

**Same-Sex Parenting and Children's Outcomes:
A Closer Examination of the American Psychological Association's
Brief on Lesbian and Gay Parenting**

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ABSTRACT: In 2005, the American Psychological Association (APA) issued an official brief on Lesbian and Gay Parenting. This brief included the assertion: "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" (p. 15). The present article closely examines this assertion and 59 published studies cited by APA to support it. Seven central questions address: (1) homogenous sampling, (2) absence of comparison groups, (3) comparison group characteristics, (4) contradictory data, (5) the limited scope of children's outcomes studied, (6) paucity of long-term outcome data, and (7) lack of APA-urged statistical power. The conclusion is that strong assertions, including those made by the APA, were not empirically warranted. Recommendations for future research are offered.

KEYWORDS: same-sex parenting, lesbian, gay

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Over the past few decades, differences have been observed between outcomes of children in marriage-based intact families and children in cohabiting, divorced, step, and single-parent families. These differences have recurred in connection with myriad issues of societal-level concern including: (a) health², mortality³, and suicide risks⁴, (b) drug and alcohol abuse⁵, (c) criminality and incarceration⁶, (d) intergenerational poverty⁷, (e) education and/or labor force contribution⁸, (f) early sexual activity and early childbearing⁹, and (g) divorce rates as adults.¹⁰ These outcomes represent important impact variables that influence the well-being of children and families, as well as the national economy.

By way of comparison, social science research has repeatedly reported no significant differences between children from gay/lesbian households and heterosexual households. These recurring findings of no significant differences have led some researchers and professional organizations to formalize related claims. Perhaps none of these claims has been more influential than the following from the 2005 American Psychological Association (APA) Brief on “Lesbian and Gay Parenting”:

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.¹¹

Are we witnessing the emergence of a new family form that (unlike cohabiting, divorced, or single-parent families) provides a context for children that is equivalent to the intact family? Many proponents of same-sex marriage contend that the answer is yes. Others are skeptical and wonder—given that other departures from the intact family form have been correlated with less-desirable child outcomes—do children in same-sex families demonstrably avoid being “disadvantaged in any significant respect relative to children of heterosexual parents” as the APA asserts? This is a question with important implications, particularly since the 2005 APA Brief on “Lesbian and Gay Parenting” has been repeatedly invoked in the current same-sex marriage debate.

² Waite, 1995

³ Gaudino et al., 1999; Siegel et al., 1996

⁴ Wilcox et al., 2005, p. 28; Cutler et al., 2000

⁵ Bachman et al. 1997; Flewelling & Bauman, 1990; Horwitz et al., 1996; Johnson et al., 1996; Simon, 2002; Waite & Gallagher, 2000; Weitoft et al., 2003; Wilcox et al., 2005

⁶ Blackmon et al., 2005; Harper & McLanahan, 2004; Kamark & Galston, 1990, pp. 14-15; Manning & Lamb, 2003; Margolin, 1992, p. 546

⁷ Akerlof, 1998; Blackmon et al., 2005; Brown, 2004; Oliver & Shapiro, 1997; Rank & Hirschl, 1999

⁸ Amato, 2005; Battle, 1998; Cherlin et al., 1998; Heiss, 1996; Lansford, 2009; Manning & Lamb, 2003; McLanahan & Sandefur, 1994; Phillips & Asbury, 1993; Teachman et al., 1998

⁹ Amato, 2005; Amato & Booth, 2000; Ellis et al., 2003; McLanahan & Sandefur, 1994

¹⁰ Cherlin et al., 1995; Wolfinger, 2005

¹¹ Patterson, p. 15 (from APA Brief, 2005)

Statement of Purpose and Specific Questions

The overarching question of this paper is: *Are the conclusions of the research presented in the 2005 APA Brief on “Lesbian and Gay Parenting” valid and precise, based on the cited scientific evidence?* In the present paper, seven questions are posed, examined, and addressed:

- (1) How culturally, ethnically, and economically diverse were the gay/lesbian households in the published literature behind the APA Brief?
- (2) How many studies of gay/lesbian parents had no heterosexual comparison group?
- (3) When there were comparison groups, which groups were compared?
- (4) Does a scientifically-viable study exist to contradict the APA’s published statement that “not a single study has found children of lesbian or gay parents to be disadvantaged”?
- (5) What types of outcomes have been investigated?
- (6) What do we know about the long-term outcomes of children of lesbian and gay parents?
- (7) Have the studies in this area committed the type II error and prematurely concluded that heterosexual couples and gay and lesbian couples produce similar parental outcomes?

Two portions of the APA brief are of particular concern to us in the present paper: (a) the “Summary of Research Findings” (pp. 5–22), and (b) the first and largest section of the annotated bibliography, entitled “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children” (pp. 23–45). In the latter section (pp. 23–45), the APA references 67 manuscripts. Eight of these studies are “unpublished dissertations.”¹² An adapted portion of one of these dissertations (Steckel, 1985) was eventually published (Steckel, 1987) and is included in the present examination; the other unpublished work is not. Fifty-nine published studies are listed in Table A, providing parameters from which to formulate responses to the seven questions outlined.

Question 1: How culturally, ethnically, and economically diverse were the gay/lesbian households in the published literature behind the APA brief?

In response to question 1, of the 59 published “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children,” no studies mention African-American, Latin-American, or Asian-American families in either their titles or subtitles. The reference list in the APA Brief’s “Summary of Research Findings” (pp. 15–22) is also void of any studies focusing on African-American, Latin-American, or Asian-American families.¹³ None of the “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children” (pp. 23–45) holds, as its focus, any of these minorities.

¹² These unpublished dissertations that were not peer-reviewed include: Hand, 1991; McPherson, 1993; Osterweil, 1991; Paul, 1986; Puryear, 1983; Rees, 1979; Sbordone, 1993; Steckel, 1985. These are omitted in Table A.

¹³ Three years after the 2005 APA Brief, Moore (2008) published a small but pioneering study on African-American lesbians.

A closer examination of the studies reveals that White/Caucasian samples comprise several of the studies from the “Empirical Studies...” (pp. 23–45) section of the APA Brief. For example:

1. “All of [the fathers in the sample] were Caucasian” (Bozett, 1980, p. 173).
2. “Sixty parents, all of whom were White” comprised the sample (Flaks et al., 1995, p. 107).
3. “[All 40] mothers...were white” (Hoeffler, 1981, p. 537).
4. “All the children, mothers, and fathers in the sample were Caucasian” (Huggins, 1989, p. 126).
5. “The twenty-five women were all white” (Rand et al., 1982, p. 29).
6. “All of the women...[were] Caucasian” (Siegenthaler & Bigner, 2000, p. 82).
7. “All of the birth mothers and co-mothers were white” (Tasker & Golombok, 1998, p. 52).
8. “All [48] parents were Caucasian” (Vanfrasussen et al., 2003, p. 81).

Many other studies do not explicitly acknowledge all-White samples, but also do not mention or identify a single minority participant—while others report “almost” all white samples.¹⁴ Same-sex researchers Lott-Whitehead and Tully (1993) cautiously added in the discussion of their APA Brief-cited study:

Results from this study must be interpreted cautiously due to several factors. First, the study sample was small (N=45) and biased toward well-educated, white women with high incomes. These factors have plagued other [same-sex parenting] studies, and remain a concern of researchers in this field (p. 275).

Similarly, in connection with this bias, Patterson (1992), who would later serve as sole author of the 2005 APA Brief’s “Summary of Research Findings on Lesbian and Gay Families,” reported:

Despite the diversity of gay and lesbian communities, both in the United States and abroad, samples of children [and parents] have been relatively homogeneous.... Samples for which demographic information was reported have been described as predominantly Caucasian, well-educated, and middle to upper class.¹⁵

In spite of the privileged and homogenous nature of the non-representative samples employed in the studies at that time, Patterson’s (1992) conclusion was as follows:

Despite shortcomings [in the studies], however, results of existing research comparing children of gay or lesbian parents with those of heterosexual parents

¹⁴ Examples of explicit or implicitly all-White (or nearly all-White) samples include, but are not limited to: Bigner & Jacobsen, 1989a, 1989b; Bozett, 1980; Flaks et al., 1995; Green, 1978; Green et al., 1986; Hoeffler, 1981; Huggins, 1989; Koepke et al., 1992; Rand et al., 1982; Siegenthaler & Bigner, 2000; Tasker & Golombok, 1995, 1998; Vanfraussen et al., 2003

¹⁵ Patterson, 1992, p. 1029

are *extraordinarily clear*, and they merit attention... There is *no* evidence to suggest that psychosocial development among children of gay men or lesbians is compromised *in any respect* relative to that among offspring of heterosexual parents.¹⁶

Patterson's conclusion in a 2000 review was essentially the same:

[C]entral results of existing research on lesbian and gay couples and families with children are *exceptionally clear*.... [The] home environments provided by lesbian and gay parents are just as likely as those provided by heterosexual parents to enable psychosocial growth among family members.¹⁷

Although eight years had passed, in this second review, Patterson (2000) reported the continuing tendency of same-sex parenting researchers to select privileged lesbian samples. Specifically, she summarized, "Much of the research [still] involved small samples that are predominantly White, well-educated [and] middle-class" (p. 1064).¹⁸ Given the privileged, homogeneous, and non-representative samples of lesbian mothers employed in "much of the research," it seems warranted to propose that Patterson was empirically premature to conclude that comparisons between "gay or lesbian parents" and "heterosexual parents" were "extraordinarily clear"¹⁹ or "exceptionally clear."²⁰

There is an additional point that warrants attention here. In Patterson's statements above, there are recurring references to research on children of "gay parents." In 2000, Demo and Cox reported that "children living with gay fathers" were a "rarely studied household configuration."²¹ In 2005, how many of the 59 published studies cited in the APA's list of "Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children" (pp. 23–45) specifically addressed the outcomes of children from gay fathers? A closer examination reveals that only eight studies did so.²² Of these eight studies, four did not include a heterosexual comparison group.²³ In three of the four remaining studies (with heterosexual comparison groups), the outcomes studied were:

- "the value of children to...fathers" (Bigner & Jacobsen, 1989a, p. 163).
- "parenting behaviors of...fathers" (Bigner & Jacobsen, 1989b p. 173).
- "problems" and "relationship with child" (Harris & Turner, 1986, pp. 107–108).

The two Bigner and Jacobsen (1989a, 1989b) studies focused on fathers' reports of *fathers'* values and behaviors, not on children's outcomes—illustrating a recurring tendency in the same-sex parenting literature to focus on the parent, rather than the child. Harris and Turner (1986) addressed parent-child relationships, but their study's male

¹⁶ Patterson, 1992, p. 1036 (emphasis added)

¹⁷ Patterson, 2000, p. 1064 (emphasis added)

¹⁸ Patterson, 2000, p. 1064

¹⁹ Patterson, 1992, p. 1036

²⁰ Patterson, 2000, p. 1064

²¹ Demo & Cox, 2000, p. 890

²² Bailey et al., 1995; Barrett & Tasker, 2001; Bigner & Jacobsen, 1989a, 1989b; Bozett, 1980; Harris & Turner, 1986; Miller, 1979; Sarantakos, 1996

²³ Bailey et al., 1995; Barrett & Tasker, 2001; Bozett, 1980; Miller, 1979

heterosexual comparison group was comprised of two single fathers. It appears that although several studies have examined aspects of gay fathers' lives, almost no heterosexual comparison studies referenced in the APA Brief (pp. 23–45) appear to have specifically focused on children's developmental outcomes—a rare exception is Sarantakos (1996), a study to which we will return later.

In summary response to Question 1 (“How culturally, ethnically, and economically diverse were the gay/lesbian households in the published literature behind the APA Brief?”), the reader may ascertain that none of the cited articles (pp. 23–45) focus on African-American, Latino, or Asian-American families. Further, many studies do not include any minority individuals or families. Finally, comparison studies on children of gay fathers were almost non-existent as well. By their own reports, social researchers examining same-sex parenting have repeatedly selected non-representative, homogeneous samples of privileged lesbian mothers to represent all same-sex parents. This pattern across three decades of research raises significant questions regarding lack of diversity and lack of generalizability in the same-sex parenting studies.

Question 2: How many studies of gay/lesbian parents had no heterosexual comparison group?

Of the 59 publications cited by the APA in the annotated bibliography section entitled “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children” (pp. 23–45), 33 involved a heterosexual comparison group. In direct response to Question 2, 26 (44.1 percent) of the studies on same-sex parenting did not include a heterosexual control group. In well-conducted science, it is important to have a clear comparison group before drawing conclusions regarding differences or the lack thereof. We see that nearly half of the “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children” referenced in the APA Brief allowed no basis for comparison between these two groups (see Table A). To proceed with precision, this fact does not negate the APA claim. It does, however, dilute it considerably as we are left with not 59, but 33, studies with heterosexual comparison groups.

Question 3: When there were comparison groups, which groups were compared?

We now turn to a question regarding the nature of comparison samples. Of the 33 published “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children” (APA Brief, pp. 23–45) that did directly include a heterosexual comparison group, *what were the more specific characteristics of the groups that were compared?* The earlier examination and response related to Question 1 documented that, by Patterson's reports, “Despite the diversity of gay and lesbian communities...in the United States,”²⁴ the repeatedly selected representatives of same-sex parents have been “small samples [of lesbians] that are predominantly White, well-educated [and] middle-class” (p. 1064).²⁵

In spite of homogenous sampling, there is considerable diversity among gay and lesbian parents. Considerable diversity exists among heterosexual parents as well. Indeed, the opening paragraph of this article noted recurring differences in outcomes of

²⁴ Patterson, 1992, p. 1029

²⁵ Patterson, 2000, p. 1064

children in marriage-based intact families and children in cohabiting, divorced, step, and single-parent families. To restate, these differences have recurred in connection with myriad issues of societal-level concern including: (a) health²⁶, mortality²⁷, and suicide risks²⁸, (b) drug and alcohol abuse²⁹, (c) criminality and incarceration³⁰, (d) intergenerational poverty³¹, (e) education and/or labor force contribution³², (f) early sexual activity and early childbearing³³, and (g) divorce rates as adults.³⁴ Most of these findings are based on probability samples of thousands (see Table B for 17 illustrative studies).

Because children in marriage-based intact families have historically fared better than children in cohabiting, divorced, step, or single-parent families on the above outcomes, the question of what “groups” researchers selected to represent heterosexual parents in the same-sex parenting studies becomes critical. A closer examination of the 33 published same-sex parenting studies with comparison groups which follows, listed chronologically, reveals that:

1. Pagelow (1980) used “single mothers” as a comparison group (p. 198).
2. Hoeffler (1981) used “heterosexual single mothers” (p. 537).
3. Kirkpatrick et al. (1981) used “single, heterosexual mothers” (p. 545).
4. Kweskin and Cook (1982) used women from Parents without Partners (p. 969).
5. Lyons (1983) used “heterosexual single mothers” (p. 232).
6. Golombok et al. (1983) used “single-parent households” (p. 551).
7. Green et al. (1986) used “solo parent heterosexual mothers” (p. 175).
8. Harris and Turner (1986) used 2 “male single parents” and 14 “female single parents” (p. 105).
9. Huggins (1989) used “divorced heterosexual mothers”³⁵ (p. 123).
10. Tasker and Golombok (1995) used “heterosexual single mothers” (p. 203).
11. Tasker and Golombok (1997) used “single heterosexual mothers” (p. 38).

We see that in selecting *heterosexual* comparison groups for their studies, many same-sex parenting researchers have not used marriage-based, intact families as heterosexual representatives, but have instead used single mothers (see Table A). Further, Bigner and Jacobsen used 90.9 percent single-father samples in two other studies (1989a, 1989b).³⁶

²⁶ Waite, 1995

²⁷ Gaudino et al., 1999; Siegel et al., 1996

²⁸ Wilcox et al., 2005, p. 28; Cutler et al., 2000

²⁹ Bachman et al. 1997; Flewelling & Bauman, 1990; Horwitz et al., 1996; Johnson et al., 1996; Simon, 2002; Waite & Gallagher, 2000; Weitoft et al., 2003; Wilcox et al., 2005

³⁰ Blackmon et al., 2005; Harper & McLanahan, 2004; Kamark & Galston, 1990, pp. 14-15; Manning & Lamb, 2003; Margolin, 1992, p. 546

³¹ Akerlof, 1998; Blackmon et al., 2005; Brown, 2004; Oliver & Shapiro, 1997; Rank & Hirschl, 1999

³² Amato, 2005; Battle, 1998; Cherlin et al., 1998; Heiss, 1996; Lansford, 2009; Manning & Lamb, 2003; McLanahan & Sandefur, 1994; Phillips & Asbury, 1993; Teachman et al., 1998

³³ Amato, 2005; Amato & Booth, 2000; Ellis et al., 2003; McLanahan & Sandefur, 1994

³⁴ Wolfinger, 2005

³⁵ “4 of the 16 [divorced] heterosexual mothers were either remarried or currently living with a heterosexual lover” (p. 127).

³⁶ “Of the 66 respondents, 6 were married, 48 were divorced, 8 were separated, and 4 had never been married” (Bigner & Jacobsen, 1989a, p. 166). This means the sample was 90.9 percent single.

In total, in at least 13 of the 33 comparison studies listed in the APA Brief's list of "Empirical Studies" (pp. 23–45) that include heterosexual comparison groups, the researchers explicitly sampled "single parents" as representatives for heterosexual parents. The repeated (and perhaps even modal) selection of single-parent families as a comparison heterosexual-parent group is noteworthy, given that a nonpartisan *Child Trends* (2002) review has stated that "children in single-parent families are more likely to have problems than are children who live in intact families headed by two biological parents."³⁷

Given that at least 13 of the 33 comparison studies listed in the APA Brief's list of "Empirical Studies" (pp. 23–45) used single-parent families as heterosexual comparison groups, what group(s) did the remaining 20 studies use as heterosexual representatives? In closely examining the 20 remaining published comparison group studies, it is difficult to formulate precise reports of the comparison group characteristics, because in many of these studies, the heterosexual comparison groups are referred to as "mothers" or "couples" without appropriate specificity (see Table A for details). Were these "mothers" continuously married—or were they single, divorced, remarried, or cohabiting? When "couples" were used, were they continuously married—or remarried or cohabiting? These failures to explicitly and precisely report sample characteristics (e.g., married or cohabiting) are significant in light of Brown's (2004) finding based on her analysis of a data set of 35,938 U.S. children and their parents, that "regardless of economic and parental resources, the outcomes of adolescents (12–17 years old) in cohabiting families...are worse...than those...in *two-biological-parent* married families."³⁸ Because of the disparities noted by Brown and others, scientific precision requires that we know whether researchers used: (a) single mothers, (b) cohabiting mothers and couples, (c) remarried mothers, or (d) continuously married mothers and couples as heterosexual comparison groups.

Due to the ambiguity of the characteristics of the heterosexual samples in many same-sex parenting studies, let us frame a question that permits a more precise response, namely: *How many of the studies in the APA Brief's "Empirical Studies" section (pp. 23–45) explicitly compare the outcomes of children from intact, marriage-based families with those from same-sex families?* In an *American Psychologist* article published the year after the APA Brief, Herek (2006) referred to a (large, national) study by McLanahan and Sandefur (1994) "comparing the children of intact heterosexual families with children being raised by a single parent." Herek then emphasized that "this [large scale] research literature does not include studies comparing children raised by two-parent same-sex couples with children raised by two-parent heterosexual couples."³⁹ Isolated exceptions exist with relatively small samples (as discussed shortly in response to Question 4 and as listed in Table A), but they are rare.

As we return to the APA's section of 33 published "Empirical Studies" (pp. 23–45) that directly involve heterosexual comparison groups, we see that the repeated, and perhaps modal, practice of same-sex parenting researchers has been to use single parents as heterosexual representatives. Nebulously defined "mothers" and "couples" are frequently used as heterosexual comparison groups, but only in rare cases are explicitly

³⁷ Moore et al., 2002; For an extensive review, see Wilcox et al., 2011.

³⁸ Brown, 2004, p. 364 (emphasis added)

³⁹ Herek, 2006, p. 612

intact, marriage-based families used as the group representing heterosexual parents.⁴⁰ This is important because the intact, marriage-based family is the family form consistently associated with best children's outcomes in large-scale research.⁴¹

Given what we have seen regarding heterosexual comparison group selection, let us revisit three related claims. First, in 1992, Patterson posited that:

[N]ot a single study has found children of gay and lesbian parents to be disadvantaged in any respect relative to children of *heterosexual parents*.⁴²

Patterson's (2000) claim was similar:

[C]entral results of existing research on lesbian and gay couples and families with children are exceptionally clear.... [The] home environments provided by lesbian and gay parents are just as likely as those provided by *heterosexual parents* to enable psychosocial growth among family members.⁴³

Lastly, and most significantly, we turn to the APA Brief's "Summary of Research Findings on Lesbian and Gay Parenting," also single-authored by Patterson (see p. 5):

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*.⁴⁴

The reader will note that in all three of these claims (including that latter from the 2005 APA Brief), Patterson uses the broad and plural term "heterosexual parents," a term that at least implicitly includes marriage-based, intact families. This broad claim is not nuanced by the vital information that with rare exceptions, the research does not include studies comparing children raised by two-parent, same-sex couples with children raised by marriage-based, intact heterosexual couples. Further, no mention is made that in at least 14 of the 33 extant comparison studies referenced in the Brief (pp. 23–45), the groups selected to represent "heterosexual parents" were comprised largely, if not solely, of single parents.

Question 3 asked, "When there were comparison groups (used in same-sex parenting research), which groups were compared?" In light of the information this closer examination has yielded, the scientific community is invited to assess whether or not the APA Brief's claim of no difference between "children of lesbian or gay parents...[and] children of heterosexual parents"⁴⁵ reflected appropriate scientific precision.

⁴⁰ e.g., Sarantakos, 1996

⁴¹ Brown, 2004; McLanahan & Sandefur, 1994; Wilcox et al., 2011

⁴² Patterson, 1992, p. 1036 (emphasis added)

⁴³ Patterson, 2000, p. 1064 (emphasis added)

⁴⁴ Patterson, p. 15 (from APA Brief, 2005), (emphasis added)

⁴⁵ Patterson, p. 15 (from APA Brief, 2005)

Question 4: Does a scientifically-viable study exist to contradict the conclusion that “not a single study has found children of lesbian or gay parents to be disadvantaged”?

There is at least one notable exception to the APA’s claim that “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.”⁴⁶ In the “Summary of Findings” section, the APA Brief references a study by Sarantakos (1996), but does so in a footnote that critiques and dismisses the study (p. 6, footnote 1). On page 40 of the APA Brief’s annotated bibliography, a reference to the Sarantakos (1996) article is offered, but there is no summary of the findings, only a note reading “No abstract available.” This statement from the APA Brief is not accurate. An abstract was available and was printed on the first page of the article. The last sentence of that abstract reported that “in the majority of cases, the most successful [children] are children of married couples, followed by children of cohabiting couples and finally by children of homosexual couples” (p. 23).

Upon closer examination, we find that the Sarantakos (1996) study is a comparative analysis of 58 children of heterosexual married parents, 58 children of heterosexual cohabiting couples, and 58 children living with homosexual couples that were all “matched according to socially significant criteria (e.g., age, number of children, education, occupation, and socio-economic status).”⁴⁷ The combined sample size (174) is the seventh-largest sample size of the 59 published studies listed in the APA Brief’s “Summary of Research Findings on Lesbian and Gay Parenting” (see Table A). However, of the six studies with larger sample sizes, all were *adult self-report studies*,⁴⁸ making the Sarantakos combined sample the largest study (APA Brief, pp. 23–45) that examined *children’s developmental outcomes*.

Key findings of the Sarantakos study are summarized below. To contextualize these data, the numbers are based on a teacher rating-scale of performance “ranging from 1 (very low performance), through 5 (moderate performance) to 9 (very high performance).”⁴⁹ Based on teacher (not parent) reports, Sarantakos found several significant differences between married families and homosexual families (and cohabiting families).⁵⁰

<i>Language Achievement:</i>	Married 7.7, Cohabiting 6.8, Homosexual 5.5
<i>Mathematics Achievement:</i>	Married 7.9, Cohabiting 7.0, Homosexual 5.5
<i>Social Studies Achievement:</i>	Married 7.3, Cohabiting 7.0, Homosexual 7.6
<i>Sport Interest/Involvement:</i>	Married 8.9, Cohabiting 8.3, Homosexual 5.9
<i>Sociability/Popularity:</i>	Married 7.5, Cohabiting 6.5, Homosexual 5.0

⁴⁶ Patterson, p. 15 (from APA Brief, 2005)

⁴⁷ Sarantakos, 1996, p. 23

⁴⁸ In order, these six studies include: (1) Morris et al., 2002 (N=2,431), who addressed adults’ reports of “coming out”; (2) Johnson and Connor, 2002 (N=415), who addressed adults’ reports of parenting beliefs, division of labor, etc.; (3) Crawford et al., 1999 (N=388), who addressed psychologists’ self-reports of gay adoption; (4) King and Black, 1999 (N=338), who addressed college students’ perceptions of gay parents; (5) Bos et al., 2003 (N=200), who addressed parental motives and desires; and (6) Bos et al., 2004 (N=200), who addressed parental reports of couple relations. Again, these foci are not on the child.

⁴⁹ Sarantakos, 1996, p. 24

⁵⁰ Social Studies Achievement is significant at the p=.008 level; the eight other differences are significant at the p=.000 level.

School/Learning Attitude: Married 7.5, Cohabiting 6.8, Homosexual 6.5
Parent-School Relationships: Married 7.5, Cohabiting 6.0, Homosexual 5.0
Support with Homework: Married 7.0, Cohabiting 6.5, Homosexual 5.5
Parental Aspirations: Married 8.1, Cohabiting 7.4, Homosexual 6.5⁵¹

Sarantakos concluded, “Overall, the study has shown that children of married couples are more likely to do well at school in academic and social terms, than children of cohabiting and homosexual couples.”⁵²

While the above ratings were based on teacher reports, two other areas of home-based interest were based on parent reports: *Personal Autonomy* and *Household Tasks* (pp. 27–28). In both of these areas, homosexual parents rated their children significantly higher than married parents. The latter two areas of interest differ in content from the nine listed above. However, as the data source shifted from teacher reports to parent reports—the typical ordering of married families (first in 8 of 9 categories) and homosexual families (last in 8 of 9 categories) reversed (i.e., 8.3 for homosexual; 5.9 for married, on *Personal Autonomy*). It has long been known, and is well replicated, that individuals tend to rate the group with which they most identify more positively than they do other groups. This positive bias includes within-family ratings (Roese & Olson, 2007).⁵³

As we proceed, it should also be noted that “parent reports” are the dominant (almost sole) basis of the same-sex parenting studies cited in the APA brief. In fact, the decision to de-emphasize the Sarantakos (1996) study was based, in part, on the criticism that “nearly all indicators of the children’s functioning were based on subjective reports by teachers.”⁵⁴ Indeed, the Sarantakos study was primarily, but not solely, based on teacher reports. However, it may be argued that Sarantakos’ decision *not* to rely solely or extensively on parent reports (as done in most same-sex parenting studies) is a pronounced strength, given parents’ tendencies towards bias when reporting on their own children. Further, Sarantakos also drew data from school aptitude tests and observations, thereby modeling a research ideal of triangulation of sources.⁵⁵ In fact, Sarantakos integrated not only three data sources to triangulate; he used five (teachers, tests, observations, as well as parent reports, and child reports). In light of this rigorous design, it was not surprising to learn that Sarantakos is the author of several methods textbooks (2005, 2007b) and the author/editor of a four-volume, 1672-page work in Sage Publications’ *Benchmarks in Social Research Series*, 2007a.

Question 4 asked: Does a scientifically viable study exist to contradict the APA’s published statement that “not a single study has found children of lesbian or gay parents to be disadvantaged”? The answer is yes. Sarantakos (1996) controlled for “education, occupation, and socio-economic status” and then, based on teacher reports, compared

⁵¹ Sarantakos, 1996, pp. 24–27

⁵² Sarantakos, 1996, p. 30

⁵³ Roese & Olson, 2007

⁵⁴ APA Brief (2005), footnote 1, p. 6 (emphasis added)

⁵⁵ “Triangulation is a means of checking the integrity of the inferences one draws. It can involve the use of multiple data sources, ...multiple theoretical perspectives, multiple methods, or all of these” (Schwandt, 2001, p. 257). In effect, the standard of triangulation is advocacy for internal checks and balances. The bottom line is that (as in the courtroom) additional “witnesses,” particularly more objective ones, are vital for the most-valid outcomes.

marriage-based families with homosexual families and found nine significant differences—with children from marriage-based families rating higher in eight areas. By objective standards, compared with the studies cited by the APA Brief, the Sarantakos study was:

- a) *The largest study to examine children’s outcomes*,⁵⁶
- b) *One of the most comparative* (only about five other studies used three comparison groups⁵⁷), and
- c) *Perhaps the most comprehensively triangulated study* (five data sources) conducted on same-sex parenting.⁵⁸

Accordingly, this study deserves the attention of scientists interested in the question of homosexual and heterosexual parenting, rather than the dismissal it received from APA.

As we conclude the examination of Question 4, let us review a portion of APA’s published negation of Sarantakos’ study:

[*Children Australia*, the journal where the article was published] cannot be considered a source upon which one should rely for understanding the state of scientific knowledge in this field, particularly when the results contradict those that have been repeatedly replicated in studies published in better known scientific journals.⁵⁹

Patterson and the APA dismissed the Sarantakos study, in part, because it contradicted the “no significant difference” findings that had been “repeatedly replicated in studies published in better known scientific journals.”⁶⁰ For other scientists, however, the salient point behind Sarantakos’ findings is that the novel comparison group of marriage-based families introduced significant differences in children’s outcomes (as opposed to the recurring “no difference” finding with single-mother and “couple” samples). Additional studies with intact, marriage-based families as the heterosexual comparison group are conspicuously rare in the APA Brief’s list of “Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children” (pp. 23–45). We now turn to the fifth question.

Question 5: What types of outcomes have been investigated?

With respect to the APA Brief’s claim that “not a single study has found children of lesbian or gay parents to [have] disadvantaged [outcomes],” *what types of outcomes have been examined and investigated?* Specifically, how many of the same-sex parenting

⁵⁶ Six of the 59 studies listed in the 2005 APA Brief (pp. 23–45) had larger samples, but, as discussed earlier, they all focused on adult reports of adult perceptions and outcomes.

⁵⁷ For example, Brewaeys et al., 1997; Golombok et al., 2003; Golombok et al., 1997; MacCallum & Golombok, 2004; Tasker & Golombok, 1998

⁵⁸ In spite of the strong design with respect to triangulation, the Sarantakos study does not appear to be based on a true probability sample, nor is it or a *large* sample (although it is a subsample of a 900-plus study). The study is rigorous by comparison to other same-sex parenting studies, but is relatively limited compared with most of the nationally representative studies on intact families listed in Table C.

⁵⁹ Patterson (2005) in APA Brief, p. 7, footnote 1.

⁶⁰ Patterson (2005) in APA Brief, p. 7, footnote 1.

studies in Table A address the societal concerns of intergenerational poverty, collegiate education and/or labor force contribution, serious criminality, incarceration, early childbearing, drug and alcohol abuse, or suicide that are frequently the foci of significant national studies on children, adolescents, and young adults, as discussed previously?

Anderssen and colleagues cataloged the foci of same-sex parenting studies in a 2002 review. In connection with the examined outcomes in the studies they reviewed, Anderssen et al. reported:

Emotional functioning was the most often studied outcome (12 studies), followed by sexual preference (nine studies), gender role behavior (eight studies), behavioral adjustment (seven studies), gender identity (six studies), and cognitive functioning (three studies).⁶¹

Examination of the articles cited in the 2005 APA Brief on Lesbian and Gay Parenting yields a list of outcomes that are consistent with Anderssen's summary. For example: "sexual orientation"⁶²; "behavioral adjustment, self-concepts, and sex-role identity"⁶³; "sexual identity"⁶⁴; "sex-role behavior"⁶⁵; "self-esteem"⁶⁶; "psychosexual and psychiatric appraisal"⁶⁷; "socioemotional development"⁶⁸; and "maternal mental health and child adjustment."⁶⁹ Several other single studies address topics that fall outside the six most frequently studied outcomes noted by Anderssen et al., and there are a few foci that are examined in two or more studies, including: "stigmatization"⁷⁰; "contact(s) with grandparents and other adults"⁷¹; "division of labor,"⁷² and "interviews with mothers."⁷³

With these focal outcomes identified, it is noteworthy that all of the aforementioned outcomes of societal-level concern are absent from the list of "most often studied outcome(s)" as identified by Anderssen et al.⁷⁴ In response to the present article's Question 5 (what *types* of outcomes have been investigated for children of gay/lesbian families?), it may be concluded: In the same-sex parenting research that undergirded the 2005 APA Brief, it appears that gender-related outcomes were the dominant research concern, to the neglect of other important outcomes. To be more precise, Table A lists several categories of information regarding 59 published empirical studies; one of these categories is the "outcome studied." More than 20 studies have examined gender-related outcomes, but there was a dearth of peer-reviewed journal articles from which to form science-based conclusions in myriad areas of societal concern including: intergenerational poverty, criminality, college education and/or labor force contribution,

⁶¹ Anderssen et al., 2002, p. 343

⁶² Bailey et al., 1995; Golombok & Tasker, 1996

⁶³ Patterson, 1994

⁶⁴ Green, 1978

⁶⁵ Hoeffler, 1981; Kweskin & Cook, 1982

⁶⁶ Huggins, 1989

⁶⁷ Golombok et al., 1983

⁶⁸ Golombok et al., 1997

⁶⁹ Patterson, 2001

⁷⁰ Gershon et al., 1999; King & Black, 1999

⁷¹ Fulcher et al., 2002; Patterson et al., 1998

⁷² Chan, Brooks, et al., 1998; Patterson, 1995

⁷³ Gartrell et al., 1999, 2000

⁷⁴ Anderssen et al., 2002, p. 343

drug/alcohol abuse, suicide, sexual activity and early childbearing, and eventual divorce as adults.

In any less-developed area of empirical inquiry it takes time, often several decades, before many of the central and most-relevant questions can begin to be adequately addressed. This seems to be the case with same-sex parenting outcomes, as many of the issues of societal concern have gone unaddressed. For scientists and others who favor data-informed decisions, the identified dearth, in connection with several critical outcomes, presents a significant concern.

Question 6: What do we know about the long-term outcomes of children of lesbian and gay parents?

In the preceding response to Question 5, the outcomes of intergenerational poverty, criminality, college education and/or labor force contribution, drug/alcohol abuse, suicide, early sexual activity, early childbearing, and eventual divorce as adults were mentioned. The reader will note that these outcomes are not “child” outcomes per se. Indeed, most of these outcomes are not optimally observable until (at the soonest) mid-late adolescence or early adulthood (and in the case of divorce, not until middle adulthood). As discussed in Question 5, virtually none of the peer-reviewed, same-sex parenting comparison studies addressed these outcomes.⁷⁵ Of the 59 published studies cited by the APA 2005 Brief (pp. 23–45), it is difficult to find comparison studies of any kind that examine adolescent outcomes, and the few that do employ comparison groups of 44 or fewer.⁷⁶ Let us further explore the importance of a lack of data centered on adolescents and young adults.

Table B identifies 17 of the hundreds of available studies on outcomes of children from intact families (as contrasted with comparison groups such as cohabiting couples and single parents). Many of these studies are based on data from nationally representative sample sizes of several thousand. One of these studies included a data set of 35,938 children—one of “the largest...nationally representative survey[s] of U.S. children and their parents.”⁷⁷ Based on analysis of this nationally representative sample, Susan Brown emphasized, “The findings of this study...demonstrate the importance of separately examining children and adolescents.” She then explained:

Although the outcomes of children (6–11 years old) in cohabiting families...are worse...than those of children in two-biological-parent married families, much of this difference...is economic.... In contrast, regardless of economic and parental resources, the outcomes of adolescents (12–17 years old) in cohabiting families...are worse...than those...in two-biological-parent married families.⁷⁸

In short, in the case of cohabiting families and “two-biological-parent married families” the differences in children’s outcomes *increase in significance as the children grow older*. The likelihood of significant differences arising between children from same-sex

⁷⁵ Gartrell and colleagues (1999, 2000, 2005) have commenced to do so, but in 2005 they were reporting on children who were only 10 years old (with a sample size of 74 and no heterosexual comparison group).

⁷⁶ i.e., Wainwright Russell, & Patterson, 2004

⁷⁷ Brown, 2004, p. 355

⁷⁸ Brown, 2004, p. 364

and married families may also increase across time—not just into adolescence but into early and middle adulthood. For example, research indicates that “[d]aughters raised outside of intact marriages are...more likely to end up young, unwed mothers than are children whose parents married and stayed married,” and that “[p]arental divorce increases the odds that adult children will also divorce.”⁷⁹

Longitudinal studies that follow children across time and into adulthood to examine such outcomes are comparatively rare and valuable. We briefly turn to a key finding from one such study that has addressed children of divorce who are now in middle adulthood. Based on a 25-year longitudinal study, Wallerstein and colleagues (2001) state:

Contrary to what we have long thought, the major impact of divorce does not occur during childhood or adolescence. Rather, it rises in adulthood as serious romantic relationships move center stage. When it comes time to choose a life mate and build a new family, the effects of divorce crescendo (p. xxix).

Wallerstein’s research, like nearly all of the studies in the same-sex parenting literature, is based on a small, non-representative sample that should not be generalized or overextended. Her longitudinal work does, however, indicate that “effects [can] crescendo” in adulthood. Did any peer-reviewed, same-sex parenting study cited by the 2005 APA Brief (pp. 23–45) track the societally significant long-term outcomes into adulthood? No.

Is it possible that “the major impact” of same-sex parenting might “not occur during childhood or adolescence...[and that it will rise] in adulthood as serious romantic relationships move center stage”? Is it possible that “when it comes time to choose a life mate and build a new family” that the effects of same-sex parenting will similarly “crescendo” as they did in Wallerstein’s study? It is possible.

From a scientific perspective, the unfortunate answer to the question regarding the long-term (i.e., adult) outcomes of lesbian and gay parenting is that we have no empirical basis for responding, because not a single peer-reviewed comparison study has followed same-sex parented children across time and into mid-adulthood. We now move to a final empirical question regarding the same-sex parenting literature.

Question 7: Have the studies in this area committed the type II error and prematurely concluded that heterosexual couples and gay and lesbian couples produce similar parental outcomes?

In social science research, our questions are typically framed as follows: “Are we 95 percent sure the two groups being compared are different?” ($p < .05$). If our statistics seem to confirm a difference with 95 percent or greater confidence, then we say the two groups are “significantly different.” But what if, after statistical analysis, we are only 85 percent sure that the two groups are different? By the rules of standard social science, we would be obligated to say we were unable to satisfactorily conclude that the two groups are different. However, this reported finding of “no statistically significant difference” (at the $p < .05$ level; 95percent-plus certainty) is a grossly inadequate basis upon which to offer the science-based claim that the groups were conclusively “the same.” In research,

⁷⁹ Wilcox et al. 2011, p.11

incorrectly concluding that there is no difference between groups when there is in fact a difference is a Type II error. A Type II error is more likely whenever undue amounts of random variation are present in a study. Specifically, small sample size, unreliable measures, imprecise research methodology, or unaccounted-for variables can all increase the likelihood of a Type II error. All one would have to do to be able to come to a conclusion of “no difference” is to conduct a study with a small sample and/or sufficient levels of random variation. Such weaknesses compromise a study’s “statistical power” (Cohen, 1988). It must be re-emphasized that a conclusion of “no significant difference” means that it is unknown whether or not a difference exists. This conclusion does not necessarily mean that the two groups are the same. This point is especially important with same-sex parenting research because Patterson (1992, 2000) and the 2005 APA Brief seem to draw inferences of sameness based on the observation that gay and lesbian parents and heterosexual parents appear not to be statistically different from one another—thereby becoming vulnerable to a classic Type II error.

To make the APA’s proposition of sameness more precarious, in a review published one year after the APA Brief in the flagship APA journal, *American Psychologist*, Herek (2006) acknowledged that many same-sex parenting studies have “utilized small, select convenience samples and often employed unstandardized measures.”⁸⁰ Anderssen et al. (2002) similarly indicated in their review of same-sex parenting studies, “The samples were most often small, increasing the chance to conclude that no differences exist between groups when in fact the differences do exist. This casts doubt on the external validity of the studies.”⁸¹ With these limitations noted, the 2005 APA Brief explicitly claimed that findings of non-significant differences between same-sex and heterosexual parents had been “repeatedly replicated” (p. 7, footnote 1). Many readers with more traditional scientific interpretations of replication are likely to view this as an overstatement for various reasons, including the sampling and measurement limitations acknowledged previously.

Another reason for skepticism is that “the logic of replication implies that different researchers are unlikely to make the same errors.”⁸² However, if errors (e.g., similarly biased sampling approaches employing “small, select convenience samples”⁸³ and comparison groups) are repeated by different researchers, the logic behind replication is undermined. As has been previously detailed in the response to Question 1 in this article, same-sex parenting researchers have repeatedly selected White, well-educated, middle- and upper-class lesbians to represent same-sex parents. This tendency has recurred even after this bias was explicitly identified by Patterson (1992, 2000).⁸⁴ Further, repeated sampling tendencies in connection with heterosexual comparison groups (e.g., single mothers), were documented in response to Question 3 in this paper. Whether these repeated sampling tendencies across studies that employed different measures constitute valid scientific replication must be determined by the informed reader.

⁸⁰ Herek, 2006, p. 612

⁸¹ Anderssen et al., 2002, p. 348

⁸² Neuman, 1997, p. 150

⁸³ Herek, 2006, p. 612

⁸⁴ Further, single mothers have been repeatedly selected to represent heterosexual parents as documented in this paper’s response to Question 3.

An additional scientific question raised by the above information regarding “small, select convenience”⁸⁵ samples is framed by Stacey and Biblarz (2001) who reveal that “many of these [comparative same-sex parenting] studies use conventional levels of significance...on miniscule samples, substantially increasing their likelihood of failing to reject the null hypothesis.”⁸⁶ Was the APA’s claim that “Not a single study has found children of lesbian or gay parents to be disadvantaged...”⁸⁷ based on clear scientific evidence or (perhaps) Type II errors?

The last three editions of the *APA Publication Manual* (1994, 2001, 2010) have urged scholars to report effect sizes and to take statistical power into consideration when reporting their results. The APA 5th *Publication Manual* (2001) in use at the time of APA’s 2005 Brief on Lesbian and Gay Parenting stated:

Take seriously the statistical power considerations associated with your tests of hypotheses. Such considerations relate to the likelihood of correctly rejecting the tested hypotheses, given a particular alpha level, effect size, and sample size. In that regard, you should routinely provide evidence that your study has power to detect effects of substantive interest (e.g., see Cohen, 1988). You should be similarly aware of the role played by sample size in cases in which not rejecting the null hypothesis is desirable (i.e., when you wish to argue that there are no differences [between two groups])... (p. 24).

The latter note regarding maintaining an awareness of statistical power in cases “when you wish to argue that there are no differences” bears directly on same-sex comparative research. The *APA 5th Publication Manual* (2001) continues:

Neither of the two types of probability [alpha level or *p* value] directly reflects the magnitude of an effect or the strength of a relationship. For the reader to fully understand the importance of your findings, it is almost always necessary to include some index of effect size or strength of relationship in your Results section (p. 25).

Let us restate three statements from the *APA 5th Publication Manual* (2001) for emphasis:

- 1) The APA urges researchers to: “Take seriously the statistical power considerations” and “routinely provide evidence” (p. 24).
- 2) The APA identifies a specific concern with “sample size” and statistical “power” in connection with cases where authors “wish to argue that there are no differences” between compared groups (p. 24).
- 3) The APA concludes: “It is almost always necessary to include some index of effect size or strength of relationship in your Results section” (p. 25).

⁸⁵ Herek, 2006, p. 612

⁸⁶ Stacey & Biblarz, 2001, p. 168, footnote 9

⁸⁷ Patterson, p. 15 (from APA Brief, 2005)

Above, the APA's first exhortation is that an author "should routinely provide evidence that your study has sufficient power...(e.g., see Cohen, 1988)." The reference cited here by the APA is the volume *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.) by the late psychometrician Jacob Cohen, who has been credited with foundational work in statistical meta-analysis (Borenstein, 1999). In his APA-cited volume, Cohen stated:

Most psychologists of whatever stripe believe that samples, even small samples, mirror the characteristics of their parent populations. In effect, they operate on the unstated premise that the law of large numbers holds for small numbers as well... [Citing Tversky and Kahneman] "The believer in the law of small numbers has incorrect intuitions about significance level, power, and confidence intervals. Significance levels are usually computed and reported, but power and confidence levels are not. Perhaps they should be."

But as we have seen, too many of our colleagues have not responded to [this] admonition.... They do so at their peril (p. xv).

First, let us briefly contextualize "the law of small numbers" with respect to the APA Brief-cited same-sex parenting studies. In response to Question 6, a study of family structure based on a nationally representative sample of 35,938 children was cited (Brown, 2004). By way of contrast, the combined non-representative sample total of all 59 same-sex parenting studies in the 2005 APA Brief (pp. 23–45) is 7,800⁸⁸—about one-fifth (21.7 percent) the size of Brown's nationally representative sample for a single study.

We now turn to another question directly relating to Cohen's above statements: How many of the published same-sex parenting studies with a heterosexual comparison group cited in APA's Brief (pp. 23–45) "provide[d] evidence" of statistical power, consistent with APA's Publication Manual and the "admonition" of Jacob Cohen who is cited in the APA manual? An examination of the studies found only a few that did so.⁸⁹

In the practice of closer examination that has led us through responses to the first six questions—let us take a closer look. In addition to Cohen's (1988) statement that statistical power is ignored at our own peril, he offered several tables in his volume for researchers to reference. Employing these tables, statistical experts Lerner and Nagai (2001) computed the sample sizes required for "a power level of .80, or a Type II error rate of .20, or one in five findings" (p. 102). At this power level, the minimum number of cases required to detect a small effect size⁹⁰ is 393 for a T-test or ANOVA, or 780-plus

⁸⁸ This figure (7,800) includes all same-sex parents and their children, heterosexual comparison groups, psychologists, students, etc.

⁸⁹ These include Chan, Raboy, et al., 1998; Fulcher et al., 2002; Golombok & Tasker, 1996; Tasker & Golombok, 1997.

⁹⁰ By way of context, in a 67 study meta-analysis of the average differences in outcomes between children with "divorced and continuously married parents," Amato (2001) reported an average weighted effect size of between -0.12 and -0.22 (a -0.17 average) with an advantage in all five domains considered to children of continuously married parents (p. 360). These differences, although statistically robust and replicated, would be classified by most scholars as "small effect" sizes, not as "large effect" sizes. Even so, based on the data, most family scholars would agree that children whose parents remain continuously married tend to fare slightly to moderately better than when parents divorce. However, large numbers were needed to

for Chi-Square or Pearson Correlation Coefficient tests.⁹¹ In Table A of this report, the 59 published same-sex parenting studies cited in the APA Brief (pp. 23–45) are compared against these standards. A close examination indicates that not a single study, including the few that reported power, meets these standards needed to detect a small effect size. Indeed, it appears that only two of the comparison studies (Bos et al., 2003; Bos et al., 2004) have combined sample sizes of even half of “the minimum number of cases.”⁹²

In their book-length examination of same-sex parenting studies, Lerner and Nagai (2001) further indicate that 17 of the 22 same-sex parenting comparison studies they reviewed had been designed in such a way that the odds of *failing* to find a significant difference [between homo- and hetero-sexual groups] was 85 percent or higher.⁹³ Indeed, only one of the 22 studies they analyzed revealed a probability of Type II error below 77 percent, and that study *did* find differences.⁹⁴ These significant methodological concerns (and several others) are raised and explained in Lerner and Nagai’s monograph (see, especially, pp. 95–108; also Wardle, 1997). The significant concerns raised by Lerner and Nagai, however, are not substantively responded to in the 2005 APA Summary of Research Findings on Lesbian and Gay Parenting. Indeed, the Lerner and Nagai volume was never mentioned.

To restate, in connection with the APA’s published urging that researchers: “Take seriously the statistical power considerations” and “routinely provide evidence,” the academic reader is left at a disadvantage. Only four comparison studies specifically reported statistical power at all and no comparison study approached the minimum sample size of 393 needed to find a small effect.

Question 7 has examined how comparisons have been made from a research methods standpoint. In summary, some same-sex parenting researchers have correctly acknowledged that “miniscule samples”⁹⁵ significantly increase “the chance to conclude that no differences exist between groups when in fact the differences do exist”—thereby casting “doubt on the external validity of the studies.”⁹⁶ An additional concern is that the APA Brief’s claim of “repeatedly replicated” findings of no significant difference rested

determine this “small” but important effect. Indeed, most effect sizes in social science research tend to be small. Rigorous and sound social science tends to include and account for many influential factors that each has a small but meaningful effect size. In social science, detecting a novel “large effect” from a single variable (whether it is divorce, remarriage, or same-sex parenting), is a comparatively rare occurrence. If we are to examine possible effects of same-sex parenting with scientific precision and rigor, related examinations would, like Amato’s work, be designed and refined to detect “small effect” sizes.

⁹¹ Cohen (1988) proposes a “relatively high power” of .90 for cases where one is trying to “demonstrate the *r* [difference] is trivially small” (p. 104). If the .90 power were applied, the required sample sizes would further increase. However, because none of the studies in Table A of the present report approach the .80 power levels, .90 calculations are unnecessary here.

⁹² The “minimum number of cases” is 393. The two Bos et al. studies both have combined samples of 200. The Crawford et al. (1999) study almost meets the minimum N of 393 (with 388). However, the study examines neither parents nor children; it is an examination of psychologists’ self-reports regarding attitudes. Similarly, King and Black (1999) examine perceptions of 338 college students.

⁹³ Lerner & Nagai, 2001, p. 103

⁹⁴ The single exception was Cameron and Cameron (1996) with a comparatively low probability error rate of 25 percent. This study, like the Sarantakos (1996) study mentioned earlier, did report some significant differences between children of heterosexual and homosexual parents but, like Sarantakos (1996), was not addressed in the body of the 2005 APA brief but was instead moved to a footnote on p. 7.

⁹⁵ Stacey & Biblarz, 2001, p. 168

⁹⁶ Anderssen et al., 2002, p. 348

almost entirely on studies that were published without reports of the APA-urged effect sizes and statistical power analyses.⁹⁷ This inconsistency seems to justify scientific skepticism. In light, however, of the finding that only two of the heterosexual comparison studies cited by Patterson in the APA Summary reach half of the required minimum sample size required to detect a small effect size, informed readers are offered an opportunity to assess the balance, precision, and rigor behind the conclusions posed in the 2005 APA Brief.

Summary

In 2005, the American Psychological Association (2005) claimed:

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.⁹⁸

Seven specific points of examination were presented at the outset of this article and were then respectively addressed. A restatement of these central questions and a summary of the examination-based responses are now offered.

Question 1: How culturally, ethnically, and economically diverse were the gay/lesbian households in the published literature behind the APA brief?

Summary Response to Question 1: In a decade review on same-sex families, Patterson (2000), the author of the APA's Summary of Research Findings on Lesbian and Gay Parenting, reported the tendency of same-sex parenting researchers to select privileged lesbian samples. Specifically, "much of the research involved small samples that are predominantly White, well-educated [and] middle-class" (p. 1064).⁹⁹ Indeed, the reference list in APA's "Summary of Research Findings" (pp. 15-22) lists *no* studies that focus on African-American, Latin-American, or Asian-American families and several studies include no minority families at all. Further, there are almost no studies specifically examining outcomes of children of gay fathers. Although most same-sex parenting studies have been conducted with White, well-educated, middle- to upper-class lesbians, this group has been repeatedly employed by scholars in this domain to represent gay fathers and (all) lesbians, including those who are minority, poor, and less educated.

Question 2: How many studies of gay/lesbian parents had no heterosexual comparison group?

Summary Response to Question 2: Of the 59 publications cited by the APA in the annotated bibliography section entitled "Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children" (pp. 23–45), only 33 involve a heterosexual comparison group, while 26 do not (44.1 percent). Accordingly, nearly half of the "Empirical Studies Specifically Related to Lesbian and Gay Parents and Their Children"

⁹⁷ Schumm, 2010

⁹⁸ Patterson, p. 15 (from APA Brief, 2005)

⁹⁹ Patterson, 2000, p. 1064

referenced in the APA Brief (pp. 23–45) allowed no basis for comparison between these two groups (see Table A for documentation).

Question 3: When there were comparison groups, which groups were compared?

Summary Response to Question 3: Most same-sex parenting studies report “no significant differences” between groups. However, White, educated, middle- to upper-class lesbians have typically been selected to represent “same-sex parents” while single heterosexual mothers have been repeatedly selected to represent “heterosexual parents” in at least a dozen studies. Cohabiting heterosexual couples have also been used on occasion, but almost no studies undergirding the APA Brief explicitly employed marriage-based, intact families as the heterosexual comparison group.

Question 4: Does a scientifically-viable study exist to contradict the APA’s published statement that “not a single study has found children of lesbian or gay parents to be disadvantaged”?

Summary Response to Question 4: A study designed by a methodology expert (Sarantakos, 1996), did find several significant differences between intact and homosexual families in eight areas. Sarantakos concluded, “Overall, the study has shown that children of married couples are more likely to do well at school in academic and social terms, than children of cohabiting and homosexual couples.”¹⁰⁰ This study, however, was dismissed in the APA Brief by a footnote¹⁰¹ and is disregarded in APA claims.

Question 5: What types of outcomes have been investigated?

Summary Response to Question 5: The present paper documents that while a score of papers on same-sex parenting address “gender” and related issues, the same claim cannot be made for myriad variables of critical societal and economic concern, including: (a) health, mortality, and suicide risks, (b) drug and alcohol abuse, (c) criminality and incarceration, (d) intergenerational poverty, (e) college education and/or labor force contribution, (f) early sexual activity and early childbearing, and (g) eventual divorce as adults. Indeed, these critical issues received almost no attention in the peer-reviewed scholarship on same-sex parenting that undergirded the APA Brief’s 2005 claim.

Question 6: What do we know about the long-term outcomes of children of lesbian and gay parents?

Summary Response to Question 6: The reader is reminded that most of the outcomes highlighted in Question 5 are not optimally observable until late adolescence and early to mid-adulthood. The empirical answer to the question regarding what is known about the long-term (i.e., adult) outcomes of lesbian and gay parenting is that *we have no empirical basis for responding*—no large-scale, peer-reviewed study has followed same-sex parented children across time and into mid-adulthood.

¹⁰⁰ Sarantakos, 1996, p. 30

¹⁰¹ APA Brief (Patterson), 2005, p. 6, footnote 1

Question 7: Have the studies in this area committed the Type II error?

Summary Response to Question 7: Same-sex parenting studies have not employed large enough samples to overcome the possibility, or probability, of the Type II error, thereby “substantially increasing [the] likelihood” of failing to find differences.¹⁰² Further, significant critiques provided by social research methodology specialists Lerner and Nagai (2001) were not cited in the 2005 APA Brief.¹⁰³ If the conclusion to be drawn is that there are no parenting differences between same-sex and heterosexual couples, such a conclusion cannot be drawn at the present time, given this problem with the Type II error, pervasive in the same-sex parenting literature.

The APA Publication Manual urges researchers to “take seriously the statistical power considerations” and “routinely provide evidence” of adequate statistical power and effect sizes, however, a review of the 59 articles cited in the APA Brief (pp. 23-45), revealed that only a few complied. Further examination indicated that of the comparison studies, zero studies reached the “minimum requirement” of 393 to detect a small effect size. Indeed, only two comparison studies reached half of the minimum requirement.

Conclusion

We now return to the overarching question of this paper: *Are we witnessing the emergence of a new family form that (unlike cohabiting, divorced, or single-parent families) provides a context for children that is equivalent to the intact family?* Even after an extensive reading of the same-sex parenting literature, the author cannot offer a high confidence, data-based “yes” or “no” response to this question. The data are insufficient to support a strong claim either way, and thus insufficient to produce a definitive binary statement. Such a statement would not be grounded in science. Representative, large-sample studies are needed—many of them, including high quality longitudinal studies (i.e., Table B). Although some same-sex opponents have made “egregious overstatements”¹⁰⁴ and, conversely, some same-sex parenting researchers seem to have implicitly contended for an “exceptionally clear”¹⁰⁵ verdict of “no difference” between same-sex and heterosexual parents since 1992, a closer examination leads to the conclusion that strong assertions, including those made by the APA, were not empirically warranted.

The scientific conclusions in this domain will be clearer as researchers: (a) move from small convenience samples to larger nationally representative samples, (b) increasingly examine critical societal and economic concerns that emerge during adolescence and adulthood, (c) include more diverse same-sex families (e.g., gay fathers, racial minorities, and those without middle-high socioeconomic status), (d) include intact, marriage-based heterosexual families as comparison groups, and (e) acknowledge and respond to experts’ methodological critiques in the effort to refine and add validity and rigor to findings. In connection with this latter point, it is particularly vital that statistical power no longer be ignored. Taking these steps will help lead the field towards more

¹⁰² Anderssen et al., 2002; Lerner & Nagai, 2001; Stacey & Biblarz, 2001

¹⁰³ Lerner & Nagai, 2001; Schumm, 2004

¹⁰⁴ As indicated by Shiller (2007)

¹⁰⁵ Patterson, 1992

nuanced and scientifically informed responses to significant questions affecting families and children.

Author and Year	GayLes N	Hetero N	Stat Used	Cohen N	Stat Power	Outcome Studied	Hetero Compar Group
Bailey et al., 1995	55par;82chl	0	T-test/Chi	393	N/A	Sexual Orientation	None
Barrett & Tasker, 2001	101	0	T-test/Chi	393	N/A	Child Responses to a Gay Parent	None
Bigner & Jacobsen, 1989a	33	33	T-test	393	No	Parents Reports of Values of Children	Fathers
Bigner & Jacobsen, 1989b	33	33	T-test	393	No	Parent Reports of Parent Behavior	Fathers
Bos et al. 2003	100	100	MANOVA	393	No	Parental Motives and Desires	Families
Bos et al., 2004	100	100	MANOVA	393	No	Parent Reports of Couple Relations	Families
Bozett, 1980	18	0	Qualitative	N/A	N/A	Father Disclosure of Homosexuality	None
Brewaeys et al., 1997	30	68	ANOVA	393	No	Emotional/Gender Development	DI/Non-DI Couples
Chan, Brooks, et al., 1998	30	16	Various	393	No	Division of Labor/ChildAdj	DI Couples
Chan, Raboy, et al., 1998	55	25	ANOVA	393	Reported	Psychosocial Adjustment	DI Couples
Ciano-Boyce & Shelley-Sireci, 2002	67	44	ANOVA	393	No	Division of Child Care	Adoptive Parents
Crawford et al., 1999	0	0	MANOVA	393	Almost	388 Psychologists' Attitudes	N/A
Flaks et al., 1995	15	15	MANOVA	393	No	Cognitive/Behavioral/Parenting	Married Couples
Fulcher et al., 2002	55	25	T-test/Chi	393	Reported	DI/Adult-Child Relationships	Parents
Gartrell et al., 1996	154	0	Descript.	N/A	N/A	Prospective Parent Reports	None
Gartrell et al., 1999	156	0	Descript.	N/A	N/A	Reports on Parenting Issues	None
Gartrell et al., 2000	150	0	Descript.	N/A	N/A	Reports on Parenting Issues	None
Gartrell et al., 2005	74	0	Descript.	N/A	N/A	Health, School/Education	None
Gershon et al., 1999	76	0	Reg.	390	N/A	Adolescent coping	None
Golombok et al., 1983	27	27	T-test/Chi	393	No	Psychosexual Development	Single Mother Families
Golombok et al., 2003	39	134	Various	393	No	Socioemotional Dev./Relations	Couples & Singles
Golombok & Rust, 1993	N/A	N/A	N/A	N/A	N/A	Reliability Testing of a Pre-School Gender Inventory	
Golombok & Tasker, 1996	25	21	Pearson	783	Reported	Sexual Orientation	Children of Single Mothers
Golombok et al., 1997	30	83	MANOVA/r	393	No.	Parent-Child Interactions	Couples & Singles
Green, 1978	37	0	Descript.	N/A	N/A	Sexual Identity	None
Green et al., 1986	50par;56chl	40par;48chl	Various	390	No	Sexual Identity/Social Relations	Single Mothers
Harris & Turner, 1986	23	16	ANOVA	393	No	Sex Roles/Relationship with Child	Single Moth. & Fath.
Hoeffler, 1981	20	20	ANOVA	393	No	Sex-role Behavior	Single Mothers
Huggins, 1989	18	18	T-test	393	No	Self-Esteem of Adolescent Children	Divorced Mothers
Johnson & Connor, 2002	415	0	Various	N/A	No	Parenting Beliefs/Division of Labor/etc.	None
King & Black, 1999	N/A	N/A	F	393	N/A	338 College Students' Perceptions	N/A
Kirkpatrick et al., 1981	20	20	Descript.	N/A	No	Gender Development	Single Mothers
Koepke et al., 1992	47 couples	0	MANOVA	N/A	N/A	Relationship quality	None
Kweskin & Cook, 1982	22	22	Chi-Sqr	785	No	Sex-Role Behavior	Single Mothers

Lewis, 1980	21	0	Qualitative	N/A	N/A	Child Response to M. Disclosure	None
Lott-Whitehead & Tully, 1993	45	0	Descriptive	N/A	N/A	Adult Reports of Impacts on Children	None
Lyons, 1983	43	37	Descriptive	N/A	No	Adult Self-Reports	Divorced Mothers
McLeod et al., 1999	0	0	Mult. Regr.	N/A	No	151 College Student Reports	N/A
Miller, 1979	54	0	Qualitative	N/A	N/A	Father Behavior & F-Child Bond	None
Miller et al., 1981	34	47	Chi-Sqr	785	No	Mother Role/Home Environment	Mothers
Morris et al., 2002	2,431	0	MANCOVA	N/A	N/A	Adult Reports on "Coming Out"	None
Mucklow & Phelan, 1979	34	47	Chi-Sqr	785	No	Behavior and Self-Concept	Married Mothers
O'Connell, 1993	11	0	Qualitative	N/A	N/A	Social and Sexual Identity	None
Pagelow, 1980	20	23	Qual/Descr.	N/A	N/A	Problems and Coping	Single Mothers
Patterson, 1994	66	0	T-test	393	No	Social/Behavioral/Sexual Identity	Available Norms
Patterson, 1995	52	0	T-test/Chi/F	393	No	Division of Labor/Child Adjustment	None
Patterson, 2001	66	0	Various	393	No	Maternal Mental Health/Child Adjus.	None
Patterson et al., 1998	66	0	Various	393	No	Contact w/Grandparents & Adults	None
Rand, Graham, & Rawlings, 1982	25	0	Correlations	783	No	Mothers' Psychological Health	None
Sarantakos, 1996	58	116	F-test	393	N/A	Children's Educational/Social Outcomes	Married/Non-married
Siegenthaler & Bigner, 2000	25	26	T-test	393	No	Mothers' Value of Children	Mothers
Steckel, 1987	(Review)	N/A	N/A	N/A	No	Psychosocial Development of Children	None
Sullivan, 1996	34 couples	0	Qualitative	N/A	N/A	Division of Labor	None
Tasker & Golombok, 1995	25	21	Pearson	783	No	Psychosocial/Sexual Orientation	Single Mothers
Tasker & Golombok, 1997	27	27	Various	393	Reported	Psychological Outcomes/Family Rel.	Single Mothers
Tasker & Golombok, 1998	15	84	ANCOVA/Chi	785	N/A	Work and Family Life	DI & NC Couples
Vanfraussen et al., 2003	24	24	ANOVA	393	No	Donor Insemination/Family Funct.	Families
Wainwright et al., 2004	44	44	Various	393	No	Psychosocial/School/Romantic	Couples
Wright, 1998	5	0	Qualitative	N/A	N/A	Family Issues/Processes/Meaning	None

N/A = Not Applicable (e.g., In connection with Statistical Power, qualitative studies and studies without heterosexual comparison groups are coded as N/A).

Table B: Brief Overview of Intact/Divorce/Step/Single Family Studies

(N): Number of reported participants
 Probability: Is the study based on a Probability Sample?
 Comp Grp: Is a probability sample used as a comparison group?
 Long: Does the study employ measurements across time?
 Key: ! = Yes; X = No

	(N)	Probability	Comp Grp	Long
Amato, 1991	9,643	!	!	!
Aquilino, 1994	4,516	!	!	!
Booth & Amato, 2001	629	!	!	!
Brown, 2004¹⁰⁶	35,938	!	!	X
Chase-Lansdale et al., 1995¹⁰⁷	17,414	!	!	!
Cherlin et al., 1998¹⁰⁸	11,759	!	!	!
Ellis et al. 2003	762	!	!	!
Harper & McLanahan, 2004¹⁰⁹	2,846	!	!	!
Hetherington & Kelly, 2002¹¹⁰	1,400	!	!	!
Jekielek, 1998	1,640	!	!	!
Lichter et al., 2003¹¹¹	7,665	!	!	X
Manning & Lamb, 2003	13,231	!	!	X
McLanahan & Sandefur, 1994 (based on 4 data sets):				
PSID¹¹²	2,900	!	!	!
NLSY¹¹³	5,246	!	!	!
HSBS¹¹⁴	10,400	!	!	!
NSFH¹¹⁵	13,017 ¹¹⁶	!	!	!
Mitchell et al., 2009¹¹⁷	4,663	!	!	!
Nock, 1998¹¹⁸	3,604	!	!	!
Page & Stevens, 2005¹¹⁹	2,023	!	!	!
Rickel & Langer, 1985	1,000+	!	!	!

¹⁰⁶ National Survey of America's Families (NSAF)

¹⁰⁷ United Kingdom study and sample

¹⁰⁸ United Kingdom study and sample

¹⁰⁹ National Longitudinal Survey of Young Men and Women (NLSY)

¹¹⁰ Virginia Longitudinal Study (VLS)

¹¹¹ National Survey of Family Growth (NSFG)

¹¹² Panel Study of Income Dynamics (PSID)

¹¹³ National Longitudinal Survey of Young Men and Women (NLSY)

¹¹⁴ The High School and Beyond Study (HSBS)

¹¹⁵ National Survey of Families and Households (NSFH)

¹¹⁶ This is the total original sample. The sub-sample is unlisted but is likely smaller.

¹¹⁷ National Longitudinal Study of Adolescent Health (Add Health)

¹¹⁸ National Longitudinal Survey of Young Men and Women (NLSY)

¹¹⁹ Panel Study of Income Dynamics (PSID)

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