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MARKETING MOTHERS' MILK: THE COMMODIFICATION OF BREASTFEEDING AND THE NEW MARKETS FOR BREAST MILK AND INFANT FORMULA[©]

Linda C. Fentiman*

*"You wouldn't take risks before your baby's born. [On screen text as a very pregnant African American woman rides a gyrating mechanical bull. After the woman is thrown off the bull] Why start after? Breastfeed exclusively for 6 months."*¹

*"The debate about breast-feeding takes place without any reference to its actual context in women's lives. . . . [W]hen people say that breast-feeding is 'free,' I want to hit them with a two-by-four. It's only free if a woman's time is worth nothing."*²

*"Prolacta Bioscience, a small company just outside Los Angeles . . . [seeks] to buy donated breast milk from independent milk banks and hospitals across the US, pasteurise it and sell it back to hospitals to treat low-birthweight babies[,] . . . babies with heart defects, . . . and children who are being given chemotherapy for cancer."*³

TABLE OF CONTENTS

| | |
|-------------------------------------------------------------------------------|----|
| Introduction | 30 |
| I. BREASTFEEDING AND THE MARKET: A BRIEF HISTORY | 35 |
| A. <i>Medical Experts and the Rise of Alternatives to Breastfeeding</i> | 36 |

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¹ U.S. Dep't of Health & Human Servs., <http://www.womenshealth.gov/breastfeeding/programs/nbc/adccouncil/CNBA4230-E01NY.mpg> (last visited Feb. 23, 2010); U.S. Dep't of Health & Human Servs., "Ladies Night" Spot Transcript, Ad Council Materials, National Breastfeeding Campaign, http://www.womenshealth.gov/breastfeeding/programs/nbc/adccouncil/transcript_ladiesnight.cfm [hereinafter Breastfeeding Campaign] (last visited Feb. 23, 2010).

² Hanna Rosin, *The Case Against Breast-Feeding*, ATLANTIC, Apr. 2009, at 64, 70.

³ *Move to Commercialise Breast Milk: A US Firm is Looking to Commercialise Breast Milk by Selling it to Hospitals for the Treatment of Sick Babies*, BBC NEWS, Aug. 4, 2005, <http://news.bbc.co.uk/1/hi/health/4744651.stm> [hereinafter BBC News].

| | | |
|------|------------------------------------------------------------------------------|----|
| B. | <i>Government as an Ally in the Campaign to Increase Breastfeeding</i> | 40 |
| 1. | <i>The HHS Campaign for Breastfeeding</i> | 42 |
| C. | <i>The Overselling of Breastfeeding</i> | 45 |
| 1. | <i>History Gives Reasons to Be Skeptical</i> | 45 |
| 2. | <i>The Science in Support of Breastfeeding Is Weak</i> | 46 |
| 3. | <i>Risks of Breastfeeding</i> | 49 |
| D. | <i>Who Breastfeeds Today?</i> | 51 |
| II. | THE MARKETS FOR HUMAN MILK AND INFANT FORMULA: | 51 |
| A. | <i>Why Demand Is Increasing: Obstacles to Breastfeeding</i> .. | 51 |
| 1. | <i>Medical and Psychological Concerns</i> | 51 |
| 2. | <i>Cultural and Economic Factors</i> | 52 |
| 3. | <i>Failures of the Health Care System</i> | 53 |
| 4. | <i>Public Attitudes</i> | 56 |
| 5. | <i>Workplace Obstacles</i> | 56 |
| 6. | <i>Legal Obstacles</i> | 58 |
| 7. | <i>State Law</i> | 60 |
| B. | <i>Historical Markets in Human Milk</i> | 63 |
| C. | <i>A Market Overview</i> | 63 |
| D. | <i>The Markets in Human Milk</i> | 65 |
| 1. | <i>Informal/Gray Markets</i> | 66 |
| 2. | <i>Not-for-Profit Markets: Milk Banks</i> | 66 |
| 3. | <i>The For-Profit Market in Human Milk</i> | 67 |
| E. | <i>The Infant Formula Market</i> | 69 |
| 1. | <i>The WIC Program</i> | 72 |
| III. | THE COMMODIFICATION DEBATE | 75 |
| A. | <i>Pro-Commodification Analysts</i> | 75 |
| B. | <i>Commodification in the Markets for Breastfeeding and Human Milk</i> | 78 |
| C. | <i>Proposal for a Regulated Market in Human Milk</i> | 79 |
| IV. | RECOMMENDATIONS AND CONCLUSION: WHAT NEEDS TO BE DONE | 81 |

INTRODUCTION

Today, breastfeeding, human breast milk, and its substitute, infant formula, are commodities. "Mothers' milk" is marketed both literally and figuratively, as a good for sale,⁴ a normative behavior,⁵ and a cure for much of what ails twenty-first century America.⁶ Like previous exploitations of

⁴ A detailed discussion of Prolacta Bioscience and non-profit milk banks is presented *infra* in Part II.

⁵ The campaigns to promote breastfeeding as the preferred method of infant nutrition of the U.S. Department of Health & Human Services (HHS) and the American Academy of Pediatrics are discussed *infra* in Part I.

⁶ See *infra* notes 244-47 and accompanying text. Mothers' milk is marketed as both a literal cure (as a remedy for a wide variety of childhood illnesses, including cancer) and as a symbolic one (the idea, implicit in the multiple campaigns to increase breastfeeding, that an infant who receives "mother's milk" will somehow be ensured a thinner, healthier, risk-free existence).

women's bodies, including their eggs⁷ and uteruses,⁸ the idea that human milk is a valuable good that can be given away, traded in a market, or subjected to scientific experimentation raises fundamental moral and legal questions.⁹ This Article examines the marketing of breastfeeding, the emerging markets in human milk, and the growing market in infant formula through the lenses of bioethics, market analysis, and the commodification critique.¹⁰

This Article also examines the unique role of the medical profession in shaping the markets in human milk¹¹ and infant formula. In a striking parallel to the pharmaceutical industry, in which physicians' prescribing practices are key to expanding demand for drugs,¹² physicians also play a star role in the markets for mothers' milk. First, they increase demand for the commodity of human milk by identifying it as valuable, and then prescribe it to their patients

⁷ See, e.g., Michelle Oberman, Leslie Wolf & Patti Zettler, *Where Stem Cell Research Meets Abortion Politics: Limits on Buying and Selling Human Oocytes*, in *BABY MARKETS: MONEY AND THE NEW POLITICS OF CREATING FAMILIES* (Michele Goodwin, ed., forthcoming Mar. 2010); Judith F. Daar, *Frozen Embryo Disputes Revisited: A Trilogy of Procreation-Avoidance Approaches*, 29 J.L. MED. & ETHICS 197, 201-02 (2001).

⁸ Compare *In re Baby M.*, 537 A.2d 1227, 1241-42 (N.J. 1988) (holding that a contract for a woman to be artificially inseminated with donor sperm in order to produce a child to be raised by the donor and his wife was illegal as prohibited "baby-selling"), with *Johnson v. Calvert*, 851 P.2d 776, 784 (Cal. 1993) (holding that a woman's use of her uterus in providing "gestational surrogacy" services did not make her the mother of the infant she carried for nine months).

⁹ These concerns are also raised, in a non-gendered context, by the development of human tissue lines, see, for example, *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 484-85 (Cal. 1991), and organ and tissue transplantation, in which the law provides that donors do not have a protectable ownership interest in their own organs and tissue, *id.*, and may not be paid for their body parts. See also, 42 U.S.C.A. § 274e (2003 & Supp. 2009) (criminalizing any transfer of transplant organs in exchange for valuable consideration).

¹⁰ Scholars who either oppose or support the use of commodification theory argue over whether it is detrimental to human dignity and welfare to monetize human labor and body parts, including tissue. The issue of commodification arises especially around women's labor and the reproductive and sexual processes. See, e.g., Martha M. Ertman & Joan C. Williams, *Freedom, Equality, and the Many Faces of Commodification*, Preface to *RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE* 1, 1-5 (Martha M. Ertman & Joan C. Williams eds., 2005); Martha M. Ertman, *What's Wrong with a Parenthood Market? A New and Improved Theory of Commodification*, 82 N.C. L. REV. 1, 58-59 (2003); Margaret Jane Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849, 1936-37 (1987); Katharine Silbaugh, *Commodification and Women's Household Labor*, 9 YALE J.L. & FEMINISM 81, 84-86 (1997) (citing Elizabeth S. Anderson, *Is Women's Labor a Commodity?*, 19 PHIL. & PUB. AFF. 71 (1990) & JAMES BOYD WHITE, *HERACLES' BOW: ESSAYS ON THE RHETORIC AND POETICS OF THE LAW* 190 (1985)); see also Linda C. Fentiman, *Organ Donation as National Service: A Proposed Federal Organ Donation Law*, 27 SUFFOLK U. L. REV. 1593, 1598, 1601 (1993); Michele Goodwin, *The Body Market: Race Politics and Private Ordering*, 49 ARIZ. L. REV. 599, 629-30 (2007); Michelle Oberman, *When the Truth Is Not Enough: Tissue Donation, Altruism, and the Market*, 55 DEPAUL L. REV. 903, 941 (2006) (each arguing that poor people and individuals in general should not be the only ones who do not benefit from the transplantation of organs and tissues).

¹¹ In this Article, I will use the terms "breast milk," "human milk," and "milk" interchangeably.

¹² "Over 60 percent of all physician visits result in a prescription." Jonathan P. Weiner, Alan Lyles, Donald M. Steinwachs & Katherine C. Hall, *DataWatch: Impact of Managed Care on Prescription Drug Use*, HEALTH AFFAIRS, Spring 1991, at 140, 140, available at <http://content.healthaffairs.org/cgi/reprint/10/1/140.pdf>.

as a cure for a “medical problem.”¹³ The government, health care institutions and businesses, and manufacturers of infant formula join these doctors in the commodification process. Each group’s actions have enabled weak medical and scientific evidence to be manipulated by ideological and profit-making partisans in a poorly regulated market. The market for human milk is lightly regulated by the Food and Drug Administration (“FDA”). The FDA regulates human milk fortifiers under its oversight of infant formula.¹⁴ It has also approved voluntary guidelines developed by the Human Milk Banking Association of North America, which apply to its member organizations only.¹⁵ Three states have enacted laws asserting the authority to regulate milk as a tissue, but none have done so.¹⁶ There is no regulation of the market for wet nurses or human milk fortifiers. My claim is that it is this de facto, unacknowledged commodification of mothers and their milk, which has distorted the markets in human milk and manufactured milk products,¹⁷ perpetuates a traditional view of women and their role in the labor force, and reinforces racial and class stereotypes about who is a “good mother.”

This Article has four parts. Part I reviews historical trends in breastfeeding and the choice to use human milk or infant formula. It examines more than a century of ever-changing medical advice, including physicians’ highly conflicted role in developing formula and new infant human milk products as well as the ongoing debate about the benefits of breastfeeding.

Additionally, Part I also examines the government’s role in shaping the markets for human milk and its substitutes. One arm of the government—the United States Department of Health and Human Services (“HHS”)—touts breastfeeding as a miracle preventative for a multitude of childhood and adult

¹³ I am indebted to Professor Noa Ben-Asher for the concept of the “cure paradigm,” which she uses to describe the medical profession’s prescription of gestational surrogacy as a “cure” for female infertility. Noa Ben-Asher, *The Curing Law: On the Evolution of Baby-Making Markets*, 30 CARDOZO L. REV. 1885, 1888, 1901-02 (2009).

¹⁴ See generally 21 C.F.R. § 107 (2009); see also Prolacta Bioscience: Regulatory Information, <http://www.prolacta.com/regulatory.php> (last visited Feb. 23, 2010) (stating that “Prolacta’s added-mineral products are to be regulated as infant formulas”).

¹⁵ Lois D.W. Arnold, *Donor Human Milk Banking: More Than Nutrition*, in BREASTFEEDING AND HUMAN LACTATION 775, 776 (Jan Riordan & Kathleen Auerbach eds., 2d ed. 1999); Ctrs. for Disease Control & Prevention, *Guidelines for Preventing Transmission of Human Immunodeficiency Virus Through Transplantation of Human Tissue and Organs*, MORBIDITY & MORTALITY WKLY., May 20, 1994, at 1, 2, 5, available at <http://www.cdc.gov/MMWR/PDF/11/114308.pdf>.

¹⁶ CAL. HEALTH & SAFETY CODE §§ 1647-1648 (West 2007); N.Y. PUB. HEALTH LAW § 2505 (McKinney 2002); TEX. HEALTH & SAFETY CODE § 161.071 (Vernon Supp. 2008). Federal regulations exclude breast milk from the definition of human tissue (see, e.g., 21 C.F.R. § 1270.3(j)(5) (2009) (excluding human milk from the definition of human tissue in regulations addressing human tissue intended for transplantation)).

¹⁷ The medical profession’s embrace of breastfeeding as a cure-all for a multitude of problems of infant and childhood health bears a remarkable similarity to the profession’s adoption of maternal-infant bonding, described by critics as “an appealing solution to some rather complex problems of hospital childbirth and postnatal care.” See DIANE E. EYER, *MOTHER-INFANT BONDING: A SCIENTIFIC FICTION* 1 (1992) (providing a compelling critique of the bonding theory, the research on which it was based, and the effects on women of its widespread endorsement by health care professionals).

illnesses,¹⁸ which has encouraged breastfeeding and resulted in increased demand for human milk when the mother's own milk is not available. However, the scientific evidence supporting the benefits of breastfeeding is weak. At the same time, as discussed in Part II, other governmental players, including Congress and administrative agencies, as well as state governments, have created market scarcity by: (1) failing to enact laws to make it easier for women to work while breastfeeding and (2) establishing a system that provides nutritional support to poor women and young children, the WIC program,¹⁹ which undermines breastfeeding by providing free formula to nearly half of American infants.

Part II examines the emerging markets in human milk and the larger market for infant nutrition, including formula. The markets in human milk are largely unregulated. The products exchanged on these markets include Prolacta+ H²MFTM, a "human milk fortifier" made from human milk²⁰ and sold to hospital nurseries for \$184 per ounce,²¹ breast milk available from not-for-profit milk banks²² and informal sources like craigslist,²³ and milk from the small niche market of wet nurses.²⁴ Only three states, California, New York,

¹⁸ In the recent HHS National Campaign for Breastfeeding, a television commercial shows a very pregnant African American woman riding a mechanical bucking bronco at a bar. Text appears on screen declaiming, "You wouldn't take risks before your baby's born." After the woman is thrown off the bronco, the text continues, "Why start after? Breastfeed exclusively for 6 months," and then a voiceover declares, "Recent studies show babies who are breastfed are less likely to develop ear infections, respiratory illnesses, and diarrhea. Babies were born to be breastfed." U.S. Dep't of Health & Human Servs., *supra* note 1.

¹⁹ WIC is the U.S. Department of Agriculture's Special Supplemental Nutrition Program for Women, Infants, and Children, created by the Child Nutrition Act of 1966 to promote the health of poor children and lactating mothers by providing supplemental food and nutritional education. See 7 C.F.R. § 246.1 (2009).

²⁰ Prolacta Bioscience's human milk fortifier name has changed over the last three years. Originally known simply as Prolacta, presently it is marketed as Prolacta+ H²MFTM, and is available in four different formulations, Prolacta+4TM, Prolacta+6TM, Prolacta+8TM, and Prolacta+10TM. PROLACTA: Milk Native Seric Protein Concentrate/Isolate, <http://www.lactal-ingredients.fr/en/industries-alimentaires/nos-ingredients/fiche.php?id=68> (last visited Feb. 23, 2010); Prolacta Bioscience: Prolacta+ H²MFTM Human Milk Fortifier, <http://www.prolacta.com/fortifier.php> (last visited Feb. 23, 2010).

²¹ Marsha Austin, *Sides Clash over Putting Price on Mothers' Milk*, DENV. POST, Mar. 26, 2006, at A1; see also Posting of MamaBear to International Breastfeeding Symbol Blog, *Thinking of Donating Your Breastmilk? Read this First*, Sept. 2, 2007, <http://www.breastfeedingsymbol.org/2007/09/02/thinking-of-donating-your-breastmilk-read-this-first>.

²² This milk costs about \$4-5 per ounce. Interview with Laurie Dunn, MD & Sue Evans, RN, in Wakemed Mother's Milk Bank, Raleigh, N.C., (Aug. 29, 2008) (on file with the author). Not-for-profit milk banks are governed by voluntary guidelines approved by the Centers for Disease Control and the Food and Drug Administration. Arnold, *supra* note 15, at 776; Interview with Miriam Labbok, MD, Dir., Ctr. for Infant & Young Child Feeding & Care, Dept. of Maternal & Child Health, Univ. of N.C., & Mary Rose Tully, Dir. of Lactation Servs., N.C. Women's and Children's Hosps., in Chapel Hill, N.C. (Aug. 29, 2009) (on file with the author); see also Human Milk Banking Ass'n of N. Am., <http://www.hmbana.org> (last visited Feb. 23, 2010).

²³ Tralee Pearce, *Breast Friend*, GLOBE & MAIL, May 1, 2007, at L1; Elizabeth Cohen, *Not Your Mother's Breast Milk*, CNN.COM, <http://www.cnn.com/2006/HEALTH/parenting/01/26/btsc.cohen.breastmilk/index.html> (last visited Feb. 23, 2010).

²⁴ Wet nurses can earn an average of \$1000 a week. Jeninne Lee-St. John, *Outsourcing Breast Milk*, TIME, Apr. 19, 2007, <http://www.time.com/time/magazine/article/>

and Texas, regulate human milk or milk banks,²⁵ and these regulations appear to impose no restraints on market development. In contrast, the infant formula market is enormous²⁶ and heavily regulated by the federal government.²⁷

Part III connects the commodification of breastfeeding and the markets in human milk and infant formula. Many breastfeeding advocates extol human milk as a miracle elixir and are complicit in its commodification.²⁸ Additionally, both not-for-profit milk banks and Prolacta Bioscience also identify their product—processed human milk—as essential to the health of premature infants.²⁹ Similarly, formula manufacturers treat human milk as a commodity by advertising their products as the closest thing possible to it.³⁰

Part III then directly engages the proponents and opponents of using commodification analysis. It explores, and then reframes, the costs to women and their families of choosing human milk or infant formula. This Part examines the emerging markets in human milk and challenges anti-commodification

0,9171,1612710,00.html; Janet Shamlian, *Would You Pay Someone to Nurse Your Baby?*, MSNBC, <http://www.msnbc.msn.com/id/18313552> (last visited Feb. 23, 2010).

²⁵ See *supra* note 16 and accompanying text. Texas authorizes the Department of Health to “establish minimum guidelines for the procurement, processing, distribution, or use of human milk by donor milk banks.” TEX. HEALTH & SAFETY CODE § 161.071 (Vernon 2008).

²⁶ In 2008, the latest year for which detailed figures are available, American consumers purchased \$4.97 billion worth of infant formula. EUROMONITOR INT’L, *BABY FOOD—US 5* tbl.2 (Oct. 2008). In 2000, Americans purchased 27 to 28 billion ounces of infant formula annually, at a cost of more than \$2.9 billion. VICTOR OLIVEIRA ET AL., U.S. DEP’T OF AGRIC., *WIC AND THE RETAIL PRICE OF INFANT FORMULA, FOOD ASSISTANCE AND NUTRITION RESEARCH REPORT NO. 39*, at 26-27 (2004), available at <http://www.ers.usda.gov/Publications/FANRR39-1/FANRR39-1.pdf>.

²⁷ The Food and Drug Administration oversees formula manufacturing and the Department of Agriculture actively promotes formula use through the WIC program. 21 C.F.R. § 107 (2009); 7 C.F.R. § 246.16a (2009).

²⁸ See *Got Breast Milk? Calif. Firm Seeks Milk Therapies*, August 3, 2005, <http://www.alertnet.org/thenews/newsdesk/N03464418.htm>; Jill Lepore, *Baby Food: If Breast Is Best, Why Are Women Bottling Their Milk?*, NEW YORKER, Jan. 19, 2009, at 34, available at http://www.newyorker.com/reporting/2009/01/19/090119fa_fact_lepore; *Breast Is Best, but Many New Moms Stop Too Soon*, Dec. 9, 2008, <http://www.cnn.com/2008/HEALTH/dailydose/11/19/breast.feeding.benefits/index.html>; Capital Health News, *Milk Bank Mothers Help Children Throughout The World*, Jan. 22, 2007, <http://www.capitalhealth.org/news.cfm?action=detail&ref=24>; see also *infra* Part III.A.

²⁹ See, e.g., Prolacta Bioscience: Frequently Asked Questions, <http://prolacta.com/faq.php> (last visited Feb. 23, 2010) (describing its product as “critical to premature infants who require food with more protein and calories than mothers’ milk can provide.”); HUMAN MILK BANKING ASS’N OF N. AM., *HMBANA POSITION PAPER ON DONOR MILK BANKING*, <http://www.hmbana.org/downloads/position-paper-donor-milk.pdf> (last visited Feb. 23, 2010) (describing human milk as “the standard food for infants and young children including premature and sick newborns”). See also discussion in Part II D.2-3, *infra*, concerning the for-profit and not-for-profit markets in human milk.

³⁰ See, for example, an advertisement for Similac Early Shield™ Advance® infant formula, claiming to be “closer than ever to breast milk,” with the “first and only DHA/ARA formula that has the Early Shield™ blend,” that “helps support your baby’s developing immune system.” The ad further asserts, “No other formula has our exclusive blend of prebiotics, nucleotides, and antioxidants—nutrients naturally found in breast milk.” PEOPLE, Sept. 2008.

scholars,³¹ who express concerns about exploitation of vulnerable populations. I argue that although solicitude for the dignitary and financial interests of lactating women has a certain intuitive, as well as abstract appeal, it can be met better by acknowledging market realities and focusing on legitimate concerns about protecting vulnerable women.

Part IV proposes a limited market solution that will permit women to make informed decisions about breastfeeding and whether to donate or sell their breast milk based on reliable scientific and economic information. Here, I draw on the work of pro-commodification scholars³² who suggest that incorporating market-based analysis can enhance our understanding of the laboring and property aspects of the human body, while resisting essentialist or exploitative views of women.³³ I conclude with recommendations for change in the law, the marketplace, and the health care system to empower as well as protect American women and promote their children's health.

I. BREASTFEEDING AND THE MARKET: A BRIEF HISTORY

This Part reviews trends in breastfeeding among American women, emphasizing the role of physicians and government in encouraging or discouraging women to nurse, rather than bottle feed, their infants. I begin with a history of breastfeeding, highlighting the important position of pediatricians in shaping women's behavior, both as individual advisors and as a professional lobbying force. This Part first examines how pediatricians' desire for professional authority and prestige influenced their medical advice, and then addresses the specific recommendations of the American Academy of Pediatrics ("AAP" or "Academy") in the last decade. Here, I critique the science that underlies the Academy's promotion of breastfeeding, noting that almost all of the studies relied on by the Academy do not meet the "gold standard" of randomized clinical trials.

Next, this Part considers the significant role of the federal government in simultaneously promoting and discouraging breastfeeding. Here, I address the active campaign by a key federal agency, the Department of Health and Human Services, to encourage more women to breastfeed by emphasizing its health benefits; the campaign was conducted at the very moment that the actions of other government entities made breastfeeding less likely. Here, I discuss Congress's repeated failures to implement pro-breastfeeding policies, either by enacting laws to encourage "Baby-Friendly" hospitals or laws that require employers to accommodate nursing mothers. In addition, I address the eco-

³¹ See, e.g., WHITE, *supra* note 10, at 190; Anderson, *supra* note 10, at 72; Radin, *supra* note 10, at 1936-37.

³² Ertman & Williams, *supra* note 10, at 1-5; Silbaugh, *supra* note 10, at 84-86; see also Fentiman, *supra* note 10, 1598, 1601; Goodwin, *supra* note 10, 629-30; Oberman, *supra* note 10, at 941.

³³ "Essentialism" is the idea that a person's attributes and experience can be reduced to one core, essential essence, particularly one that is biologically based. See, e.g., Angela P. Harris, *Race and Essentialism in Feminist Legal Theory*, 42 STAN. L. REV. 581, 585 (1990) (rejecting "the notion that a unitary, 'essential' woman's experience can be isolated and described independently of race, class, sexual orientation, and other realities of experience"); see also Silbaugh, *supra* note 10, at 84-86.

conomic and psychological impact of the Department of Agriculture's WIC program, which provides infant formula at no cost to poor women.

A. *Medical Experts and the Rise of Alternatives to Breastfeeding*

Until the nineteenth century, almost all infants were breastfed, as this was necessary for their survival.³⁴ In fact, many bottle-fed infants died at rates that were as high as fifteen times the death rate for breastfed babies because cow's milk, the available substitute, was often unpasteurized or adulterated.³⁵ Pediatricians, members of a newly emerging medical specialty searching for a *raison d'être*, responded to the crisis in infant deaths. Some sought to clean up the bovine milk supply, while others sought to develop "scientific" infant formulas to replace human milk, and still other pediatricians continued to urge women to breastfeed because it was the healthiest choice.³⁶ Indeed, the pediatricians' quest for a technological fix accelerated the decline in breastfeeding.³⁷

By the early twentieth century, a large number of women did not breastfeed³⁸ for reasons of personal convenience³⁹ or economic necessity.⁴⁰ Moreover, by the 1930s, a new generation of pediatricians believed that formula was just as good as human milk⁴¹ and frequently counseled new

³⁴ When a woman could not breastfeed, or the mother died in childbirth, women who were already nursing their own infants stepped in to feed the other mother's child, as women's milk production expands to meet the demand. NAOMI BAUMSLAG & DIA L. MICHELS, *MILK, MONEY, AND MADNESS: THE CULTURE AND POLITICS OF BREASTFEEDING* 39-40 (1995). While the act of suckling another's child often reflected altruism and social solidarity, in societies ranging from the ancient Greeks to French and English aristocracies, the position of wet nurse evolved to assist elite women who preferred not to breastfeed. *Id.* at 40-45.

³⁵ These deaths were due to dehydration, diarrhea, and other illnesses contracted from tainted cow's milk. JACQUELINE H. WOLF, *DON'T KILL YOUR BABY: PUBLIC HEALTH AND THE DECLINE OF BREASTFEEDING IN THE NINETEENTH AND TWENTIETH CENTURIES* 42, 47-49 (2001). In Chicago in 1910, with a large immigrant and working class population, the infant mortality rate was fifteen times higher for bottle-fed babies than for breastfed infants. *Id.* at 1.

³⁶ *Id.* at 42-44, 74-82.

³⁷ For example, in the late 1800s, leading child-rearing expert Dr. L. Emmett Holt advised women that "mother's milk" was the best infant food. ANN HULBERT, *RAISING AMERICA: EXPERTS, PARENTS, AND A CENTURY OF ADVICE ABOUT CHILDREN* 67-69 (2003). However, accepting the reality that many women would not breastfeed, he devoted much of his best-selling book on parenting to setting forth a substitute formula for infant nutrition. According to Hulbert, Holt had almost a collusive relationship with the women he advised: "[The non-nursing mother] would refuse to breast-feed, and . . . [the doctor] would countenance her defiance of his best advice and supply her with the alternative nutritional counsel she required." *Id.* at 69.

³⁸ However, the majority of American infants were breastfed through the 1920s. BAUMSLAG & MICHELS, *supra* note 34, at xxi; OLIVEIRA ET AL., *supra* note 26, at 16.

³⁹ L. Emmett Holt, MD, author of *The Care and Feeding of Children*, one of the leading child-rearing advice books in the late nineteenth and early twentieth centuries, stated that "'at least three children out of every four born into the homes of well-to-do classes must be fed at some other font than the maternal breast.'" HULBERT, *supra* note 37, at 67, 69; *see also* WOLF, *supra* note 35, at 15.

⁴⁰ WOLF, *supra* note 35, at 19-20 (explaining that many women had to work in order to support their families).

⁴¹ HULBERT, *supra* note 37, at 102-03.

mothers that breastfeeding was not right for them or their babies.⁴² Subsequently, formula use, helped by the invention of the rubber nipple,⁴³ began to rise,⁴⁴ with middle- and upper-class women being most likely to bottle feed.⁴⁵

By the middle of the twentieth century, breastfeeding rates had fallen sharply due to changes in attitude on the part of American women and their doctors. Although the official policy of the AAP was that breastfeeding was the preferred method of infant feeding,⁴⁶ individual pediatricians often took a different position. Many were not knowledgeable about breastfeeding and their views were influenced significantly by the visits of infant formula "detail men." These manufacturers' representatives extolled the advantages of their particular formula brand in office visits and on paid vacations⁴⁷ through a practice known, apparently without irony, as "ethical marketing."⁴⁸ Both pediatricians and formula companies promoted formula as a "scientific" product whose chemical content was known and whose intake could be measured.⁴⁹ The freedom of bottle feeding also appealed to "modern" women who had just left the paid workforce and wanted to continue to enjoy the freedom they had enjoyed as working women.⁵⁰ As a result of the increased availability and promotion of

⁴² REBECCA KUKLA, *MASS HYSTERIA: MEDICINE, CULTURE, AND MOTHERS' BODIES* 174-75 (2005).

⁴³ Elijah Pratt patented a rubber nipple for use on baby bottles in 1845. MARY SPAULDING & PENNY WELCH, *NURTURING YESTERDAY'S CHILD: A PORTRAYAL OF THE DRAKE COLLECTION OF PAEDIATRIC HISTORY* 82 (1994); see also T.G.H. Drake, *American Infant Feeding Bottles, 1841 to 1946, As Disclosed By United States Patent Specifications*, 1948 III (4) J. HIST. MED. & ALLIED SCI. 507-24 (1948).

⁴⁴ OLIVEIRA ET AL., *supra* note 26, at 16.

⁴⁵ Sergio Stagno & Gretchen A. Cloud, *Working Parents: The Impact of Day Care and Breast-Feeding on Cytomegalovirus Infections in Offspring*, 91 PROC. NAT'L ACAD. SCI. U.S. 2384, 2385 (1994). The authors noted that "[a]bandonment of breast-feeding in the earlier part of this [twentieth] century started first within the upper socioeconomic levels and spread downward on the socioeconomic scale. After 1970, the resurgence of breast-feeding began at the upper socioeconomic levels, and it is spreading along the various strata in much the same manner as the abandonment of breast-feeding occurred." The trend continues today.

⁴⁶ Am. Acad. of Pediatrics, *Breastfeeding and the Use of Human Milk*, 100 PEDIATRICS 1035, 1035 (1997). The 1948 AAP Manual, *Standards and Recommendations for the Hospital Care of Newborn Infants*, recommended that pediatricians "make every effort to have every mother nurse her full-term infant." *Id.*

⁴⁷ WOLF, *supra* note 35, at 192.

⁴⁸ Bob D. Cutler & Robert F. Wright, *The U.S. Infant Formula Industry: Is Direct-to-Consumer Advertising Unethical or Inevitable?*, HEALTH MARKETING Q., 2002, at 39, 41-42 (2002); see also Laura Epstein, *Women and Children Last: Anti-Competitive Practices in the Infant Formula Industry*, 5 AM. U. J. GENDER & L. 21, 24 (1996) (describing "'ethical marketing' [as] . . . the same marketing method used to sell pharmaceuticals"). According to Epstein:

It consists of marketing solely to medical professionals to the exclusion of direct-to-consumer advertising. The companies advertise in medical periodicals and employ large "detail" forces, similar to sales forces, which call on physicians and hospitals, providing free formula samples for the mothers and often showering the doctors with gifts in order to induce the physicians to recommend their products.

Id. (footnotes omitted).

⁴⁹ KUKLA, *supra* note 42, at 175.

⁵⁰ *Id.* at 174-75.

infant formula, breastfeeding rates plummeted,⁵¹ falling by 50% from 1946 to 1956, when most Baby Boomers were born.⁵² Indeed, by 1971 only 21% of American infants were breastfed when they were discharged from the hospital, and only 6% were breastfeeding five to six months later.⁵³

In the 1970s, pediatricians and other child-rearing experts promoted a new paradigm of the mother-child relationship that helped build a demand for a return to breastfeeding. Specifically, pediatricians and child-rearing experts announced the theory of “bonding,” a connection between mother and infant in the post-birth period that was touted as both a mystical union and the human analogue to the joining of two pieces of wood by a chemical adhesive.⁵⁴ Advocates declared that bonding was necessary to avoid child abuse, and urged mothers to breastfeed to build the requisite physical closeness between mother and infant.⁵⁵ Although the scientific basis for bonding was extremely weak, it caught on precisely because it offered a quick fix to complex medical and social problems.⁵⁶

In response to pro-bonding arguments, breastfeeding rates grew in the late 1970s and early 1980s.⁵⁷ After a sharp decline from 1984 to 1989, breastfeeding rates increased until the end of the twentieth century.⁵⁸ Recently, breastfeeding rates have plateaued, remaining virtually unchanged since 1999.⁵⁹

⁵¹ DONNA V. PORTER, CONG. RESEARCH SERV., BREAST-FEEDING: IMPACT ON HEALTH, EMPLOYMENT AND SOCIETY (July 18, 2003) (citing JON WEIMER, U.S. DEP’T. OF AGRIC., THE ECONOMIC BENEFITS OF BREAST FEEDING: A REVIEW AND ANALYSIS, FOOD ASSISTANCE AND NUTRITION RESEARCH REP. NO. 13 (2001)).

⁵² *Id.*

⁵³ OLIVEIRA ET AL., *supra* note 26, at 16; Alan S. Ryan et al., *Breastfeeding Continues to Increase into the New Millennium*, 110 PEDIATRICS 1103, 1104 fig.1 (2002), available at <http://pediatrics.aappublications.org/cgi/content/full/110/6/1103>.

⁵⁴ Diane E. Eyer, *Mother Infant Bonding: A Scientific Fiction*, 5 HUM. NATURE 69, 85, 89 (1994).

⁵⁵ KUKLA, *supra* note 42, at 150 (discussing the influence of John Bowlby’s work on bonding). As numerous critics have noted, when the “bonding” hypothesis was developed, an emphasis on maternal-infant closeness made sense as a counterweight to heavily medicalized notions of childbirth prominent in the mid-twentieth century, which did indeed separate mothers from their newborns for many hours after birth. But the ever-expanding temporal frame of “bonding” proponents, which moved the importance of mother-infant closeness from the immediate postpartum period to the first year of a child’s life, was not scientifically supported, and reflected gendered views of parental care-giving. For a thoughtful discussion see Jules Law, *The Politics of Breastfeeding: Assessing Risk, Dividing Labor*, 25 SIGNS: J. WOMEN CULTURE & SOC’Y 407, 407-08 (2000).

⁵⁶ EYER, *supra* note 17, at 8. Bonding also affirmed the authority of physicians at the very moment that the need for pediatricians’ expertise was being eroded by the conquering of major childhood illnesses, and obstetricians’ hegemony in the birth process was being challenged by feminist critics. *Id.* at 10-11.

⁵⁷ Anne L. Wright & Richard J. Schanler, *The Resurgence of Breastfeeding at the End of the Second Millennium*, 131 J. NUTRITION 421S, 421S (2001).

⁵⁸ Ryan et al., *supra* note 53; see also Ctrs. for Disease Control & Prevention, *Breastfeeding Among U.S. Children Born 1999-2006*, CDC National Immunization Survey, http://www.cdc.gov/BREASTFEEDING/DATA/NIS_data/index.htm (last visited Feb. 23, 2010).

⁵⁹ There has been a slight increase in the percentage of babies who are breastfeeding exclusively. Ctrs. for Disease Control & Prevention, *supra* note 58 (noting that only 31% of babies are exclusively breastfed at three months and 11% are exclusively breastfed at six

Over the last dozen years, the AAP has led the push toward increased breastfeeding.⁶⁰ In 1997, its Committee on Breastfeeding released a policy statement supporting breastfeeding for all infants.⁶¹ Specifically, it recommended that women breastfeed exclusively for the first six months after birth and continue to breastfeed during the infant's first year while providing solid food as well.⁶² However, the Academy declared that "[t]he ultimate decision on feeding of the infant is the mother's."⁶³

Nonetheless, the Academy extolled the benefits of breastfeeding. In particular, it cited "strong evidence" that breastfeeding reduced the incidence of numerous infectious diseases in infants and children such as diarrhea, respiratory infections, meningitis, and otitis media (ear infections).⁶⁴ Additionally, the Academy cited several "possible" benefits, including "*possible* protective effect[s] . . . against sudden infant death syndrome, . . . diabetes[,] . . . Crohn's disease," and other chronic illnesses, as well as the "*possible* enhancement of cognitive development."⁶⁵ Furthermore, the Academy also touted "*possible* health benefits for mothers"⁶⁶ and noted that breastfeeding would save the average family \$400 in the costs of food and formula during a child's first year.⁶⁷

In 2005, the Academy became even more zealous.⁶⁸ Notably, it eliminated its 1997 statement that breastfeeding was the mother's decision to make.⁶⁹ In addition to its previous assertion that breastfeeding reduced the

months); Ctrs. for Disease Control & Prevention, *Breastfeeding Trends and Updated National Health Objectives for Exclusive Breastfeeding—United States, Birth Years 2000-2004*, 56 MORBIDITY & MORTALITY WKLY. 760, 761 (2007), available at <http://www.cdc.gov/mmwr/PDF/wk/mm5630.pdf>; Marc Kaufman & Christopher Lee, *HHS Toned Down Breast-Feeding Ads, Formula Industry Urged Softer Campaign*, WASH. POST, Aug. 31, 2007 at A1 (citing data from Abbott Nutrition's Ross Mothers Survey, showing a decline from 33.2% to 30% of mothers who were still breastfeeding at six months); Karen Springen, *Indecent Exposure?*, NEWSWEEK, June 11, 2007, at 49.

⁶⁰ In the late 1990s and early 2000s, the HHS joined the medical profession in its support for breastfeeding. See discussion in Part I.B, *infra*.

⁶¹ It declared that "[t]he breastfed infant is the reference or normative model against which all alternative feeding methods must be measured." Am. Acad. of Pediatrics, *supra* note 46, at 1035.

⁶² *Id.* at 1037.

⁶³ *Id.* at 1036.

⁶⁴ *Id.* at 1035.

⁶⁵ *Id.* at 1035 (emphasis added). Although the Academy did not discuss the mechanism by which this benefit is conferred, breast milk is known to contain easily digestible fatty acids that are important to neurological development. BAUMSLAG & MICHELS, *supra* note 34, at 25. The composition of breast milk changes depending on the infant's age and age at delivery. See Mary Ann Hylander et al., *Human Milk Feedings and Infection Among Very Low Birth Weight Infants*, 102 PEDIATRICS e38, 1, 4 (1998), <http://www.pediatrics.org/cgi/content/full/102/3/e38>.

⁶⁶ These included the suppression of menstruation (and a concomitant reduced risk of becoming pregnant), a decrease in postpartum bleeding, a speedier return to pre-pregnancy shape and weight, a lowered risk of breast and ovarian cancer, and a reduction in hip fractures post-menopause. Am. Acad. of Pediatrics, *supra* note 46, at 1035 (emphasis added).

⁶⁷ *Id.* at 1035-36.

⁶⁸ See Am. Acad. of Pediatrics, *Breastfeeding and the Use of Human Milk*, 115 PEDIATRICS 496 (2005).

⁶⁹ Am. Acad. of Pediatrics, *supra* note 46, at 1036.

incidence of infectious diseases, the Academy also announced that “postneonatal infant mortality rates in the United States are reduced by [an astonishing] 21% in breastfed infants.”⁷⁰ The new Policy Statement identified “neurodevelopment” as a separate benefit of breastfeeding.⁷¹ It cited studies suggesting that breastfed infants were less likely to suffer from obesity and asthma as older children or adults.⁷² Moreover, the Academy recommended for the first time the use of “banked” human milk and the fortification of pumped breast milk for many infants with very low birth-weights,⁷³ a recommendation that has had a significant impact on demand for these human milk products.⁷⁴ Additionally, the Academy asserted that increased breastfeeding would lead to “community benefits,” including “decreased annual health care costs of \$3.6 billion in the United States,” decreased costs for the WIC Program, reduced parental absenteeism from work and accompanying loss of income, and lowered environmental and energy burdens due to decreased formula consumption.⁷⁵ Achieving all of these benefits depended on government and private insurers paying physicians to support breastfeeding women and their children.⁷⁶

B. Government as an Ally in the Campaign to Increase Breastfeeding

The federal government has been involved in efforts to increase breastfeeding since the early 1980s.⁷⁷ In 1990, the United States signed the Innocenti Declaration, which committed the American government to develop a

⁷⁰ Am. Acad. of Pediatrics, *supra* note 68, at 496. This was apparently based on a study of accidental deaths, whose connection with breastfeeding seems tenuous at best. Aimin Chen & Walter J. Rogan, *Breastfeeding and the Risk of Postneonatal Death in the United States*, 113 PEDIATRICS e435, e435 (2004), <http://www.pediatrics.org/cgi/content/full/113/5/e435>.

⁷¹ The Policy Statement declared that “[b]reastfeeding has been associated with slightly enhanced performance on tests of cognitive development.” Am. Acad. of Pediatrics, *supra* note 68, at 497.

⁷² *Id.*

⁷³ *Id.* at 500. This Article will discuss human milk banks in Part II., *infra*.

⁷⁴ *Id.* Ruth Lawrence, MD, a member of the Section on Breastfeeding, has worked with Prolacta Bioscience, the California corporation that processes donated breast milk and sells it to hospitals for \$184 per ounce, conducting studies of its products’ effectiveness. *Id.* at 501; Profile: Ruth A. Lawrence, MD, http://www.urmc.rochester.edu/web/index.cfm?event=doctor.profile.show&person_id=1000035&display=for_researchers (last visited Feb. 23, 2010); see *supra* notes 20-21 and accompanying text.

⁷⁵ Am. Acad. of Pediatrics, *supra* note 68, at 497.

⁷⁶ *Id.*

⁷⁷ During the Reagan Administration, the United States was the only country to vote against the International Code of Marketing of Breast-Milk Substitutes, which was adopted by the World Health Assembly as a Recommendation in 1981. SAMI SHUBBER, *THE INTERNATIONAL CODE OF MARKETING OF BREAST-MILK SUBSTITUTES: AN INTERNATIONAL MEASURE TO PROTECT AND PROMOTE BREAST-FEEDING* 2, 43 (1998). However, in 1984, Surgeon General C. Everett Koop convened a workshop on breastfeeding and human lactation, which led to recommendations for improving breastfeeding. U.S. DEP’T HEALTH & HUMAN SERVS., *REPORT OF THE SURGEON GENERAL’S WORKSHOP ON BREASTFEEDING & HUMAN LACTATION* iii (1984), available at http://profiles.nlm.nih.gov/NN/B/C/G/G/_/nnbcgg.pdf.

comprehensive national strategy to increase breastfeeding.⁷⁸ During the Clinton Administration, the government viewed breastfeeding as part of a broader public health effort to improve the health of Americans. Led by U.S. Surgeon General David Satcher, who had a background in public health, HHS⁷⁹ situated the effort to increase breastfeeding in a national health planning document, *Healthy People 2010*, which focused on population-based strategies to improve Americans' health.⁸⁰ HHS developed a *Blueprint for Action on Breastfeeding*, which identified necessary structural change in the culture, economy, legal, and health care systems. These were:

Assur[ing] access to comprehensive, current, and culturally appropriate lactation care and services for all women, children and families[;] . . .

Ensur[ing] that breastfeeding is recognized as the normal and preferred method of feeding infants and young children[;] . . .

Ensur[ing] that all federal, state, and local laws . . . recognize and support the importance and practice of breastfeeding[;] . . . [and]

Increas[ing] protection, promotion and support for breastfeeding mothers in the work force.⁸¹

After the Bush Administration took office in 2001, HHS shifted its approach away from systemic reform efforts. Instead, ignoring the legal impediments to breastfeeding and problems of health care access, HHS focused only on a mar-

⁷⁸ UNICEF INNOCENTI DECLARATION ON THE PROTECTION, PROMOTION AND SUPPORT OF BREASTFEEDING (1990); *see also* U.S. DEP'T HEALTH & HUMAN SERVS., HHS BLUEPRINT FOR ACTION ON BREASTFEEDING 3, 18 (2000) [hereinafter the *Blueprint*].

⁷⁹ HHS is a sprawling bureaucracy, charged, *inter alia*, with improving health care access and outcomes through a variety of agencies, including those that pay for many Americans' health care (through the Medicare, Medicaid, Children's Health Insurance Program, and the Indian Health Service), and though reducing Americans' exposure to diseases and dangerous substances (through the Food and Drug Administration, the Centers for Disease Prevention and Control and the Agency for Toxic Substances and Diseases). In addition, HHS funds and reviews medical research (through the National Institutes of Health and the Agency for Healthcare Research and Quality). For an overview, *see* About HHS, <http://www.hhs.gov/about> (last visited Sept. 15, 2009).

⁸⁰ Following the recommendations of the AAP, the HHS *Blueprint for Action on Breastfeeding* declared several breastfeeding goals for the year 2010: 75% of all women breastfeeding in the "early postpartum period," 50% breastfeeding at six months, and 25% breastfeeding when the infant was one year old. KATHERINE R. SHEALY ET AL., U.S. DEP'T HEALTH & HUMAN SERVS., THE CDC GUIDE TO BREASTFEEDING INTERVENTIONS i (2005), available at http://www.cdc.gov/breastfeeding/pdf/breastfeeding_interventions.pdf; *see also* *Healthy People 2010 Objectives for the Nation*, available at <http://www.cdc.gov/breastfeeding/policies/policy-hp2010.htm> (Nov. 2000) [hereinafter *Healthy People 2010*]. The *Blueprint* took into account the health outcome goals noted in *HEALTHY PEOPLE 2000* 15 (Michael A. Stoto et al. eds., 1990) http://www.nap.edu/openbook.php?record_id=1627&page=R1 and *Healthy People 2010*, *supra*. The latter two documents set forth wide-ranging, yet specific, outcome goals for many measures of population health, including infant mortality, low birth-weight infants, receiving early prenatal care, and breastfeeding rates. The *Blueprint* noted that none of the breastfeeding goals announced in *Healthy People 2000* had been met for any group of women. The *Blueprint*, *supra* note 78, at 8.

⁸¹ U.S. BREASTFEEDING COMM., BREASTFEEDING IN THE UNITED STATES: A NATIONAL AGENDA 7, 11, 13, 14 (2001), available at <http://www.usbreastfeeding.org/Portals/0/Publications/National-Agenda-2001-USBC.pdf>.

keting goal to “[e]nsure that breastfeeding is recognized as the normal and preferred method of feeding”⁸²

1. *The HHS Campaign for Breastfeeding*

In 2004, the Bush Administration launched a multi-media⁸³ national advertising campaign⁸⁴ that was targeted primarily at first time parents “who would not normally breastfeed their baby,”⁸⁵ that is, poor, less-educated women, and women of color;⁸⁶ the campaign relied heavily on the results of focus-group research with African American women.⁸⁷ In fact, the campaign propounded a normative message that the gold standard for infant care was exclusive breastfeeding for six months and that all women have “what it takes” to breastfeed.⁸⁸ In particular, the creators of the campaign believed that “[b]reastfeeding benefits need[ed] to be recast to have greater perceived consequence” because “[t]here was no perceived real disadvantage if you didn’t breastfeed.”⁸⁹

The Bush campaign promoting breastfeeding was designed to elicit a fear of disaster for parents whose infants were not breastfed. Mothers were transformed from competent adult decision-makers and women with independent personal and professional lives into “vectors of risk” for their infants.⁹⁰ The campaign’s centerpiece was a thirty-second television commercial showing a very pregnant African American woman riding a mechanical bull in a bar, surrounded by a large crowd. The woman desperately tried to hold on as the bull gyrated fiercely. The screen turned black, followed by text declaring, “You wouldn’t take risks before your baby is born.” When the action resumed, the woman was thrown to the ground and the crowd gasped. Then the woman stood and the crowd cheered. The screen again turned black, and the text asked, “Why Start After?” An off-screen voice declared, “Babies were born to be breastfed. Recent studies show babies who are breastfed are less likely to

⁸² *Id.* at 11.

⁸³ The campaign used radio, television, print media, and outdoor advertising. Press Release, U.S. Dep’t of Health & Human Servs., Public Service Campaign to Promote Breastfeeding Awareness Launched (June 4, 2004), available at <http://www.hhs.gov/news/press/2004pres/20040604.html>. The campaign relied on Public Service Announcements. The television advertisements ended in 2005, the radio commercials ended in April 2006, and the print media were available until the end of 2006. U.S. Dep’t Health & Human Servs., National Breastfeeding Campaign, <http://www.womenshealth.gov/breastfeeding/programs/nbc/index.cfm> (last visited Feb. 23, 2010) [hereinafter Breastfeeding Awareness Campaign].

⁸⁴ Ctrs. for Disease Control & Prevention, *Infant Feeding Practices Study II*, <http://www.cdc.gov/ifps/index.htm>.

⁸⁵ Breastfeeding Awareness Campaign, *supra* note 83.

⁸⁶ See discussion in Part I.D., *infra*, discussing the demographics of women who breastfeed.

⁸⁷ Joan B. Wolf, *Is Breast Really Best? Risk and Total Motherhood in the National Breastfeeding Awareness Campaign*, 32 J. HEALTH POL. POL’Y & L. 595, 620 (2007).

⁸⁸ Suzanne G. Haynes, National Breastfeeding Awareness Campaign Results: Babies Were Born to Be Breastfed! 4, http://www.womenshealth.gov/breastfeeding/programs/nbc/results/campaign_results.ppt.

⁸⁹ *Id.* The campaign relied on focus group research that showed that many people thought breastfeeding merely conferred a small additional advantage, like taking vitamins. Wolf, *supra* note 87, at 611.

⁹⁰ Wolf, *supra* note 87, at 618.

develop ear infections, respiratory illnesses and diarrhea” At the same time, the screen stated, “Breastfeed Exclusively for 6 Months,” and then displayed a website and “800” number for more information about breastfeeding.⁹¹

The “Babies Were Born to be Breastfed” campaign unleashed a storm of criticism. Manufacturers of infant formula, as well as many women, objected to the campaign’s emphasis on the “risks” of not breastfeeding, rather than the benefits of breastfeeding.⁹² Clayton Yeutter, the former Secretary of Agriculture under the first President Bush, lobbied on behalf of formula manufacturers, successfully seeking changes in the campaign before it began.⁹³ In addition to asserting that mothers should not be made to feel guilty for not breastfeeding, he also urged that there was insufficient evidence to support some of the claimed “risks” of not breastfeeding, such as an increased risk of leukemia and diabetes.⁹⁴ Critics of the critics, like Representative Caroline Maloney of New York, objected to the formula manufacturers’ lobbying, saying that the campaign’s pro-breastfeeding message was being “watered down.”⁹⁵ Although the Academy urged changes in the campaign to eliminate some risk references, their actions were criticized by the media as motivated by the significant financial contributions of formula manufacturers.⁹⁶

⁹¹ Breastfeeding Campaign, *supra* note 1. This sensational tone and focus on risk pervaded other campaign materials. Another television commercial showed two pregnant white women engaging in log-rolling in white water, with one woman falling off, and the same “risk” message that was presented in the bucking bull ad. U.S. Dep’t of Health & Human Servs., <http://www.womenshealth.gov/breastfeeding/programs/nbc/adccouncil/CNBA4130-E01NY.mpg> (last visited Feb. 23, 2010). A print advertisement displayed a dish with two scoops of ice cream with cherries at their centers, apparently intended to represent female breasts. In an obvious double entendre, the photograph was captioned, “Breastfeed for 6 Months. You May Help Reduce Your Child’s Risk for Childhood Obesity.” KUKLA, *supra* note 42, 190 fig.6.1; U.S. Dep’t of Health & Human Servs., http://www.womenshealth.gov/breastfeeding/programs/nbc/adccouncil/ice_cream.pdf (last visited Feb. 23, 2010). Government officials declared themselves pleased with the response to the campaign. Surveys showed that people who had seen a Public Service Announcement were more likely to absorb the risk message presented or to know that six months was recommended amount of time for exclusive breastfeeding. The ad campaign also significantly increased the number of hits to the government’s breastfeeding website and “warmline” and there was a slight increase in the number of women who said they would be comfortable feeding their own child in a public place. Haynes, *supra* note 88, at 13, 15-16. However, the women who indicated the greatest likelihood of breastfeeding based on the campaign were college-educated and non-WIC participants. These women were already the most likely to breastfeed, rather than the campaign’s target audience. See Part I.D., *infra*.

⁹² Brian Ross & Jill Rackmill, *Breast-Feeding Ads Stalled, ‘Watered Down,’* June 4, 2004, <http://abcnews.go.com/2020/story?id=124271&page=1>.

⁹³ *Id.*

⁹⁴ Kaufman & Lee, *supra* note 59.

⁹⁵ John Toscano, *Ion Politics*, QUEENS GAZETTE, July 14, 2004 http://www.qgazette.com/news/2004-07-14/Political_Page/Ion_politics.html.

⁹⁶ Ross & Rackmill, *supra* note 92; see also Melody Petersen, *Breastfeeding Ads Delayed by a Dispute over Content*, N.Y. TIMES, Dec. 4, 2003, at C1. According to Petersen, “Ross [a formula manufacturer,] was one of the top three corporate donors to the academy’s budget in 2001, giving more than \$500,000” In 2002-2003, Ross also purchased 600,000 copies of the Academy’s book on breastfeeding. *Id.*

Other critics questioned the campaign's basic premise that women do not breastfeed because they are unaware of its benefits.⁹⁷ For example, Canadian philosopher and medical ethicist Rebecca Kukla⁹⁸ observed, "[T]he information that 'breast is best' [is] . . . now disseminated in every form, from this bare slogan through detailed medical information, through health institutions, media campaigns, physicians, nurses, advice books, prenatal classes, websites, outreach programs for mothers at risk"⁹⁹ Kukla argued that the systemic impediments to breastfeeding, including the lack of skilled assistance with breastfeeding mechanics, the failure of workplaces and public spaces to make breastfeeding a reasonable choice, and economic pressures necessitating many mothers' return to work soon after their children are born are the real barriers to breastfeeding, rather than women's failure to appreciate that breastfeeding has benefits.¹⁰⁰

Still other commentators questioned both the campaign's efficacy and the appropriateness of negative advertising. Evidence is mixed on whether "fear appeals"¹⁰¹ are effective.¹⁰² Some social scientists assert that "the greater the actual fear activation engendered by the communications, the greater the persuasion. However, some research suggests a 'curvilinear' relationship between fear level and ad persuasion: optimum results may occur at some 'intermediate' level of fear, where the amount of arousal is neither too weak nor too strong."¹⁰³ This intermediate approach is much more likely to change behavior than "attempts to frighten people . . . with images of death and injury."¹⁰⁴

Thus, viewed purely in marketing terms, HHS developed a poorly conceived campaign. HHS deliberately designed the campaign to highlight the

⁹⁷ KUKLA, *supra* note 42, at 192.

⁹⁸ See Rebecca Kukla, http://www.carleton.ca/philosophy/faculty_staff/faculty/kukla.html (last visited Feb. 23, 2010).

⁹⁹ KUKLA, *supra* note 42, at 192.

¹⁰⁰ *Id.* at 193.

¹⁰¹ "Fear appeals" are advertisements that focus on "risk." The typical "fear appeal" proceeds in two steps: first presenting a threat and then showing an effective and easy way to take preventive action. In the first step, the advertisement attempts "to arouse fear by presenting a threat (e.g., 'HIV infection') to which the recipient is susceptible (e.g., 'having unprotected sex puts you at risk for acquiring AIDS') and which is severe (e.g., 'AIDS is a deadly disease')." In the second step, "protective action" is recommended which is "effective in neutralising the threat (e.g., 'condoms prevent HIV infection during sexual intercourse') and easy to execute (e.g., 'condoms can be bought everywhere and are easy to use')." Robert A.C. Ruiter et al., *Scary Warnings and Rational Precautions: A Review of the Psychology of Fear Appeals*, 16 PSYCHOL. & HEALTH 613, 614 (2001).

¹⁰² *Id.* at 613-14.

¹⁰³ Robin L. Snipes et al., *A Model of the Effects of Self-efficacy on the Perceived Ethicality and Performance of Fear Appeals in Advertising*, 19 J. BUS. ETHICS 273, 274 (1999). Some people discount a fear appeal that contains information that is threatening to their lifestyle or sense of self. Ruiter et al., *supra* note 101, at 620 (describing an experiment in which women who drank coffee were more likely than non-coffee drinkers to discount information linking coffee drinking with fibrocystic breast disease, which is a precursor to breast cancer). The most effective ads are those in which "precautionary information . . . highlight[s] the effectiveness of recommended action, address[es] concerns over costs and bolster[s] self-efficacy." *Id.* at 623. For example, an ad showing that "'[p]eople who use a mouth rinse daily are taking advantage of a safe and effective way to reduce plaque accumulation'" is likely to be successful. *Id.* at 625.

¹⁰⁴ Ruiter et al., *supra* note 101, at 626.

"risks" of not breastfeeding rather than the "benefits" of choosing to breastfeed, to hammer home the message that not breastfeeding has serious consequences for infant and child health.¹⁰⁵ However, there is slim scientific evidence to support this risk message.¹⁰⁶ At the same time, the campaign's focus on risk meant that it failed to send its intended message that most women *are* capable of breastfeeding successfully.¹⁰⁷

Disturbingly, the campaign reframed the breastfeeding issue, removing it from the normal realm of parental childrearing choices that are guided by the advice of health care professionals, but remain decisions for individual families to make. Like the rhetoric of the "bonding" movement thirty years earlier, the government marketing campaign articulated a narrow range of acceptable maternal behaviors as being medically necessary for healthy children. By implying that women who do not, or cannot, breastfeed are "bad mothers" who put their children at serious risk, the campaign inappropriately placed all the responsibility for childhood health on new mothers; it portrayed mothers as morally deficient if they did not breastfeed and made them feel guilty for their choice.¹⁰⁸ Thus, this normative marketing campaign failed to address the significant barriers to breastfeeding, including systemic economic pressures facing most new mothers and their families, inadequate legal protection of breastfeeding, and medical and personal reasons for many mothers choosing formula.

C. *The Overselling of Breastfeeding*

1. *History Gives Reasons to Be Skeptical*

One need not be a cynic to observe that the norms of medical appropriateness and the foundation for scientific understanding change frequently; one era's scientific certainty quickly becomes the next era's discredited theory.¹⁰⁹ For example, over the last twenty years professional pediatrics organizations have drastically altered their views on the causes of Sudden Infant Death Syndrome (SIDS) and have totally reversed their recommendations for proper

¹⁰⁵ In the view of Suzanne G. Haynes, the HHS director of the campaign, it was necessary for breastfeeding to be seen as having "greater perceived consequence." Haynes, *supra* note 88, at 4.

¹⁰⁶ See discussion in text accompanying Part I.C., *infra*.

¹⁰⁷ Haynes, *supra* note 88, at 4; Ruiter et al., *supra* note 101, at 614, 617, 619. This was one of the goals of the 2000 HHS Blueprint, see *supra* note 78, at 12.

¹⁰⁸ Elizabeth Vargas, Lee Hoffman & Ann Varney, *Is the Breast Better?: Ad Campaign Rattles Mothers on Breast-Feeding Controversy*, July 13, 2006, <http://abcnews.go.com/2020/print?id=2188066>; Wolf, *supra* note 87, at 600-01, 615-17, 620-22. Wolf presents a devastating critique of the National Breastfeeding Awareness Campaign, arguing that given the scientific weakness of the evidence that breastfeeding confers significant benefits on infants and children. She also argues that it was unethical to couch a public health campaign in such strident risk rhetoric, and that doing so both compounded the current trend toward perfect motherhood and ignored important cultural and historical reasons why some populations, like African American women, do not see breastfeeding as the obvious choice. *Id.*

¹⁰⁹ See generally HULBERT, *supra* note 37, at 7-9. Hulbert chronicles the ever-changing "science" and advice about the best ways to feed, nurture, and otherwise help children to grow into adulthood from the mid-nineteenth century to the beginning of the twenty-first century. *Id.*

infant sleeping positions.¹¹⁰ As another example, in the 1930s, '40s, and '50s, pediatricians were convinced that tonsillectomy was the best way to treat children's upper respiratory infections.¹¹¹ Accordingly, the overwhelming majority of children had such surgery, until that too went out of fashion.¹¹² A similar wave of medical over-enthusiasm occurred during the 1980s and 90s, with the routine administration of amoxicillin for sore throats and ear infections,¹¹³ despite the fact that less than one-quarter of the children had infections that responded to antibiotics.¹¹⁴ Critics are now challenging this practice as creating a substantial risk to public health as an entire generation has developed resistance to first-line antibiotics.¹¹⁵

2. *The Science in Support of Breastfeeding is Weak*

Many critics have challenged the science claimed to support the position that breastfeeding is essential to children's health.¹¹⁶ A basic flaw in many studies cited by the Academy and the HHS campaign is the lack of a plausible biological mechanism to explain *how* breastfeeding reduces childhood illness or death. For example, one might expect breastfeeding, which undoubtedly confers immunological benefits on newborns, to decrease the incidence of infectious diseases such as respiratory infections and diarrhea. However, stud-

¹¹⁰ While pediatricians now recommend that infants be placed to sleep on their backs, previously they had urged, with equal vigor and certainty, that infants be placed to sleep on their stomachs. See, e.g., Am. Acad. of Pediatrics, *The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk*, 116 PEDIATRICS 1245, 1246 (2005) (discussing the change in recommendations made to parents on infant sleeping position, from prone to supine); see also Dawne Gurbutt & Russell Gurbutt, *Risk Reduction and Sudden Infant Death Syndrome*, 80 COMMUNITY PRAC. 24, 25 (2007) (noting that the decline of SIDS in the United Kingdom in the 1990s was correlated with physicians' recommendations to put babies to sleep on their backs, which was "a complete reversal of the previous practice of advising parents to place babies prone").

¹¹¹ RAND E. ROSENBLATT, SYLVIA A. LAW & SARA ROSENBAUM, *LAW AND THE AMERICAN HEALTH CARE SYSTEM* 6 (1997).

¹¹² *Id.* The authors noted, "In 1934 in New York City, 611 out of 1,000 eleven-year olds had already had their tonsils surgically removed. When the remaining 389 were evaluated by other physicians for second and third opinions, all but 65 were recommended for tonsillectomies." By the late 1980s, the performance of tonsillectomies and adenoidectomies had declined markedly. Charles D. Bluestone, *Current Indications for Tonsillectomy and Adenoidectomy*, 101 ANNALS OTOLARYNGOLOGY & LARYNGOLOGY 58 (1992).

¹¹³ Sherry Boschert, *Otitis Behind Most Antibiotics Used Before Age 6*, FAM. PRAC. NEWS, Sept. 1, 2000, available at http://findarticles.com/p/articles/mi_7342/is_17_30/ai_66168850; Eugene Leibovitz, *Acute Otitis Media in Pediatric Medicine: Current Issues in Epidemiology, Diagnosis, and Management*, 5 PEDIATRIC DRUGS (SUPPLEMENT) 1, 1-12 (2003); Jeffrey A. Linder et al., *Antibiotic Treatment of Children with Sore Throat*, 294 JAMA 2315 (2005).

¹¹⁴ Leibovitz, *supra* note 113, at 3-4.

¹¹⁵ *Id.*; see, e.g., Nicholas Bakalar, *Antibiotic Use in First Year May Increase Asthma Risk*, N.Y. TIMES, June 19, 2007, at F7.

¹¹⁶ For an excellent review of the literature supporting and refuting the benefits of breastfeeding see Wolf, *supra* note 87, at 601-10. See also Rebecca Goldin et al., *What Science Really Says About the Benefits of Breast-Feeding (and What the New York Times Didn't Tell You)*, June 20, 2006, http://www.stats.org/stories/breast_feed_nyt_jun_20_06.htm.

ies do not always demonstrate that these immunological responses are at play.¹¹⁷

Also missing from the Academy's Policy Statement was a relative risk analysis, an assessment of the benefits of breastfeeding compared with other health-promoting behaviors, such as infant vaccination, parents quitting smoking,¹¹⁸ children eating healthier food after the first year of life, or parents earning enough money to pay for adequate food and housing. Such a relative risk assessment is crucial to making effective public health policy.¹¹⁹

Moreover, a fundamental flaw in the Academy's Policy Statement is that many of the studies it relied on confused association with causation. Even the authors of a study that found positive effects of breastfeeding observed,

[C]ausality is difficult to demonstrate for any specific part of the interaction between the breastfeeding mother and her child. *It may be that breastfeeding represents a package of skills, abilities, and emotional attachments that mark families whose*

¹¹⁷ In one study said to demonstrate breastfeeding's protective effect for respiratory infections, there was a positive effect found for girls, but not boys. Posting of Dr. Steven Parker to WebMD Blog, *Breast-Feed or Else*, <http://blogs.webmd.com/healthy-children/2006/07/breast-feed-or-else.html> (May 17, 2008, 01:57) (citing Anushua Sinha et al., *Reduced Risk of Neonatal Respiratory Infections Among Breastfed Girls but Not Boys*, 112 PEDIATRICS e303 (2003), <http://pediatrics.aappublications.org/cgi/content/full/112/4/e303>) (noting that the protective effect of breastfeeding in the critical first month of life found by the study relied on by the AAP showed that the effect existed only in girls). Dr. Parker further observed that "98% of infants did not contract a respiratory infection" in this first month, "whether or not they were breastfed." Parker, *supra*. Further, while some studies found a dose-response relationship between the amount of breast milk consumed and positive health outcomes, in Paula D. Scariati, Lawrence M. Grummer-Strawn & Sara Beck Fein, *A Longitudinal Analysis of Infant Morbidity and the Extent of Breastfeeding in the United States*, 99 PEDIATRICS e5, 1, 3, <http://pediatrics.aappublications.org/cgi/reprint/99/6/e5>, the authors found that after they eliminated confounding variables this dose-response relationship disappeared. The only statistically significant difference results that remained were between infants who were breastfed at any time and those who had never been breastfed. *Id.* Other studies found that even *some* amount of breastfeeding is correlated with the claimed benefits, demonstrating an apparent threshold effect. Hylander et al., *supra* note 65, at 4-5; Thomas M. Ball & Anne L. Wright, *Health Care Costs of Formula-feeding in the First Year of Life*, 103 PEDIATRICS 870, 872 & tbl.1 (1999) (asserting that non-breastfed infants suffered more upper respiratory infections, ear infections, and gastroenteritis than infants who were exclusively breastfed at three months, but failing to note that infants who were partially breastfed were nearly as healthy, using these three illnesses as measure, as those who were exclusively breastfed). Many of the studies cited by the Academy undertook only a short-term analysis of breastfeeding's effects, *id.*, and others found that the breastfeeding's apparent positive effects diminished over time. Goldin et al., *supra* note 116.

¹¹⁸ Smoking while pregnant can result in "prenatal death, low birth weight, preterm delivery, miscarriage, and fetal growth retardation." Dale Tavris et al., *Evaluation of a Pregnancy Outcome Risk Reduction Program in a Local Health Department*, 99 (2) WISC. MED J. 47, 50 (2000); see also Rebecca J. Donatelle et al., *Incentives in Smoking Cessation: Status of the Field and Implications for Research and Practice with Pregnant Smokers*, 6 NICOTINE & TOBACCO RES. (SUPPLEMENT 2) S163, S164 (2004). Smoking after an infant's birth can also have adverse consequences, as studies have found that parental smoking, or other exposure of infants to second-hand smoke, is associated with an increased incidence of SIDS. See M.M.T. Vennemann et al., *Do Immunisations Reduce the Risk for SIDS? A Meta-Analysis*, 25 VACCINE 4875, 4878 (2007).

¹¹⁹ See Lawrence O. Gostin, *Public Health Law in a New Century, Part III: Public Health Regulation: A Systemic Evaluation*, 283 JAMA 3118, 3120-22 (2000).

*infants survive and that it is these factors that produce the benefits seen, rather than breastfeeding or breast milk per se.*¹²⁰

Thus, the actual decision to breastfeed may reflect a constellation of confounding variables that are the real factors that lead to better health outcomes for breastfed infants, rather than either breastfeeding or human milk.¹²¹ Indeed, this was the conclusion reached by pediatricians specializing in SIDS. After reviewing epidemiologic studies on SIDS's relationship with breastfeeding, the most recent Academy statement on SIDS declared that "[the studies' inconsistent] results suggest that *factors associated with breastfeeding, rather than breastfeeding itself, are protective.*"¹²²

Additionally, HHS's research arm, the Agency for Health Care Research and Quality, has also been skeptical about the science offered to support breastfeeding. A recent report emphasized that although many studies supported an *association* between breastfeeding and a reduction in some childhood illnesses, a *causal relationship* between breastfeeding and the health outcomes noted *should not be inferred* because the studies were observational rather than randomized clinical trials.¹²³ Moreover, the report found no evidence to support the claim that breastfeeding leads to improved cognitive performance for full term infants; it further found that some of the benefits asserted for mothers had not been demonstrated, including postpartum weight loss and reduced risk of osteoporosis.¹²⁴

Furthermore, the data also fails to establish whether it is human milk, or the act of breastfeeding, that provides the benefits asserted. Although some benefits claimed for human milk might be connected to its immunological attributes, other benefits seem more closely related to a breastfeeding mother's

¹²⁰ Chen & Rogan, *supra* note 70, at e438 (emphasis added).

¹²¹ "Breast-feeding . . . cannot be distinguished from the decision to breast-feed, which, irrespective of socioeconomic status or education, could represent an orientation toward parenting that is itself likely to have a positive impact on children's health." Wolf, *supra* note 87, at 602.

¹²² Am. Acad. of Pediatrics, *supra* note 110, at 1250 (emphasis added). These pediatricians posited that maternal smoking might be the true cause of SIDS because it is associated both with an increased incidence of SIDS and decreased incidence of breastfeeding. *Id.* See also Alistair J. Gunn et al., *Is Changing the Sleep Environment Enough? Current Recommendations for SIDS*, 4 SLEEP MED. REV. 453, 453, 462, 464 (2000). Gunn notes that the major predictive risk factor for SIDS is sleeping on one's stomach, and that while breastfeeding has been associated statistically with a decreased risk of SIDS, in many studies this effect disappears after socio-economic factors are controlled for. Gunn also states that it is an open question whether breastfeeding has "an independent effect or [is] a marker of socio-economic advantage." *Id.* One recent article about efforts to reduce the incidence of SIDS notes that SIDS is not a unique clinical condition, but rather the name given to "the sudden death of a baby that is unexpected by history and in whom a thorough necropsy examination fails to demonstrate an adequate cause of death." Gurbutt & Gurbutt, *supra* note 110, at 24 (internal quotation marks omitted). Efforts to reduce the incidence of SIDS are not equivalent to preventing SIDS, because its cause, by definition, is unknown. *Id.*

¹²³ STANLEY IP ET AL., AGENCY FOR HEALTHCARE RESEARCH & QUALITY, U.S. DEP'T OF HEALTH & HUMAN SERVS., BREASTFEEDING AND MATERNAL AND INFANT HEALTH OUTCOMES IN DEVELOPED COUNTRIES v (2007). Of course, it would be unethical, as well as impossible, to randomly assign infants to a breastfeeding or non-breastfeeding group. Wolf, *supra* note 87, at 599.

¹²⁴ IP ET AL., *supra* note 123, at v.

physical proximity to her child, such as close bodily contact and attention focused on the infant.¹²⁵ Obviously, such physical closeness can be readily provided by a caretaker of either gender feeding a baby with a bottle containing either formula or breast milk.¹²⁶

Other critics challenge the economic and environmental benefits of breastfeeding claimed by the Academy. For example, one critic observed that “[w]hile [parental] absenteeism [due to a child’s illness] has a financial cost, not holding a job has an even larger one—and nursing exclusively for six months typically means that the mother cannot hold down a full-time job.”¹²⁷

In sum, the evidence supporting the marketing of breastfeeding to women as behavior that is good for them, as well as beneficial to their babies, is far weaker than acknowledged by the Academy, HHS’s National Breastfeeding Campaign, or the popular press.

3. *The Risks of Breastfeeding*

Even assuming that breastfeeding has benefits, it also carries risks. For example, mothers may transmit diseases to their infants through breastfeeding, including HIV and active tuberculosis; accordingly, women with these diseases are encouraged not to breastfeed.¹²⁸ Furthermore, the Academy also advises women not to breastfeed if they are undergoing chemotherapy or radiation treatment, or if they are using certain illegal or legal drugs, including alcohol.¹²⁹ Breast milk also contains any toxic chemicals to which women have

¹²⁵ KUKLA, *supra* note 42, at 148.

¹²⁶ *Id.* at 148-50, 160-63.

¹²⁷ *Id.* Of course, proponents of workplace policies that support women who breastfeed say that this need not be the case. See *infra* Part II.A.5 (discussion of workplace issues); see also Goldin et al., *supra* note 116; Call to Action on Breastfeeding, http://www.blsmeetings.net/owh_call_to_action_on_breastfeeding/comments.cfm (last visited Feb. 23, 2010) (members of the public commenting on the “Call to Action” to Breastfeeding and suggesting other areas of improvement to help mothers breastfeed).

¹²⁸ Different cultural and economic conditions dictate different approaches. In the United States, the Centers for Disease Control and the AAP both counsel HIV positive women against breastfeeding because formula feeding is “safe, affordable, and culturally acceptable.” Am. Acad. of Pediatrics, *supra* note 68, at 497; Jennifer S. Read & the Comm. on Pediatric AIDS, *Human Milk, Breastfeeding, and Transmission of Human Immunodeficiency Virus Type 1 in the United States*, 112 PEDIATRICS 1196, 1196 (2003). However, in the developing world, widespread contamination of water supplies and an overall lack of adequate nutrition and health care compel a contrary result. Read & the Comm. on Pediatric AIDS, *supra* at 1196, 1202. U.N. AIDS estimates that while 300,000 infants die world-wide due to infection via breastfeeding, UNICEF estimates that 1.5 million infants die because their mothers do not breastfeed them. Lawrence K. Altman, *Scientists Urge New Look at Feeding in AIDS Fight*, N.Y. TIMES, Feb. 27, 2007, at A15.

¹²⁹ Am. Acad. of Pediatrics, *supra* note 68, at 497. This would rule out any mother who was taking an antidepressant or other medication to treat postpartum mental illness.

been exposed,¹³⁰ although the Academy has concluded that these chemicals usually do not pose a risk to infants.¹³¹

Additionally, women who have had breast reduction or enhancement surgery are often unable to provide sufficient breast milk to breastfeed,¹³² but tragically, women are not always told this. In 1998, Tabitha Walrond, a young African American woman who had breast-reduction surgery, was prosecuted for murder when her two-month old child died, apparently due to malnutrition and dehydration because she was not producing sufficient milk. At trial, the evidence also showed that the child had an undiagnosed endocrinological anomaly, which contributed to his death.¹³³ The court convicted Ms. Walrond of criminally negligent homicide.¹³⁴ Finally, some breastfed infants have been found to suffer from rickets, a calcium deficiency connected with inadequate vitamin D.¹³⁵

The recent increase in breastfeeding has also been accompanied by a concomitant increase in hypernatremia,¹³⁶ a serious condition in which the kidneys retain excess sodium, causing the infant to become dehydrated, sometimes leading to permanent neurological damage or death.¹³⁷ Some physicians estimate that as many as 10% of all breast-fed infants may suffer from hypernatremia.¹³⁸ Doctors have attributed this increased incidence of hypernatremia to the rise in breastfeeding, coupled with early discharge of infants from hospitals without adequate follow-up.¹³⁹

¹³⁰ Florence Williams, *Toxic Breast Milk?*, N.Y. TIMES MAG., Jan. 9, 2005, at 21-24; Wolf, *supra* note 87, at 614; see also Karen Fassuliotis, *The Science of Endocrine Disruption—Will it Change the Scope of Products Liability Claims?*, 17 PACE ENV'T L. REV. 351, 358 (1999) (citing studies showing that a number of pesticides and other potential endocrine disruptors are found in human breast tissue).

¹³¹ Am. Acad. of Pediatrics, *supra* note 68, at 497.

¹³² General and Plastic Surgery Devices Panel, *Medical Devices Advisory Comm., U.S. Food & Drug Admin. Ctr. for Devices & Radiological Health*, 66th Meeting (2005) (testimony of Jane Kueck, RN) (citing a study by Dr. Marianne Neifert showing that “women who had breast surgery were three times more likely to have lactation insufficiency than those who has not had surgery”).

¹³³ *Report on Baby's Death Prompts Delay in Trial*, N.Y. TIMES, Mar. 18, 1999, at B8.

¹³⁴ *Id.*; Nina Bernstein, *Mother Convicted in Infant's Starvation Death Gets 5 Years' Probation*, N.Y. TIMES, Sept. 9, 1999, at B3; Cynthia McFadden, Hugh Downs & Barbara Walters, ABC 20/20, Feb. 26, 1999, Transcript #99022603.

¹³⁵ Roni Caryn Rabin, *Vitamin D Deficiency May Lurk in Babies*, N.Y. TIMES, Aug. 26, 2008, at F5.

¹³⁶ Rosa Manganaro et al., *Incidence of Dehydration and Hypernatremia in Exclusively Breast-Fed Infants*, 139 J. PEDIATRICS 673, 673 (2001); Michael L. Moritz et al., *Breastfeeding-Associated Hypernatremia: Are We Missing the Diagnosis?*, 116 PEDIATRICS e343, e345 (2005), <http://www.pediatrics.org/cgi/doi/10.1542/peds.2004-2647>; Arlan L. Rosenbloom, *Permanent Brain Damage from Hypernatremic Dehydration in Breastfed Infants: Patient Reports*, 43 CLINICAL PEDIATRICS 855, 855-56 (2004).

¹³⁷ Moritz et al., *supra* note 136, at e343; Rosenbloom, *supra* note 136, at 856.

¹³⁸ Moritz et al., *supra* note 136, at e345.

¹³⁹ I.A. Laing & C.M. Wong, *Hypernatraemia in the First Few Days: Is the Incidence Rising?*, 87 ARCHIVES DISEASE CHILDHOOD (FETAL NEONATAL EDITION) F158, F160 (2002), available at <http://fn.bmj.com>; Verity H. Livingstone et al., *Neonatal Hypernatremic Dehydration Associated with Breast-Feeding Malnutrition: A Retrospective Survey*, 162 CANADIAN MED. J. 647, 647, 651 (2000). At least one study found no difference in the percentage of newborns who were readmitted to the hospital shortly after their initial discharge after

D. *Who Breastfeeds Today?*

Despite the weak scientific support for breastfeeding, its promotion by government and physicians has led to more mothers nursing. Currently, 74% of American infants have been breastfed at least once, with 43% of infants receiving some breastfeeding at six months, and 23% receiving breastfeeding at a year.¹⁴⁰ However, rates of exclusive breastfeeding (in which the infant receives no solid food or formula) are much lower.¹⁴¹ The sharp drop-offs in exclusive breastfeeding at three and six months apparently reflect the demands of the labor market as most mothers can no longer breastfeed full-time when they return to work.¹⁴²

II. THE MARKETS FOR HUMAN MILK AND INFANT FORMULA

Today, there are two complementary markets fulfilling the need for infant nutrition—the human milk and the infant formula markets. This Part first considers the rising demand for human milk, a demand created simultaneously by physicians and others who assert that breastfeeding and human milk are essential to infant health and development and the concomitant cultural, economic, and legal obstacles that make breastfeeding difficult for many American women. This Part then examines the markets in human milk and infant formula through the lenses of history, economics, and cultural movements, and explores the actions of professional pediatrics and the federal government in shaping product demand.

A. *Why Demand Is Increasing: Obstacles to Breastfeeding*

1. *Medical and Psychological Concerns*

In order to understand the expanding markets in human milk and infant formula, it is necessary to consider the significant obstacles to breastfeeding that increase demand for these products. These obstacles include medical, psychological, cultural, economic, and legal factors, which are often interlinked. For example, medical concerns include the risk factors noted in Part I.C.3., above, as well as taking medications which make breastfeeding inadvisable. Additionally, women who have been sexually abused often find it difficult to breastfeed, and can suffer episodes of post-traumatic stress.¹⁴³ Similarly,

state law was changed to mandate that all mothers and infants undergoing normal vaginal delivery spend at least 48 hours in the hospital. Jeanne M. Madden et al., *Effects of a Law Against Early Postpartum Discharge on Newborn Follow-up, Adverse Events, and HMO Expenditures*, 347 NEW ENG. J. MED. 2031, 2031 (2002). However, the researcher did note an unexpected side effect of the law; it decreased the number of infants who were evaluated by a health care professional on the third or fourth day after birth. *Id.* at 2035.

¹⁴⁰ Ctrs. for Disease Control & Prevention, Breastfeeding Report Card, United States: Outcome Indicators, http://www.cdc.gov/BREASTFEEDING/DATA/report_card2.htm (last visited Feb. 23, 2010) (summarizing 2006 data).

¹⁴¹ Exclusive breastfeeding rates are 33% of three-month-old infants and 14% of six-month-olds. *Id.*

¹⁴² PORTER, *supra* note 51, at 5.

¹⁴³ KUKLA, *supra* note 42, at 194.

women with postpartum depression and women who deliver by Caesarean section are also less likely to breastfeed.¹⁴⁴

2. Cultural and Economic Factors

The vast majority of women who choose not to breastfeed, or nurse for only a short time, do so because of cultural and economic factors, which are frequently linked to a lack of health care access. In particular, women who choose to breastfeed are those most likely to have had good prenatal care, and thus the chance to have a close and regular relationship with a physician.¹⁴⁵ All things being equal, women are more likely to breastfeed if they are older, college educated, married, white, live in Pacific Coast or Mountain states, have health insurance, and are not poor or receiving WIC nutritional assistance.¹⁴⁶ Even though women in all demographic categories are more likely to breastfeed now than thirty years ago, significant racial differences persist.¹⁴⁷ Strikingly, while immigrant women are more likely than native-born American women to breastfeed their newborns and to breastfeed longer,¹⁴⁸ the statistical likelihood of breastfeeding is reduced by each year that an immigrant woman lives in the United States.¹⁴⁹ Additionally, women who decide to breastfeed before their children are born are more likely to actually do so.¹⁵⁰ If a

¹⁴⁴ Women with postpartum depression are less likely to breastfeed, either because they are depressed or because nursing is not recommended because of concern that the medications they take will be transmitted to the infant. Elsie M. Taveras et al., *Clinician Support and Psychosocial Risk Factors Associated with Breastfeeding Discontinuation*, 112 *PEDIATRICS* 108, 113 (2003). KUKLA, *supra* note 42, at 173. Many problems related to caesarean delivery can be avoided if hospital staff members take ameliorative steps, as outlined in the Baby-Friendly Hospital program, discussed *infra* at notes 160-70. Della A. Forster & Helen L. McLachlan, *Breastfeeding Initiation and Birth Setting Practices: A Review of the Literature*, 52 *J. MIDWIFERY & WOMEN'S HEALTH* 273, 273-78 (2007).

¹⁴⁵ See Taveras et al., *supra* note 144, at 113 (finding that women who had closer contact with their physicians were more likely to continue breastfeeding).

¹⁴⁶ MELANIE BESCULIDES, KARINE GRIGORYAN & FABIENNE LARAQUE, *INFANT FEEDING SURVEY 5-7* (2000) (examining trends in New York City hospitals) (on file with the author); Ryan et al., *supra* note 53, at 1105-06; Ctrs. for Disease Control & Prevention, *supra* note 58. As discussed in the text accompanying notes 312-13, *infra*, until the 1990s, the WIC program was implemented in a way that had the practical effect of discouraging breastfeeding.

¹⁴⁷ L. Grummer-Strawn et al., *Racial and Socioeconomic Disparities in Breastfeeding—United States, 2004*, 55 *MORBIDITY & MORTALITY WKLY.* 335, 335-38 (2006) (noting that the rates of breastfeeding for white and black children follow the same trends, but that white children are more likely to be breastfed).

¹⁴⁸ Christina M. Gibson-Davis & Jeanne Brooks-Gunn, *Couples' Immigration Status and Ethnicity as Determinants of Breastfeeding*, 96 *AM. J. PUB. HEALTH* 641, 643 (2006).

¹⁴⁹ *Id.*

¹⁵⁰ See Karen A. Bonuck et al., *Country of Origin and Race/Ethnicity: Impact on Breastfeeding Intentions*, 21 *J. HUM. LACTATION* 320, 320 (2005); see also Samir Arora et al., *Major Factors Influencing Breastfeeding Rates: Mother's Perception of Father's Attitude and Milk Supply*, 106 *PEDIATRICS* e67, e67-68 (2000), <http://www.pediatrics.org/cgi/content/full/106/5/e67> (finding that more than three-fourths of all women had decided whether or not to breastfeed before their pregnancy or during its first trimester). However, "intention to breastfeed" is not the only determining factor, and economic and other environmental factors may be outcome determinative if breastfeeding at work or other public places is too difficult or inconvenient. Yi Chun Chen et al., *Effects of Work-Related Factors on the*

woman's husband, partner, or mother do not support a decision to breastfeed, she is unlikely to do so.¹⁵¹

Other reasons for not breastfeeding include fears of producing insufficient milk,¹⁵² concerns about body image, and issues of sexuality. In particular, young, unmarried, and less-educated women are more likely to worry that breastfeeding will make it harder to regain their pre-pregnancy shape.¹⁵³ Furthermore, conflicting cultural messages about the function of women's breasts (are they the fount of sexual arousal or a source of nourishment and comfort?) also increase the odds that women will not breastfeed.¹⁵⁴ For some African American women, the legacy of slavery and the institution of "mammies," who were forced to nurse white women's children and to neglect their own, may make breastfeeding distasteful.¹⁵⁵ Moreover, in African American and other communities, the entire family is expected to assist a new mother with feeding and caring for a baby,¹⁵⁶ which is easier if the infant is bottle-fed.

3. Failures of the Health Care System

The health care system contributes significantly to the sharp fall in breastfeeding rates shortly after birth.¹⁵⁷ Indeed, women are more likely to nurse if they receive extra support and encouragement by health care professionals soon after a child's birth.¹⁵⁸ However, such support is frequently lacking, especially for poor women who are already less likely than their middle-class counterparts to breastfeed.¹⁵⁹

Breastfeeding Behavior of Working Mothers in a Taiwanese Semiconductor Manufacturer: A Cross-Sectional Survey, 6 BMC PUB. HEALTH 160, 166 (2006), available at <http://www.biomedcentral.com/1471-2458/6/160>.

¹⁵¹ See Bonuck et al., *supra* note 150, at 320 (finding that "[h]aving a breastfeeding friend or relative was the most significant predictor of initiation [of breastfeeding] among both low-income whites and blacks"); see also Arora et al., *supra* note 150, at 2 (indicating that the mother's perception of the father's attitudes was the most significant factor in initiating breastfeeding, followed by the attitude of her mother).

¹⁵² KUKLA, *supra* note 42, at 165.

¹⁵³ See, e.g., John Esterbrook, *Breastfeed—Weight Loss Myth?*, Sept. 16, 2004, <http://www.cbsnews.com/stories/2004/09/16/health/webmd/main643898.shtml> (noting the contradictory studies on whether breastfeeding promotes weight loss). Therefore, young, unmarried, and less well-educated women might be especially likely to be concerned about losing their figure by breastfeeding.

¹⁵⁴ See IRIS MARION YOUNG, *Breasted Experience: The Look and the Feeling*, in ON FEMALE BODY EXPERIENCE: "THROWING LIKE A GIRL" AND OTHER ESSAYS 75, 75-90 (2005) (noting that patriarchal culture requires an explicit border between motherhood and sexuality, and that breasts disrupt that border because they suggest that women can be both sexual beings and mothers).

¹⁵⁵ Wolf, *supra* note 87, at 621.

¹⁵⁶ *Id.* In African American communities, this practice is sometimes referred to as "other-mothering." Laura T. Kessler, *The Politics of Care*, 23 WIS. J. L. GENDER & SOC'Y 169, 174-75 (2008).

¹⁵⁷ Jose Labarere et al., *Efficacy of Breastfeeding Support Provided by Trained Clinicians During an Early, Routine, Preventative Visit: A Prospective, Randomized, Open Trial of 226 Mother-Infant Pairs*, 115 PEDIATRICS e139, e140 (2005), <http://www.pediatrics.org/cgi/doi/10.1542/peds.2004-1362>; see also Taveras et al., *supra* note 144, at 113.

¹⁵⁸ Arora et al., *supra* note 150, at 1; Taveras et al., *supra* note 144, at 113.

¹⁵⁹ In North Carolina, for example, the fragmentation of health care delivery and the lack of reimbursement for lactation consultants outside the hospital setting may make it difficult for

The Baby-Friendly Hospital Initiative, launched in the early 1990s by the World Health Organization and UNICEF, is part of an international effort to increase breastfeeding in order to decrease infant mortality and improve children's health.¹⁶⁰ In order to be certified as "Baby-Friendly," a hospital must satisfy ten criteria, including the requirement that the hospital not distribute formula samples or coupons when the infant is discharged.¹⁶¹ Studies in countries where Baby-Friendly hospitals are more common than the United States show that women who deliver at Baby-Friendly hospitals are more likely to initiate and continue breastfeeding.¹⁶²

poor women and those with transportation problems to get the support they need to succeed with breastfeeding. Interview with Miriam Labbok & Mary Rose Tully, *supra* note 22; see Indu B. Ahluwalia et al., *Why Do Women Stop Breastfeeding? Findings from the Pregnancy Risk Assessment and Monitoring System*, 116 PEDIATRICS 1408, 1410-11 (2005); see also Christine M. Furber & Ann M. Thomson, *Midwives in the UK: An Exploratory Study of Newborn Feeding Support for Postpartum Mothers in the Hospital*, 52 J. NURSE-MIDWIFERY 142, 143-46 (2007) (examining the impact of inadequate staffing and heavy caseloads on the ability of nurse midwives in the United Kingdom to provide breastfeeding counseling and advice to new mothers, suggesting that the short staffing contributes to low breastfeeding rates). New York City has recently initiated a program to connect visiting nurses with newly pregnant women who live in neighborhoods with high infant mortality rates. N.Y. City Dep't of Health & Mental Hygiene, Nurse-Family Partnership, <http://home2.nyc.gov/html/doh/html/ms/ms-nfp.shtml>. The nurses visit the women throughout pregnancy and for two years after their infants' birth, to assist with breastfeeding, to evaluate the infants' health and the safety of the home environment, to provide advice about child development, and to make referrals for necessary social and health services. *Id.* Such programs, organized nationally under the rubric of Nurse-Family Partnerships, have been found to be highly cost-effective in enhancing children's health status, improving family planning, increasing rates of maternal employment and decreasing families' reliance on welfare programs. JULIA B. ISAACS, BROOKINGS INST., *COST-EFFECTIVE INVESTMENTS IN CHILDREN 13-16* (2007); David L. Olds et al., *Effects of Nurse Home-Visiting on Maternal Life Course and Child Development: Age 6 Follow-Up Results of a Randomized Trial*, 114 PEDIATRICS 1550, 1550 (2004); see also LYNN A. KAROLY ET AL., *EARLY CHILDHOOD INTERVENTIONS: PROVEN RESULTS, FUTURE PROMISE* xxviii (2005).

¹⁶⁰ See Barbara L. Philipp et al., *Baby-Friendly Hospital Initiative Improves Breastfeeding Initiation Rates in a US Hospital Setting*, 108 PEDIATRICS 677, 677 (2001); SHUBBER, *supra* note 77, at 4. Many sections of the Code prohibit gifts of items that may promote the use of breast-milk substitutes (Art. 5.1-5.4) and other sections prohibit formula manufacturers from offering, and health care personnel from receiving, gifts in order to promote the use of breast-milk substitutes (Art. 7.1-7.4). *Id.*

¹⁶¹ "A hospital must pay fair market value for all formula and infant feeding supplies that it uses and cannot accept free or heavily discounted formula and supplies." Philipp et al., *supra* note 160, at 678 (listing the ten criteria for "Baby-Friendly Hospital" status). See also SHUBBER, *supra* note 77, which was adopted by the World Health Assembly as a Recommendation in 1981, with only the United States voting against it. This status means that the Code has to be implemented by Member States of the World Health Organization in order to be effective. *Id.* at 2, 43.

¹⁶² See, e.g., Sonja Merten et al., *Do Baby-Friendly Hospitals Influence Breastfeeding Duration on a National Level?* 116 PEDIATRICS e702, e708 (2005), <http://www.pediatrics.org/cgi/doi/10.1542/peds.2005-0537>. In a study of breastfeeding rates in Switzerland, the highest rates of breastfeeding were found at hospitals that were the most compliant with the Baby-Friendly criteria, but even women who delivered at non-Baby-Friendly hospitals showed an increase in the rate of breastfeeding compared with women who gave birth ten years earlier. *Id.*

Only eighty-six of the more than 3000 hospitals in the United States have received Baby-Friendly Hospital status;¹⁶³ these hospitals deliver less than 2% of American infants.¹⁶⁴ Although many American hospitals meet some "Baby-Friendly" criteria such as encouraging women to breastfeed immediately after birth and to have their babies "room in" so that mothers can nurse on demand,¹⁶⁵ most hospitals find it difficult to meet the key requirement that the hospital not distribute formula samples or coupons. Thus, these hospitals give conflicting messages when, after encouraging mothers to breastfeed, they send new mothers home with free samples of infant formula, diaper bags labeled with a formula manufacturer's name, and free coupons for formula.¹⁶⁶

Infant formula manufacturers use free formula samples as a key part of their marketing efforts.¹⁶⁷ For many years these manufacturers have provided hospitals with free formula for non-breastfed infants and other forms of institutional support on condition that the hospital agrees to distribute free formula samples to all infants upon discharge.¹⁶⁸ Consequently, although many studies have documented that providing free samples discourages women from breastfeeding,¹⁶⁹ it is difficult for a hospital to end such a lucrative financial arrangement. This is especially true because the hospital alone pays the costs of formula while individual patients and the health care system at large reap the benefits if breastfeeding helps babies avoid illness.¹⁷⁰

¹⁶³ Anne Merewood et al., *Breastfeeding Rates in US Baby-Friendly Hospitals: Results of a National Survey*, 116 PEDIATRICS 628, 628 (2005); Ctrs. for Disease Control & Prevention, *Breastfeeding-Related Maternity Practices at Hospitals and Birth Centers—United States*, 2007, 57 MORBIDITY & MORTALITY WKLY. 621, 621 (2008) available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5723a1.htm>; Welcome to BFHI, <http://www.babyfriendlyusa.org/eng/03.html> (last visited Feb. 23, 2010) (citing number of hospitals and birthing centers that meet Baby Friendly standards).

¹⁶⁴ Ctrs. for Disease Control & Prevention, 2008 Breastfeeding Report Card at 1 (citing 2007 data), available at www.cdc.gov/breastfeeding/pdf/2008BreastfeedingReportCard.pdf (last visited Feb. 23, 2010).

¹⁶⁵ See Philipp et al., *supra* note 160, at 678. Some states also mandate minimal levels of lactation consultants and other trained health professionals to assist new mothers in breastfeeding. See, e.g., N.Y. COMP. CODES R. & REGS. tit. 10, § 405.21 (2005).

¹⁶⁶ Kenneth D. Rosenberg et al., *Marketing Infant Formula Through Hospitals: The Impact of Commercial Hospital Discharge Packs on Breastfeeding*, 98 AM. J. PUB. HEALTH 290, 292 (2008); see also Philipp et al., *supra* note 160, at 680 (describing free items given to patients upon discharge).

¹⁶⁷ Cutler & Wright, *supra* note 48, at 46.

¹⁶⁸ Rosenberg et al., *supra* note 166, at 290; see also Anne Merewood & Barbara L. Philipp, *Becoming Baby-Friendly: Overcoming the Issue of Accepting Free Formula*, 16 J. HUM. LACTATION 279, 280-82 (2000) (detailing the difficulty in eliminating one urban hospital's dependence on free formula, diaper bags, and discharge packs). Other benefits that formula companies have historically provided included "monies for other services such as fellowships, laboratory support, conferences, and patient transportation." *Id.* at 280.

¹⁶⁹ U.S. GOV'T ACCOUNTABILITY OFFICE, BREASTFEEDING: SOME STRATEGIES USED TO MARKET INFANT FORMULA MAY DISCOURAGE BREASTFEEDING; STATE CONTRACTS SHOULD BETTER PROTECT AGAINST MISUSE OF WIC NAME app. I at 9 (2006); SHEALY ET AL., *supra* note 80 (citing A. Donnelly et al., *Commercial Hospital Discharge Packs for Breastfeeding Women*, 2 THE COCHRANE LIBRARY (2004)).

¹⁷⁰ See Philipp et al., *supra* note 160, at 680. In 1999, Boston Medical Center, a major teaching hospital serving an inner city population, estimated that it lost \$20,000 in revenues when it gave up free formula. *Id.*

4. Public Attitudes

Another obstacle to breastfeeding is the criticism many women face if they nurse in public places. For example, an Internet posting of a photograph of actress Maggie Gyllenhaal breastfeeding her infant in a New York City park sparked much discussion of the appropriateness of public breastfeeding.¹⁷¹ Indeed, women have been harassed and arrested for breastfeeding on public transportation and in other public venues.¹⁷² In 2006, a mother was ejected from a flight when she was nursing her child and refused to cover up.¹⁷³ Interestingly, a recent Newsweek article observed,

(While two out of three Americans think breast-feeding is the best way to feed a baby, a quarter say they feel uncomfortable seeing women do it.) In a study for the U.S. government, 48 percent of women said they would feel uncomfortable nursing their own babies in a park, store or mall. "We define breast-feeding as good, and we define breast-feeding as disgusting. We have this split personality about it."¹⁷⁴

Thus, deeply held cultural norms about the sexual aspects of the breast consistently underlie the objections to breastfeeding in public. "Western . . . patriarchal logic defines an exclusive border between motherhood and sexuality."¹⁷⁵ Breasts are scandalous because they disrupt that border and "[n]ipples are taboo because they are quite literally, physically, functionally undecidable" in the motherhood/sexuality dichotomy.¹⁷⁶ Thus, cultural norms are highly significant in individual women's decisions about whether or not to breastfeed.

5. Workplace Obstacles

In addition to cultural obstacles, many mothers find breastfeeding difficult after returning to work.¹⁷⁷ Most American employers offer only brief maternity leaves, which are much shorter than those mandated in other developed nations.¹⁷⁸ Accordingly, women who return to work during the first twelve weeks after giving birth are the least likely to continue to breastfeed.¹⁷⁹ Although women's employment status is not closely linked to the initial decision to breastfeed, women who work full-time are much less likely to

¹⁷¹ Springen, *supra* note 59, at 49.

¹⁷² Kathleen Longcore, *Call for Cover-Up Stuns Nursing Mom, Complaints at County Building Prompt Solidarity 'Nurse-In,'* GRAND RAPIDS PRESS (MI), June 9, 2005, at A1; Bianca Prieto, *Breast-Feeding Mom Ticketed Citation Dismissed Law Passed Last Year Guarantees Her Right*, ROCKY MOUNTAIN NEWS (Denver, CO), Jul. 29, 2005; Letter from Elisabeth Benjamin, N.Y. Civil Liberties Union Reproductive Rights Project, to Gerald L. Storch, Toys "R" Us (Sept. 14, 2006) (challenging harassment of mother who breastfed her infant while shopping at Toys "R" Us store in New York City).

¹⁷³ Geoff Elliott, *Mums Begin 'Lactivism' after Airline Bans Breastfeeding*, THE AUSTRALIAN, Nov. 23, 2006, at 8.

¹⁷⁴ Springen, *supra* note 59, at 49 (quoting Jacqueline Wolf, Associate Professor of the History of Medicine at Ohio University).

¹⁷⁵ YOUNG, *supra* note 154, at 85.

¹⁷⁶ *Id.* at 88.

¹⁷⁷ Taveras et al., *supra* note 144, at 111-12.

¹⁷⁸ Nancy E. Dowd, *Race, Gender, and Work/Family Policy*, 15 WASH. U. J.L. & POL'Y 219, 220 n.6, 232-35 (2004).

¹⁷⁹ Brian Roe et al., *Is There Competition Between Breast-Feeding and Maternal Employment?*, 36 DEMOGRAPHY 157, 167 (1999).

breastfeed at six months than those who work part-time or only in the home.¹⁸⁰ Even though one study found that a mother's full- or part-time status did not matter if her employer supports breastfeeding,¹⁸¹ few employers provide such support.

Additionally, there is a clear class divide in women's ability to pump their milk at work, which is necessary to maintain their milk supply. Unsurprisingly, women at higher paying, usually professional, jobs are more likely to have the flexibility and privacy necessary to pump, while women at lower status jobs are often unable to take a break to pump their milk or to have private space in which to do so.¹⁸² More than 60% of American women work at hourly or minimum wage jobs.¹⁸³ Thus, even when employers encourage women to breastfeed, salaried women and women who work in offices are more likely to continue breastfeeding than women who work in factories or receive hourly wages.¹⁸⁴

About one-fifth of all employers promote women's breastfeeding through "corporate lactation programs."¹⁸⁵ Such programs reduce parental absenteeism due to an infant's illness, and save the employer both overall health care costs and the cost of training new workers to replace mothers who leave.¹⁸⁶ Consequently, women working for such employers are more likely to continue to breastfeed.¹⁸⁷

¹⁸⁰ Alan S. Ryan et al., *The Effect of Employment Status on Breastfeeding in the United States*, 16 WOMEN'S HEALTH ISSUES 243, 247 (2006) [hereinafter Ryan et al., *Effect of Employment*] (citing data showing a consistent pattern from 1984 to 2003); see also Alan S. Ryan et al., *Lower Breastfeeding Rates Persist Among the Special Supplemental Nutrition Program for Woman, Infants, and Children Participants, 1978-2003*, 117 PEDIATRICS 1136, 1142 (2006).

¹⁸¹ Joan Ortiz et al., *Duration of Breast Milk Expression Among Working Mothers Enrolled in an Employer-Sponsored Lactation Program*, 30 PEDIATRIC NURSING 111, 116 (2004).

¹⁸² Jodi Kantor, *On the Job, Nursing Mothers Are Finding a 2-Class System*, N.Y. TIMES, Sept. 1, 2006, at A1.

¹⁸³ Ryan et al., *Effect of Employment*, *supra* note 180, at 249.

¹⁸⁴ *Id.*; see also Chen et al., *supra* note 150 (discussing an employer-sponsored corporate lactation program in Taiwan).

¹⁸⁵ See, e.g., AM. ACAD. OF PEDIATRICS, NATIONAL WORKSITE BREASTFEEDING SUPPORT INITIATIVE, <http://www.aapca3.org/resources/nbsi.pdf> (last visited Feb. 23, 2010) (noting that about 20% of mid-size employers (those with 50-200 employees) have corporate lactation programs, with smaller employers being less likely to do so, and larger employers being more likely to offer such support for lactating women).

¹⁸⁶ CARMELLA BOCCHINO, ET AL., U.S. DEP'T OF HEALTH & HUMAN SERVS., ADVANCING WOMEN'S HEALTH: HEALTH PLANS' INNOVATIVE PROGRAMS IN BREASTFEEDING PROMOTION 78-81, <http://www.womenshealth.gov/owh/pub/breastfeeding.cfm> (last visited Feb. 23, 2010) (discussing successful programs at Aetna, Inc. and Humana, Inc.); Ortiz et al., *supra* note 181, at 116; see also Sue Shellenbarger, *Employer, State Support Stalls for Mothers Who Nurse at Work*, WALL ST. J., Nov. 22, 2005, at D4.

¹⁸⁷ For example, at Johnson & Johnson, 65% of the mothers who participated in an employer-sponsored lactation support program were still breastfeeding at six months, which is "more than twice the national average for [women] working full time." Shellenbarger, *supra* note 186.

6. Legal Obstacles

Law, or the lack thereof, is a major impediment to breastfeeding.¹⁸⁸ No federal statute requires employers to support women who wish to breastfeed after returning to work. Neither Title VII of the Civil Rights Act¹⁸⁹ nor the Americans with Disabilities Act ("ADA")¹⁹⁰ require employers to make accommodations for breastfeeding women because the law neither prohibits breastfeeding as an aspect of gender discrimination nor considers it a disability.¹⁹¹ Additionally, breastfeeding is not considered a legitimate justification for extending parental leave. Two decisions from the 1980s rejected the claims of women who sought parental leave in order to breastfeed, with judges viewing breastfeeding as a matter of a woman's choice, rather than as a medical necessity for infants with special health needs.¹⁹² Furthermore, federal law does not protect the right of women to breastfeed in public spaces¹⁹³ or in places of public accommodation like restaurants, stores, trains, and airplanes.

¹⁸⁸ There is a deep disconnect between the hard-charging rhetoric of the federal government's pro-breastfeeding campaign and its failure to change the law to make that possible. As noted in Part I.B.1, *supra*, the "Babies Were Born to Be Breastfed" campaign addressed only one of the four goals of the 2000 HHS Blueprint, which also included changing the legal and workplace structures, as well as the health care delivery system to remove obstacles to women's breastfeeding.

¹⁸⁹ Under Title VII, breastfeeding is not protected as an aspect of gender. *See, e.g.*, *Fejes v. Gilpin Ventures, Inc.*, 960 F. Supp. 1487, 1491 (D. Colo. 1997).

¹⁹⁰ Since breastfeeding is a natural process, it is not a disability under the ADA. *Martinez v. N.B.C., Inc.*, 49 F. Supp. 2d 305, 308-09 (S.D.N.Y. 1999).

¹⁹¹ The lack of legal support for breastfeeding women who work outside the home was dramatized by the case of Sophie Currier, a Harvard MD, and PhD. Dr. Currier could not begin her medical residency without taking a clinical exam, but the National Board of Medical Examiners refused her any accommodation to breastfeed her seven-week-old infant. The Board granted accommodations to test-takers who needed extra time due to physical or learning disabilities (including Dr. Currier), but declared that it could not provide her with a break to pump her milk because breastfeeding was not a disability under the ADA. Carey Goldberg, *Board Won't Relent for Breast-Feeding Mother*, BOSTON GLOBE, Jun. 23, 2007, available at http://www.boston.com/news/local/articles/2007/06/23/board_wont_relent_for_breast_feeding_mother. Eventually a Massachusetts Appeals Court judge ordered the Board to grant Dr. Currier extra time on the exam and a private place to pump her milk. *Currier v. Nat'l Bd. of Med. Exam'rs*, No. 2007-J-0434 (Mass. App. Ct. Sept. 26, 2007), http://www.ma-appellatecourts.org/display_docket.php?dno=2007-J-0434; *see also* Felicia Mello, *Ruling Gives Breast-Feeding Student Extra Break in Exam*, BOSTON GLOBE, Sept. 27, 2007, at B1. The Board's efforts to appeal were unsuccessful. *Currier v. Nat'l Bd. of Med. Exam'rs*, 875 N.E.2d 863 (Mass. 2007) (petition for further appellate review denied, available at http://www.ma-appellatecourts.org/display_docket.php?dno=FAR-16508).

¹⁹² *See, e.g.*, *Barrash v. Bowen*, 846 F.2d 927, 930-32 (4th Cir. 1988) (concluding that although the nursing mother's pediatrician recommended breastfeeding for six months, "a termination of breast-feeding after five months would have involved no adverse effect upon the child"); *Bd. of Sch. Dirs. v. Rossetti*, 411 A.2d 486, 488 (Pa. 1979) (holding that the school board properly denied a teacher's requested leave of absence in order to breastfeed, because breastfeeding was not related to the mother's physical inability to work but was instead encompassed by the mother's conception of her child-rearing duties, and was thus neither covered as a maternity leave nor prohibited sex discrimination). Today it is possible that courts might reach a different result because breastfeeding is more common and endorsed by physicians.

¹⁹³ Current federal law protects the right of women to breastfeed on federal property. Enacted in 1999, the law provides, "Notwithstanding any other provisions of law, a woman

Despite repeated efforts by a handful of senators and representatives, Congress has failed to require employers to make accommodations for women who wish to pump milk at work.¹⁹⁴ This could be accomplished either by making lactation, like pregnancy, a condition protected by Title VII of the Civil Rights Act of 1964,¹⁹⁵ or by amending the Family Medical Leave Act to require employers to provide lactation breaks for nursing women.¹⁹⁶ Unfortunately, Congress has rejected efforts to give tax credits to employers who accommodate nursing women at work,¹⁹⁷ or even to create a task force to consider how to support working mothers' breastfeeding.¹⁹⁸

may breastfeed her child at any location in a Federal Building or on Federal Property, if the woman and her child are otherwise authorized to be present at the location." Pub. L. No. 106-58, 113 Stat. 478, § 647 (1999); *see also* Consolidated Appropriations Act of 2004, Pub. L. No. 108-199, 118 Stat. 357, § 629 (2004). However, there appears to be uneven enforcement of the law, as many federal employees are not aware of it. *See, e.g.,* Jake Aryeh Marcus, *Lactation and the Law*, *MOTHERING*, Jul./Aug., 2007, at 48, 53.

¹⁹⁴ *See infra* notes 195-99 and accompanying text. Representative Carolyn Maloney has introduced legislation, the Breastfeeding Promotion Act, five times since 2001 to encourage breastfeeding through a variety of government initiatives. Congresswoman Carolyn Maloney—Breastfeeding, http://maloney.house.gov/index.php?option=com_issues&task=view_issue&issue=262&parent=21&Itemid=35 (last visited Feb. 23, 2010); *see also* Breastfeeding Promotion Act, H.R. 2819, 111th Cong. (2009); Breastfeeding Promotion Act, H.R. 2236, 110th Cong. (2007); Breastfeeding Promotion Act, H.R. 2122, 109th Cong. (2005); Breastfeeding Promotion Act, H.R. 2790, 108th Cong. (2003); Breastfeeding Promotion Act, H.R. 285, 107th Cong. (1st Sess. 2001). None of the proposed statutes have been enacted.

¹⁹⁵ *See, for example,* Breastfeeding Promotion Act of 2007, H.R. 2236, §102, which would amend § 701(k) of the Civil Rights Act of 1964:

- (1) by inserting "(including lactation)" after "childbirth" [as one of the conditions considered a basis for sex discrimination under Title VII], and
- (2) by adding at the end the following: "For purposes of this subsection, the term 'lactation' means a condition that may result in the feeding of a child directly from the breast or the expressing of milk from the breast."

This or similar legislation has been introduced by Representative Carolyn Maloney in every session of Congress since 1998. Comparable legislation, the Pregnancy Discrimination Act Amendments of 2003, S. 418, 108th Cong. (2003) was introduced in a previous session of Congress by Senator Olympia Snowe.

¹⁹⁶ The Family Medical Leave Act of 1993, Pub. L. No. 103-3, 107 Stat. 6 (1993) permits women to take unpaid leave of up to twelve weeks to care for newly born or adopted children. 29 U.S.C. § 2612(a)(1)(B) & (C) (1993). However, it does not require employers to permit employees to take that leave intermittently or in small increments, which would give a woman the ability to continue to breastfeed or to pump her milk at work. 29 U.S.C. § 2612(b)(1) (1993); 29 C.F.R. § 825.117 (2006); *see* Letter from Women's Employment Rights Clinic, to Richard M. Brennan, Senior Regulatory Officer, U.S. Dep't. of Labor (Feb. 15, 2007). Healthy Lifestyles and Prevention Act America (HeLP America Act), S. 1342, 110th Cong. (1st Sess. 2007), was introduced by Senator Tom Harkin in 2007. Section 317 of the HeLP America Act proposes to amend the Family Medical Leave Act to mandate employers to provide unpaid lactation periods and "an appropriate lactation facility" unless these requirements imposed an "undue hardship" on the employer. *Id.* The HeLP America Act would also establish a Task Force to study obstacles to breastfeeding in the workplace, and make recommendations for eliminating them. *Id.* § 316.

¹⁹⁷ *See, e.g.,* Title II of H.R. 2122, 109th Cong. (2005); *see also* CONG. RESEARCH SERV., BREASTFEEDING: FEDERAL LEGISLATION 6 (2005).

¹⁹⁸ This task force would be organized and funded by the joint efforts of the Secretaries of Health and Human Services and of Labor. HeLP America Act § 316.

Congress has also failed to change the health care system to make it easier for women to breastfeed. Specifically, Congress has declined to promote the Baby-Friendly Hospital program by offering financial incentives that would make it easier for hospitals to end their reliance on financial support from formula manufacturers,¹⁹⁹ to change the Medicaid reimbursement system to reimburse lactation consultants, to provide nursing bras and breast pumps to indigent women, to regulate breast pumps to ensure their safety and efficacy, or to treat lactation consultations and breast pumps as tax-deductible medical expenses.²⁰⁰

7. State Law

Although many states have laws that purport to protect and promote breastfeeding, few state statutes have sufficient teeth to change the behavior of public or private actors. Rather, most states have adopted piecemeal reform, enacting laws that fall into a variety of categories. These categories include laws providing that: 1) breastfeeding is a good idea;²⁰¹ 2) women have the right to breastfeed in public;²⁰² 3) breastfeeding is not criminal;²⁰³ 4) breastfeeding or expressing milk should be supported in the workplace;²⁰⁴ 5) breastfeeding women may be exempted from jury duty;²⁰⁵ 6) breastfeeding should be considered in granting custody in divorce or separation proceedings;²⁰⁶ 7) women in prison should be permitted to breastfeed;²⁰⁷ 8) breastfed infants should not be discriminated against by childcare facilities;²⁰⁸ and 9) public warnings should be given to protect breastfeeding women and their children from the risks of environmental toxins excreted in human breast milk.²⁰⁹

Some state laws simply provide that breastfeeding is something to be encouraged because it will benefit individual infants and their mothers, and/or

¹⁹⁹ HeLP America Act § 204. The Baby-Friendly Hospital program is discussed in text accompanying notes 160-70, *supra*. Data suggests that implementing even some of the ten steps required to be certified as a Baby-Friendly Hospital increase the incidence of breastfeeding in both the short- and long-term. See Merewood et al., *supra* note 163, at e708; SHEALY ET AL., *supra* note 80, at 10-11.

²⁰⁰ See, for example, H.R. 2790, proposed by Representative Maloney in the 108th Congress, and its predecessor and successor legislation. See also CONG. RESEARCH SERV., *supra* note 197, at 5.

²⁰¹ See *infra* note 210 and accompanying text.

²⁰² See *infra* note 211 and accompanying text.

²⁰³ See *infra* notes 212-15 and accompanying text.

²⁰⁴ See *infra* notes 218-23 and accompanying text.

²⁰⁵ "Twelve states . . . exempt breastfeeding women from jury duty." See Nat'l Conference of State Legislatures, *Breastfeeding State Laws*, <http://www.ncsl.org/issuesresearch/health/breastfeedinglaws/tabid/14389/default.aspx> (last visited Feb. 23, 2010). On the one hand, this accommodation might be applauded as respecting a woman's decision to breastfeed and protecting infant health as well as courtroom decorum. However, there is also something troubling about exempting a breastfeeding woman from her civic duty, as if she is incapable of participating in public affairs while lactating.

²⁰⁶ See *infra* note 224 and accompanying text.

²⁰⁷ See *infra* notes 226-28 and accompanying text.

²⁰⁸ See *infra* note 225 and accompanying text.

²⁰⁹ See N.J. STAT. ANN. § 26:2-179 (West 2007).

because it will save society money or promote "family values."²¹⁰ Forty-three states go further, and provide that women have the right to breastfeed anywhere that they have the right to be.²¹¹ Twenty-six states address the issue of public

²¹⁰ See, for example, the Colorado law that provides, after reciting numerous benefits of breastfeeding found by the American Academy of Pediatrics, that:

(h) In addition to individual health benefits, breastfeeding results in substantial benefits to society, including reduced health care costs, reduced environmental damage, reduced governmental spending on the women, infants, and children supplementary feeding programs, and reduced employee absenteeism for care attributable to infant illness.

(i) Breastfeeding is a basic and important act of nurturing that should be encouraged in the interests of maternal and infant health.

(2) The general assembly further declares that the purpose of this part 3 is for the state of Colorado to become involved in the national movement to recognize the medical importance of breastfeeding, within the scope of complete pediatric care, and to encourage removal of societal boundaries placed on breastfeeding in public.

COLO. REV. STAT. ANN. § 25-6-301 (West 2008).

In a less grand manner, Texas law declares that:

The legislature finds that breast-feeding a baby is an important and basic act of nurture that must be encouraged in the interests of maternal and child health and family values. In compliance with the breast-feeding promotion program established under the federal Child Nutrition Act of 1966 (42 U.S.C. Section 1771 et seq.) [establishing the WIC Program], the legislature recognizes breast-feeding as the best method of infant nutrition.

TEX. HEALTH & SAFETY CODE ANN. § 165.001 (Vernon 2001).

²¹¹ Forty-three states, the District of Columbia, and the Virgin Islands have laws with language specifically allowing women to breastfeed in any public or private location. Nat'l Conference of State Legislatures, *supra* note 205; see ALA. CODE § 22-1-13 (2006); ALASKA STAT. § 29.25.080 (West 2007); ARIZ. REV. STAT. ANN. § 41-1443 (West Supp. 2009); ARK. CODE ANN. § 5-14-112 (West 2008) & § 20-27-2001 (West Supp. 2008); CAL. CIV. CODE § 43.3 (West 2007); COLO. REV. STAT. §§ 25-6-301, 25-6-302 (West 2008); CONN. GEN. STAT. ANN. § 46a-64 (West 2009); DEL. CODE ANN. tit. 31 § 310 (West 2006); FLA. STAT. ANN. § 383.015 (West 2007); GA. CODE ANN. § 31-1-9 (West 2003); HAW. REV. STAT. ANN. § 489.21 (West 2008); 740 ILL. COMP. STAT. 137/10 (West Supp. 2009); IND. CODE ANN. § 16-35-6 (West 2007); IOWA CODE ANN. § 135.30A (West 2007); KAN. STAT. ANN. § 65-1,248 (2008); KY. REV. STAT. ANN. § 211-755 (West Supp. 2009); LA. REV. STAT. ANN. § 51.2247.1 (2003); ME. REV. STAT. ANN. tit. 5, § 4634 (2002); MD. HEALTH-GEN. CODE ANN. § 20-801 (West 2009); 2008 Mass. Acts, Chap. 466; MINN. STAT. ANN. § 145.905 (West 2005); MISS. CODE ANN. § 17-25-7/9 (West 2009); MO. ANN. STAT. § 191.918 (West 2004); MONT. CODE ANN. § 50-19-501 (2009); NEV. REV. STAT. § 201.232 (2006); N.H. REV. STAT. ANN. § 132:10-d (2005); N.J. STAT. ANN. § 26:4B-4/5 (West 2007); N.M. STAT. ANN. § 28-20-1 (West 2003); N.Y. CIV. RIGHTS LAW § 79-e (McKinney 2009); N.C. GEN. STAT. § 14-190.9 (West 2000); OHIO REV. CODE ANN. § 3781.55 (West 2006); OKLA. STAT. ANN. tit. 63, § 1-234 (West Supp. 2009); OR. REV. STAT. ANN. § 109.001 (West 2003); 35 PA. CONS. STAT. ANN. § 636.1-4 (West Supp. 2009); 2008 R.I. Pub. Laws, Chap. 223; S.C. CODE ANN. § 63-5-40 (2005); TENN. CODE ANN. § 68-58-101-103 (West 2008); TEX. HEALTH & SAFETY CODE ANN. § 165.002 (Vernon 2001); UTAH CODE ANN. § 17-15-25 (West 2004); VT. STAT. ANN. tit. 9, § 4502 (West 2007); 2009 Wash. Sess. Laws, Chap. 164; WYO. STAT. ANN. § 6-4-201 (West Supp. 2009); S. 2344, 61st Leg. (N.D. 2009). For examples of statutory language, see, for example, COLO. REV. STAT. ANN. § 25-6-302 (West 2008), which declares, "A mother may breastfeed in any place she has a right to be," and N.C. GEN. STAT. ANN. § 14-190.9(b) (West 2000), which states: "Notwithstanding any other provision of law, a woman may breast feed in any public or private location where she is otherwise authorized to be, irrespective of whether the nipple of the mother's breast is uncovered during or incidental to the breast feeding." Some states limit the right to breastfeed in public in some way. See, e.g., TENN. CODE ANN. § 68-58-101 (West 2008) (limiting the right to breastfeed to the mother of a child who is one year or younger).

breastfeeding by exempting that practice from the criminal law.²¹² In particular, these laws declare that breastfeeding does not constitute nudity,²¹³ indecent exposure,²¹⁴ or lewd behavior.²¹⁵ Four states have no law either decriminalizing breastfeeding in public or authorizing women to publicly breastfeed.²¹⁶

Twelve states have enacted laws relating to breastfeeding in the workplace.²¹⁷ For example, New York law mandates that employers provide mothers with reasonable unpaid break time to pump breast milk at work, and requires that they provide a private place in which to do so.²¹⁸ Several other states, including California, Minnesota, and Tennessee, have statutes declaring that an employer must provide reasonable unpaid break time to a lactating woman who needs to pump milk for her infant,²¹⁹ and must make available a private space for this purpose.²²⁰ However, these statutes provide an exemption if the employer can show that this requirement would “seriously disrupt the operations of the employer”²²¹ or otherwise constitute a severe hardship.²²² Although Hawaii law authorizes breastfeeding women to use the breaks that they are otherwise entitled for the purposes of pumping their milk,²²³ it does not require employers to provide any breaks to lactating women, nor does it impose any penalty for violation.

Other state laws address different breastfeeding concerns. These include laws that mandate consideration of a child’s breastfeeding status in divorce and custody proceedings,²²⁴ though the laws do not compel a particular litigation

²¹² Many states declare explicitly that breastfeeding in public is not a crime. *See, e.g.*, ALASKA STAT. § 29.25.080 (West 2007); ARIZ. REV. STAT. § 13-1402 (West Supp. 2008).

²¹³ *See, e.g.*, FLA. STAT. ANN. § 847.001 (West 2000).

²¹⁴ *See, e.g.*, MINN. STAT. ANN. § 617.23 (West 2009).

²¹⁵ *See, e.g.*, WIS. STAT. ANN. § 944.20 (West 2005).

²¹⁶ These states are Massachusetts, Nebraska, North Dakota, and Pennsylvania.

²¹⁷ CAL. LAB. CODE §§ 1031-1032 (West 2003); CONN. GEN. STAT. ANN. § 31-40w (West 2003); GA. CODE ANN. § 34-1-6 (West 2003); HAW. REV. STAT. §§ 378-10, 489-21 (West 2008); MINN. STAT. ANN. § 181.939 (West 2006); MISS. CODE ANN. § 71-1-55 (West 2009); N.Y. LAB. CODE § 206-C (McKinney 2009); OKLA. STAT. ANN. tit. 40, § 435 (West Supp. 2009); OR. REV. STAT. ANN. § 653.075 (West Supp. 2009); TENN. CODE ANN. § 50-1-305 (West Supp. 2009); TEX. HEALTH & SAFETY CODE §§ 165.031-165.033 (Vernon 2001).

²¹⁸ N.Y. LABOR CODE § 206-C (McKinney 2009). The statute, entitled, “Right of nursing mothers to express breast milk,” provides:

An employer shall provide reasonable unpaid break time or permit an employee to use paid break time or meal time each day to allow an employee to express breast milk for her nursing child for up to three years following child birth. The employer shall make reasonable efforts to provide a room or other location, in close proximity to the work area, where an employee can express milk in privacy. No employer shall discriminate in any way against an employee who chooses to express breast milk in the work place.

²¹⁹ CAL. LAB. CODE § 1031 (West 2003); MINN. STAT. ANN. § 181.939; TENN. CODE ANN. § 50-1-305.

²²⁰ CAL. LAB. CODE § 1031; MINN. STAT. ANN. § 181.939; TENN. CODE ANN. § 50-1-305.

²²¹ CAL. LAB. CODE § 1032.

²²² MINN. STAT. ANN. § 181.939; TENN. CODE ANN. § 50-1-305.

²²³ HAW. REV. STAT. § 378-10. The law provides: “No employer shall prohibit an employee from expressing breastmilk during any meal period or other break period required by law to be provided by the employer or required by collective bargaining agreement.” *Id.*

²²⁴ *See, e.g.*, HAW. REV. STAT. § 571-46.5 (West 2008) (providing that parenting plans developed for contested custody cases may consider breastfeeding concerns); ME. REV. STAT. ANN. tit. 19-A, §1653(3)(P) (West Supp. 2008) (including whether a child under age

outcome. Some states require childcare facilities to accept infants who are being breastfed, apparently in response to problems faced by working parents whose infants' day care providers would not accept human milk, or would charge to store it.²²⁵ New York allows mothers who are imprisoned to keep their infants with them for the first year of life if they are breastfeeding;²²⁶ this is not a testament to the pro-maternity leanings of New York's legislature, but rather to the grim reality of New York's Rockefeller drug laws,²²⁷ which have led to a large number of women in prison for non-violent drug offenses.²²⁸

B. Historical Markets in Human Milk

Markets have long existed in breast milk, although for much of history the market was the human services, either voluntary or involuntary, provided by wet nurses. When a woman could not breastfeed, or when the mother died in childbirth, another woman who was already nursing her own infant was called upon to feed the other mother's child as the woman's milk production expanded to meet the demand.²²⁹ In elite societies ranging from the ancient Greeks to French and English aristocracies, women who preferred not to breastfeed employed wet nurses.²³⁰ In the United States, the use of slave mothers as "mammies" meant that many slave women were unable to care for their own children,²³¹ a legacy that some authors suggest contributes to the discomfort that some African American women have about breastfeeding.²³²

C. A Market Overview

At present, there are two sets of markets involving breastfeeding and human milk; professional pediatrics and the government play a significant role in both of these markets. The first set consists of the formal and informal

one is being breastfed as a factor to be considered in determining the best interests of the child in making a custody decision).

²²⁵ See, e.g., LA. REV. STAT. ANN. § 46:1409 (West Supp. 2009); see also Angela White, *Daycare Charges Extra for Handling Breast Milk*, BREASTFEEDING 1-2-3, Feb. 25, 2007, <http://www.blisstree.com/breastfeeding123/daycare-charges-extra-for-handling-breast-milk>.

²²⁶ N.Y. CORRECT. LAW § 611(3) (McKinney 2003).

²²⁷ N.Y. PENAL CODE §§ 220.00-220.65, 221.00-221.55 (McKinney 2008). For an overview of the laws, see Susan N. Herman, *Measuring Culpability by Measuring Drugs? Three Reasons to Reevaluate the Rockefeller Drug Laws*, 63 ALB. L. REV. 777 (2000).

²²⁸ *Developments in Law: Alternatives to Incarceration*, 111 HARV. L. REV. 1863, 1922 (1998) (noting the significant numbers of women sentenced for non-violent drug offenses under the Rockefeller Drug Laws).

²²⁹ BAUMSLAG & MICHELS, *supra* note 34, at 39-40.

²³⁰ *Id.* at 40-45. Indeed, wet nursing was a "major industry" in France. Carol Sanger, *Separating from Children*, 96 COLUM. L. REV. 375, 395-96, (1996) (citing RACHEL G. FUCHS, POOR AND PREGNANT IN PARIS: STRATEGIES FOR SURVIVAL IN THE NINETEENTH CENTURY (1992)); see also Jacqueline H. Wolf, *Wet Nursing*, in *ENCYCLOPEDIA OF CHILDREN AND CHILDHOOD IN HISTORY AND SOCIETY* 884, 884-85 (Paula S. Fass ed., 2004) ("Wet nursing was a particularly entrenched cultural phenomenon in France, where the wealthy sent their infants to the countryside to be suckled for several years by peasant women.").

²³¹ Wolf, *supra* note 87, at 621; Dorothy E. Roberts, *Spiritual and Menial Housework*, 9 YALE J. L. & FEMINISM 51, 56 (1997); cf. Cheryl I. Harris, *Finding Sojourner's Truth: Race, Gender, and the Institution of Property*, 18 CARDOZO L. REV. 309, 337 (1996).

²³² Wolf, *supra* note 87, at 621.

markets in human milk itself and the second set of markets deals with infant formula. This formula market is primarily formal, but there is also an underground market in stolen formula.²³³ The two markets in human milk and infant formula are linked, as both respond to the rhetoric “breast is best.”²³⁴ Specifically, the markets in human milk make this magic elixir available directly, either as processed milk or as special “fortifiers.”²³⁵ Similarly, the infant formula market sells new formulations touted as the closest thing possible to human milk, with special nutritional enhancements that mimic human milk, or organic variations that claim a different type of “naturalness.”²³⁶

Both markets appeal to the parental desire to do what is best for the infant, and both markets confront the same demographic realities. As the overall birth rate in the United States is flat, the total market demand is likely to be steady for the foreseeable future.²³⁷ However, two market segments are growing: first, infants who are premature and/or low birthweight (one-eighth of all newborns); and second, Hispanic American infants, because this group has a higher birth rate.²³⁸

Many pediatricians assert that human milk is superior to formula for premature and low birth weight infants, thereby increasing pressure on the markets in human milk to provide it²³⁹ and for the formula market to come closer to human milk. In addition, some physicians prescribe human milk to older children and adults.²⁴⁰ Some formula manufacturers are also making a special appeal to the Hispanic American market, pitching their product as one for sophisticated (i.e., non-poor) consumers, labeling their products in Spanish, and advertising in Spanish language media.²⁴¹

²³³ See, e.g., *Baby Formula? The Locked Case at the Front of the Store*, N.Y. TIMES, June 5, 2005, at 33.

²³⁴ See, e.g., Lepore, *supra* note 28; *Got Breast Milk? Calif. Firm Seeks Milk Therapies*, *supra* note 28.

²³⁵ Prolacta Bioscience has announced, in its press releases, “Prolacta offers the first and only human milk fortifier made from 100% human milk.” Press Release, Prebiotics Poster at “Hot Topics in Neonatology” Concludes Prolacta Fortifier Contains Full Range of Oligosaccharides Found in Human Milk (December 10, 2008), <http://www.prolacta.com/press-releases.php> (last visited Feb. 23, 2010); see also Press Release, Prolacta® Bioscience to Present Abstract on Human Breast Milk-based Fortifier in Pre-term Infants at American Academy of Pediatrics 2008 National Conference (July 16, 2008), <http://www.prolacta.com/pressreleases.php> (last visited Feb. 23, 2010).

²³⁶ See *supra* note 30; see, e.g., Julia Moskin, *For an All-Organic Formula, Baby, That's Sweet*, N.Y. TIMES, May 19, 2008, at A1; Kimberly Kindy & Lyndsey Layton, *Purity of Federal 'Organic' Label Is Questioned*, WASH. POST, July 3, 2009, at A1.

²³⁷ EUROMONITOR INT'L, *supra* note 26, at 3.

²³⁸ See CHILD TRENDS DATA BANK, BIRTH AND FERTILITY RATES, available at http://www.childtrendsdatbank.org/pdf/79_PDF.pdf; Mike Stobbe, *AP IMPACT: More U.S. Babies Born, Fertility Rate Up, Defying Low-Birth Trend in Europe*, SAN DIEGO UNION TRIB., Jan. 15, 2007, available at <http://www.signonsandiego.com/news/nation/20080115-2055-babyboomlet.html>; *U.S. Gets a "D" on Premature Birth Rate*, CBS NEWS, Nov. 12, 2008, <http://www.cbsnews.com/stories/2008/11/12/health/main4594619.shtml>.

²³⁹ Interview with Laurie Dunn & Sue Evans, *supra* note 22.

²⁴⁰ See *infra* notes 244-47 and accompanying text.

²⁴¹ EUROMONITOR INT'L, *supra* note 26, at 3; Miriam Jordan, *Nestlé Markets Baby Formula to Hispanic Mothers in U.S.*, WALL ST. J., Mar. 4, 2004, at B1.

D. The Markets in Human Milk

It is impossible to understand the markets in human milk without appreciating the commodity that human milk has become. There is scant scientific evidence showing that breastfeeding is markedly better than formula feeding.²⁴² However, some marketing experts note that it is the subtle signals sent by advertisers that are often the most powerful in shaping consumer demand.²⁴³ Thus, it should not be surprising that those who have been led by the AAP and others to believe that breastfeeding is superior to bottle feeding are also likely to believe that human milk itself is a superlative product, which not only provides important immunities and nutrition to newborns and young infants, but can also function as a miraculous liquid in many other circumstances. On "lactivist" blogs as well as mainstream news media, mothers and health educators tout human milk as a cure for conjunctivitis, rashes, and other childhood maladies.²⁴⁴ In particular, human milk has been used to treat burn victims, chemotherapy patients, organ transplant recipients, and other adult and child patients.²⁴⁵ Additionally, some research indicates that human milk may be useful as a treatment for cancer itself.²⁴⁶ Prolacta Bioscience, a for-profit California company, uses donated breast milk as the source of the product's constituent elements, which it reformulates to sell to neonatal intensive care units, although it may be considering the market for older patients as well.²⁴⁷

²⁴² See *supra* notes 116-27 and accompanying text.

²⁴³ John Tierney, *Message in What We Buy, But Nobody's Listening*, N.Y. TIMES, May 19, 2009, at D1 (citing GEOFFREY MILLER, SPENT: SEX, EVOLUTION AND CONSUMER BEHAVIOR (2009)).

²⁴⁴ See, e.g., Posting of Rushdan Noor to The Guides for Women's Health Blog, *Breast Milk: Benefits and Comparison with Formula Milk*, <http://www.guide4womenshealth.com/2008/09/breast-milk-benefits-and-comparison.html> (Sept. 24, 2008, 15:13); Shelly Slater, *Breast Milk Used to Treat Cancer Patients*, Feb. 16, 2008, <http://hismilkmaid.com/category/health/>; Posting of Sandra Steingraber to Healthy Child, Healthy World Blog, *The Benefits of Breast Milk Outweigh Any Risks*, http://healthychild.org/blog/comments/the_benefits_of_breast_milk_outweigh_any_risks1 (July 3, 2007); Kathy Sundstrom, *Breast Milk Used in Cancer Fight*, Aug. 15, 2009, <http://drmomma.blogspot.com/2009/08/breast-milk-used-in-cancer-fight.html>; Angela White, *Breast Milk Cures Pink Eye (Conjunctivitis)*, Nov. 30, 2006, <http://www.blisstree.com/breastfeeding123/breast-milk-cures-pink-eye-conjunctivitis>.

²⁴⁵ See, e.g., Barbara Brotman, *Natural Wonder Scientists Explore Using Breast Milk as Medicine*, CHI. TRIB., Nov. 17, 1999, at 1 ("In 1997-98, the Human Milk Banking Association's member banks dispatched milk, by doctor's prescription, to treat burns, botulism, multi-organ transplants and chronic fatigue syndrome."); see also Sundstrom, *supra* note 244.

²⁴⁶ Interview with Miriam Labbok & Mary Rose Tully, *supra* note 22 (citing Swedish research); see also Kim Mulvihill, *Breast Milk as Cancer Treatment?*, May 12, 2007, <http://cbs5.com/health/Health.Dr.Kim.2.455691.html> (noting Swedish research on the efficacy of human milk to treat cancer patients, and the fact that the Mother's Milk Bank in San Jose, California, has supplied sixty cancer patients with human milk as treatment).

²⁴⁷ Prolacta Bioscience's founder and CEO, Elena Medo, declared, "Human breast milk is really an incredible therapy. Let's try to develop processes where we can preserve every bit of its nutrients and the potent antiviral and all of its disease fighting properties." BBC News, *supra* note 3.

1. *Informal/Gray Markets*

Many women donate or sell their extra breast milk to family, friends, or total strangers. These transactions are facilitated through websites as varied as craigslist, MilkShare, or “lactivist” blogs.²⁴⁸ The AAP and La Leche League recommend against this informal marketing of milk, because of the risks that serious infectious diseases, including HIV and tuberculosis, could be transmitted through unpasteurized human milk, and that a liquid purported to be human milk might in fact be something else.²⁴⁹ Nonetheless, many women who have extra milk take great pleasure in offering it to others, and many women who have adopted infants or who cannot breastfeed swear by the virtues of human milk.²⁵⁰ Milk “sharing” can also take place more directly, as women may nurse other women’s children for free or for pay.²⁵¹ In California, the source of many national trends, at least one employment agency provides wet nurses to new mothers, at weekly salaries of about \$1000.²⁵²

2. *Not-for-Profit Markets: Milk Banks*

In contrast to these ad hoc market arrangements, there are eleven not-for-profit milk banks in North America that supply milk to hospitals and to individual infants who are critically ill.²⁵³ The first milk bank was established in 1911, and milk banks expanded rapidly to distribute pasteurized human milk to ill children, as pediatricians recommended it as a life-saving liquid.²⁵⁴ During the Great Depression, milk banks were widespread and, at least in New York City, mothers were paid for their milk.²⁵⁵ As fewer women breastfed after World War II, milk banks became less popular.²⁵⁶ However, milk banks rebounded in the 1970s with the increased demand for milk due to the greater

²⁴⁸ Pearce, *supra* note 23, at L1; Sara Schaefer Muñoz, *Mothers Who Share Breast Milk*, WALL ST. J., Jan. 4, 2005, at D1.

²⁴⁹ Am. Acad. of Pediatrics, *supra* note 68, at 497; Lois D. W. Arnold, *Becoming a Donor to a Human Milk Bank*, Apr.-May 2000, <http://www.illli.org/llleaderweb/LV/LVAprMay00p19.html>; Shannon Henry, *Banking on Milk*, WASH. POST, Jan. 16, 2007, at F1.

²⁵⁰ Jeninne Lee-St. John, *Milk Maids*, TIME, Apr. 19, 2007, at 65.

²⁵¹ Carol Lloyd, *Modern-Day Wet Nursing*, SALON, Apr. 26, 2007, <http://www.salon.com/mwt/broadsheet/2007/04/26/nursing/index.html>.

²⁵² Henry, *supra* note 249. In China, several agencies have marketed wet nurses, although women’s groups and the government expressed concern over exploitation of poor women, and at least one employment agency specializing in wet nurses was pressured to stop offering the services. Peter Goff, *Wet-Nurse Firm Turns Clock Back Too Far*, SOUTH CHINA MORNING POST, Feb. 20, 2005, at 11; *Wet Nurse in South China Province Sparks Controversy*, XINHUA NEWS AGENCY, June 14, 2006.

²⁵³ Austin, *supra* note 21. These milk banks are linked together in the Human Milk Banking Association of North America. See Human Milk Banking Association of North America Website, www.hmbana.org. Each milk bank in this network is governed by guidelines approved by the Centers for Disease Control and the Food and Drug Administration. Donors hand-deliver their milk or ship it in dry ice to a milk bank. There, it is processed in bulk to achieve a homogeneous product, which is then shipped to hospitals and to individuals who have it prescribed by a physician. Interview with Laurie Dunn & Sue Evans, *supra* note 22.

²⁵⁴ Arnold, *supra* note 249.

²⁵⁵ Michael Pollak, *A Mother’s Memory*, N.Y. TIMES, May 14, 2006, § 14, at 2; *Service Extended by Milk Bureau*, N.Y. TIMES, Mar. 10, 1935, at N5.

²⁵⁶ WEIMER, *supra* note 51, at 1; Arnold, *supra* note 249.

survival of premature infants who received aggressive treatment in neonatal intensive care units.²⁵⁷

In the wake of the HIV/AIDS epidemic, milk banks again became less popular, as fears grew about the transmission of HIV through human milk.²⁵⁸ However, these milk banks now screen donors and donated milk for HIV, hepatitis, and other pathogens.²⁵⁹ The average price for milk provided by a not-for-profit milk bank is \$4.50 per ounce, which can be quite expensive for a full-term infant, who may consume an average of thirty ounces of milk a day.²⁶⁰ Recently, some milk banks have faced shortages due to rising numbers of premature infants and increased prescription of human milk for seriously ill children and adults.²⁶¹ This development reflects some physicians' beliefs that the patient's immune system and overall health can be improved by human milk.²⁶² Between 2000 and 2005, the amount of milk dispensed by milk banks increased 45%.²⁶³

3. The For-Profit Market in Human Milk

In recognition of the growing demand for human milk, Prolacta Bioscience was established near Los Angeles in 1999.²⁶⁴ Funded by venture capitalists, Prolacta Bioscience has developed four nutritional fortifiers for premature infants as well as three "ready-to-feed" human milk products that can be given directly to these infants.²⁶⁵ The nutritional fortifiers are highly

²⁵⁷ Arnold, *supra* note 249.

²⁵⁸ *Id.* Maternal-fetal transmission of the HIV virus can take place during pregnancy, during labor and delivery, and through breast milk, although the risk of transmission is reduced dramatically if the mother is treated with zidovudine during her pregnancy. Pamela J. Boyer et al., *Factors Predictive of Maternal-Fetal Transmission of HIV-1: Preliminary Analysis of Zidovudine Given During Pregnancy and/or Delivery*, 271 JAMA 1925, 1926, 1929-1930 (1994).

²⁵⁹ See Interview with Laurie Dunn & Sue Evans, *supra* note 22; Human Milk Banking Ass'n of N. Am., <http://www.hmbana.org/index/donatemilk> (last visited Feb. 23, 2010).

²⁶⁰ Interview with Laurie Dunn & Sue Evans, *supra* note 22.

²⁶¹ The Institute of Medicine has noted that the rate of premature births has remained stubbornly at more than 12% over the last two decades. Some of this is due to inadequate prenatal nutrition and medical care for pregnant women, some reflects the increased numbers of multiple births, due largely to the increased use of artificial reproductive technology (A.R.T.), used largely by middle and upper class women. INST. OF MED., PRETERM BIRTH: CAUSES, CONSEQUENCES, AND PREVENTION 1, 3 (2006) available at <http://www.iom.edu/en/Reports/2006/Preterm-Birth-Causes-Consequences-and-Prevention.aspx>; see also Mulvihill, *supra* note 246.

²⁶² Interview with Laurie Dunn & Sue Evans, *supra* note 22; see also Interview with Miriam Labbok & Mary Rose Tully, *supra* note 22; Mulvihill, *supra* note 246.

²⁶³ Interview with Laurie Dunn & Sue Evans, *supra* note 22.

²⁶⁴ *Firm Marketing Donor Breast Milk to Treat Premies*, HEALTH NEWS, Aug. 6, 2005, <http://health.dailynewscentral.com/content/view/1450/63>. Prolacta Bioscience describes itself as "the first and only company to offer human milk fortifier made from 100% human breast milk for premature and critically ill infants in the neonatal intensive care unit." *Prolacta Bioscience to Present Abstract on Human Breast Milk-Based Fortifier in Pre-Term Infants at American Academy of Pediatrics 2008 National Conference*, July 16, 2008, <http://www.reuters.com/article/pressRelease/idUS131212+16-Jul-2008+BW20080716>.

²⁶⁵ Prolacta Bioscience received \$5 million in 2006 and another \$12 million in 2007. Press Release, *Prolacta Bioscience Closes on Over \$12 Million in Private Funding*, May 23, 2007, <http://www.prolacta.com/pressreleases.php>; Press Release, *Prolacta Bioscience Closes*

concentrated versions of human milk sold in pre-measured doses to be added to donor milk or a mother's own milk. This fortified milk enhances the nutritional intake of premature infants, who can only consume a small amount of liquid because they are so tiny.²⁶⁶ Previously, formula manufacturers developed milk fortifiers from cow's milk. Now, Prolacta Bioscience is sponsoring studies attempting to demonstrate that its human milk fortifiers achieve better health care outcomes when compared to cow's milk fortifiers.²⁶⁷

Prolacta Bioscience has developed an ingenious system for obtaining donor milk. It operates a network of approximately twenty donation sites around the country,²⁶⁸ which call themselves milk banks, and offer donor mothers a convenient way to drop off their milk,²⁶⁹ as well as a free breast pump.²⁷⁰ These donation sites are paid for their services of collecting and storing the milk, which they ship to Prolacta Bioscience's California processing plant.²⁷¹ Women learn about these milk banks through word of mouth and online sources, including some that directly link prospective donors to the Prolacta Bioscience website where women are invited to fill out an online questionnaire to see if they are suitable donors.²⁷² Like not-for-profit milk banks,

on Over \$5 Million in Private Funding, October 4, 2006, <http://www.prolacta.com/press-releases.php>. Prolacta currently markets four infant fortifiers (see Prolacta Bioscience: Pro-lact + H2MF Human Milk Fortifier, <http://www.prolacta.com/fortifier.php> (last visited Feb. 23, 2010)), as well as three "ready to feed" human milk products for premature infants. See Prolacta Bioscience: Standardized Human Milk Formulations, <http://www.prolacta.com/humanmilk.php> (last visited Feb. 23, 2010).

²⁶⁶ William C. Heird, *Progress in Promoting Breast-Feeding, Combating Malnutrition, and Composition and Use of Infant Formula, 1981-2006*, 137 J. NUTRITION 499S, 500S (2007).

²⁶⁷ See Prolacta Bioscience: Research and Development, <http://www.prolacta.com/research.php> (last visited Feb. 23, 2010); Sandra Sullivan, *A Historically Controlled Cohort Study of a Novel Breast-Milk Based Human Milk Fortifier in Pre-Term Infants: Effects of Growth, Respiratory Status, and ROP*, Poster Presentation at the American Academy of Pediatrics National Conference and Exhibition, Oct. 10, 2008, Boston, Mass. (presenting results of a "case-controlled" study (not a randomized clinical trial) showing that extremely premature infants who received Prolacta human milk fortifiers spent less time on ventilators and decreased retinopathy of prematurity (blindness) compared to infants who received fortifiers made from cow's milk).

²⁶⁸ *Milk Bank Mothers Help Children Throughout the World*, Jan. 22, 2007, <http://www.capitalhealth.org/news.cfm?action=detail&ref=24>. Capital Health is one of nineteen milk banks currently involved with Prolacta Bioscience. *Id.*

²⁶⁹ In contrast, mothers who wish to donate their milk to a not-for-profit milk bank must pack their milk in dry ice, place it in a Styrofoam cooler, and ship it to one of the nineteen milk banks in North America. *Id.*; Interview with Laurie Dunn & Sue Evans, *supra* note 22. Thus, even assuming that a mother who wished to donate her milk was aware of the difference between Prolacta's network of milk depots and the smaller group of not-for-profit milk banks, she might be tempted to use Prolacta's more convenient system.

²⁷⁰ Blythe Bernhard, *Human Milk Now for Sale in O.C.*, ORANGE COUNTY REG., May 3, 2006, available at <http://www.ocregister.com/articles/human-milk-now-1128779-for-sale-in-oc#>.

²⁷¹ *Id.*

²⁷² These include sources such as such as Milkin' Mamas Breast Milk Bank, <http://www.milkinmamas.com>, the National Milk Bank, <http://www.nationalmilkbank.org> and <http://www.nationalmilkbank.com>, and the International Breast Milk Project, <http://www.breastmilkproject.org>.

Prolacta Bioscience appeals to women's desires to share their breast milk with other mothers.²⁷³

In addition, Prolacta Bioscience has exploited Americans' desire to help children with HIV in Africa. In an act that is either a stroke of marketing genius or an inspirational example of corporate charity, Prolacta Bioscience has entered into a partnership with the International Breast Milk Project to donate milk to HIV positive infants.²⁷⁴ Prolacta Bioscience processes human milk donated by American mothers and ships it to a not-for-profit milk bank in Capetown, South Africa, which dispenses the milk to the infected infants.²⁷⁵ Currently, Prolacta Bioscience ships 25% of all milk donated to the International Breast Milk Project to Africa, and processes the remaining 75% of the milk into human milk fortifiers sold to American hospitals.²⁷⁶ In contrast to not-for-profit milk banks, which make milk available for about \$4.50 per ounce, Prolacta Bioscience sells its human milk fortifiers in milliliter formulations, at prices equivalent to \$184 per ounce.²⁷⁷

E. The Infant Formula Market

Formula is a highly profitable commodity.²⁷⁸ In fact, infant formula accounted for \$4.9 billion in sales in 2008.²⁷⁹ Beginning with an inexpensive raw ingredient (cow's milk), formula manufacturers add small amounts of other ingredients to simulate mother's milk.²⁸⁰ From 1980 to the early 1990s, formula prices increased at six times the rate of cow's milk.²⁸¹ In 1994, researchers estimated the retail prices of formula to be five times the actual cost of production.²⁸² Today, the retail price of formula continues to outpace inflation.²⁸³ Interestingly, the total cost of formula has grown, despite a lower volume of sales due to increased breastfeeding and the flat American birthrate.²⁸⁴ As manufacturers develop new "improved" formulations, they promote formula as the closest thing possible to human milk, appealing to parental anxieties

²⁷³ See, e.g., Bernhard, *supra* note 270; Donor Testimonials, available at <http://www.prolacta.com/donortestimonials/php>; *Find a Milk Bank Near You and Donate Your Milk Today!*, <http://www.milkbanking.net/index.php>.

²⁷⁴ Give Milk, http://www.breastmilkproject.org/hiw_donationdiagram.php (last visited Feb. 23, 2010).

²⁷⁵ *Id.*

²⁷⁶ Angela White, *Should You Support the International Breast Milk Project?*, BREASTFEEDING 1-2-3, June 4, 2007, <http://www.blisstree.com/breastfeeding123/should-you-support-the-international-breast-milk-project/>; Give Milk, *supra* note 274.

²⁷⁷ Posting of MamaBear to International Breastfeeding Symbol Blog, *supra* note 21.

²⁷⁸ Thomas M. Burton, *Spilt Milk: Methods of Marketing Infant Formula Land Abbott in Hot Water—It Pushed Baby-Food Rivals to Bar Ads, Limiting a New Player's Chances—A Big Antitrust Settlement*, WALL ST. J., May 25, 1993, at A1.

²⁷⁹ EUROMONITOR INT'L, *supra* note 26, at 5.

²⁸⁰ *Id.*; Burton, *supra* note 278.

²⁸¹ Burton, *supra* note 278; Cutler & Wright, *supra* note 48, at 49.

²⁸² George Kent, *WIC's Promotion of Infant Formula in the United States*, 8 INT'L BREASTFEEDING J. 1, 4 (2006), available at www.internationalbreastfeedingjournal.com/content/1/1/8.

²⁸³ OLIVEIRA ET AL., *supra* note 26, at 30.

²⁸⁴ EUROMONITOR INT'L, *supra* note 26, at 1.

about how to provide the very best for their children.²⁸⁵ The result is an increased demand for higher priced “more natural” formulas.²⁸⁶ These include “specialty” formulas that contain two fatty acids found in breast milk known as DHA and ARA.²⁸⁷ In addition, organic formulas’ sales are growing, even though organic formulas have more sugar than traditional formulas and may have long-term harmful effects.²⁸⁸

Three major firms compete for market share in infant formula. Abbott Laboratories and Mead Johnson are both pharmaceutical companies, while Nestle is a global food manufacturer with a small market share in the United States but a large presence in other countries.²⁸⁹ All three companies try to promote consumer brand loyalty by using a mix of outreach to health care professionals, exclusive contracts with hospital nurseries,²⁹⁰ direct-to-consumer (“DTC”) advertising, and strategic bidding in the WIC program.

Abbott and Mead Johnson historically marketed their products directly to physicians through “ethical marketing,”²⁹¹ in which drug representatives visit physicians to give them free samples and urge them to recommend specific products to patients, knowing that a doctor’s endorsement can carry great weight.²⁹² Notably, formula manufacturers contributed heavily to the Academy, paying about one-third of the construction costs of the Academy’s headquarters in the 1980s, providing grants to the Academy, underwriting pediatric conferences, and offering loans to medical students and pediatricians.²⁹³ In the 1980s, facing the imminent entry of Nestle into the American infant formula market, Abbott and Mead Johnson worked with the AAP to oppose DTC adver-

²⁸⁵ *Id.* at 2.

²⁸⁶ Organic formulas and “specialty” formulas “enhanced” with certain additives said to make formula the closest thing possible to breast milk add greatly to the cost of the WIC program, and are a growing part of the formula market. Victor Oliveira, *Cost of Infant Formula for the WIC Program Rising*, AMBER WAVES, Nov. 2006, <http://www.ers.usda.gov/AmberWaves/November06/PDF/Cost.pdf>; see also EUROMONITOR INT’L, *supra* note 26, at 2. Since the birth rate in the United States is essentially flat, exploiting parents’ desires to provide the very best for their infants through enhanced formula is the only way that formula makers can continue to make profits. *Id.* at 3.

²⁸⁷ EUROMONITOR INT’L, *supra* note 26, at 1; see generally Nestle Investor Relations, <http://www.nestle.com/InvestorRelations/Investor+Relations.htm> (last visited Feb. 23, 2010) (providing documents detailing financial activities and sales in the United States and abroad).

²⁸⁸ EUROMONITOR INT’L, *supra* note 26, at 1; Moskin, *supra* note 236; Sonia Reyes, *Organic Baby Formula Segment Growing Fast: Wal-Mart, Similac, Hain Celestial Ga-Ga over ‘Yoga Mommies,’* BRANDWEEK (Oct 2, 2006) (Thomson/West).

²⁸⁹ EUROMONITOR INT’L, *supra* note 26, at 2; see also Jordan, *supra* note 241.

²⁹⁰ Drug representatives try to work closely with hospital nurses to develop their loyalty to a particular formula brand. See Florida ex rel. Butterworth v. Abbott Labs., No. 91-40002-MP, 1993 WL 216099 (N.D. Fla. May 25, 1993).

²⁹¹ Formula manufacturers provide physicians with prescription pads, advertising posters, free samples and coupons to be distributed to patients. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 169, at app. I, 27. They also urge physicians to prescribe more expensive “enhanced formulas to their patients,” which undermines the WIC rule that only purchases of the standard brand are reimbursed unless a physician prescribes another brand. Cutler & Wright, *supra* note 48, at 41.

²⁹² Cutler & Wright, *supra* note 48, at 39-42, 46.

²⁹³ Burton, *supra* note 278.

tising citing its negative impact on breastfeeding rates.²⁹⁴ In 1993, Nestle sued the AAP and the two major formula companies under the Sherman Act, alleging a conspiracy to block Nestle's entry into the American formula market,²⁹⁵ citing evidence of the defendants' jointly developed opposition to DTC advertising.²⁹⁶ However, the jury found for the defendants, and the United States Court of Appeals for the Ninth Circuit affirmed.²⁹⁷

The formula manufacturers have also been challenged in other antitrust actions. The Federal Trade Commission ("FTC") sued Abbott, Mead Johnson, and Wyeth Pharmaceutical, alleging that they fixed prices in their 1990s bid to the WIC program in Puerto Rico.²⁹⁸ Mead Johnson and Wyeth settled immediately, but the FTC was unsuccessful in its case against Abbott.²⁹⁹ Due to market complexities and a concurrent regulatory restructuring of Puerto Rico's WIC program, it was difficult for the FTC to prove that Abbott had engaged in unfair methods of competition.³⁰⁰ Several states and the FTC brought additional suits alleging price-fixing and collusion regarding the "no DTC advertising" policy, which were settled for a total of \$230 million in the early 1990s.³⁰¹

Today, in part because of the resolution of these antitrust suits, all formula manufacturers use DTC marketing to reach parents, with advertising expenditures increasing from \$29 million in 1999 to \$46 million in 2004.³⁰² Additionally, formula manufacturers spend millions in a covert advertising campaign by providing free formula samples and discount coupons to pregnant women and new mothers in hospital "discharge packs," in informational material distributed at doctors' offices, and via direct mail.³⁰³ These practices are likely to encourage parents to try, and then switch to, formula, even if they do not ensure absolute brand loyalty.³⁰⁴ As noted earlier, the Baby-Friendly Hospital Initiative responds to the giveaway of free formula by requiring all hospitals certified as "Baby-Friendly" to end the practice of receiving free or low-cost formula from manufacturers in exchange for permitting the manufacturer to provide dis-

²⁹⁴ *Id.*; Epstein, *supra* note 48, at 25, 40-54 (detailing the development of this agreement and noting that in 1989 the American Academy of Pediatrics adopted a policy against accepting contributions from formula manufacturers that engaged in DTC advertising).

²⁹⁵ Epstein, *supra* note 48, at 49.

²⁹⁶ *Nestle Food Co. v. Abbott Labs.*, No. 95-56273, 1997 WL 8578, at *1 (9th Cir. Jan. 9, 1997). The two formula companies used the AAP opposition to DTC advertising to their benefit, by, for example, distributing posters for physicians to use declaring, "'Why I Do Not Recommend Nestle/Carnation Infant Formula.'" Epstein, *supra* note 48, at 48-49.

²⁹⁷ *Nestle Food Co.*, 1997 WL 8578, at *1.

²⁹⁸ *FTC v. Abbott Labs.*, 853 F. Supp. 526, 526-27 (D.D.C. 1994).

²⁹⁹ *Id.* at 537; *see also* Epstein, *supra* note 48, at 28-39 (discussing the background of the litigation).

³⁰⁰ *Abbott Labs.*, 853 F. Supp. at 530-37. Under the FTC Act, unfair methods of competition include those that are violations of the Sherman Antitrust Act. *See FTC v. Brown Shoe, Co.*, 384 U.S. 316 (1966).

³⁰¹ Matt Siegel, *Formula for Disaster*, 16 (No. 1) AM. LAWYER 63 (Jan-Feb. 1994); Florida ex rel. Butterworth v. *Abbott Labs., Inc.*, No. 91-40002-MP, 1993 WL 216099, (N.D. Fl. May 25, 1993); *see also* Burton, *supra* note 278.

³⁰² U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 169, at app. I, 26.

³⁰³ George Kent, *The High Price of Infant Formula in the United States*, 17 AGROFOOD 21, 22 (2006); Cutler & Wright, *supra* note 48, at 47.

³⁰⁴ Kent, *supra* note 282, at 5; Cutler & Wright, *supra* note 48, at 41, 46-47.

charge pack samples.³⁰⁵ However, the financial costs for a hospital to meet this requirement may be quite high.³⁰⁶

1. *The WIC Program*

The WIC Program is a key player in the market for infant formula, as it shapes both consumer demand and formula prices through its large market share. Launched in the 1970s to provide nutritional assistance to poor nursing mothers and children up to age five,³⁰⁷ it now enrolls about half of American infants and pays for more than half of all formula sold in the United States.³⁰⁸ Mothers participating in the WIC Program consistently lag far behind non-WIC mothers in their rates of breastfeeding.³⁰⁹ An important question is whether this is due to demographic and cultural factors or to the way the WIC program is designed and implemented. Because WIC participants are poor and frequently racial minorities who are less likely to breastfeed for other reasons, the gap between WIC and non-WIC mothers may simply reflect the demographics of WIC participants.³¹⁰ However, structural aspects of the WIC program also discourage breastfeeding. These include the make-up of WIC "food packages," the system of WIC funding (a combination of federal grants, competitive bidding, and formula manufacturers' rebates), and the significant marketing advantages which the WIC program confers on manufacturers.³¹¹

For many years, WIC was criticized for providing incentives not to breastfeed. Until the 1990s, breastfeeding women who participated in WIC were not provided with any supplemental healthy food to support breastfeeding while the cost of infant formula was fully covered by WIC;³¹² this effectively provided a disincentive to breastfeed.³¹³ In 2007, responding to an Institute of

³⁰⁵ See *supra* notes 160-70 and accompanying text.

³⁰⁶ Philipp et al., *supra* note 160, at 679; Merewood et al., *supra* note 163, at 630; Kent, *supra* note 303, at 22 (noting that one manufacturer gave \$1 million to the New York City Health & Hospitals Corporation for the privilege of including its brand in the gift packs distributed at all public hospitals).

³⁰⁷ WIC provides supplemental food packages, nutrition education, and referrals to health care and social services. To be eligible for the WIC program, applicants must be poor (earning up to 185% of the federal poverty level or eligible for Medicaid, TANF, or Food Stamps) and at nutritional risk. OLIVEIRA ET AL., *supra* note 26, at 6-8.

³⁰⁸ U.S. DEP'T OF AGRIC., BREASTFEEDING INTERVENTION DESIGN STUDY 1 (2004); Indu B. Ahluwalia, et al., *Why Do Women Stop Breastfeeding? Findings from the Pregnancy Risk Assessment and Monitoring System*, 116 PEDIATRICS 1408, 1409 (2005).

³⁰⁹ Ryan & Zhou, *supra* note 180, at 1136. From 1978 to 2003, average rates for WIC participants were an average of 23% lower than non-WIC participants, and the gap between their rates of breastfeeding has widened over time. At six months, non-WIC participants were more than twice as likely to breastfeed than were WIC mothers. *Id.*

³¹⁰ The ethnic make-up of WIC participants has changed over time, with Hispanics accounting for 38% of WIC participants in 2002 compared with 21% in 1988, and Asian and Pacific Islanders increasing their participation in WIC in recent years. *Id.* at 1144.

³¹¹ See *infra* notes 321-22 and accompanying text.

³¹² U.S. DEP'T OF AGRIC., *supra* note 308, at 3.

³¹³ As explained by Miriam Labbok, MD, *supra* note 22, since women choose a WIC food package at the beginning of each month, and formula is very expensive, a rational woman would choose the formula package if she thought there was any chance that she might use formula at some point during the following month. Once formula is in the house, it is much more likely to be used.

Medicine report noting the substantial differences in the dollar value of the food packages given to breastfeeding and non-breastfeeding mothers, the Department of Agriculture changed these packages, with the goal of encouraging more WIC participants to breastfeed.³¹⁴

Additionally, WIC spends only a small amount of program money on outreach to hospital personnel and new mothers to encourage breastfeeding, compared to the large amount spent on formula support.³¹⁵ Although many state WIC programs provide counseling to assist women in breastfeeding, some women have asserted that WIC personnel appeared ambivalent about breastfeeding, which makes sense given the program's financing mechanism.³¹⁶ Many state WIC programs offer only limited practical assistance with breastfeeding, in the form of nursing bras, breast pumps, or breastfeeding support classes.³¹⁷ Yet these concrete support mechanisms are essential if poor women are to continue breastfeeding after they return to work or school.³¹⁸

³¹⁴ Special Supplemental Nutrition Program for Women, Infants & Children (WIC): Revisions in the WIC Food Packages, 72 Fed. Reg. 68,966 (Dec. 6, 2007); *see also* Ryan & Zhou, *supra* note 180, at 1144-45. Citing the report of the Food and Nutrition Board of the Institute of Medicine (IOM) Committee to Review the WIC Food Package, *WIC Food Packages: Time for a Change*, (2005), the authors noted that the value of the WIC subsidy to infant/mother pairs for one year was \$1380 for women who gave their infants formula only, \$668 for mothers who breastfed exclusively, and \$1669 for mothers who breastfed but also used formula, thus providing a clear disincentive to breastfeeding exclusively. The IOM Committee also recommended that less formula be provided to partially breastfeeding mothers to ensure that more of their infants' nutrition came from human milk. *Id.*

³¹⁵ Kent, *supra* note 282, at 6, noting that in 2005, "only . . . 0.6% of the total WIC budget excluding rebates . . . was set aside for specific incentives designed to increase breastfeeding among WIC participants." *See also* Interview with Sandra Arnold, Int'l Bd. Certified Lactation Consultant, Reg'l Ctr. Coordinator, Ind. WIC Breastfeeding Program (July 31, 2007) (on file with the author).

³¹⁶ When WIC enrollees were asked about the counseling they received about breastfeeding, African American women reported less counseling from WIC personnel to breastfeed than did white women, although they reported no difference in the advice about breastfeeding that health care professionals had given them. Bonuck et al., *supra* note 150, at 321. Of course, some WIC counselors might be overly zealous advocates of breastfeeding. *See, e.g.*, Wolf, *supra* note 87, at 596 (citing Law, *supra* note 55, at 407) (describing a WIC counselor in Chicago "lament[ing] the tragedy of teenage mothers choosing to go to school instead of breast-feeding their babies").

³¹⁷ In Indiana, for example, women must request a breast pump rather than be offered one as a matter of routine. Then they are assessed by a WIC lactation consultant to determine the need for a pump. The apparent philosophy is that women should be encouraged to consider alternatives to pumping, such as expressing milk by hand, having a caregiver bring the infant to work so that the mother can breastfeed it there, or job-sharing. In addition, WIC rarely pays for nursing bras; rather, staff seek to have them provided by another local government or non-profit organization. Interview with Sandra Arnold, *supra* note 315. While rationing breast pumps may make sense when one is conserving scarce government resources, it is perhaps not surprising that many women returning to work decide that breastfeeding is too difficult. Further, some have questioned the hostility to pumping, noting that if it breast milk really does confer all the benefits claimed, it is counter-productive to make it harder for women to pump their milk. KUKLA, *supra* note 42, at 160-163. Not having the financial wherewithal to purchase an efficient breast pump is a substantial barrier for many women to continue to breastfeed. *See* Philipp et al., *supra* note 160, at 680 (citing Barbara L. Philipp et al., *Pumps for Peanuts: Leveling the Field in the NICU*, 4 J. PERINATOLOGY 249 (2000)).

³¹⁸ KUKLA, *supra* note 42, at 160; Kantor, *supra* note 182.

Most significantly, WIC's funding mechanism has distorted the formula market, making it more likely that WIC participants will choose formula and that non-WIC participants will pay higher prices for the formula that they buy. The formula industry initially supported WIC's development, but in its early years, direct government payments funded the WIC Program.³¹⁹ However, as the retail price of formula grew rapidly, consuming more than one-third of WIC's total food budget in the 1980s, Congress demanded that state WIC agencies contain costs.³²⁰ In response, the agencies required manufacturers to participate in competitive bidding to be the sole WIC brand and also developed a system in which formula manufacturers would provide rebates to the state agency for each can of formula sold to a WIC participant.³²¹ This permitted each state to enroll more participants, who then received more free formula and, in turn, increased formula sales.³²²

Being selected as the sole WIC-approved brand for a state confers important marketing advantages, which in turn increase the price of formula. As part of the implementation of this exclusive contract, the winning manufacturer is guaranteed product placement on the most desirable store shelves and other promotional advantages, such as advertising its brand as "WIC approved."³²³ In addition, hospitals with a large WIC patient base are more likely to use the WIC brand of formula, and pediatricians with a WIC clientele are more likely to recommend the WIC brand to their patients.³²⁴ As a result, in almost every state, the WIC-approved brand has the biggest market share. In states where WIC accounts for a relatively high proportion of the formula market, formula prices are higher than in states where WIC consumers are a smaller part of the market.³²⁵ Further, in every state, the prices of infant formula have outpaced inflation; thus, an important side-effect of the WIC program has been to increase the price of all brands of formula.³²⁶

We thus confront the perplexing, if not ironic, situation in which major government agencies are at odds with each other. On the one hand, one arm of the government, the Department of Health and Human Services, spends millions touting breastfeeding and human milk as absolutely necessary for infant and maternal health, focusing particularly on poor African American women in

³¹⁹ Kent, *supra* note 303, at 22.

³²⁰ *Id.*; see also OLIVEIRA ET AL., *supra* note 26, at 1.

³²¹ OLIVEIRA ET AL., *supra* note 26, at 1.

³²² Currently formula rebates pay for about 27% of all WIC beneficiaries. *Id.* This system may also provide a disincentive, conscious or not, for WIC workers to encourage new mothers to breastfeed, rather than to offer formula. Kent, *supra* note 282, at 7.

³²³ U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 169, at app. I, 9, 22-23, 27.

³²⁴ Cutler & Wright, *supra* note 48, at 47.

³²⁵ OLIVEIRA ET AL., *supra* note 26, at 59-60.

³²⁶ As economist William Rapp explained to me, this is not the result of any conspiracy or economic overreaching, but simply the expected effect of monopsony power, articulated by economist Augustin Cournot in his book, *Researches into the Mathematical Principles of the Theory of Wealth* (1838). Conversation with Dr. William Rapp, Pace Univ. Sch. of Law (Summer 2007). Economists with the Department of Agriculture explain that because WIC participants, who would be most sensitive to changes in the price of formula, receive formula at no cost, the remainder of the formula market, which is relatively well-off, also is relatively price insensitive. Thus, it is easier for formula manufacturers to raise their prices. OLIVEIRA ET AL., *supra* note 26, at 81-85; see also Kent, *supra* note 282, at 4.

its advertising campaign. At the same time, another government agency, the Department of Agriculture and its WIC Program, is structured and delivered in a manner that actively discourages breastfeeding by women of color. Congress remains silent on breastfeeding policy, failing to enact legislation that would remove obstacles to breastfeeding by working mothers or by any woman who wishes to nurse her child in public, and by declining to adopt the Baby-Friendly Hospital Initiative, which might upset manufacturers of infant formula.

III. THE COMMODIFICATION DEBATE

This Part engages issues of commodification from both theoretical and practical, real world perspectives. Part A introduces the scholarly literature on commodification, particularly as it applies to women and other vulnerable subjects. Part B argues that human milk is a commodity and is treated as such by corporations, not-for-profit milk banks, and the medical profession. Part C acknowledges the reality of commodification and proposes a market-based framework that can empower women and protect their children.

A. *Pro-Commodification Analysts*

In the last twenty-five years, an intense scholarly debate has raged over the commodification of anything connected with the human body. Proponents of the law and economics school assert that markets are desirable for almost all transactions³²⁷ while critics on the other side argue that commodification of anything connected with human personhood is inherently dangerous.³²⁸ As Katharine Silbaugh writes, "The commodification critique is often a conversation stopper. Because markets do not capture the entire experience in question, they are thought to threaten the existence of what they cannot describe."³²⁹ Margaret Radin suggests that concerns about market analysis rely on a moral "domino theory,"³³⁰ which assumes not only that "for some things, the noncommodified version is morally preferable . . . [but] also that the commodified and noncommodified versions of some interactions cannot coexist" because commodified versions will drive out the noncommodified versions.³³¹

³²⁷ See, e.g., Elisabeth M. Landes & Richard A. Posner, *The Economics of the Baby Shortage*, 7 J. LEGAL STUD. 323, 323-24 (proposing markets for babies).

³²⁸ For example, Michael Sandel asserts that certain markets should be prohibited either because of coercion ("conditions of severe inequality or dire economic necessity") or corruption (defined as the "degrading effect of market valuation and exchange on certain goods and practices"). Michael J. Sandel, *What Money Can't Buy: The Moral Limits of Markets*, in RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE, *supra* note 10, at 122.

³²⁹ Silbaugh, *supra* note 10, as reprinted in RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE, *supra* note 10, at 301.

³³⁰ Margaret Radin summarizes the debaters as holding two extreme positions: "The Chicago school of economics tends to conceive of everything people may value as a scarce commodity with a price. . . . Karl Marx's theory can represent the theoretical pole of universal non-commodification." Margaret Jane Radin, *Contested Commodities*, in RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE, *supra* note 10, at 81, 83. (This work is excerpted from her book, *Contested Commodities* (1996)).

³³¹ *Id.* at 83-84.

However, a growing group of scholars have proposed alternative views of commodification that permit market exchanges as long as vulnerable populations are protected from exploitation. Radin, for example, argues opposition to markets because of a concern that poor persons will sell something intrinsic to their personhood (e.g., their organs) out of economic desperation is misplaced.³³² Radin suggests that it is better to respond directly to that desperation, rather than banning the sales, since a ban does nothing to cure the desperation.³³³ Additionally, Radin posits that commodified and noncommodified understandings of social relationships can coexist, under what she calls “incomplete commodification.”³³⁴ She offers as an example a decriminalized but well-regulated market in sexual services (i.e., prostitution) that would protect women’s health and limit the exploitation of poor women without driving out the humanistic understanding of sexual relationships that do not take place in a market.³³⁵

Martha Ertman goes further, arguing that one can “enthusiastically embrace the benefits of commodification in particular circumstances without retreating to a bloodless . . . legal economics [analysis] that does not (and perhaps cannot) account for power disparities, nor the importance of alleviating them.”³³⁶ Ertman thus rejects a binary view of commodification, explaining that contrary to “[a]cademic hand wringing,” markets in aspects of personhood, such as parenthood, already exist.³³⁷ She asserts that a “highly contextualized” understanding of commodification responds better to the moral, economic, and social concerns of particular interactions,³³⁸ and that there may be “affirmative good that marginalized people may enjoy through markets, both literal and rhetorical.”³³⁹ To illustrate, Ertman uses the market in sperm for artificial insemination as an example of such a contextualized commodification, which helps single women and gay and lesbian couples form intentional families that they could not do through the more regulated market of adoption.³⁴⁰

Katharine Silbaugh also supports the use of economic analysis as part of a comprehensive exploration of the dimensions of a particular phenomenon, for example, domestic labor. Silbaugh rejects the notion that “talking about home

³³² *Id.* at 86.

³³³ *Id.*

³³⁴ *Id.* at 84.

³³⁵ *Id.* at 87-91. Radin notes that opposition to markets because of a concern that poor persons will sell something intrinsic to their personhood (e.g., their organs) out of economic desperation is better addressed by responding to their desperation, rather than banning the sales, because the ban does not cure their desperation. *Id.* at 86.

³³⁶ Ertman, *supra* note 10, as reprinted in *RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE*, *supra* note 10, at 303, 304.

³³⁷ *Id.* at 305.

³³⁸ *Id.* at 304, referring to sociologist Vivian Zelizer’s work on how life insurance came to be viewed as a legitimate commodity that met the needs of families in the nineteenth century, even though it was initially opposed because it placed a value on individual human life. For further discussion of Zelizer’s work, see Silbaugh, *supra* note 10, as reprinted in *RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE*, *supra* note 10, at 298.

³³⁹ Ertman, *supra* note 10, as reprinted in *RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE*, *supra* note 10, at 303, 306.

³⁴⁰ *Id.* at 305-17.

labor as productive mean[s] commodifying it" and asserts that intellectual discourse is damaged "[t]o assume that there is no important difference between analyzing the economics of something and creating an unregulated market for that same thing."³⁴¹ Interestingly, Silbaugh observes that commodification critics seem to object to a market approach only when it is women who are receiving money for their services, suggesting that it is not coincidental that reluctance to recognize an economic dimension to labor follows gender lines.³⁴² In the context of the debate about human egg donation and gestational surrogacy arrangements, she observes that mixed motives, such as altruism coexisting with a desire to be paid, that relate only "to feminine activities are highlighted and offered as justification for leaving women without cash."³⁴³ "Mixed motivations in the labor force at large do not require regulatory practices aimed at keeping wages down," such as teachers being paid relatively low wages.³⁴⁴

Michele Goodwin also asserts that market principles should not be shunned simply because they have been used in the past to exploit vulnerable populations.³⁴⁵ Writing to consider compensation for organ donation, she, along with others, asserts that permitting organ and tissue donors to be paid for their gifts would not necessarily corrupt the organ and tissue donation and transplantation system.³⁴⁶ Instead, Goodwin suggests that playing "the race card" to preclude all private ordering will neither successfully prevent the exploitation of African American patients nor guarantee them access to the organs they desperately need.³⁴⁷ She argues that the analogy to the historical practice of African American slavery as a reason why we should not permit organ donors to be paid is meretricious. In particular, Goodwin notes four major differences between compensated organ donation and slavery. First, the former is life-saving, the latter was life-extinguishing.³⁴⁸ Second, the former provides compensation, and the latter, by definition, did not.³⁴⁹ Third, compensation for organ donation and participation in a compensation-based market would be voluntary, whereas slavery was involuntary.³⁵⁰ Fourth, compensation for organ donation would not increase the risk of harm to the donor, while slavery was a brutal system with much physical abuse.³⁵¹ Goodwin argues that refusing to consider the benefits of a compensated organ donation system, in which people could be given financial incentives to donate in order to increase

³⁴¹ Silbaugh, *supra* note 10, as reprinted in *RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE*, *supra* note 10, at 298.

³⁴² *Id.* at 299-301.

³⁴³ *Id.* at 300. Silbaugh criticizes the focus on purported harm to women by permitting monetized transactions as reflecting "a desire to elevate a romantic essentialism about femininity" at least as much as a "desire to protect women's integrity." *Id.*

³⁴⁴ *Id.*

³⁴⁵ MICHELE GOODWIN, *BLACK MARKETS* 193-203 (2006).

³⁴⁶ See, e.g., Fentiman, *supra* note 10, at 1598; Goodwin, *supra* note 10, at 629; Oberman, *supra* note 10, at 941.

³⁴⁷ Goodwin, *supra* note 10, at 603-04, 626, 635.

³⁴⁸ GOODWIN, *supra* note 345, at 198-200.

³⁴⁹ *Id.* at 200-01.

³⁵⁰ *Id.* at 201-02.

³⁵¹ *Id.* at 202-03.

the supply of life-saving organs, turns notions of morality and justice on their head.³⁵²

B. Commodification in the Markets for Breastfeeding and Human Milk

The fundamental question about commodification of breastfeeding and human milk is not whether commodification should occur, because it already does. That commodification already exists is evident from pediatricians who promote breastfeeding and the use of human milk as the exclusive food for infants, HHS's "Babies Were Born to Be Breastfed" campaign, not-for-profit milk banks, agencies providing wet nurses, and for-profit companies like Prolacta Bioscience. All these actors view human milk as a commodity, a product with significant economic value as well as scientific benefit.

Instead, the question is whether this commodification should be made explicit, so that market principles can expand our understanding of the trade-offs involved in choosing to breastfeed, to sell, donate, or purchase human milk, or to buy infant formula. In addition, the emotional and rhetorical significance of breastfeeding must be acknowledged, in order to directly confront the taboos that a commodification analysis implicates.

Furthermore, the AAP has also engaged in an explicit, though incomplete, cost-benefit analysis,³⁵³ asserting not only that breastfeeding and human milk confer significant health advantages to infants and children but also that both save families the cost of buying formula and save the broader community the cost of illness avoided.³⁵⁴ However, nowhere does the Academy include in the cost of exclusive breastfeeding the fact that a new mother will unlikely be able to work full-time, and that her wages will therefore be lost to the family.³⁵⁵ Nor does it acknowledge that the cost of buying human milk for a family in which the mother cannot or will not breastfeed exceeds \$4000 a month.³⁵⁶

Both not-for-profit milk banks and Prolacta Bioscience depend upon women's generous desire to help other mothers by donating human milk. Not-for-profit milk banks reliance on women's altruism makes sense because the banks do not make money, and in fact barely break even. However, altruism cannot justify Prolacta Bioscience's exploitation of the generosity of women who donate their milk with the expectation that it will be shipped to starving infants in Africa, when most of it will be processed into human milk fortifiers and sold to hospitals at prices that exceed \$180 per ounce. Just as John Moore felt ripped-off (and brought an action for conversion) when his physician used cells harvested from his hairy-cell leukemia to produce a lucrative stem cell line,³⁵⁷ or as families who donate a loved one's tissue with the expectation that it will help burn victims might feel misled if they discovered it was being used

³⁵² *Id.* at 194, 203-04.

³⁵³ Margaret Radin asserts that engaging in cost-benefit analysis is one of the hallmarks of commodification. Radin, *supra* note 10, at 1859.

³⁵⁴ Am. Acad. of Pediatrics, *supra* note 68.

³⁵⁵ KUKLA, *supra* note 42, at 148-50, 160-63.

³⁵⁶ Assuming that the average infant consumes 30 ounces of milk a day, that means that in a month the infant will consume 900 ounces, which costs \$4050 if the cost of milk is \$4.50 per ounce. Interview with Laurie Dunn & Sue Evans, *supra* note 22.

³⁵⁷ Moore v. Regents of the Univ. of Cal., 793 P.2d 479, 479-82 (Cal. 1991).

in cosmetic surgery,³⁵⁸ so too women may feel betrayed if they learn that their milk was the raw ingredient for a biotech company's profits.

Despite the existing commodification of breastfeeding and human milk, the idea of treating either as commodities raises both eyebrows and moral reservations. However, I suggest that the markets in human milk are so threatening because they "sound" in motherhood, raising concerns about the "corruption"³⁵⁹ or degradation of personhood.³⁶⁰ Indeed, there is a fear, as Margaret Radin explains, that a market for a product cannot coexist alongside noncommodified interactions in the same area.³⁶¹ This discomfort reflects much deeper emotional constructions of the nature of motherhood, and the confounding views of the breasts as both sexual and nurturing, which surface in discussions about whether it is appropriate to breastfeed in public or to nurse another woman's child.³⁶² Further, it is precisely because the science on the benefits of breastfeeding and human milk is so weak that the emotional overtones of breastfeeding and an essentialist view of women can overwhelm a rational discussion of the desirability of a market.

C. *Proposal for a Regulated Market in Human Milk*

Only by laying taboos aside can one begin to fashion an appropriate remedy. The answer, I suggest, is not to forbid the profitable exploitation of human labor, but rather to acknowledge that milk production and donation *do* involve the use of human tissue and labor and to offer both informed consent and reasonable compensation for that which women are providing. The market, I propose, would coexist alongside the donative market that now exists, in which everyone except the woman who donates her milk benefits.³⁶³

A preliminary model of this market is presented below. In order to transfer (either donate or sell) their breast milk, women would need to be offered a minimum price of \$1 per ounce. This would ensure that the woman could earn a minimum wage of \$6-8 per hour,³⁶⁴ compared to the current federal mini-

³⁵⁸ Oberman, *supra* note 10, at 940-41.

³⁵⁹ Sandel, *supra* note 328, at 122.

³⁶⁰ Radin, *supra* note 330, at 82-83.

³⁶¹ *Id.* at 83-84.

³⁶² This issue was recently raised by the conflicting public responses to Salma Hayek's apparently impulsive decision to nurse a starving infant when she was visiting Sierra Leone to support a vaccination program. Kate Foster, *Milk of Human Kindness*, SCOTLAND ON SUNDAY, Feb. 15, 2009, at 15, available at <http://scotlandonsunday.scotsman.com/opinion/-Milk-of-human-kindness.4981995.jp>.

³⁶³ This situation, of course, is in striking parallel to the current system of organ and tissue donation, in which federal law prohibits the compensation of the organ and tissue donor, while physicians, hospitals, organ and tissue suppliers, including UNOS (the national organ procurement organization) are handsomely rewarded. See, e.g., Fentiman, *supra* note 10, at 1601; Goodwin, *supra* note 10, at 629; Oberman, *supra* note 10, at 930.

³⁶⁴ Although lactation consultants and others advise that the amount that each woman can pump is different, depending on her child's age, a rough estimate is that a woman can pump three to four ounces when her child is a month old, in approximately half an hour. See, e.g., http://www.ameda.com/breastpumping/most/how_much.aspx, and http://www.ameda.com/breastpumping/most/more_milk.aspx (last visited Feb. 23, 2010).

imum wage of \$7.25.³⁶⁵ Of course, women would not be required to accept any compensation.

However, the fact that such compensation is available would have several salutary effects both for women and non-profit and for-profit organizations. First, compensation might assist not-for-profit milk banks because it could help them receive an increased supply of milk. Some women would choose to donate if they were compensated while they might not do so if they were only considering donation. For not-for-profit milk banks, this could lead to a greater supply of milk which would help them meet rising levels of demand amid a relatively flat level of donation.³⁶⁶ One dollar per ounce would lead to a relatively small increase over the \$4.50 that not-for-profit milk banks currently charge hospitals and infants' families for their milk, and might lead to an appropriate reduction in demand among those infants whose need for milk is not clearly established.³⁶⁷

For women who are weighing the decision of whether to return to work or to take an extended uncompensated parenting leave, the opportunity to earn a minimum wage for a few hours of extra labor a day, without needing to leave home or otherwise significantly alter their routine, might prove an attractive alternative. Other women might affirmatively choose to donate gratuitously to a not-for-profit milk bank instead of a corporation like Prolacta Bioscience once they were aware that Prolacta Bioscience was profiting from their freely given milk. Still other women might decide to donate their milk either to Prolacta Bioscience or a not-for-profit organization, and would perhaps feel that their feeling of altruism was sufficient compensation.

This market could also be regulated by either the federal or state governments. Such regulation would prevent the exploitation of women who provide their milk to either for-profit corporations or not-for-profit milk banks, and to protect infants from receiving milk from women who have hepatitis, HIV, tuberculosis, or other communicable diseases. In this regulated market, prospective donors would be screened for these diseases as well as for medications that might be transmitted through breast milk. Moreover, additional protections could be provided by requiring that a woman be examined by a physician or nurse practitioner to ensure that she is a suitable donor. This would safeguard both the quality of the donor's milk and the health of the donating woman, whose additional physical examination would be paid for indirectly by the compensating milk bank or company. If necessary, women under eighteen, who are presently among the least likely to breastfeed, would need their parents' consent to sell or donate their milk.³⁶⁸

³⁶⁵ U.S. Dep't of Labor, Compliance Assistance, Fair Labor Standards Act (FLSA), *available at* <http://www.dol.gov/whd/flsa/index.htm> (last visited Feb. 23, 2010). The minimum wage rose to \$7.25 an hour on July 24, 2009. *Id.* This amount pales in comparison to the \$1000 a week that wet nurses in southern California may earn, but of course, the wet nurse is providing a service in addition to the commodity of breast milk. *See Lee-St. John, supra* note 24; Shamilian, *supra* note 24.

³⁶⁶ *See supra* text accompanying note 261.

³⁶⁷ This reduction might also come about as awareness of the market in human milk facilitates debate about whether milk's value has been oversold.

³⁶⁸ I personally have trouble with requiring parents to consent to minor women donating their breast milk, which seems to be a much less weighty decision than either deciding to

Society has long been committed to valuing individuals largely based on their ability to generate wealth.³⁶⁹ Therefore, offering women who choose to produce and exchange their breast milk the opportunity to be compensated at fair market value will only enhance their sense of agency and worth. Historically, it has been women, and poor women of color in particular, who have been excluded from positions of power and prestige in a market economy. By rejecting the false “dichotomy between the language of economic productivity and the language of [care],”³⁷⁰ the recognition of a market in human milk and a frank discussion of the costs and benefits of breastfeeding, human milk, and infant formula will enhance, rather than constrain, our understanding of women’s work and caring for children.

IV. RECOMMENDATIONS AND CONCLUSION: WHAT NEEDS TO BE DONE

Three major legal and policy changes are necessary. First and foremost, medical and public health authorities must be required to establish convincingly, without resort to emotional and fear-based appeals, that breastfeeding and human milk *do* lead to better health outcomes for infants and children. If they do, then federal law must be amended to provide that women who wish to continue breastfeeding after returning to work must be able to pump and store their milk in a safe, private place. State and federal laws must be enacted which ensure that women are able to nurse in places of public accommodation, including stores, parks, and modes of transport. Second, federal policy must change to support breastfeeding in a systemic way, by providing more access to health care that promotes breastfeeding for new mothers. Such changes should include adopting the Baby-Friendly Hospital Initiative and dramatic alterations to the WIC program, which will provide meaningful incentives to breastfeeding and end subsidies of formula manufacturers at taxpayer expense. Third, the markets in human milk must be recognized as such and regulated appropriately, as noted above. Together, these changes will enable women and their families to make informed choices about the best way to nourish their infants and to organize their private and professional lives.

have sexual intercourse or to consider whether to have an abortion, neither of which requires parental approval. However, a requirement of parental informed consent to donate their tissue is consistent with general principles of tort law. *See, e.g.*, 67A C.J.S. *Parent and Child* § 47 (2009).

³⁶⁹ *Cf. Oberman, supra* note 10, at 914 asserting that informed consent will not increase tissue donation, because it may tend to discourage donation. In contrast, a woman’s decision to donate milk is not pressured by time constraints, nor should an informed consent process that reveals the potential profit from the donation necessarily lead the donor to decline to donate.

³⁷⁰ Silbaugh, *supra* note 10, at 82.