Appeal No. 12-17668

## United States Court of Appeals For The Ninth Circuit

Beverly Sevcik, et al.
Plaintiffs-Appellants, v.

BRIAN SANDOVAL, et al.
Defendants-Appellees.

Appeal from the United States District Court for the District of Nevada Civil Case No. 2:12-cv-00578-RCJ-PAL (Judge Robert C. Jones)

## Brief of Amici Curiae Professors of Social Science in Support of Defendants-Appellees and Affirmance

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## Cases

Bowen v. Gilliard,483 U.S. 587 (1987)5
Lofton v. Secretary of the Department of Children and Family Services, 358 F.3d 804 (11th Cir. 2004) ..... 14
Other Authorities
Douglas W. Allen et al.,
Nontraditional Families and Childhood Progress Through School: A Comment on Rosenfeld, Demography, November 2012, http://link.springer.com/article/10.1007/s13524-012-0169- x/fulltext.html ..... 14, 26
Douglas W. Allen,
High school graduation rates among children of same-sex households, Rev. Econ. Household, Sept. 2013 ..... 22
Paul R. Amato,
More Than Money? Men's Contributions to Their Children's Lives?, in Men in Families, When Do They Get Involved? What Difference Does It Make? 267 (1998) ..... 8
Paul R. Amato \& Fernando Rivera,
Paternal Involvement and Children's Behavior Problems, 61 Journal of Marriage and the Family 375 (1999) ..... 11
Linda Carroll,
Dads Empower Kids to Take Chances, NBCNEWS.com, June 18, 2010, http://www.msnbc.msn.com/id/37741738 ..... 10
Marilyn Coleman et al.,
Reinvestigating Remarriage: Another Decade of Progress, 62 Journal of Marriage and the Family 1288 (2000) ..... 15
Scott Coltrane,
Family Man (1996) ..... 7
Suzanne A. Denham et al.,
Prediction of Externalizing Behavior Problems From Early to Middle Childhood: The Role of Parental Socialization and Emotion Expression, in Development and Psychopathology 23 (2000) ..... 8
M. DeWolff \& M. van Izjendoorn,
Sensitivity and Attachment: A Meta-Analysis on Parental Antecedents of Infant Attachment, 68 Child Development 571 (1997) ..... 6
Greg Duncan \& Jeanne Brooks-Gunn,
Consequences of Growing Up Poor (1999) ..... 9
Ruth Feldman,
Oxytocin and Social Affiliation In Humans, 61 Hormones and Behavior 380 (2012) ..... 5
Mark V. Flinn et al.,
Fluctuating Asymmetry of Stepchildren, 20 Evolution of Human Behavior 465 (1999) ..... 15
Norval D. Glenn,
The Struggle for Same-Sex Marriage, 41 Society 25 (2004) ..... 9, 19, 20
Sandra L. Hofferth et al.,
The Demography of Fathers: What Fathers Do, in Handbook of Father Involvement: Multidisciplinary Perspectives 81 (2002) ..... 7
Michael E. Lamb,
Fathers: Forgotten Contributors to Child Development, 18 Human Development 245 (1975) ..... 5
Robert Lerner \& Althea K. Nagai,
No Basis: What the Studies Don’t Tell Us About Same-Sex Parenting (Marriage Law Project, 2001) ..... 19
Eleanor Maccoby,
The Two Sexes (1998) ..... 7, 8, 11
M. Main \& J. Solomon,
Discovery of an Insecure-Disorganized/Disoriented Attachment Pattern, in Affective Development in Infancy 95 (1986) ..... 6Wendy D. Manning \& Kathleen A. Lamb,Adolescent Well-Being in Cohabiting, Married, \& Single-ParentFamilies, 65 Journal of Marriage and the Family 876 (2003)4
Loren D. Marks,
Same-Sex Parenting and Children's Outcomes: A Closer Examinationof the American Psychological Association's Brief on Lesbian andGay Parenting, 41 Social Science Research 735 (2012).......14, 15, 16, 17, 19
Sara McLanahan \& Gary Sandefur,
Growing Up With a Single Parent: What Hurts, What Helps 1 (1994) ..... 4, 9
Kristen Anderson Moore et al.,
Marriage from a Child's Perspective, Child Trends Research Brief (2002) ..... 4
C.A. Nelson \& M. Bosquet,
Neurobiology of Fetal and Infant Development: Implications for Infant Mental Health, in Handbook of Infant Mental Health 37, (2d ed. 2000) ..... 6
Affidavit of Professor Steven Lowell Nock,
Halpern v. Attorney General of Canada, Case No. 684/00 (Ontario Sup. Ct. Justice 2001), available at http://marriagelaw.cua.edu/Law/ cases/Canada/ontario/halpern/aff_nock.pdf ..... 19
Daniel Paquette \& Mark Bigras,
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Ross D. Parke,
Fatherhood (1996) ..... $7,8,10$
C.J. Patterson,
Children of Lesbian and Gay Parents, 63 Child Development 1025 (1992) ..... 17
Trial transcript at 1064 and 1068, Perry v. Schwarzenegger, 704 F. Supp. 2d 921 (N.D. Cal. 2010) (No. 09-2292) ..... 6
David Popenoe,Life Without Father: Compelling New Evidence that Fatherhood \&Marriage are Indispensable for the Good of Children \& Society 146(1996)5, 9, 10
Thomas G. Powers et al.,
Compliance and Self-Assertion: Young Children's Responses to Mothers Versus Fathers, 30 Developmental Psychology 980 (1994) ..... 11
Mark D. Regnerus,
How Different Are the Adult Children of Parents Who Have Same-Sex Relationships? Findings from the New Family Structures Study, 41 Social Science Research 752 (2012) ..... passim
Mark D. Regnerus,Parental Same-Sex Relationships, Family Instability, and SubsequentLife Outcomes for Adult Children: Answering Critics of the NewFamily Structures Study with Additional Analysis, 41 Social ScienceResearch 1367 (2012)22, 23, 24, 25
Mark D. Regnerus \& Laura B. Luchies,
The Parent-Child Relationship and Opportunities for Adolescents’
First Sex, 27 Journal of Family Issues 159 (2006) ..... 11
Michael J. Rosenfeld,
Nontraditional Families and Childhood Progress Through School, 47 Demography 755 (2010) ..... 26
Shmuel Shulman \& Moshe M. Klein,Distinctive Role of the Father in Adolescent Separation-Individuation,62 New Directions for Child and Adolescent Development 41 (1993)10
Walter R. Schumm,
What Was Really Learned From Tasker \& Golombok's (1995) Study of Lesbian \& Single Parent Mothers?, 95 Psychological Reports 422 (2004) ..... 19
Walter R. Schumm,
Methodological Decisions and the Evaluation of Possible Effects of Different Family Structures on Children: The New Family Structures Survey, 41 Social Science Research 1357 (2012). ..... 25

Judith Stacey \& Timothy Biblarz, (How) Does the Sexual Orientation of Parents Matter?, 66 American Sociological Review 159 (2001)20

Fiona Tasker, Lesbian Mothers, Gay Fathers and Their Children: A Review, 26 Developmental and Behavioral Pediatrics 224 (2005).18
W. Brad Wilcox et al.,

Why Marriage Matters: Twenty-Six Conclusions from the Social Sciences, 14 (3d ed. 2011)11

## INTEREST OF AMICI CURIAE ${ }^{1}$

Amici have studied and published on parental and household distinctions and their association with child and young-adult developmental outcomes. Amici's expertise in these fields will assist the Court's consideration of the issues presented by this case. Amici include (in alphabetical order):

- Douglas W. Allen (Ph.D., Economics, University of Washington) is Burnaby Mountain Professor of Economics at Simon Fraser University, BC, Canada.
- David J. Eggebeen (Ph.D., Sociology, University of North Carolina) is an Associate Professor of Human Development and Sociology at Penn State University.
- Alan J. Hawkins (Ph.D., Human Development and Family Studies, Penn State University) is a Professor of Family Life at Brigham Young University.
- Byron R. Johnson (Ph.D., Criminology, Florida State University) is a Distinguished Professor of Social Sciences at Baylor University.

[^0]- Catherine R. Pakaluk (Ph.D., Economics, Harvard University) is an Assistant Professor of Economics at Ave Maria University and a Faculty Research Fellow at the Stein Center for Social Research at Ave Maria University.
- Joseph Price (Ph.D., Economics, Cornell University) is an Assistant Professor of Economics at Brigham Young University.
- Mark D. Regnerus (Ph.D., Sociology, University of North Carolina) is an Associate Professor of Sociology at the University of Texas at Austin, and a Faculty Research Associate at the Population Research Center of the University of Texas.


## SUMMARY OF THE ARGUMENT

A persistent claim by supporters of same-sex marriage is that there is "no difference" in the outcomes of children raised by a biological mother and father and those who have been raised by two women or two men. That claim has also been advanced by associations like the American Psychological Association (APA). But as recent scholarship indicates, the claim is difficult to support because nearly all of the studies upon which the "no difference" assertion is based are rather limited, involving non-random, non-representative samples, often with relatively few participants. Specifically, the vast majority of the studies were based on samples of fewer than 100 parents or children, and typically representative only
of well-educated, white women, often with elevated incomes. These are hardly representative samples of the lesbian and gay population raising children, and therefore not a sufficient basis to make broad claims about child outcomes of same-sex parenting structures.

These and other methodological limitations make the APA's confident "no difference" conclusion suspect. The claim also contradicts longstanding research asserting the view that the ideal environment for raising children is a stable biological mother and father. The science on comparative parenting structures, especially the research on same-sex households, is relatively new. Therefore, a claim that another parenting structure provides the same level of benefit should be rigorously tested and based on sound methodologies and representative samples. Nearly all of the studies cited by the APA fail to meet those criteria.

The only studies based on large, random, representative samples tended to reveal the opposite conclusion, finding significant differences in the outcomes of children raised by parents in a same-sex relationship and those raised by a married biological mother and father. What is clear is that much more study must be done on these questions. But there is no dispute that a biological mother and father provide, on average, an effective and proven environment for raising children. And it is reasonable to conclude that a mother and father function as a complementary parenting unit and that each tends to contribute something unique and beneficial to
child development.
The State of Nevada thus has a rational interest in supporting that proven parenting structure by reserving the title and status of marriage to unions comprised of a man and a woman.

## ARGUMENT

## I. Compelling Evidence Shows that Children Benefit from the Unique Parenting Contributions of Both Men and Women.

It is a well-established and well-regarded sociological finding that "[c]hildren who grow up in a household with only one biological parent are worse off, on average, than children who grow up in a household with both of their biological parents . . . regardless of whether the resident parent remarries." Sara McLanahan \& Gary Sandefur, Growing Up With a Single Parent: What Hurts, What Helps 1 (1994); see also Wendy D. Manning \& Kathleen A. Lamb, Adolescent Well-Being in Cohabiting, Married, \& Single-Parent Families, 65 J. Marriage \& Fam. 876, 890 (2003) ("The advantage of marriage appears to exist primarily when the child is the biological offspring of both parents."); Kristen Anderson Moore et al., Marriage from a Child's Perspective, Child Trends Research Brief at 1-2 (2002) ("[I]t is not simply the presence of two parents . . . but the presence of two biological parents that seems to support children's development.").

A few decades ago Justice William Brennan recognized what was likely
considered a very unremarkable proposition when he stated that "the optimal situation for the child is to have both an involved mother and an involved father." Bowen v. Gilliard, 483 U.S. 587, 614 (1987) (Brennan, J. dissenting). Experts have long contended that both mothers and fathers make unique contributions to parenting. As sociologist David Popenoe explains, "[t]he burden of social science evidence supports the idea that gender-differentiated parenting is important for human development and that the contribution of fathers to childrearing is unique and irreplaceable." David Popenoe, Life Without Father: Compelling New Evidence that Fatherhood \& Marriage are Indispensable for the Good of Children \& Society 146 (1996). Even Professor Michael Lamb, a current advocate of samesex marriage, supported this view before he became a proponent of redefining marriage to include same-sex couples. He stated in no uncertain terms that "[b]oth mothers and fathers play crucial and qualitatively different roles in the socialization of the child." Michael E. Lamb, Fathers: Forgotten Contributors to Child Development, 18 Human Dev. 245, 246 (1975).

Current research on the psycho-social development of children continues to affirm that the complementarity of an intact family, with a mother and a father serving unique relational roles, is optimal for a child's healthy development. See, e.g., Ruth Feldman, Oxytocin and Social Affiliation In Humans, 61 Hormones \& Behav. 380-391 (2012) (noting the different roles that mothers and fathers play
across species, the importance of those differences to human development, and suggesting that human oxytocin systems may account for the different yet complementary maternal and paternal functions). Even same-sex marriage supporters like Dr. Lamb have admitted that men and women are not "completely interchangeable with respect to skills and abilities" and that "data suggests that the differences between maternal and paternal behavior are more strongly related to either the parents’ biological gender or sex roles, than to either their degree of involvement in infant care or their attitudes regarding the desirability of paternal involvement in infant care." Trial transcript at 1064 and 1068, Perry v. Schwarzenegger, 704 F. Supp. 2d 921 (N.D. Cal. 2010) (No. 09-2292).

Dr. Lamb's statement is consistent with a great deal of scholarship on the distinct ways in which separate maternal and paternal contributions promote positive child-development outcomes. For example, distinctive maternal contributions are numerous and significant. The natural biological responsiveness of a mother to her infant fosters critical aspects of neural development and capabilities for interactivity in the infant brain. ${ }^{2}$ Mothers are also able to extract the

[^1]maximum return on the temporal investments of both parents in a two-parent home because mothers provide critical direction for fathers on routine caretaking activities, particularly those involving infants and toddlers. See Sandra L. Hofferth et al., The Demography of Fathers: What Fathers Do, in Handbook of Father Involvement: Multidisciplinary Perspectives 81 (Catherine Tamis-Lamonda \& Natasha Cabrera eds., 2002); Scott Coltrane, Family Man 54 (1996). This direction is needed in part because fathers do not share equally in the biological and hormonal interconnectedness that develops between a mother and a child during pregnancy, delivery, and lactation.

In comparison to fathers, mothers generally maintain more frequent and open communication and enjoy greater emotional closeness with their children, in turn fostering a sense of security in children with respect to the support offered by the family structure. Ross D. Parke, Fatherhood 7 (Developing Child Series, Jerome Bruner et al. eds., 1996). Mothers' typical mode of parent-child play is predictable, interactive, and geared toward joint problem-solving, which helps children to feel comfortable in the world they inhabit. Eleanor Maccoby, The Two Sexes 266-67 (1998);' ${ }^{3}$ see also Parke, supra, at 5 . Mothers also impose more limits

[^2]and tend to discipline more frequently, albeit with greater flexibility when compared with fathers. Maccoby, supra, at 273.

Mothers also uniquely play a greater role in cultivating the language and communication skills of their children. Parke, supra, at 6. Mothers help children understand their own feelings and respond to the feelings of others, in part by encouraging open discussion of feelings and emotions within the family unit. See Suzanne A. Denham et al., Prediction of Externalizing Behavior Problems From Early to Middle Childhood: The Role of Parental Socialization and Emotion Expression, in Development and Psychopathology 23-45 (2000); Maccoby, supra, at 272. Active maternal influence and input is vital to the breadth and depth of children's social ties, and mothers play a central role in connecting children to friends and extended family. Paul R. Amato, More Than Money? Men's Contributions to Their Children's Lives?, in Men in Families, When Do They Get Involved? What Difference Does It Make? 267 (Alan Booth \& Ann C. Crouter eds., 1998).

Fathers also make distinctive contributions to the upbringing of their children, and positive paternal contributions play a key role in avoiding a variety of negative outcomes that arise with greater frequency in homes where a father is not

[^3]present. Having a father is associated with an increase in positive outcomes for children in domains such as education, physical health, and the avoidance of juvenile delinquency. McLanahan \& Sandefur, supra (1994); Greg Duncan \& Jeanne Brooks-Gunn, Consequences of Growing Up Poor (1999). As Professor Norval Glenn explains, "there are strong theoretical reasons for believing that both fathers and mothers are important, and the huge amount of evidence of relatively poor average outcomes among fatherless children makes it seem unlikely that these outcomes are solely the result of the correlates of fatherlessness and not of fatherlessness itself." Norval D. Glenn, The Struggle for Same-Sex Marriage, 41 Soc’y 25, 27 (2004).

Fathers engage proactively in spontaneous play with their children, and "children who roughhouse with their fathers . . . quickly learn that biting, kicking, and other forms of physical violence are not acceptable." Popenoe, supra, at 144. A study conducted by developmental psychologist Daniel Paquette found that fathers are also more likely to supervise children at play while refraining from intervention in the child's activities, a pattern that stimulates "exploration, controlled risk-taking, and competition." Daniel Paquette \& Mark Bigras, The Risky Situation: A Procedure for Assessing the Father-Child Activation

Relationship, 180 Early Childhood Dev. \& Care 33-50 (2010). ${ }^{4}$ Boys who do not regularly experience the love, discipline, and modeling of a good father are more likely to engage in what is called "compensatory masculinity" where they reject and denigrate all that is feminine and instead seek to prove their masculinity by engaging in domineering and violent behavior. Popenoe, supra, at 157.

Paternal modes of play activity are only one example of the ways in which fathers encourage their children to take risks. Compared to mothers, fathers are more likely to encourage children to try new things and to embrace novel situations and challenges. See Parke, supra, at 6. One study summarized this aspect of paternal input and observed that "[f]athers, more than mothers, conveyed the feeling that they can rely on their adolescents, thus fathers might provide a 'facilitating environment' for adolescent attainment of differentiation from the family and consolidation of independence." Shmuel Shulman \& Moshe M. Klein, Distinctive Role of the Father in Adolescent Separation-Individuation, 62 New Dir. Child \& Adolesc. Dev. 41, 53 (1993).

Fathers also tend to utilize a different discipline style than mothers, in that they discipline with less frequency, but greater predictability and less flexibility in terms of deviating from pre-determined consequences for particular behavior. See

[^4]Thomas G. Powers et al., Compliance and Self-Assertion: Young Children's Responses to Mothers Versus Fathers, 30 Dev. Psychol. 980-89 (1994). Children respond differently to paternal discipline, and are comparatively more likely to resist maternal commands and comply with paternal requests. Maccoby, supra, at 274-75. This may be one reason why a number of studies have found that paternal influence and involvement plays an outsized role in preventing adolescent boys from breaking the law and lowering the odds that a teenage girl will become pregnant. See, e.g., Paul R. Amato \& Fernando Rivera, Paternal Involvement and Children's Behavior Problems, 61 J. Marriage \& Fam. 375-84 (1999) (finding that paternal involvement is linked to lower levels of delinquency and criminal activity, even after controlling for maternal involvement); Mark D. Regnerus \& Laura B. Luchies, The Parent-Child Relationship and Opportunities for Adolescents' First Sex, 27 J. Fam. Issues 159-83 (2006) (noting that a study of 2000 adolescents showed that father-daughter relationship, rather than mother-daughter relationship, was an important predictor of whether and when adolescent girls transitioned to sexual activity); see also W. Brad Wilcox et al., Why Marriage Matters: TwentySix Conclusions from the Social Sciences 14, 22-23 (3d ed. 2011) (discussing evidence suggesting that female sexual development is slowed by early childhood exposure to pheromones of biological father, and accelerated by regular early childhood exposure to pheromones of adult male who is not child's biological
father).
In sum, a substantial body of evidence demonstrates that both mothers and fathers make unique contributions to a child's development. Same-sex parenting structures, by definition, exclude either a mother or a father. Certainly same-sex couples, like other parenting structures, can make quality and successful efforts in raising children. That is not in question. But the social science evidence, especially evidence founded on conclusions from population-based samples, suggests that there are unique advantages to a parenting structure consisting of both a mother and a father, political interests to the contrary notwithstanding. Therefore it remains rational for government to provide distinctive recognition and incentive to that proven parenting structure through the status of marriage.

## II. The Claim of "No Difference" in Outcomes of Children Raised by Gay and Lesbian Parents and Intact Biological Parents Is Empirically Undermined by Significant Methodological Limitations.

Decades of study on various parenting structures yield the near uniform conclusion that a biological mother and father provide optimal child outcomes. Mark Regnerus, How Different Are the Adult Children of Parents Who Have SameSex Relationships? Findings from the New Family Structures Study, 41 Soc. Sci. Research 752, 763 (2012) [hereinafter How Different?]. So the claim that another parenting relationship produces child outcomes just as good as (or even better than) intact biological parents is a surprising proposition, to say the least, and one
that must be rigorously tested (and until then, viewed with healthy suspicion). ${ }^{5}$
A closer examination of the studies purporting to show no difference between same-sex parenting and parenting by biological parents suggests that they cannot bear the weight that advocates place on them. Most striking is that all but one failed to involve a large, random, representative sample of the population. While this can be attributed to the fact that such a sample is difficult to locate randomly, it nevertheless ought to raise concern when they are used to support broad public policy changes, like those at issue in this case. In short, it is unconvincing to claim "no difference" with such thin support.

The Eleventh Circuit has recognized these limitations in the research on gay and lesbian parenting, noting "significant flaws in the studies' methodologies and conclusions, such as the use of small, self-selected samples; reliance on self-report instruments; politically driven hypotheses; and the use of unrepresentative study
${ }^{5}$ Although outcomes of children raised by adoptive parents are often positive, outcomes for those children are not typically as positive as children raised by biological parents in an intact marriage, despite the rigorous screening process involved in adoption. Regnerus, How Different?, supra, at 754-55 ("[S]tudies of adoption-a common method by which many same-sex couples (but more heterosexual ones) become parents-have repeatedly and consistently revealed important and wide-ranging differences, on average, between adopted children and biological ones. In fact, these differences have been so pervasive and consistent that adoption experts now emphasize that 'acknowledgement of difference' is critical for both parents and clinicians when working with adopted children and teens." (citing Brent Miller et al., Comparisons of Adopted and Non-Adopted Adolescents In A Large, Nationally Representative Sample, 71 Child Dev. 1458 (2000))).
populations consisting of disproportionately affluent, educated parents." Lofton $v$. Sec'y of Dep't of Children and Family Servs., 358 F.3d 804, 825 (11th Cir. 2004).

## A. The APA studies are based on small sample sizes.

Most of the studies that the APA relies on to support its no-difference conclusion "are based on small, non-representative, convenience samples of fewer than 100 participants." Loren D. Marks, Same-Sex Parenting and Children's Outcomes: A Closer Examination of the American Psychological Association's Brief on Lesbian and Gay Parenting, 41 Soc. Sci. Res. 735, 736-38 (2012); see also Douglas W. Allen et al., Nontraditional Families and Childhood Progress Through School: A Comment on Rosenfeld, Demography November 2012, http://link.springer.com/article/10.1007/s13524-012-0169-x/fulltext.html
[hereinafter Comment on Rosenfeld] ("Although there has been considerable research on the effect of family structure on child outcomes, almost none of the research using nationally representative samples has included same-sex parents as part of the analysis.").

The hallmark of a rigorous study is a large, representative pool of participants drawn from a population-based random sample. Regnerus, How Different?, supra, at 754. It is very difficult to draw reliable conclusions from the data used in small samples because the conclusions from such limited studies cannot be confidently extrapolated to the general population and the risk of
erroneously attributing statistical insignificance to between-group comparisons (that is, mistakenly concluding that there are no differences between groups) is high. Marks, supra, at 736.

Even analyzing matched samples, as a variety of studies have done, fails to mitigate the challenge of locating statistically-significant differences when the sample size is small. This is a concern in all social science, but one that is doubly important when there may be motivation to confirm the null hypothesis (that is, that there are in fact no statistically-significant differences between groups).

Regnerus, How Different?, supra, at 754.
A simple illustration shows the concern with small sample sizes. It is well established that having a stepfather in the home tends on average to result in less optimal child outcomes. Mark V. Flinn et al., Fluctuating Asymmetry of Stepchildren, 20 Evol. Hum. Behav. 465 (1999) ("In summary, the absence of a genetic relationship between stepchildren and stepparents may affect the quality and quantity of care-including specific behaviors that affect nutrition, sleep routines, hygiene, medical attention, work loads, instruction, comforting, protection and so forth—with consequent affect on growth."); Marilyn Coleman et al., Reinvestigating Remarriage: Another Decade of Progress, 62 J. Marriage \& Fam. 1288, 1293 (2000) ("[M]ost researchers reported that stepchildren were similar to children living with single mothers on the preponderance of outcome measures and that step-children generally were at a greater risk for problems than were children living with both of their parents."). That is relevant for the matter at
hand because every child in a "planned" gay or lesbian family has at least one nonbiological "step" parent. But because of the small sample sizes of same-sex parents (especially gay fathers) represented in the studies, these outcome differences have not often surfaced (or even been evaluated), raising additional questions about the reliability of the studies purporting to show no differences. Moreover, comparisons are most often made between children in heterosexual stepfamilies and those in gay unions, a comparison that overlooks the general consensus about the importance of biological connections.

Notably, one of the larger studies that the APA cites, but does not discuss, showed significant outcome differences between children raised by same-sex parents and those raised by biological parents in an intact relationship. "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." Marks, supra, at 742-43 (quoting S. Sarantokas, Children In Three Contexts: Family, Education, and Social Development, 21 Children Australia 23 (1996), and describing the study's findings in detail, its comparative statistical strength, and the APA's puzzling de-emphasis of it).

## B. The APA's studies are largely based on homogeneous samples.

Not only are most of the studies claiming no differences in same-sex parenting based on small sample sizes, they also tend to draw upon "homogeneous
samples of privileged lesbian mothers to represent all same-sex parents." Marks, supra, at 739. Many of the studies cited by the APA, for example, include no minorities with samples predominantly composed of white, well-educated, middle-to-upper-class women. Id. at 738. As one study candidly acknowledged, "the study sample was small 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." Id. (quoting Laura Lott-Whitehead \& Carol T. Tully, The Family Lives of Lesbian Mothers, 63 Smith Coll. Studies Soc. Work 275 (1993)); see also C.J. Patterson, Children of Lesbian and Gay Parents, 63 Child Dev. 1025, 1029 (1992) ("Despite the diversity of gay and lesbian communities, both in the United States and abroad, samples of children [and parents] have been relatively homogenous . . . . Samples for which demographic information was reported have been described as predominantly Caucasian, welleducated, and middle to upper class.").

Very few of the APA-cited studies on same-sex parenting analyzed the outcomes of children raised by gay fathers. Only eight of the fifty-nine cited studies included gay fathers, and only four of those included a heterosexual comparison group. Marks, supra, at 739. "Systematic research has so far not considered developmental outcomes for children brought up from birth by single gay men or gay male couples (planned gay father families), possibly because of the
difficulty of locating an adequate sample." Fiona Tasker, Lesbian Mothers, Gay Fathers and Their Children: A Review, 26 Dev. \& Behav. Pediatr. 224, 225 (2005).

## C. Most of the samples in the APA-cited studies relied on nonrandom, convenience sampling.

It is not surprising that the samples in these studies are so homogenous, given that most of the people in them were recruited by use of non-random, convenience (snowball) sampling. Regnerus, How Different?, supra, at 753. For instance, one data-collection effort that has been the subject of at least 19 different peer-reviewed publications to date "recruited entirely by self-selection from announcements posted 'at lesbian events, in women's bookstores, and in lesbian newspapers' in Boston, Washington, and San Francisco." Id. This method of recruitment was common among the APA-cited studies. Id. Such "snowball sampling is known to have some serious problems" because it is impossible to generalize the findings of such a specific subgroup to the general population. Id. (quoting Tom A. Snijders, Estimation on the Basis of Snowball Samples, 36 Bulletin de Methodologie Sociologique 59 (1992)).

Because such studies' samples are garnered from people who have a great deal in common with each other, how well their findings characterize a broader population of gay families remains unknown. "By their own reports, social researchers examining same-sex parenting have repeatedly selected small, nonrepresentative, homogeneous samples of privileged lesbian mothers to represent all
same-sex parents." Marks, supra, at 739; see also Walter R. Schumm, What Was Really Learned From Tasker \& Golombok's (1995) Study of Lesbian \& Single Parent Mothers?, 95 Psych. Reports 422, 423 (2004) ("[O]ne has to be very careful in interpreting research on homosexual issues and be wary of outcomes when samples are very small and often nonrandom, so the null hypothesis is not rejected but is used for political purposes as if a meaningful result had been obtained"). ${ }^{6}$

If these studies were being used to shed light on the outcomes of children raised by highly educated and affluent middle to upper class white women, their conclusions would have merit. But the studies ought not be generalized to the childhood and adolescent experiences of the wide spectrum of gay and lesbian parents, since gay and lesbian parents are, in reality, economically, racially, and socially far more diverse than those studies imply.

The issue is further complicated by the political climate surrounding the fundamental definition of marriage. "Given the widespread support for same-sex

[^5]marriage among social and behavioral scientists, it is becoming politically incorrect in academic circles even to suggest that arguments being used in support of same-sex marriage might be wrong." Glenn, supra, at 25; see also Judith Stacey \& Timothy Biblarz, (How) Does the Sexual Orientation of Parents Matter?, 66 American Sociol. Rev. 159, 161 (2001) ("[T]oo many psychologists who are sympathetic to lesbigay parenting seem hesitant to theorize at all" and are apt to "downplay the significance of any findings of differences.").

Given such limitations characteristic of a nascent area of social-science research, the vast majority of the studies relied upon by the APA for its general claim that there is no difference in outcomes of children raised by gay and lesbian parents and those raised by heterosexual parents are poorly poised to address the broad propositions asserted in this case.

## III. The Largest Population-Based Studies Do Not Confirm the "No Differences" Conclusion about Child Outcomes among Same-Sex Parents.

Recent research using larger, randomly selected, nationally representative samples suggests that there are significant differences in the outcomes of children raised by parents who have had a same-sex relationship and children raised by intact biological parents. This research, called the New Family Structures Study (NFSS), was conducted on young adults with a very large sample size of nearly 3,000 participants, comprising a racially, socioeconomically, and geographically
diverse group reflective of the diversity noted in demographic mappings of the gay and lesbian population in America. Regnerus, How Different?, supra, at 755, 757. The study surveyed adults aged 18-39 about their parent(s)' past same-sex relationships, which occurred as recently as a few years ago or as far back as 30 or more years. ${ }^{7}$ Among that sample, 175 people reported living with a mother who was (and may still be) in a same-sex romantic relationship, and 73 reported living with a father who had been in a same-sex romantic relationship.

The study looked at "social behaviors, health behaviors, and relationships" comparing child outcomes (as reported by the adult children rather than their parents) among various groups, including married biological parents, stepparents, single parents, and parents who had been in a same-sex romantic relationship. "When compared with children who grew up in biologically (still) intact, motherfather families, the children of women who reported a same-sex relationship look markedly different on numerous outcomes, including many that are obviously suboptimal (such as education, depression, employment status, or marijuana use)." Id. at 764. Some of the statistically significant differences where adult children who reported living in a household with their mother and her partner for at least some period of time (denoted below as "MLR"-that is, mother in a lesbian
${ }^{7}$ The NFSS may best capture what might be called an "earlier generation" of children of same-sex parents, and includes among them many who witnessed a failed heterosexual union.
relationship) fared worse than children raised by intact biological parents (denoted below as "IBF"-that is, intact biological family) included:

- receiving welfare while growing up ( $17 \%$ of the IBF group and $70 \%$ of the MLR group),
- currently receiving public assistance ( $10 \%$ of the IBF group and $49 \%$ of the MLR group),
- current full-time employment status ( $49 \%$ of the IBF group and $17 \%$ of the MLR group),
- current unemployment ( $8 \%$ of the IBF group and $40 \%$ of the MLR group),
- having an affair while married or cohabitating ( $13 \%$ of the IBF group and $38 \%$ of the MLR group),
- having been touched sexually by a parent or other adult caregiver ( $2 \%$ of the IBF group and $26 \%$ of the MLR group), and
- having been forced to have sex against their will ( $8 \%$ of the IBF group and $27 \%$ of the MLR group).

Mark Regnerus, Parental Same-Sex Relationships, Family Instability, and Subsequent Life Outcomes for Adult Children: Answering Critics of the New Family Structures Study with Additional Analysis, 41 Soc. Sci. Res. 1367, 1372-74 (2012) [hereinafter Parental Same-Sex Relationships]; see also Douglas W. Allen, High school graduation rates among children of same-sex households, Rev. Econ.

Household, Sept. 2013 ("Children living with gay and lesbian families in 2006 were about $65 \%$ as likely to graduate compared to children living in opposite sex marriage families.").

Because of the smaller sample size for fathers who have had gay relationships, there were not as many significant findings as compared to mothers who have had lesbian relationships. Nevertheless, adult children of fathers who are or have been in a same-sex relationship "are more apt than [adult children raised by intact biological parents] to smoke, have been arrested, pled guilty to non-minor offenses, and report more numerous sex partners." Regnerus, How Different?, supra, at 764.

The study does not purport to assess causation or definitively answer political questions about family structures. Indeed, it would be difficult, if not impossible, to precisely determine causation under these circumstances. But it is noteworthy that the groups display numerous significant distinctions, which directly undermine the APA's "no differences" hypothesis.

When the NFSS-based study was released in summer 2012, it initiated much heated discussion about same-sex parenting, and encountered widespread criticism and a level of scrutiny unusual for a published sociological study based on nationally representative data. Regnerus, Parental Same-Sex Relationships, supra, at 1367. One of the most frequent criticisms by supporters of same-sex marriage was that the study compared "apples to oranges" because it compared the adult children of stably intact biological parents with adult children of stably intact same-sex households and adult children whose mother or father left a heterosexual
union for a same-sex one. Id.

But as the author's follow-up study noted, that criticism is unfair for at least two reasons. First, "if stability is a key asset for households with children, then it is sensible to use intact biological families in any comparative assessment." Id. at 1368. Indeed, a primary problem of nearly all previous studies is that they seldom included a married biological family control group. Id. at 1368-69. Second, that most of the same-sex households in the study were unstable at some point does not mean that the study undercounted stable same-sex households; it could just as plausibly be interpreted as showing that same-sex relationships are often shortlived. Id. The latter alternative is possible, if not probable, given other research on the comparative volatility of lesbian relationships.

A study of Norwegian and Swedish same-sex marriages notes that divorce risk is higher in same-sex marriages and that the 'risk of divorce for female partnerships actually is more than twice that for male unions'. Moreover, early same-sex marriages-those occurring shortly after a shift in marriage law-exhibited a similar risk of divorce as did more recent unions, suggesting no notable variation in instability over time as a function of new law or pent-up demand among more stable, longstanding relationships. The study authors estimate that in Sweden, 30\% of female marriages are likely to end in divorce within 6 years of formation, compared with $20 \%$ for male marriages and $13 \%$ for heterosexual ones.

Id. at 1370 (emphasis added) (quoting Gunnar Anderson et al., The Demographics
of Same-Sex Marriages In Norway and Sweden, 43 Demography 79, 89 (2006)). ${ }^{8}$
Although this unanswered, empirically unknown question remains, what is clear is that there remains much to be studied in this domain, and hence confident assertions of "no difference" ought to be viewed with suspicion. As the study's author indicated:

Perhaps in social reality there are really two 'gold standards' of family stability and context for children’s flourishing-a heterosexual stablycoupled household and the same among gay/lesbian households-but no population-based sample analysis is yet able to consistently confirm wide evidence of the latter. Moreover, a stronger burden of proof than has been employed to date ought to characterize studies which conclude 'no differences', especially in light of longstanding reliance on nonrandom samples of unknown bias and the high risk of making [significant] errors in small-sample studies. Simply put, the science here is young. Until much larger random samples can be drawn and evaluated, the probability-based evidence that exists suggests that the biologically-intact two-parent household remains an optimal setting for long-term flourishing of children.

Id. at 1377 (citations omitted); see also Walter R. Schumm, Methodological Decisions and the Evaluation of Possible Effects of Different Family Structures on Children: The New Family Structures Survey, 41 Soc. Sci. Research 1357-66 (2012) (validating methodological decisions in New Family Structures Study, and noting similar decisions in other large-scale surveys).

Other population-based studies have similarly identified better outcomes for

[^6]children raised by a biological mother and father than children raised in other parenting structures. In assessing group differences in academic progress through school, Michael J. Rosenfeld noted no differences in school progress for children raised by same-sex parents. Michael J. Rosenfeld, Nontraditional Families and Childhood Progress Through School, 47 Demography 755 (2010). But a reanalysis of his high-quality, census-based sample-this time including the children of all couples, not just those who were residentially stable for at least five yearsrevealed that "children being raised by same-sex couples are $35 \%$ less likely to make normal progress through school." Allen, Comment on Rosenfeld, supra (noting findings that "are strikingly different from those of the original [Rosenfeld] study"). Thus Rosenfeld's original ''no differences'' conclusion may be a result of dropping more unstable households from his analytic sample.

Indeed, no existing study yet bears the ability to randomly compare large numbers of children raised by gay couples with the same among heterosexual couples over a long period of time. The social science of same-sex parenting structures remains young, and subject to significant limitations about what can be known, given that the influence of household structures and experiences on child outcomes is not a topic for experimental research design. Yet those analyses that employ large population-based samples continue to document differences. With so many significant unanswered questions about whether children develop as well in
same-sex households as in opposite-sex households, it remains prudent for government to continue to recognize marriage as a union of a man and a woman, thereby promoting what is known to be an ideal environment for raising children.

## CONCLUSION

For the foregoing reasons, Amici urge this Court to affirm the decision of the lower court.

Dated: January 28, 2014
Respectfully submitted,
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## CERTIFICATE OF COMPLIANCE WITH RULES 29-2(d) AND 32(a)(7)(B)

Certificate of Compliance With Type-Volume Limitation, Typeface Requirements, and Type Style Requirements.

This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because this brief contains 6,080 words, excluding parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

This brief complies with the typeface requirements of Fed. R. Civ. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally spaced typeface using Word 2007 in 14-point Times New Roman.

Dated: January 28, 2014
s/ Abram J. Pafford
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## CERTIFICATE OF SERVICE

I hereby certify that on January 28, 2014, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system. All participants in the case are registered CM/ECF users and will be served by the appellate CM/ECF system.
s/ Abram J. Pafford
Abram J. Pafford


[^0]:    ${ }^{1}$ No party's counsel authored this brief in whole or in part, and no one other than Amici or their counsel contributed money that was intended to fund preparing or submitting this brief. All parties have consented to the filing of this brief, and thus, Amici need not file a motion for leave to file this brief.

[^1]:    ${ }^{2}$ See C.A. Nelson \& M. Bosquet, Neurobiology of Fetal and Infant Development: Implications for Infant Mental Health, in Handbook of Infant Mental Health 37-59 (C.H. Zeanah Jr. ed., 2d ed. 2000); M. DeWolff \& M. van Izjendoorn, Sensitivity and Attachment: A Meta-Analysis on Parental Antecedents of Infant Attachment, 68 Child Dev. 571-91 (1997); M. Main \& J. Solomon, Discovery of an Insecure-

[^2]:    Disorganized Disoriented Attachment Pattern, in Affective Development in Infancy 95-124 (T.B. Brazelton \& M.W. Yogman eds., 1986).
    ${ }^{3}$ Professor Maccoby, a distinguished feminist psychologist at Stanford University who championed the idea that sex differences were caused only by socialization, is

[^3]:    now acknowledging the importance of biology in explaining sex differences in parenting. Maccoby, supra, at 314.

[^4]:    ${ }^{4}$ See Linda Carroll, Dads Empower Kids to Take Chances, NBCNEWS.com, June 18, 2010, http://www.msnbc.msn.com/id/37741738.

[^5]:    ${ }^{6}$ Other scholars have noted that studies purporting to show no difference between children raised by same-sex couples and those raised by married mothers and fathers share these significant limitations. One of the most extensive critiques of the research was offered by Professor Steven Lowell Nock of the University of Virginia. Nock Aff., Halpern v. Attorney General of Canada, Case No. 684/00 (Ontario Sup. Ct. Justice 2001), available at http://marriagelaw.cua.edu/ Law/cases/Canada/ontario/halpern/aff_nock.pdf. See also Glenn, supra, at 26-27; Schumm, supra, at 423; Robert Lerner \& Althea K. Nagai, No Basis: What the Studies Don't Tell Us About Same-Sex Parenting (Marriage Law Project, 2001).

[^6]:    ${ }^{8}$ Although gay men's relationships appear more stable than lesbian relationships, they are less likely to be monogamous. Id. (citing Colleen Hoff \& Sean Beougher, Sexual Agreements Among Gay Male Couples, 39 Arch. Sex. Beh. 774 (2010)).

