Introduction

There has been much controversy recently in the United States and Western Europe surrounding lesbian and gay parents and their children. In a number of European countries, debates about same-sex marriages have included questions about the extent to which same-sex couples, if granted the right to marry, should also be allowed to become foster or adoptive parents (Henson, 1993). In the United States, when courts have heard cases that focus on same-sex marriage, issues related to childbearing have often been seen as central. Such debates are described in a number of sources (e.g. Baird and Rosenbaum, 1997; Sullivan, 1997).

These controversies have given rise to a number of questions (Patterson and Redding, 1996). For legal and policy reasons, the most insistent among these questions are those focusing on the mental health of lesbian mothers, gay fathers and their children. Issues surrounding the development of children with lesbian and gay parents dominate formal judicial proceedings and informal courts of public opinion. Judges have often inquired about the development of the sexual identity of children of same-sex couples (e.g. will the children grow up to identify as gay or lesbian?), about other aspects of their personal growth (e.g. will children of lesbian and gay parents have more behaviour problems than other children?), and about their social development (e.g. will these children be teased and stigmatized by their peers?). Because many people do not knowingly count among their friends, relatives, and acquaintances either lesbian/gay parents or their children, there is a substantial amount of ignorance and curiosity focusing on the ways in which children of lesbian or gay parents compare with those with heterosexual parents. It is clear from recent research (King and Black, 1999) that college students expect children of lesbian mothers to have more behaviour problems than other children, and this bias may be shared by judges and policy makers.

In the last 30 years, an increasing amount of research has been published about the development of children with lesbian, gay and heterosexual parents. There is now a fairly substantial body of evidence with which to address questions about the normative
development of children with lesbian or gay parents (Patterson, 1992, 1995, 1998). In the main, the results of this research reveal that, far from suffering various problems as envisioned by some, children of lesbian and gay parents appear to develop much as do the children of otherwise comparable heterosexual parents. For instance, children of lesbian mothers have been found in several studies to be no more—and no less—likely to display behaviour problems such as depression and anxiety, on the one hand, or disruptive and aggressive behavior, on the other (Patterson, 1998). Indeed, a recent longitudinal study reported that the offspring of lesbian mothers are no more likely to report sexual or romantic attraction to same-sex others, or to describe themselves as non-heterosexual, than are children of heterosexual mothers (Tasker and Golombok, 1997). In general, empirical research has failed to confirm the fears about the well-being and adjustment of children growing up with lesbian or gay parents (Patterson, 1992, 1995, 1998).

However, the controversy remains, despite the increasingly clear research evidence. Both stereotypes and actual information about lesbian mothers, gay fathers, and their children continue to figure prominently in custody disputes, adoption and foster care actions, and related public policy debates both in the United States and elsewhere (Patterson and Redding, 1996). In the United States, for instance, a recent Mississippi State Supreme Court decision denied custody of a 15-year-old boy to a gay father, ordering instead that the boy live with his mother, even though she lives with a man who has a history of violence and substance abuse and who has beaten her in the presence of her son (ACLU, 1999). Dissenting from the majority, Justice Charles Macrae described the majority as having been ‘blinded by the fact that [the child’s] father is gay’ (ACLU, 1999).

In the context of such controversies, fundamental questions have sometimes been overlooked. Perhaps the most basic one is about the extent to which lesbians and gay men can be correctly assumed to be parents at all, and, if so, in what numbers. Are there significant associations between sexual orientation and fertility? Are lesbian and gay adults less likely than heterosexual adults to become parents? How many lesbian and gay adults are parents, and how many children are growing up in their households? When considering these questions, another related question arises as well. Who should be counted as lesbian or gay, for purposes of such tabulations? And who should be counted as a parent? These are questions about a contested terrain, and they do not have a single easy answer. The basic task of enumerating the population of lesbian and gay parents is made more complex by the need to give answers to questions of this kind.

In this chapter, we aim to review the available information about associations between sexual orientation and fertility. First, we review the range of estimates of the numbers of lesbian/gay parents in the population of the United States, and describe the information upon which these estimates seem to be based. We then describe the earliest large-scale attempt to estimate the numbers of lesbian and gay parents, based on the landmark study of Bell and Weinberg (1978), and offer some commentary on its strengths and limitations. We then review more recent attempts to study such questions that have been reported recently by Badgett (1998). Finally, we present new calculations, based on information from the National Health and Social Life Survey (Laumann et al., 1994), for which data were collected in the United States in the early 1990s. Finally, we offer some conclusions and ideas about potential directions for future research in this area.

Early estimates of the numbers of lesbian mothers, gay fathers and their children

There are a number of widely acknowledged difficulties in estimating the numbers of lesbian mothers, gay fathers and their children. For instance, because of fears related to possible prejudice and discrimination, many individuals are afraid to act upon their same-sex sexual and romantic attractions; furthermore, if they act upon such attractions, they may do so in secret without identifying themselves as lesbian or gay (Herek, 1995; Herek and Berrill, 1992). Even if individuals act upon same-sex attractions and
identify themselves as lesbian or gay, they may be unwilling to reveal this aspect of their identity to an interviewer, again for fear of adverse consequences. As the prevalence of hate crimes against lesbian and gay people demonstrates, such fears are not entirely unfounded (Herak, 1995; Herak and Berrill, 1992). Efforts made by many lesbian and gay adults to hide their sexual identities can be extensive, and these are important obstacles to the accurate enumeration of sexual orientation in the adult populations in both the United States and in Europe (Michaels, 1996).

In addition to notorious difficulties involved in counting lesbian and gay adults, there are other difficulties associated with enumeration of lesbian and gay parents. Particularly in light of the history of discrimination against lesbian and gay parents in many parts of the United States, some parents take great pains to hide nonheterosexual identities. These parents fear that, if their true identities were to be known, they might lose custody of, or visitation with, their children. In many cases, parents’ efforts to conceal their lesbian or gay identities have extended even to hiding these aspects of their lives and identities from their own children (Patterson, 1992). Without question, the perceived need to hide nonheterosexual identities provides an important obstacle to the accurate enumeration of lesbian and gay parents.

Even in light of acknowledged obstacles, however, some estimates of the numbers of lesbian and gay parents and their children have been offered, but not surprisingly they show considerable variability. For instance, widely repeated estimates have put the numbers of lesbian mothers in the United States at anywhere from one to five million, and the numbers of gay fathers anywhere from one to three million. These same estimates tend to put the numbers of children of lesbian and gay parents at between six and fourteen million (see, for example, Editors of the Harvard Law Review, 1990). Although these estimates have been widely repeated, no empirical studies are cited in connection with them. Hence, it is difficult to be certain about the origin of these figures or to evaluate their reliability.

One way in which these kinds of estimates might be generated is to rely on what is known or believed about the then-available research findings. Some appear to have been based upon a figure taken (incorrectly, as it happens) from Kinsey et al (1948), suggesting that approximately 10% of the adult male population of the United States could be considered nonheterosexual. Drawing from large-scale studies of lesbian and gay adults, some of which asked about parental status, one can calculate the percentage of lesbian or gay adults who describe themselves as parents, and extrapolate these numbers to the population at large. Since the samples of men and women who participated in Kinsey’s landmark studies were not representative of the population of the United States, and since the 10% figure appears to have been based on a misreading of Kinsey’s data, estimates based on this will, of necessity, be inaccurate (for further discussion of this point, see Laumann et al., 1994; Michaels, 1996). Furthermore, Kinsey’s research was conducted many years ago, long before the current controversies surrounding lesbian and gay parenthood had emerged into public discourse. Since estimates can only be as good as the data upon which they are based, and since the Kinsey data are seriously flawed for the purpose at hand, estimates based upon his findings are not likely to be accurate.

Another early large-scale study upon which estimates of the numbers of lesbian mothers and gay fathers could be based was that of Bell and Weinberg (1978). In the 1970s, these investigators interviewed a convenience sample of over 4000 adults in the San Francisco Bay Area who identified as lesbian, gay or homosexual, and compared their responses on a number of items to those of a group of heterosexual respondents who had been selected to match the lesbian/gay/homosexual respondents on age, education and gender. The lesbian/gay/homosexual participants were recruited from homophile organizations, gay bars, personal contacts, and so forth, and one cannot determine the degree to which the resulting group of respondents is representative of the population from which it is drawn.

In the course of lengthy interviews, Bell and Weinberg (1978) asked each participant if they had ever been married, and, if so, if they had ever ‘had children’. Participants were free to interpret this question as they chose. The average age of participants was about 35, but there was considerable variability around this average, with
at least 25% of the lesbian/gay/homosexual sample under 25 years of age. Because of the relatively young overall age of the sample, a sizeable proportion of even the heterosexual sample had not yet had children. Even so, because all participants were asked the same question, the study does provide a comparison between the responses of heterosexual and nonheterosexual participants.

Lesbian and gay adults in Bell and Weinberg's study were considerably less likely to report having had children than were same-aged heterosexual participants. Indeed, 21% of lesbian women, but 51% of the heterosexual women reported having children. Among men, 10% of gay or homosexual men, but 47% of heterosexual men reported having children. Thus, more than twice as many heterosexual women, and more than four times as many heterosexual men than lesbian/gay/homosexual women and men reported having children. Sexual orientation was a significant predictor of having had children for both men and women, with the effect being stronger for men than for women.

As interesting and important as this finding remains, even more than 20 years later, there are some limitations to which its interpretation should be subject. First, as noted above, the Bell and Weinberg (1978) study is not based on a representative sample. All of the participants lived in a single geographical area (namely, the San Francisco Bay Area), and the degree to which the findings apply to those in other areas of the country or abroad is not known. Only Caucasian and African-American participants were recruited for the study, so there was no information about those from other ethnic groups. The participants were relatively young at the time of their interviews, so their ultimate levels of fertility (e.g. at age 50) cannot be determined. The Bell and Weinberg (1978) data were collected over 20 years ago, and their relevance to today is not known. Finally, the definition of fertility ('having children') was vague, and different interpretations of the term 'having children' may have been used by different participants. For these reasons, the Bell and Weinberg (1978) findings, though valuable, cannot be seen as definitive.

Overall, it is impossible to determine whether or to what extent figures drawn from Bell and Weinberg's (1978) study are reliable.

Indeed, it is even difficult to know whether they present greater risks of overestimating or underestimating the fertility of lesbian/gay/homosexual adults. Because only participants who had been married were asked whether they had children, the study may have underestimated actual fertility by omitting those who had children outside of marriage. On the other hand, if participants interpreted the question about having children as including adoptive and foster children, then the resulting figures may be overestimates. To develop better estimates, we need to examine population-based, representative samples of respondents, with questions about the matters of principal interest framed in more precise terms.

Recent estimates of the numbers of lesbian mothers, gay fathers and their children

Badgett (1998) recently attempted to estimate the numbers of lesbian mothers, gay fathers and their children based on population-based, representative samples. Drawing from two databases of relatively recent vintage, Badgett evaluated the likelihood that participants in two surveys identified themselves both as lesbian/gay/homosexual and as having children. The first sample was drawn from the Yankelovich Monitor, which drew a probability sample of all adults in the United States. In face-to-face interviews, participants were asked to select from among a large group of labels all those that described them. The labels were printed on a card, and included personal characteristics such as 'idealistic' and 'competitive', as well as 'gay, lesbian, or homosexual'. Participants responded by calling out the code associated with each descriptor; thus, it was possible to identify as being gay or lesbian without having to pronounce the terms aloud in front of an interviewer. Interestingly, 5.7% of the participants in this research described themselves as lesbian, gay or homosexual. The participants were also asked both, ‘are you a parent?’, and ‘are there children under the age of 18 in your household?’

The second sample was from a Voter Exit Poll, and involved a random sample of voters in the United States. In this study,
participants completed a written survey, and selected from among a group of labels the ones that fitted them best. One of the choices was 'gay/lesbian/homosexual', and 3% of participants selected this description. Since the participants were all American voters, they had a profile that is characteristic of this group. They were all at least 18 years old, and most had more years of education and higher incomes than average for the population. These individuals were also asked whether or not there were 'children under the age of 18 in your household'.

For present purposes, the specific questions asked in these two surveys had both strengths and limitations. The question 'are you a parent?' was defined as having at least one biological child, and thus excluded adoptive or foster parents, as well as any other route to nonbiological parenthood. Thus, regardless of sexual orientation, this question may exclude many adults who became parents in nontraditional ways. Similarly, the question about children under the age of 18 in the household can be expected to yield underestimates of parenthood, since those with children away at school or grown children living on their own would not be counted as parents. On the other hand, this definition could include adoptive, foster, and other nonbiological parents. Each approach to assessment, then, has its strengths and weaknesses.

The results of Badgett's (1998) calculations were presented separately for men and for women. Using data from the Yankelovich poll, Badgett reported that 32% of lesbian women, and 36% of heterosexual women reported having children in their households. Using the Voter Exit Poll data, Badgett found that 31% of lesbian women, and 37% of heterosexual women reported having children in their households. Using data from the Yankelovich poll about whether or not women were parents, Badgett found that 67% of lesbian women and 72% of heterosexual women described themselves as parents. None of the comparisons based on sexual orientation was statistically significant. Although all of the comparisons suggested, as expected, that heterosexual women were somewhat more likely than lesbian women to be parents, the differences between lesbian and heterosexual women were small and not statistically significant. Unlike Bell and Weinberg (1978) then,

Badgett (1998) reported that lesbian women were as likely to be mothers and as likely to have children living in their households as were heterosexual women.

For men, Badgett's (1998) findings were more in concert with those of Bell and Weinberg (1978). Using data from the Yankelovich poll, Badgett reported that 15% of gay men, and 28% of heterosexual men reported having children in their households. Using data from the Voter Exit Poll, Badgett found that 23% of gay men and 33% of heterosexual men reported having children in their households. Finally, based on the Yankelovich data, Badgett reported that 27% of gay men, but 60% of heterosexual men described themselves as parents. All of the comparisons based on sexual orientation were statistically significant; as expected, heterosexual men were more likely than gay men to be parents and to have children living in their households.

Based on Badgett's (1998) results, one might be inclined to conclude that fertility is significantly related to sexual orientation for men, but not for women. In the data analysed by Badgett (1998), lesbian women were as likely as heterosexual women to describe themselves as parents and as having children living in their households, but the same was not true among men. Gay men were significantly less likely than heterosexual men to be parents or to have children living in their households. These conclusions, if sustained in other studies, would certainly be important from a number of different perspectives.

How valid are the conclusions based on these data? Badgett (1998) was the first to provide estimates of fertility among lesbian women and gay men based on data from representative or near-representative samples of American adults, and in this way, her work improved markedly upon earlier studies. On the other hand, some limitations of Badgett's approach can also be noted. For instance, although her research is based upon nationally representative or near-representative samples, there were relatively small numbers of lesbian and gay respondents in each of the two samples she used, and estimates based upon them must therefore be more tentative than they would be if samples were larger. Second, the datasets with which Badgett worked defined sexual orientation in
only a single way — as identity. To be identified as lesbian or gay in this research was to apply the label to oneself, and no way to assess the degree to which such labels did or did not match up with actual sexual behaviour or sexual desire was available. The importance of this issue cannot be determined on the basis of data available in either the Yankelovich or the Voter Exit Polls, but it is suggested by the fact that another recent survey reported that a third of adults reporting a same-sex sexual partner within the last year did not identify as lesbian, gay or bisexual (Michaels, 1996). Overall, more complex assessments of sexual orientation would certainly be desirable.

Earlier efforts to assess possible associations between sexual orientation and fertility, then, have not yielded particularly clear conclusions. The results of Bell and Weinberg’s (1978) pioneering study suggested that both lesbians and gay men are less likely than their heterosexual counterparts to have had children. More recent work by Badgett (1998), however, suggests that while gay men are less likely than heterosexual men to be parents or to have children currently living in their households, lesbian women are not markedly different from heterosexual women in these areas. The methodologies used in both studies had both strengths and weaknesses, however, and the questions remain open.

To address the issues raised by earlier research, we drew upon the resources of the National Health and Social Life Survey (Laumann et al., 1994), which involved a large nationally representative sample of American adults. Because this study had, among other things, assessed sexual orientation as well as parental status, it provided an excellent opportunity to address issues surrounding the possible associations between sexual orientation and fertility.

**Estimates based on the National Health and Social Life Survey**

The National Health and Social Life Survey (NHSLS: Laumann et al., 1994), a comprehensive survey of sexual behaviour conducted in the early 1990s, provided the data for the current project. The NHSLS involved face-to-face interviews with over 3000 English-speaking American adults, ranging from 18 to 59 years of age, and living in households. Thus, the study did not sample older adults, those living in institutional settings, or those who do not speak English. The focus of the study was on the social organization of sexuality, and it included questions about sexual orientation as well as about parental status.

Most important for the present purposes, the NHSLS (Laumann et al., 1994) included questions that permit more complex definitions of sexual orientation than have generally been available from other sources. In particular, respondents were asked not only about sexual identity (i.e. heterosexual, lesbian/gay, or bisexual), but also about their same-sex sexual behaviour, and about their desire for same-sex sexual opportunities. The proportions of respondents giving nonheterosexual replies varied considerably across questions (see Table 7.1). Thus, the results suggest that identification of lesbian women and gay men may be somewhat more difficult than often believed. On the basis of information available in the NHSLS, four possible approaches to identification of lesbian women and gay men can be identified.

| Table 7.1. Percentage of women and men who reported same-sex identity, behaviour, or desire in the National Health and Social Life Survey (NHSLS)* |
|-----------------|-----------------|-----------------|
| Those categorized as lesbian/gay on the basis of: | Women % (n) | Men % (n) |
| Identity | 1.4 (24) | 2.8 (39) |
| Behaviour | 4.1 (72) | 4.9 (69) |
| Desire | 7.5 (131) | 7.7 (108) |
| Identity, behaviour or desire | 8.6 (150) | 10.1 (143) |
| Entire sample (n = 3159) | 55.4 (1749) | 44.6 (1410) |

* Frequencies and percentages are taken from Laumann et al. (1994).
'do you identify yourself as lesbian, gay or bisexual?' Results showed that 1.4% of women and 2.8% of men indicated to the interviewer that they identified themselves in this way (see Table 7.1). This approach, which requires that lesbian and gay respondents identify openly and in person to a stranger, is the most stringent of all the assessment techniques for identifying nonheterosexual respondents.

Another approach to identifying gay men and lesbians is based on behaviour. From this perspective, one attempts to separate those who have engaged in same-sex sexual behaviour from those who have not done so. In the NHSLs, respondents were asked, 'have you had any same-sex sexual partners since the age of 18?' This question was part of a 'Self-Administered Questionnaire' (i.e. written questionnaires to which participants responded in writing, and then sealed into privacy envelopes before handing them back to the interviewer). Results showed that 4.1% of women and 4.9% of men reported same-sex sexual partners during their adult years (see Table 7.1). Relying upon same-sex sexual behaviour reported in this way results in a larger group of 'lesbian, gay and bisexual' respondents than does the measure of identity described above.

A third avenue to the identification of gay men and lesbians is based on desire. Taking this approach, one attempts to separate those who see same-sex sexual contacts as attractive and desirable from those who do not. In the NHSLs, respondents were asked, 'does the idea of same-sex sexual behavior attract you, or seem appealing?' Participants responded by reporting a number from a hand card presented by the experimenter (on which 1 = 'very appealing' and 4 = 'not at all appealing'). Results showed that 7.5% of women and 7.7% of men described same-sex sexual behaviour as appealing or attractive (see Table 7.1). These numbers are clearly greater than either those for behaviour or identity. More adults see same-sex sexual behaviour as attractive than have actually engaged in the behaviour or identified themselves as lesbian or gay, and hence the criterion of desire identifies more individuals as lesbian or gay compared to the other two, taken singly.

A fourth approach to the identification of gay men and lesbians is based on a combination of all three of the earlier criteria. Taking this approach, one separates those who were identified on the basis of identity, behaviour, or desire from those who were not identified by any of these criteria. Results showed that, in the NHSLs, 8.6% of women and 10.1% of men would be identified as gay or lesbian on the basis of at least one of the three criteria (i.e. identity, behaviour, or desire – see Table 7.1). Clearly, this is the least stringent method of identifying lesbian and gay adults, and it results in the largest estimates.

Our concern here is not to recommend one method for identification of lesbian and gay respondents over another, but to point instead to the different results that one obtains if one uses different methods, and to ask what implications these may have for estimating fertility rates as a function of sexual orientation. Clearly, larger samples of lesbians will be obtained if women are identified on the basis of desire for same-sex contacts than if only those who claim a lesbian identity are selected. The NHSL data (Laumann et al., 1994) reveal that those claiming a lesbian identity are also very likely to express desires for same-sex sexual behaviour. The group of those expressing desire, but reporting no same-sex sexual experience and no lesbian identity, are likely to have lived in different ways than those who have made their relationships with women central to their daily lives. What implications do these facts have for assessments of fertility?

The NHSLS (Laumann et al., 1994) also included questions about fertility. Most important for the present purposes, respondents were asked, 'how many children have you ever had, counting only live births?' From replies to this question, respondents were categorized as 'having biological children' or 'not having biological children'. Thus, data gathered in this study are relevant to biological parenthood, and do not include foster or adoptive children.

Using data from assessments of sexual orientation and of parenthood, we examined the associations of the two, both for men and for women. For women, results showed 30% of those who were classified as lesbian on the basis of identity, 49% of those who were classified as lesbian on the basis of behaviour, 58% of those who
Table 7.2. Percentages of nonheterosexual women and men who reported having had at least one biological child in the NHSLs as a function of categorization criteria

<table>
<thead>
<tr>
<th>Those categorized as lesbian/gay on the basis of:</th>
<th>Women % (n)</th>
<th>Men % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity</td>
<td>30 (7)</td>
<td>14 (5)</td>
</tr>
<tr>
<td>Behaviour</td>
<td>49 (35)</td>
<td>32 (22)</td>
</tr>
<tr>
<td>Desire</td>
<td>58 (76)</td>
<td>29 (31)</td>
</tr>
<tr>
<td>Identity, behaviour or desire</td>
<td>58 (76)</td>
<td>38 (54)</td>
</tr>
</tbody>
</table>

* Frequencies and percentages were calculated from information supplied by Laumann et al. (1994).

were classified as lesbian on the basis of desire, and 58% of those who were classified as lesbian on the basis of at least one of the previous three criteria also identified themselves as having at least one biological child (see Table 7.2). For comparison, 73% of heterosexually identified women in this sample described themselves as having had at least one biological child. As expected, the fertility estimates varied dramatically as a function of the criteria employed. Also as expected, however, fertility among lesbian women – however identified – was lower than among heterosexual women.

For men, results showed that only 14% of those classified as gay on the basis of identity, 32% of those classified as gay on the basis of behaviour, 29% of those classified as gay on the basis of desire, and 38% of those classified as gay on the basis of at least one of the previous three criteria also described themselves as having at least one biological child (see Table 7.2). For comparison, 59% of heterosexual men in this sample identified themselves as having had at least one biological child. Again, as expected, fertility estimates varied widely as a function of the criteria for identification of gay men. Also as expected, however, fertility among gay men – however identified – was markedly lower than among heterosexual men.

In all, then, data from the NHSLs suggest lower fertility among lesbian and gay than among heterosexual adults. In general, lesbian and gay adults – no matter how identified – were less likely to report having children who were biologically related to them. As expected, however, the degree of association between sexual orientation and fertility depended strongly upon specific defining criteria for sexual orientation. The smallest numbers of lesbian and gay adults (and thus also parents) were identified with the identity criterion, whereas larger numbers were identified with criteria related to behaviour and desire. Regardless of the criterion used, however, sizeable numbers of people were identified.

To assess the extent to which associations between sexual orientation and fertility might be due to extraneous factors, we examined a number of demographic variables that are related to fertility in heterosexual populations. Specifically, we studied age, race, education, and income – all variables for which information was available in the NHSLs. Confirming Badgett’s (1998) findings, results showed that lesbian and gay individuals did not have higher incomes than heterosexual individuals. Similarly, although larger proportions of lesbian and gay than heterosexual adults described themselves as white, this difference was not statistically significant. Men who identified as gay were, on average, four years younger than men who identified as heterosexual, and this difference may have contributed to their reduced fertility, but there were no such differences among lesbian versus heterosexual women.

The single most striking difference between lesbian/gay and heterosexual adults in the NHSLs sample was related to education. No matter how they were identified, lesbian and gay respondents reported significantly higher educational attainment than did heterosexual respondents. This difference is particularly interesting because many nonrepresentative samples of lesbian and gay adults have revealed higher than average educational levels among participants. It has not, in general, been clear whether this finding results from characteristics of the population in general (i.e. lesbian/gay adults are generally better educated than heterosexual adults) or from biases in sampling procedures (i.e. better educated lesbian/gay adults were recruited more often to participate in research and/or were more willing to volunteer). Because the data for the NHSLs were drawn from a nationally representative
sample of American adults, and because lesbian/gay and heterosexual respondents were recruited for the study using the same procedures, the higher educational levels reported by lesbian and gay respondents here are not likely to be the result of sampling biases. This finding suggests that it may be worth considering the possibility of association between educational levels and the willingness to adopt lesbian or gay identities, as well as to report same-sex sexual behaviour or desire. If there are indeed general associations between education and sexual identities, this fact would be worth further exploration, in an attempt to clarify the demography of lesbian and gay populations.

In the present context, differences in educational attainment between lesbian, gay and heterosexual respondents raise the possibility that differences in fertility might be due at least in part to education rather than to sexual orientation. In the United States today, fertility rates are lower among women with higher levels of education (United States Bureau of the Census, 1999). Because lesbian women and gay men report higher levels of educational attainment, their fertility would be expected to be lower than average on this basis alone. To assess this possibility, we calculated relative risk scores, taking into account age and education, as well as income and race. The results of these relative risk analyses were essentially identical to those described above; differences in educational attainment did not explain differential fertility as a function of sexual orientation.

Overall, though associations between sexual orientation and fertility were quite robust in the NHSLS sample, the data were also subject to a number of limitations that affect the strength of conclusions that may be drawn from them. First, the sample of nonheterosexual adults (identified on the basis of identity) was again rather small (n = 56). For this reason, generalizations made on the basis of these data should be treated with caution, pending replication in other samples.

Second, the criteria used to identify nonheterosexual individuals in the NHSLS had some intrinsic limitations that probably resulted in them being very conservative. To be classified as lesbian or gay on the basis of identity, for example, participants had to describe themselves in this way in the context of face-to-face interviews with a researcher with whom respondents had no prior relationship. That many lesbian or gay individuals may have been afraid or embarrassed or ashamed to give honest answers in this kind of setting is suggested by the very low rates of classification by identity (only 1.4% of women identified themselves as lesbian, and only 2.8% of men identified themselves as gay). In other population-based samples, when self-identification required the respondent only to call out a coded identifier, self-classification was markedly more common, exceeding 5% of the entire sample (Badgett, 1998). Thus, it seems likely that identity criteria employed in the NHSLS identified only that subset of lesbian and gay adults who were most open about their sexual identities, and most willing to share them with an interviewer.

A third limitation of data based upon the NHSLS is that they are based exclusively upon reports of biological parenthood. Although this certainly has some advantages (e.g. precision), it fails to identify those who are parents of children to whom they are not biologically related. Among those excluded in this way would be foster and adoptive parents, and nonbiological parents in lesbian and gay communities. Because nontraditional forms of parenthood are probably more common among lesbian and gay than among heterosexual adults, it is likely that this bias results in greater underestimation of the numbers of lesbian/gay as compared to heterosexual parents.

A fourth issue, related to the previous one, concerns the average age of the adults studied in the NHSLS. The average ages of respondents in this sample were in the early to mid thirties. Since the obstacles encountered by lesbian and gay adults who wish to become parents are likely to delay their attainment of this goal, lesbian and gay individuals who become first-time parents are likely to do so when they are older, on average, than heterosexual adults. To the degree that this is the case, the comparatively young average age of the NHSLS respondents introduces a bias that is likely to reduce estimates of lesbian and gay parent numbers, as compared with those of heterosexual parents.

Taken together, these several limitations combine to yield a
dataset that, although strong in many respects, is likely to underestimate lesbian and gay fertility in particular, and also the numbers of lesbian and gay parents in a more general sense. Laumann and his colleagues underscored this point when they characterized their estimates of the numbers of nonheterosexual individuals as constituting ‘lower bound estimates’ of the true numbers (Laumann et al., 1994). Estimates developed from the NHSLS data should therefore be viewed as conservative.

Conclusions

Overall, then, despite acknowledged difficulties in making estimates in this area, we conclude that there are almost certainly associations between sexual orientation and fertility. In the United States, NHSLS data show that lesbian and gay adults are less likely than heterosexual adults to have biological children. Because these data contain many biases, the true associations between sexual orientation and fertility in the United States today may be somewhat less than the current findings suggest. At the same time, however, it is also clear that large numbers of lesbian and gay adults do have biological offspring. Biological parenthood may not be as common among lesbian and gay as among heterosexual adults, but neither is it unknown.

It is valuable to compare the present results, based on data from the NHSLS, to those based on data from the Voter Exit Poll and the Yankelovich Monitor (Badgett, 1998). The NHSLS data are relevant to biological parenthood, and suggest that lesbian women are less likely than heterosexual women to have children who are biologically related to them. The Voter Exit Poll and the Yankelovich data concern ‘parenthood’ (without requiring a biological linkage) and ‘having children in the household’, and these datasets show no associations with sexual orientation. Thus, it appears that, although lesbian women are as likely as heterosexual women to regard themselves as parents and to have children living in their households, they are less likely to have biological children. In other words, lesbian women seem to be more likely than heterosexual women to have become parents in nontraditional ways (e.g. adoption), but equally likely to be parents. Among gay men, the difficulties involved in becoming parents are more pronounced, and no form of parenthood is as common as among heterosexual men.

Taking all the available information together, then, how many lesbian and gay parents are there, and how many children do they have? In the United States today, United States Bureau of the Census data show that there are 105 million women and 97 million men aged 18–59 years. Using the most conservative numbers available (i.e. those from the NHSLS, based on 1.4% of women and 2.8% of men who identify as lesbian or gay, and the 30% of lesbians and 14% of gay men who describe themselves as biological parents), then the numbers of lesbian and gay parents are estimated at just under one million. If it is assumed that each parent, on average, has two children, then that would put the number of children with lesbian or gay parents in the United States today at just under two million. Because of the strong likelihood that lesbians and gay men may have failed to self-identify in the NHSLS, however, and because there must also be lesbian and gay parents who are older than 59 years (who would not have been sampled in the NHSLS), these estimates are likely to be smaller than the true numbers.

Consider, in contrast, estimates based on Badgett’s (1998) calculations, from the Yankelovich data. In these data, 5.7% of respondents identified as ‘lesbian, gay or homosexual’. Using the United States Bureau of the Census population figures given above, the Yankelovich data would lead to estimates of about four million lesbian mothers and one million gay fathers, for a total of more than five million lesbian and gay parents. If, on average, each parent has two children, that would put the numbers of children with lesbian or gay parents at ten million.

Clearly, estimates based on more liberal criteria suggest that there are even larger numbers of families in which children have lesbian or gay parents. For instance, if lesbian and gay individuals are identified in the NHSLS data based on the presence of any of the three criteria (identity, behaviour or desire), then 6.9% of women are identified as lesbian and 7.7% of men are identified as gay. Larger
proportions of individuals identified in these ways describe themselves as parents in the NHSLS data (i.e. 58% of women and 38% of men). Using these figures, the number of lesbian and gay parents in the United States today might be estimated at just over seven million. If each parent can be assumed to have, on average, two children, this would put the numbers of children with lesbian or gay parents at approximately 14 million.

In short, even when estimates of the numbers of lesbian and gay parents and their children are based on representative or near-representative samples of American adults, they may nevertheless vary widely. Most important among the reasons for such variations would appear to be the operational definitions of sexual orientation employed, the specific methods used in assessing lesbian and gay identities, and the breadth of the definitions of parenthood that were adopted in each study. Different approaches to each of these issues may be appropriate for different purposes, and no single approach is likely to provide a complete solution. Even in view of the variability, however, it would be reasonable to conclude that there are almost certainly millions of gay or lesbian parents in the United States today. Exactly how many millions of lesbian and gay parents, and exactly how many millions of their children live in the United States today are questions that do not have simple answers.

Our conclusions about the prevalence of parenthood among lesbian and gay adults are similar in many respects to those described by Laumann and his colleagues with regard to the prevalence of homosexuality itself:

> Put simply, we contend that there is no simple answer to questions about the prevalence of homosexuality. Rather, homosexuality is a complex, multi-dimensional phenomenon whose salient features are related to one another in highly contingent and diverse ways.
>  
> (Laumann et al., 1994:320).

Just as there is no single answer about the prevalence of homosexuality, we suggest that there is no single answer to questions about the prevalence of lesbian/gay parenthood. Estimates of the numbers of lesbian and gay parents vary widely as a function of research methods, criteria for identifications of homosexuality, and breadth of definitions of parenthood.

When taking all of the available data into account, however, there is considerable evidence of an association between sexual orientation and fertility. The data suggest that both lesbian and gay adults are less likely than heterosexual adults to have had biologically related children. Even when assessment tools consider a broader definition of parenthood (i.e. one that includes both biologically related and unrelated children), the same linkage between sexual orientation and parental status seems to emerge for men: gay men are less likely than heterosexual men to be parents. Interestingly, the situation for women appears to be different. Although lesbians are less likely than heterosexual women to report biological parenthood, they are as likely as heterosexual women to describe themselves as parents or to report children living in their households, presumably because lesbian women often become parents in nontraditional ways. When all available data are taken together, the resulting estimates of fertility among lesbian and gay adults are lower than expected by some but higher than expected by others, and they highlight the complexities of assessing parental status among lesbian and gay adults.

**References**


