

FACTORS AFFECTING FERTILITY IN DANANG CITY

CÁC NHÂN TỐ ẢNH HƯỞNG ĐẾN MỨC SINH Ở THÀNH PHỐ ĐÀ NẴNG

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ABSTRACT

Fertility is linked to social and economic development processes. Many factors that affect social economic development also affect fertility. Identifying the factors that influence fertility plays an important role in investigating into the changes in fertility and their connection to economic development. In the 1999-2009 period, the fertility rate of Danang City has undergone a strong and sophisticated transition. These changes have both positive and negative effects on economic development processes. This has attracted the interest of many policy makers and their major concern is related to the ways to control the situation. In order to cope with this situation, the first important thing we should do is to identify the effects of changes in fertility rate. So far, no research with specific characteristics for Danang City has been conducted. In this article, we would like to present some economic and non-economic factors that affect fertility and their influences on fertility rate in Danang City in the 1999-2009 period.

Key words: fertility; fertility rate; fertility trend; Danang City; factors affecting fertility; education and fertility; employment and fertility

TÓM TẮT

Mức sinh có mối quan hệ chặt chẽ với quá trình phát triển kinh tế xã hội. Các nhân tố ảnh hưởng đến quá trình phát triển kinh tế xã hội thì cũng tác động đến mức sinh. Do đó, phân tích các nhân tố ảnh hưởng đến mức sinh có vai trò quan trọng trong việc tìm hiểu những biến động trong mức sinh cũng như sự kết nối đối với quá trình phát triển kinh tế xã hội. Trong giai đoạn 1999 -2009, mức sinh ở thành phố Đà Nẵng có những biến động mạnh và phức tạp và đây là vấn đề được các nhà hoạch định chính sách hết sức quan tâm. Để quản lý được tình hình, vấn đề đầu tiên là phải nhận diện các nhân tố ảnh hưởng đến mức sinh. Cho đến nay, một nghiên cứu với những đặc điểm riêng về thành phố Đà Nẵng vẫn còn thiếu. Bài báo đưa ra những nhân tố kinh tế và phi kinh tế ảnh hưởng đến mức sinh và tác động của chúng lên mức sinh của thành phố Đà Nẵng trong giai đoạn 1999-2009.

Từ khóa: mức sinh; tỷ lệ sinh; xu hướng sinh; thành phố Đà Nẵng; nhân tố ảnh hưởng đến mức sinh; mức sinh và giáo dục; mức sinh và lao động

1. Introduction

Fertility analysis is important in demographic study as birth is a crucial component of population growth. Fertility does not only affect the population growth rate but it also influences the economic development process and the quality of population. Besides, fertility is strongly affected by economic and non- economic factors such as the age structure, education level, gender role and policies of the government. The fertility trend of Danang City had many changes from the total population census in 1999 and the population census in 2009. These changes have both positive and negative effects on the social economic

development and policies makers have raised the concern of how to control this situation. In order to control the situation, it is crucial to understand the factors that influence the fertility trend that happened in Danang city in this period. This paper will present the causes and their effects on the fertility rate of Danang City and also meet the requirements of policy makers.

2. Theoretical foundations of factors that influence fertility

The determinants of fertility have been an interest of many economists for a long time, and the branch of economics that studies this issue, which is called the economics of fertility, has also developed strongly in recent years. There

are many schools in this branch but in general, economists agree that fertility is affected by natural, economic and social factors. As fertility is a biological phenomenon, let's start with the first determinant, natural factor. Women are only fertile in a certain age; therefore, the age structure of a population has a strong influence on fertility [1]. The more people in reproductive ages exist, the higher the fertility rate is, and vice versa. In reproductive age range, different age groups have different fertility rates. The highest fertility rate belongs to the age group of 20-29, after this age, the fertility rate decreased. In developing countries, young population is one reason of the high fertility rate. The gender structure also determines the fertility rate. Female population plays an important role in reproducing population. The quantity and structure of female population directly influence the fertility rate [1]. Economic factors are also important determinants of fertility rate across countries. It has been widely recognized by economists that fertility behaviors can be explained by economic models. Many models have considered children as normal goods and are influenced by income and price effects [2]. The income effect sees that when income rises, the demand for children also rises. The price effects sees that when price of having a child increases, the demand for children decreases. The price of having children also includes opportunity cost, like the forgone time and wage of mothers when they have children. It is also important to address the relationship between fertility and female labor force participation. There are two points of views on this issue. One view sees that the more females participate in the labor force, the lower birth rate is. The other view sees the other way around: fertility declines, so women participate more in the labor force. Furthermore, social factors such as education also influences fertility rate. We usually observe a negative relationship between education level and fertility theoretically and empirically [3], [4]. Higher level of education leads to lower fertility rate. Research consistently shows that females who are well educated tend to have fewer children and have

them later [5],[6]. When they do become mother, they tend to be healthier and raise healthier children.

In conclusion, research shows that fertility is not only a natural phenomenon but is determined by a wide range of factors, these factors influences it both directly and indirectly.

3. Fertility trend in Danang City in the 1999-2009 period

3.1. Total fertility rate (TFR)

The total fertility rate has experienced dramatic changes in the period of 1999- 2009. Compared between two censuses, the TFR has increased sharply in the past ten years. In 1999, the TFR was 1.58, and after ten years it was 2.14, passed the replacement level fertility. After reaching the replacement level fertility at the end of the 90's and stayed at this level for many years, now the TFR has increased again.

The data also showed differences between the rural and urban areas. The TFR in urban area increased at a higher rate compared to the rural area. In this area, over the last ten years the TFR has increased from 1.48 to 2.1 (1.42%). Despite this high rate, the TFR was still kept at the replacement level fertility. In the rural area, the TFR rose at a lower rate, 1.09%; however, from 1999 the TFR had passed the replacement level fertility and so was it in 2009.

3.2. Age-specific fertility rate (ASFR)

The following chart show fertility trends of different age groups for 1999 and 2009.

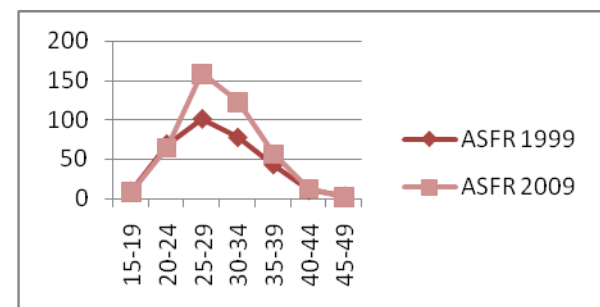


Figure 1. ASFR 1999 & 2009

Source: Total Population and Housing Census 1999 & 2009

The data showed similar trends between age groups for 1999 and 2009. The age group

had the highest fertility rate was 25-29, and next was the group 30-34. This clearly showed the delaying childbearing model of Danang women. However, there were still some noticeable differences between the data from two censuses. First of all, the graph in 2009 has a very pointed peak. The maximum value belongs to the group 25-29, the fertility rate of the previous group and the group after have a much lower value. Although it has the same peak at the group of 25-29, but the graph in 1999 has a less pointed peak. The fertility rate of the 20-24 group was not too different from the group of 25-29. This shows a increasing trend of delaying childbearing in 2009 compared to 1999. Danang women nowadays are delaying their childbearing even more than they did in the past.

3.3. Crude birth rate (CBR)

In general, the CBR of Danang City was low and showed a decreasing trend. From 2001, the CBR kept decreasing and for several years, it was lower than 15‰. However, recently the CBR was increasing and in 2009 it reached 18.61‰.

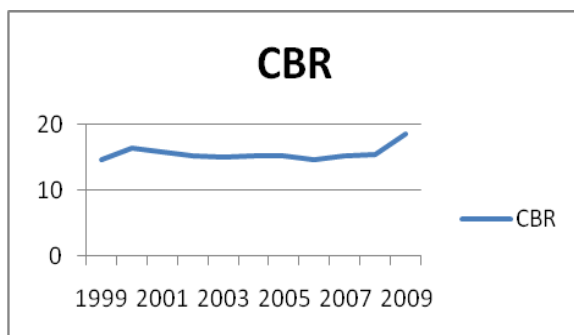


Figure 2. CBR, 1999 - 2009

Source: Statistical Year Book 1999-2009

4. Factors that influences the fertility rate of Danang city in the 1999-2009 period

4.1. Influences of the demographic structure based on age and gender

Table 1 shows the proportion of women in reproductive age to the total population and the CBR from 2004 to 2009.

From the data we can see that for the years which the percentage of women in 20-34 of age was high, the CBR was also high. This rate

decreased slightly from 2004 to 2008 and then increased sharply in 2009. Accordingly, the CBR in 2009 has increased dramatically.

Although it slightly decreased in recent years, the percentage of women in reproductive age in Danang City was quite high. In 1999, women in this age accounted for 28.7% of the total population, but in 2009, it accounted for 30% of the total population. It can be seen that high proportion and number of women in reproductive age is one of the reasons that caused the high fertility rate in Danang City.

4.2. Influence of marital status

Marital status of women in the reproductive age is a factor that directly affects the fertility rate. Married women tend to bear children more than unmarried women. So if the rate of married women who is in reproductive age is high, the fertility rate will also be high.

From the data we can see that the rate of married women in 1999 is 2% higher than that in 2009. But in general, the rate of married women who are in reproductive age of Danang city was quite high, accounted for 60% of women in reproductive age. This is another reason that made the fertility rate in Danang City as high as it has been observed.

4.3. Influence of education level of women in reproductive age

The following chart showed the relationships between the level of education and the average number of children of women in reproductive age.

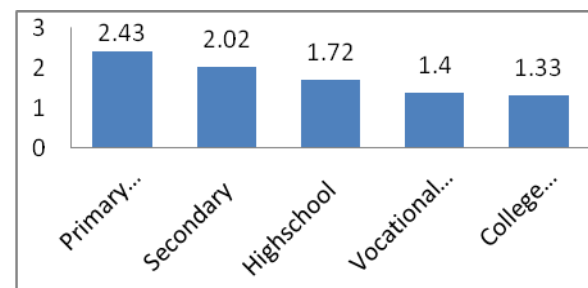


Figure 3. Average number of children of married women from 15-49 based on their education level

Source: Total Population and Housing Census 2009

It shows clearly that there is a negative

relationship between these two factors. The more education a woman gets, the lower her average number of children..

If we look at the disparity in education level of women in the rural and urban area, we can see why there is difference in fertility rates in these two areas. In rural area, the majority of women in reproductive age have lower level education, such as primary and secondary level. The percentage of women that have high school or higher education was quite low and was much lower than that in urban area. Especially, the percentage of women in rural area that have college or university degree was only 7.62% (in urban area this rate was 26.68%). From the negative relationship between education level and fertility rate we can see that the low level of education was an important reason that made the fertility rate in rural area still high and much higher than that in urban area.

4.4. Influence of employment status of women in reproductive age

As it can be seen from the graph, the average number of children of women who are working (1.83) is lower than that of women who are housewives or who don't want to work (2.01 and 1.97, respectively). The other groups had low average number of children.

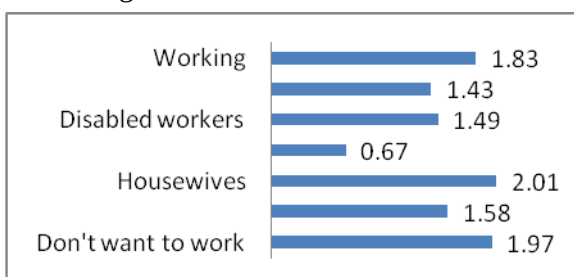


Figure 4. Average number of children of married women from 15-49 based on their employment status

Source: Total Population and Housing Census 2009

Although the average number of children of the housewives group and don't want to work group were high, but these two groups only accounted for 15.3% of total women in reproductive age, so their influences on fertility rate is not too high. The group of working women accounted for 80% of total women in

reproductive age of the city; therefore, their influences on fertility rate are worth-noticing.

5. Conclusions and recommendations

Based on the analyzed results above, our conclusions are:

The indicators show that the fertility rate has been rising during the period of 1999 -2009. In particular, the TFR rose sharply and reached the replacement level fertility. The CBR didn't raise much for the whole period but tended to rise in recent years. The ASFR shows variation in fertility between age groups and a postponing child bearing model.

Differences in fertility rate between rural and urban area still exists and reveals more clearly recently. The rural area had higher fertility rate than the urban area and this was showed through the TFR, the CBR and the ASFR.

The fact that the fertility rate has risen for the 1999 -2009 period is the result of many factors such as the age and gender structure, the marital status, education level and the employment status of women in reproductive age.

Our recommendations:

Currently the fertility rate of the city has reached the replacement level, so lowering it is not an urgent goal. However, it is still very important to keep up with the results and take control of the situation as there are many potential factors that may make the fertility rate rise again.

Policy makers need to pay attention to the rural area, where the fertility rate is still high. Despite of the city efforts to reduce the disparity between the two areas, there are still many differences in development, education level and living standard, which affect the fertility rate in rural area. Reducing the disparity between two areas is the key to reduce fertility rate in rural area.

In order to control fertility, it is very important to focus on the behavioral change communication method, which helps to adjust

behaviors and attitudes on reproductive health and family planning.

Educating people and providing advocacy projects on the issue of reproductive health and family planning. We should start from early education such as primary, secondary and

continue in higher levels of education.

Ensuring that there are enough budgets for population and family planning programs. Besides the state budget, we need to mobilize fund from society and international assistance

Table 1. Rate of women from 20-34 to total women from 15-49 and Rate of women from 15-49 to total population

	2004	2005	2006	2007	2008	2009
Rate of women from 20-34 to total women from 15-49(%)	45.82	45.73	44.61	43.67	41.95	46.01
Rate of women from 15-49 to total population	29.83	29.56	29.83	30.07	29.10	30.09
CBR	15.19	15.2	14.69	15.29	15.43	18.61

Source: Total Population and Housing Census 1999 & 2009, Statistical Year Books

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