

The Effects of Formal Female Employment on Wellbeing

A Global Perspective

Cadreen Barungi Kabahizi

01210901

Center of
**FAITH
FAMILY &
JUSTICE**





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Author: Cadreen Barungi Kabahizi

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The Center of Faith, Family and Justice (CFFJ) is a Ugandan Christian Think Tank founded in 2021 to contribute to evidence-based policy, advocacy, and decision making. Our main focus is to investigate how the social, political and economic conditions of life affect faith, family and justice. We aspire to connect policymakers and citizens; and to build transformed, resilient, and integrated communities.

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Any inquiries can be addressed in writing to the Executive Director at the following address:

Center of Faith Family and Justice

P.O Box 150045

Mukono, Uganda

Tel: +256760130120

Email: info@cffj.or.ug

Web: cffj.or.ug

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Foreword

The Center of Faith Family and Justice is pleased to offer the results of quality research on many topics and from many perspectives. Our core principles affirm that all Truth is God's truth and that after consulting the authoritative teaching of the Holy Scriptures and the guiding light of the established Creeds and Doctrines of the Church, reason and research, inquiry and analysis can shed light on both the enduring mysteries of earthly life as well as give guidance to pressing questions and concerns. We can also draw information and reach conclusions from consulting serious human sources, including established principles agreed upon by human institutions.

Thus, such guidelines as the Sustainable Development Goals cannot be taken as holy writ, but can be employed in useful ways to highlight a hierarchy of needs and approaches to justice and the good for all, or as some have described it, "human flourishing." Life on earth is not complete, it is marred by sin and finiteness, and it points to a greater and future reality in which we place Hope in our expectations of our Lord Jesus Christ and the fullness of his kingdom. Yet we know that all that we are and have is created by God for his glory and to be lived in his service. So we seek to find ways to correct injustice and serve others for true, holistic, and just "development" in all spheres of life.

We are especially committed to the centrality of the family, God's chosen means of birthing, raising and forming humans, and as the primary place of human fellowship and love. God is Love, and lives in Holy Love within the economy of the Holy Trinity. Therefore, we are commanded to love one another, to love others as ourselves and above ourselves, even as we love the Lord our God with all that we have. The family needs to flourish, be sustained, be supported and kept healthy for the Good of All. The family is the keystone of the community and nation, and is the unit that forms churches. It is the highest expression of the human calling to Love.

The well-being of women, of mothers, and of all roles the women have, is crucial for the family and nation. Modern economic development has placed large expectations on all who work, especially on women, even as they bear and raise children and nourish the household of the family. It is no great insight to realize that women have been called out of the family compounds and villages into the professions, schools, offices, shops and all places of business. Everything now is understood in terms of business, whether it is a corporation or farm. Women face this reality in new and challenging ways in conditions of further education and rising expectations.

This study of the well-being of women in the modern work environment reveals many aspects of this phenomenon and raises many questions to consider as we seek honourable development. Cadreen Kabahizi's study points us in the direction of considering the material well-being of women and to the way in which work should express and reveal aspects of our human dignity. From the very beginning of Creation, both men and women were instructed to unite and bear life into the world. But they also were commanded as God's image on earth to work -- to tend the garden, to give stewardship over all the earth, and to be fruitful in all ways. Work is the engagement of men and women with the material creation to bring order, to bring sustenance to families, and call beauty into being. May women's work, whatever form it takes, fulfil this mandate of our Creator.

CFFJ presents this study among our others for consideration and application, even for debate and challenge, as we continue in our calling to represent our Lord and His Church in the public square where policies are advanced affecting everyone. We welcome all inquiries and comments.

The Reverend Dr Lawrence Adams
Executive Director,
Center of Faith Family and Justice

Executive Summary

The unprecedented industrialization and rapid economic development around the world in the twentieth century saw shift upon shift in paradigms not previously fathomable. With these rapid changes in society came changes in culture as well. The rise of feminism over seventy years ago was the main tipping point in family cultural changes. While men hardly participated in female-categorized roles before, the rise in female empowerment saw a slow blur in gender role distinctions with both men and women participating more in previously opposite-sex-branded roles. These changes spurred changes in the family culture as well, which have proved to be irreversible. The onset of the 21st century saw the emergence of the internet, which has had exponential effects on human life and culture. In its efforts to examine the effects of salaried female workers on wellbeing in societies, the study employed the fixed effects model to analyze panel data of 131 countries over 12 years from WB, ILO, UNDP, IMF, and Gallup Polls. The study found that a percentage point increase in salaried female workers significantly contributes positively to the average human development (0.000410 standard deviations), life expectancy (0.02 years), and fertility rates (0.0102 children). Our results also show that a one percentage point rise in salaried female workers significantly reduces the average psychological wellbeing (0.00262 standard deviations) and insignificantly reduces the societies' average life satisfaction by -0.00236 standard deviations.

Chapter 1: Introduction

The twentieth century observed a paradigm shift in female education, employment, and family life. This significant transformation has dramatically influenced society's views and culture. Many societies are radically different from what it was like in the nineteenth century. In an attempt to examine the effects of this transformation, this paper investigates the effects of formal female employment on wellbeing. Figure 1 below shows the Literacy and Illiteracy rates in the world over the past two centuries.

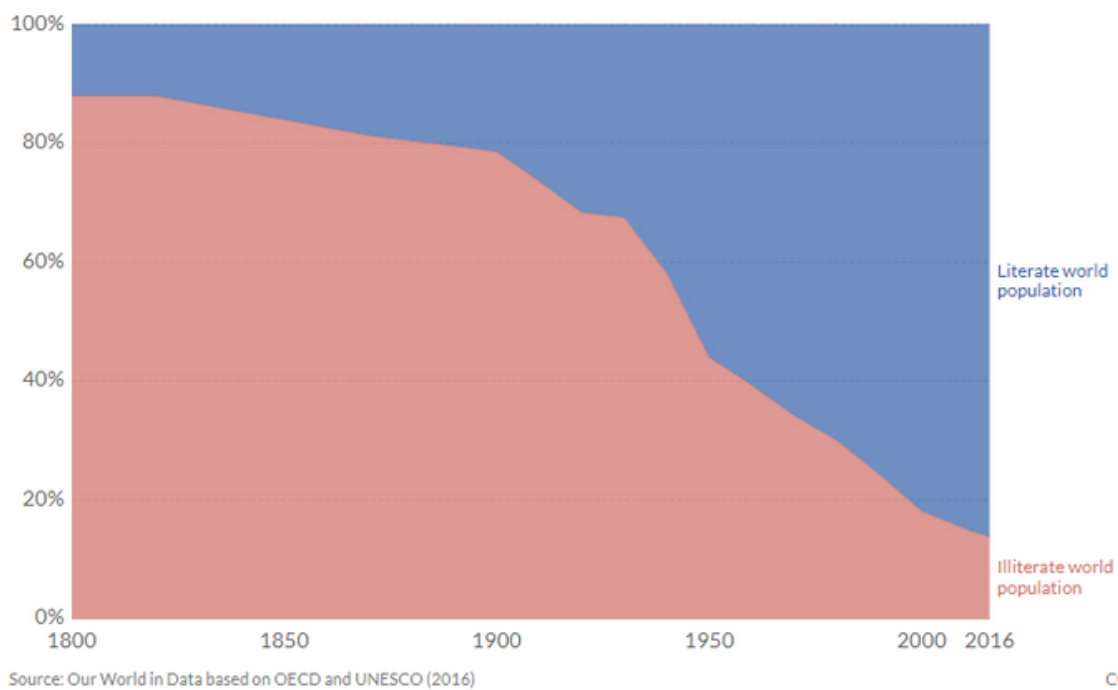


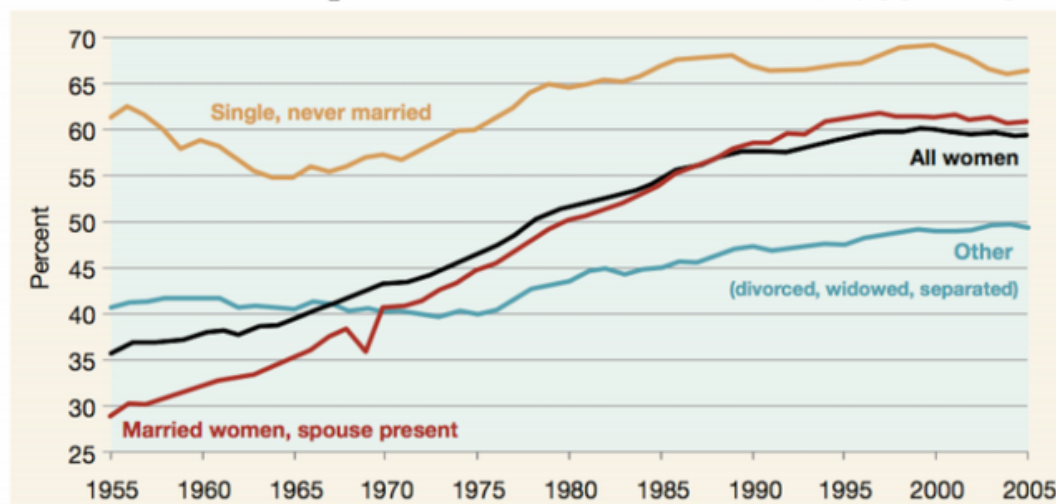
Figure 1.1, Literacy rates. OECD and UNESCO, 2016

Recently, the subject of wellbeing has received significant attention from researchers (Gallup, 2010; Haerper, n.d.; Helliwell, Layard, Sachs, n.d.). Wellbeing is a broad and subjective concept. Gallup, (2010) defines it as a healthy interaction of five aspects of life; good quality relationships, financial security, physical health, job fulfilment and contributions to society. Furthermore, after a thorough scrutiny of existing literature, Dodge, Daly, Huyton, & Sanders, (2012) conclude that, 'the state of wellbeing is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge' (p.230). In this study, we use Gallup's definition of wellbeing.

By the late 1970s, a new way of life was starting to take shape for women; school, career and then marriage. The ages at which women got married and bore children started getting later and later. By the 1980's the gap between male-dominant and female-dominant college majors and professions had started closing. However, something interesting started happening in the 21st century; some well-educated and professional women starting opting out of their careers, choosing to stay home and raise their families. These women, though, are few compared to the number of women still pursuing their careers.

Figure 1.2. below helps us to understand the critical distinction between which women are more vulnerable to unemployment. Whereas single women have the time to devote themselves to employment, it is mainly women who are married or with children, whether widowed or divorced who suffer with low unemployment rates.

Labor Force Participation of Women in the USA, 1955-2005



Data source: Data from 1955 to 1975 come from the US Census Bureau, Statistical Abstract of the United States, 2003. Data from 1976 to 2005 come from the Bureau of Labor Statistics

Figure 1.2. Labor Participation rates for Women in the USA. US Census building

Though these findings were limited to the United States, many developed countries emulated these work and family cultural changes. Several societies, however, have not had such vast cultural changes. Although most of them have been quite exposed to education and more opportunities for women, their religious and traditional values seem to have remained predominant. According to Beaman, Duflo, Pande, and Topalova, (2012), some societies in India still believe that women are meant to care for the home and thus do not need to be educated. A study by Greenwald, Banaji, and Nosek, (2014) shows that both men and women are still more likely to associate childcare and liberal arts with women, and sciences and careers with men.

Furthermore, research from UN Women and ILO shows us several qualities of female employment:

1. Women tend to earn less than men in the workplace. Figure 1.3. illustrates these statistics

2. There is still a distinct gap between male and female workers, as illustrated in Figure 1.4. below. This gap accounts for 28 trillion dollars that could be earned globally if the same portion of women went to work, as that of men.
3. Women tend to spend more time on unpaid care work than men do. This work may include; childcare, housework, and caring for sick or old relatives.
4. Furthermore, the figure 1.6. below illustrates the occupation distribution of the women who are employed. Majority of these women are in informal employment settings, where their remuneration depends on the revenues from their output and where they do not have security in the form of contracts.



Figure 1.3. An info-graph from UN Women

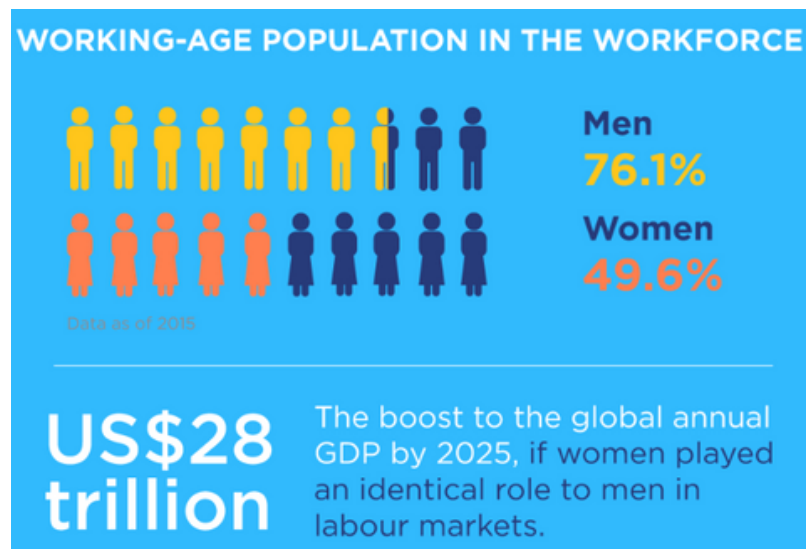


Figure 1.4. Employment gap, UN Women

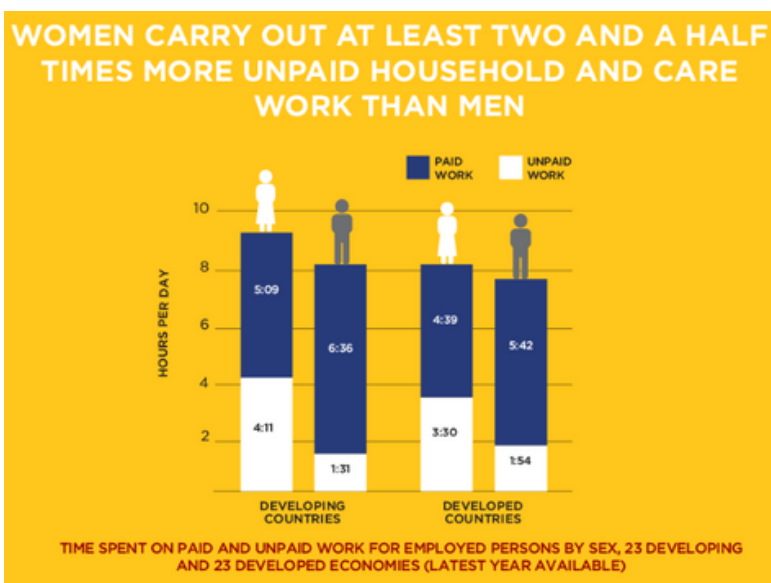


Figure 1.5. Unpaid care work between genders. UN Women

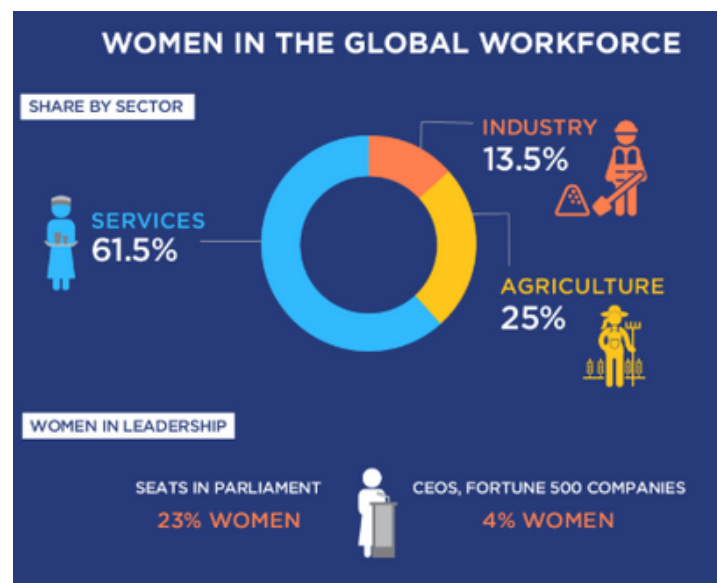


Figure 1.6. Occupation distribution for women. UN Women

In this paper, our main interest will be on the effect of salaried female workers on several aspects of life, especially wellbeing.

Whereas previous studies have shown that women's empowerment through education and employment leads to economic development, healthier children and better societies (Duflo, 2011; Engendering Development, 2001.; Sen, n.d.), not much attention has been given to a global perspective on the effects of salaried female workers on wellbeing in society.

Understanding the effects of formal female employment on the wellbeing of societies is of paramount importance because female employment seems to have significant implications on family dynamics. Duflo (2011) asserts that there is a correlation between mothers' education and earnings with child welfare and health. She also finds that women invest money in endeavours that improve the wellbeing of their families and societies. She further notes that women with authority, either financially or politically, create better environments conducive for children to thrive.

We believe that it is such conditions in society that determine wellbeing. It is generally agreed that a substantial income is vital for wellbeing in society (Cummins, 2000; Gallup, 2010; Helliwell et al., n.d.) Therefore, in this paper, we argue that women's income greatly contributes to the facilitation of good education, access to healthcare, ability to live in a decent environment and generally good quality of life.

This paper will add to our understanding of how the employment of women and their active participation in society contributes to more financial security, better health, fulfilment and societal contributions.

The following research questions will guide this study:

1. What is the effect of formal female employment on life satisfaction?
2. What is the effect of formal female employment on the human development index?
3. What is the effect of formal female employment on psychological wellbeing?
4. What is the effect of formal female employment on fertility rates?
5. What is the effect of formal female employment on life expectancy?

In the following section, this study presents a literature review on this topic and will proceed, in further sections, to analyze and conclude on the study's findings.

Chapter 2: Literature Review

The global evolution of culture has seen gender role distinctions blur and roles merge in the family setting. Several factors have spurred this greying of roles, one of which is the increasing level of formal female employment globally over the past century.

This section provides a review on the historical background on female employment, a global perspective of the implications of formal female employment on family, economic development and wellbeing.

Background

Female employment, also referred to as the female labour participation rate, is the proportion of females aged 16 to 64 who are currently employed or seeking employment (ILO, n.d.). The upsurge of education rates of female children over the past few decades has been among the main contributors to rising formal female employment in the world (Goldin, 2006; Michalos & George, 2007; Duflo, Dupas, & Kremer, 2015).

According to the International Labor Organization (ILO, 2018), the global labour participation rate of women currently stands at 48.5%. Though this is 26.5 percentage points below that of men, it is still much higher than it was a century ago. A brief snapshot of the changes over the past few decades for only six countries can be seen in Figure 2.1 below.

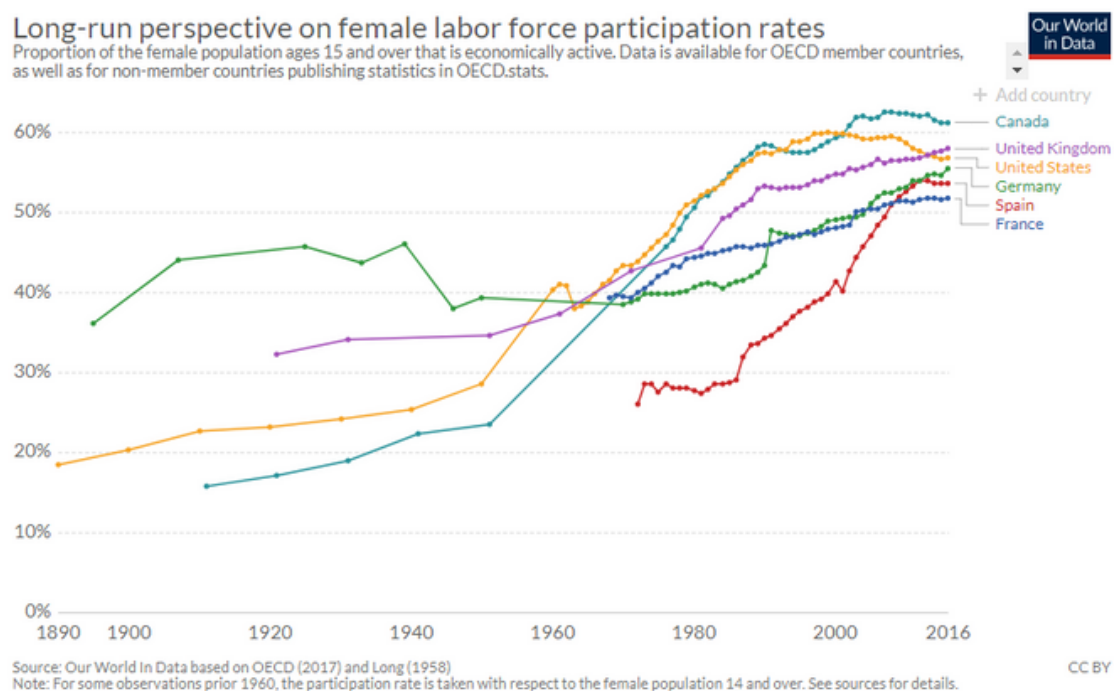


Figure 2.1. Salaried female workers trends. OECD, 2017

Despite the improvements on a global scale, vulnerable employment is still more severe for women in developing countries than it is for men (ILO, 2018). Vulnerable employment consists of own-account (self-employed) and contributing family workers (working for a self-employed family member). This category is usually informal and is vulnerable to slipping into poverty.

World over, more women than men are involved in informal employment. These are unregistered own-account and contributing family workers without a written employment contract. Majority of such informal labourers fall outside labour legislation and social security regulations, thus lacking the much needed formal protection (ILO, 2018). In addition to informal employment, the majority of the women in the world participate in unpaid labour which includes; working for the family, housework, homeschooling and such work activities that are not remunerated.

Furthermore, the category of men and women participating in working poverty is also quite large, especially in emerging and developing countries. These are workers earning less than \$3.10 per day (Ortiz-Ospina & Tzetskova, 2017; ILO, 2018). The scope is limited to the formal employment of women, the methodology will, however, account for the different income levels.

Implications of Salaried female workers on Family

At the society's core is the family unit. It is, therefore, logical to conclude that the wellness of families greatly contributes to the wellness of whole societies. Extensive research has been done on the effects of female employment on families (Maria Da Rocha & Fuster, 2006; Kotowska, Józwiak, Matysiak, & Baranowska, 2008; Duflo, 2011; Ford, 2017). Responses to the same by families have been distinct because of a vast number of internal and external factors;

With regards to marriage, three categories of findings are worth noting; Firstly, Vignoli, Matysiak, Styr, Tocchioni, Oláh, Richter, and Kotowska (2018) show that female employment is not significantly linked to divorce in countries with lavish financial support for families and easy access to divorce. On the other hand, Schoen, Astone, Rothert, Standish, and Kim (2002), find that female employment does not disrupt happy marriages but increases the chances that unhappy marriages will fail. This occurrence is probably because when women are employed, they are financially stable enough to live alone when an unhappy marriage becomes intolerable as compared to their unemployed counterparts who would most likely stay married. After all, they are unable to afford living alone. Otherwise, divorce is generally regarded as painful and sad because whatever disrupts marriage seems to disrupt happiness. Moreover, a study conducted by Lillard and Waite (1995) shows that marriage increases life expectancy of couples. This implies that marriage makes people healthier and happier.

Secondly, women's employment usually means that women will spend more time out of the home attending to their jobs (Siegel et al., 2012), this will usually mean more housework is left unattended by the woman. Contemporary culture has seen men join the women in sharing the housework burdens to cover this gap. As a result, heterosexual couples have encountered two different effects. Kornrich, Brines, and Leupp (2013) find that for liberal couples, when men's share of housework increases, so does their sexual frequency. However, for conservative couples, when men's share of housework increases, the sexual frequency decreases. This is probably due to the idea that some conservative men feel emasculated when they perform roles that they consider as 'for women'. Liberals, on the other hand, do not mind about the 'clear cut gender roles' and they find that working together increases their attractiveness and thus intimacy. The women, in particular, tend to find liberal men who are involved in housework even more attractive.

Thirdly, a study on infidelity shows that when men and women earn relatively equal amounts of income, chances of infidelity are low but when men earn significantly lower than women so that they are dependent on the women, chances of infidelity among the men are high while women tend to be faithful (Munsch, 2015).

With regards to children, Carvel, (2003) finds out that in the UK, children of working mothers generally lag behind in their emotional development and academic attainments. However, Sultana and Noor (2012), find that in Malaysia, a mother's rational and economic resources contribute to a child's intellectual development. Interestingly, a much earlier study done in the Caribbean indicated that employed women were blamed for the delinquency of their male sons (Sweetman, 1996), but Duflo, (2011) finds otherwise, that the employed mothers in developing countries raised healthier and happier children.

Implications of female employment workers on Fertility Rates

With regards to birth rates, varying perspectives are found; For OECD countries, the fertility rate increases with employment, up to a point (Maria Da Rocha & Fuster, 2006), this is probably because women prefer to give birth when they are confident they can afford to provide proper childcare. In contrast, for women in developing countries, birth rates decrease with an increase in education and employment rates (Van Den Broeck & Maertens, 2014). This is probably due to a combination of less time spent in the home and practising of planned pregnancies in a bid to afford the ever-increasing costs of living.

World over, statistics indicate that the birth rates have fallen dramatically from an average of 5.05 in 1950 to 2.5 in 2015 (Kreyenfeld, 2004; Adsera, 2005; Becker, Cinnirella, & Woessmann, 2010). This may be explained by Gary Becker's theory of the compromise that has to be made between the number of children and their quality of life (Becker & Lewis, 1973; Myrskylä, Kohler, & Billari, 2009, Becker et al., 2010). This theory explains that as women invest more time in school, they remain with less and less time for childbearing. They then feel more motivated to pursue careers, which further reduce the birth rates as women choose between the time they are willing to devote to childcare and the time they would prefer to devote to advancing their careers. Rising costs of living further delay births as women wait to become more financially stable and thus better able to afford childcare expenses.

Figure 2.2 below shows the fertility rates of different countries as of 2015. These estimates are from the UN population division.

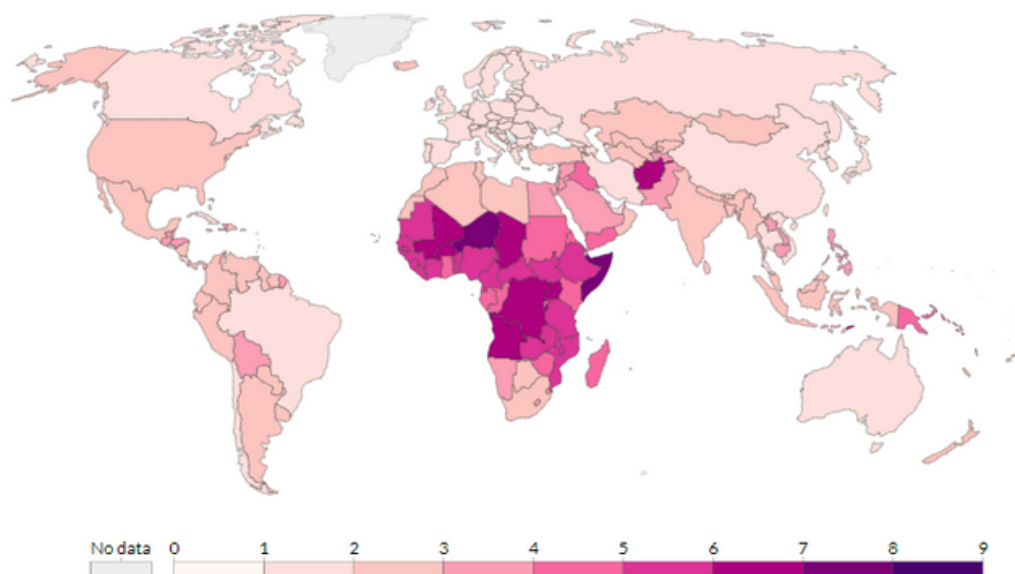


Figure 2.2 Fertility Rates. UN Population 2015

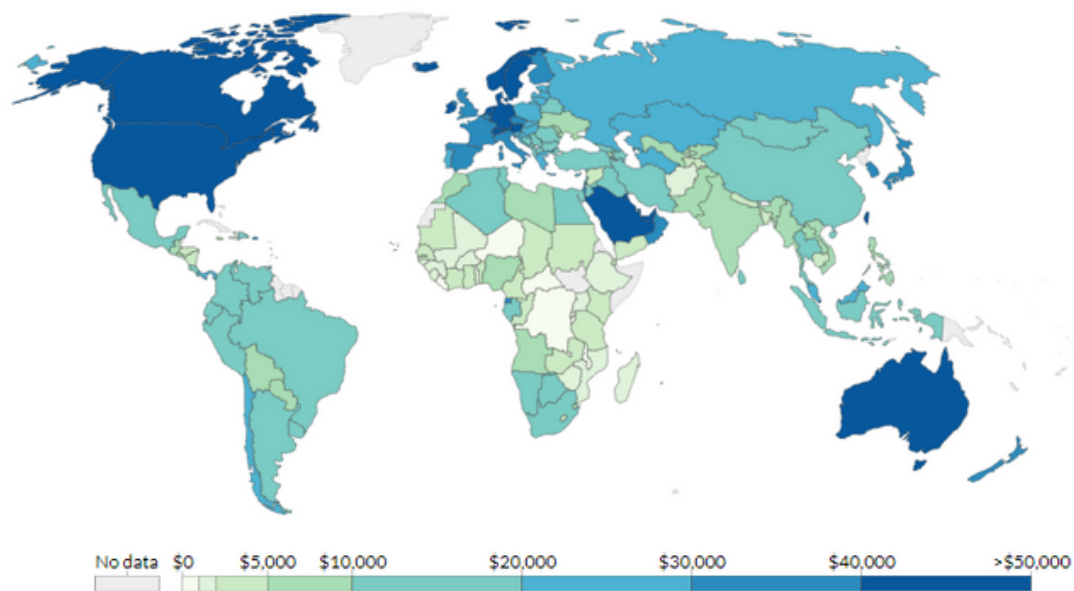
Economic Implications of Salaried female workers

Whereas several studies show that female labour participation boosts the economic performance of a nation (Elborgh-Woytek et al., 2013; Aydin, n.d.; Tsani, Paroussos, & Fragiadakis, 2012), the International Monetary Fund (IMF) reports that women are still the majority composition in the informal and underprivileged sectors of employment. These women are way underrepresented and underpaid in the formal sector (IMF, 2018). Another study shows that this is not good news because informal and lower-paying employment does not significantly contribute to economic growth (Aydin, n.d.)

Christine Lagarde, IMF Chief, encouraged an increase in female labour participation because men and women complement each other and thus, increasing female labour participation not only contributes to the economic growth but also increases male productivity (Lagarde & Ostry, 2018). Several studies show that if the current gender disparities in the workplaces were cleared, nations would significantly increase their economic gains (Elborgh-Woytek et al., 2013; Ferrant & Kolev, 2016; Cuberes & Teignier, 2016). The generally underutilized female labour workforce indicates that the economies are generally functioning below their potential.

Although previous studies have shown that women empowerment through education and employment leads to economic development, healthier children and better societies (Duflo, 2011; King & Mason, 2001.; Sen, n.d.), not much attention has been given to a global perspective on the effects of female employment on wellbeing in society.

Figure 2.3. below shows the GDP per capita of countries as of 2016.



Source: Maddison Project Database (2018)

Note: These series are adjusted for price differences between countries using multiple benchmark years, and are therefore suitable for cross-country comparisons of income levels at different points in time.

Figure 2.3. GDP per Capita. Maddison Project Database, 2016.

Implications of formal female employment on Human Development

The human development index was created as the ultimate indicator of the development of a nation (Human Development Report, 2010). It is a composite measure of human development that considers health and length of life, being educated and having a good standard of living (Prados de la Escosura, 2015). This index is worth being measured against female employment because the empowerment of a mother would be expected to have a progressive effect on the standards of living of households, studies show that when mothers are employed, their children are healthier, and they can make better decisions for the livelihood of their families. This is especially true in developing countries (Duflo, 2011).

Figure 2.4. below shows the Human Development Index of countries as evaluated by UNDP in 2017.

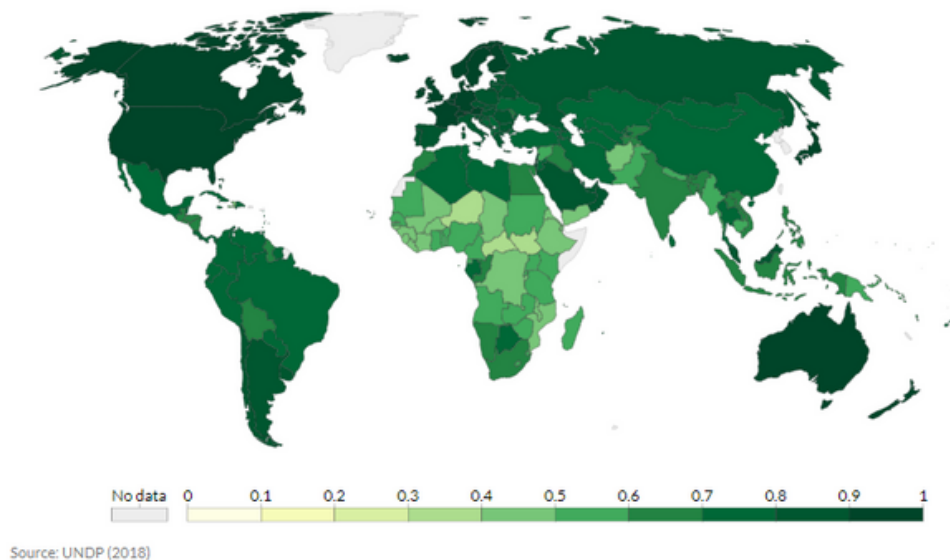


Figure 2.4. Human Development Index. UNDP 2018

Implications of Salaried female workers on wellbeing

Duflo (2011) asserts that there is a correlation between a mothers' education level and her earnings with her children's wellbeing and health. She also finds that women invest money in endeavours that improve the welfare of families. She further notes that women with authority, either financially or politically, create better environments conducive for children to thrive.

We believe that it is such conditions in society that determine wellbeing. It is generally agreed that a substantial income is vital for wellbeing in society (Cummins, 2000; Gallup, 2010; Helliwell et al., n.d.) Therefore, in this paper, we argue that women's income greatly contributes to the facilitation of good education, access to healthcare, ability to live in a decent environment and generally good quality of life, especially in developing countries.

Wellbeing

Wellbeing and happiness go hand in hand to describe a generally pleasant feeling about life.

In his book on happiness, Feldman dissects the concept of happiness quite thoroughly, concluding that 'happiness' is a many splendored thing that is more attitudinal than sensory. He shows that happiness is not just the feeling and the emotion, but is the attitude we hold about things.

We could even regard an event both positively and negatively, but we consider ourselves happy about the event as long as the positive regard prevails.

Wellbeing is a broad and subjective concept. What 'wellbeing' entails may vary from person to person. We may all agree that wellbeing generally means living well. In research, the term 'wellbeing' is often interchangeably used with 'happiness'.

According to Prescott-Allen, (2001), the Chinese value long life, wealth, health, virtue, and natural death in old age. The French desire liberty, equality, and fraternity. Indians value power, pleasure, morality, and freedom from the world. The English value health, wealth, and wisdom, whereas Americans uphold life, liberty, and happiness.

The function of a man is to live a certain kind of life, and this activity implies a rational principle, and the function of a good man is the good and noble performance of these, and if any action is well performed it is performed in accord with the appropriate excellence: if this is the case, then happiness turns out to be an activity of the soul in accordance with virtue (p.1098a13)

Although Aristotle's definition is inwardly wholesome, a man's virtue is still incalculable. Since economists, policymakers, and researchers need quantifiable measures to use for wellbeing assessment, they resort to using measurable indicators like income, life expectancy, and climate, which are mostly outwardly (Helliwell, Layard, & Sachs, 2018; Cummins et al., 2019).

Furthermore, researchers have found ways to measure wellbeing by using other indicators; Gallup, (2010), for example, measures five specific aspects of life to determine a person's wellbeing, good quality relationships, financial security, physical health, job fulfilment, and contributions to society.

Therefore, Gallup defines wellbeing as a healthy interaction of these five aspects above (Gallup, 2010). Conclusively, after a thorough scrutiny of existing literature, Dodge, Daly, Huyton, & Sanders, (2012) conclude that 'the state of wellbeing is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge' (p.230). This paper uses Feldman's definition to assess wellbeing. Attitudinal wellbeing rather than sensory wellbeing. We now proceed to dissect the issue of wellbeing further.

General Wellbeing

This section briefly discusses some aspects that contribute to the wellbeing of societies.

Good health: The state of one's physical wellness is probably the single most influential factor affecting one's overall wellbeing. Physical wellness is central to the wellbeing of a person and society. Though several factors contribute to people's illnesses, access to good healthcare makes a great contrasting difference of providing prevention and treatment of diseases. Good health care is thus primary to the wellbeing of society (Cohen & Pressman, 2006; Graham, 2008; Miret et al., 2014). In Figure 2.5 below, Gallup illustrates 5 essential elements of wellbeing.



Figure 2.5. Main contributors to wellbeing. Gallup, 2008

Living in clean environments: the significance of proper sanitation can best be appreciated when experiencing a lack of it. Poor sanitation contributes greatly to the state of health of a community mainly because poor sanitation allows for the breeding of diseases. Various studies have shown that clean and sanitary conditions are paramount for a healthy and happy life (Lillard & Panis 1996; Welsch, 2009; Cuñado & de Gracia, 2013; Pfeiffer & Cloutier, 2016).

Climatic conditions and green environments: Time and time again, climate change and its implications on society have been matters of hot debates in the past few decades. Studies indicate that the pursuit of urbanization and industrialization have come at a great cost to the environment (Brereton, Clinch & Ferreira, 2008; Beringer & Lucht, 2010; Cuñado & de Gracia, 2013; Lenzen & Cummins, 2013; MacKerron & Mourato, 2013; O'Brien, 2013). The continuous degradation of landscapes through pollution and deforestation, among others, have in turn led to global warming and droughts and floods, and all unexplainable phenomena affecting our natural habitats and living environments. These, in turn, seem to have affected our wellbeing. Green environments, too, have been shown to reduce stress significantly. Studies claim that spending time in green and natural environments lowers stress levels significantly (MacKerron & Mourato, 2013; Pfeiffer & Cloutier, 2016).

Living in decent surroundings: It is widely perceived that decent surroundings are subjective, an orderly and beautified environment serves to boost positive emotions in its inhabitants. The scant research on this matter highlights the importance of living in environments we find pleasant (Trilling, 2009; Mohit, 2013; Prins & Topçu, 2014; Jennath & Nidhish, 2016).

Good working conditions: Given that work activities tend to consume the greatest portions of our lives, it is imperative to the wellbeing of society that workplaces be friendly to the participants of these working environments (Matysiak, 2009; Gallup, 2010). Good working environments would improve worker productivity and harmony, which would improve the wellbeing of people.

Good relationships and living in harmony is essential for wellbeing because the disruptions of peaceful relationships have been found to breed anxiety and depression (Lillard & Panis, 1996; Gallup, 2010). In these studies, good and vibrant social life has been shown to greatly improve people's wellbeing.

External factors like political governance, corruption, and peace contribute significantly to the wellbeing of societies. War-torn areas and areas facing insurgency and all kinds of hostility and insecurity face high anxiety levels and the lowest levels of wellbeing. Poor governance and corruption also contribute negatively to society's wellbeing because these hinder growth and economic success. Such conditions stifle any chances for an economy to thrive (Sen, n.d; Frey & Stutzer, 2000; Smith & Thelen, 2003; Gramlich, 2017).

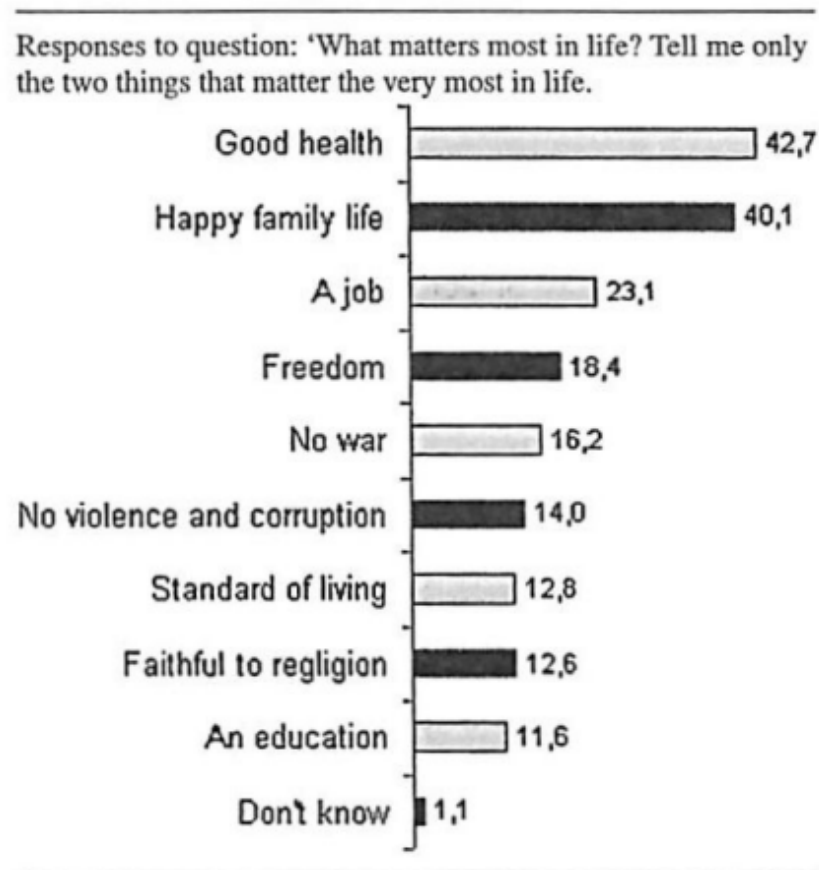
Gender segregation: Various studies show that societies practising gender segregation have significantly lower wellbeing levels (Prescott-Allen, 2001; Cuberes & Teignier, 2016; Tesch-r & Martin, 2019). Moreover, the wellbeing of women themselves matters. A study conducted in Saudi Arabia, a conservatively gender-segregated country, shows that the factors mainly contributing to women's ill-being included domestic violence, poor living conditions, and general illnesses (Jradi & Abouabbas, 2017).

Genetic disposition, temperament, and personal initiatives: Studies have found interesting results with regards to the extent to which our genetic dispositions contribute to our happiness (E. Diener & Diener, 1996; Lyubomirsky, 2001; Diener & Seligman, 2002; Grinde, 2002; Wellik & Hoover, 2004; Lyubomirsky, King, & Diener, 2005). One study puts it to as high as 50%. Meaning the highest proportion of self-reported happiness emanates from one's genetic make-up and temperament (Blum et al., 2009). With the recent upcoming of positive psychology, it should go without saying that personal initiative can and has gone a long way in contributing to the individual wellbeing.

Financial ability: As this paper gravitates towards financial contribution to the household and economy, it is of essence to assess the contribution that financial ability has on wellbeing. Numerous studies have rightly shown that financial independence greatly contributes to Wellbeing (Lane, 2000; Easterlin, 2001; Deaton, 2008; Kahneman & Deaton, 2010;). This is probably because a good financial standing enables a decent quality of life. It makes it possible to afford comfortable living conditions, access to food, good medical care, good education, and basic amenities. These studies agree that financial ability is important up to a level when one can afford a comfortable life. When income continues increasing past that essential level, it ceases to create as much happiness as it did before. It reaches a point of diminishing marginal returns of income to happiness.

Several other factors like culture, religion, education, and beliefs also play a role in the wellbeing of individuals (Beaman et al., n.d.; McRobbie, n.d.; Diener & Lucas, 2000; Diener & Seligman, 2002; Michalos & George, 2007; Graham, 2009; Davey, 2012; Hoare, Bott, & Robinson, 2017). These and others are still subject to much curiosity from the world of research.

Studies by Biswas-diener and Tay (2012), and Davey (2012) agree that though there is some cultural variation in the beliefs about the conditions of happiness, the conditions of happiness and wellbeing are generally similar globally and the consequences for enjoying life are also universal. They also agree that some conditions of wellbeing and happiness are external while others are from within an individual.



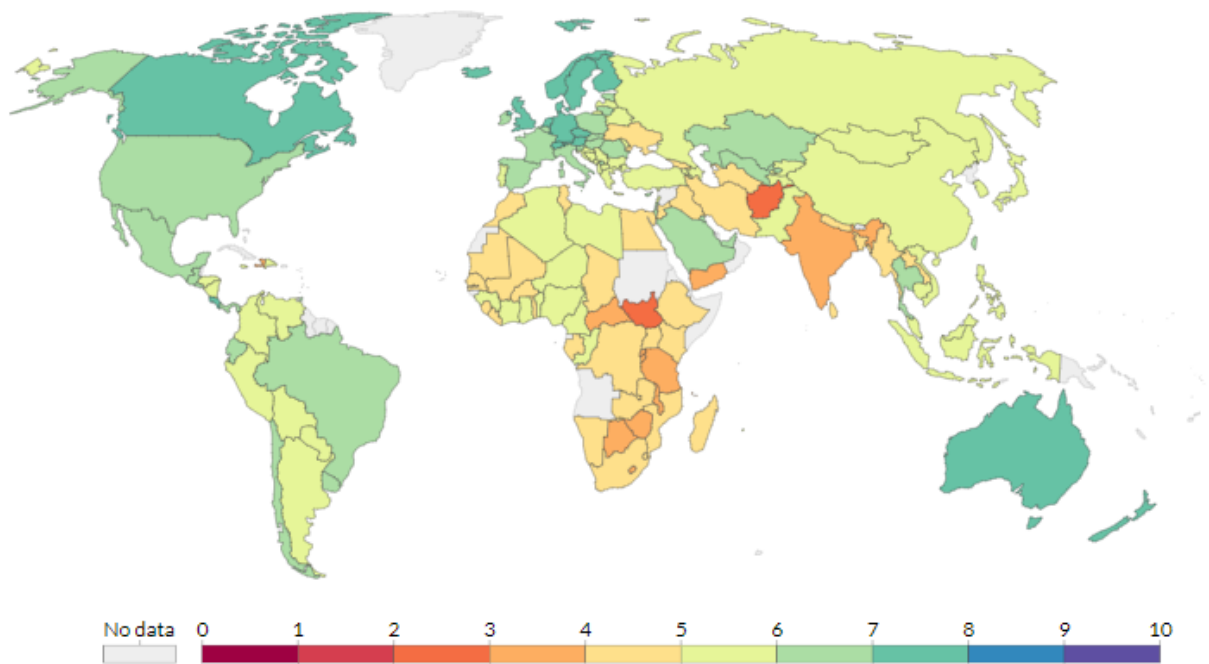
Source: Gallup Millennium World Survey (Spogárd 2005)

Figure 2.6. What matters most in life. Gallup, 2005

The above results from a Gallup Poll show that happy family life and a job are the second and third most important attributes of people's lives that greatly contribute to their happiness.

Prescott-Allen, (2001) gives a detailed assessment of the various contributors to wellbeing in all the world countries. For human wellbeing, he examines the roles of health, wealth, knowledge, community and equity. In his study, he finds that all five aspects are significant to individuals' wellbeing in society.

Figure 2.7. below shows the life satisfaction for 2018, as given in the World Happiness Report of 2019



Source: World Happiness Report (2019)

Figure 2.7. Life Satisfaction, 2018

Research Gap

The growing body of critical literature on wellbeing does not address the relationship between the two aspects of my study; formal female employment and wellbeing. This indicates a huge gap in this aspect. However, assuming rationality and transitivity, I expect that since salaried female workers contribute to higher income in families, and a greater income facilitates wellbeing in the society, therefore, higher salaried female workers contribute to greater wellbeing in society.

Chapter 3: Methodology

3.0 Introduction

The third chapter presents the research methodology of this paper. It includes several sections; 1. The research design, 2. The Data sources and methods of data collection, 3. Data Analysis, 4. Liability and validation of the data, and finally, 5. The ethical considerations.

3.1 Research Design

This study uses quantitative research design to analyze the survey data-employing the fixed effects method. This is done because the research design of this deductive study aims to find causality between several variables to answer the research questions. The research objectives in this paper are to find statistical or numerical relationships between several variables from group comparison using a combination of a causal-comparative and predictive research design.

The hypotheses in this research are as follows;

- a) An increase in salaried female workers leads to an increase in life satisfaction (though we expect both negative and positive effects in this regard, we still believe that the positive effects outweigh the negative effects leading to an overall positive outcome).
- b) An increase in salaried female workers leads to an increase in the human development index (Duflo, 2011).
- c) An increase in salaried female workers leads to reduced psychological wellbeing because of increased stress levels, less sleep and less intimate time spent together with family members (Stevenson & Wolfers, 2009).
- d) An increase in salaried female workers leads to a decrease in fertility rates (G. S. Becker & Lewis, 1973; Adsera, 2005)
- e) An increase in salaried female workers possibly leads to an improvement in health and thus, an increase in life expectancy (Duflo, 2011).

3.2 Model Specification

The fixed effects model used for the country-specific intercepts is

Where;

Y_{it} is the outcome variable in a specific country, i , in a specific year, t .

X_{it} and X_{kt} are independent variables

β is the coefficient for the independent variable

α_i ($i=1, \dots, n$) is the unknown intercept for each country (constant)

ϵ_{it} is the error term

Equation 1.

Life Satisfaction = $\rho + \alpha$.salaried female workers + β .unemployment rates + γ .log GDP + λ .Disease burden + δ . consumer price index + i .Year + ϵ

Equation 2.

Human Development Index = $\lambda + \delta \cdot \text{salaried female workers} + \gamma \cdot \text{daily calories per capita} + \beta \cdot \text{water and sanitation} + \phi \cdot \text{fertility rate} + \alpha \cdot \log \text{ GDP} + \pi \cdot \text{consumer price index} + \mu \cdot \text{human rights} + i \cdot \text{Year} + \epsilon$

Equation 3.

Mental health = $\delta + \mu \cdot \text{salaried female workers} + \alpha \cdot \text{fertility rate} + \beta \cdot \text{substance use} + \gamma \cdot \text{human rights} + \lambda \cdot \log \text{ GDP} + \rho \cdot \text{water and sanitation} + i \cdot \text{Year} + \epsilon$

Equation 4.

Fertility rates = $\beta + \alpha \cdot \text{salaried female workers} + \delta \cdot \text{human rights} + \gamma \cdot \text{water and sanitation} + \rho \cdot \text{disease burden} + \mu \cdot \text{consumer price index} + i \cdot \text{Year} + \epsilon$

Equation 5.

Life expectancy = $\rho + \beta \cdot \text{salaried female workers} + \delta \cdot \log \text{ GDP} + \alpha \cdot \text{substance use} + \mu \cdot \text{water and sanitation} + \phi \cdot \text{human rights} + \gamma \cdot \text{mental health} + i \cdot \text{Year} + \epsilon$

3.3 Data Sources

The data used in this paper is retrieved from the following sources; World Bank, International Labor Organization, International Monetary Fund, World Health Organization, United Nations Development Programme and Our World in Data. Data from these organizations' databases was used because it is thoroughly scrutinized and verified before being published.

In an attempt to analyze the effects of salaried female employee rates on the wellbeing of societies, we compare several outcome variables that represent the qualities that would be significantly affected by a better income;

1. Life Satisfaction: In this paper, we measure wellbeing using life satisfaction. Life satisfaction is measured by self-reported answers to the Gallup Poll. The question is based on the Cantril ladder which asks,

"Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?"

This question seeks to find the subjective view of how one feels about his/her life after giving a brief evaluation of his/her life circumstances.

2. Human Development Index: This is the variable that comes closest to measuring quality of life, an aspect in which we are greatly interested. UNDP created this composite index to better evaluate development of a nation. It is a combination of standard of living, access to knowledge, and, a long and healthy life. An improved standard of living is an expected consequence of formal salaried female workers. This outcome variable would enable us to evaluate the potential effect of the salaried female employees on the living conditions of their families and thus, societies.

3. Mental health and substance use disorders (psychological ill-being): To capture psychological wellbeing which entails more peace of mind and less anxiety, as an aspect of quality of life, we use the mental health and substance use disorders variables as provided by Institute of Health Metrics and Evaluation. The disorder categories include; depression, anxiety, schizophrenia, bipolar, intellectual development disability, eating disorders and alcohol and substance use disorders. Of this combination, anxiety disorders and depression hold the highest composition because they are the most prevalent. The majority of the anxiety and depression cases are more prevalent in women, whereas majority of the alcohol and substance use disorders are among men. The diseases are quite evenly distributed among both genders. Most of the deaths that occur from these disorders are mainly from the eating disorders and a result of severe malnutrition. Suicides too are strongly linked to depression and other mental health disorders though they may not always be the reason behind the suicides. Depression usually displays symptoms that include; poor appetite, disturbed sleep, poor concentration and focus, reduced self-esteem, feelings of worthlessness and guilt, pessimism about the future and suicidal or self-harm thoughts.

4. Life Expectancy: This is the number of years one would expect to live at the time of birth given all conditions of mortality prevalent at birth remained constant. This measure usually indicates the general health status of an individual, as good health is expected to lead to a long life. Here, we use life expectancy rates as provided by UN Population Division.

5. Fertility Rate: The fertility rate of a country is the average number of children a woman bears. Though the total number of childbirths has increased over several years because of a growing global population, there has been a general trend of declining fertility rates (Adsera, 2005). The data we use for this variable is retrieved from UN Population Division.

Our main independent variable is; salaried female workers. These are the women who hold formal paid employment jobs in which they are given explicit or implicit contracts that make them entitled to a basic remuneration not directly dependent on the revenues from their work output, as is the case for informal employment. To measure this variable, we use the modelled International Labor Organization estimates.

We see that developed countries generally have high percentages of salaried female workers, whereas developing countries generally have low percentages of salaried female workers. The trends are slightly positive over the 12-year course though a much longer timescale would have indicated a clear upward trend.

Other independent variables used in the study include;

1. Unemployment rates: This is the percentage of the workforce who are unemployed. We use ILO modeled estimates. This affects Life Satisfaction.

2. GDP: This is the gross domestic product at consumer's prices, which is the sum of gross value added by all resident manufacturers in the economy, plus any output prices minus any subsidies excluded in the value of the products. We use World Bank national accounts data and OECD national accounts data files. This contributes to life satisfaction, HDI, mental health and life expectancy.

3. Disease burden: These are disability adjusted life years which are lost years of healthy life as a result of suffering all kinds of disease. This affects fertility rates and life satisfaction.

4. Consumer Price Index: These are average commodity price adjustments for a specific basket of goods as compared to average prices in 2010 which is used as the base year. The data used here is from International Monetary Fund, International Financial Statistics and data files. This affects life satisfaction, HDI and fertility rates.
5. Food per person: Measured as Daily Calories per capita, this is the ratio of available food in a country to its population. This affects the HDI.
6. Water and sanitation: The percentage of people in a nation who have access to clean water and sanitary facilities. This affects the HDI, mental health, fertility rates and life expectancy.
7. Human rights protection: These scores are standard deviations above or below the average of all the countries' Human Rights over all time. This measurement was developed by Christopher Farris and Keith Schnaken. This affects life expectancy, fertility rates, mental health and the HDI.
8. Substance use: This shows the percentage of people in a nation suffering with alcohol and drug dependence. This affects life expectancy and mental health. The data used here is from World Health Organization (WHO) and Institute of Health Metrics and Evaluation (IHME).

3.4 Data Processing and Analysis

Data for the variables listed above was downloaded from these Organizations' databases; IMF, WB, UNDP, ILO, WHO and Our World in Data.

We then combined this data on one Microsoft Excel sheet to form the desired dataset. It was sorted using year filters in excel to retain data spanning over 12 years, 2006 to 2017. Countries with too many data gaps were eliminated from the data list in a bid to create a balanced panel. We finally remained with data that spans over 12 years, 2006 to 2017, and covers 131 countries quite evenly spread around the world, with countries representing each inhabited continent in the world.

We then use STATA software as our main analysis tool. STATA is used because it is an efficient analysis software that is able to do all the statistical analysis required. On setting the data to longitudinal, we find that the data makes a well-balanced panel. A correlation test also reveals that there is a high co-linearity between several variables as shown in Table 2. in the Appendix a2. The hausman test recommends use of the Fixed Effects model. See appendix a3. A test reveals the presence of heteroskedasticity and we use heteroskedasticity-robust standard errors (see appendix a4.)

With the longitudinal data set, we use the entity and time fixed effects model to estimate the extent to which salaried female workers contribute to life satisfaction, human development, mental-health issues (psychological ill-being), life expectancy and fertility rate.

The fixed effects model enables us to control for unobserved time invariant factors across countries that contribute to our outcome variables, and we also control for variables that change over time but not across the countries, accounting for individual heterogeneity. The study therefore expect unbiased estimates that would otherwise arise from omitted time-invariant determinants.

The research employs fixed effects method to get the main estimates, then random effects and pooled OLS estimates for comparisons, to come up with conclusions. The pooled OLS results act as a baseline for comparison.

3.5 Liability and Validation

The data used goes through rigorous crosschecks to earn verification from relevant authorities before being published on the websites of the databases of World Bank, UNDP and ILO.

More-so, I went ahead to run additional tests as shown in the data processing and analysis section above. The data is within the scientific range, is liable and valid.

3.6 Ethical Considerations

This study kept the professional research standards. No data was manipulated and it was used the way it was found. The attached references will further point you to the data sources if need for further confirmation arises. The data accessed and used was available for public use and was not in any way pilfered or altered.

Chapter 4. Presentation and Analysis of Empirical Results

The fourth chapter presents the empirical results of the data analysis adhering to the aforementioned study objectives. The sections will explore the effects of salaried female workers on; 1. Life Satisfaction. 2. The Human Development Index. 3. Mental health, 4. Fertility rates. 5. Life expectancy. This chapter aims to prove or disprove the hypotheses made in the research design, each of which was in line with a corresponding research objective.

4.1 Effects of salaried female workers on life satisfaction

The results show that a one percentage point increase in salaried female workers reduces the average life satisfaction by 0.00236 standard deviations. However, this result is not statistically significant.

Pooled OLS and Random Effects show significant results in a positive direction, a 0.02 and 0.016 standard deviation increments in life satisfaction as a result of 1 percentage point increase in salaried women workers. The R² of 92.1% as shown in figure 4.1 indicates that 92.1% of life satisfaction is explained by the independent variables used in the study.

Table 1
Life Satisfaction

	OLS (1)	Fixed Effects (2)	Random Effects (3)
Salaried female workers	0.0203*** (25.92)	-0.00236 (-0.46)	0.0160*** (6.26)
Unemployment rates	-0.0464*** (-14.09)	-0.0492*** (-7.13)	-0.0466*** (-8.11)
Log GDP	0.223*** (18.23)	0.219* (1.99)	0.257*** (6.20)
Disease burden	-3.15e-09*** (-6.66)	1.19e-08 (1.31)	-3.43e-09 (-1.93)
Consumer price index	-0.00350*** (-4.86)	-0.00342*** (-3.87)	-0.00433*** (-4.98)
Time Dummies	No	Yes	Yes
_cons	-0.555 (-1.89)	0.442 (0.16)	-1.189 (-1.29)
N	1227	1227	1227

t statistics in parentheses

* p<0.05

** p<0.01

*** p<0.001^{***}

A probable explanation for these results is that the life-satisfaction survey is answered by both satisfied and unsatisfied parties, for example, although some women may be glad they have a level of independence achieved from their employment, they or their other female counterparts may still lead very stressful lives, feeling constantly burnt out from juggling too many responsibilities such as marriage, childcare and careers. These positive and negative effects may ordinarily cancel out or the positives may exceed the negatives. But in this case, statistical evidence shows that females at the workplace lead to a slightly negative impact on the life satisfaction of society, going against our first hypothesis.

This result is an indicator that the current choices that working women are making with regard to juggling their responsibilities are leading to lower life satisfaction for all parties involved.

4.2 Effects of salaried female workers on the Human Development Index

The results show that a 1 percentage point increase in salaried female workers increases the HDI by 0.0004 standard deviations. These results are statistically significant at a 1% level of confidence.

Pooled OLS and Random Effects also show significant results in a positive direction. A very strong R² of 99.9% as seen in figure 4.2 below indicates that these explanatory variables account for 99.9% of the HDI.

Table 2
Human Development Index

	OLS (1)	Fixed Effects (2)	Random Effects (3)
Salaried female workers	0.00182*** (12.14)	0.000410** (2.70)	0.00135*** (6.22)
Daily calories per capita	0.0000206** (2.80)	0.00000412 (0.54)	0.0000154 (1.90)
Water and sanitation	0.000518 (1.65)	0.000192 (0.42)	0.000810 (1.79)
Fertility Rate	-0.0349*** (-10.52)	-0.00581 (-1.17)	-0.0265*** (-5.35)
Log GDP	0.0177*** (14.67)	0.0174*** (4.36)	0.0194*** (6.98)
Consumer price index	-0.0000487 (-0.31)	0.0000699* (2.08)	-0.0000105 (-0.29)
Human rights	0.0269*** (9.84)	0.00236 (1.12)	0.00870*** (3.60)
Time Dummies	No	Yes	Yes
_cons	0.143*** (3.39)	0.214** (2.78)	0.0896 (1.42)
N	470	470	470

t statistics in parentheses

* p<0.05

** p<0.01

*** p<0.001"

From these results, we understand that salaried female workers possibly improve the standard of living, access to knowledge and health of society. This is particularly true in developing countries where the contribution of a mother's income makes a big difference to the livelihood of the family. This may be because this income directly increases the family's ability to afford the basic necessities of life. Moreover, in developed countries, a double income household finds it easier to afford the necessities and comforts of life. This outcome agrees with and confirms our second hypothesis.

4.3 Effects of salaried female workers on mental health (psychological ill-being)

These results show that a 1 percentage point increase in salaried workers increases the mental health and substance disorders-psychological ill-being- by 0.00262 standard deviations. These results are statistically significant at a 1% confidence level.

Pooled OLS and Random Effects methods also show that increasing salaried female workers increases mental health disorders. Figure 4.3 below further shows a high R² of 99.8% indicating that these explanatory variables account for the outcome variable, psychological ill-being, by 99.8%

These results, further explain the results in 4.2 above on life satisfaction. Together with the positive results in 4.3 on the HDI, these positive results on psychological ill-being more than neutralize people's QOL, resulting in the negative but insignificant life satisfaction results. We see that increasing salaried female workers possibly increases anxiety, depression, and substance use disorders.

This may be because of a combination of reasons such as, over-exhaustion of women from juggling too many responsibilities, less than necessary attention given to family life, or even for-going of marriage and children altogether, less time available for rest and sleep, less time available for other social interactions outside work, children whose main influence is technology and the internet because of insufficient time spent with parents, and a possible myriad of other factors.

These results concur with our third hypothesis. Interestingly, our results also show that an increase in fertility rate by one child per woman leads to an increase in the people suffering from psychological ill-being by 0.2 percentage points. The reasons that may explain this result include the stress that comes with raising children in economies in which the cost of living just keeps rising.

Table 3
Mental health and substance use disorders, anxiety and depression

	OLS (1)	Fixed Effects (2)	Random Effects (3)
Salaried female workers	0.0157*** (6.09)	0.00262** (2.90)	0.00315*** (3.48)
Fertility Rate	0.412*** (8.84)	0.0522** (2.61)	0.0454* (2.27)
Substance use	0.0111** (2.91)	-0.000190 (-0.49)	-0.0000208 (-0.05)
Human rights	0.374*** (5.16)	-0.00829 (-0.72)	-0.00288 (-0.25)
Log GDP	0.314*** (8.29)	-0.00519 (-0.33)	0.00538 (0.34)
Water and sanitation	-0.0191*** (-4.30)	-0.00349 (-1.94)	-0.00362* (-1.99)
Time Dummies	No	Yes	Yes
_cons	7.211*** (7.84)	16.03*** (41.40)	15.77*** (37.99)
N	1108	1108	1108

t statistics in parentheses
 *** p<0.05 ** p<0.01 *** p<0.001"

4.4 Effects of salaried female workers on fertility rates

The results provide statistical evidence that an increase in salaried female workers by 1 percentage point increases the average fertility rate of women by 0.01 standard deviations. This result is highly statistically significant at the 0.1% level. However, the pooled OLS and random effects results move in opposite directions with OLS showing reduced fertility rates and Random effects showing insignificant increases in fertility rates. The high R² of 99.5% shows that 99.5% of the fertility rate variable is accounted for by the analyzed explanatory variables.

These results disprove our fourth hypothesis that salaried female workers reduce the fertility rate. The reasons for this result can be explained as follows; because of the ever-increasing costs of living around the world, young women hold on from giving birth whether single or married, until they can earn either alone or jointly with a partner, enough money to afford childcare. This, then provides them with the security they need to have children-usually less than three in developed countries. In developing countries, though, the trend is usually opposite. The unemployed and especially the lowly educated women give birth to more children because they have enough time and attention to devote to child care. In these instances, emphasis is not usually placed on the increasing costs of living but on role-fulfillment, as mothers feel more fulfilled raising more children, this may explain the high fertility rates in Sub Saharan Africa. These results, analogous to the results in 4.2, show that there are both positive and negative directions in which this variable would go but because this world is predominantly developed and developing, the financial incentives outweigh the non-financial incentives in overall.

These results indicate that an increase income may be a good incentive for child-birth.

Table 4
Fertility Rate (Number of children born per woman)

	OLS (1)	Fixed Effects (2)	Random Effects (3)
Salaried female workers	-0.0128*** (-7.83)	0.0102*** (3.46)	0.00314 (1.10)
Human rights	-0.0709*** (-2.79)	0.0137 (0.30)	-0.0217 (-0.49)
Water and sanitation use	-0.0621*** (-19.31)	-0.0452*** (-5.38)	-0.0536*** (-7.48)
Disease burden	-1.76e-09*** (-6.82)	1.55e-09 (0.39)	-1.48e-10 (-0.11)
Consumer price index	0.000969 (0.70)	-0.00127* (-2.06)	-0.000804 (-1.48)
Time Dummies	No	Yes	Yes
_cons	8.940*** (34.00)	6.301*** (8.28)	7.412*** (11.69)
N	1088	1088	1088
t statistics in parentheses			
* p<0.05 *** p<0.01 **** p<0.001"			

4.5 Effects of salaried female workers on life expectancy

In this section, the results show that a one percentage point increase in salaried female workers increases the average life expectancy by 0.02 years. This result is statistically significant at the 5% level. These results concur with the pooled OLS and Random effects results which are positive and significant. Furthermore, as shown in figure 4.5, the R² of 99.2% indicates that 99.2% of the life expectancy variable is explained by the explanatory variables used in the analysis.

These results provide statistical evidence that a better income from employed women facilitates healthier living both for her and her family members. Health is the main indicator manifested by higher life expectancy.

The implications of this outcome go two ways. Firstly, low-income earners need subsidized health care in order to maintain a healthy and thus long life. Secondly; sources of income and employment may be encouraged so that people may earn enough money to sustain healthier lifestyles through access to proper medical care.

These results confirm our hypothesis that an increase in salaried female workers increases life expectancy.

Table 5
Life Expectancy

	OLS	Fixed Effects	Random Effects
Salaried female workers	0.0659 ^{***} (6.55)	0.0222 ^{**} (2.18)	0.0563 ^{***} (6.06)
Log GDP	0.604 ^{***} (6.79)	0.950 ^{***} (5.27)	1.066 ^{***} (6.98)
Substance use	0.0762 ^{***} (5.67)	-0.0246 ^{***} (-5.80)	-0.0133 ^{***} (-3.12)
Water and sanitation use	0.190 ^{***} (11.65)	0.0982 ^{***} (5.29)	0.161 ^{***} (9.42)
Human rights	0.674 ^{***} (3.57)	0.218 (1.64)	0.584 ^{***} (4.45)
Mental Health	-0.237 ^{***} (-3.87)	-1.863 ^{***} (-5.06)	-0.275 (-1.39)
Time Dummies	No	Yes	Yes
_cons	36.22 ^{***} (17.66)	66.35 ^{***} (9.08)	30.70 ^{***} (7.18)
N	1117	1117	1117
t statistics in parentheses			
*** p<0.001			
** p<0.01			
* p<0.05			

Chapter 5: Discussions

5.0 Introduction

The fifth chapter presents further discussions of the results from the fourth chapter. We verify our findings with existing literature to find points of divergence or convergence. The following sections will contain pertinent discussions on the effects of salaried female workers on; 1) life satisfaction, 2) HDI, 3) Mental Health, 4) Fertility rates, and 5) Life expectancy.

5.1 Effects of salaried female workers on life satisfaction

The results in the chapter above show statistical evidence for negative effects of salaried female workers on life satisfaction as measured by the Cantril ladder. This could be because the negative influences override the positive influences of salaried female workers on life satisfaction. Some of these factors may include; women being overstrained from juggling family life and career life (Sweetman & Oxfam., 1996; Stevenson & Wolfers, 2009; Siegel et al., 2012) and yet also, women and societies are happier because of the extra income the working women bring in (Duflo, 2011). This shows that our outcome is fairly in-line with what existing literature shows.

5.2 Effects of salaried female workers on the Human Development Index

Our results with regards to the Human Development Index, a more realistic measure for development as set by UNDP are in line with all literature that shows how increased financial ability facilitates a better standard of living, literacy rates and better (Easterlin, 2001; Duflo, 2011; Tsani et al., 2012). The results give statistical evidence that increasing salaried female workers leads to increasing of the Human Development Index.

5.3 Effects of salaried female workers on mental health and substance use disorders

Our results on psychological ill-being are in accordance with some of the literature on the matter. The results suggest that increasing female workers leads to an increase in psychological ill-being. Existing literature concurs that women's work and family life facilitates several stressful seasons of life, especially for mothers of young children (Veenhoven, 2000; Sultana & Noor, 2012). Furthermore, Deaton (2010) also shows in his study that income advances the quality of life but not emotional wellbeing.

5.4 Effects of salaried female workers on fertility rates

The results with regards to fertility rates do not concur with our hypothesis, but they concur with research findings of fertility rates in OECD countries that explain why fertility rates increase with income (Fuster, 2006; Myrskylä et al., 2009), and how women usually pursue childcare with the presence of financial security (Matysiak & Vignoli, 2013). Our results show that fertility rates increase with an increase in salaried female workers. It is in sub-Saharan Africa that the fertility rates are still quite high, otherwise for the rest of the world, birth rates have dropped significantly since the 1950s. The overall world average has reduced by half from five children per woman in the 1950s to 2.5 children per woman in 2015 (Adsera, 2005; Kotowska et al., 2008; Lee & Chung, 2008; Doepke, 2014).

5.5 Effects of salaried female workers on life expectancy

Results on Life expectancy, an indicator for good health, are in line with our expectations and hypothesis. Our results show that increasing the salaried female workers increase life expectancy. Existing literature also agrees that an increase in income facilitates good health because it increases access to health care and thus leads to long life (Duflo, 2011; Moussavi et al., 2007; Veenhoven, 2000).

Chapter 6: Conclusions and Policy Recommendations

6.1 Conclusions

This research paper has drawn attention to the different effects that formal female employment has on the wellbeing of society. The main objectives of this paper were to find the effects of salaried female workers on; 1. Life satisfaction 2. The human development index. 3. Mental health and substance use disorders 4. Fertility rates, and 5. Life Expectancy.

The empirical results have shown that although an increase in salaried female workers does not increase psychological wellbeing, it improves the human development index of the society. We also find that increasing salaried female workers increases the fertility rates because women feel secure enough to give birth under financially secure conditions. Financial security is thus essential for family growth. Our results further show that salaried female workers contribute positively to life-expectancy, and this may be attributed to an increase in income which facilitates access to proper healthcare, in turn contributing to good health and longer life.

Increasing salaried female workers also reduces psychological wellbeing probably because life gets more hectic with balancing family life and career for both men and women. Though raising a family is usually a big source of fulfilment to both men and women, it requires a lot of work within the home which easily takes a toll on women because more often than not, they shoulder the majority of family care responsibilities. Though male involvement has greatly increased over the past few decades, female involvement in-home care is still higher probably because it is a natural tendency for women to be homemakers.

We thus see how salaried female workers contribute negatively to life-satisfaction, a result that is not statistically significant. This may be explained by the fact that life satisfaction encompasses all aspects of life, some of which are discussed in all the other outcomes examined. Based on the research findings, the paper concludes that the negative influences slightly outweigh the positive influences producing this slightly negative result in life satisfaction.

Further research may focus on how to increase psychological wellbeing for working mothers and families in which both parents are working.

6.2 Policy Recommendations

Labour policymakers, UN Women and all relevant stakeholders would do well to consider all these aspects discussed above while formulating policies, and this study's recommendations are as follows;

1. Improving work-at-home policies for mothers, especially mothers of young children so that those who are more comfortable working at home may stay at home and still be productive in their official work. This would boost the psychological wellbeing of families (Stevenson, 2009; Ford, 2017).
2. Providing nurseries and daycares at the workplace to encourage a more peaceful working environment for working parents. This is especially important in developing countries which may not have put up such facilities yet.

3. Increasing the pay or giving allowances to single-income households so that one parent can afford to be a full-time stay at home parent. This would work well where one parent is willing to devote all their time to childcare and home care
4. Subsidizing healthcare access for the poor in every country, to bridge the gap of health and life-expectancy between the rich and the poor.
5. Subsidizing childcare to boost fertility rates especially in countries struggling with low fertility rates. This is especially true in developed countries where the cost of childcare is usually very high.

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DATA SOURCES

ILO Database
WB Database
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WHO Database
IMF Database

Center of Faith Family and Justice

P.O Box 150045

Mukono, Uganda

Tel: +256760130120

Email: info@cffj.or.ug

Web: cffj.or.ug

01210901