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The Intersections of Women's Economic and Reproductive Empowerment

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Pre-Print Version

Forthcoming in *Feminist Economics*

Abstract: This article examines the connections between women's reproductive health, care responsibilities, and the quality of work. The research suggests that the economic empowerment of women, manifest in their choice of where and when to work, and under the terms and conditions of that work, is intimately linked to reproductive empowerment and reproductive outcomes. Simplistic discourse in development policy about educating girls and getting women into the labor force will fall far short of their goals without attention to their reproductive health and rights. The analysis highlights the data limitations inherent in existing surveys that frustrate a more nuanced inquiry into employment and fertility outcomes. Analysts and statistical agencies responsible for household and labor force survey design could certainly apply some of the information from questions that elicit retrospective histories of contraception and fertility for similar approaches to employment history, job quality, and labor market intermittency.

Keywords: Contraception, reproductive health, childcare, employment, job quality

Length: 8,803

I. Introduction

Across the globe, women work daily to balance their dual roles as workers in the labor market and as the primary caretakers of children. Relative to men, women face the added challenge of having reproductive years that heavily overlap with their most economically-productive years. In developed countries, skilled women who have access to formal sector jobs and high wages are known to postpone marriage and child-bearing to accommodate work and caring (Marianne Bertrand, Patricia Cortes, Claudia Olivetti, and Jessica Pan, 2016; Francine Blau and Lawrence Kahn, 2017). However, in many contexts and in developing countries in particular, the pressures of combining childrearing with employment often relegate women to the informal sector, where they face insecure work arrangements and also lack important safeguards for pay and working conditions (United Nations, 2016).¹ Women's access to health care also varies significantly across countries and even within countries (WHO, 2018).² These variations have large repercussions since well-paying jobs and access to childcare services and health care play a crucial role in women's ability to carry out their fertility intentions and to plan the timing and spacing of pregnancies and births.

This article examines women and work in a variety of contexts to see how childbearing and access to reproductive health and childcare services affect the decision to work and the type and quality of work that women have access to. Because this relationship between employment and fertility is likely to be endogenous, our inquiry also examines how women's employment opportunities impact their fertility decisions. These conceptual underpinnings apply at three different levels: the macro, meso, and micro (Elson, 1994). At the macro level, there is considerable agreement that women and women's labor force participation plays a key role in economic growth. Standard neoclassical growth models generally emphasize the role of factor

accumulation in the process of growth. Countries that have expanded their female-intensive manufacturing and services sectors have experienced economic growth, as predicted by these models (Stephanie Seguino 2000; Michael Ross, 2008; Humphries, Jane and Carmen Sarasúa, 2012). Recent evidence highlights the role of female labor force participation in economic diversification (Romina Kazandjian, Lisa Kolovich, Kalpana Kochhar and Monique Newiak, 2019) as well as recovery from business cycle downturns (Masao Fukui, Emi Nakamura, Jón Steinsson, 2019; Peiró, Amado, Jorge Belaire-Franch, and Maria Teresa Gonzalo, 2012). Causal pathways between female employment and economic performance however, are however difficult to identify at the level of entire countries. Women's decisions about fertility as well as human capital investment can be affected by labor market opportunities. Moreover, both types of variables can be affected by education as well as cultural, social and unobservable factors that change at the same time as fertility, education and labor force participation.

The relationship between women's reproductive decisions and employment decisions are also likely to vary at the meso level. Here, the informal sector of the economy is key since women are more likely than men to enter and rely on this sector for employment in their pursuit of flexibility particularly during their peak child-bearing years (Verick 2014; Joanna Vanek, Martha Chen, Françoise Heintz and Ralf Hussmanns, 2014). The lack of internationally comparable and high quality data on this sector over the past several decades has made it difficult to answer some critical questions, such as the factors that drive women into and out of this sector and the working conditions in the sector. The importance of these issue goes far beyond the informal sector itself. Informalization is known to be associated with lower productivity growth, less investment overall, and weaker public sectors (Elissa Braunstein, 2012). Our study examines the co-evolution of reproductive health services, social protection

and labor market institutions and their impact on the type and quality of women's employment in this sector and beyond.

At a micro-level, a small but growing number of studies have linked measures of women's reproductive health with their economic empowerment. For example, Finlay (2019) uses a large cross-country dataset to demonstrate that a longer interval between births increases the risk that a woman will not work, while a shorter birth interval increases the likelihood of a woman having a meaningful job. Similarly, Gough (2017) finds that in the U.S., child-bearing strategies such as delaying the first birth that allow women to accumulate human capital yield the largest benefits in terms of labor market outcomes. Moreover, impact evaluation studies suggest that programs and policies to provide reproductive health and childcare services have facilitated increased educational attainment and better labor market outcomes for women, especially tenure, promotion, and retention in formal-sector jobs (e.g. Olivier Thevenon 2016; Christoph Strupat 2017; Rachel Connelly *et al.* 2018). A wide variety of actors are engaged in their provision – ranging from state and municipal actors to non-governmental organizations and community-based groups. Impacts range from greater labor force participation to higher incomes. But few of these evaluations provide rigorous quantitative evidence of how these programs and policies have increased women's attachment to and tenure in the formal economy.

The studies in this special issue provide analyses in all three dimensions – macro, meso and micro – to explore how women's access to reproductive health care and childcare services affects their labor market participation, quality of work, and attachment to formal labor markets. Although the link between women's labor force participation and their number of children can be carefully teased out and analyzed, relatively less attention has been paid to the relationships between the type and quality of employment and entrepreneurial activity and women's

childbearing and child-care responsibilities. The goal of this special issue is to consider these relationships, with a focus on how childbearing, and access to reproductive health and childcare services, affect women's decisions to undertake paid work and the type and quality of employment options they encounter.

II. Intersections of women's economic and reproductive empowerment

In the developing world, efforts to balance care responsibilities with participation in the labor market often result in women being relegated to the informal sector. The "choice" of formal and informal work is also likely to vary by women's reproductive empowerment, which includes women's ability to make decisions around fertility, express their sexual rights, and have access to a full range of reproductive health care services (Uma Radhakrishnan, 2010; Agnes Quisumbing, Kelly Hallman, and Marie Ruel, 2007). For example, in Thailand, Zoe Horn, Boonsom Namsonboon, and Poonsap Tulaphan (2013) found that home-based workers cited the ability to combine paid care work and childcare as the primary reason they engaged in home-based care. Moreover, Anja Franck (2012) found that in Malaysia women who held low-skilled jobs decided to start their own micro-businesses rather than return to formal work after having children.

In economies where there is more formal employment and statutory rights to maternity and paternity leave, and where there is more extensive social protection and more effective labor market institutions, more women are likely to work in the formal economy. But even in more favorable contexts, with greater access to care provision, women often adjust their intensive margins of work and work fewer hours in paid employment after having children. For instance, Anna Escobedo and Gerardo Meil (2013) found that in Spain in 2012, while all men returned to

full-time jobs after parental leave, only 55 percent of women did, and 35 percent returned to part-time work, and 7 percent did not return at all. Richard Blundell, Antoine Bozio, and Guy Laroque (2011) in their study of France, the United Kingdom and the United States confirm that women with children tend to decrease their labor force participation and reduce their hours of work, but that these results differ by the availability of working family and child tax credits – both features of developed country tax systems that are likely to affect an individual’s ability to access child-care and combine caring and work. Even in Sweden, a country with some of the most progressive and generous parental leave and publicly-funded daycare, the median gender gap in wages is approximately 0.10 log points (James Albrecht *et al.*, 2018).

Despite the centrality of having children to women’s labor market participation, access to reproductive health and childcare services is often not taken into account in labor market policies. For example, training interventions typically targeted at youth and the unemployed appear to have quite positive outcomes for women and adolescents – particularly in Latin America. What is interesting is that many of the training programs that explicitly address youth fail to consider the centrality of access to reproductive healthcare and childcare services, particularly for women, as being fundamental for their participation and longevity in the program and in their subsequent employment outcomes (Orazio Attanasio, Adriana Kugler and Costas Meghir 2008).

We observe a highly instrumentalist focus in the policy and development discourse on both dimensions of women’s economic empowerment and reproductive empowerment. That is, theories relating to women’s economic status have to date been thought of mostly as tools for addressing practical problems such as discrimination, inclusive growth, and poverty reduction rather than as meaningful descriptions of women’s well-being that illuminate an array of policy

options to secure their well-being. Similarly, theories on women's fertility have a history of revolving around economic developing and been used to motivate policies for population control. Consistent with Gary Becker's seminal work on women's fertility behavior, early theoretical models of women's fertility focused mostly on the demand for children, and they made very strict assumptions about fertility decisions (Becker 1960, 1981). In these early models, any changes in fertility over time are driven by economic development and modernization. As countries develop, the cost of having children increases (both the direct cost such as their schooling, as well as the opportunity cost of women's time through higher wages in the labor market). As the economic benefit of children falls, and the opportunity cost of having children rises, couples desire fewer children.

In this theoretical work, the major determinants of couples' desires to have fewer children are broad economic, social, and political forces associated with development. Absent from this framework are substantive depictions of women's reproductive desires and aspirations that can be enabled by a strong commitment to their reproductive rights. Moreover, the two discourses on economic empowerment and reproductive empowerment have largely occurred in separate disciplinary silos with little intersection, often isolated by disciplinary discourse and methodologies that speak to distinct groups of demographers and development economists.

Similarly, much of the literature in demography on fertility has focused on the role of contraception and family planning in women's decision-making around fertility without the parallel aspect of empowerment in accessing labor markets. Numerous studies in this literature have argued that countries with high fertility rates still have substantial unmet need for modern contraceptive methods, and that reductions in price and improvements in the availability of contraception can cause substantial decreases in unintended pregnancies and fertility. One

implication of this view is that the prevalence of contraception explains most of the variation across countries in fertility rates, and it is the effort of family planning programs to reduce the obstacles that women face in using modern contraceptive methods that is the main force behind lower fertility rates. For example, John Bongaarts (1994) argued that carefully planned programs reduce unwanted fertility, and unwanted fertility represents a non-negligible proportion of overall fertility in developing countries. This argument is echoed in Cornelius Debpuur *et al.* (2002), which found that during the first three years of a large family planning program in Ghana, the total fertility rate declined by one full birth, representing a 15 percent decline in fertility compared to communities that were not exposed to the program. A decline in fertility of similar magnitude was found for an experimental family planning program in the Matlab district of Bangladesh (Nistha Sinha 2005, Shareen Joshi and T. Paul Schultz, 2013).

Feminist discourse has emphasized the importance of women as key agents in the process of reproduction and that policies and programs must foster their agency – through education, information and access to health services (that include but are not limited to family planning) – to establish control over their bodies, but the parallel question of expanding their access to labor markets has largely been left out of the discussion. The Vienna Conference on Human Rights in 1993 and the Cairo International Conference of Population and Development in 1994 for example, both explicitly recognized the importance of reproductive rights and sexual and reproductive health, and even recognized the importance of broader investments in women's health and education. Feminists, women's rights groups, and other grassroots organizations had become increasingly critical of the demographic rationale behind family planning programs. They started to organize and express stronger support for a broader range of political, social, and economic rights for women in order to address the serious health concerns that women faced.

These conferences marked a formal convergence between the voices that had pushed for family planning in order to control women's fertility, and the voices that had argued for the protection of women's reproductive rights and improvements in their economic and social status (Ines Smyth 1996; Yana Rodgers 2018). However, the issue of access to labor markets received very little mention.

The scholarly literature on the effects of women's fertility and reproductive health historically has had little engagement with women's access to the labor market, but that is beginning to change. Higher fertility is associated with shorter spacing between births and larger family size, both of which have adverse effects on children's nutritional status, development, and survival chances (Joshi and Schultz 2013). Numerous studies on investments in children's human capital find that larger family size decreases resource availability per child, which is linked to worsened child health and lower educational attainment (David Canning and Schultz 2012).

It is not just children who are affected by changes in fertility rates, but also women themselves. Higher maternal age at first birth, fewer children, and longer birth intervals each result from women's ability to control the timing and number of births, and each has been linked to improved maternal health, higher body mass index for children, increased educational attainment, higher labor force participation rates, and increased lifetime earnings. These positive effects for women have been well documented in the literature.³ Some of the effects, especially higher educational attainment, can even result from contraceptive access, not necessarily contraceptive use. For example, parents may have an incentive to invest more in their daughters' education if they know that their daughters will have access to contraception later in life and can delay their fertility (Kimberly Babiarz *et al.* 2017). The beneficial effects for women, in turn,

may have feedback effects for their children's health in the future as child health has been linked to various measures of health and economic empowerment of their mothers, especially maternal education. A review of studies of these various indirect effects of family planning on women's and children's health through the link of lower fertility indicates that the estimates tend to be modest in size but meaningful in practicality (Kimberly Babiarz *et al* 2016).

More recently, there has been a shifting focus away from rights in both realms (women's economic empowerment and reproductive empowerment) particularly as it surfaces in the development discourse and public platforms surround aid and development assistance (Stephan Klasen and Francesca Lamanna 2009; Marc Teignier and David Cuberes 2014). Prominent initiatives embracing women's economic empowerment also disproportionately emphasize their instrumental value in terms of growth and poverty reduction. The recent UN High Level Panel on Women's Economic Empowerment (WEE), emerging from a body that holds the obligation to frame our collective human rights and host the human rights architecture, under-emphasizes the critical role of economic, social and cultural rights as a foundation for WEE (UN 2017). Indeed, in its 152 pages, reproductive rights are mentioned only twice. Other bilateral and multilateral initiatives that embrace WEE seem to be equally devoid of a rights-based analysis (Gita Sen and Avanti Mukherjee 2014; Andrea Cornwall and Althea Maria Rivas 2015).

Another dimension that is largely absent from these analyses of how fertility affects employment, and *vice versa*, is that of quality. The quality of employment and the quality of work are seldom linked in these explorations of fertility and employment. One reason for this lack of attention to the quality of work in such studies is empirical challenges in measuring employment quality, as discussed in the next section. Closely related to data constraints, the methodologies used to examine the relationship between fertility and employment have used a

relatively aggregated lens that does not leave room for a more nuanced approach. Similarly, the quality of reproductive health services are largely explored instrumentally in regard to contraceptive uptake and use and not embedded in a framing that sees quality as part of the right to reproductive health services. Data on modern contraceptive usage are readily available while data on the types of health services offered across countries are not, just as variations in the types of reproductive health services offered are more difficult to model conceptually. The following section provides more scrutiny of these challenges.

III. Empirical Challenges

Much of the research on reproductive health, fertility and employment remains constrained by the availability of data. One issue is that most studies rely on the female labor force participation rate, which is calculated from cross-sectional household surveys where the ILO definitions of labor force participation are employed to construct a binary indicator for employment.⁴ While the studies in this volume have drawn on this indicator for examining cross-country differences and country-level trends, the studies also highlight the challenges of working with this indicator. Labor force participation fails to capture labor conditions such as the level of job-security, the quality of the job, the vulnerability of the worker, the adequacy of the remuneration, or more importantly, the trade-offs faced by the respondent.

A second issue is the use of cross-sectional labor force data, given the variation in survey instruments and measurement across countries. This problem is frequently lamented by organizations such as the ILO dedicated to understanding the nature and the terms and conditions of work (ILO 2013). Moreover, the measurement of women's labor force participation may be subject to even greater error as women's economic activities are notoriously poorly measured and undercounted (Jane Humphries and Carmen Sarasúa 2012; Indira Hirway and Sunny Jose

2011). A third issue is that while commonly used health survey instruments such as the Demographic and Health Survey (DHS) frequently ask for complex and detailed histories about fertility decisions and outcomes, labor force surveys seldom ask for equivalent detail about an individual's labor force participation, job quality, and intermittency. Closely related, the nationally-representative sampling techniques and well-substantiated methodology have contributed to the DHS's reputation for providing accurate data on a range of population and health topics, including reproductive health, family planning practices, household structures, and birth histories. However, the DHS has very blunt measures of women's employment status and no information on their job tenure, employment histories or working conditions.

Demographic and economic policy research on employment, fertility and reproductive health are largely separate; moreover, they are confounded by econometric challenges. For example, problems in accurately identifying the impact of family planning programs has contributed to an extensive debate on the effectiveness of family planning programs in changing women's fertility decisions. One challenge is isolating the program impact from other contemporaneous changes – such as changes in attitudes and social norms about the ideal family size – that could influence women's fertility decisions. Authors have tried to address this problem of endogeneity bias with econometric techniques that try to control for contemporaneous changes, but skeptics have still pointed to weaknesses in their identification strategies. A related issue is that family planning programs are often started in areas where the need is greater, so the estimates of program impacts suffer from inherent selection bias. Intuitively, this problem occurs when program placement, rather than being random, depends on program need, resulting in estimated impacts that could be biased because they reflect both the effect of the program on fertility as well as the effect of fertility (and its determinants) on the

placement and allocation of the program. This problem is usually addressed by conducting randomized trials in the field with treatment groups that experience the program and control groups that do not. These studies, however, are often small-scale and face the challenge of external validity (Angus Deaton and Nancy Cartwright, 2016)

This endogeneity issue also applies to examining the relationship between women's reproductive health and their economic empowerment, which makes it difficult to find feminist work at the intersections of demography and economics that addresses the issue of access to reproductive health services, care and the quality of work. Gender inequality limits women's expressions of agency in terms of their ability to make reproductive choices, exercise control over resources, and have mobility outside of the house. This argument has subsequently been supported with an empirical analysis showing that women's economic opportunities have a positive and statistically significant relationship with their sexual autonomy – measured by their ability to negotiate condom use (Lucia Hanmer and Jennifer Klugman, 2016). However, it is difficult to formally identify causality in this relationship.

As such, the literature is characterized by parallel academic and research tracks focused on explaining fertility transitions and the timing and spacing of births in response to women's labor force participation or vice versa. Very few studies have addressed the endogeneity issue in which fertility is a function of women's work status, and women's work status is a function of their fertility. Even fewer studies have addressed the quality of work and labor market insertion. What is it about the different faces of a shared inquiry that leave these divisions in place? Some of the challenges arise from the fact that the quality of work is poorly captured in many labor force and household surveys. Employment quality comprises both the terms and conditions of employment; whether the individual has a written contract; whether the employment complies

with statutory labor law in terms of hours, benefits, and remuneration; and the fundamental rights and freedoms at work to organize and collectively bargain with employers. Employment quality also includes the nature of the work itself, such as the degree to which the work is physically demanding or onerous, and whether the job complies with the health and safety standards for nonhazardous work.

There are many more subtle aspects of the quality of work such as workers' relationships with co-workers and supervisors, the extent to which workers are required to render more than their labor, How loyalty is demonstrated, and whether co-workers and supervisors demand services beyond those stipulated in a normal employment contract. These issues are particularly important when entrenched power inequalities favor employers over workers and may lead to abuse and harassment—such has been documented for some types of domestic work (Nisha Varia, 2006 and 2014; United Nations General Assembly, 2014; ITUC, 2014), work in the garment sector (Human Rights Watch, 2015), and cases of child labor and indentured servitude.

While some of these characteristics describing the nature of work and the employment relationship may be recorded in labor force surveys, many are not. Moreover, investigative inquiries tend to rely on proxies for job quality such as employment status (whether they are salaried employees, own account workers, or unremunerated family workers) or sector of attachment (agriculture, industry, or services). Sometimes job quality is even proxied by evolving definitions of informality that are variously applied depending on the availability and consistency of data sources (Joann Vanek, Martha Alter Chen, Françoise Carré, James Heintz and Ralf Hussmanns, 2014). As a result, there is a dearth of literature linking the quality of employment to fertility choices and reproductive health services.

Beyond the challenges presented by the lack of uniform definitions of concepts such as quality of work and quality of reproductive health and care services, there are methodological hurdles presented by the endogeneity of the decision to work or not, and the decision to bear children. That is, women's fertility may be determined jointly with their employment status, so in a regression of women's fertility determinants, an independent variable measuring their employment could be correlated with the regression's error term. A possible source of endogeneity is systematic differences among women with respect to unobserved preferences or characteristics that influence both women's employment decisions and the number of children they have. For example, women who have lower fertility may have stronger preferences than women who have higher fertility for being independent. If this is the case, then women's employment should not be used directly as an independent variable in a fertility regression because the resulting estimates will be biased. Many researchers have tried an instrumental variables strategy or a two-stage procedure can help to address potential endogeneity bias. That said, a common problem in this literature is finding valid instruments that have strong predictive power in explaining the suspected endogenous independent variable without also serving as determinants of the independent variable (in this case, women's fertility). In other words, the challenge is to find at least one exogenous variable that can explain women's employment status without having a direct effect on fertility.

Although some research has acknowledged the endogeneity issue, there are some very real methodological problems in addressing it. A related point is that in economics, the metric for what is considered robust causal inference is now very high. Generating credible research on processes that co-evolve over time, such as employment and fertility outcomes, is simply very difficult. It is hard to think of a randomized controlled trial that could study these processes in

depth and over time in panel form (it would take too long, be too expensive and involve a lot of ethical dilemmas). And when it comes to quasi-random experiments using the incremental roll-out of discrete employment and reproductive health policies, it is hard to identify robust examples because policies are also endogenous, reflecting secular shifts in social norms about childbearing, caring and work. We are then left with methods such as instrumental variables, or other econometric techniques, few of which are viewed as credible anymore. For example, Alwyn Young (2017) demonstrates that most instrumental variables analyses are based on weak-instruments that typically introduce more bias and measurement error and generate poorer quality results than in the case of using no instrumental variables at all.

Facing such challenges, we need to think about broader research methods, and mixed method approaches, and develop new and innovative conceptual frameworks that address the simultaneity of employment decisions and fertility outcomes but that also underscore the importance of our concurrent inquiry into their co-evolution. Yet this is not merely an empirical conundrum, as our preamble underscores. To make this analysis devoid of rights bypasses the most critical feature of its importance and centrality for human wellbeing which is to surface agency and facilitate choice.

Without a doubt, understanding resolving care needs is integral to this approach. The mediating factor that facilitates women's employment, particularly for women with children and those caring for the elderly and the sick, is the provision of care services. The right to care and be cared for, should be a foundational principle guiding our understanding of how societies address care needs and care deficits (Marilyn Power, 2004; Sarah Gammage *et al.*, 2018). Moreover, the quality of care is intrinsically linked to the right to care and be cared for. Several of the articles reviewed in this volume highlight this point.

IV. Contribution of this Volume

The papers in this volume explore the complex and endogenous relationship between fertility and employment using a variety of micro and macro datasets and techniques.

Several articles attempt to link the quality of work to fertility outcomes. First, in their analysis of Ethiopia, Neetu John, Amy Tsui, and Meselech Roro make the claim that economic empowerment and reproductive empowerment mutually reinforce each other. However, while many studies have examined the importance of economic empowerment for reproductive empowerment, very few have investigated the reverse relationship, especially in sub-Saharan Africa. Even more limited are the number of rigorous studies that account for the endogeneity inherent in this relationship. These authors took advantage of a retrospective contraceptive use history and panel data from a peri-urban community in Ethiopia to assess the causal impact of quality of contraceptive use as measured by duration of use and type of method used on a woman's ability to work, receive payment for work and contribution to family income. Quality of work was largely conveyed by whether the women received payment for their work and were not unremunerated family workers. Using a multivariate analysis these authors found that women who reported more consistent use had significantly higher odds of working as well as receiving cash payment. Their findings illustrate the critical role contraceptive use plays in enabling women to work and receive payment for their work. The analysis also demonstrates the enormous challenges of categorizing the quality employment using existing survey data and the limitations implied.

Another article in this volume that explores the nature and quality of work and its link to contraceptive access is the analysis by Melissa Mahoney, Kate Bahn, Adriana Kugler, and Annie

McGrew of Targeted Regulation of Abortion Providers in the United States. This study explores the impact of women's access to reproductive health care on labor market opportunities in the United States. The authors tie their analysis into previous research that finds that access to the contraceptive pill delayed age at first birth and increased access to higher education, labor force participation, and wages for women. The authors examine how current variation in access to contraceptives and abortions impacts job mobility in the United States in a context where health care benefits are tied to employment status and frequently to current jobs. If women cannot control family planning or doing so is heavily dependent on staying in one job, it is more difficult to plan for and take risks in their careers. Using data from the Current Population Survey's Outgoing Rotation Group, the authors find that Targeted Restrictions on Abortion Providers (TRAP) laws increased 'job lock'. Women living in states with TRAP laws are less likely to move between occupations and into higher-paying occupations. Moreover, public funding for medically necessary abortions increases full-time occupational mobility and contraceptive insurance coverage increases transitions into paid employment.

As we highlighted in our analysis, the causality between reproductive health and employment may work in both directions. In her study on Turkey, Didem Pekkurnaz (2019) looks at how employment status affects women's contraceptive behavior. Turkey stands out from many other European countries for its relatively low rate of female employment, and one reason is the high opportunity cost of child-rearing and the heavy childcare responsibilities that women hold. Pekkurnaz uses data from the 2013 Demographic and Health Survey for Turkey to examine the determinants of women's contraceptive choice and finds that employed women have a higher likelihood of choosing a modern contraceptive method over a traditional one compared to women who are not employed. This is particularly true for women employed in regular

employment in the non-agricultural sector who have more secure jobs, more stable incomes and greater access to social security and formal childcare (Pekkurnaz 2019).

Sarah Gammage, Naziha Sultana and Allie Glinski also look at job quality and access to health care and social protection in their study of the relationship between social policy and vulnerable employment. The authors use macro-level cross-country data on informal and vulnerable employment, investments in education, health and social protection. This article explores the timing and sequencing of policy to address reproductive health needs and to strengthen labor market institutions and social protection. The macro analysis is illustrated by case studies from six developing countries with similar demographic transitions but divergent labor market outcomes for women. The findings suggest that in those countries where fertility transitions have been sharpest this has not automatically translated into more employment and better labor market outcomes for women – indeed investment in health care, education, labor market institutions and social protection appears to have been critical in ensuring better labor market outcomes for women, illuminating a central role for coordinated policy.

In another study in this volume, Nan Jiang, Felix Muchomba, and Neeraj Kaushal consider how recent immigration to the United States and other developed nations has increasingly been from countries that have relatively traditional gender norms. The authors use data from the Current Population Survey for 2000-2014 to investigate how source country gender norms influence the labor supply and fertility of married women across immigrant generations. They find that immigrants' and descendants' labor supply and fertility are associated with the female-to-male labor force participation ratio and total fertility rate in the source country; importantly, however, the association declines across generations, indicating that these gender norms are mutable and do change as immigrants and subsequent generations

become less differentiated from native populations. Interestingly, this not only holds for the individual's source country but also for the husband's source country, where his characteristics are also associated with the labor supply and fertility of immigrant women. The evolution and assimilation of traditional gender norms is strongly linked to labor force participation, suggesting that women's employment plays a critical role in forging and simultaneously reflects the evolution of gender norms.

Also in this volume, Rohini Pande's analysis uses detailed descriptive statistics and interview data to explore the association between fertility and employment in Tamil Nadu, one of India's most populated states. More specifically, the author looks at how different institutions and gender norms evolved and interacted with the state's demographic transition as well as women's education and employment opportunities outside of the home. She shows that just as women's fertility rates declined, their educational attainment and employment rates during their peak productive and reproductive ages rose. Women's increased schooling and participation in the labor market was most likely facilitated by the state's public investment in infrastructure and schools, as well as its history of social activism. Despite the decline in fertility and women's advances in their productive roles outside of the household, their reproductive roles remained of central importance. Women continued to focus their time on motherhood, with a shift from childbearing to childrearing. The author concludes that traditional gender norms remained strong enough to influence women's time and effort in such a way that they prioritized investing in the quality of their children over economic opportunities outside of the home.

V. Conclusion

This special issue on reproductive health, childcare, and the quality of work underscores that employment and fertility are closely linked but this relationship is nuanced and complex and likely simultaneous. Moreover, the research presented here suggests that the economic empowerment of women as manifest in their choice of where and when to work, and under what terms and conditions, is intimately linked to reproductive empowerment and the choice about the timing, spacing and number of births. Simplistic discourse in the development policy arena about educating girls and getting women into the labor force will fall far short of their goals without attention to their reproductive health and rights. This lesson is particularly important in a political moment where women's access to reproductive health services and their reproductive rights are being limited by an emerging and conservative agenda that implies retrogression from previous global commitments.

The mechanics of the analyses in this volume also attest to the data limitations from the use of existing surveys that frustrate a more nuanced inquiry into employment and fertility outcomes. Analysts and statistical agencies responsible for household and labor force survey design could certainly apply some of the information from questions that elicit retrospective histories of contraception and fertility for similar approaches to employment history, job quality, and labor market intermittency.

As the articles in this volume highlight, much of the research on reproductive health, fertility and employment remains constrained by the availability of data. Most studies rely on the female labor force participation rate, which is calculated from cross-sectional household surveys where the ILO definitions of labor force participation are employed to construct a binary indicator for employment. While the papers in this volume have drawn on this indicator for examining cross-country differences, country-level trends, and factors driving participation, the

papers also highlight the challenges of working with this indicator. First, as the paper by Gammage, Sultana and Glinski highlights, it fails to capture labor conditions such as the level of job-security, the quality of the job, the vulnerability of the worker, the adequacy of the remuneration, or more importantly, the trade-offs faced by the respondent.

A second challenge with the data is that it is typically constructed using cross-sectional surveys that aggregate the labor force participation of all women surveyed within a specific age group. There is of course the obvious limitation of interpreting a statistic that aggregates the experiences of diverse groups and cohorts of women into a single number that corresponds to no actual life experience in the population. That can often be addressed by examining indicators by cohorts. This is seen in the paper by Jiang entitled “Jiang “Culture, Labor Supply, and Fertility Across Immigrant Generations”. But beyond this concern, it is important to note that survey design can affect the quality of the estimate in a variety of ways (Deaton, 1997). Recent evidence suggests that the identity of the respondent and the level of detail in which information is gathered have significant impacts on the accuracy and quality of data collected (Bardasi, Beegle, Dillon and Serneels, 2011; Kilic and Sohnesen 2015). The articles in this volume drew on surveys that varied widely in their designs – there was no consistency in the sampling strategies for respondents, the level of detail of the question asked or the protocols used to ask them.

A third challenge of working with cross-sectional data is the narrow focus on contemporaneous outcomes, and the lack of detail on past choices. Indeed, most surveys contain some information about women’s education, but lack retrospective information on both fertility and labor force participation. DHS surveys for example, collect detailed information on women’s birth histories, but only current information about labor force participation. The LSMS surveys on the other hand, gather detailed current and retrospective information on women’s employment

and earnings, but lack birth histories. Future research in this area could benefit from a deeper analysis of the RAND family-life surveys – these are panel datasets that gather detailed information on both reproductive health and labor force participation. New approaches in gathering data are also warranted. For example, instead of gathering information on assets and consumption at the household level, it would be useful to examine women’s individual rights and access to household assets. We also need more information on women’s choices of jobs and their working conditions.

It is clear that unraveling the complex link between reproductive health and the quality of employment requires far better data on the nature of employment and the terms and conditions of that employment. There is an urgent need for improved specification and capture of employment quality in survey instruments that goes beyond status in employment and wages.

Another challenge that frustrates the meaningful inquiry of fertility and employment relationships that illuminate policy is the failure to specify how care services and care provision mediate these outcomes. We have very little information in large-scale surveys, whether demographic or employment focused, on access to formal or informal care services, and on who cares for and how they care for children, the sick and the elderly. This omission further denies us the opportunity to explore policy levers in support of women’s employment and reproductive choice.

Finally, these data and methodological challenges play into our siloed disciplinary discourses in health, demography, and economics and leave an important conversation that can inform policy and expand rights largely hampered by orthogonal inquiry and analysis. Greater integration of scholarship on women’s economic empowerment into scholarly studies in

demography, public health, and population studies can help to change the conversation to one that focuses more on women's overall health and well-being. A more integrated scholarly approach to women's reproductive and economic empowerment can also yield a more integrated policy approach. For example, family planning services have historically been marginalized into separate units and institutional structures, just as women's access to safe abortion has long been stigmatized, marginalized, and restricted in many countries. Integrating family planning and access to safe abortion into a full range of reproductive health services will go a long way to promoting health equity, reducing maternal morbidity and mortality, and empowering women to control their fertility. This strategy is consistent with not only with international agreements such as the one made at the 1994 International Conference on Population and Development in Cairo, but also with recommendations made by scholars, major multilateral agencies such as the World Health Organization and World Bank, health professionals, and advocates. Providing women with a full range of reproductive health services would help to bring meaningful changes not only to women's reproductive health, but also their ability to take full advantage of educational and employment opportunities.

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ENDNOTES

¹ According to recent estimates, women's participation in the informal sector ranges from 80 per cent in South Asia, 74 percent in Latin America and 54 percent in the Caribbean (United Nations, 2017).

² The Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) presents an entire dashboard of variations in key health indicators for maternal and child health across the world. This data portal is a collaboration of UNAIDS, UNFPA, UNICEF, UN Women, WHO, the World Bank Group and other UN and technical partners supporting the monitoring of the EWEC Global Strategy and related SDG targets. See: <http://apps.who.int/gho/data/node.gswcah>.

³ See, for example, Gustavo Angeles, David Guilkey, and Thomas Mroz (2005); Claudia Goldin and Lawrence Katz (2002); Grant Miller (2010); Daniel Aaronson *et al.* (2017); and Jocelyn Finlay and Marlene Lee (2018).

⁴ This is the proportion of a country's working-age population that engages actively in the labor market, either by working or by looking for work, where work is typically defined in accordance with the ILO's definitions of labor force participation (ILO Key Indicators of the Labour Market, 8th Edition. Online at: http://www.ilo.org/empelm/what/WCMS_114240/lang--en/index.htm).