

# Job Satisfaction and Residents' Happiness

-- Evidence from China Family Panel Studies

Shuwen Zheng\*

Business School of East China University of Political Science and Law, Shanghai, China

\*Corresponding author email: z18867592696@sina.com

**Abstract:** As an important means of human survival and development, work has a non-negligible impact on residents' happiness. Based on the data of China Family Panel Studies of 2020, this paper examines the heterogeneous impact of job satisfaction on residents' happiness and its influencing mechanism. The results show that job satisfaction has a significant happiness enhancement effect. Heterogeneity test finds that job satisfaction has different happiness promoting effects on groups with different individual characteristics (gender, exercise frequency, family contact), different work experience (working hours, whether to distinguish working days, work flexibility), and different work experience (sleep time on working days, whether to be provided with year-end bonus as well as insurance). The mechanism test shows that job satisfaction affects residents' happiness through income increase effect, social reinforcement effect, confidence enhancement effect and expectation improvement effect.

**Keywords:** Job satisfaction; Happiness; Heterogeneity; Mechanism analysis.

## 1. Introduction

The happiness of the people has always been the focus of the state. The report to the 20th National Congress of the CPC points out that we must adhere to ensuring and improving people's livelihood in the course of development, encourage joint efforts to create a better life, and constantly realize the people's aspirations for a better life. In all the work of the Party and the State, the fundamental interests of the overwhelming majority of the people have always been the highest standard, and the value of putting the people first has always been practiced. Under the great attention of the Party and the State, the happiness of Chinese people has been continuously improved. According to the World Happiness Index Report 2023, China's happiness index is 5.818, ranking 64th out of 157 countries (regions), up eight places from last year. Although the level of happiness has improved, there is still a big gap between China's overall happiness level and that of developed countries, and it still ranks behind relatively backward countries such as Thailand. Happiness is the embodiment of people's satisfaction at the subjective psychological level, and it has gradually become an important standard to measure a country's social development level. Improving residents' happiness and welfare level is the eternal goal of economic and social development. How to continuously improve the happiness of the people is a major issue facing the Party and the country.

Work is an important means for human survival and development, through which residents can obtain material and spiritual products needed for life, meet their own needs, and realize their own value and life value. Through work, residents take responsibility, gain a sense of accomplishment and self-realization, and enhance self-confidence; at the same time to build social relations, expand social circle, enhance the sense of belonging. As an important part of residents' life, work has a non-negligible impact on residents' income, safety, social interaction, self-esteem and other aspects, and job satisfaction will inevitably affect residents' happiness level. How to improve the level of residents' happiness while

improving employment, promoting work and improving job satisfaction has become a major practical issue facing China's high-quality economic development and the improvement of residents' happiness level. The question explored in this paper is: Does job satisfaction have an impact on residents' happiness? How does job satisfaction affect residents' happiness level? Is there a heterogeneous effect on residents' happiness level?

Compared with the existing studies, the marginal contributions of this paper are as follows: First, it includes job satisfaction into the relevant research on residents' happiness, which enriches the relevant research on the improvement of job satisfaction and happiness, and also provides a new perspective on how to improve residents' happiness while promoting employment and improving job satisfaction. Second, the paper systematically combs and analyzes the mechanism of influence of job satisfaction on residents' happiness level, analyzes the potential channels of influence of job satisfaction on residents' happiness from four aspects: income increase effect, social reinforcement effect, confidence enhancement effect and expectation improvement effect, and verifies the relevant influence channels based on CFPS. Thirdly, the heterogeneity is fully considered to investigate whether the impact of job satisfaction on residents' happiness is affected by individual characteristics, work experience and job security.

## 2. Literature Review

Happiness is an important dimension of human value pursuit and the ultimate goal of residents' life. The academic circle probes into the factors influencing happiness from different angles in order to continuously improve the level of residents' happiness. Existing literature points out age [1], health status [2], local knowledge level [3], education level [4], marriage [5], educational background [6] and other objective individual characteristics affect residents' happiness level. Personality traits [7], cognitive and affective factors [8], personality [9], enjoyable consumption [10], leisure choice [11] and other subjective factors also have a non-negligible

impact on residents' happiness level. Social and economic level affects all aspects of residents' life. Existing literature analyzes the factors affecting happiness from economic conditions like income level [12], income distribution [13], wealth status [14], debt level [15], relative deprivation [16] and income inequality [17]. Meanwhile, personal status [18], household registration status change [19], social class [20], human consumption [21], family member relationship [22], neighborhood relationship [23] and other social conditions are also included as the influencing factors of residents' happiness level. The literature on the factors affecting residents' happiness is increasingly abundant.

Work is an important means for the survival and development of human beings. Through work, residents can obtain material and spiritual products needed for life, meet their needs and pursuits, and realize their self-worth. The impact of work on the residents' happiness level has been paid more and more attention. Wu(2016) believes that working hours affect residents' happiness [24]. Li and Yuan(2019) further point out that working hours occupy residents' leisure time, affect residents' physical and mental health and family harmony, but meanwhile help residents obtain higher income and better material life, and the impact on residents' happiness is not a simple linear relationship [25]. Huang et al. (2021) propose that the nature of work is closely related to residents' happiness level [5], while Bakker et al. (2014) find that work demands increase workers' energy consumption, reduce residents' health, job satisfaction and work motivation, and have a negative impact on happiness [26]. Sun et al. (2022) believe that the impact of non-agricultural employment on residents' happiness will change over time [27]. Scholars have also examined the relationship between work and residents' happiness levels from the perspectives of working conditions [28], job characteristics [29], employment quality [30], job promotion [31], job skill enhancement [32], and subjective career success [33].

To sum up, although there are researches on the relationship between work and residents' happiness, they mostly start from a specific aspect of work, and mostly ignore the multi-level influence of work on residents as a whole, which affects all aspects of residents' life. Job satisfaction comprehensively reflects all aspects of work, and its impact on residents' happiness is more complex. There are few literature to investigate the relationship between job satisfaction and residents' happiness level, and even fewer studies to investigate the mechanism of job satisfaction's impact on residents' happiness. At the same time, the existing literature has not paid enough attention to heterogeneity.

### **3. Mechanism Analysis and Hypothesis**

#### **3.1. Income increase effect**

The improvement of job satisfaction promotes employment, improves residents' work efficiency and increases income. Work is the main way to obtain economic income [34]. Job satisfaction improves residents' work enthusiasm and work efficiency, affects attendance rate, reduces the probability of asking for leave and inactive work, and promotes work, thus increasing income. Income, as an important source of economic base, is the main influencing factor of happiness level [12]. Adequate income can guarantee basic needs such as food, clothing, housing and transportation, thus ensuring a stable basic standard of living, improving the quality of life and enhancing happiness. Meanwhile, the increase in income

provides residents with more choices [35], further enhancing their happiness. In addition, the increase in income level lays the foundation for residents to pursue higher levels of demand. With the increase of income level, residents can socialize more frequently and with high quality, gain respect in socializing, and pursue their own interests and hobbies, so as to meet the needs of self-realization and improve the level of happiness.

#### **3.2. Social reinforcement effect**

The improvement of job satisfaction strengthens residents' sociability, increases interaction, builds good interpersonal relationship and improves happiness. Work expands personal network, provides opportunities for interaction and cooperation with colleagues, and enhances team cohesion. The improvement of job satisfaction promotes residents to share experiences more actively in team work, support each other, establish good interpersonal relationships, and improve social skills. Through more face-to-face communication opportunities, residents can understand each other's interests and recent developments, establish contacts and build good interpersonal relationships. Interpersonal relationship is an important factor in the formation of sustained happiness [3]. Connections established through social interaction can reduce loneliness, enhance a sense of belonging, and gain support and understanding from others, thereby relieving stress and anxiety, bringing satisfaction and security, and thus boosting happiness levels [21].

#### **3.3. Confidence enhancement effect**

Job satisfaction improves residents' confidence level and happiness. Work is often accompanied by certain challenges and provides opportunities for residents to learn and grow. By overcoming difficulties and challenges in work, residents can continuously learn and improve their skills, achieve self-transcendence, and enhance their self-confidence and sense of self-worth [32]. The improvement of job satisfaction promotes residents to be more courageous and willing to take responsibility, challenge themselves, and continuously improve their confidence level. Positive feedback and recognition at work further enhance self-confidence and self-esteem, thereby bringing self-satisfaction and a sense of achievement [36] and improving happiness. Work often carries a certain meaning and value. Through work, residents make contributions to the society, meet the needs of others, and realize their own value and ideal. The improvement of job satisfaction further makes residents feel their own value, importance and need, realize their own meaning and purpose, generate positive emotional experience and thus improve their happiness.

#### **3.4. Expectation improvement effect**

The improvement of job satisfaction improves residents' expectations for the future and increases their happiness. Stable jobs and increasing job satisfaction enhance residents' confidence in the future. The increased source of continuous income through increased job satisfaction guarantees the basic needs of residents while providing them with future discretionary savings to enhance their sense of security. Responsibilities and satisfaction at work enable residents to reflect their self-worth and feel needed. Challenges overcome at work promote residents' learning skills, accumulation of experience, self-growth and progress, and enable residents to meet their needs for self-realization [33]. The interaction and

socializing with colleagues at work expand the interpersonal network, reduce the sense of loneliness, and further bring residents positive emotional experience, improve residents' expectations and confidence in their future lives. The improvement of expectations and the enhancement of confidence promote residents to be more motivated and confident to pursue their dreams and goals, enhance their sense of security, reduce anxiety and restlessness, generate positive attitudes and emotions, and thus improve residents' happiness level [37].

In summary, this paper proposes the following research hypotheses:

Hypothesis 1: The improvement of job satisfaction is conducive to the improvement of residents' happiness level.

Hypothesis 2: Job satisfaction improves residents' happiness through income increase effect, social reinforcement effect, confidence enhancement effect and expectation improvement effect.

## 4. Empirical Strategy

### 4.1. Data

The data in this paper are from the 2020 China Family Panel Studies (CFPS) conducted by Peking University. This dataset includes three levels: individual, family and community, and tracks multiple subject areas such as economy, education, network, social interaction and attitudes in rural areas [38].

### 4.2. Benchmark model

The baseline model is set as follows:

$$\text{Happiness}_i = \alpha + \beta_1 \text{job}_i + \beta_2 X_i + \varepsilon_i \quad (1)$$

$\text{Happiness}_i$  represents the happiness level of individual  $i$ , and  $\text{job}_i$  represents job satisfaction;  $X_i$  reflects a series of the control variables, including age, marital status, health level, household registration and education background;  $\varepsilon_i$  is the random disturbance term.

### 4.3. Variable selection

The happiness level of residents is measured by the answer to the question "how happy" in the CFPS. The higher the value, the higher the happiness level of residents. The answer to the question "job satisfaction" in the CFPS questionnaire is used to measure job satisfaction. Age comes from the residents' answer to "age" in the questionnaire. Marriage is a binary variable, married is 1, unmarried is 0. Health level is measured by "whether there is a chronic disease within six months", if no, the value is 1, otherwise 0. Household: If the non-agricultural household registration, the value is 1, otherwise 0. Education: no schooling is assigned a value of 0; Nursery is assigned a value of 1; Kindergarten is assigned 2; Primary school assigned a value of 3; Junior high school assigned 4; High school, technical secondary school, vocational high are assigned 5; Junior college value 6; Undergraduate value 7; Master's degree is assigned a value of 8, doctor's degree is assigned a value of 9. The greater the value, the higher the degree. Descriptive statistics of relevant variables are shown in Table 1.

**Table 1.** Descriptive statistics of variables

| Variable         | Obs   | Means   | Std. Dev | Min | Max |
|------------------|-------|---------|----------|-----|-----|
| <i>happiness</i> | 17512 | 7.3973  | 2.1145   | 0   | 10  |
| <i>job</i>       | 17512 | 3.7107  | 0.9416   | 1   | 5   |
| <i>mar</i>       | 17512 | 0.8214  | 0.3830   | 0   | 1   |
| <i>health</i>    | 17512 | 0.8594  | 0.3477   | 0   | 1   |
| <i>edu</i>       | 17512 | 3.7010  | 2.0595   | 0   | 9   |
| <i>age</i>       | 17512 | 45.9976 | 14.2380  | 19  | 86  |
| <i>household</i> | 17512 | 3.111   | 1.224    | 1   | 5   |

## 5. Empirical Results and Analysis

### 5.1. Benchmark regression

Column (1) in Table 2 shows the regression results of residents' happiness on job satisfaction. It can be found that the estimated coefficient of job satisfaction is significantly positive, indicating that job satisfaction significantly improves residents' happiness. Work guarantees residents' sources of income, builds bridges for residents to communicate and interact with others, provides a platform for residents to challenge and grow, and improves residents' confidence in their future lives. On the one hand, the improvement of job satisfaction can improve residents' work enthusiasm and efficiency, increase residents' income, and the increase in income level can guarantee residents' basic living needs, expand residents' choice, ensure residents' ability to consume their favorite things, and improve their happiness level. On the other hand, job satisfaction promotes residents to better interact with colleagues, creates a good working atmosphere, improves interpersonal communication. Interpersonal relationship as an important factor affecting

happiness, improves the level of happiness of residents. In addition, job satisfaction promotes residents to take on challenges, better self-growth, self-value and confidence. Meanwhile, the improvement of job satisfaction is directly related to residents' expectations of future life, and improve residents' expectations of future life. The improvement of confidence and expectations satisfies residents' yearning for the future and improves residents' happiness.

By observing the control variables, it can be found that marriage, health, education, age and urban household registration all improve residents' happiness to some extent. Marriage brings deep emotional ties, partners share each other's life experiences, face challenges and difficulties in life together, and increase economic stability and security, and improve the level of happiness of residents. A healthy body is the premise of a happy life and positively affects the happiness level of residents. Education can increase residents' income to a certain extent, promote residents to pursue higher needs, and improve residents' happiness. Urban household registration means better and more convenient resources, which promotes the level of happiness.

**Table 2.** Benchmark regression and robustness test results

|                  | (1)                    | (2)                    | (3)                    | (4)                    | (5)                    | (6)                     |
|------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|
|                  | <i>happiness</i>       | <i>happiness</i>       | <i>happiness</i>       | <i>happiness1</i>      | <i>happiness2</i>      | <i>happiness3</i>       |
| <i>job</i>       | 0.4939***<br>(29.8303) | 0.2555***<br>(30.0533) | 0.4626***<br>(30.9358) | 0.1432***<br>(19.6425) | 0.1171***<br>(15.5427) | 0.2815***<br>(39.7513)  |
| <i>mar</i>       | 0.5137***<br>(11.9641) | 0.2430***<br>(11.1938) | 0.3923***<br>(10.5451) | 0.1394***<br>(7.3716)  | 0.0822***<br>(4.2063)  | 0.2668***<br>(14.5252)  |
| <i>health</i>    | 0.3200***<br>(6.9713)  | 0.1595***<br>(6.8532)  | 0.2750***<br>(6.8152)  | 0.1901***<br>(9.3994)  | 0.2128***<br>(10.1814) | 0.1493***<br>(7.6073)   |
| <i>edu</i>       | 0.0652***<br>(6.8797)  | 0.0198***<br>(4.0899)  | 0.0273***<br>(3.2527)  | 0.0359***<br>(8.5896)  | 0.0484***<br>(11.2163) | -0.0190***<br>(-4.6830) |
| <i>age</i>       | 0.0026*<br>(1.9378)    | 0.0018**<br>(2.5211)   | 0.0029**<br>(2.4099)   | 0.0045***<br>(7.5729)  | 0.0047***<br>(7.5344)  | 0.0069***<br>(11.8250)  |
| <i>household</i> | 0.0668*<br>(1.7312)    | 0.0238<br>(1.2183)     | 0.0388<br>(1.1859)     | 0.0352**<br>(2.0700)   | 0.0513***<br>(2.9214)  | -0.0090<br>(-0.5481)    |
| <i>_cons</i>     | 4.4883***<br>(39.7429) |                        |                        | 1.8899***<br>(37.9869) | 1.8535***<br>(36.0521) | 2.3491***<br>(48.6365)  |
| N                | 17512                  | 17512                  | 17512                  | 17512                  | 17512                  | 17512                   |

Note: The values in parentheses are t-values; \*\*\*, \*\* and \* represent the significance levels of 1%, 5%, and 10%, respectively. The below is the same.

## 5.2. Robustness test

First, change the model settings. Considering that the explained variable of this paper is a multivariate discrete variable, this paper further adopts ologit and oprobit models to conduct a new regression. The regression results are shown in columns (2) and (3) of Table 2. The positive and negative signs and significance of the estimated coefficients of job satisfaction have not changed significantly, indicating that the empirical results in this paper are robust.

Second, change the explained variable. In the baseline regression, the answer to the question "how happy?" in the CFPS questionnaire is used to measure the happiness level of residents. In order to avoid the pseudo-regression caused by the selection of dependent variables, residents' answers to the three questions of "happy life" (*happiness1*), "feel good" (*happiness2*) and "satisfaction with life" (*happiness3*) in CFPS are selected to replace "how happy" in the benchmark regression model. The higher the scores on these three questions, the higher the residents' happiness, and the regression results are shown in columns (3) - (5) of Table 2, which presents that the estimated coefficients of job satisfaction are still significantly positive, once again proving the robustness of the empirical results in this paper.

## 6. Heterogeneity Analysis

### 6.1. Individual characteristics

Different gender individuals have different requirements for work, and the degree of influence of work on happiness level is also different. Different individuals have different daily habits and behavior choices, their subjective feelings are not the same, and the impact of job satisfaction on happiness is different. In order to further investigate whether the impact of job satisfaction on residents' happiness is affected by individual differences of residents, this paper divides the samples into male group and female group, groups with high exercise frequency and groups with low exercise frequency, and groups with close family ties and groups with weak family ties. According to the answers of residents on "frequency of physical exercise (times)" in the CFPS, people who exercise at least once a week on average are defined as the one with high exercise frequency, and the rest are the one with low exercise frequency. According to the answer of "How many nights a week do you eat with your family?", the group having four or more meals a week is defined as the one with close family ties, otherwise is the one with weak ties.

**Table 3.** Heterogeneity of Individual Characteristics

|              | gender                 |                        | exercise frequency     |                        | family ties            |                        |
|--------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|              | (1)<br>male            | (2)<br>female          | (3)<br>high            | (4)<br>low             | (5)<br>close           | (6)<br>not close       |
| <i>job</i>   | 0.5263***<br>(23.3632) | 0.4608***<br>(18.8987) | 0.4957***<br>(28.8477) | 0.4637***<br>(7.7379)  | 0.4885***<br>(26.1785) | 0.4809***<br>(12.4514) |
| controls     | yes                    | yes                    | yes                    | yes                    | yes                    | yes                    |
| <i>_cons</i> | 4.4497***<br>(29.2517) | 4.6722***<br>(26.6927) | 4.4529***<br>(38.0388) | 5.1845***<br>(11.5836) | 4.6098***<br>(36.2233) | 4.2542***<br>(15.7871) |
| N            | 9213                   | 8299                   | 16444                  | 1068                   | 13638                  | 3424                   |

Table 3 reports the effect of job satisfaction on the happiness of residents with different individual characteristics. By observing columns (1) and (2), it can be found that job satisfaction has a greater effect on male group's happiness. Compared to women, men are expected to take on more financial responsibilities and family roles, attach greater

importance to work and professional development, and need to demonstrate achievements and success to gain recognition and respect. Therefore, job satisfaction can promote the happiness level of male group more. Columns (3) and (4) show that job satisfaction significantly promotes the happiness level more for the group with high exercise

frequency. People with a high frequency of exercise relieve stress through exercise and have a healthier body and a more positive attitude. The happiness brought by job satisfaction is amplified by the positive attitude. Therefore, job satisfaction can better improve the happiness level of people with a high frequency of exercise. Columns (5) and (6) show that job satisfaction has a greater effect on the happiness of the group with close ties with family. People who are closely connected to their families have less loneliness and stress, and family companionship increases positive experiences, improves the perception of positive emotions, and amplifies the happiness effects of job satisfaction.

## 6.2. Work experience

On the one hand, there are differences in working hours among different jobs, which affect residents' stress level, family life and quality of life. On the other hand, different jobs are different in terms of whether to distinguish working days and work flexibility, which influences the normal social behavior and healthy lifestyle of residents. Therefore, different jobs bring different sense of experience to residents, and the impact of job satisfaction on residents' happiness may also be different. In this paper, the samples are divided into groups with short working hours and groups with long working hours, groups with distinguishing working days and groups without distinguishing working days, and groups with large work flexibility and groups with small work flexibility. According to the residents' answers to "working hours per week (hours/week)" in the CFPS, the group with working hours less than 40 hours per week is defined as the group with short working hours, otherwise it is the group with long working hours. According to the answer to "working day differentiation", if it is, it is defined as the one with distinguishing working day; otherwise, it is the one without distinguishing working day. According to the answer to "flexibility of commuting time", "there is no fixed working time, it depends entirely on work needs, and it is arranged by myself" and "there is basically fixed working time, but I have

some flexibility and can arrange it freely" are defined as the groups with large work flexibility, and "working completely according to fixed or superior working time" is defined as the groups with small flexibility.

Table 4 reports the effect of job satisfaction on the happiness of residents with different work experiences. Columns (1) and (2) show that job satisfaction significantly promotes the happiness level of residents, but it has a greater effect on the happiness of the group with short working hours. On the one hand, proper working hours can ensure the communication and interaction between residents and their relatives and friends, maintain the stability and harmony of family and social relations. And on the other hand, it enable residents to have sufficient rest and relaxation time, reduce stress and anxiety, safeguard physical and mental health, and amplify the role of job satisfaction in improving happiness level. Columns (3) and (4) imply that job satisfaction has a greater role in promoting the happiness of the groups that distinguish working days. The distinction between working days and non-working days ensures that residents can get along with family and friends in non-working days and improve family and social life. Meanwhile, hard work and pressure in working days can be relieved through leisure and entertainment in non-working days, enhancing residents' sense of pleasure, and thus enhancing the happiness enhancement effect of job satisfaction. The regression results in columns (5) and (6) show that job satisfaction improves residents' happiness level, but it has a greater effect on the happiness of the group with large work flexibility. The flexibility of work allows residents to arrange their own working hours, reduces fixed commute time and commuting time, and increases the time for residents to spend with family and friends, which helps to improve work-life balance. At the same time, it gives employees more autonomy and choices to meet their different needs and work habits, and improves job satisfaction and life happiness, strengthening the role of job satisfaction in improving residents' happiness.

**Table 4.** Heterogeneity of Work Experience.

|            | working hours          |                        | whether to distinguish working day |                        | working flexibility    |                        |
|------------|------------------------|------------------------|------------------------------------|------------------------|------------------------|------------------------|
|            | (1)<br>short           | (2)<br>long            | (5)<br>yes                         | (6)<br>no              | (3)<br>large           | (4)<br>small           |
| <i>job</i> | 0.4906***<br>(17.6472) | 0.4707***<br>(20.6992) | 0.5373***<br>(16.9070)             | 0.4800***<br>(24.5765) | 0.5260***<br>(18.1732) | 0.5044***<br>(15.0220) |
| controls   | yes                    | yes                    | yes                                | yes                    | yes                    | yes                    |
| _cons      | 4.2534***<br>(21.9882) | 4.7070***<br>(30.0549) | 4.6198***<br>(21.4758)             | 4.3515***<br>(32.2382) | 4.2293***<br>(20.8817) | 4.4113***<br>(19.5431) |
| N          | 5979                   | 9629                   | 4840                               | 12644                  | 5601                   | 4607                   |

## 6.3. Work security

Different jobs can guarantee different sleep time of residents, which affects the rest of residents and has an impact on physical and mental health. There are differences in whether different jobs provide year-end bonuses and insurance for residents, and the security provided for residents' work is not the same, which may affect the impact of job satisfaction on residents' happiness. In this paper, the samples are divided into groups with long sleeping hours and groups with short sleeping hours, with and without year-end bonus, and with and without insurance. According to the

residents' answers to "working day sleep duration (hours/day)" in the CFPS, the group with a working night sleep duration of more than 8 hours is defined as the group with a long sleep time, otherwise it is the group with a short sleep time. According to the answer of "after-tax year-end bonus (Yuan/year)", if it is greater than zero, the people are defined as the one provided with year-end bonus; otherwise, they are defined as the one without being provided with year-end bonus. According to the answer to "Job security: none of the above", if the answer is no, they are defined as the one provided with insurance, and the one without being provided with insurance if otherwise.

Table 5 reports the effect of job satisfaction on the happiness of residents with different job security. Columns (1) and (2) show that job satisfaction significantly improves residents' happiness, but it has a greater effect on the happiness of those who sleep for a long time on weekdays. The possible explanation is that proper sleep time on working day can ensure proper rest for residents, reduce fatigue, relieve pressure, and strengthen the promotion effect of job satisfaction on residents' happiness. Columns (3) and (4) imply that job satisfaction has a greater effect on the happiness of the group provided with year-end bonus. The possible explanation is that the annual bonus provided increases the income level of residents and improves the

quality of life. At the same time, it can meet residents' expectations for work, improve their expectations for the future, and strengthen the promoting effect of job satisfaction on residents' happiness. Columns (5) and (6) present that compared with the group without insurance, job satisfaction has a greater effect on the happiness of the group with insurance. The insurance provided provides economic and security protection for residents with uncertain risks in the future, helps to reduce the economic burden, improve future expectations, and improve the quality of life. At the same time, insurance can also enhance residents' sense of security, reduce uncertainty, and strengthen the role of job satisfaction in promoting residents' happiness.

**Table 5.** Heterogeneity of Work Security

|          | sleep time            |                        | year-end bonus         |                        | insurance              |                        |
|----------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|          | (1)<br>long           | (2)<br>short           | (3)<br>yes             | (4)<br>no              | (5)<br>yes             | (6)<br>no              |
| job      | 0.6077***<br>(5.8803) | 0.4821***<br>(27.1012) | 0.5193***<br>(11.2147) | 0.4740***<br>(21.1546) | 0.5232***<br>(16.8588) | 0.4832***<br>(24.6527) |
| controls | yes                   | yes                    | yes                    | yes                    | yes                    | yes                    |
| _cons    | 4.1522***<br>(5.9839) | 4.3832***<br>(36.0116) | 5.0512***<br>(16.4385) | 4.3918***<br>(27.5326) | 4.8832***<br>(22.2875) | 4.3538***<br>(32.5704) |
| N        | 504                   | 15135                  | 2262                   | 9427                   | 4777                   | 12735                  |

## 7. Mechanism Testing

Based on the availability of data, the logarithm of "after-tax wage income from work in the past 12 months" plus 1 is adopted as the proxy variable of income increase. The higher the number, the greater the income increase effect. Socializing is measured by "how well connected people are". The better connected people are, the greater the social strengthening effect is. "Degree of confidence in one's future" is adopted to reflect confidence. The greater the degree of confidence, the greater the confidence enhancement effect. Using "great opportunity to improve living standard" to measure anticipation. The greater the opportunity for residents to improve their living standards, the greater the expectation improvement effect. The regression results are shown in columns (1)-(4) of Table 6, respectively.

In Table 6, the regression coefficient in column (1) is significantly positive, indicating that job satisfaction has significantly improved residents' income level. The improvement of job satisfaction strengthens residents' work enthusiasm and work efficiency, increases residents' income level, and the increase of income directly guarantees residents' material needs and improves residents' happiness level, which verifies the income increase effect of this paper.

The regression coefficient in column (2) is significantly positive, indicating that job satisfaction significantly improves residents' social status and interpersonal relationship. And interpersonal relationship, as an important component of happiness, reduces residents' loneliness, relieves stress, and improves residents' happiness level, verifying the social reinforcement effect of this paper. Column (3) shows that the regression coefficient is significantly positive, indicating that job satisfaction significantly improves residents' confidence level. The improvement of confidence level brings self-satisfaction and sense of accomplishment, enhances self-meaning and purpose, generates positive emotional experience, and improves happiness level, which verifies the confidence enhancement effect of this paper. In column (4), the regression coefficient is positive at the 1% significance level, indicating that job satisfaction significantly improves residents' expectations for the future, enhances security, reduces anxiety and unease, generates positive mentality and emotions, and thus improves residents' happiness level, verifying the expectation improvement effect of this paper. In summary, hypothesis 2 is verified.

**Table 6.** Influence mechanism test

|          | (1)<br>increaincome    | (2)<br>socializing     | (3)<br>confidence      | (4)<br>anticipation    |
|----------|------------------------|------------------------|------------------------|------------------------|
| job      | 0.0869***<br>(4.4683)  | 0.2679***<br>(17.8597) | 0.2132***<br>(29.4911) | 0.0580***<br>(20.8940) |
| controls | yes                    | yes                    | yes                    | yes                    |
| _cons    | 9.1455***<br>(68.5825) | 5.3415***<br>(52.2107) | 3.2535***<br>(65.9776) | 0.7556***<br>(39.9164) |
| N        | 9484                   | 17499                  | 17483                  | 17449                  |

## 8. Conclusion

Work is an important means for people's survival and development, and improving people's happiness is the eternal

goal of economic and social development. With the rapid development of China's economy, the happiness level of residents has been paid more and more attention. As the direct undertaker of work and the direct experimenter of happiness, is

the life happiness of residents affected by job satisfaction? Based on the data of China Family Panel Studies of 2020, this paper explores the heterogeneous impact of job satisfaction on residents' happiness and its influencing mechanism. The study finds that job satisfaction significantly improves residents' happiness, and this conclusion remains valid after robustness tests such as replacing indicators and changing estimation methods. Heterogeneity test shows that job satisfaction has different happiness promoting effects on groups with different individual characteristics (gender, exercise frequency, family contact), different work experience (working hours, whether to distinguish working days, work flexibility), and different work experience (sleep time on working days, whether to be provided with year-end bonus as well as insurance). The mechanism test demonstrates that job satisfaction affects residents' happiness through income increase effect, social reinforcement effect, confidence enhancement effect and expectation improvement effect.

This paper has important policy implications.

First, make full use of job satisfaction to promote residents' happiness level. Job satisfaction has a significant impact on residents' happiness. Therefore, improving job satisfaction can be an effective way to improve people's happiness. It is necessary to respect and make full use of the promotion effect of job satisfaction on "happiness improvement", and actively promote the connection between job satisfaction and happiness improvement policies, so as to achieve a win-win situation between the improvement of job satisfaction and the improvement of residents' happiness, and maximize the well-being of residents.

The second is to smooth the influence channels of job satisfaction on the improvement of residents' happiness. Perfect the market, improve the efficiency of resource allocation, diversify residents' income channels, and raise residents' income level. At the same time, the diversified development of the market is encouraged to provide more choices for residents to meet their own material needs. Encourage the company to create a harmonious atmosphere, set a fixed tea time, facilitate residents to communicate, improve interpersonal relations. Meanwhile, appropriate team activities and teamwork projects can be arranged to encourage residents to enhance interpersonal communication in the interaction process. Provide more opportunities for residents to develop themselves and improve their confidence level. Improve infrastructure and social security as well as public services, enhance residents' expectations for their future lives, and promote residents' happiness.

The third is to fully respect the differences, achieve the maximum "happiness enhancement" effect based on the specific situation. In terms of individual characteristics, encourage residents to develop the habit of exercise, enhance the role of job satisfaction on happiness when improving health. Residents keep in touch with family members, reduce loneliness, relieve stress, and feel the happiness brought by close relationships; Balance work and life, appropriately relax. In terms of work experience, the company sets reasonable working hours to provide residents with sufficient time for self-recovery; Distinguish between working days and non-working days to provide leisure time for residents. At the same time, work flexibility can be appropriately increased, and work efficiency can be improved while improving work experience and residents' happiness. In terms of job security, companies rationalize commuting time and work tasks, and

residents balance commuting time and distance by themselves. The government provides subsidy support, encourages companies to appropriately increase residents' welfare benefits, and provides insurance for employees to enhance job security, so as to maximize the promotion role of job satisfaction in improving residents' happiness.

## References

- [1] Blanchflower D G. Is happiness u-shaped everywhere? Age and subjective well-being in 145 countries. *Journal of Population Economics*, 2021, 34(2): 575-624.
- [2] Steptoe A, Deaton A, Stone A A. Subjective wellbeing, health, and ageing. *The Lancet*, 2015, 385(9968): 640-648.
- [3] Guan Jingjing, Cheng Shiyun, Dong Xuewang. Local knowledge, subject-guest interaction and residents' happiness: Empirical study of Jianguang Mountain, a world natural heritage site. *Tropical Geography*, 2022, 42(10): 1690-1700.
- [4] Michalos A C, Michalos A C. Education, happiness and wellbeing. *Connecting the Quality of Life Theory to Health, Well-being and Education: the Selected Works of Alex C. Michalos*, 2017: 277-299.
- [5] Huang Yuhan, Xu Qingxia, Kong Qingyang. Employees' subjective well-being: differences between public sector and non-public sector. *Journal of Statistics*, 2021, 2(03): 61-74.
- [6] Hou Yongkang, Wang Ting. Educational improvement and residents' well-being: Empirical evidence from CFPS micro-matching data. *Northwest Population Journal*, 2023, 44(06): 86-99.
- [7] Liliana B, Nicoleta T M. Personality, family correlates and emotion regulation as wellbeing predictors. *Procedia-Social and Behavioral Sciences*, 2014, 159: 142-146.
- [8] Balzarotti S, Biassoni F, Villani D, et al. Individual differences in cognitive emotion regulation: implications for subjective and psychological well-being. *Journal of Happiness Studies*, 2016, 17: 125-143.
- [9] Moreira P A S, Cloninger C R, Dinis L, et al. Personality and well-being in adolescents. *Frontiers in Psychology*, 2015, 5: 1494.
- [10] Rao Yulei, Ji Xi, Xu Lin. Does enjoyment-oriented consumption improve inhabitants' happiness? Evidence from China Family Panel Studies. *Consumer Economics*, 2019, 35(02): 13-24.
- [11] Baric V B, Hellberg K, Kjellberg A. Internet activities during leisure: a comparison between adolescents with ADHD and adolescents from the general population. *Journal of Attention Disorders*, 2018, 22(12): 1131-1139.
- [12] D'Ambrosio C, Jäntti M, Lepinteur A. Money and happiness: income, wealth and subjective well-being. *Social Indicators Research*, 2020, 148: 47-66.
- [13] Hou Yubo, Ge Xiaoyu. The effects of income inequality and income redistribution on people's sense of happiness: from the perspective of social cognitive. *Journal of Peking University (Philosophy and Social Sciences)*, 2020, 57(1): 150-160.
- [14] Liu Hong, Ming Hanxiang, Zhao Yang. Wealth and happiness: an empirical analysis. *Nankai Economic Studies*, 2013(4): 95-110.
- [15] He Qizhi, Li Jiashan, Zhou Li. Welfare or pressure: How does household debt affect residents' sense of happiness--evidence from micro data of Chinese household. *Journal of Shanxi University of Finance and Economics*, 2022, 44(09): 18-30.
- [16] Bai Zhiyuan, Qi Shouwei. Income threshold, relative deprivation and happiness of the aged. *Finance & Trade Economics*, 2017, 38(05): 20-33.

- [17] Yang Bao, Li Wanliang. The effect of public services on sense of fulfillment: an empirical study of logical structure and releasing paths. *Chinese Public Administration*, 2022(10): 135-143.
- [18] Xia Long, Shen Qiang. The influence of personal identities on the subjective well-being of retirees—Empirical study based on three types of ordinal logistic models. *Journal of Statistics*, 2020, 1(5): 25-35.
- [19] Huo Peng, Zhang Dong, Qu Xiaobo. The myth of urbanization: conversion of household registration status and residents' happiness. *Issues in Agricultural Economy*, 2018(01): 64-74.
- [20] Run Bingjin. Income, self-identified stratum and subjective well-being. *Statistical Research*, 2012, 29(10): 64-72.
- [21] Wu Qinghua, Leng Chenxin, Zhu Zhongkun. Reciprocity and happiness of rural residents': empirical analysis based on CSS of 2015. *Journal of Huazhong Agricultural University (Social Sciences Edition)*, 2018(04): 128-136+172-173.
- [22] Wei Qiang, Su Hanyun, Lv Jing, et al. Research on the influence of family size, social support, health status on the subjective well-being of rural elderly women. *Northwest Population Journal*, 2020(5): 106-115.
- [23] Visser K, Bolt G, Finkenauer C, et al. Neighbourhood deprivation effects on young people's mental health and well-being: A systematic review of the literature. *Social Science & Medicine*, 2021, 270: 113542.
- [24] Wu Weijiong. Impact of hours worked on occupational well-being: an empirical analysis based on three typical occupations. *China Industrial Economics*, 2016(03): 130-145.
- [25] Li Jun, Yuan Guomin. The impact of working time on residents' happiness: Empirical analysis based on CLDS2016 data. *Decision & Information*, 2019(05): 116-127.
- [26] Bakker A B, Demerouti E, Sanz-Vergel I. Burnout and work engagement: the JD-R approach. *The Annual Review of Organizational Psychology and Organizational Behavior*, 2014, 1(1): 389-411.
- [27] Sun Dapeng, Sun Zhiyi, Yu Bintong, Li Yang. Does non-agricultural employment improve rural residents' happiness? *South China Journal of Economics*, 2022(03): 17-36.
- [28] Grebner S, Semmer N K, Elfering A. Working conditions and three types of well -being: a longitudinal study with self-report and rating data. *Journal of Occupational Health Psychology*, 2005, 10(1): 31-43.
- [29] Zhou Ye, Huang Xu. High-prestige-occupational stigma perception and employee well-being: Based on cognitive dissonance perspective. *Business and Management Journal*, 2018(4): 84-101.
- [30] Qing Shisong, Zheng Jiamin. Job quality and subjective well-being in urban China. *Finance & Trade Economics*, 2016, 413(04): 134-148.
- [31] Hu Bin, Mao Yanhua. The multilevel effects of high performance human resource practices on occupational well-being in china's context. *Management Review*, 2017, 29(07): 163-173.
- [32] Du Jing, Li Nannan, Long Lirong. High performance work system and employee psychological well-being: the mediating effect of self-efficacy. *Chinese Journal of Management*, 2014, 11(02): 215-221+243.