



# The well-being of children with gay and lesbian parents

Paul R. Amato

*Department of Sociology, The Pennsylvania State University, 306 Oswald Tower, University Park, PA 16802, United States*

## 1. Introduction

The articles by Loren Marks and Mark Regnerus provide useful opportunities for readers to think about the current state of research on children with gay and lesbian parents. These articles raise two sets of issues. One involves the scientific status of research on this topic, and the other involves concerns about law, social policy, and civil rights. My comments focus on both sets of issues, beginning with the former. (Disclosure: I served for 2 days as a paid consultant on the design of the New Family Structures Study. I did so because I think that new research on gay and lesbian families, as well as other alternative family structures, should be encouraged.)

## 2. Scientific issues

The article by Marks is a critique of the American Psychological Association (APA) statement on lesbian and gay parenting ([American Psychological Association, 2005](#)). His central assertion is that the APA's conclusions about scientific research are invalid and misleading. He is particular concerned about statements like the following:

In summary, there is no evidence to suggest that lesbian women or gay men are unfit to be parents or that psychosocial development among children of lesbian women or gay men is compromised relative to that among offspring of heterosexual parents. Not a single study has found children of lesbian or gay parents to be disadvantaged in any significant respect relative to children of heterosexual parents ([Patterson, 2005, p. 15](#)).

Marks describes a number of serious methodological problems with the studies summarized in the APA publication. His criticisms raise two questions: How good (or bad) is the existing evidence? And did the APA publication misrepresent this evidence?

I will answer the second question first: I do not believe that the authors of the APA publication are guilty of serious misrepresentation. At the time the APS statement was published, studies had provided little evidence that children raised by lesbian and gay parents differ statistically from children raised by heterosexual parents. The statement that “Not a single study has found children of lesbian and gay parents to be disadvantaged. . .” is unfortunate, given the existence of the [Sarantakos \(1996\)](#) study. A more accurate statement would have been: “Studies overwhelming show that children of lesbian and gay parents are not disadvantaged. . .” Setting aside this one intemperate statement, however, the APA publication accurately reflected the state of knowledge at that time. Moreover, with the exception of the Regnerus study in this volume, the APA's conclusions continued to be relevant after 2005.

Of course, conclusions are only as strong as the evidence on which they are based, and existing studies, as both Marks and Regnerus noted, have serious limitations. A few of these limitations are worth revisiting.

### 2.1. Sampling

Most studies in this literature have been based on small convenience samples. The reason for this is clear: gay and lesbian families with children are difficult to locate and study because they are rare. For example, the Avon Longitudinal Study of Parents and Children enrolled over 18,000 mothers but located only 18 who were lesbian ([Golombok et al., 2003](#)). Similarly,

*E-mail address:* [pxa6@psu.edu](mailto:pxa6@psu.edu)

the Add Health sample of over 12,000 students yielded only 44 with gay or lesbian parents (Wainright et al., 2004). The New Family Structures Study screened 15,058 young adults and located 175 with lesbian mothers and 73 with gay fathers. Screening a large number of people to locate a small number of cases is a costly exercise with respect to time and money. For this reason, large randomly-selected samples along the lines recommended by Marks are unlikely ever to appear in this research literature. The New Family Structures Study is probably the best that we can hope for, at least in the near future.

Of course, some knowledge about a topic is better than no knowledge, and early research based on convenience samples played an important role in getting this field of study “off the ground” and setting an agenda for future work. Moreover, convenience samples have an important lesson to offer. If growing up with gay or lesbian parents were catastrophic for children, even studies based on small convenience samples would have shown this by now. Correspondingly, these studies demonstrated that children with gay and lesbian parents can be well adjusted, at least under optimal conditions. If differences exist between children with gay/lesbian and heterosexual parents, they are likely to be small or moderate in magnitude—perhaps comparable to those revealed in the research literature on children and divorce, as Marks suggested. Indeed, this is precisely what the Regnerus study shows. (I return to this point later.)

## 2.2. Statistical power

Small samples have weak statistical power (the ability to detect associations between variables in the population), which increases the risk of type II errors (failures to reject false null hypotheses). What is statistical power like in most studies on this topic? The answer: feeble.

Consider the Wainright et al. (2004) study. The researchers relied on the Adolescent Health Study, a representative sample of over 12,000 adolescents in the United States. The authors located 44 adolescents with gay or lesbian parents and matched them with 44 adolescents with heterosexual parents on a variety of demographic characteristics. The authors found no significant differences between the two groups on measures of psychological well-being or the quality of family and relationship processes. Adolescents living with same-sex parents, however, scored higher on a measure of school connectedness than did adolescents with heterosexual parents. The authors conducted the analysis competently, and the representativeness of the sample makes the study noteworthy. Nevertheless, I evaluated the statistical power of the study using the sampsi procedure in STATA 9. I assumed that the effects of family structure in the population are moderate, with an effect size of .25, or one fourth of a standard deviation between groups. The statistical power of the study with an alpha value of .05 was only .22. If children with gay or lesbian parents were disadvantaged in the larger population, this study was unlikely to detect it.

The study by Chan et al. (1998) is also noteworthy for using a carefully selected purposive sample. The authors obtained families from a list of sperm bank clients in a manner that made it possible to calculate response rates and assess the representativeness of their sample. Their procedure yielded 55 families headed by lesbian couples/mothers and 25 families headed by heterosexual couples/mothers. The authors used a Bonferroni correction, which lowered the *p* value for establishing significance to .006. Assuming an effect size in the population of .25, the statistical power of this study was .04. It is not surprising that this study yielded no significant findings. (Interestingly, the authors claimed on page 454 that their analysis had sufficient power to detect medium-sized effects. This claim was based on an *r* squared value .10, which corresponds to a standardized mean difference of .667—an unusually large effect size in the family structure literature. Moreover, the authors ignored the Bonferroni correction in their assessment. As a result, they mistakenly concluded that their study had adequate statistical power.)

In contrast to most prior studies, the Regnerus study had adequate statistical power for most comparisons. For example, with an alpha of .05 and an estimated effect size in the population of .25, power values were .84 for comparisons involving children with lesbian mothers and children from intact biological families, .77 for comparisons involving children with lesbian mothers and children from heterosexual stepfamilies, and .83 for comparisons involving children with lesbian mothers and children with heterosexual single mothers. Power values were lower for children with gay fathers: .54 for comparisons involving intact biological families, .53 for comparisons involving heterosexual single parents, and .50 for comparisons involving heterosexual stepfamilies. Nevertheless, with the exception of the Rosenfeld (2010) study, which used data from the American Community Survey to track children’s progress through school, the Regnerus study is better situated than virtually all previous studies to detect differences between these groups in the population.

## 2.3. Effect sizes

Even when studies demonstrate statistically significant differences between groups, it does not follow that these differences are large enough to be substantively important. Cohen (1988) proposed the following guidelines when effects sizes are calculated as standardized mean differences between groups: .20 = weak, .50 = moderate, and .80 = strong. Although these conventions are used widely, they were never meant to apply to all research areas. I have argued elsewhere that more realistic conventions should apply to survey research, where effect sizes are rarely as large as those obtained in the experimental literature (Amato et al., 2007). In particular, I suggest the following conventions for assessing the magnitude of standardized mean differences based on survey data: <.20 = weak, .20–.39 = moderate, .40–.59 = strong, and .60+ = very strong.

How large are the estimated effects in the Regnerus study? To answer this question, I calculated effect sizes for five variables that represent core aspects of quality of life: educational attainment, self-reported physical health, overall happiness, (low) depression, and the quality of the current relationship. I used data from Tables 1 and 3 in the Regnerus article for this

purpose. Comparisons of offspring with lesbian mothers (the LM group) and offspring with continuously married biological parents (the IBF group) produced effect sizes ranging from  $-.72$  (education) to  $-.26$  (happiness) with a mean effect size of  $-.45$ . In other words, when averaged across these measures of well-being, young adults who grew up with lesbian mothers scored slightly less than half of a standard deviation below young adults who grew up with continuously married heterosexual parents. I would describe this as a moderately large effect size.

The choice of comparison group makes a difference, however. Comparisons of offspring with lesbian mothers and offspring from heterosexual stepfamilies revealed a mean effect size of only  $-.15$ . When children with divorced or continuously single mothers served as the comparison group, the mean effect size was only  $-.19$ . I would describe these effect sizes as weak.

What is the most appropriate comparison group? This is a difficult question, given the heterogeneity of gay and lesbian families with children. Consider lesbian couples who have children through sperm donation, or gay couples who have children through surrogacy. Is it reasonable to compare these children with the children of continuously married heterosexual parents? Or should children in the heterosexual comparison group be limited to those born via sperm donation or surrogacy? What about lesbian mothers or gay fathers with children from former marriages or unions? Should these children be compared with those of heterosexual parents who are married, cohabiting, remarried, divorced, or never married? The fact that same-sex marriage is now allowed in several states adds another level of complexity to the problem. Perhaps in future studies, married same-sex parents should be matched with married heterosexual parents.

To a certain extent, the situations of children with gay and lesbian parents are unique, which means that no single comparison group is ideal. Rather than trying to find the most appropriate comparison group, an alternative is to compare children with gay or lesbian parents to the full sample of children. This approach corresponds to “effects coding” rather than dummy variable coding—the more commonly used in multiple regression analysis (Cohen et al., 2002). Using this approach, children with lesbian parents scored  $.28$  of a standard deviation below the full sample of children across the five central outcomes noted earlier—a moderate but not a strong effect size. The corresponding effect for gay fathers ( $.26$ ) was comparable in magnitude. These differences are similar to findings from studies of children with divorced and/or remarried parents. Given that more than half of the young adults with gay or lesbian parents in the Regnerus study experienced parental divorce and/or remarriage, these results are not surprising.

### 3. Social concerns

Some observers may believe that the findings from the Regnerus study have implications for issues such as child custody, adoption, and same-sex marriage. Readers should be cautious, however, before deriving policy implications from these findings. The APA (2005) brief correctly noted that research on children with gay and lesbian parents occurs against a backdrop of discrimination.

Unlike heterosexual parents and their children, however, lesbian and gay parents and their children are often subject to prejudice because of their sexual orientation that can turn judges, legislators, professionals, and the public against them, sometimes resulting in negative outcomes, such as loss of physical custody, restrictions on visitation, and prohibitions against adoption (Patterson, p. 5).

It would be unfortunate if the findings from the Regnerus study were used to undermine the social progress that has been made in recent decades in protecting the rights of gays, lesbians, and their children.

Consider, for example, how the current research might inform the debate over same-sex marriage. Critics of same-sex marriage often argue that the right to marry should be restricted to heterosexuals because gay and lesbian parenting harms children. The current finding—that young adult offspring with gay or lesbian parents score below average on many measures of adjustment and well-being—might be used to support this contention. But this argument misses several important points.

First, as noted earlier, most of the young adults with gay or lesbian parents in the New Family Structures Survey also experienced divorce as children. Consequently, it is likely that many of the disadvantages reported by these offspring were due to marital disruptions that preceded (or coincided with) the time when their parents come out as gay or lesbian. In other words, these disadvantages may be due to the failed heterosexual marriages of parents rather than the sexual orientations of parents. To understand the implications of being raised from birth by two same-sex parents, researchers need to study children born through sperm donation or surrogacy. Yet we know relatively little about the newest generation of planned children with same-sex parents. A clear appreciation of how well these children are faring will require a new generation of studies—studies with representative samples and enough statistical power to reach meaningful conclusions.

Second, the legality of same-sex marriage is a constitutional issue and not one that should be decided on the basis of social science research. In the landmark *Loving v. Virginia* case in 1967, the US Supreme Court reversed state laws that banned mixed-race marriages because these laws violated the Equal Protection Clause of the 14th Amendment. The court did not base its decision on the relative stability of mixed-race marriages, nor on the relative well-being of children with mixed-race parents. Given that mixed-race marriages are more likely than same-race marriages to end in divorce, it is likely that children from these unions face an elevated risk of many problems. But the Supreme Court did not focus on these potential problems in striking down state prohibitions. The overriding point is that these prohibitions violated the US Constitution by restricting the civil rights of couples who wished to marry. (For that matter, spouses with different religious beliefs, levels

of education, and ages also have an elevated risk of divorce, but no one argues that we should prohibit heterogamous marriages because children from these unions may be disadvantaged.)

Opponents as well as proponents of same-sex marriage have produced a parade of social scientists to provide testimony about the quality and stability of same-sex unions and the adjustment of children from these unions (Joslin, 2011; Malakoff, 2012). Too much attention has been given to this evidence. Social science has produced a long list of parental characteristics that are statistically associated with children's development and well-being, including personality traits, cognitive ability, education, earnings, mental health, child-rearing philosophies, and parenting skills. But we do not restrict the right to marry and raise children on the basis of any of these characteristics. When a particular parental behavior poses a clear danger to children's health or well-being, the state will not hesitate to remove children from the parental home to prevent abuse or neglect. Unless a clear and imminent danger exists, however, the state does not regulate family life on the basis of parental characteristics that correlate—usually quite modestly—with child outcomes.

Third, focusing on mean differences between groups can deflect attention from the degree of variability within groups. For example, according to my earlier calculations, offspring with lesbian mothers scored .28 of a standard deviation below the average of all offspring on a composite of five core indices of well-being. Assuming that these scores are normally distributed, 39% of offspring with lesbian mothers scored *above the average* (mean) for all offspring. Clearly, having a gay or lesbian parent does not uniformly disadvantage children. Of course, this also means that 61% of offspring with lesbian mothers scored below the average. But even if this disadvantage were due partly to the sexual orientation of parents (which cannot be determined from the Regnerus study), the magnitude of this effect does not indicate a clear and imminent danger to the well-being of children and, hence, should not trump legal issues involving civil rights.

Fourth, irrespective of whether same-sex marriage continues to gain legal recognition, the number of children raised by gay and lesbian parents is likely to increase in the future. Under these circumstances, it is reasonable to ask whether allowing same-sex parents to marry might be beneficial to these children. Indeed, children with gay and lesbian parents may report certain disadvantages in young adulthood at least partly because their parents were not allowed to marry. A large research literature suggests that marriage—at least among heterosexual couples—is good for children (e.g., Brown, 2004). In addition to conferring many social and legal benefits on these families, marriage may help to stabilize same-sex unions. And research clearly shows that instability in parents' lives is harmful to children (Cherlin, 2009). From a civil rights perspective, one could argue that all children should have the right to be raised by married parents.

The debate over same-sex marriage involves constitutional issues and strongly held values—values often based on religious texts and traditions. This is not a debate that can be adjudicated on the basis of social science research. The Regnerus study makes an important contribution to our understanding of how a variety of childhood family environments are related to outcomes among young adult offspring. But these findings—and for that matter, any social research findings—should not be used to restrict the civil rights of any group of individuals.

## References

- Amato, P.R., Booth, A., Johnson, D., Rogers, S., 2007. *Alone Together: How Marriage in America is Changing*. Harvard University Press, Cambridge, MA.
- American Psychological Association, 2005. *Lesbian and Gay Parenting*. <<http://www.apa.org/pi/lgbt/resources/parenting-full.pdf>> (accessed 12.04.12).
- Brown, S.L., 2004. Family structure and child well-being: the significance of parental cohabitation. *Journal of Marriage and Family* 66, 351–367.
- Chan, R.W., Raboy, B., Patterson, C.J., 1998. Psychosocial adjustment among children conceived via donor insemination by lesbian and heterosexual mothers. *Child Development* 69, 443–457.
- Cherlin, A.J., 2009. *The Marriage-Go-Round: The State of Marriage and Family in America Today*. Knopf, New York.
- Cohen, J., 1988. *Statistical Power Analysis for the Behavioral Sciences*. Erlbaum, Hillsdale, N.J.
- Cohen, J., Cohen, P., West, S.G., Aiken, L.S., 2002. *Applied Multiple Regression/Correlation Analysis for the Behavior Sciences*, second ed. Erlbaum, Hillsdale, N.J.
- Golombok, S., Perry, B., Burston, A., Murray, C., Mooney-Somers, J., Stevens, M., Golding, J., 2003. Children with lesbian mothers: a community study. *Developmental Psychology* 39, 20–33.
- Joslin, C.G., 2011. Searching for harm: same-sex marriage and the well-being of children. *Harvard Civil Rights-Civil Liberties Law Review* 46, 81–101.
- Malakoff, D., 2012. Marriage decision highlights same-sex studies. *Science* 335, 787–788.
- Patterson, C.J., 2005. Lesbian and gay parents and their children: summary of research findings. In: *Lesbian and Gay Parenting*. American Psychological Association, Washington, DC.
- Rosenfeld, Michael J., 2010. Nontraditional families and childhood progress through school. *Demography* 47, 755–775.
- Sarantakos, S., 1996. Children in three contexts: family, education, and social development. *Children Australia* 21, 23–31.
- Wainright, J.L., Russell, S.T., Patterson, C.J., 2004. Psychosocial adjustment, school outcomes, and romantic relationships of adolescents with same-sex parents. *Child Development* 75, 1886–1898.