

Fourteen

Making Mothers' Milk Count

Julie P. Smith

INTRODUCTION

In her 1988 classic *Counting for Nothing*, Marilyn Waring observed that although “men who win Nobel prizes are generally considered more observant than the rest of us”, Sir Richard Stone had invented a system of measuring economic activity in which “reproduction is invisible” (Waring, 181).

The example of breastfeeding was used to scathingly critique the United Nations System of National Accounts (SNA) - Sir Richard Stone’s “baby”. Waring argued forcefully that these accounts perpetuated the invisibility and devaluation of women’s contribution as infant food and health care producers. Breasts were only counted by the SNA when exploited in advertising, in pornography, in the lingerie industry, and cosmetic surgery.

Breastfeeding was not counted when applied to their primary function —nourishing human infants. Meanwhile, breastfeeding was declining worldwide, due partly to a worldwide lack of consideration by employers — women who breastfed in accordance with best practice for mother and child health were “simply expected to get on with it, in their own time” (Waring, 171).

JULIE P. SMITH

This vigorous feminist critique of the SNA inspired considerable feminist scholarship and activism on valuing women's work in economic statistics, and was an important contribution to the "accounting for women's work project" (Benaria 131). This aimed for all women's work to be counted in statistics, accounted for in the representations of how economies work, and taken into account when policy is made (Elson *Progress of the World's Women* 2000).

It is also important for economic advancement that public policy is informed by statistics which more accurately portray the economy and women's contribution to it. Nevertheless, some ask whether this accounting focus distracted from achieving greater economic justice for women. As Valeria Esquivel observes, "producing household sector satellite accounts does not by itself change macroeconomic policy" (219). More recently, UN discourse has shifted in focus from "measuring" and "possibly compensating" unpaid work, to counting as "essential to well-being" but "costly" for those who provide it, and justifying claims for strategic policy interventions to reduce unpaid work and redistribute its burden within and between households. This is known as the "three R's of unpaid work: recognition, reduction and redistribution" (Elson *The Three R's of Unpaid Work*).

This chapter reviews the intellectual contributions stemming from *Counting for Nothing* in the area of women's breastfeeding work, and illustrates from an Australian perspective how this has been used in public policy advocacy. I explore how the feminist critique of the national accounts system influenced research on the economic value of breastfeeding since 1988, how it inspired women's breastfeeding advocacy and helped shape Australian health and employment policy. I also consider the barriers and possibilities for valuing breastfeeding in the SNA, and the important implications of doing so.

MAKING MOTHERS' MILK COUNT

COUNTING FOR SOMETHING—VALUING MOTHERS' MILK

Counting for Nothing was not the first call to acknowledge the economic value of mother's milk and breastfeeding, though it was the first to demand its proper valuation and to insist that the costs of breastfeeding to women be accounted for.

Until the 1990s, assessments of the economic significance of breastfeeding valued breast milk as if it were cows' milk or commercial infant formula. This fails to count the economic value of breastfeeding for the health and development of infants. These studies were motivated to protect and promote breastfeeding but understated its economic value by equating human milk with bovine animal milk products (Berg; Almroth, Greiner and Latham). Importantly, these studies viewed women's time as "free", thus understating the economic cost of breastfeeding. In 1979, nutritionists noted the time spent breastfeeding as a cost (Almroth, Greiner and Latham). Such costs are especially important for resource poor mothers and may influence them to wean their children from breastfeeding prematurely (Sellen).

The "mothers' milk equals cows' milk" approach to valuing breastfeeding was challenged from the 1990s. Mother's milk production was counted in Norway's food production statistics from the early 1990s, and was valued in a 1994 study using the market price of donated breast milk traded between Norwegian hospitals (Oshaug and Botten). Using the same valuation approach, the economic value and strategic importance of breastfeeding in Sub-Saharan Africa was estimated at half the annual output of cows' milk (Hatloy and Oshaug). Conservatively valued at US\$1 per litre, this added between two and five percent to GNP.

In the mid 1990s, Oshaug and Botten's insights on valuation were used to estimate the economic value of breastfeeding in Australia, within a national accounting framework. This research showed that the price of commercially modified bovine milk massively un-

JULIE P. SMITH

derestimated the economic value of mothers' milk and it was more appropriate to use the market price of expressed breast milk to value the supply of human milk (Smith, Ingham and Dunstone; Smith "Human Milk Supply").

Many people are surprised that markets in mothers' milk exist. Hospitals and milk banks exchange and sell donated breast milk, human milk is traded through the Internet, and breastfeeding services are sold by wet nurses. In the past five years, the "market" for human milk has expanded considerably. In 2009, ten North American milk banks distributed 1.5 million ounces of human milk for US\$3 an ounce or \$127 (\$A153) a litre. In Europe it sold for €130 (A\$222) per litre; a price reflecting costs of processing and storing donated milk.

Usually milk banking is conducted on a not for profit basis, but a for-profit company now sells donated and highly processed human milk for use in neonatal intensive care units at a price of around US\$1183 (A\$1429) a litre.

Individual women have also responded to demand for breast milk by expanding informal systems for milk exchange, facilitated by the Internet. Websites such as "Eats On Feet" help mothers share their milk with other mothers—recipients pay shipping costs only. Other sites such as "Only The Breast" operate systems for trading milk, its philosophy being to recompense mothers for costs including their time. Breast milk is bought and sold on this site for about US\$2 an ounce, or US\$131 a litre.

There is also a market for wet nurses. Wet nurses advertise with "Only The Breast" at around US\$50 per day ranging up to \$150-200 per day where childcare or housework is also offered. U.S. employment agencies quote wages of around US\$1,000 a week for wet nurses while a recent media report cited wages in China of US\$10,000-25,000 per year.

MAKING MOTHERS' MILK COUNT

HEALTH CARE AND HUMAN CAPITAL BUILDING

As pointed out in 1988 “an inadequately fed infant is a cost to the health system, . . . to the education system (because of brain development), and to society generally” (Waring, 207). National accounting experts now acknowledge the crucial, unpaid role of families in building human capital (Abraham and Mackie).

Breastfeeding contributes uniquely to human development through providing uniquely species-appropriate nutrition and care for infants and young children. Lack of breastfeeding is now a recognized risk factor for chronic disease in adulthood, as well as for acute infectious illness during infancy and childhood. Mothers' health is adversely affected by premature weaning, through higher incidence of depression and mental illness, and increased rates of breast cancer and other disorders among women with short breastfeeding duration (American Academy of Pediatrics et al.). Over a million infants a year die needlessly from lack of breastfeeding; improving breastfeeding practices is the most effective and cost effective intervention to improve mother and child health globally (Bhutta et al. 417-40; Black et al.).

Breastfeeding minimises health care costs. Several studies have estimated health care system costs attributable to formula feeding. The cost of pediatric health care and premature death attributable to formula feeding in the United States is around US\$13 billion annually (Bartick and Reinhold e1048); it is also a significant proportion of acute and chronic disease costs in Australia (Smith, Thompson and Ellwood; Smith and Harvey).

Well conducted cohort and experimental studies in several countries now provide strong evidence that those deprived of human milk or breastfeeding in infancy have poorer cognitive and academic achievement in later life (Kramer et al.; Sacker, Quigley and Kelly; Oddy et al.). Ending exclusive breastfeeding before 4 months is estimated to reduce IQ by 3-7 percentage points, with larger impacts for premature or small-for-gestational-age infants.

JULIE P. SMITH

This is comparable with the effects on child cognitive development of pre-natal lead exposure (Walker et al. , Table 4). Lifetime costs of special education for preterm infants in Australia would be \$32 million lower if 20 per cent more were fed breast milk rather than exclusively formula fed (Drane).

Nobel Laureate James Heckman and colleagues (Heckman, Masterov and National Bureau of Economic; Doyle et al.) have shown the economic importance of early investments in children. They quantify how early childhood experiences influence the development of cognitive skills, socio-emotional functioning and health, and culminate in a way that measurably affects later life earnings and productivity.

ACCOUNTING FOR THE TIME COSTS OF BREASTFEEDING

Revealing women's time costs of breastfeeding can help redistribute the costs of care more widely in society; it is mainly others who benefit from women's time investment in breastfeeding (Smith "Mothers' Milk"). Failing to count women's time distorts public policies and results in long term economic loss as market work is favoured over economically valuable but unpaid care and nourishment of infants.

Some consider loss of employment opportunities as a cost of breastfeeding. However, the true picture is more complex (Van Esterik and Greiner). Rather than employment per se, factors such as travel time and distance to work, employment conditions, and workplace arrangements may be the critical determinants of breastfeeding continuation among employed mothers. Whether employed women have any real decision-making power over infant feeding methods is determined by structural and economic factors and is not simply a matter of personal choice or biology (Quandt; Galtry).

Our Australian Time Use Survey of New Mothers (TUSNM)

MAKING MOTHERS' MILK COUNT

found that having an infant added 44 hours a week to a woman's unpaid workload (Smith and Ellwood), and revealed the high time cost of breastfeeding in a developed country setting. It also showed that exclusive breastfeeding of infants for 6 months took around 17-20 hours a week of mothers' time, much less than formula fed or partially weaned infants.

Time is also important to understanding which mothers cannot afford to breastfeed, or "rationally" decide not to. For mothers without adequate family support, early weaning from breastfeeding gives them more time, whether for leisure, housework, personal care or employment. This may more than compensate for extra costs of commercial baby food and health care. A recent US study showed breastfeeding mothers suffered greater earning losses than other mothers due to longer labour force withdrawal (Rippeyoung and Noonan). Empirical research in Canada (Baker and Milligan), the U.S. (Mandal, Roe and Fein) and the U.K. (Hawkins, Griffiths and Dezateux), shows that breastfeeding is increased if mothers get more time such as through extended paid maternity leave. On the other hand, breastfeeding in the US was reduced by welfare reforms encouraging return to work by 12 weeks (Chatterji and Frick). Promotion of breastfeeding as free or costless has been "a convenient tool used by states to avoid responsibility for taking on more costly solutions to children's and women's health" (Rippeyoung, 36). How making visible these economic aspects of breastfeeding links to pursuing economic justice for women is discussed below.

COUNTING THE COST OF INVISIBILITY; INSPIRING AND STRENGTHENING WOMEN'S ADVOCACY

A focus on the economic value of breastfeeding and breast milk has made women's lactation work more visible and assisted women's advocacy on breastfeeding and maternity care. Influenced by *Count-*

JULIE P. SMITH

ing for Nothing and research on the economics of breastfeeding, the Australian Breastfeeding Association (ABA), then known as Nursing Mothers' Association of Australia, began advocating for including breastfeeding in GDP in 1999. By 2002, its representations to federal parliamentarians would present research evidence of health cost savings from breastfeeding. The following year, this research was cited in Australia's new dietary guidelines on infant feeding (National Health and Medical Research Council).

In 2004 the Association's *National Breastfeeding Leadership Plan* recommended including breastfeeding in national food production statistics and GDP to increase the health policy priority of breastfeeding. ABA's 2006 submission to the Australian Treasury used evidence on health system cost savings (Smith, Thompson and Ellwood) to successfully advocate federal government funding of breastfeeding support measures—the May 2007 Budget announced \$8.7 million for a requested national breastfeeding helpline and health professional training.

ABA advocacy citing health system cost savings also triggered a parliamentary inquiry on the benefits of breastfeeding in late 2006. Public submissions highlighted the economic contribution that women make by breastfeeding. The 2007 *Best Start Report* (Commonwealth of Australia, 53-58) urged further research on economic impacts to drive government action and investment in breastfeeding support. The Inquiry also heard evidence on the time costs of breastfeeding, and its Report (54) acknowledged the failure to properly recognize its time-intensity and economic cost to women. It stopped short of recommending paid maternity leave, but meanwhile the Australian government moved towards introducing a new national scheme.

The 2007 Australian Productivity Commission Inquiry into Paid Parental Leave invited evidence on the time costs of breastfeeding and on its economic importance, and in 2009, recommended a publicly funded scheme for 18 weeks paid parental leave. It expected that as a result, "more women will be able to have longer,

MAKING MOTHERS' MILK COUNT

beneficial interactions in the early phase of their babies' lives and to breastfeed for longer" (Productivity Commission, XX11). The Commission was influenced by the health cost savings from breastfeeding, concluding that the economic costs of not breastfeeding were significant for developed as well as poor countries (Productivity Commission, 4.24).

COUNTING MOTHERS' MILK IN THE UNITED NATIONS' SYSTEM OF NATIONAL ACCOUNTS - PROGRESS IN PRINCIPLE

Why is it that when we pay for childcare and housecleaning, when we eat out, when we buy milk for our babies, or when we call in the mechanic or the plumber, these add to GDP and count toward economic growth and progress; but when we look after our own children, clear our own house, cook our own meals, breastfeed our babies, tune up our own cars, and fix our own leaking faucets, these have no value in our current measures of progress? (Collas-Monsod *Removing the Cloak* 98)

Despite breastfeeding's crucial importance for infant health and survival, national statisticians do not count human milk as a food. Not including breast milk and breastfeeding in GDP is in fact contrary to United Nations' guidelines.

Revised international guidelines were published for National Accounting in 1993 (commonly referred to as SNA93) (Commission of the European Communities). SNA93 was revised to take better account of "subsistence" production; GDP should include all "own account" production of goods by households. This includes agricultural subsistence production such as sowing, planting, tending and harvesting field crops; growing vegetables, fruit and other trees and shrub crops; gathering wild fruits, medicinal and other plants; tending, feeding or hunting animals mainly to obtain meat, milk,

JULIE P. SMITH

hair, skin or other products; and storing or carrying to some basic processing of this produce.

SNA93 also included in GDP any agricultural produce consumed on-farm. The national accounting framework thus included all non-marketed goods, including the production, processing and storage of food by households, within the GDP production boundary.

The Australian Bureau of Statistics (ABS) includes the value of homegrown fruit, vegetables, eggs, beer, wine and meat in estimates of final private consumption expenditure and therefore GDP. Australian core accounts now include “the own account production of all goods retained by their producers for their own final consumption or gross capital formation” (“Unpaid Work and the Australian Economy”, 46), where these are quantitatively significant, thereby following the practice set down in SNA93 (para 6.18).

The preferred approach to valuing production in the national accounts system is using market values. The fundamental criteria for inclusion of a good is that it can be traded in a market. The existence of markets in human milk (see above, Section 1) means there are prices of a closely related or analogous product - a shadow price - from which to impute its economic value.

We have shown human is defined as a good within the SNA93 core production boundary (Smith and Ingham “Mothers’ Milk”; Smith and Ingham “Breastfeeding”) because, in national accounting language, it can be produced, stored, sold on markets, and thus be valued (Commission of the European Communities, para. 6.7).

Demonstrably, the value of human milk production can be estimated using accepted valuation methods for national accounting – an input based, wage cost approach (replacement wage, opportunity cost), or using the market value of the output (Smith “Human Milk Supply”). Estimated annual human milk production in Australia in 1992 was 33 million kg. Using a market value of output approach to valuing production in a national accounts framework (i.e. a price of US\$50 per litre used for the Norwegian study (Os-

MAKING MOTHERS' MILK COUNT

haug and Botten)), this had a market value of \$2.1 billion a year.

This is qualitatively important compared to other goods produced for own consumption by households which were valued at \$1 billion in 1997 and are counted in GDP by the ABS. This means that the production and value of human milk should be included in core account estimates of national food production, consumption and GDP.

Others agree that GDP wrongly excludes breast milk. The 2009 French Presidential Commission on the Measurement of Economic Performance and Social Progress, led by two Nobel Laureates in economics, Joseph Stiglitz and Amartya Sen, cited the example of breastfeeding to illustrate how exclusion from GDP devalued important non-market work and biased policies against unpaid production:

There is a serious omission in the valuation of home-produced goods – the value of breast milk. This is clearly within the System of National Accounts production boundary, is quantitatively non-trivial and also has important implications for public policy and child and maternal health. (Stiglitz, Sen and Fitoussi, 39)

Including breast milk in GDP is important not only because it acknowledges women's lactation work. It also provides a focus for government actions to promote economic growth and development. For example, if breastfeeding in Australia increased to levels recommended by the World Health Organisation, this would add around \$3.7 billion annually (0.7%) to GDP (Smith and Ingham "Breastfeeding and the measurement").

BARRIERS AND ISSUES

Breast milk is still not included in GDP—why not? In 1990 the Australian Government was advised that unpaid work should continue to be excluded from GDP because the market sector was

JULIE P. SMITH

the primary concern for macroeconomic policy and because unpaid household work was not related to market forces as directly as goods (Australian Bureau of Statistics “Measuring Unpaid Household Work”, 6-7).

These arguments do not apply to human milk production. Production levels of human milk are closely related to market activity, with direct competition to breastfeeding from companies selling and profiting from sale of infant feeding products. Labour market participation and breast milk production compete directly (Mandal, Roe and Fein 1-21). It is also questionable as to whether other conventional arguments for excluding unpaid work from GDP apply to human milk production. For example, Collas-Monsad (Removing the Cloak) has identified arguments that excluding unpaid work is necessary to maintain the usefulness of the accounts to policymakers. It is said to avoid “overburdening or disrupting the central system” (Commission of the European Communities, para. 21.4).

However, excluding human milk production from GDP means that Australia’s policymakers focus on promoting the activities of commercial firms producing less than \$200 million of infant food products per year, whilst giving no importance to protecting household production of human milk worth \$2 billion a year or more. It is difficult to see why disrupting the system by comparing these values is undesirable, or why it overburdens policy analysis to show the large magnitude of non market production of infant food. Likewise, including breastfeeding in GDP would surely enhance monitoring and analysis of long term productivity trends and patterns in the food, nutrition, childcare and health sectors.

Women’s work is still not measured in key economic statistics because of the costs involved in changing the collection and use of national accounts (Fraumeni). Experience in the Philippines suggests only “demand driven advocacy” will improve national accounting practices (Virola et al.; Collas-Monsod). Unfortunately, few understand how such statistics can be used for better decision-

MAKING MOTHERS' MILK COUNT

making, or how to use them for advocacy. Without such pressures, statisticians will do little about introducing them—though “what we don't know could hurt us” (Abraham 3-18, 1).

USING STATISTICS FOR EVIDENCE BASED POLICY—“FLYING BLIND WITH SNA”

Why do statistics matter? In simple terms, they are the evidence on which policies are built. They help to identify needs, set goals and monitor progress. Without good statistics, the development process is blind: policy-makers cannot learn from their mistakes, and the public cannot hold them accountable (World Bank, vii).

National accounts provide a misleading picture of human food production and consumption activities. Present practice has the startling result that increased breastfeeding and human milk production reduces national food output and GDP, because it lowers artificial formula and commercial baby food sales and reduces private and public health expenditures, which are measured. Unmeasured are economic benefits of using more of an environmentally-friendly and high quality food resource, and economic resource savings from reducing illness and disease and lesser use of medical services or products.

An equally questionable corollary of the current GDP measurement practice is that the dramatic worldwide drop in breastfeeding rates during the 1960s and 1970s inaccurately showed higher national output and economic growth from expanded production of formula and higher national health expenditures. This same practice of ignoring the loss of household production now grossly distorts measurement of economic progress in countries like China and India, and overstates economic growth.

The ability of women to breastfeed is a form of national wealth. Yet, the economic returns from this human capital asset are not

JULIE P. SMITH

counted as contributing to GDP or economic well-being. This renders a major national asset invisible to policymakers who use these economic statistics and GDP estimates to determine economic priorities. If it were visible, more policies and programs would be directed at protecting and enhancing breastfeeding knowledge and skills.

As the World Bank reinforces in the above quotation, economic development policies which consider only market activities will be misguided in design and poorly implemented, even counterproductive. Economic waste and lower national productivity, as well as gender inequity result from what is, in effect, “flying blind with SNA”.

CONCLUSION

It is the SNA that threw a cloak over women’s contributions, that cloak should and can be removed. (Collas-Monsod, “Integrating Unpaid Work into Macroeconomics”)

Counting for Nothing gave impetus to women’s push for greater recognition of their productive and reproductive work, and has inspired efforts to give women’s work greater visibility as well as improving economic justice for women. Women’s lactation work can be shown to at least “count for something” in the public eye. Despite reservations that chasing better economic statistics could be a blind alley for those pursuing gender equity, in this case at least, “the accounting project” has helped achieve some economic justice for women.

Breastfeeding illustrates how improving the visibility of women’s contribution to well-being using economic statistics has been successfully linked to policy measures giving economic recognition to those investing time in caregiving, and helping redistribute the cost of care in Australia.

MAKING MOTHERS' MILK COUNT

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JULIE P. SMITH

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MARA FRIDELL & LORNA TURNBULL

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