

Counting Gays and Lesbians: A Case for "New" Survey Methods

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Last spring a controversy flared in the U.S. general press about homosexuality. Several surveys reported estimates that were much lower than commonly expected, in the range of 1 to 3 percent of the adult population. The gay political movement has often promoted the estimate of 10 percent. The political right moved quickly to use the new findings, contending that the studies confirmed homosexuality as a behavioral oddity that should not be entitled to "protected status." (Bull 1993) And with referendums on gay rights issues pending in many states this year, the true numbers -- or the perception of the numbers -- may have consequences at the ballot box. Furthermore, in the last decade renewed interest in estimating at least the number of gay *men* in this country has sprung from a need to project the transmission rate for AIDS.

What Did Kinsey Say?

A central finding from Kinsey's research was that sexual behavior is richly varied. He estimated that:

- 37% of the total male population has at least some homosexual experience between adolescence and old age.
- 10% of males are more or less exclusively homosexual for at least 3 years between the ages of 16 and 55. (This is the basis for the gay activist estimates.)
- 4% of males are exclusively homosexual throughout their lives, after the onset of adolescence.

In general, he found the incidence of female homosexuality to be much lower than males, perhaps 1 to 3% of the population.

The discrepancies between Kinsey and the modern surveys may have been a bit overdrawn (or to put it another way, the gay rights movement may have taken liberties with Kinsey in claiming that 10% of the population is gay). Kinsey never said that at any given point in time, 10% of American adults are homosexual, or that 10% have engaged in sexual activity during the past year -- his studies suggested smaller percentages, more in line with the current surveys.

Kinsey's Methods

Much of Kinsey's work (1948, 1953) seems quaint to us now. The aspect that has generated the most criticism in the last couple of decades is his use of convenience samples. A disproportionate share of his subjects were recruited in Indiana, where he was based. And many of his subjects were prisoners, a "captive audience" known for its high frequency of homosexual encounters.

But it may be worthwhile to look beyond the sampling issues to consider some of his data collection methods. He obtained detailed sexual life histories through in-depth personal interviews. Each history was standardized in the sense that more than 500 items were covered, on a wide range of sexual behavior. Perhaps 75 of the items addressed homosexual experience. Interviewers were expected to adapt the form of the question to suit the respondent's normal conversational style and vocabulary.

Kinsey felt it was too easy for a respondent to say "No" if simply asked whether he or she has ever engaged in a particular activity. The interviewer always assumed the respondent had engaged in every type of activity, and began each series of questions by asking when the respondent first engaged in the activity. A similar technique is commonly used in drug use surveys today. (Turner et al, 1992)

Interviewers challenged respondents, in the sense that questions were asked in a rapid fire manner, almost like a police interrogation, to encourage the respondent to be as spontaneous as possible, and to uncover contradictions. The 1948 book has a section

on "forcing a subject;" in rare cases when the interviewer was convinced that the respondent was lying, the interviewer was expected to denounce the respondent severely, and refuse to proceed with the interview. He notes that this technique was useful in interviewing some teenage males, some "underworld" females, and one priest!

The respondent's answers were encoded on a form, using an encryption scheme that preserved the detail but protected the subject and respected the confidential and highly sensitive nature of the data. Extensive interviewer training was required to sensitize the interviewers to the topics covered, to build skill in using the coding scheme, and to teach techniques for building rapport in the interview. Interviewers were not allowed to conduct complete in-depth interviews on their own until they had passed a year of training and apprenticeship. Kinsey did not believe that it was important to match interviewers and respondents by sex; for both the male and the female studies, all interviewers were reported to be happily married men.

Highlights from Some Recent Surveys

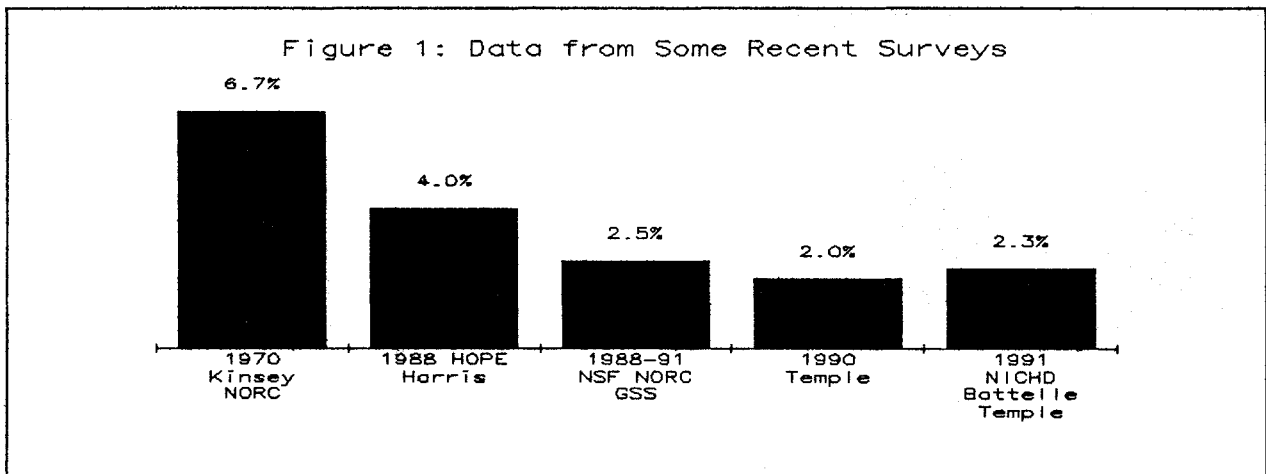
Since Kinsey there has been a dearth of quantitative studies on sexual behavior in the U.S. However, a few organizations and researchers have found the means to shed some light on the subject. Figure 1 summarizes some highlights on homosexual behavior and sexual orientation drawn from studies that have used probability samples.

- In 1970, NORC conducted an in-person survey for the Kinsey Institute, which was the basis for a recent estimate that 6.7 percent

of men had at least one homosexual experience after age 19. (Fay 1989)

- In 1988 Harris conducted an in-person survey that estimated about 4 percent of American adults (men and women) are homosexual. (American Demographics 1993)
- Since 1988, NORC's General Social Survey (an in-person survey) has collected data annually in a self-administered supplement. Data from 1988-91 indicate that 2.5 percent of American men and .8 percent of women had at least one same-sex partner during the past 12 months. (American Demographics 1993)
- In 1990, Temple conducted an in-person survey that included self-administered items; the study produced an estimate that 2 percent of Americans identify themselves as homosexual or bisexual. (All interviewers were female.) (Leigh 1993)
- In 1991 Battelle, under contract with NICHD, worked with Temple to conduct a survey on sexual behavior and HIV risk. 2.3 percent of American men aged 20-39 said they had at least one sexual experience with another man in the past 10 years, and 1.1 percent had exclusively homosexual experiences. (Billy et al 1993)

All these studies may be measuring somewhat different things -- lifetime sexual behavior is not the same as behavior in the past twelve months, and self-proclaimed sexual orientation is not quite the same thing as reported sexual behavior -- but all of them suggest that homosexuals comprise a relatively small



minority of adults in the U.S. The most recent findings seem to converge around an estimate of about 2 percent of the population.

Participation Bias and Measurement Error

Are these numbers credible? They were based on large probability samples, they used standardized precoded questions, and they were conducted by reputable firms with longstanding national reputations. The GSS in particular has achieved consistently respectable response rates. They should be praised for their attempts to collect quantitative data on sexual orientation and behavior.

That being said, two main areas need examination: participation bias and measurement error. Participation bias is always a concern in studies of rare populations. Even a 95% response rate overall could be inadequate if a subpopulation that represents 5% of the total has only a 30% response rate. (Kalton 1993) However, there is no evidence that these surveys are missing significant proportions of single people, or people who live in urban areas, or people who are comfortable talking openly about their sexuality.

Measurement error is another major issue in surveys of sexual behavior. Without doubt some people find questions about sex threatening. Although some of these surveys have taken steps to overcome this threat (e.g., by using a self-administered questionnaire), it is unclear how successful they've been. A big part of the measurement riddle is that there are no practical means to validate self-reported sexual behavior. (Catania et al, 1993) Although some test-retest studies have shown a pretty high degree of stability in reports of homosexual activity, and some partner studies are also showing high levels of consistency, the difference between actual and reported behavior cannot be determined directly.

Both psychology and anthropology have long histories of qualitative sex research, but histories that seem to have little in common with the recent surveys. In general, work in these other disciplines suggests far more homosexual experiences and a broader range of activity. Survey researchers need to build a stronger partnership with qualitative methods to produce sound estimates of homosexual behavior. As we develop this partnership, we need to keep two main goals in mind: maximizing participation to make sure large segments of the relatively rare population are not missed, and reducing measurement error.

Ranges of Behavior and Degrees of "Openness"

Part of the difficulty in identifying the gay and lesbian population is that only a portion of it is "homosexual" all the time. Kinsey's 7-point scale placed exclusive gays and lesbians at one extreme and exclusive heterosexuals at the other end. His work pointed to a large segment of the population between these two extremes. How well can survey questions discriminate this middle group?

Does a single same-sex experience make a person homosexual? Most people would say no. But just counting the number of people who say they were exclusively homosexual during the past year is likely to produce an undercount. Where do you draw the line? Do you count people who had one experience with someone of the same sex in the past 12 months, even if all the rest of their experience was with the opposite sex? It may depend on your research interest. For instance, estimating the size of a voting block in an urban area might lead you to a different answer than estimating risk for encountering a sexually transmitted disease that is more common in one sex than another.

As people become aware of their sexual identity, they may move from one end of the Kinsey scale to another. This process happens for many people in adolescence, but for others it occurs much later in life. Gay activists coined the phrase "coming out of the closet" to describe the process of acknowledging a gay identity. This implies overcoming barriers to the full integration of sexual orientation with identity. For many gays and lesbians, there are stages in the coming out process, from the most private awareness, to integration in one's private life, to full public disclosure. The stages may unfold over a lifetime.

The majority of men who have had sex with other men in adulthood are married, or have been married. Exclusively gay men are a minority of the men who have had at least some homosexual experience. Thus, attempts to estimate the prevalence of homosexual activity must deal with the problem of eliciting data from men who may be married, and have strong motivations to conceal their homosexual activity.

Our society often paints pictures in black and white. There is strong pressure to identify people as heterosexual or homosexual. As some people struggle against strong feelings of attraction toward the same

sex, they display attitudes that can be extremely homophobic. Some surveys of sexual behavior have examined nonresponse to same-sex behavior questions in conjunction with attitudes toward homosexuality, and have found that the nonresponders are most like the heterosexual responders. However, this may be exactly the effect the nonresponder hoped to achieve -- by proclaiming anti-homosexual feelings, the person may escape the homosexual label.

New Survey Methods

In the past decade, there has been an infusion of methods from cognitive psychology in the field of survey research. Some traditional methods have been given new life in recent survey design efforts. Other methods are being created as new survey technology becomes available. Research on sexual behavior could benefit from the application of many of these techniques

Greater assurances of confidentiality may improve reporting slightly. (Catania et al 1993) Credibility is an overarching issue in sex research, and greater efforts are required to establish it than for most studies.

Behavior coding is an effective tool for identifying questions that pose problems for both interviewer and respondent. Even for self-administered questionnaires, coding respondent behavior from videotapes could be quite useful in documenting questions and concepts that pose difficulty for respondents.

Focus groups could be a valuable technique for exploring issues in the gay subculture, though it is difficult to imagine recruiting and leading a group of closeted homosexuals. Cognitive interviews have been used extensively in redesigning the National Household Survey of Drug Abuse, and should be an essential part of design efforts that focus on reporting homosexual experience. (Turner et al, 1992)

Research on matching respondents by gender for studies of sexual behavior show mixed results, but there are a couple of hints that reports of homosexual experience increase when the interviewer discloses his or her own sexual orientation. This is an area that calls out for more investigation.

Guided recall is a technique that is similar to the description of Kinsey's interviews, and could help in recovering repressed memories, or memories of

events that have receded into the concept of the everyday self. Decomposition is a technique that's been shown to improve dietary recall, and might help to recover memories of sexual behavior as well. (Croyle and Loftus, 1993)

Depending on how aggressively the behavior is assumed in asking the questions, there is some risk of inducing changes in memory that are not necessarily more reliable than the original memory that was replaced. However, it is a common technique in studies of behavioral activities that are subject to serious underreporting problems.

One of the most promising techniques for improving the accuracy of reports is the sexual diary. Coxon has described the use of this vehicle in studies of gay men, and it harks back to the encoded accounts of sexual history that Kinsey used. (Coxon 1988, Coxon 1992) It is costly, but the improved accuracy might justify the expense.

Lastly, there have been some recent reports on the use of computer-assisted self-administered questionnaires. The results for studies of sensitive behaviors are quite promising. In sex research, this could prove to be a significant advance in our ability to use question wording that is familiar to respondents, without introducing an interviewer effect.

Conclusion

The means to update Kinsey's work with a full-scale probability survey have never been available, to the dismay of researchers on human sexuality and proponents of methods to control the spread of sexually transmitted diseases, especially AIDS. In 1991, Senator Jesse Helms led a successful fight to cancel such a study in this country. There was a parallel experience in Great Britain. The controversial data reported last year from other surveys highlight the need for a large, more carefully constructed study of the full range of American sexuality, using state-of-the-art methods for questionnaire design and data collection.

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