Research on Gender Differences in Fertility Intentions: Based on the Theoretical Perspective of "Work-life Balance"

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ABSTRACT
Based on the database of the "Population Fertility and Public Services" group, firstly investigate the existence of significant differences between male and female fertility intentions through t-tests, and afterwards do the regression analysis by gender through econometric models. At length, the results revealed a significant difference between men's and women's fertility intentions($p<0.01$**). With overtime hours significantly and positively correlated with fertility intentions for men, and housework hours and caregiving hours significantly and positively correlated with fertility intentions for women. At the individual level, it will lead to "work-life conflict", but at the family level, this gender-based division of labor will lead to "work-life balance". In the analysis of career choice, women are more family-oriented in their choice of occupation than men. Nevertheless, this "work-life balance" comes at the expense of women's development, which will result in lower fertility intentions among younger women and a significant difference with men's fertility intentions. Therefore, the government should protect the labors' legitimate rights to have more time to return to the family, especially for men, which will be conducive to improving "work-life balance" and increasing willingness to have children.
Keywords*: fertility intentions, gender differences, work-life balance; fertility policy*

1. INTRODUCTION

The total fertility rate for women in China has been below the fertility replacement level since 2000, fluctuating around 1.6. Although the 35-year-long family planning policy has controlled the rapid growth of the population, it has also led to a lower birth rate, an increase in the amount of elderly individuals, the disappearance of the demographic dividend and an increasingly severe aging phenomenon. As a consequence, in 2013 the country introduced the "separate two-child" policy and in 2016 the "full two-child" policy was implemented to stimulate the willingness of the childbearing population to have children. However, the relaxed fertility policy did not trigger high fertility behavior, and the number of births has been declining year since 2016, when it reached the peak of China's birth population in the last decade. The "comprehensive two-child" policy has been met with a lukewarm response. Based on the requirement to transform the demographic structure for better economic and social development, the country will liberalize the "full three-child" policy in 2021 to increase the fertility rate and promote the demographic transition.

Literature on fertility intentions in China is rich, with Baochang Gu (2011) proposing that the "three-dimensional fertility" includes the ideal number of children, the gender preference for having children and the timing of childbirth[1]. In addition, studies have been conducted on the entire population of childbearing age, for example, Qiangcong Yang (2020) found that economic factors are currently the main factor influencing the fertility intentions of China's childbearing population, a finding that is consistent with the majority of scholars' views[2]. There are also studies on a certain group of people, such as Xiaotian Feng (2018), who found that additionally to the two objective factors for financial pressure and lack of time, 70% of the respondents thought that they could not have a second child, but the subjective factor of "unwillingness to have a second child" also accounted for a great proportion of the respondents. The survey also found that the subjective factor of "not wanting to have a second child" also accounted for a large proportion of respondents[3].

The above - mentioned studies reveal that, firstly, from the perspective of the research population, there are few studies on gender differences in literature on fertility intentions of the childbearing population. The majority of articles have been conducted from the perspective of economic costs, and fewer have examined fertility intentions from the perspective of "work-life balance". In addition, this paper takes a quantitative approach to the study to visualize the choice of "work-life balance" strategies concerning the fertility intentions of the reproductive age group. Therefore, this paper is of some value as a complement to existing research.

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2. THEORETICAL FRAMEWORK AND MODELS

2.1. Theoretical Framework

Fertility intentions represent that the number of children desired, the timing of the birth and the sex of the child, and here the ideal number of children is used to represent fertility intentions. This paper will use spss22.0 to conduct a t-test on both sexes' fertility intentions data and find that, according to the results of Table 1, the mean of the ideal number of children is 2.85 for men and 2.69 for women, with the ideal number of children being lower for women than for men. The $p<0.05$ means that there is a significant difference between the ideal number of children for males and females and that the ideal number of children for females is lower than that of males. The significant difference in fertility intentions between males and females has an impact on the individual's work-life balance decision, which will be further investigated through the regression analysis.

Table 1. T-Test of Fertility Intentions on Gender

		Mean ± Standard deviation	**t**	***p***
Fertility intentions	**Male**	2.85±0.702	3.278	0.001**
	Female	2.69±0.679		

Note: $p<0.05$*, $p<0.01$**, $p<0.001$***

Higgins et al. argue that although scholars have proposed different understandings of "work-life balance", they all classify "work-life balance" as: time balance, integration balance, and satisfaction balance. It is not easy to express this because the degree of integration balance and psychological balance is known by the respondents' psychological feelings, and individual psychological tolerance to balance and conflict is also different. In this paper, based on the research of previous scholars, we explain "work-life balance" through two aspects, namely: "work-life" time commitment and the career choice. The reason for choosing a career perspective is that the respondents to this questionnaire are all of the bearing childage in their career development period, and whether or not they consider their families when choosing a career reflects, to a certain extent, their subjective attitude towards "work-life balance". For the "work-life" time commitment dimension, this paper measures respondents' time commitment to work and life through seven dimensions: weekly working hours, overtime work, household chores, care time, leisure time, long-distance travel time and countryside travel time.

The data in this paper comes from the database of the "Population Fertility and Public Services" project group which was constructed by the research team of Associate Professor Meiduo Zhou. The questionnaire mainly covers the individual and family characteristics of the respondents (gender, age, income, type of occupation, education level, marital status, number of family members, etc.), their fertility intentions and the measurement of variables related to "work-life balance". The questionnaire is designed to measure individual and family characteristics (gender, age, income, type of occupation, education level, marital status, family size, etc.), fertility intentions and work-life balance.

2.2. Research Hypothesis and Models

As a scarce resource, time spent in one area can crowd out time spent in other areas, and therefore time poverty' is a major cause of low fertility intentions among people of childbearing age. This paper examines the allocation of time resources between the two sexes as a result of increased fertility intentions, based on a combination of previous research and questionnaires that divide time into work time, household work time and leisure time. The proportion of time spent on work is the highest in terms of time allocation, and is also a key indicator of the intensity of work. Due to the traditional gender division of labor, men are considered to be the main breadwinners of the family economy, and the increasing cost of competition and childbirth, men with childbearing intentions flood into the stream of work more hours in exchange for higher income to relieve the financial pressure of childbirth. The following hypotheses are thus formulated in this paper.

Hypothesis 1: Male fertility intentions are significantly and positively related to weekly working hours and overtime hours.

Domestic work time refers to the time spent by workers returning to their families to assume their domestic roles. According to the third survey on the social status of women in China, women have less leisure time than men on their days off, and 72.7% of the respondents said that their wives took on more time for household chores. The following hypothesis is therefore put forward in this paper.

Hypothesis 2: Women's willingness to have children is significantly and positively related to the time spent on housework and caregiving.

Leisure time refers to the time at the worker's personal disposal, other than work-family, and this paper consists of leisure time, near-travel time, and long-distance travel time indicators. Based on this paper, the following hypotheses are formulated.

Hypothesis 3: Fertility intentions of men and women are significantly and negatively related to leisure time, near-travel time, and long-distance travel time, respectively.

Based on micro-data from the 2012 China General Social Survey (CGSS), Lan Zhu (2019) analyzed the opportunity cost for women in terms of material and spiritual dimensions, taking into account the impact of fertility policies on fertility perceptions and psychological utility of married women. The study found that an increase in female fertility will increase the opportunity costs of labor supply, wage income and other factors that can reduce female fertility intentions[4]. This paper argues that women are more likely to consider their families when choosing a

career than men due to the traditional division of gender roles. The following hypothesis is proposed.

Hypothesis 4: Women's fertility intentions are significantly and positively related to their consideration of family when choosing a career.

This paper examines the impact of work-life balance on fertility intentions through a fixed-order logit regression. The work-life balance variables are fixed-order, so the analysis is conducted using a fixed-order logit model with the following functional form.

$$\log\left(\frac{\mathrm{p}(\mathrm{p}_i \le \mathrm{j})}{1-\mathrm{p}_{(\mathrm{p}_i \le \mathrm{j})}}\right) = t_j - gx_i \qquad (1)$$

In the equation, P_i denotes "work-life balance"; x_i denotes the ith factor affecting "work-life balance", t_j is the model intercept, which can be regarded as a constant term, and g is the coefficient of the independent variable.

3. ANALYTICAL RESULTS

In Table 2, the control variables are age, annual personal income, and education. In the male sample, weekly working hours and overtime hours are each positively correlated with fertility intentions, with overtime hours being significantly positively correlated with fertility intentions, i.e. Hypothesis 1 is partially valid; combined with the traditional gender role division of labor theory, it is clear that men, as the main bearers of most of the household's economic income, allocate more time to the workplace, meaning that they receive greater financial rewards, even though this may lead to work-life imbalance. Even though this may lead to an imbalance in the work-life balance, it is an important material basis for future work-life balance and is therefore positively associated with fertility intentions. In the female sample, time spent on housework and time spent on caregiving is each significantly positively associated with fertility intentions, and hypothesis 2 holds. Both men and women are important members of the family, and the more family time women can allocate, the more work-life imbalance they will experience, but the more time men can allocate to work, the more work-life balance they will have as the family unit, and the higher the fertility intentions of women. In terms of leisure time, in the male sample, fertility intentions were negatively associated with leisure time and fertility intentions were significantly negatively associated with time spent on long-distance travel. In the female sample, fertility intentions were positively correlated with leisure time, long-distance travel time and time spent on excursions, with fertility intentions significantly correlated with long-distance travel time.

In the regression results for "work-life balance", both males and females showed a positive correlation between greater consideration of family in choosing a career and fertility intentions, with the female sample showing a significant positive correlation between greater consideration of family in choosing a career and greater fertility intentions. This means that hypothesis 4 is valid.

Table 2. Results of the Ordered Logit Regression of Fertility Intentions on the "Work-life Balance"

	Weekly working hours		Overtime hours		Domestic work hours		Care hours		Leisure time		Long distance travel time		Nearby travel time		Career choice		Nearby travel time		Career choice	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Willingness to have children	0.222	-0.161	0.479**	0.15	0.166	0.441**	0.16	0.755***	-0.153	0.009	-0.312*	0.283*	0.157	0.175	0.149	0.634***	0.157	0.175	0.149	0.634***
Age	0.0095	0.014	0.02	0.0242*	0.005	0.039***	-0.005	-0.018	-0.041	-0.039**	-0.029*	-0.063***	-0.017	0.002	-0.005	0.024*	-0.017	0.002	-0.005	0.024*
Annual personal income	0.206**	0.083	0.157*	0.108	-0.064	0.067	-0.124	-0.043	0.144	0.193*	0.294***	0.422***	0.288***	0.245**	0.095	-0.031	0.288***	0.245**	0.095	-0.031
Academic qualifications	-0.272*	-0.199*	-0.118	0.101	-0.043	-0.307**	-0.216	-0.595***	-0.094	-0.095	0.295**	0.291**	0.196	0.198*	-0.06	-0.284**	0.196	0.198*	-0.06	-0.284**
Adjusted R^2	0.0202	0.0074	0.0263	0.0109	0.0021	0.0393	0.0115	0.0546	0.0124	0.0112	0.295**	0.0653	0.0226	0.02	0.0035	0.0406	0.0226	0.02	0.0035	0.0406

Note: p<0.05*, p<0.01**, p<0.001***

In Table 3, with only the control variables put in, none of the variables had a significant effect with fertility intentions in the male sample, while in the female sample, age was significantly and positively related to fertility intentions and education was significantly and positively related to fertility intentions. Combined with Table 3-1, it can be seen that women return to the family, allocate more time at home, crowding out the allocation of time at work, and are more inclined to the family in terms of career choice, exacerbating the inequality of socio-economic status with men, and that this fertility decision comes at the expense of women's social status. In the short term, fertility intentions increase, but in the long term, women's awareness of gender equality and their reluctance to play too much of a family role, and the increasing number of women choosing to enter the workforce, leads to a delay in marriage and childbirth, so that age is significantly and positively correlated with fertility intentions.

Table 3. Results of the Ordered Logit Regression of Age on Fertility Intentions

	Fertility intentions	
	Male	**Female**
Age	0.0167	0058***
Annual personal income	0.1063	-0.168
Academic qualifications	0.178	0.320**

Note: p<0.05*; p<0.01**,p<0.001***

4. CONCLUSION

Based on the database of the Population Fertility and Public Services Group, this paper analyses the main factors affecting the fertility intentions of people of childbearing

age from the perspective of "work-life balance" by gender, to explain the reasons for low fertility intentions. The results of the study show that: (1) in terms of work-life time commitment, men's weekly working hours and overtime hours are positively associated with fertility intentions, with overtime hours being significantly associated with fertility intentions. Women's time spent on housework and time spent on caregiving was each significantly and positively associated with fertility intentions. (2) To promote "work-life balance", women are more family-oriented in their choice of employment and therefore consider work-life combination in their choice of employment. (3) It is thus observed that as the decision to have children requires women to take on more of a family role at the expense of women's career development, in the long run the next generation of women will be influenced by this and there will be an intergenerational effect, as well as the spread of modern gender equality, that women will inevitably choose to delay the age of childbearing. There are therefore significant differences in the fertility intentions of men and women, and the ideal number of children for men is higher than the ideal number of children for women.

Therefore this paper puts forward the following recommendations 1. building a friendly fertility environment, the reason why the state has not achieved the expected results despite the liberalization of policy restrictions is that, firstly: it is believed that the reduction in fertility is restricted by the fertility policy and therefore the policy to encourage fertility only liberalizes the number of births, there are no corresponding policy measures to encourage fertility at the same time there is also a lack of perfect post-birth public services. Therefore, the public education and medical services system should be improved, and basic education facilities such as nurseries and primary schools and basic medical services such as children's hospitals and maternal and child health centers should be strengthened to improve public services[5]. Secondly: Under the influence of modern gender equality consciousness and social division of labor, more and more women with higher education enter the workplace. The gender discrimination in the job search process makes the threshold of the workplace higher for women than men. Coupled with the current relaxed maternity policy, companies will form the expectation that more women will give birth. To avoid direct loss of labor and human capital in terms of job shortages and re-hiring, companies will therefore reinforce their gender preference in recruitment. There are also difficulties in career advancement and the cost of job opportunities for women increases. Therefore safeguard the legitimate rights and interests of women in the labor market, guarantee women's career development, purge the discrimination against women that exist in the industry, and extend the maternity leave system for women, while actively promoting the paternity leave system for men to psychologically ease the burden of childbirth for women[6]. 2. Effectively safeguard the legitimate rights and interests of workers and allow them to have more time to return to their families. In China's labor market, enterprises have developed a 996 or 007 work system in pursuit of economic benefits, which not only infringes on workers' rights, interests and the rest of their time, but also allocates more time to work and accordingly time on family life is reduced, overdrawing the future of workers and their families and taking away their childbearing time[7]. Therefore, our government and the relevant regulatory authorities should take responsibility for strengthening the supervision of the labor market and making enterprises take up their social responsibilities.

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