

## Non-marital fertility in South Africa: An analysis of trends and socioeconomic factors

### Abstract

In 2016, 15% of the world's 240 million births were to never-married mothers. This global increase in non-marital fertility is characterised by variations across countries and regions. Levels of non-marital fertility in South Africa are far higher than the global average as data from 2014 showed that 70% of births in the country were to never-married mothers. Using data from the National Income Dynamics Study, a trend analysis revealed a significant increase (of 18.43%) in the prevalence of non-marital fertility in South Africa between 2008 and 2017. Further analysis showed that non-marital fertility is influenced by economic factors as never-married mothers are more likely to belong to low-income households, female-headed households or have low-paying jobs. This study contributes empirically to understanding the dynamics of non-marital fertility in a middle-income country and underscores the importance of additional research on the topic as levels of non-marital fertility increase within an African context.

Key words: Non-marital fertility, South Africa, characteristics, fertility, trends, marriage

## Introduction

Over the past several decades, changes in the global demographic landscape have been well documented. Parallel to the ongoing fertility transition (which some countries have exited), many countries have experienced delayed marriage and a decline in marriage rates which, among other factors, have influenced the increase in levels of non-marital fertility among women aged 15-49 (Chamie, 2017; Clark, Koski and Smith-Greenaway, 2017; Fledderjohann, 2017; Klusener, 2015; Klusener and Goldstein, 2016; Mack, 2017; McLanahan, 2004; Smith-Greenaway, 2016; Smith-Greenaway and Clark, 2018; Ventura, 2009; Wildsmith, Steward-Streng and Manlove, 2011). Globally, in 2016, about 15% of the world's 140 million births were to unmarried mothers. This global average is characterised by variations in the proportions of births to unmarried women across countries and regions (Chamie, 2017).

Country specific estimates show that the levels of non-marital fertility in the United States have increased by 60% since the 1980s (Lamidi, 2016), while in 2014, over 40% of all births in the United States were to unmarried mothers (Kearney and Wilson, 2018). Across European countries, non-marital fertility is characterised by spatial differences (Klusener, 2015; Klusener and Goldstein, 2016) while in 2012, 40% of all births in the European Union were to unmarried women (Mack, 2017). Similar to European countries, levels of non-marital fertility vary across different African countries. Levels of non-marital fertility ranged from 15% in Guinea and Togo to 40% in Liberia between 2010 and 2015 (Clark, Koski and Smith-Greenaway, 2017; Smith-Greenaway and Clark, 2018). In 2015, 13.8% of births in Rwanda were non-marital while Ethiopia (below 5%) experienced low levels of non-marital fertility. A decline of 7.1 percentage points (between 1990 and 2015) in the level of non-marital fertility was noted in Kenya while during the same period, levels reached 10% in Malawi, 25% in Zambia and Mozambique and 60% in Namibia (Clark, Koski and Smith-Greenaway, 2017). A growing prevalence of non-marital births has also been observed in Ghana (Fledderjohann, 2017).

The South African literature on non-marital fertility continues to focus predominantly on teenage pregnancy (Adeagbo and Naidoo, 2020; Grant and Hallman, 2008; Kara and Maharaj, 2015) and childbearing among young women (Maharaj and Shangase, 2020). Moreover, these studies are often based on the analysis of qualitative data (Matlakala, Makhubele, Sekgale and Mafa, 2019; Toska, Laurenzi, Roberts, Cluver and Sherr, 2020). Even when studies on non-marital fertility provide empirical results, these estimates are either not nationally representative or the sample does not include all women aged 15-49 (Sennott, Reniers, Gómez-Olivé and Menken, 2016). In order to fill the gap in the existing literature, this study aims to provide a national overview of non-marital fertility by firstly, identifying whether there has been an increase in non-marital fertility among all women aged 15-49 between 2008 and 2017 and secondly, by identifying the predictors of non-marital fertility among mothers aged 15-49. Drawing from the literature reviewed, this study hypothesises that similar to countries in the global north, there are economic factors which influence non-marital fertility in South Africa. If this is the case, then it is expected that the regression estimates will predict that women living in households with a low per capita total monthly household income and/or women who are unemployed or economically inactive and/or women with low levels of education are more likely to be never married mothers.

The next section will provide a succinct review of relevant literature relating to non-marital fertility in the global north and south. Section three will outline the study context, data used and method of analysis employed in the study. The results will be described in section four followed by a discussion which contextualised the findings in relation to the aims of the study (section five). In conclusion, section six underscores the contribution made by the study to the broader literature and provides recommendations for future research.

## Literature review

Factors linked to the increase in non-marital fertility in the global north and south include delayed marriage, increased cohabitation, changing sexual and reproductive behaviours and changes in the societal perceptions of non-marital sexuality and childbearing (Chamie, 2017; Clark, Koski and Smith-Greenaway, 2017; Fledderjohann, 2017; Jalovaara and Andersson, 2018; Lamidi, 2016; Rutigliano and Esping-Andersen, 2018; Smith-Greenaway, 2016; South, 1999; Stipkova, 2015; Surkyn and Lesthaeghe, 2004; Ventura, 1999; Wildsmith, Manlove and Cook, 2018; Wu, Bumpass and Musick, 2000). An increase in educated and employed women, changes in the perceptions of and attitudes towards marriage and childbearing and changing gendered roles have also positively

influenced the levels of non-marital fertility (Chamie, 2017; Clark, Koski and Smith-Greenaway, 2017; Mack, 2017; Martinez, Daniels and Chandra, 2012; Smith-Greenaway and Clark, 2018; Stipkova, 2015; Upchurch, Lillard and Panis, 2002; Wildsmith, Steward-Streng and Manlove, 2011). In some countries, the decrease in religiosity has been positively associated with an increase in births outside of a marriage as secularization has reduced the influence of religious institutions in limiting non-traditional family formation structures (Chamie, 2017; Klusener, 2015; Klusener and Goldstein, 2016; Lesthaeghe, 2010; Surkyn and Lesthaeghe, 2004). Different welfare-states also influence levels of non-marital fertility (Tannenbaum, 2020). In Scandinavian countries, state support systems target the individual and encourage female employment. In this case, scholars suggest that the economic development of women may have catalysed the number of births which take place outside of a marriage as Scandinavian countries boast high levels of non-marital fertility (Klusener, 2015; Surkyn and Lesthaeghe, 2004). In contrast, state support systems that target the family unit and are broadly based on the male breadwinner model negatively influence the levels of non-marital fertility (Klusener, 2015; Surkyn and Lesthaeghe, 2004).

In the global north, scholars have reported that economic factors influence non-marital childbearing in two ways. In the first instance, economic instability has been linked to delayed marriage and/or a decrease in marriage rates as couples postpone marriage until they become financially stable (Klusener, 2015; Stipkova, 2015; Surkyn and Lesthaeghe, 2004; Wildsmith, Manlove and Cook, 2018). In the second instance, although education and employment are found to positively influence non-marital childbearing, scholars report that never married mothers are likely to have low levels of education (Härkönen, 2017; Kearney and Wilson, 2018; Wildsmith, Manlove and Cook, 2018) and be of a lower socioeconomic status (Jalovaara and Andersson, 2018; Klusener, 2015; Klusener and Goldstein, 2016; Mack, 2017; McLanahan, 2004; South, 1999; Stipkova, 2015; Surkyn and Lesthaeghe, 2004). Against the backdrop of an increase in births to unmarried women and evidence which suggests that (in some countries) the reversal of the pattern of non-marital childbearing is unlikely (Wildsmith, Manlove and Cook, 2018), the identification of a socio-economic determinant of non-marital fertility is of concern. Many children born to unmarried mothers flourish in life however, research shows that children born to unmarried mothers (compared to those born to married mothers) often face various difficulties in their childhood, adolescent and adult life. These children find it difficult to escape the cycle of poverty, have access to limited resources which are required for early childhood development, experience less stable family unions and face multiple psychosocial, educational, cognitive and behavioural challenges (Crosnoe and Wildsmith, 2011; Härkönen, 2017; South, 1999; Wildsmith, Manlove and Cook, 2018; Williams, Sassler, Frech, Addo and Cooksey, 2013; Williams, Sassler, Addo and Frech, 2015).

Within the South African context, early research on non-marital fertility focused on culture and the influence of the socio-political climate of apartheid on Black<sup>1</sup> fertility (Moeno, 1977; Preston-Whyte, 1988; Preston-Whyte and Zondo, 1989). These studies were meticulously detailed in that they provided ethnographic accounts of non-marital fertility among Black women in specific South African townships and cities during the 1990s. Due to the political nature of South Africa in the early- to mid-1990s (the end of the apartheid era), demographic research was limited as the collection of empirical data from all South Africans was restricted and thus, there are limited national statistical insights into non-marital fertility from that period (Garenne and Joseph, 2002; Moultrie and Timæus, 2002; Moultrie, Sayi and Timæus, 2012; Norling, 2019; Udjo, 2014). The first empirical account of non-marital fertility in South Africa was recorded in 1959, albeit in a small township in Johannesburg and was only representative of Black women (Moeno, 1977). Since then, Palamuleni (2010) estimated that in 1960, 5% of all births in South Africa were to unmarried women which increased to 27% in 1989. A large share of these births were to adolescent girls as, for example, in KwaZulu-Natal, 60-80% of births which took place during the late 1970s and early 1980s, in hospitals and clinics, were to Black adolescent girls (Preston-Whyte and Zondi, 1989). Further increases in the levels of non-marital fertility were noted from the Agincourt demographic surveillance site in Mpumalanga which showed that between 1992 and 1997, 21% of all births and 47% of births to women aged between 12 and 26 took place outside of a marriage (Garenne, Tollman, Kahn, Collins and Ngwenya, 2001). Data from the same surveillance site revealed that between 1993 and 2012, 45% of women aged 10<sup>2</sup> to 35 years had non-marital first births (Sennott, Reniers, Gómez-Olivé and Menken, 2016).

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<sup>1</sup> The South African national census (collected by Statistics South Africa) makes use of the following racial categories to classify the population: Black, Coloured, White and Indian. These official population groups are used in the data being analysed in this paper.

<sup>2</sup> Births to pre-adolescent girls have been noted in the Agincourt Health and Socio-Demographic Surveillance System data (Sennott, Reniers, Gómez-Olivé and Menken, 2016) and does not necessarily suggest that it is a common occurrence in South Africa.

## Context, data and methods of analysis

South Africa is believed to have led the fertility transition in sub-Saharan Africa (cf: Chimere-Dan, 1997; Houle, Pantazis, Kabudula, Tollman and Clark, 2016; Moultrie and Timaeus, 2002; Norling, 2019; Palamuleni, Kalule-Sabiti and Makiwane, 2007; Timaeus and Moultrie, 2008) and currently (in 2017) has a total fertility rate of 2.4 live births per woman (World Bank, 2019). Compared to global standards, South Africa is found to have exceptionally low levels of marriage among women of childbearing ages (15-49). In 2014, only 27% of all women (15-49) were married (Mohlabane, Gumede and Mokomane, 2019) while the number of registered civil marriages dropped by 39 177 cases between 2003 and 2016 (Statistics South Africa, 2019).

To identify whether there has been an increase in the prevalence of non-marital fertility in South Africa this study analyses data from wave one (2008) to five (2017) of the National Income Dynamics Study (NIDS). In particular, data from wave five of NIDS is analysed to predict the characteristics of never married mothers aged 15-49. Wave five was collected in 2017 and enumerated 47 055 individuals and 13 543 households. NIDS is South Africa's first nationally representative panel study and collects information on a variety of themes including: health, income, expenditure, household consumption, education, social capital, migration and mortality. Specifically, the study collects a detailed birth roster from every woman aged 15 and older which details information on each child's date of birth, survival status, living arrangement, and birth order. As a result, NIDS is well suited to a study on fertility as it contains detailed fertility information and socioeconomic and demographic details of mothers.

Studies have found a link between age and non-marital fertility in the global north and south. Research shows that women aged 30 and older are more likely to be never-married mothers (Truc, Chankrajang, and Yen, 2017). In qualitative studies on never married mothers aged 15 and older, on average, the participants are aged 30 and older (Adejoh, Kuteyi, Ogunsonla and Adeoye, 2019; Dlugonski, Martin, Mailey and Pineda, 2017). Even in studies which analyse perceptions on marriage and childbearing, individuals in older age groups are more likely to feel that marriage is an outdated institution, and that childbearing is a necessity for women (Manea and Rabusic, 2019). As a result, an additional focus of this study is on women aged 30 and older to identify whether older women are disproportionately contributing to the increase in non-marital fertility in South Africa.

The sample consists of two groups of women; never married mothers aged 15-49 and never married mothers aged 30 and older who had at least one birth after the age of 29. In both cases, never married mothers are identified firstly by using the 'never married' response category as captured in the NIDS marital status variable. Secondly, women who responded yes to the question 'have you ever given birth' are identified as mothers. For the second group, a dummy variable is used to identify older mothers who had at least one birth after the age of 29. The analysis is inclusive of only biological children as information on children who have been adopted or are being fostered are not collected by NIDS.

Individual and household level variables are used to predict the characteristics of a never married mother. These explanatory variables are grouped into five categories namely, demographic characteristics (age and race), spatial characteristics (geographic location and province), socioeconomic characteristics (highest education level, employment status and logarithm of per capita total household income), household characteristics (household size and gender of the household head) and personal attributes (mother's<sup>3</sup> tertiary education, religious affiliation and the importance of religious activities). The period of analysis spans 9 years from 2008 until 2017. Following the trend analysis, a multivariate logit regression estimates the predictors of never married mothers aged 15-49 in South Africa. Given that NIDS is a nationally representative dataset, weighted data are used for the analysis so that the results can be inferred onto the South African population (Wittenberg, 2009). A span of nine years can be seen as a limitation of this study as it is a somewhat of a short period to understand fertility behaviour change. Earlier post-apartheid South African survey data does not include a combination of fertility and socioeconomic

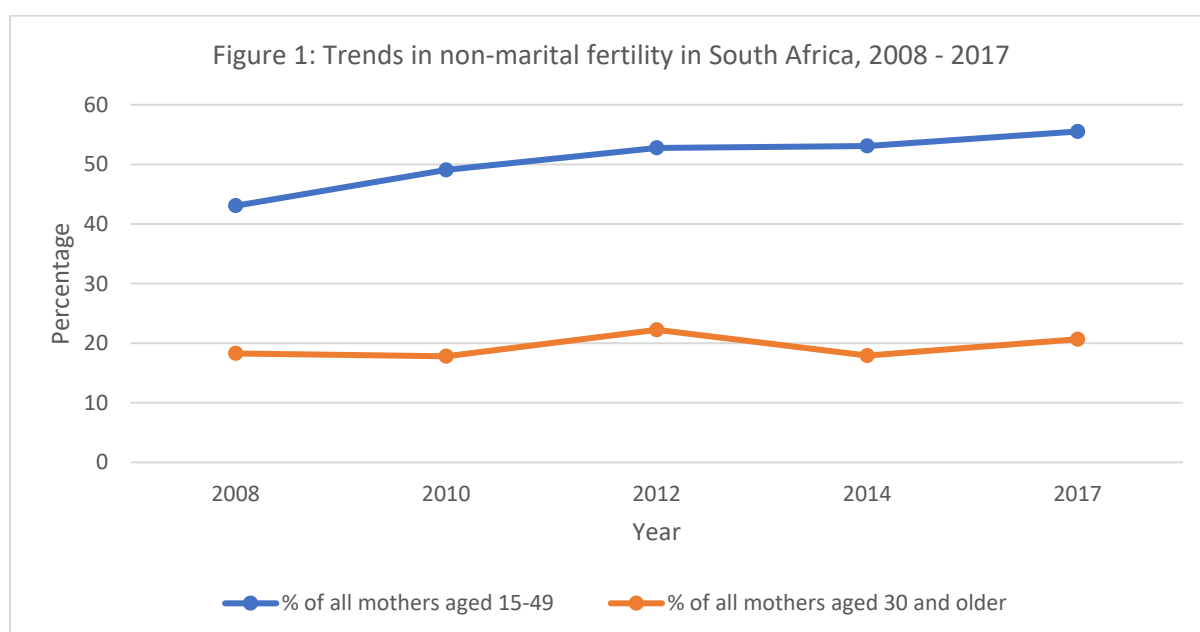
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<sup>3</sup> This refers to the respondent's mother.

variables while the General Household Survey (which offers insights from 2002) is found to underestimate motherhood in South Africa<sup>4</sup>.

## Results

This paper is concerned with whether there has been a change in the prevalence of non-marital fertility in South Africa between 2008 and 2017. To this end, Figure 1 outlines the trend in non-marital fertility among all mothers aged 15-49. The results show that there has been a 28.9% increase between 2008 (43.06%) and 2017 (55.52%) in the percentage of mothers (aged 15-49) who have never married. This change in the share of never married mothers is statistically significant and indicates that over time, there has been an increase in the percentage of women aged 15-49 who have had children outside of a marriage over this relatively short time period. Given this significant increase in non-marital fertility in South Africa, the second set of analysis in Figure 1 investigates whether this increase is driven by older mothers<sup>5</sup>. The results reveal a 12.96% increase in non-marital fertility among older mothers between 2008 (18.28%) and 2017 (20.65%). However, this change is not statistically significant and suggests that the significant increase in non-marital fertility in SA has not been driven by older mothers.



Source: Own calculations from the 2008-2017 NIDS

Notes: The data are weighted

The sample includes all mothers aged 15-49 and all mothers aged 30 and older who had at least one birth after the age of 30

An analysis (Table 1) of the characteristics<sup>6</sup> of never married mothers reveals that 44.86% of these mothers<sup>7</sup> are household heads while 85.41% live in female-headed households. On average, never married mothers are 31 years old and live in a household where the average per capita total monthly household income is R2054.22<sup>8</sup>. The larger

<sup>4</sup> For a detailed review of the availability of South African survey data to address questions on fertility linked to socioeconomic and demographic factors see; Kara, R. 2020. Non-marital fertility in South Africa: Trends, Determinants and Implications. PhD Thesis, Rhodes University, Makhanda.

<sup>5</sup> Older mothers are women aged 30 and older who have had at least one child after the age of 29.

<sup>6</sup> Preliminary analysis showed that 62.19% of never married women have ever given birth (are mothers).

<sup>7</sup> Women are classified as mothers if they reported that they have 'ever given birth'.

<sup>8</sup> The average monthly per capita earnings in 2017 ranged between R18 662 (February 2017) and R19 170 (May 2017) (Statistics South Africa, 2017). Further comparisons can be made with the OECD average household net-adjusted disposable income per capita of USD 33 604 (R504 060 - using an exchange rate of R15) a year (this

share of these mothers is Black (93.34%) and live in urban areas (60.20%). With regards to education, 67.04% of mothers have some secondary schooling or have completed secondary schooling (matric) while 25.87% have some form of tertiary education. Lastly, 47.36% of never married mothers are employed.

Table 1: Description of the sample, never married mothers aged 15-49, 2017

	<b>Never married mothers aged 15-49</b>
Average age	30.65 (0.185)
% of mothers who are household heads	44.86 (1.293)
% of mothers living in a female-headed household	85.41 (0.844)
Average per capita total monthly household income <sup>9</sup>	2054.22 (107.010)
<b>Geographic Location</b>	
Traditional areas	36.44 (1.117)
Urban areas	60.20 (1.158)
Farms areas	3.36 (0.311)
<b>Total</b>	<b>100</b>
<b>Race groups</b>	
Black	93.34 (0.581)
Coloured	5.69 (0.529)
Indian	0.30 (0.099)
White	0.67 (0.233)
<b>Total</b>	<b>100</b>
<b>Highest educational level completed</b>	
No schooling	1.10 (0.176)
Some/completed primary schooling	5.99 (0.488)
Some/completed secondary schooling	67.04 (1.232)
Tertiary education	25.87 (1.203)
<b>Total</b>	<b>100</b>
<b>Employment status</b>	
Economically inactive	32.88 (1.142)
Employed	47.36 (1.289)
Broadly unemployed	19.76 (0.968)
<b>Total</b>	<b>100</b>

Notes: Estimates presented in Rand value for average per capita total monthly household income  
Data are weighted

A specific focus of this paper is to identify whether economic factors influence non-marital fertility in South Africa. The analysis presented in Table 2 regresses being a never married mother against a set of socioeconomic variables whilst controlling for demographic (model I – age and race), spatial (model II – geographic location and province), household (model IV – household size and gender of the household head) and individual characteristics (model V - religious affiliation, whether religion is important to the respondent and whether the respondent's mother had some form of tertiary education). The log odds of these models are presented in Table 2 and are estimated using weighted 2017 NIDS data.

equates to R42 005 a month). Additionally, the OECD reported that in 2017, the annual household net adjusted disposable income in South Africa was 11 592USD (R17 3880/12 =R14 490) (OECD, 2021).

<sup>9</sup> Refer to Brophy et al (2018) for a detailed outline of how the household income variable is constructed.

Table 2: Logit estimations predicting the likelihood of being a never married mother aged 15-49, 2017

	I	II	III	IV	V
Age 15-19	-2.026*** (0.140)	-2.111*** (0.142)	-1.988*** (0.152)	-2.240*** (0.161)	-1.980*** (0.243)
Age 20-24	-0.490*** (0.115)	-0.553*** (0.116)	-0.524*** (0.120)	-0.694*** (0.125)	-0.492*** (0.186)
Age 30-34	-0.102 (0.118)	-0.127 (0.119)	-0.125 (0.121)	-0.146 (0.124)	0.001 (0.171)
Age 35-39	-0.533*** (0.135)	-0.558*** (0.137)	-0.576*** (0.141)	-0.593*** (0.143)	-0.441** (0.189)
Age 40-44	-0.741*** (0.133)	-0.755*** (0.135)	-0.826*** (0.138)	-0.899*** (0.145)	-0.791*** (0.190)
Age 45-49	-1.384*** (0.143)	-1.417*** (0.145)	-1.516*** (0.153)	-1.572*** (0.158)	-1.437*** (0.201)
Coloured	-0.833*** (0.125)	-0.743*** (0.153)	-0.702*** (0.162)	-0.662*** (0.176)	-0.733*** (0.257)
Indian	-2.599*** (0.358)	-2.900*** (0.363)	-2.426*** (0.372)	-2.477*** (0.370)	-2.091*** (0.661)
White	-2.676*** (0.354)	-2.548*** (0.357)	-1.950*** (0.348)	-1.941*** (0.343)	-2.133*** (0.573)
Traditional areas		0.217** (0.091)	0.044 (0.094)	0.005 (0.098)	0.081 (0.130)
Farm areas		-0.182 (0.164)	-0.292* (0.166)	-0.209 (0.171)	-0.188 (0.214)
Some/completed primary schooling			0.083 (0.255)	0.178 (0.271)	0.175 (0.332)
Some/completed secondary schooling			0.270 (0.235)	0.366 (0.253)	0.533* (0.301)
Tertiary education			0.309 (0.247)	0.327 (0.265)	0.465 (0.321)
Economically inactive			-0.693*** (0.094)	-0.626*** (0.098)	-0.650*** (0.129)
Unemployed			-0.458*** (0.111)	-0.391*** (0.115)	-0.513*** (0.163)
Log of per capita total monthly household income			-0.513*** (0.050)	-0.353*** (0.053)	-0.402*** (0.069)
Male-headed household				-1.270*** (0.091)	-1.763*** (0.135)
Household size				0.107*** (0.013)	0.010 (0.021)
Mother has no tertiary education					0.647*** (0.249)
Religious activities are important					-0.402 (0.307)
Christian					-0.049 (0.284)
Jewish					-0.223 (0.914)
Muslim					-1.899* (0.989)
Hindu					-3.109*** (1.125)
African traditional spiritual beliefs					-0.112

					(0.334)
Constant	0.411*** (0.086)	0.854*** (0.131)	4.686*** (0.437)	3.153*** (0.480)	3.408*** (0.747)
F - statistic	49.83	28.27	26.75	29.55	15.62
Prob > F	0.000	0.000	0.000	0.000	0.000
Observations	13842701	13842701	13766039	13549296	8026387

Source: Own calculations from the 2017 NIDS

Notes: The data are weighted

Standard errors in parenthesis

Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Provincial controls included

The omitted categories are age 25-29, Black, Urban areas, no education, employed, female-headed household, mother has tertiary education, religious activities are not important and no religion

The socioeconomic factors are introduced in model III and include educational level, employment status and the log of per capita total monthly household income. The results show that women who are unemployed (-0.458) or economically inactive (-0.693) are significantly less likely to be never married mothers compared to employed women. Looking at household income, a significant and negative relationship between the logarithm of per capita total monthly household income and being a never married mother (-0.513) is found and suggests that being a never married mother is associated with a lower household income. While employment status and household income are significant predictors of being a never married mother, the highest educational level is found to be a non-significant predictor of non-marital fertility in South Africa. This means that after controlling for other socioeconomic factors, a woman's education level does not influence whether she will be a never married mother.

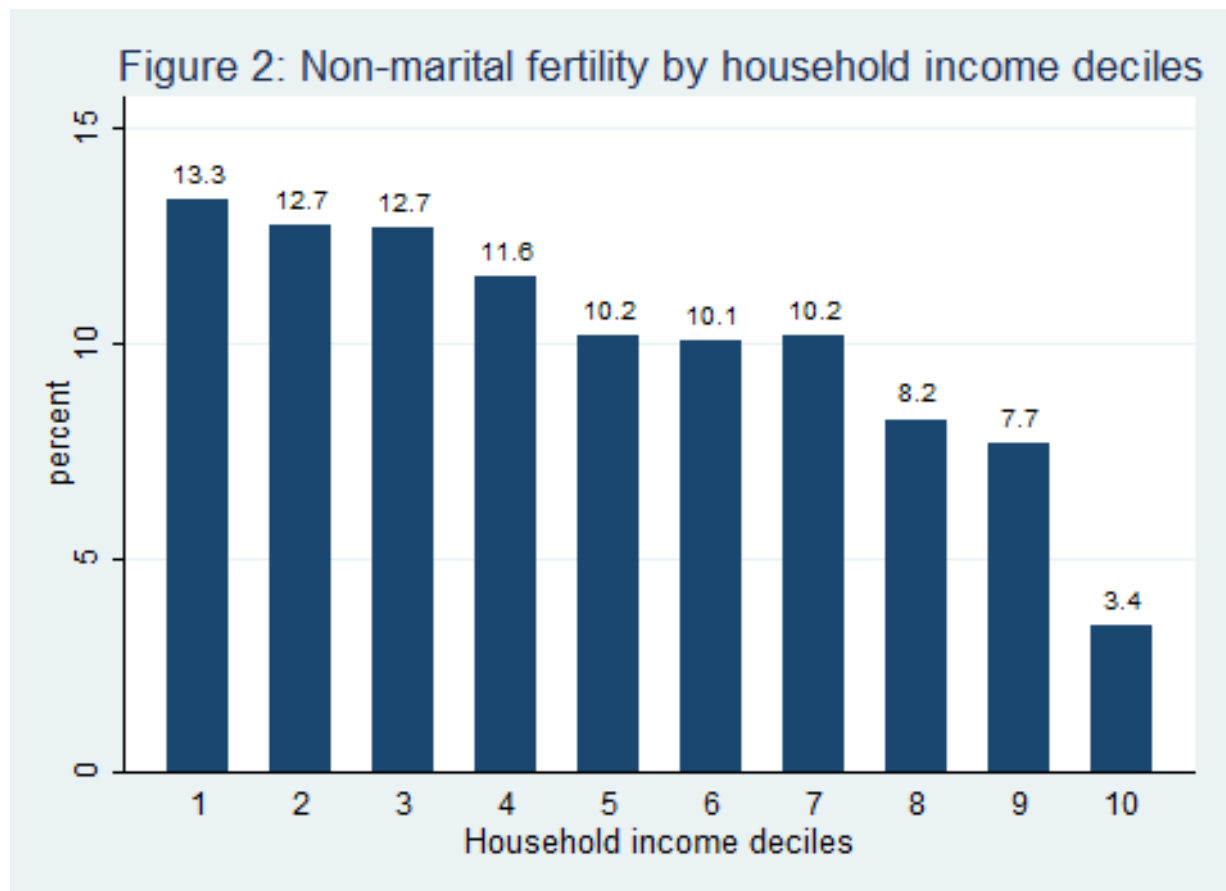
The negative and significant relationship between the logarithm of per capita total monthly household income remains with the introduction of household (-0.353) and personal characteristics (-0.402) in models IV and V, respectively however, the size of the effect decreases with each additional set of controls. Similarly, women who are economically inactive remain significantly less likely to be never married mothers however, the size of the coefficient decreases in model IV (-0.626) and model V (-0.650). Interestingly, after controlling for household and personal characteristics, the size of the effect of unemployment on non-marital fertility increases. This suggests that even with each additional set of controls, unemployment continues to be negatively associated with non-marital fertility. As a result, unemployed women remain significantly less likely to be never married mothers (-0.513) compared to employed mothers. Although not directly linked to a woman's socioeconomic status, the gender of the household head emerges as a significant predictor of non-marital fertility. Women who live in male-headed households are less likely to be never married mothers (-1.270) compared to women who live in female-headed households. The size of the coefficient increases after controlling for personal characteristics (-1.763) which suggests that the gender of the household head is a strong and significant predictor of non-marital fertility.

A salient argument in the international literature suggests that the relationship between socioeconomic status and non-marital fertility is bimodal. This is the case as education and employment are positively related to non-marital fertility (Härkönen, 2017; Kearney and Wilson, 2018; Wildsmith, Manlove and Cook, 2018) whilst on the other hand, never married mothers are also found to have low levels of education (Jalovaara and Andersson, 2018; Klusener, 2015; Klusener and Goldstein, 2016; Mack, 2017; Mclanahan, 2004; South, 1999; Stipkova, 2015; Surkyn and Lesthaeghe, 2004). The analysis in Figure 2 investigates whether this bimodal relationship between socioeconomic status and non-marital fertility is evident within a South African context. To this end, Figure 2 presents the distribution of non-marital fertility by household income deciles<sup>10</sup>. The illustration shows that the largest share of never married mothers are clustered around the four lowest income deciles and follows a staggered decrease towards the highest income decile (decile 10). Although not bimodal, the results highlight three clusters of non-marital fertility across the income deciles. The first cluster is seen among those who fall into deciles one to four which also represents the largest share of never married mothers in the country. The second cluster is noted among deciles five to seven while the last cluster of never married mothers appear to belong to household income

<sup>10</sup> The income deciles were created using the per capita total monthly household income variable.



deciles eight and nine. Overall, the results suggest that within a South African context, the distribution of never married motherhood is fairly linear and clusters around the lower income deciles and is not bimodal as noted in various countries in the global north.



Source: Own calculations from the 2017 NIDS

Notes: Data are weighted

Non-marital fertility of women aged 15-49

#### Discussion

The aim of this study was two fold; firstly, to identify whether there has been an increase in the prevalence of non-marital fertility in South Africa and secondly, to investigate whether economic factors influence non-marital fertility in South Africa. The results confirm that between 2008 and 2017, there has been a significant increase in the percentage of women aged 15-49 who have had children outside of a marriage. This is an important finding as it suggests an increase in non-marital fertility at a national level and contributes empirical data to the study of fertility trends in South Africa. Presenting evidence of an increase in the levels of non-marital fertility in the country also begins to address the gap in the literature by unpacking the dynamics of non-marital fertility within a South African context. Furthermore, the evidence indicates that the increase in non-marital fertility among women aged 15-49 is not driven by older women (aged 30 and older). Overall, the increase in non-marital fertility in South Africa is in line with similar findings from various African countries (Clark, Koski and Smith-Greenaway, 2017; Fledderjohann, 2017; Smith-Greenaway and Clark, 2018).

The main finding from this study outlines a significant relationship between household income and being a never married mother. Across the different regression estimation models, the results demonstrated that women who live in low-income households are more likely to be never married mothers compared to women who live in high-income households. These findings allude to the notion that never married mothers are likely to be employed in low paying jobs as across all regression estimation models, the highest educational level remained a non-significant predictor of being a never married mother. Finding that employed women are associated with non-

marital fertility further suggests that never married mothers are likely to be employed in low-paying jobs. This notion has been well documented in South African labour market literature as research details that although the feminisation of the labour force has been a key feature of post-apartheid South Africa, female employment (compared to male employment) is more likely to be characterised by low wage and unstable working conditions (Budlender and Lund, 2011; Casale, 2004, Ntuli, 2007).

Drawing a link between non-marital fertility and low-income households is an important finding as it suggests that there are socio-economic determinants to non-marital fertility in South Africa which appear to differ from other contexts. Difference is also noted in the linear distribution of non-marital fertility across income deciles compared with a more bimodal distribution noted in countries in the global north (Härkönen, 2017; Jalovaara and Andersson, 2018; Kearney and Wilson, 2018; Klusener and Goldstein, 2016; Mack, 2017; Wildsmith, Manlove and Cook, 2018). The large clustering of never married mothers between the lowest four household income deciles provides further evidence of the link between low-income households and non-marital fertility. These findings correspond fairly closely with studies from various European countries and the United States which suggest that internationally, non-marital fertility is associated with economic disadvantage and that never married mothers are often of a lower socioeconomic status (Jalovaara and Andersson, 2018; Klusener, 2015; Klusener and Goldstein, 2016; Mack, 2017; McAnahan, 2004; South, 1999; Surkyn and Lesthaeghe, 2004).

Given the increase in female headship<sup>11</sup> in the country (Hall and Mokomane, 2018), and the association between female-headship and poverty (Rogan, 2013, 2014, 2016) it is concerning to note that female-headship is associated with non-marital fertility. This highlights an association between non-marital fertility and economic disadvantage as studies have shown that despite the growth in female labour force participation and the expansion of the social grant system, poverty differentials by household headship persist in South Africa (Casale, 2004; Casale and Posel, 2002; Ntuli, 2007). The economic vulnerability of female-headed households has been a focus in recent literature as female-headed households are found to be at a higher (and growing) risk of experiencing poverty compared to male-headed households (Rogan, 2013, 2014). Although the relationship between living in a male-headed household and being less likely to be a never married mother (compared to women living in a female-headed household) is endogenous, the association between living in a female-headed household and non-marital fertility is important to note in light of the increase in female-headed households in the country.

Identifying that education is not a determinant of non-marital fertility in South Africa is in contrast with South African literature which suggests that there is a positive relationship between higher levels of education and non-marital childbearing in the country (Casale, 2004; Casale and Posel, 2002; Hall and Mokomane, 2018; Ntuli, 2007; Patel, Govender, Paruk and Ramgoon, 2006). Additionally, these findings are also at odds with the American (Martinez, Daniels and Chandra, 2012; Upchurch, Lillard and Panis, 2002; Wildsmith, Steward-Streng and Manlove, 2011) and European (Mack, 2017; Stipkova, 2015) literature which identified education as a determinant of non-marital fertility. Finding that there is no link between education and non-marital fertility in South Africa supports the postulation that non-marital fertility (in South Africa) is a result of the discriminatory apartheid policies which negatively influenced marriage between Black couples (Amoateng and Heaton, 2015; Chimere-Dan, 1997; Posel and Rudwick, 2013) and altered Black family structure and fertility behaviour (Posel and Rudwick, 2013; Swartz, 2010) and is not primarily associated with women's empowerment and upliftment, as is the case in high-income country contexts (Martinez, Daniels and Chandra, 2012; Stipkova, 2015; Wildsmith, Steward-Streng and Manlove, 2011).

## Conclusion

In conclusion, this study has contributed to the broader social science literature as it has provided an empirical account of non-marital fertility in South Africa by presenting a national overview of the determinants of non-marital fertility in the country. The main findings of this study point to an increase in non-marital fertility in South Africa and an association between non-marital fertility and low socioeconomic status. In doing so, the findings

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<sup>11</sup> Female-headed households are headed by an unpartnered woman and/or usually lives in a household without a senior male member (Chant, 2016).

have provided support for the hypothesis that there is an economic element which influences the levels of non-marital fertility in South Africa. These findings are linked broadly to similar findings in high-income countries.

Based on the results of this study, the need for focusing on never-married mothers in social policy discussions has been identified. It is also suggested that additional research on non-marital fertility within a South African context is required. In particular, future research should examine the economic challenges faced by never-married mothers and the effect that these challenges have on children who grow up in single-mother households. It is also recommended that future research should focus specifically on never-married mothers who had their first child before the age of 30 and those who had their first child after the age of 29. This will allow for a comparison of the socioeconomic and demographic characteristics of these two groups of mothers and aid in determining whether there are differences in their characteristics. Such research will assist in identifying groups of never-married mothers who may be exposed to a greater risk of poverty. Lastly, it will be beneficial for these research projects to be conducted at a national level which will contribute to a national understanding of non-marital fertility in South Africa.

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