception but prior to birth, there has been a large increase in out-of-marriage births (Miller and Heaton, 1991 and Table 5). In 1960 only 5\% of all births were to unmarried women. This climbed to 14\% by 1975 and 33\% by 1994. Then, after over 30 years of increase, the rate leveled-off in 1994-96 at 32-33\%.

The trend in the United States has been parallel to changes in culturally similar, advanced industrial nations and not unique to the US. While the percent of births to unmarried mothers climbed from 5\% in 1960 to $32 \%$ in 1995 in the US, it rose from $5 \%$ to $34 \%$ in Great Britain, from $4 \%$ to $26 \%$ in Canada, and from $6 \%$ to $37 \%$ in France (Statistical Abstract, 1998).

The rate of increase has been much greater for Whites than for Blacks. For Whites the percent of unmarried births has expanded ten-fold from 2.3\% of all births in 1960 to $23.7 \%$ in 1996, while the Black level grew by just over three-fold from 21.6\% in 1960 to 70.4\% in 1994. While the Black to White ratio has fallen from a little over 9:1 in 1960 to under to 3:1 in 1990s, the gap between Blacks and Whites rose from 19 percentage points in 1960 to 44-46 percentage points in from 1980 to 1996 (with a peak in 1993). This means that almost a majority of White or Black mothers would have to change their marital status to equal that of the other race. The cumulative difference between Whites and Blacks is further shown by the fact that by ages 30-34 only 23\% of never-married, White women have given birth, while 69\% of never-married, Black women have had a child (Bachu, 1991 \& 1995; Loomis and Landale, 1994).

While both Whites and Blacks have a greater proportion of births occurring outside of marriage, they have achieved the gains through decidedly different paths (Table 5). For Whites the unmarried birth rate (number of births to unmarried women per 1,000 unmarried women ages $15-44$ ) rose throughout the period. It increased more than 4 times from 9 in 1960 to 38 in 1994-95. For Blacks their rate was quite variable over time. It fell from 98 in 1960 to 79 in 1985 before climbing again to 91-93 in 1989-90 still below their birth rate in the 1960s. In the early-1990s the Black unmarried birth rate then again declined, falling to 76 in 1996.

In addition, there is also a high level of unintended births (Abma et al., 1997 and Williams, 1991). Of women 15-44 in 1995 who
have had a child, 28\% reported that they had an unintended birth and this reached $36 \%$ for women 40-44. On those with an unintended birth, $80 \%$ reported the birth as mistimed and $20 \%$ as unwanted.

In brief, over the last century premarital sexual activity become more widespread, sexual initiation started at younger ages, the period of premarital sexual activity lengthened, and the number of premarital sexual partners increased. This expansion in premarital sexual activity in turn led to major increases in cohabitation and unmarried child bearing.

But during the 1990s a small, but historic, reversal of some of these trends occurred. The level of premarital and adolescent sexual activity levelled-off and in some aspects retreated and the proportion of births outside of marriage reached a plateau. These changes are partial rather than across the board (e.g. levels of cohabitation continue to rise) and even those behaviors that have levelled-off or reversed are at near record high rates. But even limited changes to a massive, century-long trend are highly notable and potentially important from a public health perspective.

## Adult and General Sexual Behavior

Compared to the amount of information available on premarital and adolescent sexual behavior, until recently there has been little scientifically reliable data on the sexual behavior of adults or of the population in general (Aral, 1994; di Mauro, 1995; and Seidman and Rieder, 1994). Moreover, the dearth of representative and credible studies has created a vacuum that has been filled by unrepresentative and incredible misinformation from popular magazines, sex gurus, and others. In this section we review what is known about extra-marital relations, sexual orientation, the frequency of sexual intercourse, and sexual inactivity.

Extra-marital Relations
There are probably more scientifically worthless "facts" on extra-marital relations than on any other facet of human behavior. Popular magazines (e.g. Redbook, Psychology Today, Cosmopolitan), advice columnists (Dear Abby and Dr. Joyce Brothers), popsexologists (e.g. Morton Hunt and Shere Hite) have all conducted or reported on "studies" of extra-marital relations. These studies typically find extremely high level of extra-marital activity (Reinisch, Sanders, Ziemba-Davis, 1988; Smith, 1989; Smith, 1991b; and Gibbs, Hamil, and Magruder-Habib, 1991). Hite for example reported that $70 \%$ of women married five or more years "are having sex outside of their marriage (Smith, 1988)." They also often claim that extra-marital relations have become much more common over time. Dr. Brothers (1990), for example, claims that $50 \%$ of married women now have sex outside of marriage, double the level of a generation ago.

But representative, scientific surveys (Choi, Catania, and Dolcini, 1994; Forste and Tanfer, 1996; Greeley, 1994; Greeley,

Michael, and Smith, 1990; Laumann, Gagnon, Michael, and Michaels, 1994; Leigh, Temple, and Trocki, 1993; Tanfer, 1994; Treas and Giesen, 1996) indicate that extramarital relations are less prevalent than pop and pseudo-scientific accounts contend (Table 6). The best estimates are that about $3-4 \%$ of currently married people have a sexual partner besides their spouse in a given year and about 15-17\% of ever-married people have had a sexual partner other than their spouse while married (Michael, Laumann, and Gagnon, 1993).

There is little direct and reliable trend information on extra-marital relations before 1988. Since then, levels have not changed. Prior to then there is indirect evidence that extramarital relations may have increased across recent generations. The figure of ever having extra-marital relations rises from 13\% among those 18-29 to $21 \%$ among those 40-49 (Table 7). It then falls to 8\% among those 70 and older. Since these are lifetime rates, one would normally expect them either to increase across age groups or to increase until a plateau is reached (this would be the case if few first-time, extra-marital relations were started among older adults). The drop among those 50 and older suggests that members of birth cohorts before about 1940 were less likely to engage in extra-marital relations than are spouses from more recent generations (Laumann, Gagnon, Michael, and Michaels, 1994; Greeley, 1994).

In terms of current extra-marital relations Table 7 indicates that they are more common among younger adults. This is largely a function of younger adults having been married a shorter period of time. Some recently married people have difficulty adjusting from a premarital pattern of multiple sexual partners to a monogamous partnership and in general recent marriages are more likely to end in divorce than long-term marriages. The rates of extra-marital relations are about twice as high among husbands as among wives (Table 7). Extra-marital relations are also more common among Blacks, those with lower incomes, those who attend church less frequently, those who have been separated or divorced (including those who have remarried), and those who are unhappy with their marriage. It also may be more frequent among residents of large cities, but the overall relationship with community type is statistically significant only for the last 12 months. Finally, extramarital relations in the last year are more likely to occur among the less educated, but the lifetime pattern with education is mixed and unclear.

## Gender of Sexual Partners

Few debates have been so contentious as the controversy over the sexual orientation of Americans (Billy, et al., 1993; Stokes and McKirnan, 1993; Michaels, 1997; and Swann, 1993). The gay and lesbian communities have long adopted $10 \%$ as the portion of the
population that is homosexual. ${ }^{4}$ However, a series of recent national studies (Table 8A) indicate that only about 2-3\% of sexually active men and $1-2 \%$ of sexually active women are currently engaging in same gender sex. These national American estimates are consistent with figures from local communities in the United States (Trocki, 1992; McQuillan, Ezzati-Rice, Siller, Visscher, and Hurley, 1994; Guterbock, 1993; and Rogers and Turner, 1991), indirect measurements (Aguilar and Hardy, 1991), and statistics from Great Britain, France, Norway, and Denmark (AIDS Investigators, 1992; Johnson, Wadsworth, Wellings, Bradshaw, and Field, 1992; Biggar and Melbye, 1992; Melbye and Biggar, 1992; Sundet, et al., 1988; Sandfort, 1998; and Diamond, 1993)(Table 8B).

Rates of same gender contact increase as the reference period is extended. Recent figures (Table 9) indicate that $3.0 \%$ of sexually active males have had a male sexual partner in the last 12 months, $3.9 \%$ during the last five years, and $5.9 \%$ since age 18 (See also Smith, 1991a and Michael, Laumann, and Gagnon, 1993). ${ }^{5}$ As the time frame is lengthened, the \% of men with only male partners declines. Over the last 12 months $2.4 \%$ are gay and $0.6 \%$ are bisexual, over the last five years it is $2.5 \%$ gay and $1.4 \%$ bisexual, and since age 18 less than $1 \%$ are gay and $4 \%+$ bisexual. ${ }^{6}$

[^0]Most of those who report both male and female sexual partners since age 18 report only opposite gender partners during the last year (Smith, 1991a). Lesbians follow these same patterns.

There is little reliable evidence on whether sexual orientation has changed before the late 1980s. ${ }^{7}$ In terms of attitudes levels of approval of homosexuality slightly declined from 1973 to 1991, but then rose notably in 1992-98 (Laumann, Gagnon, Michael, and Michaels, 1994; Smith, 1994; and Davis and Smith, 1998). Since then, no change seems to be occurring in the sexual orientation of the public (Table 9). ${ }^{8}$

Studies of male and female homosexuality both in the United States and Europe regularly find a higher proportion of males are gay than the share of females who are lesbian (Tables 8A \& 8B and Spira, Bajos, Ducot, 1994; Wells and Sell, 1990; AIDS, 1992; Johnson, Wadsworth, Wellings and Field, 1994; Sandfort, 1998).

Sexual orientation does not vary much across socio-demographic groups (Table 9). The most distinctive pattern for both gays and
over the last year and five years were used to reduce the missing data. $10.9 \%$ have incomplete information, $3.0 \%$ have had no sexual partners, $82.1 \%$ are heterosexual, and $3.9 \%$ bisexual or homosexual. This latter group contains anyone who indicated same gender partners during the last year, last five years, or since age 18. The largest group of incomplete cases are those who reported the number of opposite gender partners, but skipped the same gender question. Close inspection of the incomplete cases on variables such as marital status, number of children ever born, and attitudes towards homosexuality indicates that the missing cases have a profile even more heterosexual than the identified heterosexuals (e.g. more negative towards homosexuality, more like to be/have been married, more likely to have had children). In the figures cited here we exclude the sexually inactive and assign the cases with incomplete information proportional to the known cases. This procedure yields a higher number of homosexual/bisexual identifications than are indicated by the profile of the incomplete cases (Smith, 1996).
${ }^{7}$ For an attempt to use contemporary data to project trends backwards through a cohort model see Rogers and Turner, 1991.
${ }^{8} \mathrm{Ku}$, Sonenstein, and Pleck, 1993 show a decline in homosexual behavior among males 17.5-19 between 1988 and 1991, but question the reliability of their own numbers.
${ }^{9}$ A notable exception is a 1991 United States sample of men $20-$ 39 and women 20-37 that found 2.3\% of men and $4.1 \%$ of women had a same gender partner in the last 10 years (Tanfer, 1994). This anomalous result may result from their question. They asked people to rate their sexual activity on a five-point scale from exclusively heterosexual to exclusively homosexual.
lesbians is that they are less likely to have married. About $60 \%$ of those with a same gender partner during the last 12 months have never been married compared to the 16\% of female heterosexuals and 21\% of male heterosexuals who have never been married.

Second, gays, but not lesbians, are distinctive in congregating in the largest central cities. About $8.5 \%$ of men in large central cities have had a same sex partner in the last year as have $9.6 \%$ over the last 5 years and $14.7 \%$ since age 18 . Rates are lowest outside of metropolitan areas. ${ }^{10}$ Lesbians, like gays, are underrepresented in non-metropolitan areas.

Third, more gays are found in the lower income categories and among Blacks. Race is unrelated to being lesbian (except weakly for the lifetime figures) and low income is only marginally related to being lesbian. This may partly reflect both homosexual activity in prisons and male, homosexual prostitution. Education does not consistently differentiate among homosexuals.

Fourth, lesbians, but not gays, are more common among younger age groups. This could indicate an increase in homosexual activity among women across cohorts (see also Rogers and Turner, 1991).

Finally, lesbians, but not gays, attend church less than heterosexuals. About $3.4 \%$ of women who rarely attend church have had a female sexual partner in the last year compared to only 1.3\% of those who attend regularly.

Frequency of Sexual Intercourse
There is some evidence that the frequency of intercourse rose from the 1960s to the 1970s (Trussell and Westoff, 1980) and may have declined in the 1980s. Among teenage males $17-19$ living in metropolitan areas the rate fell from 59.8 times per year in 1979 to 39.0 in 1988 (Sonenstein, Pleck, and Ku, 1990), but then among all males ages 17.5-19, it rose from 30 to 49 times per year between 1988 and 1991 (Ku, Sonenstein, and Pleck, 1993). Among unmarried women ages 20-29 the rate showed a more modest decline from 59.8 in 1983 to 56.0 in 1988-93 (Tanfer and Cubbins, 1992 and GSS, 1994). However, no meaningful change has been occurring among all adults since 1988. On average adults engage in sex about 61 times per year, a little over once a week (Table 10A).

The overall adult average is relatively uninformative however since the frequency of sexual intercourse varies notably across socio-demographic groups (Table 10B). The factor making the biggest difference is age. Among those 18-29 frequency averages about 84 times per year. This then falls off steadily to 64 times per year for those in their 40 s to 9.8 times per year for those 70 and older. Among the married the decline is even more striking, dropping from 112 times per annum for those under 30 to 16 times

[^1]per annum for those 70 and older. This age related pattern is nearly identical to one shown in the 1988 National Survey of Families and Households (Hughes and Gove, 1992) and is consistent with a large number of other studies (Call, Sprecher, and Schwartz, 1996; Feldman, Goldstein, McKinlay, Hatzichristou, and Krane, 1992; Hawton, Gath, and Day, 1994; Jasso, 1985; Jasso, 1986; Kahn and Udry, 1986; Laumann, Gagnon, Michael, and Michaels, 1994; Leigh, Temple, and Trocki, 1993; Rao and VandenHeuvel, 1995; Tanfer and Cubbins, 1992; Udry, 1980; Udry, Deven, and Coleman, 1982; National Council on the Aging, 1998; and Udry and Morris, 1978).

This decline with age also occurs within marriages. First, the so-called honeymoon effect leads to the highest rates of intercourse among the recently married and those recently married tend to be younger (Greenblat, 1983; James, 1981; James, 1983). Second, biological aging reduces hormonal output and poor health in general and impotency in particular increases with age (Feldman, Goldstein, McKinlay, Hatzichristou, Krane, 1992; Leiblum, 1990; Levy, 1992; McKinlay and Feldman, 1992; Morokoff, 1988; Schiavi, 1990; Schiavi, 1992). As a result, even among couples who rate their marriages as very happy (GSS, 1994) and among those who say they are still "in love" (Greeley, 1991) frequency of intercourse declines with age.

Marital status also influences sexual activity (Table 10B). Frequency is greatest among the currently married (with those remarried slightly exceeding those in their first marriage probably because of the honeymoon effect). The never married and divorced have lower rates, probably because of less continuous and convenient availability of a partner. The widowed have by far the lowest rates, a function of their age as well as their marital status. The edge of the married over the non-married becomes even more apparent when age is taken into consideration. Activity is 25300\% greater among the married compared to the non-married at various ages. Among the married intercourse is more frequent among those who have happier marriages (Smith, 1991a; Waite and Joyner, 1996).

Husbands and wives closely agree on the frequency of intercourse in the aggregate and in most paired comparisons of partners (Bachrach, Evans, Ellison, and Stolley, 1992 and Smith, 1992a and 1992b). However, unmarried men and women differ considerably with men reporting more activity than women do (Bachrach, et al., 1992). This is true even if the surplus of widowed females is accounted for.

A multivariate analysis indicates that more sexual intercourse is separately and independently related to a) being younger, b) having been married less than 3 years, and b) rating ones marriage as happier. It is unrelated to gender with controls for these other factors (GSS, 1996).

There are little differences by race, community type, education, or income and these are mostly related to age and/or marital status.

## Sexual Inactivity

Sexual inactivity takes on three distinct forms: 1) the period prior to first sexual intercourse, 2) periods of extended inactivity after first intercourse and prior to last intercourse, and 3) the possible period after last intercourse. The first has been dealt with above in the discussion of premarital sexual relations. The latter two are discussed here. They can not be readily separated from one another with the available data.

Sexual inactivity appears to have modestly declined since the early 1980s (Table 11). Both among women of childbearing age and among all adults the proportion not engaging in sex over extended periods (3-12 months) has decreased in the 1990 s.

Among adults there is a u-shaped curve with sexual inactivity most frequent among the youngest and oldest adults. Sexual inactivity among the elderly is fairly common and is a function of general aging, poor health, and unavailability of a partner. As we saw in the section on frequency of sexual intercourse, sexual activity decreases markedly with age even when a partner remains available. This is a function of both a reduction in the rate of sexual intercourse among those remaining sexually active and also an increase in the proportion sexually inactive. Among those over 70 61\% are not currently sexually active. Among this age group sexual abstinence reaches $33 \%$ among the married and among the nonmarried it hits 92\% (Table 11).

Sexual inactivity is much less common among younger adults. Among the currently married only 1.5-3\% of those 18-49 are sexually inactive. Almost all of this group either have poorer than average health and/or rate their marriage as unhappy (Smith, 1992; see also Donnelly, 1993 and Edwards and Booth, 1976). While 7\% of married couples of all ages are sexually inactive over the last year (GSS, 1998), fully $16 \%$ of married couples have not engaged in sexual intercourse in the last four weeks (Donnelly, 1993, see also Dolcini, et al., 1993). Sexual abstinence is much higher among the non-married ranging between $16 \%$ and $27 \%$ for those under 50 .

Most other socio-demographic differences are small and merely reflect underlying differences in age and/or marital status, but sexual inactivity is lower in households with higher incomes.

While there has been long-term and massive increases in all aspects of premarital and adolescent sexual activity, there is little evidence that similar changes in regards to adult or overall sexual behavior have occurred. Moreover, adult sexual behavior appears to be more restrained and traditional than it has commonly been portrayed.

## The Impact of AIDS on Sexual Behavior

AIDS is a deadly and infectious disease that has mainly been transmitted through tainted blood products, sexual intercourse, and the sharing of needles by users of illegal injection drugs. With the safeguarding of the blood supply current transmission occurs
largely through sexual intercourse or the sharing of needles with a HIV positive individual. The only means of restricting the spread of the disease is to have people adopt safer sexual and injecting drug use behaviors.

On the one hand, the long latency period of AIDS greatly complicates matters since infected people often are not aware that they are HIV positive and therefore pass the infection on to others. On the other hand, since the mid-1980s over $90 \%$ of the public have known that HIV is spread by sexual intercourse and knowledge about AIDS in general has grown over time (Rogers, Singer, and Imperio, 1993 and Singer, Rogers, and Corcoran, 1987). ${ }^{11}$ Given the existence of widespread, if imperfect, knowledge about the role of sexual intercourse in spreading AIDS, the question arises whether behavior has been modified in light of the known risk.

Reported Changes in Sexual Behavior
A number of studies have asked people whether they have changed their sexual behavior because of AIDS (Table 12) or have taken steps to avoid AIDS (Table 13). Early surveys in 1986-87 showed that only about $7-11 \%$ of adults reported any change. At that time these levels were commonly seen as indicating that people were either not informed about the risk of AIDS or were not reacting responsibly to the risk of AIDS. But the recent studies on sexual orientation, extra-marital relations, and sexual abstinence (Tables 6,9 , and 11) indicate that the number of people at risk was smaller than initially feared. And if relatively fewer people were engaged in risky sexual behavior, it would be understandable that few reported altering their behavior. This was directly supported by a 1987 Gallup question in which $68 \%$ reported they had not changed their behavior because they were not at risk. Likewise, the low-level of behavioral change among the married ( $3-12 \%$ ) compared to the non-married (17.5-51\%) reflects the lower level of risky behavior engaged in by married people (Table 12). Similarly, more change is reported by higher risk groups such as younger adults and Blacks.

Of people reporting a change in sexual behavior because of concern about AIDS, about 45-50\% mention reducing their number of sexual partners - including having only one partner and getting married, 20-35\% cite the use of condoms, 17-30\% indicate they have sex less frequently or abstain completely, 10-30\% say they are restricting their partners to people they know well, and less than 10\% report they have stopped having sex with bisexual men or injection drug users (asked of women only).

Among all adults a number of sexual changes are reported as having been made to avoid AIDS. Monogamy and/or limiting the number of sexual partners is mentioned by about 20\%, 10-12\% report using

[^2]condoms, and 5-7\% practice abstinence (Table 13). ${ }^{12}$
Reports of behavioral change have risen somewhat over time, apparently indicating that risky sexual behaviors are increasingly being modified (Table 12) and that more people are taking precautions to avoid AIDS (Table 13) (see also Feinleib and Michael, 1998). However, since these questions have not apparently been asked after 1993, it is unknown if this trend continues. Moreover, because of the nature of retrospective questions on behavioral change both the increased trend and the reports themselves are less than ideal. ${ }^{13}$ To reliably track changes due to AIDS, time series monitoring of the relevant risk behaviors are needed. We therefore consider what changes have occurred in sexual behaviors that relate

[^3]to risk of HIV infection -gay sexual activity, number of partners, familiarity between partners, and condom use. ${ }^{14}$

Homosexual Behavior
By the time AIDS was identified, its mode of transmission via sexual intercourse documented, and tests for HIV infection developed, the disease was already widespread among the gay population, especially in San Francisco and New York City. Combined efforts by gay community organizations and public health officials led to the rapid dissemination of knowledge about AIDS and the adoption of safer sex practices by gays. The result was "a dramatic decline in risk practices for HIV transmission...gay men have reduced the number of sex partners, have fewer anonymous sexual encounters, have switched from shorter to longer term relationships, and engaged in less anal intercourse or consistently used condoms (Ehrhardt, Yingling, and Warne, 1991)." Of late however, there has been little further increase in safe sex practices among homosexuals and even some back sliding among some who have tired of the diligence and restrictions required by safer sexual practices, among some minority groups, and among younger gays who did not experience the initial onslaught of the epidemic (Catania, Stone, Binson, and Dolcini, 1995; Ehrhardt, 1992; Ehrhardt, Yingling, and Warne, 1991; Goldbaum, Yu, and Wood, 1996; Kalichman, 1996; Osmond, et al., 1994; Ostrow, Beltran, and Joseph, 1994; Carballo-Dieguez and Dolezal, 1996; and Ostrow, Difranceisco, and Kalichman, n.d.). As a result, same gender sexual intercourse among men remains most frequent mode for the transmission of AIDS ("Update," 1995; Levin, 1995; and State and Local, 1997). ${ }^{15}$

Number of Partners
While the overall number of sexual partners among all adults has not diminished in recent years (Table 14), some change has been occurring among teenagers and young adults (Table 1C). Among young males the number of partners was probably rising for most of the century until the early 1990s. However, the evidence is somewhat mixed for the 1980s. The mean number of lifetime partners among sexually active males $17-19$ in metropolitan areas fell from 7.3 to 6.0 between 1979 and 1988, while among sexually active males ages 17.5-19 the mean number of sexual partners in the last 12 months

[^4]rose from 2.0 in 1988 to 2.8 in 1991 ( $K u$, Sonenstein, and Pleck, 1993). During the 1990s there appears to have been a decline in number of partners. The \% of male high school students with a lifetime total of 4 or more partners declined from 31\% in 1989 to 16\% in 1997 (Table 1C and Divs. Adolescent and School Health and Health Interview Statistics, 1994a, 1994b, 1995). For young females there is less clear evidence that the long-term increase in number of partners reversed in 1990s. The YRBS data indicate year-to-year fluctuation rather than any definite trend. However, the GSS shows that from 1988-1990 to 1991-1996 the mean number of sexual partners during the last 12 months for the 18-24 age group significantly decreased from 2.4 to 1.7 (Smith, 1998).

Even if the reductions in number of partners among teenagers is real, many adolescents are still at risk of AIDS and other STDs because of having multiple partners (Anderson and Dahlberg, 1992; Beckman, Harvey, and Tiersky, 1996; Ku, Sonenstein, and Pleck, 1994; Leigh, Temple, and Trocki, 1993; Luster and Small, 1994; Smith, 1991; Trocki, 1992; and Tubman, Windle, and Windle, 1996).

Whether the possible decline in number of partners accumulated by teenagers and young adults will translate into a lower number of lifetime sexual partners is unknown. If it does, it will reverse an expansion that began several generations ago. We can see evidence of that rise in the figures on number of sexual partners since age 18 (Table 14). The increase in the number of sexual partners from ages 18-29 to 40-59 mostly represents the accumulation of partners over ones lifetime. The sharp drop in cumulative partners for those 60 and older occurs because this age group represents a generation that came to age before the peak in premarital sexual activity described above. That is, this generation had fewer premarital partners, married relatively early, and, as a result, has accumulated a lower number of sexual partners than subsequent generations.

Among adults, having multiple sexual partners during the last year and during the last five years is most strongly associated with being young, unmarried, and male. ${ }^{16}$ It is also higher among Blacks, residents of large central cities, those with low incomes and less education, and infrequent church attenders. The adult lifetime figures show a similar pattern except that there is no relationship between income or race and number of sexual partners and the less educated have fewer partners than the better educated. The reversal of the education relations results from less educated, earlier cohorts having fewer partners than more recent and better educated cohorts have had.

Multiple partners are thus found in two main social niches, among young, unmarried adults and adolescents who have not yet "settled down" and among disadvantaged segments of society in

[^5]general and among inner-city minorities in particular who also tend to lead less stable and conventionally-ordered lives (Ford and Norris, 1995 and Wagstaff, et al., 1995).

Relationship to Sexual Partners
Risk increases not only with one's number of sexual partners, but also with the casualness and transitoriness of relationships. When it comes to STDs one "sleeps not only with a partner, but with all of that partner's partners." Closer relationships are associated with (but do not guarantee) mutual monogamy, while casual relationships come without any likelihood of exclusivity.

The trends in relationships are mixed and depend on the measure and data set being examined. First, since 1988, the GSS item on relationships to sex partners during the last year shows little change in relationships between sexual partners either among all adults or among unmarried people under 40 (Table 15A). Most people are engaged in close and presumably mutually monogamous relationships as spouses or cohabiting partners, but each year 3-4\% of sexual partners are pick-ups, one-night stands, prostitutes (see below), or other casual couplings. In addition, another 4-5\% of partners are better known (neighbors, co-workers, long-term acquaintances), but are not considered close friends or regular partners. Second, there was a small, but statistically significant, drop in whether one was in a continuing relationship with ones most recent sexual partner from 92\% in 1996 to 90\% in 1998 (Table 15A). Finally, across birth cohorts of women relationship with their first sexual partner have become more casual over time (Table 15A). Of those born in 1951-55, 32\% were engaged or married to their first sexual partner, $51 \%$ were going steady, $16 \%$ were less closely involved, and $1 \%$ were in other relationship. For those born in 1976-1980, 4\% were engaged or married, 73\% were going steady, and 23\% were less connected.

More casual relationships (pick-ups, prostitutes, and acquaintances) are most prevalent among the young, unmarried, and males. They are also more common among Blacks, residents of large central cities, and those with lower incomes. Similarly having ones last sexual encounter with someone that one did not have an "ongoing relationship" with is more common among men, Blacks, the young, never married, city residents, the less educated, and infrequent church attenders (Table 15). Household income is not related to non-relational sexual encounters. "One-night stands" are equally common for Black and White males, but less frequent for Black females than for White females (Tanfer, 1994). In general, we see that those socio-demographic groups with a high number of partners also tend to have less familiar partners.

Prostitution
At a time when prostitution could be a major avenue for the spread of AIDS into uninfected areas and groups, we know little
about its magnitude or how the situation has been changing. As the National Academy of Sciences' Committee on AIDS Research observed, "(I) nformation about women who work as prostitutes is scant, and knowledge of their clients is sketchier still (Miller, Turner, and Moses, 1990; see also Turner, Miller, and Moses, 1989)."

Because prostitution is an illegal (except in rural Nevada) and socially stigmatized occupation, the amount of reliable information on it is limited. The only time series data come from the arrest records compiled by the FBI (Table 16). They show that the arrest rate climbed from around 30 per 100,000 total population in the early 1970s to a high of 59 in 1982 and 1983. The rate then fell back to the lower 40 s by 1988 and has remained at that level since then. Whether this represents shifts in the prevalence of prostitution or variations in law enforcement efforts is unknown. While the illegality of prostitution is probably the main barrier to accurate counts, estimates are also complicated by the prevalence of many part timers, the continual occupational turnover, and the apparent geographic mobility of prostitutes. There are some more recent and limited studies that have tried to overcome these serious problems and either to estimate the number of prostitutes or of certain types of prostitutes in given localities (Potterat, Woodhouse, Muth, and Muth, 1990; Kanouse, Berry, Duan, Lever, and Richards, 1991; and Leyland, Bernard, McKeganey, 1992) or to measure the proportion of women who have engaged in sex for pay (McQuillan and Ezzati-Rice, Siller, Visscher, and Hurley, 1994, Wyatt, Peters, and Guthrie, 1988; and Brunswick, et al., 1993). In addition, there are recent estimates of what proportion of men have engaged in paid sex.

Although all three of the community, aggregate-estimate studies were carefully done and show a high degree of consistency, all estimates of the number of prostitutes are fraught with uncertainties since they deal with what one study aptly calls a "covert" population. In addition, the Los Angeles and Glasgow estimates are by definition incomplete because they cover only street prostitutes.

> \# per
> 100,000
> residents

$$
\text { Glasgow, Scotland } 1990
$$

Street Prostitutes
24
Los Angeles Co. 1990
Street Prostitutes
18-26
Colorado Springs 1985-88 All Prostitutes 26
Full-time Equivalents 19
Surveys of general populations of women are equally limited. The studies cover sub-groups in local areas, have very small to medium sample sizes (LA=120, Harlem Panel=187, Dallas=745), use different measures, and show different levels of involvement in
paid sex.

| Los Angeles ca. 1985 | Whites <br> $18-36$ | Engaged in <br> prostitution | $8 \%$ |  |
| :--- | :---: | :--- | :--- | :--- |
| Central Harlem 1989-90 <br> Panel | Blacks <br> $32-38$ | Received money or <br> drugs for sex | $10.1 \%$ |  |
| Dallas | 1989 | All <br> $18-54$ | Received money or <br> drugs for sex <br> since 1978 | $2.2 \%$ |

In additional, two recent samples provide the first national estimates of the proportion of women involved in paid sex. A 1991 survey of 1,669 women ages $20-37$ found that $2.0 . \%$ had ever had "oral, anal, or vaginal sex in exchange for money or drugs" (Tanfer, 1994) and the 1991-98 GSS of 5,700 women 18+ indicated that $1.6 \%$ of women had "had sex with a person you paid or who paid you for sex" since age 18 (GSS, 1998).

Given the differences in ages and measurements, the Dallas survey and the two national samples are in close agreement. They suggest a much higher rate of female participation than the aggregate counts (on the order of 15-20 times higher), but the two sets of estimates are not directly comparable. (Without information on duration, level of involvement, and related factors the survey estimates can not be converted into point estimates of women engaged in prostitution nor can they separate out occasional participants from full-time professionals.)

In brief, the available studies are extremely limited in number and most are unrepresentative of the United States as a whole (one study of course is not even from the United States). In particular, extrapolations from these few local studies to national estimates could well be wrong, especially if prostitution is heavily concentrated in urban centers. This possibility is supported by the fact that on the 1988-1998 GSSs $0.3 \%$ of men living in rural areas reported having sex with a prostitute during the last year, while $2.0 \%$ of those living in the 12 largest central cities reported having sex with a prostitute during the last 12 months (Table 17). In addition, the lifetime figures show a similar pattern.

Reports by men on paying for sex indicate that $0.6 \%$ of men had a prostitute for a sex partner during the last year (GSS, 1998), 5.9\% within the last five years (Wells and Sell, 1990), and 16.3\% at some point during the past (GSS, 1998 see also Rubin, 1990; McQuillan, Ezzati-Rice, Siller, Visscher, and Hurley, 1984). ${ }^{17}$

[^6]Unfortunately, these figures are not consistent. The five-year figures are more than twice what would be expected based on the annual figures.

In addition, comparing the annual rates to estimates of $F T E$ prostitutes (assuming that the above urban rates can be applied nationally) comes to only 9.9 clients per prostitute. ${ }^{18}$ Thus, if the estimates of number of prostitutes are correct, this would suggest that men are underreporting their number of paid sex partners (either by not reporting partners who were prostitutes or reporting them as falling in another category such as casual dates or acquaintances). Alternatively, the number of FTE prostitutes may be overestimated.

Based on the analysis of reported contact with prostitutes during the last year and during one's lifetime (Table 17), sexual activity with prostitutes does not consistently vary by education or age. As one would expect, lifetime contact generally increases with age, but current use is unrelated to age. Lifetime contact is unrelated to education and current use has an irregular relationship. Contact is higher among those living in metropolitan areas, Blacks, those with lower incomes, veterans (probably when in military service), those who attend church less frequently, and those having gone through a divorce (it appears to be especially high among separated men). Among married men paying for sex during the last 12 months is strongly related to low marital happiness.

Use of Condoms
Undoubtedly because of the advent of AIDS and the dissemination of safer sex messages, condom use doubled from the late 1970s/early 1980s to the late 1980s (Table 18) (see also Moran et al., 1990 and Douglas, et al., 1997). From the mid-1960s to the mid-1970s just over a fifth of women used a condom at the time of their first intercourse. By the mid-1980s this had almost doubled to $42 \%$. Similarly, in 1979 21\% of teenage males reported using a condom at the time of their most recent intercourse and in 1988 the level increased to $57.5 \% .{ }^{19}$ Condom use has continued to increase since then (Beckman, Harvey, and Tiersky, 1996; Catania, Binson, Dolcini, Stall, Choi, Pollack, Hudes, Canchola, Phillips,

[^7]Moskowitz, and Coates, 1995; Catania, Coates, Peterson, Dolcini, Kegles, Siegel, Golden, and Fullilove, 1993; Catania, Stone, Binson, and Dolcini, 1995; Ford and Norris, 1995; Ku, Sonenstein, and Pleck, 1994; Moore, et al., 1992; Division of Epidemiology and Prevention Research, et al., 1992; Pleck, Sonenstein, and Ku, 1993; Ku, Sonenstein, and Pleck, 1993; Strunin and Hingson, 1992; Piccinino and Mosher, 1998; and Peipert, Domagalski, Boardman, Daamen, McCormack, and Zinner, 1997). For example, the YRBS shows that condom use steadily increased for both males and females in the 1990s and condom use at last intercourse among never married males 15-19 grew by 10 percentage points from 1988 to 1995 (Table 18).

However, while condom use has grown appreciably, it is still far below the general and consistent use called for by safer sex practices (Kost and Forrest, 1992; Pleck, Sonenstein, and Ku, 1991; Potter and Anderson, 1993; Leigh, Morrison, Trocki, and Temple, 1994; Peterson, Catania, Dolcini, and Faigeles, 1993; Sabogal, Faigeles, and Catania, 1993; Grinstead, Faigeles, Binson, and Eversley, 1993; Catania, Coates, Golden, Dolcini, Peterson, Kegeles, Siegel, and Fullilove, 1994; Nguyet, Maheux, Beland, and Pica, 1994; Binson, Dolcini, Pollack, and Catania, 1993 and Douglas, et al., 1997). Among sexually experienced college students in 1995 only $38 \%$ reported always using a condom (Douglas, Collins, et al., 1997). Likewise, a 1991 national survey of men 20-39 found that only $26.5 \%$ of sexually active men had used a condom during the last four weeks and even among unmarried men with no regular sexual partner only 46\% had used a condom during the prior month (Tanfer, Grady, Klepinger, and Billy, 1993, see also, Grady, Klepinger, Billy, and Tanfer, 1993 and Catania, et al, 1992). Similarly, among unmarried women 15-44 in 1990 with $2+$ partners in the last 3 months only 16\% always used condoms and 39\% never did (Mosher and Pratt, 1993). Also, among both men and women 18-24 in 1996 whose most recent sexual partner was not someone they were in an ongoing relationship with only 56\% had used a condom (Smith, 1998).

Condom use is higher among socio-demographic groups that have multiple, sexual partners and less committed and on-going relationships with sexual partners. Condoms are used more frequently by Blacks, the young and never married, residents of large cities, those with lower incomes, and those who attend church less regularly (Table 19). Use generally increases with education, but drops off among those with graduate degrees.

Men tend to report greater condom use than do women (especially among teens), but both men and women agree on the trends and general patterns reported here (Divs. of Reproductive Health and Adolescent and School Health, 1992; Leigh, Temple, and Trocki, 1993; Marin, Gomez, and Hearst, 1993; Laumann, Gagnon, Michael, and Michaels, 1994; Leigh, Morrison, Trocki, and Temple, 1994; Douglas, Collins, et al., 1997; and Santelli, et al., 1997). Among adults $21 \%$ of men and $18 \%$ of women reported using a condom the most recent time they had sex.

Condom use declines among youths and young adults as they age
(Table 19; Sonenstein and Pleck, 1997 and Reitman, et al., 1996). This is believed to be largely because sexual relationships become more established and enduring. However, this connection has not been well-established in the studies to date.

Condom use also varies by status of sexual partner. A 1991 study of Hispanic adults and of non-Hispanic White adults living near Hispanics in the Northeast and Southwest indicated that even among those with two or more sexual partners only about 50\% always used a condom with their secondary sexual partner(s) (Marin, Gomez, and Hearst, 1993). In addition, condom use is often notably lower among primary partners (i.e. spouse, cohabiting partner, or regular sexual partner) than among secondary partners (Leigh, Temple, and Trocki, 1993; Marin, Gomez, and Hearst, 1993; Ehrhardt, Yingling, and Warne, 1991; Dolcini, et al., 1993; Lansky, Thomas, and Earp, 1998; Albert, Warner, and Hatcher, 1998; Rietmeijer, et al., 1998; and Miller, Turner, and Moses, 1990. But in contrast see Soskolne, Aral, Magder, Reed, and Bowen, 1987). This increases the chance of spreading AIDS and STDs to one's primary sexual partner.

## Summary

Since early in this century the bonds between marriage and sexual activity have been unravelling. More men and women have engaged in premarital sexual intercourse, they have become sexually active at earlier ages, and they have accumulated more sexual partners. While premarital and adolescent sexual activity has grown for both men and women, the largest changes has been in the sexual behavior of women. The expansion of sexual behavior has in turn led to a rise in cohabitation and a surge in non-married births, and contributed to the growth of various public health and social welfare problems (Besharov and Gardiner, 1993).

Rather than being an isolated phenomenon these changes in sexual behavior, living together, and child bearing have been part of broader social changes towards an individualistic rather than a family-center society (Glenn, 1987; Popenoe, 1993; and Smith, 1997) and towards modern rather than traditional roles for women (Firebaugh, 1990 and Simon and Landis, 1989). Moreover, there are suggestive signs that parallel shifts have occurred in other postindustrial societies. As such, the changes in American premarital and adolescent sexual behavior may result from the development of advanced economies, welfare states, and liberal governments in general rather than from any special situation peculiar to America. ${ }^{20}$

Of late however this long-term trend has moderated and in a few limited, but key, aspects reversed. First, the increase in premarital and adolescent sexual activity has ended and to some
${ }^{20}$ The lowering of the average age of menarche may also contribute to this widespread pattern (Ehrhardt and Wasserheit, 1991).
degree has waned. So far this development doesnot seem to have received much recognition in the mass media or among the public (Stodghill, 1998; Smith, 1998). Second, the portion of nonmarital births has levelled-off (albeit at near record levels). Third, condom use more than doubled during the last 20 years and apparently continues to grow. While there have not been decreases in all forms of risky sexual behavior in all segments of the population, these departures from the long-term trend are notable and may reflect an underlying, nascent shift in social values.

While marriage is no longer the portal into sexual activity for many Americans, it remains an important regulator of sexual behavior and thus a barrier to AIDS and other STDs. Since most married people most of the time engage in sex only with their marriage partner, marriage limits one's total number of sexual partners and reduces the spread of HIV. However, marriage may be less of a barrier than it used to be. The decline in reported rates of ever having had extra-marital relations among those 50 and over does suggest that monogamy may have declined across recent generations. But, on the other hand, there has been no decrease in disapproval of extra-marital relations (Smith, 1990; 1994 and Davis and Smith, 1998), extra-marital relations have not increased since 1988, and "affairs" are much less common than presentations in either pop and pseudo-scientific studies or the entertainment media suggest.

Of course, marriages themselves are also not as enduring as they used to be. The two-and-a-half fold growth of the divorce rate from the 1960s to the early 1980 s and its continuation at near historically high levels to the present means that over half of all recent marriages will end in divorce. For most divorced people this means accumulating new sexual partners and especially for those under 50 this often means having multiple sexual partners (Stack, 1992).

Besides marital status sexual behavior is strongly influenced by age. In general, sexual activity diminishes with age with fewer people having multiple partners, less extra-marital sex, frequency of intercourse declining, and sexual abstinence increasing. Cohabitation rates also fall and non-marital births decline with age (ceasing of course for women after menopause).

There are also large differences between Whites and Blacks in their sexual behaviors (Bowser, 1992; Brewster, 1994; SterkElifson, 1992; Kilmarx, et al., 1997; Peterson, Catania, Dolcini, and Faigeles, 1993; Brunswick, et al., 1993; Reitman, et al., 1996; and Quadagno, et al., 1998; but see Wyatt, 1989). Blacks become sexually active at an earlier age, accumulate more sexual partners over their lifetime, have more casual partners, are less likely to marry, have less stable and shorter-term marriages, and have many more children born outside of marriage. Black sexual and childbearing behavior puts African-Americans at greater risk of contracting AIDS and other STDs (and Blacks do have higher HIV and STD infection rates) and contributes to such problems as singleparent families and childhood poverty.

Sexual behavior also varies by community type. Residents of large central cities have more sexual partners, more casual partners (including prostitutes), and more extra-marital relations than those living in rural areas. In addition, probably due to selective migration, gays concentrate in large cities. Overall since risk behaviors (both sexual and injection drug use) are more common in large cities and the HIV virus is more prevalent in these localities, the chances of becoming infected is especially high in large metropolitan areas (Catania, et al., 1992).

Finally, religion exercises a traditional restraint on sexual behavior (Thornton and Camburn, 1989; Seidman, Mosher, and Aral, 1992; Stack and Gundlach, 1992; Tanfer and Schoorl, 1992; Goldscheider and Mosher, 1991; Hogan, Sun, and Cornwell, 1998; and Brewster, Cooksey, Guilkey, and Rindfuss, 1998). Those who attend church regularly are less likely to a) become sexually active, b) have multiple and casual partners, and c) among the married, have sexual partners other than their spouse. Church attendance, like rural residence, imposes traditional restraint on sexual behavior.

Given the deadly nature of AIDS, the near universal knowledge of the disease, and the widespread understanding that it is transmitted through sexual intercourse, its impact on sexual behavior has been limited. The largest changes occured among gays in large metropolitan centers who adopted considerably safer sexual practices. But the on-going spread of AIDS from male-with-male sexual contact indicates the continuing shortcomings in safer sex practices among gays.

Among the heterosexual population the largest change has been the increased use of condoms. However, condom use is incomplete and haphazard with condoms being used much less consistently than called for by safer sex standards. In addition, the small decreases in the number of partners among adolescents and youths may also results from the AIDS epidemic. But most people still have numerous premarital sexual partners and many sexual partners represent casual and short-term relationships. Moreover, it is unclear whether the somewhat moderated number of teens and young adults involved with multiple partners will lead to a reduction the lifetime number of partners. The continuingly high level with multiple partners and the sporadic, if improved, use of condoms means that millions continue to expose themselves each year to the risk of AIDS and other STDs (Smith, 1991b; Anderson and Dahlberg, 1992; and Dolcini et al, 1993). In addition, the level of nonmarried births remains at near-record levels and the \% of all births that are unplanned also remains high.

In sum, contemporary patterns of sexual behavior are a source of considerable public policy concern relating to AIDS and STDs, child-bearing and child-raising, and many other public health and social problems.

## Table 1

```
Premarital Intercourse and Adolescent Sexual Activity
```

A. Sexual Experience
\% ever having pre-marital, heterosexual partner among ever-married
Birth
Cohorts

|  | Men | Women |
| :--- | :---: | ---: |
| Before 1910 | 60.8 | 12.3 |
| $1910-1919$ | 73.9 | 28.6 |
| $1920-1929$ | 79.7 | 31.4 |
| $1930-1939$ | 87.2 | 40.9 |
| $1940-1949$ | 89.5 | 62.9 |

Source: Turner, Miller, and Moses, 1989 and Klassen, Williams, Levitt, Rudkin-Miniot, Miller, and Gunjal, 1989
\% ever virgins at marriage: Ever married
Birth

| Cohorts | Men | Women |
| :--- | :--- | ---: |
|  |  |  |
| $1933-42$ | 21.9 | 54.4 |
| $1943-52$ | 15.4 | 28.9 |
| $1953-62$ | 13.5 | 20.0 |
| $1963-74$ | 16.3 | 20.1 |

Source: Laumann, Gagnon, Michael, and Michaels, 1994
\% having sex with spouse before marriage: Ever married
Birth
Cohorts Men Women
$\begin{array}{lll}1933-42 & 32.6 & 30.7\end{array}$
1943-53 $48.6 \quad 51.1$
1953-62 $56.3 \quad 55.9$
1963-74 69.8 57.7
Source: Laumann, Gagnon, Michael, and Michaels, 1994

## Table 1 (continued)

\% ever having premarital sex: Women, 15-19
All Whites Blacks
1970
1975
28.6
26.7
46.0

1980
36.4
35.4
50.8

1985
1988
42.0
41.4
58.1
44.1
43.1
55.4 $\begin{array}{lll}51.5 & 50.6 & 58.8\end{array}$

Source: Divs. of Vital Statistics \& STD/HIV Prevention, 1991
\% ever having premarital sex: Women 15-19 in metropolitan areas

1971
1976
1979
1982
30.3
43.4
49.8
44.9
26.4
38.3
46.6
43.3
53.7
66.3
66.2
53.6

Source: Hofferth, Kahn, and Baldwin, 1987 (NSYW+NSFG82)
\% ever having premarital sex: Women 15-19
$\begin{array}{llll}1971 & 31.7 & 39.0 & 51.2\end{array}$
1976
1979
1982
39.0
36.2
$43.4 \quad 40.8$
45.2
43.1
56.1
61.6
56.5

Source: Hoffert, Kahn, and Baldwin, 1987 (NSFG82)
\% ever having premarital sex: Males 17-19 in Metropolitan Areas
1979
65.7
64.5
71.1
1988
75.5
73.0
87.7

Source: Sonenstein, Pleck, and Ku, 1989
\% ever having sex with female: Never-married males, age 17.5-19 $1988 \quad 75.0$ 1991 78.6

Source: Ku, Sonenstein, and Pleck, 1993

Table 1 (continued)
\% ever having sex: High school students

|  | All | Whites | Blacks | Men | Women |
| :--- | :--- | ---: | ---: | ---: | ---: |
| 1989 | 59 | ---- | ---- | ---- | ---- |
| 1990 | 54.2 | 51.6 | 72.3 | 60.8 | 48.0 |
| 1991 | 54.1 | 50.0 | 81.4 | 57.4 | 50.8 |
| 1993 | 53.0 | 48.4 | 79.7 | 55.6 | 50.2 |
| 1995 | 53.1 | 48.9 | 73.4 | 54.0 | 52.1 |
| 1997 | 48.4 | 43.6 | 72.7 | 48.8 | 47.7 |

Source: Moore, et al., 1992 and Divs. of Epidemiology and Prevention; Adolescent and School Hlth.; Reproductive Hlth., 1992; "Youth Risk Behavior Survey," 1995; and Div. of Adolescent and School Health, 1995; Division of Adolescent and School Health, et al., 1998; Kann, et al., 1998; and Warren, et al., 1998.
\% sexually active: Women, 15-19

| 1985 | 44.7 |
| :--- | :--- |
| 1990 | 51.3 |
| 1995 | 51.1 |

Source: Hogan, Sun, and Cornwell, 1998
\% ever had sex: Females, 15-19

| 1970 | 29 |
| :--- | :--- |
| 1975 | 36 |
| 1982 | 47 |
| 1988 | 53 |
| 1990 | 55 |
| 1995 | 50 |

Source: Moore, Driscoll, and Lindberg, 1998
\% ever had sex with female: Males, 15-19
$1988 \quad 60.4$
$1995 \quad 55.2$
Source: Sonenstein, Ku, Lindberg, Turner, and Pleck, 1998

## Table 1 (continued)

\% sexually active during last 3 months: High school students

|  | All | Males | Females |
| :--- | :--- | :--- | :---: |
| 1990 |  |  |  |
| 1991 | 39.4 | 42.5 | 36.4 |
| 1993 | 37.4 | 36.8 | 38.2 |
| 1995 | 37.9 | 37.5 | 37.5 |
| 1997 | 34.8 | 35.5 | 40.4 |
|  | 33.4 | 36.5 |  |

Source: Div, of Adolescent and School Health, et al., 1998 and Warren, et al., 1997
\% with sex partners before age 18, Adults in 1992
Birth

| Cohorts | Men | Women |
| :--- | :--- | ---: |
| $1933-42$ | 41.5 | 18.5 |
| $1943-52$ | 47.6 | 20.3 |
| $1953-62$ | 53.3 | 41.2 |
| $1963-74$ | 60.3 | 52.8 |

Source: Laumann, Gagnon, Michael, and Michaels, 1994
\% ever having sex: High school students
1994 41-42
Source: "Teens Talk," 1994
\% ever had sexual intercourse: College Students, 18-24
$1995 \quad 79.5$
Source: Douglas, Collins, et al., 1997
\% ever had sexual intercourse with Female, Males, 15-19
1995 68.1-63.9
Note: First number is from self-completion using paper. Second number is from audio-computer assisted, self-completion. Source: Turner, et al., 1998
\% ever had sexual intercourse: Ages 13-18
All Males Females
$\begin{array}{llll}1997 & 31 & 36 & 26\end{array}$
Source: National Survey of Teens, 1998

Table 1 (continued)
B. Sexual Experience by Age
\% reporting premarital, heterosexual intercourse by ages 16 and 18

| Birth <br> Cohorts | Men |  | Women |  |
| :--- | :---: | :---: | ---: | ---: |
| Pre-1900 |  | 18 | 16 | 18 |
| $1900-1909$ | 24.0 | 36.8 | 2.7 | 3.3 |
| $1910-1919$ | 23.9 | 40.2 | 4.8 | 6.5 |
| $1920-1929$ | 28.7 | 51.3 | 6.3 | 9.6 |
| $1930-1939$ | 45.0 | 66.1 | 4.9 | 12.4 |
| $1940-1949$ | 47.4 | 69.1 | 10.0 | 21.0 |
|  | 50.2 | 76.6 | 19.1 | 37.2 |

Source: Klassen, et al., 1989
\% reporting premarital intercourse by ages 16/18, women in 1982

| Birth Cohorts | 16 | 18 |
| :--- | ---: | :---: |
|  |  |  |
| $1938-40$ | 7.4 | 23.0 |
| $1941-43$ | 7.4 | 22.7 |
| $1944-46$ | 7.1 | 22.6 |
| $1947-49$ | 10.1 | 29.3 |
| $1950-52$ | 6.6 | 26.9 |
| $1953-55$ | 14.5 | 43.1 |
| $1956-58$ | 17.9 | 45.5 |
| $1959-61$ | 18.9 | 46.4 |
| $1962-64$ | 23.1 | 54.0 |

Source: Hofferth, Kahn, and Baldwin, 1987
\% sexually experienced at ages 15 and 17, Women
$15 \quad 17$

| 1970 | 4.6 | 32.3 |
| ---: | ---: | ---: |
| 1975 | 9.8 | 36.6 |
| 1980 | 16.7 | 35.5 |
| 1985 | 20.0 | 41.7 |
| 1988 | 25.6 | 51.0 |

Source: Divs. of Vital Statistics \& STD/HIV Prevention, 1991

```
Table 1 (continued)
```

Median Age at First Intercourse: High School Students

|  | All | Males | Females |
| :--- | :--- | :--- | :---: |
| 1990 | 16.4 | 16.0 | 16.8 |
| 1991 | 16.5 | 16.3 | 16.6 |
| 1993 | 16.4 | 16.3 | 16.6 |
| 1995 | 16.5 | 16.4 | 16.5 |

Source: Warren, et al., 1997
\% sexually experienced by grade level: High School Students
$1997 \quad 38.0 \quad 42.5 \quad 49.7 \quad 60.9$

Source: Kann, et al., 1998
\% sexually experienced at ages 15 and 17, teenagers in 1986 $15 \quad 17$

| Males | 35 | 61 |
| :--- | :--- | :--- |
| Females | 22 | 53 |

Source: Taylor, Kagay, and Leichenko, 1986
\% sexual experienced by ages 15-19, ages 19-27 in 1984

Males Females
$15 \quad 17.5 \quad 6.6$
16
17
18
19
29.5
49.0
65.4 78.7
14.5
30.2
47.2
65.7

Source: Marsiglio and Mott, 1986
\% having had sexual intercourse by ages 12-18, Male Teens in 1988

12
13
14
15
16
17
18
5.4
11.0
21.1
37.8
57.5
67.5
79.0

Source: Sonenstein, Pleck, and Ku, 1990

```
Table 1 (continued)
```

\% having had sexual intercourse by ages 12-17: Teens 12-17 in 1990

|  | Men | Women |
| :---: | :---: | :---: |
| 12 | 5 | 0 |
| 13 | 6 | 3 |
| 14 | 24 | 3 |
| 15 | 29 | 37 |
| 16 | 48 | 48 |
| 17 | 67 | 56 |

Source: Leigh, Morrison, Trocki, and Temple, 1994
\% ever had sexual intercourse by grades: High School Students, 1993

|  | Men | Women |
| :--- | :--- | ---: |
| 9 th | 43.5 | 31.6 |
| 10 th | 47.4 | 44.9 |
| 11 th | 59.5 | 55.1 |
| 12 th | 70.2 | 66.3 |
| All | 55.6 | 50.2 |

Source: "Youth Risk Behavior Survey," 1995
\% ever had sexual intercourse, Ages 14-21

| $14-17$ | $14-19$ | $14-21$ | $18-21$ |
| ---: | ---: | ---: | ---: |
| 43.4 | 45.4 | 63.0 | 81.7 |

Source: Divs. of Adolescent and School Health and Health Interview Statistics, 1994a and 1994b
\% ever had sex, Females, 15-44: 1995

| All | 89.3 |
| :--- | :--- |
| 15 | 22.1 |
| 16 | 38.0 |
| 17 | 51.1 |
| 18 | 65.4 |
| 19 | 75.5 |
| $20-24$ | 88.6 |
| $25-29$ | 95.9 |
| $30-44$ | 98.2 |

Source: Abma, et al., 1997

```
Table 1 (continued)
```

\% ever had sex, Females, 15-19: 1995

| All | 52 |
| :--- | :--- |
| 15 | 25 |
| 16 | 39 |
| 17 | 42 |
| 18 | 66 |
| 19 | 77 |

Source: Moore, Driscoll, and Lindberg, 1998
Mean age at first sexual intercourse, Women
All Whites Blacks

| $1965-69$ | 19.0 | 19.2 | 17.7 |
| :--- | :--- | :--- | :--- |
| $1970-74$ | 18.6 | 18.8 | 17.0 |
| $1975-79$ | 18.2 | 18.3 | 16.9 |

Source: Bachrach and Horn, 1987
Mean age at first sexual intercourse: Males 17.5-19
$1988 \quad 15.4$
1991
15.2

Source: Ku, Sonenstein, and Pleck, 1993
Mean Age at First Intercourse, Women 15-44 in 1995
All 17.8
20-24
16.6

25-29 17.5
30-34 17.8
35-39 18.0
40-44 18.6
Note: Based on women who ever had intercourse after menarche. Source: Abma, et al., 1997

```
Table 1 (continued)
```

C. Number of Sexual Partners
\% of ever-married with two or more heterosexual partners before first marriage
Birth Cohorts Men Women

| Pre-1910 | 49.2 | 3.3 |
| :--- | ---: | ---: |
| $1910-1919$ | 61.2 | 8.5 |
| $1920-1929$ | 70.1 | 11.8 |
| $1930-1939$ | 72.9 | 16.5 |
| $1940-1949$ | 72.6 | 25.8 |

Source: Turner, Miller, and Moses, 1989 and Klassen, Williams, Levitt, Rudkin-Miniot, Miller, and Gunjal, 1989

Lifetime Total Number of Sexual Partners among Sexually Active Women, 15-19 in Metropolitan Areas

|  | 1 | $2-3$ | $4-5$ | $6+$ |
| ---: | :---: | ---: | :---: | ---: |
| 1971 | $62 \%$ | 25 | 7 | 7 |
| 1976 | $53 \%$ | 28 | 9 | 11 |
| 1979 | $49 \%$ | 35 | 8 | 8 |
| 1988 | $39 \%$ | 31 | 17 | 14 |

Source: Kost and Forrest, 1992
Mean Number of Total Lifetime Sexual Partners among Sexually Active Men 17-19 in Metropolitan Areas

| 1979 | 7.3 |
| :--- | :--- |
| 1988 | 6.0 |
| Prob. | sig. |

Source: Sonenstein, Pleck, and Ku, 1991
Number of Sexual Partners in Last 12 Months among Sexually Experienced: Men 17.5-19

Mean \% 5+ Partners

| 1988 | 2.0 | 6.3 |
| ---: | ---: | ---: |
| 1991 | 2.8 | 10.7 |
| Prob. | $<.05$ | $<.01$ |

Source: Ku, Sonenstein, and Pleck, 1993

Table 1 (continued)
\% with 2+ and 4+ Sexual Partners in Lifetime, High School Students

|  | All | $2+$ <br> Men | Women | All | $4+$ <br> Men | Women |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1989 |  |  |  |  |  |  |
| 1990 | 30.1 | 46.7 | 33.4 | 23.6 | 31.1 | 16.0 |
| 1991 | 36.3 | 43.6 | 29.4 | 19.0 | 26.7 | 11.8 |
| 1993 | ---- | --- | ---- | 18.7 | 23.4 | 13.8 |
| 1995 | ---- | ---- | ---- | 18.8 | 22.3 | 15.0 |
| 1997 | ---- | ---- | ---- | 17.8 | 20.9 | 14.4 |
|  |  |  |  |  | 16.0 | 17.6 |

Source: Anderson, Kann, Holtzman, Arday, Truman, and Kolbe, 1990; Moore, et al., 1992 and Divs. of Epidemiology and Prevention; Adolescent and School Health; and Reproductive Health, 1992; Holtzman, Lowry, Kann, Collins, and Kolbe, 1994; "Youth Risk Behavior Survey," 1995; Div. of Adolescent and School Health, 1995; Div. of Adolescent and School Health, 1998; Warren, et al., 1997
\% with 4+ sex partners, Ages 14-21
1992

| $14-17$ | 13.3 |
| :--- | :--- |
| $14-19$ | 15.9 |
| $14-21$ | 63.0 |
| $18-21$ | 41.3 |

Sources: Divs. of Adolescent and School Health and Health Interview Statistics, 1994a and 1994b
\% with 4+ sex partners, High School Students
1993
9th 10.9
10th 15.9
11th 19.9
12th 27.0
All 18.8
Source: Div. of Adolescent and School Health, 1995

Table 1 (continued)
Mean Number of Lifetime Sexual Partners, High School Students 1994

All
1.1

Sexual Experienced 2.7
Source: "Teens Talk," 1994
\% with 6+ lifetime sex partners: College students, 19-24
1995
25.7

Source: Douglas, Collins, et al., 1997
\% 5+ Female sexual partners, Males, 15-19
1995
15.8-18.8

Note: First number is from self-completion using paper. Second number is from audio-computer assisted, self-completion. Source: Turner, et al., 1998
\% with 4+ lifetime sexual partners: 13-18
1997
All 7
Males
11
Female 3

Source: National Survey of Teens, 1997
\% with various number of sexual partners during last 12 months, Females in Midwestern state in grades 7-12, 1992-96

| 0 | $72.5 \%$ |
| :--- | :---: |
| 1 | 14.8 |
| 2 | 5.2 |
| 3 | 2.9 |
| $4+$ | 4.7 |

Source: Luster and Small, 1997

```
    Table 2
    Trends in Cohabitation
```

\% for whom first union was cohabitation: Ever in union
Birth

| Cohorts | Men | Women |
| :--- | :--- | ---: |
| $1933-42$ |  |  |
| $1943-52$ | 30.4 | 6.9 |
| $1953-62$ | 53.1 | 21.8 |
| $1963-74$ | 65.7 | 42.4 |
|  |  | 64.0 |

Source: Laumann, Gagnon, Michael, and Michaels, 1994
Cohabitators as \% of ...
All Couples All Households All Adults


Table 2 (continued)
\% cohabited with present spouse before marriage

| 1988 | 23.4 |
| :--- | :--- |
| 1994 | 28.0 |

Source: GSS, 1994a

| \% Currently \% Ever Cohabited | \% Cohabited prior |
| :--- | :--- |
| Cohabiting | to First Marriage |

Women, 15-44

| 1988 | 5 | 34 | 25 |
| :--- | :--- | :--- | :--- |
| 1995 | 7 | 41 | 24 |

Source: see Table 3 and Abma, et al., 1997.
${ }^{a}$ The General Social Surveys (GSSs) of the National Opinion Research Center, University of Chicago are full-probability, in-person surveys of adults living in households in the United States. They have included a self-completion form on sexual behavior since 1988. Sample sizes are 1988=1390, 1989=1401, 1990=1173, 1991=1296, $1993=1492,1994=2791,1996=2657$, and $1998=2585$. For more details see Davis and Smith, 1998. Unless figures are broken down by year, all GSSs have been pooled together to cover all years.

```
        Table 3
Levels of Cohabitation
```

A. By Age Groups

| \% Currently \% Ever Cohabited | \% Cohabited prior |
| :--- | :--- |
| Cohabiting | to First Marriage |


| All Adults | 4 | 25 | 17 |
| :--- | :--- | :--- | ---: |
|  |  |  |  |
| $19-24$ | 8 | 25 | 24 |
| $25-29$ | 8 | 42 | 36 |
| $30-34$ | 6 | 45 | 36 |
| $35-39$ | 4 | 25 | 22 |
| $40-44$ | 4 | 20 | 14 |
| $45-49$ | 3 | 74 | 5 |
| $50-59$ | 1 | 6 | 2 |
| $60+$ | - |  |  |

Source: Bumpass and Sweet, 1989

| All Women in 1988, <br> $15-44$ |  |
| :---: | :---: | :---: |
| 5 |  |

15-19 8 8
20-24 3230
25-29 $45 \quad 39$
30-34 45
35-39 $38 \quad 24$
40-44 $26 \quad 12$
Source: London, 1991; Forrest and Singh, 1990

| All Women in 1995, |  |  |  |
| :---: | :---: | :---: | :---: |
| $15-44$ | 7 | 41 | 24 |
|  |  | 9 | 2 |
| $15-19$ | 4 | 38 | 17 |
| $20-24$ | 11 | 49 | 30 |
| $25-29$ | 10 | 51 | 34 |
| $30-34$ | 8 | 50 | 31 |
| $35-39$ | 5 | 43 | 23 |

Source: NCHS, 1997

```
Table 3 (continued)
```

B. Socio-demographic Groups
\% Currently Cohabiting (1993-98)
\% cohabited with present spouse $(1988,94)$

Gender

| Men | 5.9 | 27.4 |
| :--- | :---: | :---: |
| Women | 4.9 | 24.3 |
| Prob. | .021 | ns |
|  |  |  |
| Race | 5.2 | 25.1 |
| Whites | 6.0 | 32.3 |
| Blacks |  | ns |

## Age

| $18-29$ | 9.4 | 43.7 |
| :--- | ---: | ---: |
| $30-39$ | 7.6 | 43.7 |
| $40-49$ | 4.3 | 25.1 |
| $50-59$ | 2.4 | 10.3 |
| $60-69$ | 2.1 | 5.9 |
| $70+$ | 0.8 | 5.7 |
| Prob. | .000 | .000 |


| Marital Status |  |  |
| :--- | ---: | ---: |
| Married | 0.7 | 19.4 |
| Widowed | 2.9 | ---- |
| Divorced | 16.2 | ---- |
| Separated | 8.4 | ---- |
| Never Married | 12.3 | 49.6 |
| Remarried | 1.4 | .000 |
| Prob. | .000 |  |

## Community Type

Top 12 Central

| Cities | 5.4 | 28.4 |
| ---: | :--- | :--- |
| Top 100 Central |  |  |
| Cities | 6.3 | 36.1 |
| Suburbs of Top 12 | 4.0 | 25.8 |
| Suburbs of Top 100 | 6.4 | 27.1 |
| Other Urban | 5.2 | 23.2 |
| Rural | 4.0 | 21.0 |
| Prob. | .012 | .007 |

## Table 3 (continued)

\% Currently Cohabiting (1993-98)
\% cohabited with present spouse $(1988,94)$

Education
Less than High

| School | 5.5 | 24.2 |
| :--- | :--- | :--- |
| High School Grad. | 6.0 | 26.9 |

Assoc Col Degree 5.1 29.5

Assoc. Col. Degree 5.1
Bachelor's Degree 4.2
Graduate Degree 2.7
Prob. . 001 ns
Household Income
Less than \$10,000 \$10,000-19,999
\$20,000-29,999
9.1
26.4
\$30,000-39, 8.0
$\$ 30,000-39,999 \quad 5.5$
$\$ 40,000-59,999 \quad 4.2$
\$60,000+ 2.1
Refused 2.2
Prob. . 000
Church Attendance

| Rarely | 8.0 | 37.5 |
| :--- | :--- | :--- |
| Occasionally | 4.6 | 27.9 |
| Regularly | 2.4 | 12.4 |
| Prob. | .000 | .000 |

Source: GSS, 1998

## Table 4

Marital Status at Time of Conception and Birth of Child
A. CPS Retrospective Study, First Births

$$
\begin{array}{llllll}
1960-64 & 1965-69 & 1970-74 & 1975-79 & 1980-84 & 1985-89
\end{array}
$$

| Not married <br> at birth | 12.7 | 14.5 | 17.8 | 22.3 | 24.4 | 28.5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Married at <br> birth; not |  | 15.7 | 14.5 | 11.1 | 11.1 | 10.4 |
| at concep- <br> tion | 13.9 | 15.9 |  |  |  |  |
| Married at <br> birth and <br> conception | 73.4 | 69.8 | 67.7 | 66.6 | 64.6 | 61.1 |

\% of first births conceived before marriage, but born after $\begin{array}{lllllll}\text { marriage } & 52.2 & 52.0 & 44.9 & 33.2 & 31.3 & 26.6^{a}\end{array}$
${ }^{\text {a }}$ Row 2 (Row 1 + Row 2)
Source: Bachu, 1991
B. Natality Surveys, First Births
1964-66 19721980

Not married at birth
14.6
19.0 25.1

Not married at conception; married at birth
18.9
10.0
12.3

Married at birth and conception
66.6
70.9
62.6
\% of first births
conceived before,
but born after,
marriage
56.6
34.4
32.9

Source: Ventura, 1987
C. National Survey of Family Growth (NSFG) Retrospective Reports


Source: Abma, et al., 1997

## Table 5

Trends in Out-of-Marriage Births

```
% of All Births to
Unmarried Mothers
```

1960
1965
1970 1975 1980 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996
5.3
7.7
10.7
14.2
18.4
22.0
23.4
24.5
25.7
27.1
28.0
29.5
30.1
31.0
32.6
32.2
32.4

Birth Rates for
Unmarried Mothers
$21.6^{2}$
23.5
26.5
24.5
29.4
32.8
34.3
36.1
38.6
41.8
43.8
45.2
45.2
45.3
46.9
45.1
44.6

Whites Blacks

| 9.2 | $98.3^{\text {b }}$ |
| ---: | :--- |
| 11.6 | 97.6 |
| 13.9 | 95.5 |
| 12.4 | 84.2 |
| 17.6 | 81.4 |
| 21.8 | 78.8 |
| 23.2 | 80.9 |
| 24.6 | 84.7 |
| 26.6 | 88.9 |
| 29.9 | 93.1 |
| 31.8 | 93.9 |
| 34.6 | 89.5 |
| 35.2 | 86.5 |
| 35.9 | 84.0 |
| 38.3 | 82.1 |
| 37.5 | 75.9 |
| --- | ---- |

${ }^{\text {a }}$ Number to births to unmarried women per 1,000 unmarried women age 15-44.
${ }^{\text {b }}$ In 1960 and 1965 figures are for non-Whites. This slightly underestimates the rate for Blacks only.

Source: Statistical Abstracts

## Table 6

Trends in Extra-Marital Sexual Relations
\% Having Sexual Relations \% Ever Having Sexual with Person other than Spouse during Last 12 Months (Currently Married)

Relations with Person Other than Spouse While Married (Ever Married)

|  | All | Men | Women | All | Men | Women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1988 | 3.9 | 5.0 | 2.8 | --- | --- | --- |
| 1989 | 3.6 | 5.8 | 1.7 | --- | --- | --- |
| 1990 | 3.8 | 5.3 | 2.3 | --- | --- | --- |
| 1991 | 4.4 | 5.4 | 3.4 | 14.6 | 21.3 | 10.0 |
| 1993 | 2.9 | 4.1 | 1.9 | 16.3 | 21.0 | 12.8 |
| 1994 | 2.4 | 3.6 | 1.3 | 15.4 | 21.2 | 11.0 |
| 1996 | 3.8 | 5.2 | 2.5 | 17.8 | 22.1 | 14.4 |
| 1998 | 3.6 | 4.9 | 2.5 | 16.5 | 20.8 | 13.4 |
| Prob. | ns | ns | ns | ns | ns | . 036 |

Source: GSS, 1998
\% reporting extramarital sexual relations: Ever married
Birth

| Cohorts | Men | Women |
| :--- | ---: | ---: |
| $1933-42$ | 37.0 | 12.4 |
| $1943-52$ | 31.4 | 19.9 |
| $1953-62$ | 20.5 | 14.5 |
| $1963-74$ | 7.1 | 11.7 |

Source: Laumann, Gagnon, Michael, and Michaels, 1994
\% reporting extramarital sexual relations in last 12 months: Currently Married, 18-75

|  | Men | Women |
| :---: | :---: | :---: |
| 1990/91 | 2.9 | 1.5 |

Source: Choi, Catania, and Dolcini, 1994

## Table 7

Extra-Marital Sexual Relations by Socio-demographic Groups

| \% Having Sexual Relations | O Ever Having Sexual |
| :--- | :--- |
| with Person other than Spouse | Relations with Person |
| during Last 12 Months | Other than Spouse |
| (Currently Married) | While Married |
|  | (Ever Married) |

## Gender

| Men | 4.8 | 21.3 |
| :---: | :---: | :---: |
| Women | 2.2 | 12.5 |
| Prob. | . 000 | . 000 |
| Race |  |  |
| Whites | 3.0 | 15.5 |
| Blacks | 8.3 | 23.0 |
| Prob. | . 000 | . 000 |
| Age |  |  |
| 18-29 | 6.7 | 12.6 |
| 30-39 | 3.1 | 14.5 |
| 40-49 | 4.4 | 20.7 |
| 50-59 | 3.1 | 20.0 |
| 60-69 | 0.8 | 16.3 |
| 70+ | 1.1 | 8.3 |
| Prob. | . 000 | . 000 |
| Marital Status |  |  |
| Married | 3.0 | 10.2 |
| Widowed | --- | 10.6 |
| Divorced | --- | 30.9 |
| Separated | --- | 39.7 |
| Never Married | --- |  |
| Remarried | 4.7 | 22.3 |
| Prob. | . 000 | . 000 |
| Community Type |  |  |
| Top 12 Central Cities | 5.2 | 17.9 |
| Top 100 Central |  |  |
| Cities | 3.9 | 18.7 |
| Suburbs of Top 12 | 3.2 | 14.8 |
| Suburbs of Top 100 | 2.7 | 16.8 |
| Other Urban | 3.7 | 16.0 |
| Rural | 2.5 | 14.4 |
| Prob. | . 044 | . 075 |

## Table 7 (continued)


\% Ever Having Sexual Relations with Person Other than Spouse While Married (Ever Married)

## Education

Less than High
School
High School Grad.
Assoc. Col. Degree
Bachelor's Degree
Graduate Degree
Prob.
Household Income

| Less than $\$ 10,000$ | 6.4 | 19.2 |
| :--- | ---: | ---: |
| $\$ 10,000-19,999$ | 5.6 | 18.1 |
| $\$ 20,000-29,999$ | 3.7 | 17.5 |
| $\$ 30,000-39,999$ | 2.8 | 17.5 |
| $\$ 40,000-59,999$ | 3.4 | 14.9 |
| $\$ 60,000+$ | 2.8 | 16.7 |
| Refused | 2.4 | 9.8 |
|  |  |  |
| Prob. | .000 | .001 |

Church Attendance

| Rarely | 3.8 | 20.9 |
| :--- | :--- | :--- |
| Occasionally | 4.3 | 16.4 |

Regularly 2.1
Prob. . 000 . 000
Marital Satisfaction
Very Happy 2.
Pretty Happy 4.4
Not Too Happy
15.2

Prob.
.000
10.2
17.5
27.2
.000
Source: GSS, 1998

Table 8A
A Summary of Estimates of the Percent of Adult Americans with Same Gender Sexual Partners
A. Men

|  | Ages/ |  |  |
| :---: | :---: | :---: | :---: |
| Dates | Group | Level | Definition |
| 1970 | 21+ | 1.6-2.0 | 1+ male sexual partners in last 12 months |
| 1985 | 18+ | 3.7 | "sexually attracted to members of ... your own sex" + volunteered responses of attracted to both opposite and same sex or bisexual |
| 1987 | 18-44 | 6 | homosexual or bisexual orientation ${ }^{\text {a }}$ |
| 1988 | 16-54 | 4.4-6.2 | ```1+ male sexual partners in last 5 years }\mp@subsup{}{}{\mathrm{ b}``` |
| 1988-98 | 18+ | 3.0 3.9 | ```1+ male sexual partners in last 12 months (sexually active) 1+ male sexual partners in last 5 years (sexually active)``` |
| 1990a | 18+ | 1 | identifies as "gay" ${ }^{\text {c }}$ |
| 1990-91 | 18-49 | 6.5 | 1+ male sexual partners in last 5 years |
| 1991 | 20-39 | 2.3 1.1 | $1+$ male sexual partners in last 10 years (sexually active only) <br> Only male sexual partners in last 10 years (sexually active only) |
| 1992a | 18-59 | 2.7 4.1 6.4 | ```1+ male sexual partners in last 12 months 1+ male sexual partners in last 5 years 1+ male sexual partners since puberty``` |
| 1992b | Voters | 3.3 | ```Self-identified as "Gay/lesbian/ bisexual"d``` |

Table 8 (continued)
B. Women

| 1988 | 16-54 | 2.9-3.6 | 1+ female sexual partners in last 5 years ${ }^{\text {b }}$ |
| :---: | :---: | :---: | :---: |
| 1988-98 | $18+$ | 2.0 | $1+$ female sexual partners in last 12 months (sexually active) |
|  |  | 2.9 | $1+$ female sexual partners in last 5 years (sexually active) |
| 1992a | 18-59 | 1.3 | 1+ female sexual partners in the last 12 months |
|  |  | 2.2 | 1+ female sexual partners in the last 5 years |
|  |  | 3.5 | $1+$ female sexual partners since puberty |
| 1992b | Voters | 2.3 | ```Self-identified as "Gay/lesbian/ bisexual"d``` |

C. Men and Women

1990b 18+ 2 Sexual orientation not heterosexual
Notes:
${ }^{\text {a Peter }}$ D. Hart Research Associates (9/87) "How would you define your sexuality - are you homosexual, bisexual, or heterosexual in your orientation?"
${ }^{5}$ The lower estimate is reported in Taylor, 1993 and the higher estimate in Sell, Wells, and Wypij, 1995.
${ }^{c}$ Peter D. Hart Research Associates (4/90) "And for statistical purposes only, could you tell me whether or not you are gay?" (men only)
${ }^{\text {d }}$ From VRS presidential exit poll.

## Sources:

1970: Rogers and Turner, 1991; 1985: Harry, 1990; 1987: Hart Survey - see notes; 1988: Taylor, 1993 and Sell, Wells, and Wypij, 1995; 1988-96: Davis and Smith, 1998 and see Table 9; 1990a: Hart Survey - see notes; 1990b: Leigh, Temple, and Trocki, 1993; 1990-91: Binson, Michaels, Stall, Coates, Gagnon, and Catania, 1995; 1991: Billy, et al., 1993; and 1992a: Laumann, Gagnon, Michael, and Michaels, 1994 and Michaels, 1997; 1992b: Edelman, 1993.

Table 8B
A Summary of Estimates of the Percent of Adult Europeans with Same Gender Sexual Partners
A. Men

|  | Ever |  | Years |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Five | Three | One |
| Great Britain | 3.6 | 1.4 | --- | 1.1 |
| France | 4.1 | 1.4 | -- | 1.1 |
| Denmark | 2.7 | --- | --- | -- |
| Norway | 3.5 | --- | 0.9 | --- |
| Belguim | 6.1 | --- | --- | 1.6 |
| The Netherlands ${ }^{\text {a }}$ | 13.4 | --- | --- | 6.3 |
| B. Women |  |  |  |  |
| Great Britain | 1.7 | 0.6 | --- | 0.4 |
| France | 2.6 | 0.4 | --- | 0.3 |
| Denmark | $\begin{aligned} & 3.4- \\ & 4.3 \end{aligned}$ | --- | --- | --- |
| Norway | 3.0 | - | 0.9 | --- |
| Belguim | 2.4 | --- | --- | 0.7 |
| The Netherlands | 4.7 | --- | --- | 0.6 |

Great Britain: Ages 16-59 in 1990-91 (Johnson, Wadsworth, Wellings, and Field, 1994 and Michael, Wadsworth, Feinleib, Johnson, Laumann, and Wellings, 1998)
France: ages 18-69 in 1991-92 (AIDS Investigators, 1993)
Denmark: Ages 18-59 in 1989 (Melbye and Biggar, 1992)
Norway: ages 18-60 in 1987 (Sundet, et al., 1988)
Belguim: ages 18-49 in 1993 (Sandfort, 1998)
The Netherlands: ages 18-49 in 1989 (Sandfort, 1998)
${ }^{\text {a }}$ The rates are much higher in the Netherlands because broader criteria were used, e.g. "Have you ever had sexual contact with a boy or man? By sexual contact we mean at least masturbation or jacking off."

| A. Trends | Gender of Sexual Partners (Sexually active only) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last 12 Months |  |  |  |  |
|  | Same Men | Gender Women | Both Genders Men Women | Opposite Men | Gender Women |
| 1988 | 2.3\% | 0.2\% | 0.30 .0 | 97.4 | 99.8 |
| 1989 | 1.4\% | 1.2\% | $0.3 \quad 0.4$ | 98.3 | 98.4 |
| 1990 | 1.1\% | 0.5\% | $0.9 \quad 0.0$ | 98.0 | 99.5 |
| 1991 | 2.0\% | $0.3 \%$ | $0.7 \quad 0.1$ | 97.3 | 99.6 |
| 1993 | 1.8\% | 1.8\% | $0.3 \quad 0.4$ | 97.9 | 97.8 |
| 1994 | 2.1\% | 2.1\% | 0.50 .4 | 97.5 | 97.5 |
| 1996 | 3.5\% | 2.1\% | 0.60 .9 | 96.0 | 97.0 |
| 1998 | 3.3\% | 2.3\% | 1.20 .8 | 95.5 | 96.9 |
| Prob. | . 038 | . 001 |  |  |  |
|  | Last 5 Years |  |  |  |  |
|  | Same <br> Men | Gender Women | Both Genders Men Women | Opposite Men | Gender Women |
| 1991 | 2.1\% | 0.5\% | $1.8 \quad 0.7$ | 96.1 | 98.8 |
| 1993 | 1.6\% | 1.2\% | 0.61 .4 | 97.8 | 97.4 |
| 1994 | 2.4\% | 1.8\% | 1.21 .3 | 96.3 | 96.9 |
| 1996 | 3.1\% | 2.0\% | 1.91 .5 | 94.9 | 96.4 |
| 1998 | 2.7\% | 1.9\% | 1.41 .5 | 95.9 | 96.6 |
| Prob. | . 280 | . 284 |  |  |  |
| B. Distributions by Reference Periods |  |  |  |  |  |
|  |  | Last 12 Months | Last 5 <br> Years | Since <br> Age 18 |  |
|  |  |  |  |  |  |
|  |  | Men Women | Men Women | Men Wor | men |
| Same Gender |  | 2.41 .5 | 2.51 .6 | 5.94 .6 |  |
| Both Genders |  | 0.60 .5 | 1.41 .3 | 5.9 . |  |
| No Same Gender |  | 97.098 .0 | 96.097 .0 | 96.195. |  |
| Source: GSS, 1998 |  |  |  |  |  |

$$
\text { Table } 9 \text { (continued) }
$$

C1. Socio-demographic Differences Among Men


## Race

| Whites | 2.7 | 3.7 | 5.4 |
| :--- | ---: | ---: | ---: |
| Blacks | 5.3 | 6.3 | 10.0 |
| Prob. | .003 | .018 | .000 |

## Age

18-29
30-39
3.5
3.6
2.8
2.4
1.9
1.7
.101
1.3
7.7
3.0
4.0
8.1
0.8
.000
.000
1.5
7.6
3.7
5.3
10.2
1.8
9.6
14.7
8.3
5.5
3.7
3.5
2.4
3.1
.000
.000
6.2
6.0
5.6
5.5
6.2
5.4
.000
3.7
8.3
6.0
6.4
11.2
3.3
.000
Community Type
Top 12 Central
8.5
6.7
5.9
4.2
4.0

## Education

Less than High

School 3.1
High School Grad. 2.6
Assoc. Col. Degree 2.4
Bachelor's Degree 4.2
Graduate Degree 3.3
Prob.
.004
.150
4.1
3.7
3.5
5.0
3.7
5.6
5.9
4.9
6.2
6.4
.012

Table 9 (continued)<br>\% with Same Gender (Male) Partner<br>Last 12 Months Last 5 Years Since Age 18

## Household Income

| Less than $\$ 10,000$ | 6.1 | 8.6 | 9.4 |
| :--- | :--- | :--- | :--- |
| $\$ 10,000-19,999$ | 4.6 | 5.6 | 8.2 |
| $\$ 20,000-29,999$ | 4.0 | 5.7 | 6.9 |
| $\$ 30,000-39,999$ | 2.2 | 2.9 | 5.5 |
| $\$ 40,000-59,999$ | 2.7 | 3.7 | 5.0 |
| $\$ 60,000+$ | 1.1 | 1.5 | 4.3 |
| Refused | 2.7 | 2.7 | 4.8 |
| Prob. | .000 | .000 | .000 |

Church Attendance

| Rarely | 2.7 | 4.1 | 5.9 |
| :--- | :--- | :--- | :--- |
| Occasionally | 2.5 | 3.5 | 5.6 |
| Regularly | 3.0 | 4.2 | 6.2 |
| Prob. | .722 | .873 | .000 |

C2. Socio-demographic Differences Among Women

| Race |  |  |  |
| :---: | :---: | :---: | :---: |
| Whites | 2.1 | 2.8 | 4.3 |
| Blacks | 1.8 | 2.7 | 6.2 |
| Prob. | . 956 | . 805 | . 041 |
| Age |  |  |  |
| 18-29 | 2.6 | 4.2 | 5.7 |
| 30-39 | 2.1 | 3.0 | 5.6 |
| 40-49 | 2.5 | 3.4 | 5.2 |
| 50-59 | 0.8 | 1.0 | 2.4 |
| 60-69 | 1.4 | 1.7 | 2.8 |
| 70+ | 0.5 | 2.4 | 2.1 |
| Prob. | . 005 | . 000 | . 000 |
| Marital Status |  |  |  |
| Married | 0.8 | 1.5 | 2.7 |
| Widowed | 2.9 | 2.9 | 2.5 |
| Divorced | 3.8 | 4.9 | 6.5 |
| Separated | 2.7 | 4.2 | 8.4 |
| Never Married | 5.2 | 6.6 | 8.6 |
| Remarried | 1.0 | 1.6 | 3.7 |
| Prob. | . 000 | . 000 | . 000 |

Table 9 (continued)<br>\% with Same Gender Partner<br>Last 12 Months Last 5 Years Since Age 18

## Community Type

| Top 12 Central <br> Cities | 1.8 | 2.9 | 6.1 |
| :--- | :--- | :--- | :--- |
| Top 100 Central |  |  |  |
| Cities | 3.1 | 3.5 | 6.3 |
| Suburbs of Top 12 | 2.4 | 4.0 | 5.7 |
| Suburbs of Top 100 | 2.6 | 3.5 | 5.4 |
| Other Urban | 1.7 | 2.3 | 3.4 |
| Rural | 0.6 | 1.3 | 3.1 |
| Prob. | .026 | .028 | .002 |

## Education

Less than High
School 2.

High School Grad. 1.8
Assoc. Col. Degree 2.7
Bachelor's Degree 1.7
Graduate Degree 3.3
Prob. . 33

## Household Income

| Less than $\$ 10,000$ | 3.2 | 4.9 | 6.5 |
| :--- | :--- | :--- | :--- |
| $\$ 10,000-19,999$ | 2.5 | 3.3 | 5.6 |
| $\$ 20,000-29,999$ | 2.8 | 4.1 | 5.8 |
| $\$ 30,000-39,999$ | 1.8 | 3.0 | 4.3 |
| $\$ 40,000-59,999$ | 1.4 | 2.2 | 3.1 |
| $\$ 60,000+$ | 1.6 | 2.0 | 3.7 |
| Refused | 1.7 |  | 3.8 |
| Prob. | .042 |  |  |
| Church Attendance |  |  | .026 |
| Rarely | 3.4 | 4.7 |  |
| Occasionally | 1.3 | 2.2 | 6.6 |
| Regularly | 1.3 | 2.1 | 4.3 |
|  |  | .000 | 2.9 |
| Prob. | .000 |  | .000 |

Source: GSS, 1998

```
                    Table 10
Frequency of Sexual Intercourse
(Mean number of times per year)
```

A. Trends

|  | All Adults |
| :---: | :---: |
| 1989 | 59.5 |
| 1990 | 61.4 |
| 1991 | 60.9 |
| 1993 | 61.4 |
| 1996 | 59.6 |
| 1998 | 65.3 |
| Prob. | 59.1 |
|  | .036 |

Source: GSS, 1998

> Males $17.5-19$
> (sexually active)

1988
1991
30.0
49.1

Prob.
$<.001$

Source: Ku, Sonenstein, and Pleck, 1993
Married Couples, 19+
1987-88
76.3

Source: Call, Sprecher, and Schwartz, 1995
B. Socio-demographic Groups

## Gender

Men
65.5

Women
57.5

Prob.
.000

## Race

Whites
60.9

Blacks
62.7

Prob.
.340

```
Table 10 (continued)
```

```
Mean Number
    per Year
```


## Age

18-29
30-39
40-49
50-59
60-69
70+
Prob.

Marital Status
Married
Widowed
Divorced
Separated
Never Married
Remarried
Prob.

Community Type
Top 12 Central
Cities
Top 100 Central Cities
Suburbs of Top 12
Suburbs of Top 100
Other Urban
Rural
Prob.

## Education

Less than High School
High School Grad. Assoc. Col. Degree Bachelor's Degree Graduate Degree

Prob.
58.2
66.1
11.6
56.3
68.9
58.6
73.9
.000
61.2
61.4
65.0
60.5
59.6
.112
51.2
63.7
71.5
61.5
53.2
.000

Table 10 (continued)

Mean Number per Year

Household Income
Less than $\$ 10,000$
55.0
\$10,000-19,999
59.8
\$20,000-29,999
62.8
\$30,000-39,999
\$40,000-59,999
65.1
63.9
64.1
\$60,000+
Refused
49.2

Prob. . 000

| Church Attendance |  |
| :--- | ---: |
| Rarely | 66.6 |
| Occasionally | 62.9 |
| Regularly | 50.6 |
| Prob. | .000 |


| Marital Satisfaction | (currently married) |
| :--- | :---: |
| Very happy | 73.6 |
| Pretty happy | 59.4 |
| Not to happy | 51.1 |
| Prob. | .000 |

Source: GSS, 1998

Table 10 (continued)

| Married | Mean Number <br> per year |
| :--- | :---: |
| $18-29$ | 111.6 |
| $30-39$ | 85.7 |
| $40-49$ | 69.2 |
| $50-59$ | 53.8 |
| $60-69$ | 32.5 |
| $70+$ | 16.2 |
| Prob. | .000 |

Not Married

18-29
30-39
40-49
50-59
60-69
70+
Prob.
Men
18-29
30-39
40-49
50-59
60-69
70+
Prob.
Women

| $18-29$ | 82.9 |
| :--- | ---: |
| $30-39$ | 77.8 |
| $40-49$ | 60.3 |
| $50-59$ | 39.6 |
| $60-69$ | 19.7 |
| $70+$ | 5.4 |
| Prob. | .000 |

Source: GSS, 1998
69.1
65.6
49.8
31.2
15.7
2.6
.000
82.2
79.6
67.6
56.9
37.6
15.8
.000

```
                        Table 11
Sexual Inactivity
```

A. Trends


Table 11 (continued)
\% with No Sex Partner during Last 12 Months

| Age |  |
| :---: | :---: |
| 18-29 | 13.1 |
| 30-39 | 6.3 |
| 40-49 | 9.5 |
| 50-59 | 17.5 |
| 60-69 | 30.7 |
| 70+ | 60.6 |
| Prob. | . 000 |
| Marital Status |  |
| Married | 7.1 |
| Widowed | 77.0 |
| Divorced | 27.7 |
| Separated | 17.7 |
| Never Married | 24.6 |
| Remarried | 5.5 |
| Prob. | . 000 |
| Community Type |  |
| Top 12 Central |  |
| Cities | 20.6 |
| Top 100 Central |  |
| Cities | 19.1 |
| Suburbs of Top 12 | 15.2 |
| Suburbs of Top 100 | 16.0 |
| Other Urban | 17.5 |
| Rural | 18.4 |
| Prob. | . 000 |
| Education |  |
| Less than High School | 29.6 |
| High School Grad. | 16.4 |
| Assoc. Col. Degree | 11.8 |
| Bachelor's Degree | 13.2 |
| Graduate Degree | 11.8 |
| Prob. | . 000 |

Table 11 (continued)
\% Not Sexually Active

## Household Income

| Less than $\$ 10,000$ | 33.9 |
| :--- | ---: |
| $\$ 10,000-19,999$ | 24.1 |
| $\$ 20,000-29,999$ | 17.6 |
| $\$ 30,000-39,999$ | 13.0 |
| $\$ 40,000-59,999$ | 11.1 |
| $\$ 60,000+$ | 7.5 |
| Refused | 23.6 |
| Prob. | .000 |

Church Attendance

Rarely
Occasionally
Regularly
Prob.
Married
18-29
30-39 1.2
40-49
50-59
60-69
70+
Prob.
Not Married
18-29
30-39
40-49
50-59
60-69
70+
Prob.
Men
18-29
30-39
40-49
50-59
60-69
70+
Prob.
15.2
15.1
23.7
.000
1.5
2.6
6.9
14.0
33.0
.000
18.7
15.8
26.7
45.6
71.5
91.6
.000
14.5
6.5 6.9
11.1
16.4
43.7
.000

Table 11 (continued)
\% Not Sexually Active

Women
18-29
30-39
40-49
50-59
60-69
70+
Prob.
Source: GSS, 1998
11.9
6.0
11.6
22.9
41.4
72.3
.000

Table 12
Reported Changes in Sexual Behavior due to AIDS
NBC: Since you became aware of AIDS, have you changed your sexual behavior in any way?

1/86 1/87

| Yes | $7.3 \%$ | $7.4 \%$ |
| :--- | :---: | :---: |
| No | 92.4 | 92.1 |
| Not sure | 0.3 | 0.5 |
|  | $(1598)$ | $(800)$ |

CBS: What about you personally? Have you changed your sexual habits because you worried about getting AIDS?

10/86
Yes 11.5\%
No 86.0
No Opinion
2.6
(823)

Gallup: Which of these statements applies to you:
10/87 11/91
Because of the risk of AIDS, I have changed my behavior 11\% 14\%

Because of the risk of AIDS, I am seriously thinking of changing my behavior 3

Despite the risk of AIDS, I have not changed my behavior 15

I do not need to change my behavior 68
Don't Know 3

Table 12 (continued)
NSFG ${ }^{a}$ : To keep people from catching diseases such as genital herpes, chlamydia, or AIDS, doctors have suggested several changes people change make in their sexual behavior. In which of the ways shown on card 27, if any, have you changed your sexual behavior? [Card 27 - A. Stopped having sexual intercourse? B. Stopped having other types of sexual relations? C. Don't have sex as often? D. Stopped having sex with more than one man? E. Stopped having sex with men I don't know well? F. Stopped having sex with men who are bisexual? G. Stopped having sex with men who use needles to take drugs (or) Have made no changes.] Which of these changes, if any have you made since you first heard about AIDS?

Women, 15-44 Sexually Experienced Only

Made Change
Since AIDS

| 1988 | $13.3 \%$ | $15.0 \%$ |
| :--- | :---: | :--- |
| 1988 | --- | $14.4 \%$ |
| 1990 | --- | $18.0 \%$ |

${ }^{a}$ McNally and Mosher, 1991 and Mosher and Pratt, 1993
CBS: Some people say they changed things about their sexual behavior in order to reduce their chances of getting AIDS. Have you changed your sexual habits because you are worried about getting AIDS?

|  | $1 / 89$ | $6 / 91^{\mathrm{b}}$ | $11 / 91^{\mathrm{c}}$ |
| :--- | :---: | :---: | :---: |
| Yes | $19 \%$ | $20 \%$ | $23 \%$ |
| No | 78 | 77 | 75 |
| No Answer/DK | 3 | 3 | 2 |
|  | $(594)$ | $(1424)$ | $(1709)$ |

bomits "things about" and uses "afraid of" instead of "worried about."
${ }^{c}$ Los Angeles Times. Omits "things about" and uses "afraid of" instead of "worried about."

Table 12 (continued)
NORC: Have you made any kinds of change in your sexual behavior because of AIDS? (18-59)

|  |  | 1992 |  |
| :--- | :--- | :--- | :--- |
| Yes | All | Men | Women |

Source: Laumann, Gagnon, Michael, and Michael, 1994
\% change in sexual behavior due to AIDS by marital status ${ }^{c}$
$\operatorname{NBC}(1 / 87)$ Gallup (10/87) $\operatorname{NSFG}^{d} \operatorname{CBS}(6 / 91) \quad$ NORC $^{e}$ (1988) (1992)

| Married | 2.9 | 6.8 | 3 | 8 | 12.0 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Not married | 17.5 | 19.0 | 31 | 43 | --- |
| Never married | 24.0 | 21.7 | -- | -- | 52.4 |
| Divorced | 8.2 | 27.4 | -- | -- |  |
| Separated | $\star * *$ | $* * *$ | -- | -- | 347.0 |
| Widowed | 5.0 | 2.7 | -- | -- |  |

***=too few cases ---=not available
${ }^{\text {c Because }}$ of differences in wordings, these figures are not directly comparable.
${ }^{d}$ Sexually active women, 15-44.
${ }^{e}$ Ages 18-59.

## Table 13

Avoiding AIDS
Do you take any special steps or precautions to avoid catching AIDS, or not?

|  | Harris | Harris | PSRA |
| :--- | :---: | :---: | :---: |
|  | $1 / 1985$ | $11 / 1987$ | $11-12 / 1992$ |
| Yes | $41 \%$ | $49 \%$ | $60 \%$ |
| No | 57 | 0 | 39 |
| Not Sure | 2 | 1 | 1 |
|  | $(1256)$ | $(1250)$ | $(1250)$ |

Table 13 (continued)
CBS/NYT: Is there anything in particular you have done to avoid getting AIDS?
ABC/WP \& Roper: Is there anything you yourself are doing to avoid exposing yourself to AIDS?

|  | $\begin{gathered} \text { ABC/WP } \\ 9 / 85 \end{gathered}$ | $\begin{gathered} \text { CBS / NYT } \\ 9 / 85 \end{gathered}$ | CBS / NYT $10 / 86$ | T ABC/WP $3 / 87$ | Roper 3/87 | $\begin{array}{r} \mathrm{ABC} / \mathrm{WP} \\ 6 / 90 \end{array}$ | $\begin{array}{r} \text { CBS /NYT } \\ 6 / 93 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yes | 22\% | 13\% | 18\% | 37\% | 43\% | 54\% | 49\% |
| No | 77 | 85 | 80 | 63 | 53 | 45 | 49 |
| Don't Know | 1 | 2 | 1 | -- | 4 | 1 | 2 |
| (1347) | (1512) | ( 762 |  | 823) (15 | 511) | (1017) | (1020) |

What is that?

| Cut down on sexual activity | 1 | -- | 3 | 1 | -- |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Avoided oral sex | -_ | -- | * | 1 | -- |
| Avoided anal sex | -- | -- | * | 1 | -- |
| Avoided prostitutes | -- | -- | * | 1 | -- |
| Avoided homosexual sex | 1 | 1 | -- | -_ | -- |
| Avoid kissing | -- | * | -- | -- | -- |
| Limited number of sex partners 1 | -- | * | 3 | 10 | 19 |
| Monogamy 2 | -- | 3 | 7 | 12 | -- ${ }^{\text {a }}$ |
| Abstained * | -- | 1 | 3 | 5 | 7 |
| Used condoms ${ }^{\text {b }}$ * | -- | 1 | 4 | 10 | 12 |
| Knew sexual history of partners ${ }^{\text {c }}$ | 2 | 3 | 1 | 1 | -- |
| Slept only with partners who had tested negative |  |  | 1 | 1 |  |

Note: Multiple responses allowed. It is not known how many reported one or more sexually related precautions. All categories explicitly relating to sexual behavior are listed above. Some sexual activity
may also be referred under vague categories like "Change lifestyle" and "Avoid homosexuals." Different surveys used different coding schemes for responses so the comparisons are approximate only.
*=less than 0.5\%
${ }^{\text {a }}$ The absence of a Monogamy category in the 1993 CBS/NYT survey probably explains the increase of responses coded under the Limited sexual partners category.
" b Use condoms/Practice safe sex" in 1993 CBS/NYT survey.
""Careful who date" in 1985 CBS/NYT survey; "Practice care with people dating" and "Select sex partners more carefully" in 1986 CBS/NYT survey.

NORC: Have you made any kind of changes in your sexual behavior because of AIDS? IF SO: What have you changed?

Any Change 29\%
Used condoms more frequently 9
Monogamy
8
Abstinence 3
Fewer partners 3
More careful in selecting partners/
Get to know partners 8
Less frequent sex 1
More careful (unspecified) 2
Other
Source: Feinleib and Michael, 1998
Note: Multiple responses allowed.

Table 14
Number of Sexual Partners
A. Trends
\% with total number of lifetime sexual partners among high school students

|  | $2+$ | $4+$ |
| :--- | :--- | :--- |
| 1989 | 40 | 24 |
| 1990 | -- | 19 |
| 1991 | 35 | 19 |
| 1993 | -- | 19 |
| Prob. | $<.05$ | $<.05^{a}$ |

Source: Moore, et al., 1992 and Divs. of Epidemiology and Prevention; Adolescent and School Health; Reproductive Health, 1992; and "Youth Risk Behavior Survey," 1995.
probability test for 1989-1991 only.
Table 14 (continued)
\% with 4+ sex partners, Ages 14-21
1992
14-17 13.3
14-19 15.9
14-21 63.0
18-21 41.3

Sources: Divs. of Adolescent and School Health and Health Interview Statistics, 1994a and 1994b
\% with 4+ Male Lifetime Sexual Partners, Sexually Experienced Women 15-44

1988
43.1

1990
47.1

1995
46.9-49.2

Note: Higher figured based on self-completion form. Lower number should be more comparable to earlier figures.
Source: Mosher and Pratt, 1993 and Abma, et al., 1997

## Table 14 (continued)

\% with 4+ male sex partners in last 12 months, Unmarried Women, 1544 in 1995

$$
\begin{aligned}
& \text { Interview } \begin{array}{c}
\text { Self- } \\
\text { Completion }
\end{array}
\end{aligned}
$$

| All | 3.3 | 8.6 |
| :--- | ---: | ---: |
| $15-29$ | 3.7 | 7.4 |
| $20-24$ | 4.6 | 11.2 |
| $25-29$ | 2.9 | 9.0 |
| $30-34$ | 2.9 | 8.7 |
| $35-39$ | 2.7 | 8.3 |
| $40-44$ | 1.2 | 5.7 |

Source: Abma, et al., 1997
Last 12 months, Adults

|  | None | 1 | 2 | 3 | 4 | $5-9$ | $10-19$ | $20+$ | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| 1988 | 19.8 | 67.2 | 5.0 | 3.2 | 1.8 | 2.0 | 0.6 | 0.5 | 1.49 |
| 1989 | 19.0 | 68.7 | 6.3 | 3.0 | 1.3 | 1.6 | 0.1 | 0.1 | 1.14 |
| 1990 | 16.3 | 71.4 | 5.6 | 2.6 | 1.6 | 1.7 | 0.1 | 0.6 | 1.58 |
| 1991 | 18.4 | 71.2 | 5.9 | 1.9 | 0.8 | 1.4 | 0.3 | 0.1 | 1.12 |
| 1993 | 17.4 | 72.0 | 5.6 | 2.1 | 1.4 | 1.3 | 0.2 | 0.1 | 1.12 |
| 1994 | 18.4 | 70.6 | 6.0 | 2.4 | 1.1 | 1.2 | 0.2 | 0.1 | 1.09 |
| 1996 | 15.1 | 72.2 | 6.1 | 3.2 | 1.6 | 1.3 | 0.3 | 0.2 | 1.28 |
| 1998 | 17.4 | 70.7 | 6.0 | 2.2 | 1.5 | 1.4 | 0.3 | 0.1 | 1.24 |

Prob. . 000
Last 5 Years, Adults

| 1991 | 11.3 | 60.3 | 8.3 | 6.7 | 3.3 | 6.0 | 2.7 | 1.5 | 2.70 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1993 | 12.6 | 59.0 | 8.5 | 6.5 | 4.5 | 6.2 | 2.0 | 0.8 | 2.42 |
| 1994 | 11.1 | 59.4 | 8.6 | 7.2 | 4.1 | 6.4 | 1.8 | 1.4 | 2.79 |
| 1996 | 10.0 | 57.8 | 10.2 | 7.2 | 4.7 | 6.4 | 2.2 | 1.2 | 2.83 |
| 1998 | 11.2 | 59.0 | 9.2 | 6.0 | 4.7 | 5.7 | 2.0 | 0.9 | 2.50 |

Prob.
Source: GSS, 1998

Table 14 (continued)
Since Age 18, Adults
Mean Number of Sexual Partners

1989
1990
1991
1993
1994
1996
1998
Prob.
$6.8-7.2^{a}$
6.5-7.0
7.4-8.1
7.4-8.0
8.4-9.0
8.9-9.5
7.5-7.8
$.006-.011$

Source: GSS, 1998
several different techniques were used to handle item non-response. The above figures represent the low and high estimates based on how missing data are estimated.

Number of Sexual Partners
B. Socio-demographic Groups

```
\% with 2+ Sex Partners
```

Last 12 Months Last 5 Years

## Gender

| Men | 16.9 | 37.0 |
| :--- | ---: | ---: |
| Women | 9.4 | 24.7 |
| Prob. | .000 | .000 |
| Race |  |  |
| Whites | 11.0 | 28.3 |
| Blacks | 21.6 | 44.4 |
| Prob. | .000 | .000 |

## Age

| $18-29$ | 26.7 | 61.8 |
| :--- | ---: | ---: |
| $30-39$ | 13.1 | 34.3 |
| $40-49$ | 9.0 | 23.1 |
| $50-59$ | 5.5 | 14.7 |
| $60-69$ | 2.7 | 8.2 |
| $70+$ | 1.0 | 4.0 |
|  |  |  |
| Prob. | .000 | .000 |

Table 14 (continued)
\% with 2+ Sex Partners
Last 12 Months
Last 5 Years
Marital Status

| Married | 2.9 | 12.0 |
| :--- | ---: | ---: |
| Widowed | 3.2 | 10.8 |
| Divorced | 23.5 | 56.2 |
| Separated | 31.7 | 56.9 |
| Never Married | 31.8 | 63.1 |
| Remarried | 4.5 | 21.0 |
| Prob. | .000 | .000 |

Community Type

| Top 12 Central |  |  |
| :--- | ---: | ---: |
| Cities | 18.6 | 41.0 |
| Top 100 Central |  |  |
| Cities | 15.4 | 37.0 |
| Suburbs of Top 12 | 11.1 | 28.8 |
| Suburbs of Top 100 | 11.5 | 31.1 |
| Other Urban | 11.6 | 27.9 |
| Rural | 8.3 | 22.2 |
|  |  |  |
| Prob. | .000 | .000 |

## Education

| Less than High |  |  |
| :--- | ---: | ---: |
| School | 13.2 | 27.2 |
| High School Grad. | 13.1 | 32.6 |
| Assoc. Col. Degree | 12.4 | 33.6 |
| Bachelor's Degree | 9.8 | 28.3 |
| Graduate Degree | 7.4 | 20.3 |
|  |  |  |
| Prob. | .000 | .000 |

Household Income

| Less than \$10,000 | 19.8 | 45.5 |
| :--- | ---: | ---: |
| $\$ 10,000-19,999$ | 16.7 | 39.7 |
| $\$ 20,000-29,999$ | 13.8 | 36.6 |
| $\$ 30,000-39,999$ | 10.5 | 31.5 |
| $\$ 40,000-59,999$ | 7.7 | 23.2 |
| $\$ 60,000+$ | 8.8 | 20.6 |
| Refused | 8.9 | 18.7 |
| Prob. | .000 | .000 |

Table 14 (continued)
\% with 2+ Sex Partners
Last 12 Months Last 5 Years

| Church Attendance |  |  |
| :--- | ---: | ---: |
| Rarely | 16.6 | 39.5 |
| Occasionally | 13.2 | 32.1 |
| Regularly | 4.9 | 14.6 |
| Prob. | .000 | .000 |

Source: GSS, 1998
Mean Number of Sexual Partners Since Age $18^{\text {b }}$

## Gender

Men
12.4

Women
4.0

Prob.
.000

## Race

Whites 7.7
Blacks 8.3
Prob.
.329

## Age

18-29 6.0
30-39 8.3
40-49 9.9
50-59
10.0

60-69 6.5
70+
Prob.
.000

```
Marital Status
Married 5.0
Widowed 3.9
Divorced
Separated
Never Married 8.7
Remarried 12.0
Prob.
.000
```



Table 15
Relationship with Sex Partners
A. Trends
\% Whose Least Familiar Sexual Partner During the Last 12 Months was...
$\begin{array}{llllllll}1988 & 1989 & 1990 & 1991 & 1993 & 1994 & 1996 & 1998\end{array}$
Paid Partner/
Pick-up $3.4 \% \quad 3.1 \% \quad 3.5 \% \quad 3.9 \quad 3.7 \% \quad 3.5 \% \quad 4.3 \% \quad 3.6 \%$

Not Regular Partner,

| Unspecified | 1.9 | 1.8 | 1.6 | 1.9 | 1.4 | 2.1 | 1.5 | 2.6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{llllllllll}\text { Acquaintance } & 2.9 & 2.6 & 2.6 & 2.2 & 2.4 & 2.3 & 3.7 & 3.0\end{array}$

| Friend | 5.3 | 5.3 | 5.2 | 4.8 | 3.5 | 4.4 | 4.9 | 3.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllllllll}\text { Regular Partner } & 65.9 & 67.7 & 70.1 & 67.1 & 70.5 & 67.9 & 69.2 & 68.6\end{array}$

| Unspecified | 0.6 | 0.7 | 0.6 | 1.8 | 1.2 | 1.4 | 1.4 | 0.9 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |


| No Sex Partner | 19.8 | 19.0 | 16.3 | 18.3 | 17.4 | 18.4 | 15.1 | 17.4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Prob.
.000
\% in "On-going
Relationship"
92.389 .9

Prob.
.004
B. Socio-demographic Groups
\% with Paid/Pick-up+
Acquaintance
Gender
Men
Women
Prob.
Race
Whites
Blacks
Prob.

## Age

18-29
30-39
14.8

40-49
7.0

50-59
.
60-69 0.9

70+
Prob.
.000

```
    Table 15 (continued)
```

    \% with
    Paid/Pick-up+
Acquaintance

| Marital Status |  |
| :--- | ---: |
| Married | 1.3 |
| Widowed | 1.1 |
| Divorced | 12.3 |
| Separated | 15.5 |
| Never Married | 18.3 |
| Remarried | 1.7 |
| Prob. | .000 |


| Community Type |  |
| :--- | :--- |
| Top 12 Central |  |
| Cities | 9.1 |
| Top 100 Central |  |
| Cities | 8.4 |
| Suburbs of Top 12 | 5.8 |
| Suburbs of Top 100 | 6.3 |
| Other Urban | 6.0 |
| Rural | 4.8 |
| Prob. | .000 |

## Education

| Less than High | 5.6 |
| :--- | :--- |
| School |  |
| High School Grad. | 7.0 |
| Assoc. Col. Degree | 7.1 |
| Bachelor's Degree | 5.9 |
| Graduate Degree | 4.4 |
| Prob. | .000 |

Household Income

| Less than $\$ 10,000$ | 9.6 |
| :--- | :--- |
| $\$ 10,000-19,999$ | 9.0 |
| $\$ 20,000-29,999$ | 7.7 |
| $\$ 30,000-39,999$ | 5.5 |
| $\$ 40,000-59,999$ | 4.4 |
| $\$ 60,000+$ | 4.6 |
| Refused | 4.1 |
| Prob. | .000 |

Table 15 (continued)
\% with
Paid/Pick-up+
Acquaintance

## Church Attendance

| Rarely | 9.5 |
| :--- | :--- |
| Occasionally | 6.4 |
| Regularly | 2.3 |
| Prob. | .000 |

Notes: a) People with more than one partner are classified according to the partner least familiar to them.
b) The categories used above are defined as follows:

Paid Partner/Pick-up: "Person you paid or paid you for sex" or
"Casual date or pick-up"
Not Partner: Not a Partner (see below), other information missing.
Acquaintance: "Neighbor, co-worker, or long-term acquaintance"
Friend: "Close personal friend"
Partner: "Husband or wife or regular sexual partner"
Unspecified: all information missing
No Sex Partner: No sex partners reported
c) Based on an analysis of the two categories with missing
information (Not Partner, Unspecified and Unspecified), these two groups were placed along the closeness continuum according to where they on average fit. For example, Not Partner, Unspecified represented fairly distant relationships that fall between Paid/Pickups and Acquaintances.

Source: GSS, 1998
II. In an "On-going Relationship" with Most Recent Sexual Partner
\% in On-going Relationship

## All <br> 91.1

## Gender

## Men

88.2

Women
93.6

Prob.
.000

## Race

Whites 91.7
Blacks 87.0
Prob. . 000

Table 15 (continued)
\% in On-going Relationship

| Age |  |
| :---: | :---: |
| 18-29 | 86.0 |
| 30-39 | 91.7 |
| 40-49 | 93.9 |
| 50-59 | 92.5 |
| 60-69 | 93.4 |
| 70+ | 91.1 |
| Prob. | . 004 |
| Marital Status |  |
| Married | 95.4 |
| Widowed | 91.1 |
| Divorced | 90.3 |
| Separated | 89.3 |
| Never Married | 79.9 |
| Remarried | 96.1 |
| Prob. | . 000 |
| Community Type |  |
| Top 12 Central |  |
| Cities | 85.8 |
| Top 100 Central |  |
| Cities | 87.1 |
| Suburbs of Top 12 | 92.9 |
| Suburbs of Top 100 | 93.9 |
| Other Urban | 92.3 |
| Rural | 90.4 |
| Prob. | . 000 |
| Education |  |
| Less than High | 83.3 |
| School |  |
| High School Grad. | 91.6 |
| Assoc. Col. Degree | 95.1 |
| Bachelor's Degree | 91.6 |
| Graduate Degree | 97.0 |
| Prob. | . 000 |

Table 15 (continued)
\% in On-going Relationship

## Household Income

| Less than $\$ 10,000$ | 85.9 |
| :--- | :--- |
| $\$ 10,000-19,999$ | 88.1 |
| $\$ 20,000-29,999$ | 89.2 |
| $\$ 30,000-39,999$ | 92.3 |
| $\$ 40,000-59,999$ | 93.6 |
| $\$ 60,000+$ | 94.5 |
| Refused | 90.8 |
| Prob. | .078 |

Church Attendance
Rarely
Occasionally
Regularly
88.9
91.9

Prob. .000

Source: GSS, 1998
C. Other

Relationship to Partner at First Voluntary Intercourse
Just Just Once in ing En-

Met Friends a While Steady gaged Married Other

| All Women | $2.5 \%$ | 9.4 | 8.3 | 61.0 | 6.2 | 12.2 | 0.4 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |
| $15-19$ | $2.8 \%$ | 10.5 | 9.7 | 72.7 | 2.8 | 1.5 | 0.1 |
| $20-24$ | $3.5 \%$ | 10.2 | 8.3 | 69.4 | 2.9 | 5.4 | 0.4 |
| $25-29$ | $2.5 \%$ | 10.0 | 8.5 | 63.8 | 5.1 | 9.9 | 0.3 |
| $30-34$ | $1.9 \%$ | 9.3 | 9.4 | 61.9 | 6.5 | 10.5 | 0.5 |
| $35-39$ | $2.9 \%$ | 9.4 | 8.2 | 56.4 | 7.5 | 15.2 | 0.5 |
| $40-44$ | $1.6 \%$ | 8.1 | 6.6 | 50.8 | 9.4 | 23.0 | 0.7 |

Source: Abma, et al., 1997

Table 16
Trends in Arrests for Prostitution and Commercialized Vice
(Arrests per 100,000 population)

1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
32.5
34.0
27.9
29.2
39.8
28.0
33.4
40.4
43.4
40.6
41.2
48.1
59.3
59.4
49.1
49.8
48.8
49.9
41.7
44.3
47.1
42.9
40.9
41.5
41.8
41.3
42.7

Source: FBI, 1996

Table 17
Paid Sexual Partners
(Men)
A. Trends

|  | \% Ever Paid for Sex | \% Paid for Sex in Last Year |
| :---: | :---: | :---: |
| 1988 | --- | 0.5 |
| 1989 | -- | 0.3 |
| 1990 | --- | 0.4 |
| 1991 | 17.8 | 1.2 |
| 1993 | 17.0 | 0.5 |
| 1994 | 16.3 | 0.5 |
| 1996 | 16.9 | 0.5 |
| 1998 | 14.2 | 0.7 |
| Prob. | NS | NS |
| B. Socio-demographic Differences in Use of Prostitutes |  |  |
| Race |  |  |
| Whites | 15.5 | 0.4 |
| Blacks | 22.7 | 1.9 |
| Prob. | . 000 | . 000 |

## Age

| $18-29$ | 7.5 | 0.7 |
| :--- | ---: | ---: |
| $30-39$ | 14.4 | 0.6 |
| $40-49$ | 19.9 | 0.6 |
| $50-59$ | 22.7 | 0.4 |
| $60-69$ | 24.3 | 0.5 |
| $70+$ | 17.6 | 0.0 |
| Prob. | .000 | .391 |

## Marital Status

Married 13.30 .3
Widowed
Divorced
Separated
Never Married
Remarried
21.6
0.3
25.1
1.3
$26.3 \quad 3.2$
12.7 1.1
$23.4 \quad 0.1$
Prob. . 000 . 000

Table 17 (continued)
\% Ever Paid for Sex
\% Paid for Sex in Last Year

| Community Type |  |  |
| :---: | :---: | :---: |
| Top 12 Central |  |  |
| Cities | 20.0 | 2.0 |
| Top 100 Central |  |  |
| Cities | 18.4 | 0.7 |
| Suburbs of Top 12 | 18.9 | 0.8 |
| Suburbs of Top 100 | 19.5 | 0.5 |
| Other Urban | 13.7 | 0.3 |
| Rural | 12.6 | 0.3 |
| Prob. | . 000 | . 003 |
| Education |  |  |
| Less than High |  |  |
| School | 13.1 | 1.1 |
| High School Grad. | 17.1 | 0.3 |
| Assoc. Col. Degree | 19.4 | 1.5 |
| Bachelor's Degree | 15.8 | 0.8 |
| Graduate Degree | 15.1 | 0.1 |
| Prob. | . 064 | . 003 |
| Household Income |  |  |
| Less than \$10,000 | 13.5 | 2.2 |
| \$10,000-19,999 | 19.9 | 1.2 |
| \$20,000-29,999 | 15.4 | 0.5 |
| \$30,000-39,999 | 17.0 | 0.3 |
| \$40,000-59,999 | 18.5 | 0.4 |
| \$60,000+ | 14.1 | 0.1 |
| Refused | 17.1 | 0.8 |
| Prob. | . 019 | . 000 |
| Church Attendance |  |  |
| Rarely | 18.8 | 0.7 |
| Occasionally | 15.8 | 0.7 |
| Regularly | 11.8 | 0.2 |
| Prob. | . 000 | . 133 |
| Veteran Status |  |  |
| Served in Military | 37.1 | 0.8 |
| Did not Serve | 12.4 | 0.5 |
| Prob. | . 000 | . 467 |

```
Table 17 (continued)
```

\% Ever Paid for Sex
\% Paid for Sex in Last Year

| Marital Satisfaction <br> (currently married) |  |  |
| :--- | :---: | :--- |
| Very happy | 14.3 | 0.0 |
| Pretty happy | 18.7 | 0.3 |
| Not to happy | 16.1 | 4.8 |
| Prob. | .011 | .000 |

Source: GSS, 1998

Table 18
Trends in Condom Use
A. Most Recent Sexual Intercourse
\% Using Condom at Most Recent Intercourse, Sexually Active Males 17-19 in Metropolitan Areas
19791988

| All | 21.1 | 57.5 |
| :--- | :--- | :--- |
| Non-Blacks | 20.5 | 56.5 |
| Blacks | 23.2 | 62.0 |

Source: Sonenstein, Pleck, and Ku, 1989; Sonenstein, Ku, and Pleck, 1997
\% Using Condom at Most Recent Intercourse, Sexually Active Males, 17.5-19

1988
53.0

1991
55.9

Source: Ku, Sonenstein, and Pleck, 1993
\% Using Condom at Most Recent Intercourse among Sexually Active High School Students
$19901991 \quad 19931995$
$\begin{array}{llllll}\text { All } & 45 & 46.2 & 52.8 & 54.4 & 56.8\end{array}$
$\begin{array}{llllll}\text { Men } & 49 & 54.5 & 59.2 & 60.5 & 62.5\end{array}$
$\begin{array}{llllll}\text { Women } & 40 & 38.0 & 46.0 & 48.6 & 50.8\end{array}$
Source: Moore, et al., 1992 and Divs. of Epidemiology and Prevention; Adolescent and School Health; Reproductive Health, 1992; Div. of Adolescent and School Health, 1995 \& 1998.
\% Using Condoms among Never-Married, Sexually Experienced Males, 15-19, at Last Sexual Intercourse

1988 1995
56.9
67.0

Source: Sonenstein, Ku, Lindberg, Turner, and Pleck, 1998

Table 18 (continued)
\% Using Condom During Last Sexual Intercourse, Adults 18+
19961998
20.418 .7

Prob. .146

Source: GSS, 1998
Use of Condom with Most Recent Sexual Partner among Males 15-19 in 1988, Reinterviewed in 1990/91

\% Used Condom<br>First Time<br>\% Used Condom<br>Most Recent Time

17-18
19-20
21-22
59.1
55.6
45.8
54.7
42.4
34.9

Source: Ku, Sonenstein, and Pleck, 1994; Sonenstein, Ku, and Pleck, 1997
\% Using Condom During Most Recent Intercourse among Sexual Active Teens, 12-17

1990
All
57
Males
67
Females
47
Source: Leigh, Morrison, Trocki, and Temple, 1994
\% Using Condom During Most Recent Sexual Intercourse, Ages 14-21
14-17 14-19 14-21 18-21
1992
58.6
58.3
43.5
38.9

Sources: Divs. of Adolescent and School Health and Health Interview Statistics, 1994a and 1994b

Table 18 (continued)


Note: These exclude some uses of condoms along with other contraceptives. Total condom could have been as high as 47.1\% for women and 59.4\% for men.
\% Using Condom during Last Sexual Intercourse: College Students, 18-24

1995
37.7

Source: Douglas, Collins, et al., 1997
\% Using Condom during Last Sexual Intercourse with Female: Males, 15-19

1995 64.4-64.0
Note: First number is from self-completion using paper. Second number is from audio-computer assisted, self-completion. Source: Turner, et al., 1998

Table 18 (continued)
B. First Sexual Intercourse
\% Using Condom at First Premarital Intercourse, Women 15-44 in 1988 Date of First Sexual Intercourse 1965-69 1970-74 $1975-79$ 1980-82 $\quad 1983-88$

| All | 24.0 | 21.0 | 22.0 | 26.7 | 41.8 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Non-Hispanic <br> Whites | 24.6 | 22.8 | 23.7 | 27.7 | 45.4 |
| Non-Hispanic <br> Blacks | 24.7 | 17.0 | 24.3 | 29.2 | 32.4 |

Source: Mosher and McNally, 1991
\% using Condom at First, Premarital Voluntary Intercourse, Women 15-44 in 1995

Date of First Sexual Intercourse
All Pre-1980 1980-84 1985-89 1990-95
$\begin{array}{lllll}29.2 & 18.3 & 25.1 & 36.4 & 54.3\end{array}$
\% Using Condom at First Sex, Females, 15-44
197518
$1988 \quad 36$
$1995 \quad 54$
Source: Moore, Driscoll, and Lindberg, 1998
\% Using Condom at First Intercourse, High School Students
1994
63-65\%
Source: "Teens Talk," 1994
\% Using Condom at First Voluntary Sex, Females, 15-19
1995
66\%
Source: Moore, Driscoll, and Lindberg, 1998

Table 18 (continued)
C. Misc. Recent Usage
\% of Time Condom Used Among Those Sexually Active in Last 12
Months, Males $17.5-19$
$1988 \quad 1991$
$\begin{array}{lll}\text { All } 51.0 & 54.7\end{array}$
Source: Ku, Sonenstein, and Pleck, 1993
Condom Use Among Heterosexuals with Multiple Partners, 18-49

| \% Always Using Condoms |  |
| :---: | :---: |
| Main | Secondary |
| Partner | Partner |


| Wave 1 | $(1990-91)$ | 21 | 24 |
| :--- | :--- | :--- | :--- |
| Wave 2 | $(1991-92)$ | 22 | 33 |

Source: Catania, Coates, Peterson, et al., 1993
\% Using Condoms for Every Sexual Intercourse during Last 12 Months among Never-Married, Sexually Experienced Males, 15-19

```
1988 33.1
```

$1995 \quad 45.0$

Source: Sonenstein, Ku, Lindberg, Turner, and Pleck, 1998
Source: Santelli, et al., 1997
\% Using Condom as Main Current Method of Contraception: Women, 1544
All 15-29
20-24
25-29
30-34
35-39
40-44

1982
1988
$12 \quad 21 \quad 11$
11
12
12
11
1995
$2037 \quad 26$
24
12
12
11

Source: Piccinino and Mosher, 1998

Table 18 (continued)

|  | Never | Some | Always |
| :---: | :---: | :---: | :---: |
| All | 78.1 | 12.3 | 9.6 |
| Married | 87.5 | 6.1 | 6.4 |
| Unmarried | 59.5 | 24.6 | 15.8 |
| Source: Mosher and Pratt, 1993 |  |  |  |
| \% Using Condom during Last 4 Weeks: Males |  |  |  |
| 1991 |  |  |  |
| 17.5-19 |  | 52 |  |
| 20-24 |  | 39 |  |
| 25-29 |  | 33 |  |
| 30-34 |  | 21 |  |
| 35-39 |  | 17 |  |
| Note: For those under 25, based on only those sexually active in |  |  |  |
| last four weeks. <br> Source: Sonenstein, Ku, and Pleck, 1997 |  |  |  |
|  |  |  |  |
| \%Using Condoms Alone or With other Methods: Women, 15-44 |  |  |  |
| 1995 |  |  |  |
| All |  | 23.4 |  |
| 15-19 |  | 46.1 |  |
| 20-24 |  | 33.7 |  |
| 25-29 |  | 27.6 |  |
| 30-34 |  | 20.5 |  |
| 35-39 |  | 17.7 |  |
| 40-44 |  | 12.8 |  |

Source: Piccinino and Mosher, 1998

Table 19

> Condom Use During Most Recent Sexual Intercourse by Socio-demographic Groups
> \% Using Condom

## All <br> 19.6

Gender
Men
21.2

Women
18.2

Prob.
.009

## Race

Whites 17.7
Blacks
32.8

Prob.
.000

## Age

18-29
30-39
40-49
50-59
60-69
70+
35.3
22.1
15.0
10.8
10.3
6.3

Prob.
.000

| Marital Status |  |
| :--- | ---: |
| Married | 12.0 |
| Widowed | 12.1 |
| Divorced | 22.5 |
| Separated | 24.4 |
| Never Married | 43.9 |
| Remarried | 6.3 |
| Prob. | .000 |

```
    Table 19 (continued)
% Using Condom
```

| Community Type |  |
| :---: | :---: |
| Top 12 Central |  |
| Cities | 33.5 |
| Top 100 Central |  |
| Cities | 24.7 |
| Suburbs of Top 12 | 19.2 |
| Suburbs of Top 100 | 19.7 |
| Other Urban | 16.3 |
| Rural | 15.1 |
| Prob. | . 000 |
| Education |  |
| Less than High School | 16.5 |
| High School Grad. | 20.1 |
| Assoc. Col. Degree | 20.9 |
| Bachelor's Degree | 21.8 |
| Graduate Degree | 14.6 |
| Prob. | . 011 |
| Household Income |  |
| Less than \$10,000 | 31.3 |
| \$10,000-19,999 | 22.4 |
| \$20,000-29,999 | 20.2 |
| \$30,000-39,999 | 19.1 |
| \$40,000-59,999 | 16.7 |
| \$60,000+ | 14.9 |
| Refused | 20.2 |
| Prob. | . 000 |
| Church Attendance |  |
| Rarely | 21.9 |
| Occasionally | 20.4 |
| Regularly | 14.1 |
| Prob. | . 000 | .000

Source: GSS, 1998

## References

Abma, J.C.; Chandra, A.; Mosher, W., Peterson, L.; and Piccinino, L., "Fertility, Family Planning, and Women's Health: New Data from the 1995 National Survey of Family Growth," National Center for Health Statistics Vital Health Statistics, 23 (1997) .
"AIDS Falls from the Top Ten Causes of Death, " HHS News, October 7, 1998.

Albert, Alexa E.; Warner, David Lee; and Hatcher, Robert A., "Facilitating Condom Use with Clients during Commercial Sex in Nevada's Legal Brothels," American Journal of Public Health, 88 (April, 1998), 643-646.

Aguilar, Shella and Hardy, Ann M., "Aids Knowledge and Attitudes for 1991: Data from the National Health Survey, " Advance Data, No. 225 (January 6, 1993), 1-20.

AIDS Investigators, "AIDS and Sexual Behavior in France," Nature, 360 (December 3, 1992), 407-409.

Anderson, John E. and Dahlberg, L. L., "High-Risk Sexual Behavior in the General Population: Results from a National Survey, 1988-1990," Sexually Transmitted Diseases, 19 (1992), 320-325.

Anderson, John E.; Kann, Laura; Holtzman, Deborah; Arday, Susan; Truman, Ben; and Kolbe, Llyod, "HIV/AIDS Knowledge and Sexual Behavior among High School Students," Family Planning Perspectives, 22 (November/December, 1990), 252-255.

Aral, Sevgi O., "Sexual Behavior in Sexually Transmitted Disease Research," Sexually Transmitted Diseases, 21 (March/April, 1994), S59-S64.

Auster, Carol J., "It All Depends Who Asks Them: An Examination of the Effect of Interviewers' Gender on Respondents' Attitudes Towards Sexual Conduct," unpublished paper, Franklin and Marshall College, n.d.

Axinn, William G. and Thornton, Arland, "The Relationship Between Cohabitation and Divorce: Selectivity or Causal Influence?" Demography, 29 (August, 1992), 357-374.

Bachrach, Christine A., "Assessing New Survey Findings," Paper presented to the American Enterprise Institute Panel on Teenage Sexual Activity and Contraceptive Use: An Update," Washington, DC, May, 1998.

Bachrach, Christine A.; Evans, V. Jeffery; Ellison, Sylvia Ann;
and Stolley, Kathy S., "What Price Do We Pay for Single Sex Fertility Surveys?" Paper presented to the Population Association of America, Denver, May, 1992.

Bachrach, Christine A. and Horn, Marjorie, "Married and Unmarried Couples: United States, 1982," Vital and Health Statistics, Series 23, No. 15. July, 1987.

Bachrach, Christine A.; Stolley, Kathy Shepard; and London, Katherine A., "Relinquishment of Premarital Births: Evidence from National Survey Data," Family Planning Perspectives, 24 (January/February, 1992), 27-32,48.

Bachu, Amara, Fertility of American Women: June 1990. Current Population Reports, Series P-20, No. 454. Washington, DC: GPO, 1991.

Bachu, Amara, Fertility of American Women: June 1994. Current Population Reports, Series P-20, No. 482. Washington, DC: GPO, 1995.

Beckman, Linda J.; Harvey, S. Marie; and Tiersky, Lana A., "Attitudes about Condoms and Condom Use among College Students," Journal of American College Health, 44 (May, 1996), 243-249.

Besharov, Douglas and Gardiner, Karen N., "Teen Sex," The American Enterprise, 4 (January/February, 1993), 53-59 and (March/April, 1993), 52-59.

Besharov, Douglas and Gardiner, Karen N., "Trends in Teen Sexual Behavior, Children and Youth Services Review, 19 (1997), 341368.

Bevier, Panela Jean; Chiasson, Mary Ann; and Hefferman, Richard T., "Bevier and Colleagues Respond," American Journal of Public Health, 86 (December, 1996), 1822-1823.

Biggar, Robert J. and Melbye, Mads, "Responses to Anonymous Questionnaires Concerning Sexual Behavior: A Method to Examine Potential Biases," American Journal of Public Health, 82 (November, 1992), 1506-1512.

Billy, John O.G.; Tanfer, Koray; Grady, William R.; and Klepinger, Daniel H., "The Authors Reply," Family Planning Perspectives, 25 (July/August, 1993), 185-186.

Billy, John O.G.; Tanfer, Koray; Grady, William R.; and Klepinger, Daniel H., "The Sexual Behavior of Men in the United States," Family Planning Perspectives, 25 (March/April, 1993), 52-60.

Binson, Diane; Dolcini, M. Margaret; Pollack, Lance M.; and Catania, Joseph A., "Multiple Sexual Partners Among Young Adults in High-Risk Cities," Family Planning Perspectives, 25 (November/December, 1993), 268-272.

Binson, Diane; Michaels, Stuart; Stall, Ron; Coates, Thomas J.; Gagnon, John H.; and Catania, Joseph A., "Prevalence and Social Distribution of Men Who Have Sex with Men: United States and Its Urban Centers," Journal of Sex Research, 32 (1995), 245-254.

Binson, Diane and Catania, Joseph A., "Respondent's Understanding of the Words Used in Sexual Behavior Questions," Public Opinion Quarterly, 62 (Summer, 1998), 190-208.

Boekeloo, Bradley O.; Schiavo, Laura; Rabib, David L.; Conlon, Richard T.; Jordon, Carol S.; and Mundt, Diane J.," SelfReports of HIV Risk Factors by Patients at a Sexually Transmitted Disease Clinic: Audio vs. Written Questionnaires," American Journal of Public Health, 84 (May, 1994), 754-760.

Bowser, Benjamin P., "African American Male Sexuality through the Early Life Course," paper presented to the MacArthur Foundation Research Network on Successful Mid-Life Development, New York, May, 1992.

Brewster, Karin L., "Race Differences in Sexual Activity Among Adolescent Women: The Role of Neighborhood Characteristics," American Sociological Review, 59 (June, 1994), 408-424.

Brewster, Karin L.; Cooksey, Elizabeth C.; Guilkey, David K.; and Rindfuss, Ronald R., "The Changing Impact of Religion on Sexual and Contraceptive Behavior of Adolescent Women in the United States," Journal of Marriage and the Family, 60 (May, 1998) , 493-504.

Brody, Stuart, "Patients Misrepresenting Their Risk Factors for AIDS," International Journal of STD AIDS, 6 (Nov./Dec., 1995), 392-398.

Brothers, Joyce, "Why Wives Have Affairs," Parade, February 18, 1990, pp. 4-6.

Brown, Susan L. and Booth, Alan, "Cohabitation Versus Marriage: A Comparison of Relationship Quality," Journal of Marriage and the Family, 58 (August, 1996), 668-678.

Brown, Norman R. and Sinclair, Robert C., "Estimating Number of Lifetime Sexual Partners: Men and Women Do It Differently," Paper presented to the American Association for Public Opinion Research, May, 1996, Salt Lake City.

Brunswick, Ann F.; Aidala, Angela; Dobkin, Jay; Howard, Joyce; Titus, Stephen P. and Banaszak-Holl, Jane, "HIV-1 Seroprevalence and Risk Behaviors in an Urban African-American Community Cohort," American Journal of Public Health, 83 (October, 1993), 1390-1394.

Bumpass, Larry L. and Sweet, James, "National Estimates of Cohabitation," Demography, 26 (November, 1989), 615-626.

Call, Vaughn; Sprecher, Susan; and Schwartz, Pepper, "The Incidence and Frequency of Marital Sex in a National Sample, " Journal of Marriage and the Family, 57 (1996), 609-634.

Carballo-Dieguez, Alex and Dolezal, Curtis, "HIV Risk Behaviors and Obstacles to Condom Use among Puerto Rican Men in New York City WHo Have Sex with Men," American Journal of Public Health, 86 (November, 1996), 1619-1622.

Catania, Joseph A.; Binson, Diane; Canchola, Jesse; Pollack, Lance M.; Hauck, Walter; and Coates, Thomas J., "Effects of Interviewer Gender, Interviewer Choice, and Item Context on Responses to Questions Concerning Sexual Behavior," Public Opinion Quarterly, 60 (Fall, 1996), 345-375.

Catania, Joseph A.; Binson, Diane; Dolcini, Margaret; Stall, Ron; Choi, Kyung-Hee; Pollack, Lance M.; Hudes, Esther S.; Canchola, Jesse; Phillips, Kathryn; Moskowitz, Judith Tedlie; and Coates, Thomas J., "Risk Factors for HIV and Other Sexually Transmitted Diseases and Prevention Practices among US Heterosexual Adults: Changes from 1990 to 1992," American Journal of Public Health, 85 (November, 1995), 1492-1499.

Catania, Joseph A.; Canchola, Jesse; and Pollack, Lance, "Response to "They Said It Couldn't Be Done": The National Health and Social Life Survey," Public Opinion Quarterly, 60 (Winter, 1996), 620-627.

Catania, Joseph A.; Coates, Thomas J.; Golden, Eve; Dolcini, M. Margaret; Peterson, John; Kegeles, Susan; Siegel, David; and Fullilove, Mindy Thompson, "Correlates of Condom Use Among Black, Hispanic, and White Heterosexuals in San Francisco: The AMEN Longitudinal Survey," AIDS Education and Prevention, 6 (1994), 12-26.

Catania, Joseph A.; Coates, Thomas J.; Peterson, John; Dolcini, M. Margaret; Kegeles, Susan; Siegel, David; Golden, Eve; and Fullilove, Mindy Thompson, "Changes in Condom Use Among Black, Hispanic, and White Heterosexuals in San Francisco: The AMEN Cohort Survey," Journal of Sex Research, 30 (May, 1993), 121128.

Catania, Joseph A.; Gibson, D.; Chitwood, D.; and Coates, Thomas J., "Methodological Problems in AIDS Behavioral Research: Influences on Measurement Error and Participation Bias in Studies of Sexual Behavior," Psychological Bulletin, 108 (1990), 339-362.

Catania, Joseph A.; McDermott, Lois J.; and Pollack, Lance M., "Questionnaire Response Bias and Face-to-Face Interview Sample Bias in Sexuality Research," Journal of Sex Research, 22 (February, 1986), 52-

Catania, Joseph A.; Stone, Valerie; Binson, Diane; and Dolcini, M. Margaret, "Changes in Condom Use among Heterosexuals in Wave 3 of the AMEN Survey," Journal of Sex Research, (1995), 193-200.

Catania, Joseph A.; Turner, Heather; Pierce, Robert C.; Golden, Eve; Stocking, Carol; Binson, Diane; and Mast, Karen, "Response Bias in Surveys of AIDS-Related Sexual Behavior," in Methodological Issues in AIDS Behavioral Research, edited by David G. Ostrow and Ronald C. Kessler. New York: Plenum Press, 1993.

Catania, Joseph A., et al., "Prevalence of AIDS-Related Risk Factors and Condom Use in United States," Science, 258 (November 13, 1992), 1101-1106.

Centers for Disease Control and Prevention, Trends in the HIV and AIDS Epidemic, 1998. Atlanta: CDC, 1998.

Choi, Kyung-Hee; Catania, Joseph A.; and Dolcini, N. Margaret, Extramarital Sex and HIV Risk Behavior among US Adults: Results from the National AIDS Behavioral Survey," American Journal of Public Health, 84 (December, 1994), 2003-2007.

Clarkberg, Marin; Stolzenberg, Ross M.; and Waite, Linda J., "Attitudes, Values, and Entrance into Cohabitational versus Marital Unions," Social Forces, 74 (December, 1995), 609-634.

Cusick, L., "Non-Use of Condoms by Prostitute Women," AIDS Care, 10 (April, 1998), 133-146.

Davis, James A. and Smith, Tom W., General Social Surveys, 19721998: Cumulative Codebook. Chicago: NORC, 1998.

DeBuono, Barbara A,; Zinner, Stephen H.; Daamen, Maxim; and McCormack, William M., "Sexual Behavior of College Women in 1975, 1986, and 1989," New England Journal of Medicine, 322 (March 22, 1990), 821-825

DeMaris, Alfred and MacDonald, William, "Premarital Cohabitation
and Marital Instability: A Test of the Unconventionality Hypothesis," Journal of Marriage and the Family, 55 (May, 1993), 399-407.

DeMaris, Alfred and Rao, K. Vaninadha, "Premarital Cohabitation and Subsequent Marital Stability in the United States: A Reassessment," Journal of Marriage and the Family, 54 (February, 1992), 178-190.

Diamond, Milton, "Homosexuality and Bisexuality in Different Populations," Archives of Sexual Behavior, 22 (1993), 291-310.
di Mauro, Diane, Sexual Research in the United States: An Assessment of the Social and Behavioral Sciences. New York: Social Science Research Council, 1995.

Division of Adolescent and School Health, "HIV Instruction and Selected HIV-Risk Behavior among High School Students - United States, 1989-1991," MMWR, 41 (November 20, 1992), 866-868.

Division of Adolescent and School Health, "Trends in Sexual Risk Behavior Among High School Students--United States, 1990, 1991, and 1993," MMWR, 44 (Feb. 24, 1995), 124, 125, 131, 132.

Division of Adolescent and School Health and Division of Health Interview Statistics, "Health-Risk Behaviors Among Adolescents Who Do and Do Not Attend School - United States, 1992," MMWR, 43 (March 4, 1994a), 129-132.

Division of Adolescent and School Health and Division of Health Interview Statistics, "Health-Risk Behaviors Among Persons Aged 12-21 Years - United States, 1992," MMWR, 43 (April 8, 1994b), 231-235.

Division of Adolescent and School Health and Division of Reproductive Health, et al., "Trends in Sexual Risk Behaviors Among High School Students - United States, 1991-1997," MMWR, 47 (Sept. 18, 1998), 749-752.

Division of Epidemiology and Prevention Research, Division of Adolescent and School Health, and Division of Reproductive Health, "Selected Behaviors that Increase Risk for HIV Infection among High School Students - United States, 1990," MMWR, 41 (April 10, 1992), 231, 237-240.

Division of HIV/AIDS Prevention, "First 500,000 AIDS Cases United States," MMWR, 44 (Nov. 24, 1995), 850-853.

Division of Reproductive Health and Division of Adolescent and School Health, "Sexual Behavior among High School Students United States, 1990," MMWR, 40 (January 3, 1992), 885-888.

Division of Vital Statistics and Division of STD/HIV Prevention, "Premarital Sexual Experience among Adolescent Women - United States, 1970-1988," MMWR, 39 (January 4, 1991), 929-932.

Dolcini, M. Margaret, Catania, Joseph A.; Coates, Thomas J.; Stall, Ron; Hudes, Ester S.; Gagnon, John H.; and Pollack, Lance M., "Demographic Characteristics of Heterosexuals with Multiple Partners: The National AIDS Behavior Surveys," Family Planning Perspectives, 25 (September/October, 1993), 208-214.

Doll, Lynda S. and Beeker, Carolyn, "Male Bisexual Behavior and HIV Risk in the United States: Synthesis of Research with Implications for Behavioral Interventions," AIDS Education and Prevention, 8 (June, 1996), 205-225.

Donnelly, Denis A., "Sexually Inactive Marriage," Journal of Sex Research, 30 (May, 1993), 171-179.

Douglas, J.M., et al., "Contraceptive Practices Before and After an Intervention Promoting Condom Use to Prevent HIV and Other Sexually Transmitted Diseases Among Women - Selected US Sites, 1993-95," MMWR, 46 (May 2, 1997), 373-378.

Douglas, K.A.; Collins, J.L.; Warren, C.; Kann, L.; Gold, R.; Clayton, S.; Ross, J.G.; and Kolbe, L.J., "Results from the 1995 National College Health Risk Behavior Survey," Journal of American College Health, 46 (Sept., 1997), 55-66.

Downey, Lois; Ryan, Rosemary; Roffman, Roger; and Kilich, Michal, "How Could I Forget? Inaccurate Memories of Sexually Intimate Moments," Journal of Sex Research, 32 (1995), 177-191.

Dunne, M.P.; Martin, N.G.; Bailyet, J.M.; Heath, A.C.; Bucholz, K.K.; Madden, P.A.; and Statham, D.J., "Participation Bias in a Sexuality Survey: Psychological and Behavioural Characteristics of Responders and Non-responders," International Journal of Epidemiology, 26 (August, 1997), 844854 .

Edelman, Murray, "Methodological Issues in Surveying Lesbians and Gay Men," Paper presented to the Conference on Hearing the Unheard," Lincoln, Nebraska, April, 1998.

Edelman, Murray, "Understanding the Gay and Lesbian Vote in '92," The Public Perspective, 4 (March/April, 1993), 32-33.

Edwards, John N. and Booth, Alan, "The Cessation of Marital Intercourse," American Journal of Psychiatry, 133 (November, 1976), 1333-1336.

Ehrhardt, Anke A., "Trends in Sexual Behavior and the HIV

Pandemic," American Journal of Public Health, 82 (November, 1992), 1459-1461.

Ehrhardt, Anke A. and Wasserheit, Judith N., "Age, Gender, and Sexual Risk Behaviors for Sexually Transmitted Diseases in the United States," in Research Issues in Human Behavior and Sexually Transmitted Diseases in the AIDS Era, edited by Judith N. Wasserheit, et al. Washington, DC: American Society for Microbiology, 1991.

Ehrhardt, Anke A.; Yingling, Sandra; and Warne, Patricia A., "Sexual Behavior in the Era of Aids: What Has Changed in the United States?" Annual Review of Sex Research, 2 (1991), 2547.

Ekstrand, Maria L.; Coates, Thomas J.; Guydish, Joseph R.; Hauck, Walter W.; Collette, Linda; and Hulley Stephen B., "Are Bisexually Identified Men in San Francisco a Common Vector for Spread HIV Infection to Women?" American Journal of Public Health, 84 (June, 1994), 915-919.

Ellen, Jonathan M.; Aral, Sevgi O.; and Madger, Laurence S., "Do Differences in Sexual Behaviors Account for the Racial/Ethnic Differences in Adolescents' Self-Reported History of a Sexually Transmitted Disease?" Sexually Transmitted Diseases, 25 (March, 1998), 125-129.

Ellish, Nancy J.; Weisman, Carol S.; Celentano, David; and Zenilman, Jonathan M., "Reliability of Partner Reports of Sexual History in a Heterosexual Population at a Sexually Transmitted Diseases Clinic," Sexually Transmitted Diseases, 23 (Nov./Dec., 1996), 446-452.

FBI, Uniform Crime Reports, 1971-1996. Washington, D.C.: GPO, 1996.
Faulkner, Anne H. and Cranston, Kevin, "Correlates of Same-Sex Sexual Behavior in a Random Sample of Massachusetts High School Students," American Journal of Public Health, 88 (February, 1998), 262-266.

Feinleib, J.A. and Michael, Robert T., "Reported Changes in Sexual Behavior in Response to AIDS in the United States," Preventative Medicine, 27 (May-June, 1998), 400-411.

Feldman, Henry A.; Goldstein, Irwin; McKinlay, John B.; Hatzichristou, Dmitiros G.; and Krane, Robert J., "Impotence and its Medical and Psychosocial Correlates in Men Aged 40-70: Results of the Massachusetts Male Aging Study," Report of the New England Research Institute, February, 1992.

Firebaugh, Glenn, "Components of Change in Gender Role Attitudes,

1972-1988," Paper presented to the Population Association of America, Toronto, May, 1990.

Ford, Kathleen and Norris, Anne E., "Factors Related to Condom Use with Casual Partners among Urban African-American and Hispanic Males," AIDS Education and Prevention, 7 (December, 1995), 494-503.

Forrest, Jacqueline Darroch and Singh, Susheela, "The Sexual and Reproductive Behavior of American Women, 1982-1988," Family Planning Perspectives, 22 (September/October, 1990), 206-214.

Forste, R. and Tanfer, K., "Sexual Exclusivity among Dating, Cohabiting, and Married Women," Journal of Marriage and the Family, 58 (1996), 594-600.

Freund, Matthew; Lee, Nancy; and Leonard, Terri, "Sexual Behavior of Clients with Street Prostitutes in Candem, NJ," Journalof Sex Research, 28 (1991), 579-591.

Giami, Alain, "Partial Non-Response and 'Don't Know' Responses in Surveys of Sexual Behavior," Social Science Information, 35 (March, 1996), 93-109.

Gibbs, Deborah A.; Hamil, David N.; and Magruder-Habib, Kathryn, "Populations at Increased Risk of HIV Infection: Current Knowledge and Limitations," Journal of Acquired Immune Deficiency Syndromes, 1 (1991), 881-889.

Glenn, Norval, "Social Trends in the United States: Evidence from Sample Surveys," Public Opinion Quarterly, 51 (Winter, 1987), S109-S126.

Glick, Paul C. and Spanier, Graham B., "Married and Unmarried Cohabitation in the United States," Journal of Marriage and the Family, 42 (February, 1980), 19-30.

Goldbaum, Gary M.; Yu, Tiaji; and Wood, Robert W., "Changes at a Human Immunodeficiency Testing Clinic in the Prevalence of Unsafe Sexual Behavior Among Men Who Have Sex with Men," Sexually Transmitted Diseases, 23 (March-April, 1996), 109114.

Goldscheider, Calvin and Mosher William D., "Patterns of Contraceptive Use in the United States: The Importance of Religious Factors," Studies in Family Planning, 22 (March/ April, 1991), 102-115.

Gonsiorek, John C. and Weinrich, James D., "The Definition and Scope of Sexual Orientation," in Homosexuality: Research Implications for Public Policy, edited by John C. Gonsiorek
and James D. Weinrich. Newbury Park, CA: Sage, 1991.
Grady, William R.; Klepinger, Daniel H.; Billy, John O. G.; and Tanfer, Koray, "Condom Characteristics: The Perceptions and Preferences of Men in the United States," Family Planning Perspectives, 25 (March/April, 1993), 67-73.

Greeley, Andrew M., Faithful Attraction: Discovering Intimacy, Love, and Fidelity in American Marriage. New York: Tor, 1991.

Greeley, Andrew, "Marital Infidelity," Society, 31 (May/June, 1994), 9-13.

Greeley, Andrew M.; Michael, Robert T.; and Smith, Tom W., "A Most Monogamous People: Americans and their Sexual Partners," Society, 27 (July/August, 1990), 36-42.

Greenblat, Cathy Stein, "The Salience of Sexuality in the Early Years of Marriage," Journal of Marriage and the Family, 45 (May, 1983), 289-299.

Grinstead, Olda A.; Faigeles, Bonnie; Binson, Diane; and Eversley, Rani, "Sexual Risk for Human Immunodeficiency Virus Infection Among Women in High-Risk Cities, " Family Planning Perspective, 25 (November/December, 1993), 252-256.

GSS (General Social Survey), See Davis and Smith, 1998.
Guterbock, Thomas B., "Charlottesville/Albemarle County Survey, 1991," unpublished figures, March 10, 1993.

Harry, Joseph, "A Probability Sample of Gay Men," Journal of Homosexuality, 19 (1990), 89-104.

Hawton, Keith; Gath, Dennis; and Day, Ann, "Sexual Function in a Community Sample of Middle-Aged Women with Partners: Effects of Age, Marital, Socioeconomic, Psychiatric, Gynecological, and Menopausal Factors," Archives of Sexual Behavior, 23 (1994), 375-395.

Herlitz, Claes, "Sexual Behavior in the General Population of Sweden," Social Science Medicine, 36 (1993), 1535-1540.
"Heterosexually Acquired AIDS-United States, 1993," MMWR, 43 (March 11, 1994), 155-160.

Hewitt, Christopher and Peverley, J. Roger, "The Spread of HIV into the General Population of the USA: A Simulation," Population Research and Policy Review, 15 (August, 1996), 311325.

Hofferth, Sandra L.; Kahn, Joan R.; and Baldwin, Wendy, "Premarital Sexual Activity among U.S. Teenage Women over the Past Three Decades," Family Planning Perspectives, 19 (March/April, 1987), 46-53.

Hogan, Dennis P.; Sun, Rongjun; and Cornwell, Gretchen, "Cohort Difference, Family Structure, and Adolescent Sexual Activity," Paper presented to the American Sociological Association, San Francisco, August, 1998.

Holtzman, Deborah; Lowry, Richard; Kann, Laura; Collins, Janet L.; and Kolbe, Llyod J., "Changes in HIV-Related Information Sources, Knowledge, and Behaviors among US High School Students, 1989 and 1990," American Journal of Public Health, 84 (March, 1994), 388-393.

Hopkins, Kenneth Wu, "An Explanation for the Trends in American Teenagers' Premarital Coital Behavior and Attitudes between 1960 and 1990," Unpublished Ph.D. dissertation, University of Minnesota, 1998.

Hornsby, Paige P. and Wilcox, Allen J., "Validity of Questionnaire Information of Frequency of Coitus," American Journal of Epidemiology, 130 (July, 1989), 94-99.

Hubert, Michel; Bajos, Nathalie; and Sandfort, Theo, eds., Sexual Behaviour and HIV/AIDS in Europe. London: UCL Press, 1998.

Hughes, Michael and Gove, Walter R., "Sexual Behavior and Psychological Well-Being Over the Life Course," paper presented to the MacArthur Foundation Research Network on Successful Mid-Life Development, New York, May, 1992.

Huygens, Pierre; Kajura, Ellen; Seeley, Janet; and Barton, Tom, "Rethinking Methods for the Study of Sexual Behavior," Social Science and Medicine, 42 (Jan., 1996), 221-231.

James, William H., "Decline in Coital Rates with Spouses' Ages and Duration of Marriage," Journal of Biosocial Science, 15 (1983), 83-87.

James, William H., "The Honeymoon Effect on Marital Coitus," Journal of Sex Research, 17 (May, 1981), 114-123.

Jasso, Guillermina, "Is it Outlier Deletion or is it Sample Truncation? Notes of Science and Sexuality," American Sociological Review, 51 (October, 1986), 738-742.

Jasso, Guillermina, "Marital Coital Frequency and the Passage of Time: Estimating the Separation Effects of Spouses' Ages and Marital Duration, Birth, and Marriage Cohorts, and Period

Influences," American Sociological Review, 50 (April, 1985), 224-241.

Johnson, Anne M.; Wadsworth, Jane; Wellings, Kaye; Bradshaw, Sally; Field, Julia, "Sexual Lifestyles and HIV Risk," Nature, 360 (December 3, 1992), 410-412.

Johnson, Anne M.; Wadsworth, Jane; Wellings, Kaye; and Field, Julia, Sexual Attitudes and Lifestyles. Oxford: Blackwell Scientific, 1994.

Johnson, Weldon T. and Delamater, John D., "Response Effects in Sex Surveys," Public Opinion Quarterly, 40 (1976), 165-181.

Kahn, Joan R.; Kalsbeek, William D.; and Hofferth, Sandra L., "National Estimates of Teenage Sexual Activity: Evaluating the Comparability of Three National Surveys," Demography, 25 (May, 1988), 189-204.

Kahn, Joan R. and Udry, J. Richard, "Marital Coital Frequency: Unnoticed Outliers and Unspecified Interactions Lead to Erroneous Conclusions," American Sociological Review, 51 (October, 1986), 734-737.

Kann, Laura; Kinchen, Steven A.; Williams, Barbara I.; Ross, James G.; Lowry, Richard; Hill, Carl V.; Grunbaum, Jo Anne; Blumson, Pamela S.; Collins, Janet L.; and Kolbe, Lloyd J., "Youth Risk Behavior Surveillance--United States, 1997," MMWR, 47 (August 14, 1998), 1-89.

Kalichman, S.C., "Continued Sexual Risk Behavior Among HIVSeropositive, Drug-Using Men - Atlanta, Washington, DC, and San Juan, Puerto Rico," MMWR, 45 (Feb. 23, 1996), 151-152.

Kanouse, David E.; Berry, Sandra H.; Duan, Naihua; Lever, Janet; and Richards, Toni, "Overview of Sampling and Data Collection Methods and Field Outcomes for the Los Angeles Women's Health Risk Study," Unpublished Report, Rand, Santa Monica, May, 1991.

Karabatsos, G., "The Sexual Experiences Survey: Interpretation and Validity," Journal of Outcome Measures, 1 (1997), 305-328.

Kennamer, J. David and Bradford, Judith B., "Sampling Virginia Men Who Have Sex with Men," Paper presented to the American Association for Public Opinion Research, St. Louis, May, 1998.

Kilmarx, Peter H.; Zaidi, Akbar A.; Thomas, James C.; Nakashima, Allyn K.; St. Louis, Michael E.; Flock, Melinda L.; and Peterman, Thomas A., "Sociodemographic Factors and the Variation in Syphilis Rates among US Counties, 1984 through

1993: An Ecological Analysis," American Journal of Public Health, 87 (December, 1998), 1937-1943.

Klassen, Albert D.; Williams, Colin J.; and Levitt, Eugene E., Sex and Morality in the U.S.: An Empirical Enquiry under the Auspices of The Kinsey Institute. Middletown, CT: Wesleyan University Press, 1989.

Klassen, Albert D.; Williams, Colin J.; Levitt, Eugene E.; RudkinMiniot, Miller, Heather G.; and Gunjal, Sushama, "Trends in Premarital Sexual Behavior" in Turner, Charles F.; Miller, Heather G.; and Moses, Lincoln E., eds., AIDS: Sexual Behaviors and Intravenous Drug Use. Washington, DC: National Academy Press, 1989.

Kontula, Osmo and Haavio-Mannila, Elina, "Sexual Behavior Changes in Finland during the Last 20 Years," Nordisk Sexologi, 12 (1994), 196-214.

Kost, Kathryn and Forrest, Jacqueline Darroch, "American Women's Sexual Behavior and Exposure to Risk of Sexually Transmitted Diseases," Family Planning Perspectives, 24 (November/ December, 1992), 244-254.

Ku, Leighton; Sonenstein, Freya L.; and Pleck, Joseph H., "The Dynamics of Young Men's Condom Use During and Across Relationships," Family Planning Perspective, 26 (November/ December, 1994), 246-251.

Ku, Leighton; Sonenstein, Freya L.; and Pleck, Joseph H., "Young Men's Risk Behaviors for HIV Infection and Sexually Transmitted Diseases, 1988 through 1991," American Journal of Public Health, 83 (November, 1993), 1609-1615.

Lansky, Amy; Thomas, James C.; and Earp, Jo Anne, "Partner-Specific Sexual Behaviors Among Persons with Both Main and Other Partners," Family Planning Perspectives, 30 (March/April, 1998), 93-96.

Laumann, Edward O.; Gagnon, John H.; Michael, Robert T.; and Michaels, Stuart, The Social Organization of Sexuality: Sexual Practices in the United States. Chicago: University of Chicago Press, 1994.

Lauritsen, J.L. and Swicegood, C.G., "The Consistency of SelfReported Initiation of Sexual Activity," Family Planning Perspectives, 29 (Sept.-Oct., 1997), 215-221.

Leiblum, Sandra Risa, "Sexuality and the Midlife Woman," Psychology of Women Quarterly, 14 (December, 1990), 495-508.

Leigh, Barbara C.; Morrison, Diane M.; Trocki, Karen; and Temple, Mark T., "Sexual Behavior of American Adolescents: Results from a U.S. National Survey," Journal of Adolescent Health, 15 (1994), 117-125.

Leigh, Barbara C.; Temple, Mark T.; and Trocki, Karen F., "The Sexual Behavior of US Adults: Results from a National Survey," American Journal of Public Health, 83 (October, 1993), 14001408 .

Levin, L. I., et al., "HIV-1 Seroconversion and Risk Behaviors among Young Men in the US Army," American Journal of Public Health, 85 (November, 1995), 1500-1506.

Levy, Judith A., "Sex and Sexuality in Later Life Stages," paper presented to the MacArthur Foundation Research Network on Successful Mid-Life Development, New York, May, 1992.

Leyland, Alastair; Bernard, Marina; and McKeganey, Neil, "The Use of Capture-Recapture Methodology to Estimate and Describe Covert Populations: An Application to Female Street-Working Prostitution in Glasgow," Paper presented to the International Conference on Social Science Methodology, Trento, Italy, June, 1992.

Lillard, Lee A.; Brien, Michael J.; and Waite, Linda J., "Premarital Cohabitation and Subsequent Marital Dissolution: A Matter of Self-Selection?" Unpublished paper, n.d.

Loomis, Laura Spencer and Landale, Nancy S., "Nonmarital Cohabitation and Childbearing Among Black and White American Women," Journal of Marriage and the Family, 56 (November, 1994), 949-962.

London, Kathryn, "Cohabitation, Marriage, Marital Dissolution, and Remarriage: United States, 1988," Advance Data, No. 194, January 4, 1991.

London, Rebecca A., "Trends in Single Mothers' Living Arrangements from 1970 to 1995: Correcting the Current Population Survey," Demography, 35 (Feb., 1998), 125-131.

Luster, Tom and Small, Stephen A., "Factors Associated with Sexual Risk-Taking Behaviors among Adolescents," Journal of Marriage and the Family, 56 (August, 1994), 622-632.

Luster, Tom and Small, Stephen A., "Sexual Abuse History and Number of Sex Partners Among Female Adolescents," Family Planning Perspectives, 29 (Sept./Oct., 1997), 204-211.

Maass, Anne and Volpato, Chiara, "Gender Differences in Self-

Serving Attributions about Sexual Experiences," Journal of Applied Social Psychology, 19 (May, 1989), 517-542.

Marsiglio, William and Mott, Frank L., "The Impact of Sex Education on Sexual Activity, Contraceptive Use, and Premarital Pregnancy among American Teenagers," Family Planning Perspectives, 18 (July/August, 1986), 151-162.

Marin, Barbara Van Oss; Gomez, Cynthia A.; and Hearst, Norman, "Multiple Heterosexual Partners and Condom Use among Hispanics and Non-Hispanic Whites," Family Planning Perspectives, 25 (July/August, 1993), 170-174.

McKinlay, John B. and Feldman, Henry A., "Changes in Sexual Activity and Interest in the Normally Aging Male: Results from the Massachusetts Male Aging Study," Paper presented to the MacArthur Foundation Research Network on Successful Mid-Life Development, New York, May, 1992.

McNally, J. W. and Mosher William D., "AIDS-Related Knowledge and Behavior Among Women 15-44 Years of Age: United States, 1988," Advance Data, No, 200, May 14, 1991.

McQuillan, Geraldine M.; Ezzati-Rice, Trena M.; Siller, Arlene B.; Visscher, Wendy; and Hurley, Peter, "Risk Behavior and Correlates of Risk for HIV Infection in the Dallas County Household HIV Survey," American Journal of Public Health, 84 (May, 1984), 747-753.

Melbye, Mads and Biggar, Robert J., "Interactions Between Person at Risk for AIDS and the General Population in Denmark," American Journal of Epidemiology, 135 (March 15, 1992), 593-602.

Metzler, Carol W.; Noell, John; and Biglan, Anthony, "The Validation of a Construct of High-Risk Sexual Behavior in Heterosexual Adolescents," Journal of Adolescent Research, 7 (April, 1992), 233-249.

Michael, Robert T.; Laumann, Edward O.; and Gagnon, John H., "The Number of Sexual Partners in the U.S.," Unpublished paper, February, 1993.

Michael, Robert T.; Wadsworth, Jane; Feinleib, Joel; Johnson, Anne M.; Laumann, Edward O.; and Wellings, Kaye, "Private Sexual Behavior, Public Opinion, and Public Health Policy Related to Sexually Transmitted Diseases: A US-British Comparison," American Journal of Public Health, 88 (May, 1998), 749-754.

Michaels, Stuart K., "Queer Counts: The Sociological Construction of Homosexuality via Survey Research," Unpublished Ph.D.
dissertation, University of Chicago, 1998.
Miller, Brent C. and Heaton, Tim B., "Age at First Sexual Intercourse and the Timing of Marriage and Childbirth," Journal of Marriage and the Family, 53 (August, 1991), 719732 .

Miller, Heather G,; Turner, Charles T.; and Moses, Lincoln E., eds. AIDS: The Second Decade. Washington, DC: National Academy Press, 1990.

Miller, Peter V., "They Said It Couldn't Be Done: The National Health and Social Life Survey," Public Opinion Quarterly, 59 (Fall, 1995), 404-419.

Miller, Peter V., "Reply to Catania, Canchola, and Pollack," Public Opinion Quarterly, 60 (Winter, 1996), 628-633.

Moore, J., et al., "Selected Behaviors that Increase Risk for HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancy among High School Students - United States, 1991," MMWR, 41 (December 19, 1992), 945-950.

Moore, Kristin Anderson; Driscoll, Anne K.; and Lindberg, Laura Duberstein, A Statistical Portrait of Adolescent Sex, Contraception, and Childbearing. Washington, DC: Childtrends and the Urban Institute, 1998.

Morokoff, Patricia J., "Sexuality in Perimenopausal and Postmenopausal Women," Psychology of Women Quarterly, 12 (December, 1988), 489-511.

Moran, John S.; Janes, Harlan R.; Peterman, Thomas A.; and Stone, Katherine M., "Increase in Condom Sales following AIDS Education and Publicity, United States," American Journal of Public Health, 80 (May, 1990), 607-608.

Morris, M., "Telling Tails Explain the Discrepancy in Sexual Partner Reports," Nature, 365 (September 30, 1993), 437-440

Mosher, William D., "Contraceptive Practice in the United States, 1982-1988," Family Planning Perspectives, 22 (September/ October, 1990), 198-205.

Mosher, William D. and McNally, James W., "Contraceptive Use at First Premarital Intercourse: United States, 1965-1988," Family Planning Perspectives, 23 (May/June, 1991), 108-116.

Mosher, William D. and Pratt, William F., "AIDS-Related Behavior among Women 15-44 Years of Age: United States, 1988 and 1990," Advanced Data, No. 239, December 22, 1993, 1-16.

National Council on the Aging, "Healthy Sexuality and Vital Aging," September, 1998.

National Survey of Teens: Teens Talk about Dating, Intimacy, and their Sexual Experiences. Menlo Park, CA: Henry J. Kaiser Family Foundation, 1998.

Newcomber, Susan and Udry, J. Richard, "Will Sex Survey Respondents Tell the Truth about Previous Lies?" Unpublished paper, n.d.

Nguyet, Mguyen T. Minh; Maheux, Brigitte; Beland, Francios; and Pica, Lucille A., "Sexual Behavior and Condom Use: A Study of Suburban Male Adolescent," Adolescence, 29 (Spring, 1994), 3748.

Orr, Donald P.; Fortenberry, J. Dennis, and Blythe, Margaret J., "Validity of Self-Reported Sexual Behaviors in Adolescent Women Using Biomarker Outcomes," Sexually Transmitted Diseases, 24 (May, 1997), 261-266.

Osmond, Dennis H.; Page, Kimberly; Wiley, James; Garret, Karen; Sheppard, Haynes W.; Moss, Andrew R.; Schragger, Lewis; and Winkelstein, Warren, "HIV Infection in Homosexual and Bisexual Men 18 to 29 Years of Age: The San Francisco Young Men's Health Study," American Journal of Public Health, 84 (December, 1994), 1933-1937.

Ostrow, David G.; Beltran, Eugenio; and Joseph, Jill, "Sexual Behavior Research on a Cohort of Gay Men, 1984-1990: Can We Predict How Men Will Respond to Interventions?" Archives of Sexual Behavior, 25 (1994), 531-552.

Ostrow, David G.; Difranceisco, Wayne; and Kalichman, Seth, "Sexual Adventurism, Substance Use, and High Risk Sexual Behavior: A Structural Model," Report of the Center for AIDS Intervention Research, Medical College of Wisconsin, n.d.

Padian, Nancy S.; Aral, Sevgi; Vranizan, Karen; and Bolan, Gail, "Reliability of Sexual Histories in Heterosexual Couples," Sexually Transmitted Diseases, 22 (May/June, 1995), 169-172.

Peterman, Thomas, "Can We Get People to Participate in a Study of Sexual Behavior?" Sexually Transmitted Diseases, 22 (May/June, 1995), 164-168.

Peterson, John L.; Catania, Joseph A.; Dolcini, M. Margaret; Faigeles, Bonnie, "Multiple Sexual Partners Among Blacks in High-Risk Cities," Family Planning Perspectives, 25 (November/December, 1993), 263-267.

Piccinino, Linda J. and Mosher, William D., "Trends in

Contraceptive Use in the United States: 1982-1995," Family Planning Perspectives, 30 (Jan./Feb., 1998), 4-10.

Peipert, Jeffrey F.; Domagalski, Lisa; Boardman, Lori; Daamen, Maxim; McCormack, William M.; and Zinner, Stephen H., "Sexual Behavior and Contraceptive Use: Changes from 1975 to 1995 in College Women," Journal of Reproductive Medicine, 42 (Oct., 1997), 651-657.

Pleck, Joseph H.; Sonenstein, Freya L.; and Ku, Leighton C., "Adolescent Males' Condom Use: Relationships between Perceived Cost-Benefits and Consistency," Journal of Marriage and the Family, 53 (August, 1991), 733-745.

Pleck, Joseph H.; Sonenstein, Freya L.; and Ku, Leighton C., "Changes in Adolescent Males' Use of and Attitudes towards Condoms, 1988-1991," Family Planning Perspectives, 25 (May/June, 1993), 106-110, 117.

Popenoe, David, "American Family Decline, 1960-1990: A Review and Appraisal," Journal of Marriage and the Family, 55 (August, 1993), 527-555.

Potter, Lloyd B. and Anderson, John E., "Patterns of Condom Use and Sexual Behavior Among Never-Married Women," Sexually Transmitted Diseases, 20 (July/August, 1993), 201-208.

Potterat, John J.; Woodhouse, Donald E.; Muth, John B.; and Muth, Stephen Q., "Estimating the Prevalence and Career Longevity of Prostitute Women," Journal of Sex Research, 27 (May, 1990), 233-243.

Quadagno, David; Sly, David F.; Harrison, Dianne F.; Eberstein, Isaac W.; and Soler, Hosanna R., "Ethnic Differences in Sexual Decisions and Sexual Behavior," Archives of Sexual Behavior, 27 (1998), 57-75.

Rankow, Elizabeth J., "Sexual Identity vs Sexual Behavior," American Journal of Public Health, 86 (December, 1996), 18221823.

Rao, K. V. and VandenHeuvel, A., "Coital Frequency among Married and Cohabiting Couples in the United States," Journal of Biosocial Science, 27 (1995), 135-150.

Reinisch, June Machover; Sanders, Stephanie A.; and Ziemba-Davis, Mary, "The Study of Sexual Behavior in Relation to the Transmission of Human Immunodeficiency Virus: Caveats and Recommendations," American Psychologist, 43 (November, 1988), 921-927.

Reitman, David; St. Lawrence, Janet S.; Jefferson, Kennis W.; Alleyne, Edna; Brasfield, Ted L.; and Shirley, Aaron, "Predictors of African American Adolescents' Condom Use and HIV Risk Behavior," AIDS Education and Prevention, 8 (Nov., 1996), 499-515.

Rietmeijer, Cornelis A.; Wolitski, Ricahrd J.; Fishbein, Corby, Nancy H.; and Cohn, David L., "Sex Hustling, Injection Drug Use, and Non-Gay Identification by Men Who Have Sex with Men: Associations with High-Risk Behaviors and Condom Use," Sexually Transmitted Diseases, 25 (August, 1998), 353-60.

Rogers, Susan M. and Turner, Charles F., "Male-Male Sexual Contact in the U.S.A.: Findings from Five Sample Surveys, 1970-1990," Journal of Sex Research, 28 (November, 1991), 491-519.

Rogers, Theresa F.; Singer, Eleanor; and Imperio, Jennifer, "AIDS An Update," Public Opinion Quarterly, 57 (Spring, 1993), 92114.

Roper Starch, Teens Talk about Sex: Adolescent Sexuality in the 90s: A Survey of High School Students. New York: SIECUS, 1994.

Rubin, Lillian B., Erotic Wars: What Happened to the Sexual Revolution? New York: Farrar, Straus, and Giroux, 1990.

Sabogal, Fabio; Faigeles, Bonnie; and Catania, Joseph A., "Multiple Sexual Partners Among Hispanics in High-Risk Cities," Family Planning Perspectives, 25 (November/December, 1993), 257-262.

Sandfort, Theo, "Homosexual and Bisexual Behavior in European Countries," in Sexual Behaviour and HIV/AIDS in Europe, edited by Michel Hubert, Nathalie, and Theo Sandfort. London: UCL Press, 1998.

Santelli, John S.; Watten, Charles W.; Lowry, Richard; Sogolow, Ellen; Collins, Janet; Kann, Laura; Kaufmann, Rachel B; and Celentano, David D., "The Use of Condoms with Other Contraceptive Methods Among Young Men and Women," Family Planning Perspectives, 29 (Nov./Dec., 1997), 261-267.

Schiavi, Raul C., "Impact of Chronic Disease and Medication on Sexual Functioning," paper presented to the MacArthur Foundation Research Network on Successful Mid-Life Development, New York, May, 1992.

Schiavi, Raul C., "Sexuality and Aging in Men," Society for the Scientific Study of Sex, 1 (1990), 227-249.

Schuster, Mark A.; Bell, Robert M.; and Kanouse, Davis E., "The Sexual Practices of Adolescent Virgins: Genital Sexual

Activities of High School Students Who Have Never Had Vaginal Intercourse," American Journal of Public Health, 86 (Nov., 1996), 1570-1576.

Seal, David Wyatt, "Interpartner Concordance of Self-reported Sexual Behavior Among College Dating Couples," Journal of Sex Research, 34 (1197), 39-55.

Seidman, Stuart N.; Mosher, William D.; and Aral, Sevgi O., "Predictors of High-Risk Behavior in Unmarried American Women: Adolescent Environment as Risk Factor," Journal of Adolescent Health, 15 (March, 1994), 126-132.

Seidman, Stuart N.; Mosher, William D.; and Aral, Sevgi O., "Women with Multiple Sexual Partners: United States, 1988," American Journal of Public Health, 82 (October, 1992), 13881394.

Seidman, Stuart N. and Rieder, Ronald O., "A Review Article of Sexual Behavior in the United States," American Journal of Psychiatry, 151 (March, 1994), 330-341.

Sell, Randall L.; Wells, James A.; and Wypij, David, "The Prevalence of Homosexual Behavior and Attraction in the United States, the United Kingdom, and France: Results of National Population-Based Samples," Archives of Sexual Behavior, 24 (1995), 235-248.

Shew, Marcia L., et al., "The Validity of Self-Reported Condom Use Among Adolescents," Sexually Transmitted Diseases, 24 (Oct., 1997), 503-510.

Simon, Rita J. and Landis, Jean M., "Women's and Men's Attitudes about a Woman's Place and Role," Public Opinion Quarterly, 53 (Summer, 1989), 265-276.

Singer, Eleanor; Rogers, Theresa F.; and Corcoran, Mary, "AIDS," Public Opinion Quarterly, 51 (Winter, 1987), 580-595.

Smith, Tom W., "Adult Sexual Behavior in 1989: Number of Partners, Frequency of Intercourse, and Risk of AIDS," Family Planning Perspectives, 23 (May/June, 1991a), 102-107.

Smith, Tom W., "Attitudes Towards Sexual Permissiveness: Trends, Correlates, and Behavioral Connections," in Sexuality Across the Lifecourse, edited by Alice Rossi. Chicago: University of Chicago Press, 1994.

Smith, Tom W., "Changes in Families and Family Values," Report prepared for the National Italian American Foundation, 1997.

Smith, Tom W., "A Critique of The Kinsey Institute/Roper
Organization National Sex Knowledge Survey," Public Opinion Quarterly, 55 (Fall, 1991b), 449-457.

Smith, Tom W., "Discrepancies Between Men and Women in Reporting Number of Sexual Partners: A Summary from Four Countries," Social Biology, 39 (Fall/Winter, 1992a), 203-211.

Smith, Tom W., "Hite vs. Abby in Methodological Messes," AAPOR News, 15 (Spring, 1988), 3-4.

Smith, Tom W., "A Methodological Analysis of the Sexual Behavior Questions on the General Social Surveys," Journal of Official Statistics, 8 (1992b), 309-326.

Smith, Tom W., "Risky Sexual Behavior among Teenagers and Young Adults," Paper presented to the AEI Seminar on Teenage Sexual Activity and Contraceptive Use: An Update," Washington, DC, May, 1998.

Smith, Tom W., "Sex Counts: A Methodological Critique of Hite's Women in Love," in AIDS: Sexual Behavior and Intravenous Drug Use, Charles F. Turner, Heather G. Miller, and Lincoln E. Moses, eds. Washington, DC: National Academy of Sciences Press, 1989.

Smith, Tom W., "The Sexual Revolution?" Public Opinion Quarterly, 54 (Fall, 1990), 415-435.

Sonenstein, Freya L., "Using Self-Reports to Measure Program Impact," Children and Youth Services Review, 19 (1997), 567587.

Sonenstein, Freya L. and Ku, Leighton, "Why Young Men Don't Use Condoms: Factors Related to the Consistency of Utilization," in Why Some Men Don't Use Condoms: Males Attitudes about Condoms and Other Contraceptives, edited by Douglas J. Besharov, et al. Menlo Park, CA: Henry J. Kaiser Family Foundation, 1997.

Sonenstein, Freya L.; Ku, Leighton; Lindberg, Laura Duberstein; Turner, Charles F.; and Pleck, Joseph H., "Changes in Sexual Behavior and Condom Use Among Teenaged Males: 1988 to 1995," American Journal of Public Health, 88 (June, 1998), 956-959.

Sonenstein, Freya L.; Pleck, Joseph H.; and Ku, Leighton C., "Levels of Sexual Activity Among Adolescent Males in the United States," Family Planning Perspectives, 23 (July/ August, 1991), 162-167.

Sonenstein, Freya L.; Pleck, Joseph H.; and Ku, Leighton C.,
"Patterns of Sexual Activity Among Adolescent Males," Paper presented to the American Association for the Advancement of Science, February, 1990, New Orleans.

Sonenstein, Freya L.; Pleck, Joseph H.; and Ku, Leighton C., "Sexual Activity, Condom Use and AIDS Awareness Among Adolescent Males," Family Planning Perspectives, 21 (July/ August, 1989), 152-158.

Soskolne, Varda; Aral, Sevgi O.; Magder, Lawrence S.; Reed, Deborah S.; and Bowen, G. Stephen, "Condom Use with Regular and Casual Partners among Women Attending Family Planning Clinics," Family Planning Perspectives, 23 (September/ October, 1991), 222-225.

Spanier, Graham B., "Married and Unmarried Cohabitation in the United States," Journal of Marriage and the Family, 45 (May, 1983), 277-288.

Spira, Alfred; Bajos, Nathalie; and Ducot, Beatrice, "Trends in Sexual Behavior," Sexually Transmitted Diseases, 21 (March/April, 1994), S14-S18.

Stack, Steven and Gundlach, James H., "Divorce and Sex," Archives of Sexual Behavior, 21 (1992), 359-367.

Stall, Ron and Catania, Joe, "AIDS Risk Behaviors Among Late Middle-aged and Elderly Americans: The National AIDS Behavioral Surveys," Archives of Internal Medicine, 154 (Jan. 10, 1994), 57-63.

State and Local Health Departments and Division of HIV/AIDS, Prevention, Surveillance, and Epidemiology, "Update: Trends in AIDS Incidence - United States, 1996," MMWR, 46 (Sept. 19, 1997), 861-867.

Statistical Abstract of the United States, 1998. Washington, DC: GPO, 1998.

Sterk-Elifson, Claire, "Sexuality Among Black American Women," Paper presented to the MacArthur Foundation Research Network on Successful Mid-Life Development, New York, May, 1992.

Stodghill, Ron, II, "Where You Learn That?" Time, June 15, 1998, 52-59.

Stokes, Joseph P. and McKiran, David J., "Estimating the Prevalence of Homosexual Behavior," Family Planning Perspectives, 25 (July/August, 1993), 184-185.

Stokes, Joseph P.; McKiran, David J.; and Burzette, Rebecca,
"Sexual Behavior, Condom Use, Disclosure of Sexuality, and Stability of Sexual Orientation in Bisexual Men," Journal of Sex Research, 30 (August, 1993), 203-213.

Stossel, Scott, "The Sexual Counterrevolution," The American Prospect, 33 (July-August, 1997), 74-82.

Strunin, Lee and Hingson, Ralph, "Alcohol, Drug, and Adolescent Sexual Behavior," International Journal of the Addictions, 27 (1992), 129-146.

Sundet, J. M.; Magnus, P.; Kvalen, I. L.; Groennesby, J. K.; and Bakketeig, L. S., "Number of Sexual Partners and the Use of Condoms in the Heterosexual Population of Norway - Relevance to HIV-Infection," Health Policy, 13 (1989), 159-167.

Surveillance Branch, Div. of HIV/AIDS, "Update: Mortality Attributable to HIV Infection/AIDS among Persons Aged 25-44 United States, 1990 and 1991," MMWR, 42 (July 2, 1993), 481485.

Surveillance Branch, Div. of HIV/AIDS, "Mortality Attributable to HIV Infection," MMWR, 45 (Feb. 16, 1996), 121-124.

Susser, Ezra; Desvarieux, Moise; and Wittkowski, Knut M., "Reporting Sexual Risk Behavior for HIV: A Practical Risk Index and a Method for Improving Risk Indices," American Journal of Public Health, 88 (April, 1998), 671-674.

Swann, Karin, "\% Gay," Bad Subjects, No. 5 (March/April, 1993), 13.

Tanfer, Koray, "Sex and Disease," Sexually Transmitted Diseases, 21 (March/April, 1994), S65-S72.

Tanfer, Koray and Cubbins, Lisa A., "Coital Frequency Among Single Women: Normative Constraints and Situational Opportunities," Journal of Sex Research, 29 (May, 1992), 221250.

Tanfer, Koray; Grady, William R.; Klepinger, Daniel H.; and Billy, John O. G., "Condom Use Among U.S. Men, 1991," Family Planning Perspectives, 25 (March/April, 1993), 61-66.

Tanfer, Koray and Schoorl, Jeannette J., "Premarital Sexual Careers and Partner Change," Archives of Sexual Behavior, 21 (1992), 45-68.

Taylor, Humphrey, "Number of Gay Men More than 4 Times Higher than the 1 Percent Reported in a Recent Survey," The Harris Poll, No. 20, April 26, 1993.

Taylor, Humphrey; Kagay, Michael; and Leichenko, Stuart, American Teens Speak: Sex Myths, TV, and Birth Control. New York: Planned Parenthood Federation, 1986.

Thomson, Elizabeth and Colella, Ugo, "Cohabitation and Marital Stability: Quality or Commitment?" Journal of Marriage and the Family, 54 (May, 1992), 259-267.

Thornton, Arland, "Cohabitation and Marriage in the 1980s," Demography, 25 (November, 1988), 497-508.

Thornton, Arland and Camburn, Donald, "Religious Participation and Adolescent Sexual Behavior and Attitudes," Journal of Marriage and the Family, 51 (August, 1989), 641-653.

Tourangeau, Roger; Rasinski, Kenneth; Jobe, Jared B.; Smith, Tom W.; and Pratt, William F., "Sources of Error in a Survey on Sexual Behavior," Journal of Official Statistics, 13 (1997), 341-365.

Tourangeau, Roger and Smith, Tom W., "Collecting Sensitive Information with Different Modes of Data Collection," in Computer Assisted Survey Information Collection, edited by Mick Couper, et al. New York: John Wiley \& Sons, 1998.

Tourangeau, Roger and Smith, Tom W., "A Comparison of Three Modes of Data Collection," Public Opinion Quarterly, 60 (Summer, 1996), 275-304.

Tourangeau, Roger; Smith, Tom W.; and Rasinski, Kenneth A., "Motivation to Report Sensitive Behaviors on Surveys: Evidence from a Bogus Pipeline Experiment," Journal of Applied Social Psychology, 26 (Feb., 1997), 209-223.

Treas, Judith and Giesen, Deirdre, "Sex, Gender, and Rational Choice: Determinant of Infidelity Among Married and Cohabiting Couples," Paper presented to the American Sociological Association, New York, August, 1996.

Trivedi, Neil and Sabini, John, "Volunteer Bias, Sexuality, and Personality," Archives of Sexual Behavior, 27 (1998), 181-195.

Trocki, Karen F., "Patterns of Sexuality and Risky Sexuality in the General Population of a California County," Journal of Sex Research, 29 (February, 1992), 85-94.

Trussell, James and Westoff, Charles F., "Contraceptive Practice and Trends in Coital Frequency," Family Planning Perspectives, 12 (September/October, 1980), 246-249.

Tubman, JG; Windle, M; and Windle, RC, "Cumulative Sexual

Intercourse Patterns among Middle Adolescents: Problem Behavior Precursors and Concurrent Health Risk Behaviors," Journal of Adolescent Health, 18 (March, 1996), 182-191.

Turner, C.F.; Ku, L.; Rogers, S.M.; Lindberg, L.D.; Pleck, J.H.; Sonenstein, F.L., "Adolescent Sexual Behavior, Drug Use, and Violence: Increased Reporting with Computer Survey Technology," Science, 280 (May 8, 1998), 867-873.

Turner, Charles F.; Miller, Heather G.; and Moses, Lincoln E., eds. AIDS: Sexual Behaviors and Intravenous Drug Use. Washington, DC: National Academy Press, 1989.

Udry, J. Richard, "Changes in the Frequency of Marital Intercourse from Panel Data," Archives of Sexual Behavior, 9 (August, 1980), 319-325.

Udry, J. Richards; Bauman, Karl E.; and Morris, Naomi, "Changes in Premarital Coital Experience of Recent Decade-of-Birth Cohorts of Urban American Women," Journal of Marriage and the Family, 37 (November, 1975), 783-787.

Udry, J. Richard; Deven, Fred R.; and Coleman, Samuel J., "A CrossNational Comparison of the Relative Influence of Male and Female Age on the Frequency of Marital Intercourse," Journal of Biosoc. Science, 14 (1982), 1-6.

Udry, J. Richard and Morris, Naomi M., "Relative Contribution of Male and Female Age to the Frequency of Marital Intercourse," Social Biology, 25 (Summer, 1978), 128-134.

Upchurch, Dawn M.; Weisman, Carol S.; Shepherd, Mary; Brookmeyer, Ron; Fox, Robin; Celentano, David D.; Colletta, Lorraine; Hook, Edward W., III, "Interpartner Reliability of Reporting of Recent Sexual Behaviors," American Journal of Epidemiology, 134 (November 15, 1991), 1159-1166.
"Update: Trends in AIDS Among Men Who Have Sex with Men - United States, 1989-1994," MMWR, 44 (June 2, 1995), 401-404.

Ventura, Stephanie J., "Trends in Marital Status of Mothers at Conception and Birth of First Child: United States, 1964-66, 1972, and 1980," Monthly Vital Statistics Report, 36 (May 29, 1987), 1-16.

Wadsworth, J.; Johnson, A.M.; Wellings, K.; and Field J., "What's in a Mean? An Examination of the Inconsistency between Men and Women in Reporting Sexual Partnerships," Journal of the Royal Statistical Society, 159 (1996), 111-123.

Wagstaff, David A., et al., "Multiple Partners, Risky Partners,
and HIV Risk Among Low-Income Urban Women," Family Planning Perspective, 27 (November/December, 1995), 241-245.

Waite, Linda J. and Joyner, Kara, "Men's and Women's General Happiness and Sexual Satisfaction in Marriage, Cohabitation, and Single Living," Paper presented to the Population Research Center's Demography Workshop, December, 1996.

Warren, Charles W.; Santelli, John S.; Everett, Sherry A.; Kann, Laura; Collins, Janet L.; Cassell, Carol; Morris, Leo; and Kolbe, Llyod, "Sexual Behavior Among U.S. High School Students, 1990-1995," Family Planning Perspectives, 30 (July/August, 1998), 170-172, 200.

Weinhardt, Lance S.; Forsyth, Andrew D.; Carey, Michael P.; Jaworski, Beth C.; and Durant, Lauren E., "Reliability and Validity of Self-Reported Measures of HIV-Related Sexual Behavior: Progress Since 1990 and Recommendations for Research and Practice," Archives of Sexual Behavior, 27 (1998), 155180.

Wells, James A. and Sell, Randall L., Project HOPE's International Survey of AIDS Educational Messages and Behavior Change: France, the United Kingdom and the United States. Chevy Chase, MD: Project HOPE, 1990.

Westoff, Charles F., "Coital Frequency and Contraception," Family Planning Perspectives, 6 (Summer, 1974), 136-141.

Westoff, Leslie Aldridge and Westoff, Charles F., From Now to Zero: Fertility, Contraception, and Abortion in America. Boston: Little, Brown, and Company, 1968.

Whitbeck, Les B.; Simons, Ronald L.; and Goldberg, Elizabeth, "Adolescent Sexual Intercourse," in Understanding Differences between Divorced and Intact Families: Stress, Interaction, and Child Outcome," edited by Ronald L. Simons, et al., Thousand Oaks, CA: Sage, 1996.

Wiederman, Michael W., "The Truth Must be in Here Somewhere: Examining the Gender Discrepancy in Self-Reported Lifetime Number of Sex Partners," Journal of Sex Research, 34 (1997), 375-386.

Williams, Linda B., "Determinants of Unintended Childbearing among Ever-married Women in the United States: 1973-1988," Family Planning Perspectives, 23 (September/October, 1991), 212-215,221.

Wyatt, Gail Elizabeth, "Reexamining Factors Predicting AfroAmerican and White American Women's Age at First Coitus,"

Archives of Sexual Behavior, 18 (August, 1989), 271-298.
Wyatt, Gail Elizabeth; Peters, Stefanie Doyle; and Guthrie, Donald, "Kinsey Revisited, Part I: Comparisons of Sexual Socialization and Sexual Behavior in White Women Over 33 Years," Archives of Sexual Behavior, 17 (June, 1988), 201-239.
Yankauer, Alfred, "Sexually Transmitted Diseases: A Neglected Public Health Priority," American Journal of Public Health, 84 (December, 1994), 1894-1897.
"Youth Risk Behavior Survey - United States, 1993," MMWR, 44 (March 24, 1995), 11-12, 47-47.

Zenilman, Jonathan M.; Weisman, Carol S.; Rompalo, Anne M.; Ellish, Nancy; Upchurch, Dawn M.; Hook, Edward W., III; and Celentano, David, "Condom Use to Prevent Incident STDs: The Validity of Self-Reported Condom Use," Sexually Transmitted Diseases, 22 (Jan./Feb., 1995), 15-21.

Zimmerman, Rick S. and Langer, Lilly M., "Improving Estimates of Prevalence Rates of Sensitive Behaviors: The Randomized Lists Technique and Consideration of Self-Reported Honesty," Journal of Sex Research, 32 (1995), 107-117.


[^0]:    ${ }^{4}$ We use the term "sexual orientation" as a shorthand to refer to the gender of one's sexual partners. Our usage is based on behavior and not on preference or psychological identification. Similarly, we will use "gays" to refer to men who have had male sexual partners and "lesbians" to refer to women who have had female sexual partners. Unless otherwise indicated these terms will include "bisexuals" (i.e. people who have had both male and female sexual partners). "Homosexuals" refers to men or women who have had same gender sexual partners.

    On issues relating to definitions and terminology see Bevier, Chiasson, and Hefferman, 1996; Doll and Beeker, 1996; Gonsiorek and Weinrich, 1991; Michaels, 1997; Rietmeijer, et al., 1998; Kennamer and Bradford, 1998; and Rankow, 1996.
    ${ }^{5}$ It is generally believed that including adolescent behavior would further increase these rates, but firm numerical estimates are not available. For some indication of this see Billy, Tanfer, Grady, and Klepinger, 1993 and Faulkner and Cranston, 1998. However, other surveys of young adult and teenage sexual orientation do not conform this (Ku, Sonenstein, and Pleck, 1993; "Teens Talk," 1994). Spanning the lower and higher estimates, Turner et al. (1997) found that among males 15-19 in 1995 1.5\% reported homosexual relations on a paper, self-completion questionnaire, but 5.5\% did so on an audio-computer assisted, selfcompletion questionnaire.
    ${ }^{6}$ There is more missing data on the adult lifetime figures than for the 1 and 5 year figures. Information on sexual orientation

[^1]:    ${ }^{10}$ The concentration of gays in large urban centers also occurs in Europe (AIDS Investigators, 1992 and Johnson, Wadsworth, Wellings, Bradshaw, and Field, 1992).

[^2]:    ${ }^{11}$ On knowledge among adolescents see Kann, et al., 1998.

[^3]:    ${ }^{12}$ For change data from Sweden and Finland see Herlitz, 1993 and Kontula and Haavio-Mannila, 1994.
    ${ }^{13}$ The reports are questionable because of problems of recall and attribution. Any question on retrospective change depends on ones ability to accurately report not only what current behavior is, but also what past behavior used to be. Thus retrospective change reports tend to be less reliable because they depend on accurate recall and because they are based on two estimates (present and past). These questions are further problematic because they ask people to associate changes in sexual behavior to AIDS. This involves first accurately recalling that the change came after learning about AIDS and second correctly identifying concern over AIDS as the cause of the change. This second step is particularly difficult since the questions are biased towards having people attribute changes as due to AIDS and since changes are usually multi-causal rather than mono-causal. For example, on the 1991 CBS survey 5\% of changers reported they had gotten married or become monogamous because of AIDS. While some marriages have undoubtedly occurred because of AIDS, it is quite possible that AIDS was a minor factor in the decision to get married and may not have led to more or earlier marriages than would have occurred in the normal course of things.

    The indication of an upward trend is problematic because the period since learning about AIDS (most adults learned about AIDS in the mid-1980s, Singer, Rogers, and Corcoran, 1987) has been lengthening. Recall over longer periods is less accurate so the reliability of the reports is lessening over time. In addition, more changes occur over a longer period and attributing those changes to AIDS, or any other event, becomes less certain. Also, the longer period means that the match between current statuses and past changes are less certain. For example, a person married for five years may be reporting on a) changes prior to the marriage, b) the marriage itself as a change, c) changes since the marriage, or d) some combination. Because of these problems, the "have you changed your sexual behavior because of AIDS" questions are less than ideal.

[^4]:    ${ }^{14}$ One sexual risk factor not discussed is type of sexual activity (e.g. vaginal, anal, and oral intercourse). On the comparative risk of these behaviors see Susser, Desvarieux, and Wittkowski, 1998.
    ${ }^{15}$ On male bisexuals see Doll and Beeker, 1996; Ekstrand, Coates, Guydish, Hauck, Collette, and Hulley, 1994 and Stokes, McKirnan, and Burzette, 1993.

[^5]:    ${ }^{16}$ On discrepancies between the reports of men and women see Smith, 1992a; Wadsworth, Johnson, Wellings, and Field, 1996; and Wiederman, 1997.

[^6]:    ${ }^{17}$ In addition, for males $15-29$ in $19950.7 \%$ said they had ever had sex with a prostitute on a paper self-completion form, but 2.5\% report such behavior on an audio-computer-assisted, self-completion form (Turner, et al., 1998).

[^7]:    ${ }^{18}$ Among legal Nevada brothel workers the median number of customers per month was 69 (presumably counting repeat customers more than once) (Albert, Warner, and Hatcher, 1998). This number is probably higher than averaged by illegal sex workers. On the frequency of repeat customers see Freund, Lee, and Leonard, 1991. See also, Cusick, 1998.
    ${ }^{19}$ For a similar increase among a small group of college women see DeBuono, Zinner, Daamen, and McCormack, 1990. For figures on condom sales in 1983-1988 see Moran, Janes, Peterman, and Stone, 1990.

