AFFIDAVIT OF JUDITH STACEY AND TIMOTHY BIBLARZ

I, Judith Stacey, Professor, of the City of Santa Monica, in the State of California, MAKE OATH AND SAY:

1. I, Judith Stacey, was appointed to the Streisand Professorship of Contemporary Gender Studies in the Department of Sociology at the University of Southern California in Los Angeles.
in 1997. Prior to that I spent 17 years on the faculty of Department of Sociology at the University of California, Davis, where I received tenure in 1982, and was promoted to Full Professor in 1989. I received my Ph.D. in Sociology from Brandeis University, an M.A. in United States History from the University of Illinois (Chicago), and the B.A. from the University of Michigan. My areas of research and teaching center on the sociology of family, gender and sexuality, with a current specialization in gay and lesbian family forms. My research has received funding from the American Council of Learned Societies, the Rockefeller Foundation, the University of California, Davis Humanities Center, the Ford Foundation, and the National Endowment for the Humanities. My publications include three single-authored books on family change and numerous articles in scholarly journals and research anthologies. I have lectured widely in the U.S. and Europe on such themes. I am a founding board member of the Council for Contemporary Families in the U.S., a national group of family researchers and teaching clinicians committed to public education on the sources and effects of family diversity. My curriculum vitae is attached as Exhibit “A” to this affidavit.

2. I, Timothy J. Biblarz, received my Ph.D. in Sociology from the University of Washington-Seattle in 1992, and the same year joined the faculty of the Sociology Department at the University of Southern California where I am currently an Associate Professor of Sociology with tenure. I am also a Research Associate at U.S.C.’s Population Research Laboratory, and the Gerontology Research Institute in the Andrus Gerontology Center. My research focuses on the demography of social inequalities, with an emphasis on family and inter-generational issues. My papers have appeared in the American Sociological Review, American Journal of Sociology, Journal of Marriage and the Family, Social Forces, and other journals, and I have a co-authored book in press at Cambridge University Press that explores the transmission of values and aspirations across multiple generations of family members. Current projects include an investigation of historical change in the relationship between family structure and children's educational transitions from middle school to graduate school, a study of occupational transmission from mothers and fathers to sons and daughters, and a test of an evolutionary theory of marital stability. My curriculum vitae is attached as Exhibit "B" to this affidavit.
3. Recently, we published the co-authored findings of our comprehensive analysis of two decades of research literature that investigates the impact of sexual orientation of parents on children. Attached as Exhibit “C” to this affidavit is a copy of this study, Judith Stacey and Timothy Biblarz, “(How) Does the Sexual Orientation of Parents Matter?” American Sociological Review (volume 66, number 2, April 2001). The *American Sociological Review* is the most prestigious, selective and rigorously reviewed journal in sociology in the United States. It was referee-reviewed in three rounds by seven reviewers. Professor Nock has personally complimented Professor Stacey on the quality and substance of the article on April 28, 2001 at the Council on Contemporary Families Conference on marriage research in New York.

4. We have been asked to evaluate the assertions contained in the affidavits of Professors Steven Nock and Craig Hart, filed in the within proceedings. Professor Nock’s affidavit criticizes the methodological adequacy and quality of the social science research on the effects of lesbian and gay parenting on children. Specifically, Professor Nock states that there is inadequate research to conclude whether or not there are any detrimental effects to children with same-sex parents. In this affidavit, we criticize and reject Professor Nock’s assertion that there is no scientifically valid evidence of equal outcomes between children with same-sex parents and children with heterosexual parents. He is simply wrong to say that all of the studies published to date are virtually worthless and unscientific. There is significant, reliable social scientific evidence that lesbian and gay parents are as fit, effective and successful as similar heterosexual parents. The research shows that children from same-sex couples are as emotionally healthy and socially adjusted and at least as educationally and socially successful as children raised by heterosexual parents. We conclude that granting same-sex parents the freedom to marry would likely result in positive outcomes for such parents, their children, gay and lesbian people, and society as a whole. We also reject the assertions of Professor Craig Hart. His analysis is intellectually flawed and the studies cited are irrelevant to the issues in this case.
I. The Affidavit of Professor Steven Nock

5. Professor Nock’s affidavit makes two major claims, which we will address in turn. His first major claim is that the research on the parenting of lesbians and gay men does not meet requisite scientific standards. He rejects the entire body of research conducted on the question of comparing same-sex parents with heterosexual parents. This body of research represents approximately twenty-five years of scholarship and includes more than fifty peer reviewed studies. Nevertheless, Professor Nock claims that this research is incapable of evaluating the equivalence of parenting by same-sex parents to heterosexual parents or the question of whether same-sex parents cause greater risks to their children. He says that every single study is, in his words, “fatally flawed,” and that “not a single one was conducted according to generally accepted standards of scientific research” (at paragraph 119).

6. Specifically, Professor Nock asserts that this body of research is flawed because none of the studies that he reviewed (sometimes “the Vermont studies”) use a national probability sample; all use convenience samples that are too small to enable researchers to establish differences statistically between the groups. He complains also that the samples are unrepresentative and findings cannot be generalized to compare same-sex versus different-sex parents. Professor Nock asserts furthermore that the studies fail to develop adequate operational definitions of homosexuality. As a result, there is no sense of the base population, and inferential statistics cannot be used to make generalizations that compare the two groups of parents or their children.

7. Professor Nock’s second major claim is that current research provides no guidance as to the probable effects of equal marriage on the children of same-sex couples. He acknowledges that there is a substantial body of scientific research which establishes that marriage provides significant benefits to everyone: men, women, parents and children, and society as a whole. Professor Nock himself has published and lectured extensively about these benefits. (See, for example, Marriage in Men’s Lives, New York: Oxford University Press, 1998) and the transcript of his recent presentation on the benefits of marriage which he delivered at “What’s Marriage Got
To Do With It? Rethinking Debates about Research, Practice, and Policy,” 4th Annual Conference of Council on Contemporary Families, at Fordham University Law School, New York, April 28, 2001.) In addition, Professor Nock is Director of The Marriage Matters Program at the University of Virginia. Nonetheless, he asserts that none of that body of research can be drawn on in this instance because there has not yet been research to assess whether or not the same benefits that apply to heterosexual marriage would apply to same-sex marriage. Since same-sex couples are not yet allowed to marry, he says that it is “pure speculation” (page 1562) to deduce that the benefits of heterosexual marriage would also apply to the marriages of same-sex couples and to the children of those married parents. He states that it would be a mistake for the court to reach that conclusion, because, in his words, “while it is generally true that marriage confers numerous advantages, it is unknown whether those advantages are the result of marriage, per se, or heterosexual marriage.” (Para. 122)

A. Legitimate, Reliable Body of Research Demonstrates Equal Outcomes for Children

Professor Nock’s Methodological Bias

8. Professor Nock’s claims regarding generally accepted standards and methods for social science research are inaccurate and biased. Social scientists do not employ or accept exclusively one research method. Instead, social scientists employ and value diverse methodologies, research designs, and types of data which vary depending upon the discipline involved, the research area of specialty and investigation, the questions being raised and the theories that are being applied and evaluated.

8. Professor Nock is a survey researcher and demographer, which represents a specific methodology and a sub-field of inquiry within sociological research. When Professor Nock provides his lengthy description of research methodology, he adopts the extreme, untenable
position that the genre of large-scale survey research that he generally conducts is the only acceptable research method in all of the social science disciplines and subfields.

10. Professor Nock inappropriately applies this model of research, which is only one model within his own particular sub-field of sociology – demography – to an entirely different discipline, child development, which is a branch of developmental psychology. This is a research specialty and sub-discipline in which Professor Nock has no expertise. The body of research with which he takes issue in his affidavit was conducted primarily, if not exclusively, by psychologists with expertise in the field of child development. None of the studies that Professor Nock is evaluating were conducted by sociologists or by demographers.

**Studies at Issue Employ Preferred and Prevailing Research Methods in Child Development**

11. Proper research methods and standards in social sciences, like all research in the academy, are determined through a rigorous peer review process that is conducted by established scholars in individual disciplines and sub-fields. Research methods, analyses, and findings are reviewed and scrutinized by a scholar’s peers when scholarly papers are submitted for publication. Characteristically, an academic’s work must satisfy the scrutiny and standards of scholars considered to be experts in the field and in the model of research under review.

12. The journals *Child Development* and *Developmental Psychology* are the two flagship peer-review journals in the field of child development. The former is published by the 5,000-member academic Society for Research in Child Development, and the latter is published by the American Psychological Association. Several of the Vermont studies appeared in these rigorously peer-reviewed and highly selective periodicals, whose standards represent expert consensus on generally accepted social scientific standards for research on child development.

13. The research methods that Professor Nock advocates, that is, research based on statistically representative national samples, are rarely employed by scholars who publish in
Child Development and Developmental Psychology. There is a simple explanation for this. Large-scale survey research methods are too blunt and rigid to adequately address the complex and nuanced questions that are generally at issue when scholars attempt to assess and compare child development under different forms of parenting or adult intervention. Most child development studies profit from having in-depth observations of children with multiple reporters (parents, teachers, clinicians, researchers, etc.) and instruments. Research often benefits when rapport develops between the researcher, the observer, the parents and the children. This is precisely the opposite methodology from the method Professor Nock advocates: he prefers a “fly on the wall” ideal involving a neutral observer conducting abstract survey research.

14. If the court were to accept Professor Nock’s primary criticisms of these studies, it would have to dismiss virtually the entire discipline of psychology. The vast majority of research in child development, and in the field of psychology more broadly, would be invalidated as unscientific. The research design of the studies on lesbian and gay parenting that Professor Nock criticizes is by no means peculiar to or below the generally accepted scientific standards of the field. On the contrary, most of the research designs used in these studies characterize predominant methods employed throughout the entire discipline of psychology. In essence, Professor Nock appears to be claiming that psychologists would have to become demographers in order for their work to have scientific value.

15. By that standard, almost every study published in the premier journals Child Development and Developmental Psychology would be rejected out of hand. Take, for example, the Nov-Dec 2000 issue of Child Development, in which at least 10 of the 15 empirical studies published employ one or another of the methodological features that Nock rejects as “fatal flaws.” Seven or more of 10 empirical studies in the November 2000 issue of the APA journal Developmental Psychology likewise would end up in Professor Nock’s dustbin. Smentana’s (2000) research on the attitudes of African American adolescents, Martin and Fabes’s (2000) research on children’s choices of playmates and gender development, Taylor et al’s (2000) study of outcomes in children with low birth weight, Kilgore, Snyder and Lentz’s (2000) investigation
of the effects of parenting practices on children’s conduct - all of these studies and many more would be deemed unworthy of Professor Nock’s seal of “good science.” On the other hand, they were all deemed scientifically worthy enough to be accepted for publication by the external reviewers and the highly-regarded editors of the most exclusive and tightly-peer reviewed social science journals in their field.

**Professor Nock’s Insistence on Probability Samples**

16. Professor Nock has confused two research goals: 1) to paint a statistical portrait of a population; and 2) to isolate the unique effect of a particular variable on an outcome. Professor Nock is arguing inappropriately that rules guiding the first goal are the same as those for - or must be applied to - the second goal. While the samples of, most often, lesbian mothers and heterosexual mothers used in the Vermont studies are always drawn from their larger populations, they are not always drawn randomly. Nock argues that this means that we cannot be sure that the samples represent an accurate picture of their larger populations. While this makes achieving the first goal - painting a statistical portrait of a population - more difficult, it does not by definition preclude researchers’ ability to achieve the second goal - that of determining whether parental sexual orientation per se has any unique or problematic effects on child development. By matching lesbian mothers and heterosexual mothers on a wide variety of variables including age, race, family structure, age of children, socioeconomic position, donor insemination, and so on, researchers ensure that whatever differences may exist between their samples and the larger population are the same for both groups of mothers. Hence, tests for whether differences by maternal sexual orientation are statistically significant are appropriate and valid. These tests uniformly show that a lesbian sexual orientation per se has no negative effect on parenting, nor on children’s healthy psychological development and social adjustment.

17. By Professor Nock's standard, we would throw out a good portion of research in medicine that uses inferential statistics (e.g., all of those that conduct t-tests or chi-square tests for treatment effects on small non-probability samples). We would also have to reject the
preponderance of research in psychology, psychiatry, social-psychology, anthropology, clinical research, and so on. In fact, some of Professor Nock’s own published research fails to meet his unreasonably narrow methodological standards. For example, Willets-Bloom and Nock’s (1992, 1994) response rate of 49% is well below the 60% rate that Professor Nock says in his Affidavit (para. 83) is the minimum standard for scientific acceptability, and the Willets-Bloom and Nock papers make claims about young people in general based on a very small - by Professor Nock’s standards - sample of 111 male and 131 female undergraduate students at a single university in Virginia - one of the United States’s smallest and most suburban states. To argue that good research is only that which draws large probability samples from larger populations is an unreasonable, extreme position that exhibits also a certain misunderstanding or misrepresentation of the statistical issues.

Professor Nock’s Unfair Examination of the Research

18. Professor Nock has not examined the research even-handedly, but has applied inconsistent, contradictory and unfair standards to his assessment of the individual studies. For example, he seems to apply a "damned if you do, damned if you don't" standard to the studies which focus on parenting via donor insemination. In our view, the donor insemination (DI) studies employ the most advanced research design to-date for isolating the effects on children of parental sexual orientation per se. Professor Nock criticizes these studies in part by asserting that DI parents are a select group and unrepresentative of the general population of lesbian mothers. (See, for example, pages 1592-1594). However, since DI is the most often-used route to pregnancy for contemporary lesbian couples it is precisely the group researchers ought to be studying. Also, Professor Nock seems to be unaware or does not wish to acknowledge that all evidence from published research finds that children conceived through donor insemination do not differ in any remarkable or detectable ways from children conceived conventionally (Kovacs, Mushin, Kane and Baker 1993; Clayton and Kovacs 1982; Chan, Raboy and Patterson 1998; Golombok, Cook, Bish and Murray 1995). This holds true for children of heterosexual and lesbian mothers.
19. DI studies are the purest research design because these studies match single mothers or parenting couples on a wide variety of socio-demographic characteristics in order to isolate the effects of sexual orientation. In these studies, lesbian couples are matched against heterosexual couples or, lesbian single mothers are matched against heterosexual single mothers. All have employed the services of a sperm donor or sperm bank for conception. This matching reduces the potential for such significant variables as parental divorce, re-partnering, coming out, and so on to confound whatever effects of maternal sexual orientation may be observed. This is precisely the technique for eliminating spurious findings that Professor Nock suggests researchers are required to achieve (see his paragraphs 16 and 17, for example).

20. Yet, in this case, Nock claims that the DI studies are not scientific because the samples employed are unrepresentative of all lesbian parents and are biased. While it is true that such samples do not represent the entire population of lesbians or of lesbian parents specifically, Professor Nock fails to recognize that these samples indeed do represent the population of lesbians who plan pregnancies. This is the form of lesbian parenting that would be likely to increase under conditions that do not compel lesbians to enter into heterosexual relationships in order to become parents. Consequently, DI research represents the ideal design for isolating the sexual orientation or the gender of the parents we wish to compare.

21. Professor Nock also claims that because the DI (and other) samples of lesbian and heterosexual mothers were not matched on every possible variable, the research is flawed and unrepresentative. In particular, he argues that studies are flawed because they compare higher educated lesbian mothers with less educated heterosexual mothers (e.g., Nock Affidavit para. 40, 67, 116). For example, in Brewaeys (1997), the two groups were the same (matched) in almost every way - age of the biological mother, age of the child, family size, birth seniority, donor insemination - but the lesbian mothers had higher education levels than the heterosexual mothers. Similarly, in Chan et al. (1998) the groups were the same on age, income, length of relationship, hours worked and so on, but they differed in that the lesbian couples had higher
educational levels. The national evidence (e.g., from the 1990 U.S. Census) is that lesbians indeed have higher education, on average, than heterosexual women (Black et al. 2000). That the lesbian samples were similar to what we know about the lesbian population in fact suggests the lack of bias rather than the presence of bias in these samples. What Professor Nock is actually suggesting is that we create a biased sample of less educated lesbians whose education matches the lower heterosexual rate. Moreover, regarding the issue in this case, it should matter not at all to the Court whether differences in parental education have been adequately controlled statistically in certain research comparisons. If the comparatively higher level of education of lesbian couples in the population can account for some of the unique strengths their children seem to exhibit, so be it. This is an advantage to lesbian parenting that should be credited rather than explained away or rejected as a missing statistical “control” variable. The Court can fully expect that lesbian mothers would be carrying the strength of their education to their families.

Some Studies Do Meet Professor Nock’s Narrow and Unfair Criteria

22. Professor Nock has not taken a fair or balanced approach to considering the Vermont studies. Instead, he seems to have approached his review with a single-minded determination to find any conceivable flaw in studies that have been positively reviewed by experts in their field. Nonetheless, even by his own - in our view inappropriate - standards, he grudgingly concedes in an Appendix that at least one of the studies that he reviewed, Brewaeys, Ponjaert, Van Hall and Golombok (1997), is a good one. This admission, however, is not reflected in the body of his affidavit where he claims that every study has at least one “fatal flaw.”

23. Professor Nock admits that the DI study by Brewaeys, Ponjaert, Van Hall and Golombok (1997) is “a well defined analysis that attempted to study entire populations rather than samples of them.” (Page 1593) In this case, he acknowledges that “it is fair to say the sample may be considered boldly representative for the general population of lesbian mothers who attended a fertility clinic in order to conceive.” (Page 1593) The only criticism Professor Nock makes of this study is that “response rates and self-selection biases for the other groups jeopardize the
degree to which each represents the relevant population, although the procedure is vastly superior to almost all others reviewed in this brief.” However, even this minor, and by no means “fatal,” criticism is ill-founded for the reasons we have explicated in paragraph 17 above.

24. Professor Nock also concedes in the Appendix that the Golombok, Tasker and Murray (1997) study “is an innovative project with some significant strengths,” one which “relied on very good measures of family functioning and psychological development, and in which “overall, the execution of the study was good.” (Page 1575). Although Professor Nock repeats his standard complaints about small and unrepresentative samples, once again he grudgingly acknowledges that “This is a well-done exploratory study.” (Page 1576). Likewise, Professor Nock reluctantly acknowledges methodological strengths in studies by Flaks, Fisher, Masterpasqua and Joseph (1995) (Page 1582-1583) and by Green, Mandel, Hotvedt, Gray, and Smith (1986) (Page 1581-1582). Although he also consistently struggles to find fault with each of these studies, by no means does he succeed in identifying flaws that most appropriate experts would agree are “fatal.”

25. Moreover, the studies that meet or come close to meeting even Professor Nock’s tendentious standards find at least equal parenting skills and child development outcomes in all of the areas of mental health and social and cognitive development with which the courts might reasonably be concerned. In fact, a few of these studies find that same-sex parents have superior parenting skills and that their children exhibit a few outcomes superior to children raised by heterosexual parents (e.g., Brewaeys et al.’s [1997] finding of higher levels of sharing in childcare and parenting skills among lesbian couples; teachers’ average higher rating of children with lesbian than heterosexual mothers on affection, responsiveness, and concern for younger children in Steckel [1987]).

26. Thus, it is telling to note that the studies that Professor Nock credits with employing good measures and good research designs produce the same clear and reassuring results as the studies he purports to invalidate: children of same-sex parents achieve developmental outcomes at least
as positive as do those with heterosexual parents. Moreover, Professor Nock neglects to mention or credit the well-accepted standard in social science research by which although one study by itself cannot be generalized, when researchers using different samples and different methods consistently achieve the same results, it increases the validity and the reliability of the individual studies.

Response Rates & Sampling Biases Yield Findings Understating Efficacy of Lesbian Parents

27. Professor Nock’s complaint about unequal response rates between lesbian and heterosexual mothers in the DI studies fails to recognize that the asymmetry actually places lesbian mothers and their children at a disadvantage. For example, Chan, Brooks, Raboy, and Patterson (1998) achieved a 100% response rate for the lesbian mother families but not for the heterosexual families who conceived through the Sperm Bank of California. In fact, this problem means that the results would actually understate the quality of lesbian parenting because this complete lesbian sample is being compared with a select sample of the heterosexual matched parents. If you have a 100% response rate of the lesbian parents, the researcher will find no sample bias whatsoever in the quality of their parenting or their children’s development. The bias one would normally predict is that those heterosexual parents who respond are more likely than those who decline to participate to exhibit parenting advantages—more educated, more verbal, and more reflective about their choices and their parenting. If anything, this study would likely disadvantage the lesbian parents and their children and yield findings biased in favour of the non-representative sample of heterosexuals.

28. Despite the sample’s potential disadvantage to the lesbian parents, this study finds suggestive superior benefits of lesbian parenting and no detrimental differences between lesbian and heterosexual parenting.

29. In addition to the higher educational attainment of lesbians, on average, there are additional reasons to predict positive outcomes from same-sex parenting. First, the children of
out lesbian and gay parents are all wanted children. We know from other research that wanted and planned children on average fair much better than children who are the results of accidental pregnancies or unwanted childbirth (Brown and Eisenberg 1995).

30. Second, the research on same sex couples — including some research not reviewed by Professor Nock (such as the study by Gottman and Levinson at the University of Washington and U.C. Berkeley) — finds that same sex couples are, on average, better at managing anger and their disagreements and conflict. There is a considerable body of research that demonstrates that high conflict among parents is destructive to children. (Amato and Boote 1997; Amato, Loomis and Booth 1995).

Professor Nock Misunderstands Significance of Operational Definitions of Sexual Orientation

31. Professor Nock criticizes the Vermont studies for failing to develop an adequate operational definition of lesbianism or homosexuality. He objects to the researchers' willingness to rely on the self-identity of the parent as the standard for participation in the samples, because such a definition would not be statistically representative of the population of lesbians or of homosexual orientation as a whole.

32. This criticism is profoundly misguided in two substantial ways. First, a parent’s self-identity of her or his sexual orientation is exactly the proper operational definition to employ for the issue before the court. Parents who self-identify as gay and lesbian represent precisely the population that would be seeking same-sex marriage rights—the petitioners who stand to benefit from or be discriminated against by marriage laws.

33. Secondly, the objections that Professor Nock raises with the operational definition of homosexuality apply equally to definitions of heterosexuality. Heterosexuality is at least equally imprecise a category and likewise refers to a complex and diverse array of desires, fantasies, behaviors, relationships, concepts, and identities, many of which may change over the course of
an individual’s life cycle as well as being subject to historical and cultural changes. By Professor Nock’s standards for operationalizing definitions of sexuality, we also have no standard for determining who would qualify as a heterosexual parent. Thus we would likewise be compelled to invalidate all research conducted on heterosexual parenting and to conclude that the court has no basis for presuming the adequacy of parenting by heterosexuals.

The Role of Theory in Research

34. Professor Nock’s affidavit omits any mention of the role of theory in research. This is a significant omission. Researchers do not arbitrarily and mindlessly observe or survey anything and everything. Instead social scientists are testing plausible hypotheses or doing exploratory research to develop theses that could be examined more rigorously. The central questions being examined in the Vermont studies are whether or not there might be harm to children as a result of same sex parenting or whether there are simply differences between gay/lesbian parenting and heterosexual parenting. An existing body of theories concerning parenting and child development lead some scholars to predict differences, while other theories would predict no relevant differences between the two groups.

35. There is no credible theory, however, that would reasonably lead scholars to predict harms to children parented by self-identified lesbians or gay men. In fact, there are no respectable social scientists conducting and publishing research in this area today who claim that there are reasons to predict harm to children from same sex parenting. The only contemporary published researchers who claim harm have been discredited and expelled from the American Psychological Association and the American Sociological Association. Paul Cameron, who is cited as an authority in the affidavit of Craig Hart, is the primary disreputable and discredited figure in this literature.

36. There is every reason to believe that children parented by same sex couples are at least as well parented, and their development is at least as successful, as children with heterosexual
parents. This is the case even though same-sex parents currently confront disadvantages deriving from the non-legal status of their relationship, the social invisibility of the second mother’s relationship and the social stigma with which both they and their children must contend. We conclude in our recently published article, therefore, that there must be compensatory processes in gay and lesbian parenting that enable those children to develop as well as they consistently have been shown to develop.

37. We undertook our analysis because we wanted to assess the relationship between theory and research on gender, sexual orientation and parenting outcomes. We assessed the extent to which the research reported differences and analyzed these in light of the relevant theories. As our article demonstrates, the studies did indeed report some differences, although authors of the studies often downplayed their significance and forfeited the opportunity to analyze these to address theoretical issues. Predictably, however, none of the studies, uncovered evidence of harms.

Sample Sizes Were Sufficient to Find Statistical Differences

38. Professor Nock criticizes the small samples used in the Vermont studies. He argues that "sample sizes were almost always too small to provide the statistical power needed to confidently fail to reject the hypothesis of ‘no differences’ between groups" and he states that "this last point should be stressed" (para. 116). “Stated most simply, the articles cited in Professor Bigner’s affidavit did not rely on samples of sufficient size to provide the statistical power needed to reach the conclusions they did” (at paragraph 118). Professor Nock is incorrect in suggesting that the sample sizes were too small to find statistically significant differences. A careful review of the studies reveals that in most of the quantitative Vermont studies researchers did find statistically significant differences between the children raised by heterosexual and lesbian and gay parents, and between the parents themselves. The Vermont studies detected, for example, the following statistically significant differences:
Differences between lesbian or gay and heterosexual parents

Among lesbian and heterosexual couples matched on age of the biological mother, age of the child, family size, and birth seniority who conceived through donor insemination in Brewaeys, Ponjaert, Van Hall and Golombok (1997), the 28 non-biological lesbian social mothers scored statistically significantly higher than the 29 heterosexual fathers on quality of parenting and interaction with children. They also scored significantly higher than 15 heterosexual fathers in a comparison group of couples who conventionally conceived the child (the term “significant” or “significantly” here and below refers to statistical significance).

In the same study (Brewaeys et al. 1997), the level of sharing in childcare activities and handling of disciplinary issues was significantly higher, on average, among lesbian co-parent couples than among heterosexual couples.

15 lesbian couples who conceived through donor insemination averaged a significantly higher overall score on parenting awareness skill than a sample of 15 heterosexual couples who were the same on age, age of children, race, education, income, and other factors (Flaks, Ficher, Materpasqua and Joseph, 1995).

18 nonbiological lesbian mothers in Chan, Brooks, Raboy and Patterson (1998) scored significantly higher than 16 heterosexual fathers in amount of child-care performed, and they were significantly more likely than fathers to desire an equal distribution of child care. The lesbian co-mothers were also significantly more likely to evaluate their children’s emotional states and social behaviors in the same way relative to the heterosexual couples - who were well matched on length of relationship, age, income, and other variables in Chan, Raboy and Patterson (1998).

20 heterosexual mothers in Hoeffer (1981) were statistically significantly more likely to prefer masculine toys for their boys and feminine toys for their girls; the toy preferences of 20 lesbian mothers were gender-neutral.

33 gay fathers averaged significantly higher than 33 heterosexual fathers on strictness/limit-setting, responsiveness, and reasoning guidance toward children on the Iowa Parent Behavior Inventory in Bigner and Jacobsen (1989).

Differences between children with lesbian or gay and heterosexual parents

30 daughters of lesbian mothers in Green, Mandel, Hotvedt, Gray and Smith (1986) were statistically significantly more likely than 28 daughters of heterosexual mothers to aspire to non-traditional gender-typed occupations such as doctor, lawyer and engineer (a similar finding obtains in Steckel 1987). They were also significantly more likely to
dress, play and behave in ways that do not conform to sex-typed cultural norms, and to be interested in play and other activities associated with both masculine and feminine qualities. The two groups of families were matched on mothers age, race, children’s sex and age, length of time separated from the husband/father, mother’s current marital status, current family income, and mother’s education level.

11 children with lesbian mothers were significantly more likely than 11 children of the same age with heterosexual mothers to be described by teachers as affectionate, responsive, verbal, and protective toward younger children (Steckel 1987).

39. As this partial list demonstrates, these studies are both capable of detecting, and in fact have detected, differences that are statistically significant. However, in these and other studies, across repeated tests involving parents, children, and sometimes teachers, simply no significant differences obtain in several domains. These include children’s self-esteem, psychological well being, and social adjustment, and parents’ self-esteem, psychological adjustment, and positive investment in children. The reported outcomes in these areas are the same. (Golombok et al. 1983; Huggins 1989; Patterson 1994; Flaks et al. 1995; Tasker and Golombok 1997; Chan, Raboy and Patterson 1998; Chan et al. 1998; Rand et al. 1982; Green et al. 1986; Miller et al. 1982; McNeill et al. 1998).

40. Apparently unaware of the many findings of statistically significant differences, Professor Nock (para. 104) argues that because the samples in various studies were small, researchers ought to increase their probability of rejecting the null hypothesis from .05 to .10. What he proposes is that researchers should be less stringent with their statistics so as to increase their chance of finding statistically significant differences between lesbian/gay and heterosexual parents or their children. This is methodologically unsupportable¹ and makes no difference to the results of the

¹ Professor Nock’s proposed statistical adjustment is arbitrary, and unsupported by knowledge of latest trends in statistical theory and model selection. The statistical criterion for these decisions most widely embraced and used by demographers today is known as BIC \(BIC = N \ln (1 - R^2) + p \ln (N)\), where \(p\) is the number of independent variables and \(N\) is the total sample size) (Raftery 1986a, 1986b, 1995). Based on BIC, for a sample size of 30 individuals, the difference between groups would have to be statistically significant at a probability level less than .001 for there to be very strong evidence in favor of rejecting the null hypothesis of no difference between groups, and the probability value would have to be less than .076 for there to be any (weak) evidence at all that
research. Stacey & Biblarz (2001) inventoried all the findings and identified those that came anywhere close to reaching statistical significance - i.e., that would have met Nock’s less stringent .10 criteria. None of the differences by parental sexual orientation in children’s well-being and social adjustment and in parenting quality came close to statistical significance even by this more liberal standard.

**The Weight of the Research Evidence**

41. Importantly, Professor Nock appears to lacks an understanding of the full character of the cumulative evidence or of how it ought to be viewed. Quantitative social scientists routinely combine - conceptually and/or empirically - different samples with similar measures in order to increase the overall sample size and gain greater power to detect differences. Along these lines, it is reasonable to consider the cumulative counts of gay and lesbian parents, heterosexual parents, and their children observed across studies. By our count, across 22 of the best studies, over 1000 children and 500 lesbian or gay parents have been observed across diverse settings and social locations. The psychological well-being and social adjustment of children reared by same-sex parents and heterosexual parents were identical or nearly so in each of the studies over more than 1000 observations. They would remain so in this larger data set.

42. Hence, the cumulative evidence from a diverse array of peer-reviewed, and often rigorous, studies consistently shows that there are no differences between heterosexual and gay/lesbian parenting in the direction of harm, risk, or disadvantage. The differences that do obtain are either 1) simply differences (not deficits) that any democratic society should respect and protect; or 2) in some cases, they represent strengths.

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the null hypothesis of no difference between groups may not be the true model. Both of these - .001 and .076 - fall substantially below Professor Nock’s prescription of .10.
B. Reasonable Predictions: Effect of Equal Marriage on Children of Same-Sex Parents

43. Professor Nock’s second argument is that we cannot predict what the impact of same sex marriage would be on lesbians, gay men and their children. Of course, it must be recognized that what is at issue before the court is not whether or not to allow lesbians and gays the right to be parents. They already are and will continue to be parents. Instead, the question at issue is the impact that legalizing marriage would have on their parenting, on their children, and on society in general. Should such parents be denied access to marriage and should their children be denied access to married parents?

44. Of course Professor Nock is literally correct to state that this is a hypothetical question (Para. 120) since gays and lesbians are currently being denied those rights. The question facing the court with which a social scientist might assist is whether extending equal rights to marriage would be more likely to have good or bad outcomes. Can any of the social science research that currently exists help the court arrive at a reasonable decision in this regard? We have full confidence that it can.

45. Paradoxically, Professor Nock has written extensively on the benefits of marriage to adults, children and to society as a whole. The mutual dependency of spouses in marriage, Professor Nock (1998) argues, is a powerful cohesive force that increases the socioeconomic achievement, social integration, and civic participation of members (his 1998 book focused mostly on men). However, in his affidavit, Professor Nock claims that it is purely speculative to infer that any of these benefits would be likely to apply to same sex parents and their children. His argument that the benefits of access to what he calls a "healthy, happy intact family" structure might not apply to same-sex parents and their children is inconsistent, illogical and unreasonable. (Paragraph 121)

46. There is no social scientific theory whatsoever that predicts that harm would accrue to society through the legalization of marriage for same sex couples. Nor does any credible social
science theory imply that the numerous benefits of marriage that Professor Nock repeatedly emphasizes and that the same-sex petitioners seek would not apply to such couples and their children. In fact, many of the economic, social, emotional and physical benefits of marriage that Professor Nock and others identify have nothing whatsoever to do with the gender of the participants.

47. Apart from any legal benefits available only to married couples, Professor Nock and other researchers find that marriage serves to stabilize couple relationships, attracts social recognition of and investment in the continuity of the relationship, contributes to financial well-being, individual happiness, improved levels of physical and mental health, job satisfaction and achievement, to higher rates of involvement with extended family members, and lower rates of domestic violence than are found in cohabiting partnerships (e.g., Waite 2000). Professor Nock both contributes to and credits research that identifies benefits that legal marriage provides for heterosexual parents and their children. Neither his affidavit nor his writings identify any reason to expect that the children of same sex relationships would not receive similar benefits.

48. Moreover, Professor Nock fails to acknowledge the likely decline in stigma for children of same sex parents, if same sex marriage were permitted, claiming once again that this is purely speculative. It is not speculative - but common sense - that being denied the freedom to marry suggests that same-sex relationships are less acceptable or inferior to the relationships of heterosexuals. Allowing same-sex parents the choice to marry would therefore reduce the prejudice and discrimination experienced by the children of same-sex parents.

49. Similarly, Professor Nock fails to consider the effect that legalizing same-sex marriage might have on social stigma more broadly. By reducing institutional discrimination, permitting lesbians and gays to marry would contribute to the decline in the automatic stigmatization and marginalization of all gay and lesbian people, not just those who wish to marry.

50. Indeed, while the potential benefits seem obvious and undeniable, we cannot imagine any potential negative outcomes to children, parents or society that might derive from allowing
persons of the same sex to marry. Nor does Professor Nock identify any such risks. No recognized body of social science theory would predict negative outcomes.

51. Recognizing marriage for same-sex couples should lead to a decline in the instrumental use of heterosexual marriage by closeted lesbians and gay men. This, in turn, should reduce the number of marriages that later dissolve because of sexual incompatibility or when a closeted parent decides to come out.

52. We anticipate that reducing discrimination by granting equal marriage would contribute to a reduction in homophobia. An increase in social tolerance and acceptance should benefit same-sex parents and their children, gays and lesbians generally, and, we would argue, society as a whole.

53. In any case, were the Court to accept the peculiar standards of relevance and logic that Professor Nock advances in his affidavit, it would have to conclude that no social science research would ever be relevant to deliberating any proposals for legal reform. Since we can never study that which does not yet exist, Professor Nock’s argument denies the policy relevance of social science research. However, social scientists can and do extrapolate from existing research to describe likely outcomes based on inferential logic and the application of the preponderance of analogous evidence. Doing this in a considered fashion in the present case, the inescapable conclusion is that many benefits of marriage would pertain as well to the marriages and progeny of same sex couples.

54. Curiously, Professor Nock’s entire affidavit is based on just this sort of extrapolation to the Canadian situation from existing research conducted on foreign populations. Were he not willing or able to employ inferential logic to the Vermont studies, he could not, in good faith, submit an affidavit on this matter to a Canadian court. However, Professor Nock argues in footnote 5 on page 1533 that there is “no reason to believe that the results of the research would be different in Canada.” Here, Professor Nock is claiming that a body of research that was conducted exclusively on populations in the United States, the United Kingdom, and Brussels can be legitimately applied
to the different national, legal, and social circumstances of Canadian parents and children. However, none of the Vermont studies and no comparable studies with which we are familiar have been conducted in Canada.

55. Thus, Professor Nock considers it legitimate to assess research that has not been conducted on the population or circumstances at issue in the case, but is unwilling to apply a similar inferential logic to the benefits of same-sex marriage rights. Professor Nock is inconsistent in the standards he applies. In our view, it is equally reasonable to draw inferences in both cases. Most of the benefits of marriage that apply to heterosexual couples and their children would apply to same sex couples and their children.

II. The Affidavit of Professor Craig Hart

Professor Hart Appears to Lack Appropriate Expertise for Evaluating Evidence in this Case

56. Neither of us had heard of Professor Hart prior to receiving his affidavit. Although his vitae indicates that child development is one of his areas of specialization, he has not contributed to research on lesbian or gay parenting. Nothing on his vitae indicates expertise in this field, nor is there much that appears to have been published by first-rate peer-reviewed journals or presses. Only two multiple-authored articles listed as peer-refereed items were published in *Child Development*, and neither of those articles deal with research relevant to this case. We are not familiar with most of the other journals in which Professor Hart has published. None are first-rate journals in psychology, sociology, or related fields, nor are these journals in which any of the Vermont studies being evaluated appeared.
The Question Professor Hart Addresses Is Not Researchable or Germane

57. In paragraph 3 of his affidavit, Professor Hart articulates the following politically-framed question (#1), as the issue which has been put to him by a “B.C. Coalition for Marriage and Family:”

Is there research that may indicate that mothers and fathers parent differently but on the basis of complementarity and that the combination of the two as role models foster the unique and optimum environment for the socialization of children?

58. Interestingly, this question does not remotely qualify as a question that could be investigated scientifically according to the sort of definitional and methodological standards advocated by Professor Nock. These two experts proceed from completely incommensurate premises about the kind of enterprise social science represents. There is no way, for example, that social scientists can conduct statistically representative research that identifies a “unique and optimum environment.” In any case, the question Prof. Hart raises about the existence of research on the complementarity of gendered parenting styles among heterosexual parents is utterly irrelevant to the question before the court.

59. Research that seeks to establish that mothers and fathers make unique contributions to children’s development is highly controversial and not pertinent to this issue. There is some evidence that children raised in single-parent families may be at a higher risk for a variety of negative outcomes than children raised in comparable two-parent families. (McLanahan and Sandefur 1994; Amato and Booth 1997). But, this is not what is at issue in this case. The body of research on family structure to which Professor Hart refers compares single-mother families with two parent heterosexual families. It does not compare single-parent lesbian with single-parent heterosexual families or two-parent lesbian or gay fathers with two-parent heterosexual families. Since lesbian- or gay-parent families have never been a comparison group in the family structure literature on which Professor Hart relies, it is the inappropriate body of research to examine. In this instance we would adopt Professor Nock’s reluctance to extrapolate such findings to an entirely different population and issue. Moreover, within the family structure research, some
studies have shown that children in single-parent families do as well with different sex biological parents (fathers rearing daughters or mothers rearing sons) as with same-sex biological parents, (Downey and Powell 1993; McLanahan 1985) a finding that undermines Professor Hart’s basic assumptions about gender and parenting.

60. Paragraph 4 of Professor Hart’s affidavit claims that there is a body of scientific evidence indicating that “natural family structures which include married mothers and fathers living under the same roof are more likely to provide more stable and secure environments for children to flourish in.” This not only begs the question of what constitutes a “natural family structure,” but fails to specify the object of comparison – more likely than what? More stable and secure than what? The phrase “natural-family structures” is neither scientific nor transparent. To which family structures does it refer, and which does it exclude? Does Professor Hart intend this term to include or exclude family structures built upon polygamy, matrilineality, arranged marriages, joint and inter-generational extended family households, surrogacy, reproductive technology, divorce, remarriage, adoption? There are a vast array of family structures in human history and culture, and no single “natural” family structure. Professor Hart’s implicit definition of “natural family structures” leaves out a substantial portion of evidence from history and anthropology about the enormous variety of “natural” family structures in which the world’s children have been socialized.

61. Moreover, Professor Hart’s “unique and optimum environment for the socialization of children” implies a standard for access to parenting rights that would exclude many, if not most, prospective parents in the universe. For example, we know incontrovertibly that poverty is not an optimum environment for children. Should all but the affluent be denied the right to marry? Should there be a religious test? Educational prerequisites? Genetic screening? Who will define these optimum standards?
The Research Literature Hart Cites is Flawed or Irrelevant to His Arguments

62. Professor Hart draws on inappropriate and unreliable literature to support his claims. For example, Waite and Gallagher, *The Case for Marriage* (2000) does not compare heterosexual and homosexual couples or parents. Instead, it argues for the benefits of marriage over cohabitation, thereby implying, despite Gallagher's (2000) vehement opposition to same-sex parenting, that it is better to have married parents than cohabiting parents. Moreover, although one of the authors (Waite) is a respected sociologist, and the book includes reference to some legitimate research, it is nonetheless a trade book co-authored by a conservative, syndicated journalist (Gallagher) who is a major advocate and leader of the pro-marriage movement in the United States.

63. Likewise, the controversial family structure studies that Hart cites which suggest differences in fathers’ and mothers’ contributions to child development are irrelevant and flawed. For example, Professor Hart cites data that finds that delinquency is twice as high in cases where the father is absent than when he is present. He neglects to mention that no such problem has been found in studies of lesbian two-parent families. Thus, we can safely deduce that the elevated rate of delinquency does not result from “fatherlessness.”

64. Nonetheless, Professor Hart acknowledges that recent evidence suggests that delinquency rates are lower when the mother is alone with her son than when she has invited another man to live with her (Para. 5). He appears unaware of the research suggesting that such negative outcomes are even less common when she has invited a woman to live with her (Tasker and Golombok 1997; Brewaeys et al. 1997). The clear implication is that what places children at risk is not fatherlessness but the absence of the resources that a qualified second parent can provide, whether male or female. This is supported by numerous large-scale studies showing that with adequate socioeconomic resources, children who grow up in single-parent and other “non-traditional” family arrangements do well on average. McLanahan’s (1985) analysis of the Panel Study of Income Dynamics showed that father absence had no significant effect on children’s education once income is taken into account. Bogess (1998), also using the PSID, finds no effect
of living with a single mother on children’s likelihood of graduating from high school independent of the family’s socioeconomic standing. McLanahan (1985:898) concluded that her results “do not support the notion that the long term absence of a male role model itself is the major factor underlying family structure effects.” In the Census-administered *National Educational Longitudinal Survey*, holding constant other factors, there are no differences between children from two-biological-parent homes and those from female-headed families in the odds of dropping out of high school or attending college (Painter 1998). Among the six family types included in Teachman, Paasch and Carver (1997), “divorced mother” did not directly increase children’s odds of dropping out of high school, holding other factors constant.

65. In a similar vein, Professor Hart argues claim that a body of research indicates that children enjoy positive outcomes if their fathers are patient and understanding. Who would doubt such a finding? But of what relevance is this to any public policy about marriage? What if fathers are not patient or understanding? Do they still produce positive outcomes? Should they still be allowed to marry and/or to parent? And what possible bearing does this research have on the question of the gender or sexual orientation of the parents?

66. It is obvious that Professor Hart is selectively choosing research to make a point, rather than applying the kind of methodological standards that Professor Nock advocates, but does not consistently apply. Some of the publicans cited by Professor Hart are not even properly qualified as research. For example, in paragraph 7, Hart includes David Blankenhorn’s *Fatherless America* in his citations of "research" documenting unique paternal contributions to children’s development. Blankenhorn, however, the founder and co-director of the Institute for American Values and the Council on Families in America, is not a social scientist,, and his stridently polemical book, *Fatherless America*, cannot withstand the most rudimentary level of social science scrutiny. Blankenhorn (whose highest degree is a Masters in Art History) is, like Gallagher, a lobbyist and political advocate opposed to same sex marriage, and his work has been funded by, for the most part, by conservative foundations and institutions.
Finally, Appendix 1, the bibliography to Professor Hart’s affidavit, cites an even more troubling source – Paul Cameron, "Homosexual Parents" (1999). Paul Cameron, as we indicated earlier, was expelled from the American Psychological Association and censored by the American Sociological Association for disreputable practices, such as selective, misleading representations of research and making claims that could not be substantiated. Attached as Exhibit D is an article, Herek, Gregory M. 1998 "Bad Science in the Service of Stigma: A Critique of the Cameron Group's Survey Studies," pp. 223-255 in Stigma and Sexual Orientation: Understanding Prejudice Against Lesbians, Gay Men and Bisexuals, edited by G. M. Herek. Thousand Oaks: Sage, which describes Mr. Cameron's work. A summary fact sheet on Mr. Cameron is attached as Exhibit E.

III. Conclusion

Research in the most rigorously peer-reviewed journals in child development and sociology provide generally accepted social scientific evidence that lesbian and gay parents are as fit, effective and successful as similar heterosexual parents. Likewise these studies find that children of same sex couples are as emotionally healthy and socially adjusted and at least as educationally and socially successful as children raised by heterosexual parents. Research even provides some suggestive evidence that there may be certain hidden advantages that lesbian parents and their children seem to enjoy. There is neither theory nor evidence that leads in the opposite direction.

Therefore, it seems surprising, if not disingenuous, that Professor Nock, who elsewhere emphasizes the benefits of marriage to parents, their children and society, is unwilling to anticipate that the same benefits, or least some of the same benefits, and perhaps additional benefits, would apply to same-sex marriages and their progeny.

Finally we would underscore that the issue before the court concerns the impact of marriage on lesbian and gay parenting. Lesbian and gay people have parented for a long time and will continue to do so. The question is under what conditions. Is it preferable for them to
parent under conditions of invisibility, conditions of discrimination, or conditions of equality? It is difficult to imagine how anyone could argue in good faith that it is preferable to parent without access to equal recognition, social and legal resources, and benefits that other parents and their children enjoy.
REFERENCES


