Factors Affecting Fertility in Vietnam

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Abstract: Based on the figures obtained from a survey carried out in Nam Dinh, Thua Thien-Hue, and Dong Nai Provinces, and Ho Chi Minh City by the Vietnam Academy of Social Sciences (VASS) in 2019-2020, this article analyses the factors affecting the replacement fertility in Vietnam following the Bongaarts model. The results indicate that the country's replacement fertility is currently in a state of flux under the combined impact of the expectation of having two children on average, the group of traditional fertility increasing factors, and the group of fertility decreasing factors. To sustain the replacement fertility, it is necessary to strengthen communication so that a two-child family can become the standard model for society as a whole. In addition, social security solutions and policies need to be applied to mitigate factors that increase and decrease the birth rate, thereby creating favourable conditions for individuals and families to realise this standard model.

1. Introduction

Although the total fertility rate (TFR)[1] of Vietnam has been quite stable with the replacement rate of 2.1 children per woman from 2005 up to now, a large discrepancy remains among provinces/cities (Census, 2019). According to the 2019 Population and Housing Census, the national TFR is 2.09. However, at the provincial level, the TFR is under 2.0 in 21 provinces/cities and 2.5 or higher in 12 provinces (Census, 2019). Although the fertility rate of provinces/cities often fluctuates, according to the Theory of Demographic Transition (Casterline, 2003), in the long term it is likely to decline with

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[1] TFR corresponds to the average number of children born alive a woman has during her chidbearing years (15-49 years old) if that woman, during her childbearing years, experiences age-specific fertility rates as observed during the research period, which is often 12 months prior to the survey period (General Statistics Office, 2021, p.19).

industrialisation and modernisation, at least in provinces with high fertility. By then the national fertility will fall below the replacement fertility rate. To implement the goal of developing the country in a sustainable manner, the *Vietnam Population Strategy until 2030* set the target of sustaining the replacement fertility and reducing the discrepancy among regions and individuals (Government, 2019). The most impressive solution applied recently is the *Programme on Fertility Adjustment Responsive to Regions and Subjects to 2030* which set the following concrete targets: reducing the fertility by 10% in 33 provinces/cities with high fertility, increasing the fertility by 10% in 21 of the locations with low fertility, maintaining the replacement rate in nine provinces/cities, and encouraging and supporting married couples to meet the two-child policy target (Government, 2020). It is necessary to set the target of maintaining the replacement fertility because the demographic transition experience in almost all countries which have undergone the process, shows that once fertility falls to the replacement rate it often continues to reduce or even plummet as in Europe, Japan, Republic of Korea, Chinese Taipei, China, and Singapore (Morgan, 2003; Rindfuss & Choe, 2015; United Nations, 2017).

In recent years, the fertility in the United States (US) has been considered a noteworthy phenomenon due to some similarities with Vietnam. The TFR of the US population has also remained close to the replacement rate (ranging from 1.97 to 2.12 children) for more than two decades (from 1989 to 2009). This is rare in developed countries in particular and the world in general. In addition to maintaining the TFR close to the replacement rate for quite a long time, the US fertility rate was also similar to Vietnam's during this period in that it varied by geographical areas (regions, states), religion, race, education level, and so on. Perhaps due to the satisfaction with the fertility levels which were close to the replacement rate and the belief that this would be maintained in the context of US society, no policies directly affecting fertility had been issued. However, subsequently, while researchers were trying to explain this particular phenomenon, the fertility rate in the US dropped to a record low of 1.73 in 2018 and continued on a downward trend (Hamilton et al., 2019).

In spite of having a determined population strategy, it is not simply a case of firmly maintaining the replacement fertility because Vietnam has no experience in developing birth encouragement policies and sustaining the replacement fertility. In many countries in the world, intervention policies implemented to sustain or improve fertility are often costly and complicated and also not so effective (Chung, 2015; Morgan & Taylor, 2006; Nguyen Duc Vinh, 2017b; Sobotka et al., 2019).

Moreover, although theories and studies on factors controlling fertility have been developed in many countries around the world, there are no specific theoretical foundations, models, or examples regarding sustaining the replacement fertility rate. Therefore, research into factors affecting the replacement fertility in Vietnam is of great significance in arguing for the development and implementation of policies to sustain the replacement fertility rate in the next decade.

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In line with the Bongaarts model (2001, 2002), the fertility level or the number of children each woman has, is the result of the expected number realisation under the impact from the following groups of factors: three which increase fertility (unwanted childbirth, child mortality, and son/daughter preference), and three which decrease fertility (delay in having children, infertility, and socio-economic reasons preventing childbirth) (Nguyen Duc Vinh, 2017). In comparison with the previous framework which was also proposed by Bongaarts (1978), this newer model is more efficient for average and low fertility analysis. For example, the "son/daughter preference", which only matters in cases of low fertility, has been added, and the use of birth control methods crucial in the 1978 model, has been integrated into the new model's "unwanted childbirth" factor. It is because in today's society, the use of contraception mostly depends on whether a woman would like to become pregnant and have (more) children. A property, or maybe a downside of the Bongaarts model (2001, 2002) is the fact that the determinant "socio-economic attributes which compete for or prevent childbirth" are not specifically determined but are left open for interpretation, depending on the actual social context. This makes it hard to compare the determinants among different population groups. According to the recent survey carried out in four provinces/cities in Vietnam, the expected number of children per family is nearly 2.4 on average, with the planned number being 2.06, very close to the current national TFR (Nguyen Duc Vinh, 2020). Importance is still attached to the traditional reasons for having children, especially the 'social security' one, but fertility reducing factors still prevail over fertility augmenting ones. Nationally, a survey on the childbirth needs of Vietnamese people carried out by the Directorate of Population and Health Strategy and Policy Institute (Ministry of Health) in 2019 (GOPFP & HSPI, 2020) revealed that compared with the results of the 2002 Demographic and Health Survey (GSO, 2003), the proportion of people who wanted two children remained unchanged (70.5% vs 70.7%); the percentage of those expecting to have more than two children fell slightly (from 25.6% to 21.4%) while the prevalence of people wanting less than two children increased (from 3.7% to 7.8%). Notably, results of the Demographic and Health Survey 1997 (NCPFP, 1999) showed no major differences compared with the 2002 survey (respective figures being 66.3%, 28.4%, and 5%). Hence, it may be interpreted that over the last 20 years or more, the fertility changes in Vietnam have been recorded partly due to the recognised perception of the expected number of children and mostly because of changes in the two groups of factors in the Bongaarts model as mentioned above, especially the group of three factors diminishing the fertility.

Based on the survey data obtained from a total sample of 1,249 respondents in four provinces/cities (Nam Dinh, Thua Thien-Hue, Dong Nai Provinces, and Ho Chi Minh City) carried out by VASS in 2019-2020, this article breaks down the actual situation of factors controlling fertility in line with the Bongaarts model (2001, 2002), thereby

proposing some recommendations to effectively implement policies that sustain the replacement fertility in Vietnam.

2. Factors increasing fertility

With a fertility level close to the replacement rate or lower, the impact of factors raising fertility is often not great. Nevertheless, because the fertility level in some Vietnamese provinces remains pretty high, even over 2.5 children per woman, the actual situation of factors increasing fertility should also be seriously analysed.

2.1. Unplanned birth

In the 1980s and 1990s, Vietnam's population policies focused mainly on family planning to maximise meeting the needs for birth control and reduce unplanned pregnancies. Currently, because the fertility level is quite stable and close to the replacement rate, almost all the requirements for birth control can be evaluated as satisfactory. According to the results of the 2018 Demographic Fluctuation and Family Planning Survey, the proportion of married women of childbearing age using birth control methods was pretty high (76.5%). There were no clear differences evident in this group between rural areas (77.6%) and urban areas (74.3%) and among six socio-economic regions (from 74.3% in the south east to 79.2% in the Mekong Delta) (GSO, 2019). Meanwhile, results of the survey carried out by the Institute of Sociology in four provinces/cities in 2019-2020 indicated that the percentage of married women no more than 45 years old and using contraception was 72.5%. Out of 27.5% of women who were not using birth control methods, 7.7% chose the option *"Find no sound birth control measures"* (Table 1). These are women who wanted to use contraception but were unable to find a suitable method. If this proportion is calculated among married women under 45 years old, the percentage should be 2.1%. This is the reason for the fairly high rate of women (23.8%) who unexpectedly fell pregnant in both urban (23.5%) and rural (24.1%) areas. This group includes nearly 29% of women who had an abortion, and 57.4% who went ahead with their pregnancies. That is to say 13.6% of married women between 20 and 45 years of age gave birth after an unwanted pregnancy. However, perhaps a certain number of these women experienced preterm birth and did not want to add to the size of their families.

In short, although ineffective contraception leading to unplanned childbirth is not too serious, it still has a considerable effect and needs to be continuously prioritised. Firm solutions are needed to mitigate the negative impact on the target of sustaining the replacement fertility in the future, especially in provinces/cities with high fertility. Despite being a crucial fertility-controlling method, contraception is no longer the main factor causing the fertility difference among groups in society.

Table 1: Actual Situation of Married Women Using Birth Control Measures by Region

Unit: %

		Urban area	Rural area	Total
Using contraceptives at present	Yes	72.1	73.0	72.5
	No	27.9	27.0	27.5
	N (number of cases)	300	214	514
Reasons for not using contraceptives	Pregnant	18.9	26.8	22.1
	Want to get pregnant	24.6	23.1	24.0
	Breastfeeding	19.0	13.9	16.9
	Live away from their husbands	5.6	5.6	5.6
	Find no suitable birth control method	4.8	12.1	7.7
	Not possible to become pregnant	16.0	17.1	16.5
	Others, no answer	11.2	1.5	7.2
	N (number of cases)	84	58	142
Unwanted pregnancy	Never	75.8	75.7	75.8
	One time	18.8	22.4	20.3
	More than one time	4.7	1.7	3.5
	No answer	0.6	0.2	0.4
	N	300	214	514
Results of unexpected pregnancy	Menstrual extraction	21.1	5.7	14.6
	Abortion	12.8	15.8	14.1
	Miscarriage, stillbirth	11.3	25.7	17.3
	Delivered full term	59.4	54.7	57.4
	N (number of cases)	71	52	122

Source: Survey carried out in four provinces/cities in 2019-2020.

2.2. Child mortality

Child mortality is regarded as the driving force in demographic transition; hence, it has always had a close connection with fertility. In 2019, the infant mortality rate (IMR) and under-five mortality rate in Vietnam were 14‰ and 21‰ respectively. If each dead child is replaced with an additional newborn baby, the impact on the national fertility rate would not be so great. There is definitely a possibility of indirect effect when a dead child can be substituted by many additional newborn babies of other married couples. However,

according to the survey results, the number of respondents revealing that they did not want less children in order to avoid risks (death) to one of their children was just under 12%.

On the other hand, due to the fairly close correlation between the TFR and IMR of 63 provinces/cities (Nguyen Duc Vinh, 2017b), while the IMR in some provinces/cities remained pretty high (above 30), it is inevitable that the TFR was higher than the replacement rate. This indicates that in these provinces, a reduction in the child mortality rate is needed in order for the TFR to fall to the replacement rate. In brief, child mortality is still a factor which influences rising fertility levels in Vietnam. However, it has a considerable impact only in provinces/cities witnessing quite high child mortality such as Dien Bien, Lai Chau, Son La, Cao Bang, Yen Bai, Lao Cai, Ha Giang, Quang Tri, Dak Lak, Dak Nong, Gia Lai, and Kon Tum.

2.3. Son/daughter preference

Sex selection at birth just for the sake of having a boy is not a rare phenomenon in many provinces/cities in Vietnam, especially since the national fertility rate has fallen to the replacement rate (Nguyen Duc Vinh, 2009; Pham Nguyen Bang, Adair, & Hill, 2010; GSO& UNFPA, 2016; UNFPA, 2009, 2015). According to the survey results of the Institute of Sociology in four provinces/cities in 2019-2020, the percentage of people who think that they must have a son is 1.8%, those who must have a daughter is 2.2%, while 7% feel they must have one of each. The survey results show that Thua Thien-Hue Province has the highest proportion of people who state that they must have a son (10.6%), while Nam Dinh Province has the highest proportion of couples who unfailingly want both a son and a daughter (15.2%). However, according to an analysis of data from the 2014 midterm census, preference for a son led to an increase in the national sex ratio at birth (SRB) - but only by about 2% of the TFR of the Red River Delta, while there was a negligible impact on fertility in the southeastern region in particular and the whole country in general (Nguyen Duc Vinh, 2017a). The reason is that achieving the desire to have a son or a daughter is mainly through pre-natal gender selection rather than having more than the desired number of children.

Thus, preference for sons or daughters is not uncommon in some provinces/cities in Vietnam, but its impact is quite low and does not significantly increase the national fertility level. However, it should be noted that in some provinces/cities with high fertility rates, preference for a son is quite common, but the gender ratio is not high. Those are the places where the son preference is a factor considerably increasing fertility.

3. Factors decreasing fertility

3.1. Delaying marriage and childbearing

When women delay childbearing it results in a decrease in the TFR, even though the cohort fertility rate or the total number of children per woman remains the same. In

Vietnam over the past few decades, together with the process of modernisation, the average age of women giving birth for the first and second times has increased. An analysis of the national census data shows that between 1989 and 2014, the average age of Vietnamese women giving birth for the first time increased only slightly from 24.4 to 24.7 years old. However, the average age of women having a second child rose sharply from 27 to 29.1 years old; in particular, in 2014 for women in the southeastern region this figure was up to 31.2 years old. The higher women's education levels or living standards are, the higher the average age is for women giving birth for the first and second times (GSO and UNFPA, 2016). This suggests that delaying childbirth or increasing the childbearing age play important roles in reducing fertility in Vietnam. Nevertheless, as per Nguyen Duc Vinh's analysis (2017b), the older women are when they give birth does not impact much on the TFR. In particular, it has almost no effect on the TFR in the Red River Delta but it reduces the TFR by 5% in the southeastern region, and by 3% nationwide in 2014.

Figure 1: Singulate Mean Age at Marriage (SMAM) of the Female Population 2009 and 2019
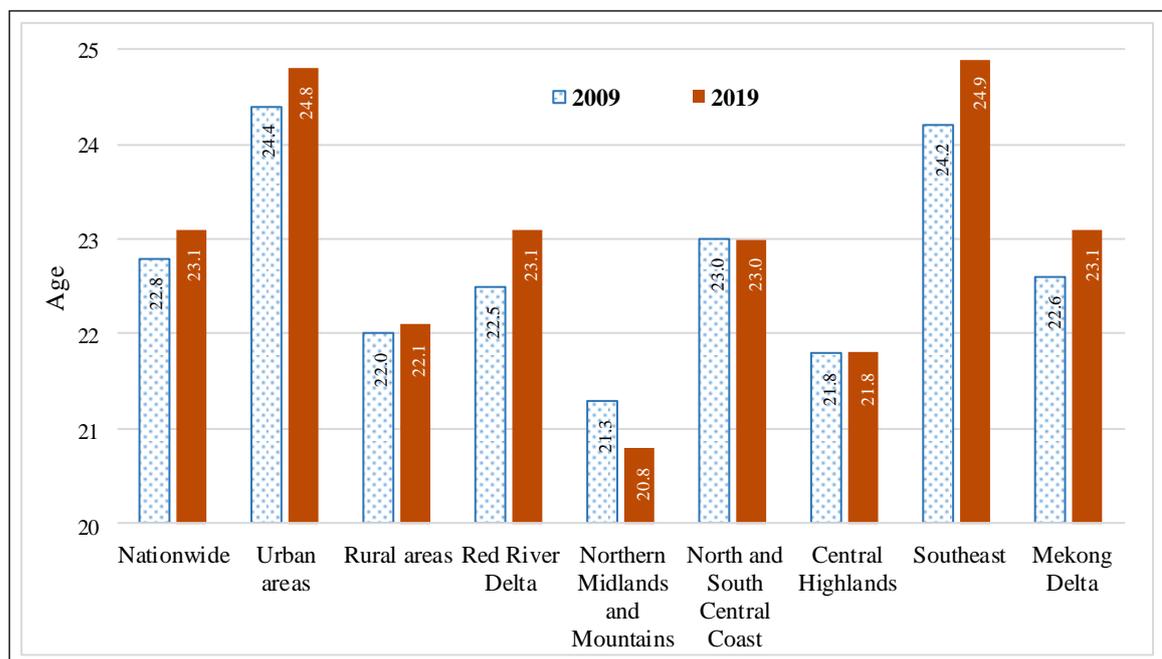
Source: Census (2019), *Results of Population and Housing Census: At 0 A.M on 1 April 2019*, Central Steering Committee of Population and Housing Census, Statistical Publishing House, Hanoi; GSO (2011), *Population and Housing Census in Vietnam in 2009: Age Structure - Gender and Marital Status of Vietnamese Population*, Hanoi.

On the other hand, it should be noted that the above analysis does not take into account the group of women who have not given birth, while childbearing in Vietnamese society

still mostly occurs within marriage and the age women marry is also an important factor affecting fertility levels. Over the past decade, the singulate mean age at marriage (SMAM) of the female population in Vietnam has risen by only about 0.3 years (from 22.8 in 2009 to 23.1 in 2019). However, there is a marked difference by region and area (Figure 1). The SMAM in urban areas is equivalent to the SMAM in the southeastern region and about 2.5 years higher than in rural areas. Comparing the fluctuations of SMAM and TFR by region and between the two periods of time, it can be determined that the age of marriage is reducing the fertility in urban areas, the Red River Delta, the Southeast and the Mekong River but increasing the fertility in the northern midlands and mountainous areas.

Also, according to the above study, if the marriage rate by groups of women by age in the southeastern region is similar to that of the whole country, the TFR of this region in 2014 is 1.85, not 1.56 (Nguyen Duc Vinh, 2017a). The combined impact of delayed marriage and having children has resulted in a decline by about 21% in the fertility rate of the southeastern region while its effect on the national fertility reduction is smaller, though still significant.

3.2. Infertility

Infertility means married couples are unable to have children or the desired number and thus reduces the fertility rate. Moreover, according to a study carried out in the southern region, infertile individuals are under very negative economic, social and psychological pressures (Wiersema et al., 2006). Up until now, official statistics on the infertility rate in Vietnam are very rare. According to estimates of the World Health Organization (WHO) based on the Vietnam Demographic and Health Survey 2002 data, the rate of primary infertility (i.e. percentage of women age 15-49 who have had sexual intercourse but have never had a birth) of Vietnamese women was 16.4% in the 15 to 49 age group, and 2.6% in the 25 to 49 age group. The rate of secondary infertility (percentage of women who either report themselves as infecund or who, being continuously married for the five years preceding the survey and not using contraception during that period, did not have a live birth in the past five years) of Vietnamese women in the two age groups was respectively 7.8% and 9.3%, which is quite low in comparison to many other developing Asian countries (Rutstein & Shah, 2004). It should be noted that the concept of infertility in the above study may not be consistent with other studies or the Ministry of Health definition. The results of a survey conducted in 2015 by the National Hospital of Obstetrics and Gynaecology and Hanoi Medical University on 14,300 married couples of childbearing age (15 to 49 years) in eight provinces representing eight regions estimated the infertility rate to be 7.7%, of which the rate of primary infertility was 3.9% and secondary infertility was 3.8%. The infertility proportions are much higher in some provinces/cities, such as Hanoi (13%), and Khanh Hoa (14%). Thus, infertility in Vietnam has become a real concern.

The results of the recent survey in four provinces/cities presented in Table 1 also reveal that among married women who do not use birth control methods, the group that selected

the reason *"don't think that they can conceive"* is probably made up of infertile women, accounting for a relatively high rate of 16.5%, corresponding to 4.5% of all married women under 45 years old.

If women who are living with their husbands, not breastfeeding, not using any contraceptives for six months or more, and who do not become pregnant, are considered infertile, this infertility rate among the respondents is 11.7%. For women facing most of the above conditions, as well as not using any contraception for 24 months or more, the corresponding fertility rate is 8.6%. If the infertility rate in the group of women who are using contraception or who are not living with their husbands is included then the infertility rate among all women in their childbearing years could be much higher than 11.7%. This analysis has not yet determined whether infertility is due to women or men. However, it can be seen that it is a matter of great concern, which affects not only reproductive health but also the fertility, especially in areas experiencing low fertility levels.

3.3. Factors which compete with childbearing

The factors competing with childbearing are actually a collection of reasons that prevent couples from having the desired number of children, such as income level, study or work commitments, policies that restrict fertility, and other reasons (excluding the abovementioned reasons of being single and infertile). The cost of raising children is also an important determinant of fertility because the higher the cost, the more likely married couples are to have fewer children and vice versa.

Table 2: Estimated Monthly Cost of Raising a Child

Unit: VND 1,000

	Nam Dinh	Thua Thien Hue	Dong Nai	HCM City	Total
Under six years old	3,206	3,221	3,241	5,644	4,887
At primary school age	3,079	3,981	3,388	6,184	5,351
At lower secondary school age	3,363	3,474	3,899	7,362	6,278
At higher secondary school age	4,218	3,747	4,976	8,833	7,600
At higher education age	5,249	3,906	7,298	10,434	9,207
N (weighted)	101	89	272	787	1,249

Source: Survey from the research in 2019-2020.

Across all the five age groups of children in Table 2, the estimated average cost of raising children in Ho Chi Minh City is much higher than in the other three provinces/cities.

For example, *the estimated cost of raising a child under six years old per month* in Ho Chi Minh City is VND 5.6 million, compared to only VND 3.2 million in each of the other three provinces. Similarly, the estimated cost per month for a child attending lower secondary school in Ho Chi Minh City is nearly VND 7.4 million, compared to only VND 3.4 million in Nam Dinh Province, VND 3.5 million in Thua Thien-Hue Province, and VND 3.9 million in Dong Nai Province. The average estimated monthly cost for a child of higher secondary school age in Ho Chi Minh City is VND 8.8 million, compared to VND 4.2 million in Nam Dinh Province, VND 3.8 million in Thua Thien-Hue Province, and nearly VND 5 million in Dong Nai Province.

Figure 2: Estimated Cost per Child by the Total Number of Planned Children
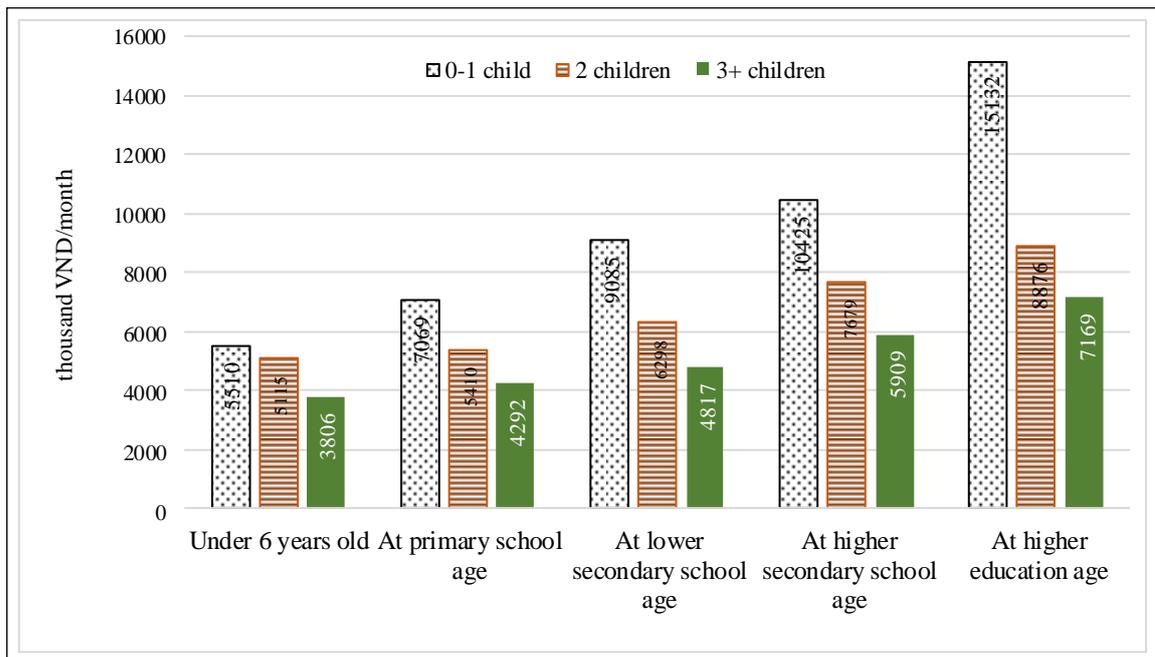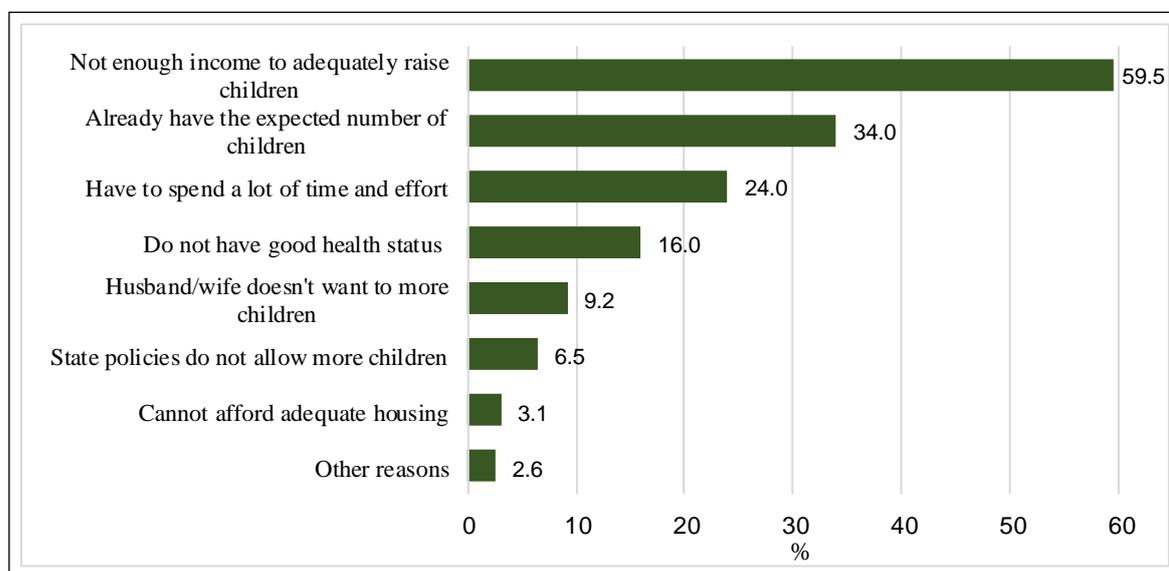

Source: Survey carried out in four provinces/cities in 2019-2020.

Figure 2 shows that, on average, the estimated amount of money that respondents need to spend on a child gradually increases with the age of the child as well as clearly decreasing with the planned total number of offspring. For example, in the following three groups of parents, the estimated average monthly cost for a child of primary school age is: VND 4.3 million for those planning to have more than two children, VND 5.4 million for those who want two children, and just over VND 7 million for those who want less than two children. In other words, the higher the estimated cost per child, the lower the expected number of children. This situation contributes to the reason why the fertility rate in Ho Chi

Minh City in particular as well as in the southeastern region in general is much lower than in many other provinces/cities across the country.

Figure 3: Reasons for Not Planning to Have More Children

Source: Survey in four provinces/cities in 2019-2020.

The cost of raising children is also the most common reason why parents do not plan to have more - nearly 60% of respondents replied that they do not have enough money to adequately raise more children (Figure 3). This proportion rises to 72.2% in Ho Chi Minh City where the cost of living is high and where the fertility proportion is the lowest in the country. The percentage of couples who plan not to have more children due to insufficient money to raise them well enough is even nearly twice as high as the rate of those who mention reasons related to childbirth preferences (34%). In terms of the difficulties and challenges encountered when having another child, the three most common problems cited are directly related to the cost of raising children, including: the cost of clothes (62.4%), education (54%), and medical care (48.4%) (Table 3). These three rates are highest among married and urban women, perhaps because they are the ones who have or are facing these problems directly. Compared to rural areas, the income in urban areas is usually higher, but the costs of these three items above are also significant. Overall, the cost of raising children in particular and the economic factor in general clearly play very important roles in determining family size and fertility reduction in today's society.

The fourth difficulty and challenge listed in Table 3 is the great effort it takes to look after children (38.7%), followed by issues that negatively affect a woman's appearance and health (25.2%), the risks pregnancy carries and difficult childbirth (23.3%), losing out on

work and promotion opportunities (8.5%), and the amount of effort needed to teach children (15.4%). Not only does society today require a better quality of childcare, but also each individual has higher expectations for herself/himself in terms of appearance, health, leisure time, employment, and career opportunities. Only 8.8% of respondents answered "*I don't see any big difficulties or challenges*" if they have more than one child.

Vietnam has followed the one-or-two child policy for many years. Although the Party's position on this and the related strategic government documents have changed (Government, 2020; Communist Party of Vietnam, 2017), legally, the 2013 Unified Ordinance on Population is still valid. This contains a provision stipulating that each couple should only "give birth to one or two children, except for special cases prescribed by the Government" (National Assembly, 2013). The question is whether or not the "only have one to two children" policy remains effective in reducing the fertility. The survey results show that only 6.5% of the respondents said that they did not intend to have more children because "the government's policy does not allow it" (Figure 2). Thus, the one-or-two child regulation is no longer practical in the current social context.

Table 3: Evaluations on Difficulties and Challenges Encountered When Having Another Child

Unit: %

	Single men	Single women	Married women	Urban areas	Rural areas	Total
Worry about not having enough money to raise children (food and clothes)	57.7	54.3	71.2	65.5	56.8	62.4
Worry about not affording children's tuition fees	52.9	47.6	59.0	56.8	49.1	54.0
Worry about not affording children's health examination and treatment fees	46.6	41.9	53.9	53.6	39.0	48.4
The time and effort required to look after children	38.7	37.0	39.7	37.2	41.3	38.7
Negative impact on women's appearance and health	20.3	31.6	25.0	25.8	24.2	25.2
Faces risk and hardship in childbearing	16.2	27.1	26.5	20.5	28.3	23.3
Loss of job and promotion opportunities	13.4	24.4	18.7	17.0	21.2	18.5
Invest great effort to teach children	17.5	13.3	15.0	13.7	18.3	15.4
Confined living space	6.5	6.0	8.6	6.2	9.0	7.2
Find no big difficulties or challenges	11.0	7.3	8.0	10.1	6.5	8.8
N	401	330	513	796	448	1244

Source: Survey carried out in four provinces/cities in 2019-2020.

4. Awareness of fertility policies and attitude towards fertility promotion measures

4.1. Awareness of childbearing policies

The question in the transition period from the one-to-two child policy to the current two children is enough rule is how do people perceive the government's fertility policy? According to the results presented in Table 4, perception is not consistent as 35.9% believe that the government is advocating each married couple to have one or two children, while 46.4% think that the government is campaigning for each married couple to become a two-child family. This inconsistency is evident in all four surveyed provinces/cities. 56.7% of respondents believe that violating the childbearing policies will be met with punishment, 21.4% think that there will be no penalty, and 21.9% do not know. This is probably not only due to ignorance, but it also seems to be the result of a lack of clarity in the promulgation and implementation of the current childbearing policies in Vietnam.

Table 4: Awareness of Childbearing and Family Planning Policies

Unit: %

		Single men	Single women	Married women	Urban areas	Rural areas	Total
How many children does the government advocate a married couple to have?	No advocacy	0.0	3.2	3.0	1.6	3.1	2.1
	One child	0.9	0.0	0.1	0.5	0.1	0.3
	One or two children	47.1	30.9	30.5	31.1	44.5	35.9
	Two children	44.9	48.2	46.3	51.0	38.1	46.4
	More than two children	4.1	5.3	10.6	6.5	8.1	7.1
	Don't know, no answer	3.0	12.3	9.5	9.3	6.1	8.2
	N	401	334	514	801	448	1249
Are there any punishments for violation(s)?	No punishments	47.4	60.0	61.7	56.2	57.5	56.7
	Certain punishments	22.9	18.8	22.0	22.0	20.4	21.4
	Don't know, no answer	29.7	21.2	16.3	21.8	22.1	21.9
	N	401	334	514	801	448	1249
Do punishments prevent you from having a third child?	Yes	14.9	12.6	17.0	11.9	19.9	15.3
	No	32.8	36.5	32.1	28.7	40.0	33.5
	It depends	9.5	14.4	10.1	14.3	6.5	11.0
	Don't know, no answer	42.7	36.5	40.8	45.0	33.7	40.2
	N	188	171	300	381	278	660

Source: Survey in four provinces/cities in 2019-2020.

Moreover, even the awareness of leaders and managers at provincial and lower levels with regard to population and development activities remains quite limited. According to the survey results, of the leaders and managers at all levels in a number of provinces/cities related to population and development matters, who are studying the advanced political theory programme of the Ho Chi Minh National Academy of Politics, only 38% knew the details of Resolution No.21-NQ/TW on "population activities in the new context" issued by the Central Executive Committee. While there has been determination to shift the focus from family planning (with prioritises over fertility reduction) to a developed population, 61.4% of survey respondents still affirm that "the focus of population activities is to decrease the fertility" is true (13.7%) or partially true (47.7%) (Dang Thi Anh Tuyet & Duong Thi Thu Huong, 2020).

4.2. Attitude towards fertility promotion measures

To deal with the low fertility rate, a number of countries around the world are aware of or are implementing policies to promote fertility through different social support and welfare mechanisms. In 2015 at the global level, 28% of countries had fertility promotion policies in place. However, if only countries with the TFR below the replacement rate are listed, this proportion will be 62%. Common measures to promote fertility include financial support for children or parents, family allowance, maternity/paternity leave, tax incentives, and flexible working schedules, etc. (United Nations, 2018).

In Vietnam, the *Programme on Fertility Adjustment Suiting Regions and Target Groups to 2030* strives "to increase the childbearing rate in localities with low fertility" (Government, 2020). However, so far, no official fertility promotion measures have been implemented. The above analysis indicates that the cost of raising children is the biggest and most common obstacle facing couples. The question is which support measures to encourage childbearing will be effective and willingly accepted by people. The survey results reveal that nearly 54% of respondents agreed they would have one more child than they currently planned if they received cash support - ranging from VND 1 million to over VND 3 million per month (Table 5). The corresponding rates in Dong Nai Province (43.7%) and Ho Chi Minh City (65%) are far higher than in Nam Dinh Province (25.6%) and Thua Thien-Hue Province (19.2%). The rate in urban areas (60%) was also higher than in rural areas (43.1%). The proportion of respondents who agreed financial support would encourage them to have additional children was also quite high among the following groups: married women (58.3%), women aged 25 to 29 years (64.7%), women who currently had one child (68.7%), and those with gradually increasing living standards. The percentage of couples who plan to have less than two children but who could have more if they were given an allowance of more than VND 3 million per month was 31.1%, significantly higher than the group planning to have two children (24.6%). On the other hand, more than 30% of respondents would not have more children even if they were given

financial support. The reason is probably because they already decided how many children to have for economic and other reasons.

Table 5: Points of View on the Allowance to Have More Children
by Personal Characteristics

Unit: %

		Amount of allowance to have one more child				N
		1 - 3 mil	> 3 mil	No more children regardless of allowance	No answer	
Provinces/ cities	Nam Dinh	13.6	12.0	45.6	28.8	101
	Thua Thien-Hue	7.8	11.4	50.6	30.2	89
	Dong Nai	26.4	17.3	32.7	23.6	272
	HCM City	35.0	30.0	24.9	10.1	787
Areas	Urban	322	27.7	27.4	12.6	801
	Rural	24.4	18.7	34.9	22.0	448
Age groups	18-24	22.1	27.8	26.0	24.2	398
	25-29	38.7	25.9	22.7	12.6	272
	30-34	32.8	19.5	32.9	14.7	220
	35-45	28.5	22.7	38.5	10.3	358
Sex and marital status	Single men	28.2	18.6	30.5	22.7	401
	Single women	24.6	31.1	27.4	17.0	334
	Married women	33.5	24.8	31.6	10.1	514
Total number of planned children	< 2 children	20.7	31.1	25.0	23.2	161
	2 children	30.4	24.6	30.4	14.7	836
	≥ 3 children	35.2	21.4	35.3	8.0	228
Total		29.4	24.5	30.1	16.0	1,249

Source: Survey in four provinces/cities in 2019-2020.

When the minimum monthly allowance increased from VND 1 million to VND 5 million, the percentage of people who agreed to consider having one more child than planned also sharply increased from 4.6% to 33.6%. However, with higher levels of financial support, the rate of respondents who would consider having more children only rose slowly to 42% when

they asked for the unacceptable amount of VND 10 million/month (Figure 4). The percentage of those "planning to have less than two children" who would consider an additional child also rose but remained lower than the proportion in the group "planning to have two children or more". In other words, those who intend to have less than two children often cite the reason as the high cost of raising their children. Hence, in order for the fertility promotion policies to take effect, parents must be offered a higher monthly allowance. The results also show that financial aid of VND 2 million per month seemed the most workable option (and in the current situation in Vietnam, the option with a higher level of subsidisation is definitely not feasible).

Figure 4: Proportion of People Who Would Agree to Have More Children If They Receive an Allowance and the Number of Children They Planned to Have
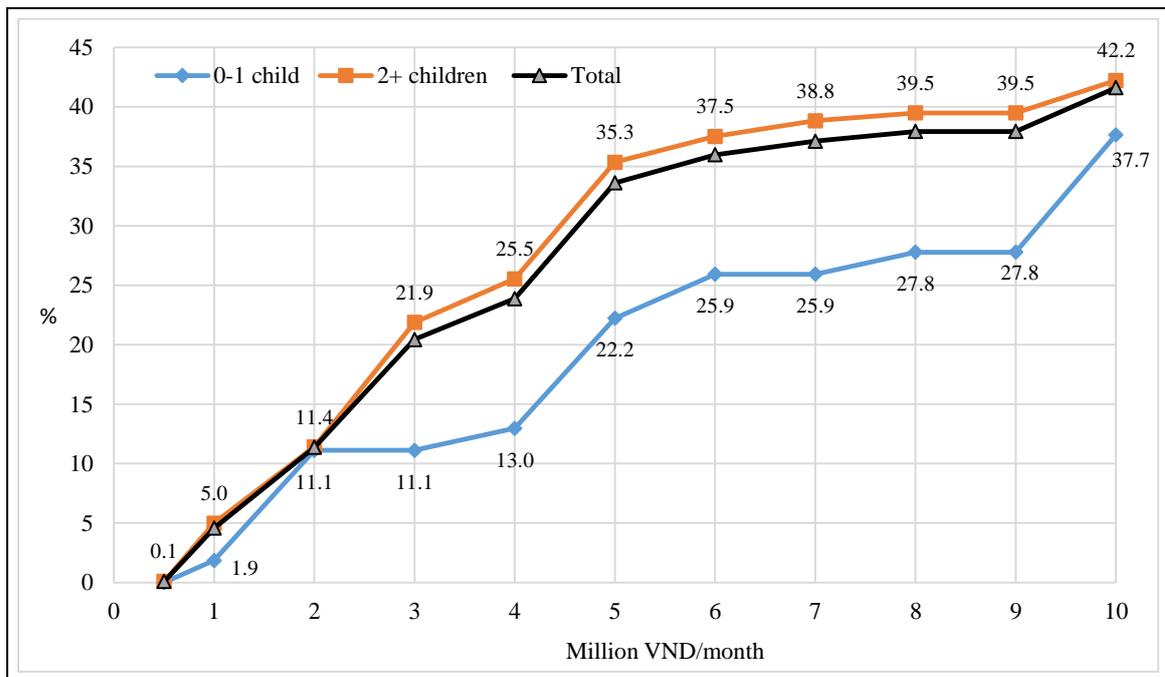
Source: Survey in four provinces/cities in 2019-2020.

Besides financial support, a number of other hypothetical support policies can also satisfy many married couples (Table 6). For example, in answer to the question "If you are supported in one of the ways listed, would you have one more child than you planned?", more than 3% of respondents chose the option "extend paid maternity leave to up to 12 months or more" (10.7%), "husbands to get paternity leave" (5.8%), "children to get free medical care" (5.5%), "mothers of children under four years old can have half a day off to look after them" (3.3%), "have a nearby, high-quality and inexpensive kindergarten" (3.2%), and "be eligible to purchase social housing" (3.2%). The fact that only 1% of people require the State to "remove

the childbirth restriction policy" shows that the "one-to-two child" policy is no longer a major concern or obstacle to the fertility intention and behaviour of most people. In addition, up to 17.6% of respondents will still not give birth to more children if they receive only one type of support and 29.2% will not have more children regardless of the support given.

Table 6: Other Policy Incentives for Parents to Agree to Have More Children

Unit: %

	Provinces/cities				Total
	Nam Dinh	Thua Thien - Hue	Dong Nai	HCM City	
Extend paid maternity leave to 12$^+$ months	1.5	7.8	11.1	12.2	10.7
Husbands to be given paternity leave	0.1	4.5	20.8	1.5	5.8
Mothers of children under 4 years old can have half a day off to look after them	0.1	0.4	3.5	3.9	3.3
Have a nearby, high-quality and inexpensive kindergarten	0.3	2.2	3.3	3.7	3.2
Children can get free medical care	1.7	1.5	6.5	6.1	5.5
Children can go to high-quality and inexpensive schools	0.8	0.7	2.4	2.8	2.4
Be eligible for purchasing social housing	0.0	0.6	0.2	4.9	3.2
The State removes the childbirth restriction policy	0.8	0.0	2.3	0.6	1.0
No more children if only one form of the above support options are provided	29.6	63.7	1.6	16.4	17.6
No more children regardless of the support	12.8	0.0	6.2	42.5	29.2
Don't know, no answer	52.3	18.6	42.1	5.4	18.1
N	101	89	272	787	1249

Source: Survey of the research in 2019-2020.

Thus, although these are only assumptions, results of the survey also suggest that fertility promotion policies will be effective if applied in Vietnam. However, it is necessary

to combine multiple methods appropriately otherwise the policy implementation will require extensive resources, including costs, and face difficulty in achieving a high level of effectiveness. In general, welfare policies that promote childbearing can be helpful for those who do not have a high standard of living and who are not very clear as to what must be considered and determined when planning the size of their family. In other words, according to their calculations, the "losses" from having additional children are more than outweighed by, but not superior to, the "gains". Conversely, if couples find that the costs and losses from having more children are too high, it is difficult to use welfare policies as compensation.

5. Conclusion and recommendations

From the above analysis, it can be concluded that the replacement fertility rate in Vietnam is currently in a state of flux under the combined effect of the desire to have an average of more than two children with the traditional group of factors that increase fertility (child mortality, son preference, unplanned pregnancy) and the group of factors that decrease the fertility (marrying and having children later in life, infertility, economic and social conditions hindering childbearing). In particular, the impact of traditional factors increasing the fertility is not great and only significant in the regions or groups with high fertility. The desire to have at least two or three children remains very common due to the retention of the traditional value of children, especially in the aspect of children's responsibility for elderly parents. Nevertheless, factors that influence declining fertility are gradually prevailing under the impact of modernisation; this is most evident in regions and provinces with low fertility levels. Specifically, the cost (material and non-material) of having a baby and raising children, are gradually exceeding the financial capability of many families, while the need and aspiration for improving personal living standards, as well as values, are taking priority. In addition, in Vietnam infertility also acts as a major obstacle to the realisation of the desired number of children.

Faced with such a situation, the basic strategy to firmly maintain the replacement fertility rate in Vietnam is to make the two-child family the universal norm for the whole society, to try to minimise the traditional factors that contribute to increasing and declining fertility rates, and to create the most favourable conditions for couples to realise the two-child family standard. This should be done through the synchronous deployment of the following solutions.

Firstly, it is necessary to promote the two-child family to all areas and social groups, regardless of location where the fertility rate is either high or low. All citizens should understand the State's fertility policy with the motto "each family should have two children". Incentives can be offered, but there is no need for regulatory enforcement or punishment of those who violate the fertility policy.

Secondly, it is important to continue to focus on reducing child mortality, improving gender equality, and minimising unmet need for contraception as well as unexpected pregnancy and childbirth, especially in the areas where fertility levels remain high.

Thirdly, the prevention, control, testing, and treatment of both primary and secondary infertility in both men and women should be promoted.

Lastly, an friendly and favourable environment for marriage, childbirth, and child-rearing which fits today's society should be created, especially in areas with low fertility. This is perhaps the most overarching and difficult group of solutions, requiring the mobilisation of many resources and the engagement of the whole society. The focus is placed on developing a system of social services for families and children such as housing, kindergartens and schools, medical facilities, and so on to ensure the minimal level of quality, easy access for people from all walks of life, and suitable for different income levels, especially in the cities and industrial zones. It is necessary to build an appropriate social security system that encompasses the whole family with children and pregnant women, and facilitates parents to raise their children and participate in education or the labour market at the same time, but still ensure them a life without undue suffering or loss. In the areas with low fertility, social welfare policies that support only a fraction of the cost of having and raising children will also have some effect on the majority of people who still want to have two children and economic conditions are the main barrier. This will be much more effective than applying the policies when people really want to have less than two children.

In order to effectively implement the above solutions, it is a must to carry out studies on: fertility, the desired number of children, reproductive preferences, and factors affecting the fertility. Provinces/cities need to be determined by fertility groups, but if the annual variation in TFR is taken into account, it can be concluded that the division of provinces/cities with high or medium fertility is only relative. Therefore, there is a need for more frequent, accurate, and reliable TFR estimates of provinces/cities, moving from sampling census data to life-and-death data as in other developed countries. In addition, because the TFR at the provincial level is a difficult indicator to measure accurately and seems quite sensitive to a number of factors, such as migration and the lunar calendar, it is advisable to consider using more cohort fertility indicators in the implementation and evaluation of a fertility adjustment programme, such as the proportion (standardised) of women aged 25 to 35 years old having two children.

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