

# The Effect of Economic on Relative Deprivation—The Mediating Effect of Sense of Social Fairness

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**Abstract.** China is in the critical period of economic transformation currently, but high-speed economic development may widen the class gap and trigger social inequality, which in turn will have a negative impact on social mentality of residents. Relative deprivation is considered as a negative social mentality and an important factor affecting social harmony and stability. Academic research between economic development and social mentality is relatively abundant, but there is a lack of research on relative deprivation. In order to fill the gap, this article examines the impact of regional economic development levels on relative deprivation and the mediating effect played by the sense of social fairness based on the data from the Chinese Social Survey (2021). The study found that the level of regional economic development has a significant negative impact on relative deprivation, and the sense of social fairness mediates between them. Therefore, a higher level of regional economic development can directly alleviate residents' relative deprivation, and can also alleviate residents' relative deprivation by improving their sense of social fairness.

**Keywords:** Economic Development, Relative Deprivation, Sense of Social Fairness, Intermediate Analysis.

## 1. Introduction

Social mentality characterizes a country's level of economic development, the degree of political democratization, the state of social well-being, and the overall state of the spiritual life of residents, which is known as the "barometer" of economic and social development [1]. China is in a critical period of economic transformation currently. While the economy is developing rapidly and material resource is greatly enriched, high-speed development triggers unbalanced economic development and unreasonable income distribution, which leads to an imbalance in social mentality. However, most of the current research on the relationship between economic development and social mentality focuses on subjective well-being and social fairness[2] [3]and research on relative deprivation is lacking.

Relative deprivation refers to the perception of psychological fallout that people experience by comparing themselves to the reference group [4] which is considered as a negative social mentality. Current research shows that higher level of relative deprivation significantly increases the level of depression and suicidal will [5], the likelihood of death [6], leads to transgressive and aggressive behaviors [7]and has a negative impact on mental health [8]. Relative deprivation has become an important factor affecting social harmony and stability. However, most of the research on the factors influencing relative deprivation has focused on demographic variables (e.g., gender, age, income level, etc.) [9] individual characteristic variables (e.g., personality traits, attributional styles, etc.) [10], and socio-environmental variables (e.g., socio-economic status, social support, etc.) [9]. There are a gap of how economic development affects relative deprivation, and the relationship between the them is fully argued below.

Rapid economic development has expanded people's social networks, and larger, healthier social networks have a significantly negative correlation with relative deprivation [11]. Increasing marketization and the growth of digital inclusive finance can provide financial products and services to disadvantaged groups, thereby alleviating relative deprivation[12]. In addition, the level of social services and social security will also increase along with economic development [13], which will eliminate relative deprivation [14]. In summary, economic development can expand the social

network, improve the financial environment and increase the level of social services and security, which can effectively reduce relative deprivation. Based on which, we propose:

H1: The higher the level of economic development, the lower the relative deprivation of people.

Social fairness has two meanings: One is power fairness, which means every member of society should not be deprived of the right to claim social resources. The other is distribution fairness, which means social resources such as opportunities, income and wealth should be distributed reasonably according to the ability and contribution of the social members [15] Therefore, social fairness is an objective description of the way or results of distribution, and the sense of social fairness is a subjective feeling about the degree of social fairness [16] With the transformation from high-speed development to high-quality development in China, promoting social fairness have become the main goal of the current system reform [3], which undoubtedly reflects the important role of fairness in economic development.

Recent studies based on Chinese society have found that the level of marketization in China has been increasing, and the distribution of resources will be transformed from a redistributive mechanism to a market mechanism, which implies that individual's ability is closely related to the remuneration of labor and the acquisition of status [17]. Unbalanced regional development in China makes regions with high levels of economic development maintain a clear advantage in both the quantity and quality of talent, which means residents living here are more likely to be profiteers and will generate a higher sense of social fairness.

As mentioned above, relative deprivation is the psychological feeling of falling short when individuals are in a disadvantaged position in both vertical and horizontal comparisons. In social environments with a weaker sense of social fairness, residents are more likely to fall short compared to others, thus creating a greater likelihood of relative deprivation; conversely, in social environments with a stronger sense of social fairness, individuals are less likely to develop a sense of relative deprivation. Therefore, if people develop a sense of social fairness, it will be accompanied by a strong sense of relative deprivation [18] which will shake the foundation of social legitimacy and ultimately lead to violent social conflicts. Therefore, when exploring the impact of economic development on relative deprivation, the important mediating effect of the sense of social fairness should be emphasized. Based on which, we propose:

H2: The sense of social fairness mediates the relationship between the level of regional economic development and relative deprivation.

From the existing literature, there are many studies on the relationship between economic development and social mentality, but there is a lack of studies examining the direct effect of the level of economic development on relative deprivation, let alone the study of its underlying mechanism. We try to fill this gap in our study. Based on the background above, this study uses data from the Chinese Social Survey (2021) to explore the impact of the level of regional economic development on relative deprivation using the direct path; and adopts the three-step method of mediating analysis to examine the mediating effect played by the sense of social fairness.

## **2. Research design**

### **2.1. Participants**

The data is obtained from CSS 2021. The survey was initiated by the Chinese Academy of Social Sciences (CASS) and utilized multistage stratified PPS random sampling for household interviews, covering 31 provinces/autonomous regions/municipalities directly under the central government, including 151 districts, cities, counties, and 604 villages/residents' committees. The survey was conducted to obtain data and information on social changes in China during the transition period through a nationwide survey of the public's labor and employment, family life, and social life. After excluding the cases with missing relative deprivation and missing main variables, the final number of valid cases obtained in this paper is 4095.

## 2.2. Variables

The dependent variable in this study was relative deprivation. In the CSS 2021 questionnaire, relative deprivation is defined as how well one’s own living situation is compared to the reference group. In this study, we chose relative deprivation compared to “people in the county/city”, “people in the province” and “people in the country” in order to examine people’s perceptions about the living conditions of members in society as a whole [19]. The answers “much better”, “better”, “about the same”, “worse” and “much worse” were assigned values from 1 to 5, respectively. The KMO test (0.689) and Bartlett’s test ( $p=0.000$ ) indicated that there was a potential shared factor for the above three items, namely “relative deprivation”.

The independent variable in this study is the level of regional economic development. GDP per capita is an important indicator of regional economic status. In this study, the GDP per capita of each province in 2021 from the National Bureau of Statistics is selected, which corresponds to the codes of each province in CSS 2021.

The mediator in this study is the sense of social fairness. In CSS 2021, the question for the measurement of sense of social fairness is “Do you think that there is a serious situation of unfair treatment in the following aspects in the society nowadays”. Specific questions were “occupation”, “family background”, “social relations”, “education level” and “age”. The answers “very serious”, “more serious”, “less serious” and “no such problem” were assigned values from 1 to 4 respectively. Factor analysis of the above four items, KMO test (0.797) and Bartlett’s test ( $p=0.000$ ) indicated the existence of a potential shared factor, namely “sense of social fairness”.

Based on existing research results, eight factors that may affect relative deprivation were selected as control variables, which are shown in Table 1.

**Table 1** Control variables

Variables	Types of variables	Values
Age	Continuous variable	/
Gender	Dummy variable	1 for male
		0 for female
Marital status	Dummy variable	Marital status equal to 1 means unmarried as opposed to divorced
		Marital status equal to 2 means married as opposed to divorced.
Income	Continuous variable	Logarithmic total household income in 2021
Education level	Continuous variable	/
Political profile	Dummy variable	Political profile equal to 1 means party members as opposed to the masses
		Political profile equal to 2 means league members as opposed to the masses
Household registration	Dummy variable	1 for rural households
		0 for urban households
Ethnicity	Dummy variable	1 for Han nationality
		0 for ethnic minorities

## 2.3. Model settings

In this study, models (1)-(3) were developed for analysis. Among them, models (1) and (2) tested the effects of economic development on relative deprivation and sense of fairness, respectively. Model (3) assesses the mediating effect of sense of fairness.

$$E_i = d_0 + d_1F_i + d_2H_i + \varepsilon_i \quad (1)$$

$$G_i = e_0 + e_1F_i + e_2H_i + \varepsilon_i \quad (2)$$

$$E_i = f_0 + f_1F_i + f_2G_i + f_3H_i + \varepsilon_i \tag{3}$$

In models (1)-(3),  $E_i$  denotes relative deprivation,  $F_i$  denotes economic development,  $G_i$  denotes the sense of fairness,  $H_i$  denotes control variables and  $\varepsilon_i$  is the error term. If  $f_2$  significant, there is a mediating effect. If  $f_1$  significant, there is an imperfect mediating effect, otherwise it is considered as a perfect mediating effect.

### 3. Empirical results

#### 3.1. Descriptive analysis of variables

The descriptive statistics of the variables are shown in Table 2. As can be seen from Table 2, the standard variance of relative deprivation is 1, indicating that there are differences in the level of relative deprivation among different residents.

**Table.2.** Descriptive statistics of key variables

Viriabes	Min	Max	Mean	SD
Relative deprivation	-3.225	1.419	0.000	1.000
GDP per capita	10.620	12.120	11.240	0.108
Sense of social fairness	-2.371	1.542	0.000	1.000
Income	4.610	15.500	11.202	0.997
Age	18	70	43.427	13.300
Gender	0	1	0.511	0.500
Marital status	1	3	2.628	0.730
Education level	1	9	4.500	2.190
Political profile	1	2	1.438	0.496
Ethnicity	0	1	0.928	0.259
Household registration	0	1	0.562	0.496

Before regression analysis, we conducted Pearson correlation analysis for all variables, and the results showed that the correlation coefficients between the variables are <0.4, thus ruling out the problem of multicollinearity.

#### 3.2. Regression analysis of economic development, relative deprivation and sense of social fairness

In this section, we investigate the relationship between GDP per capita and relative deprivation and the mediating effect that the sense of social fairness plays in it. The results are contained in Table 3.

**Table.3.** Regression results

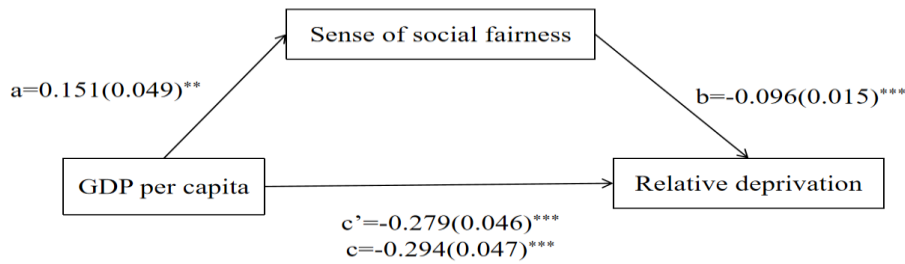
Variables	Model 1		Model 2		Model 3	
	Relative deprivation		Relative deprivation		Sense of social fairness	
	Coefficien t	P value	Coefficien t	P value	Coefficient	P value
Age	-0.010	0.000	-0.010	0.000	0.008	0.000
Gender	-0.064	0.033	-0.053	0.078	0.115	0.000
Marital dummy 1	-0.206	0.008	-0.212	0.006	-0.057	0.484
Marital dummy 2	-0.081	0.172	-0.079	0.181	0.021	0.742
Income	-0.209	0.000	-0.214	0.000	-0.056	0.002
Education level	-0.075	0.000	-0.077	0.000	-0.024	0.012
Political profile dummy 1	-0.112	0.014	-0.097	0.032	0.158	0.001
Political profile dummy 2	-0.043	0.504	-0.049	0.450	-0.056	0.417
Domicile dummy variable 1	0.121	0.000	0.130	0.000	0.087	0.012
Ethnicity	-0.084	0.142	-0.085	0.133	-0.014	0.813
GDP per capita	-0.294	0.000	-0.279	0.000	0.151	0.002
Sense of social fairness			-0.096	0.000		
F	61.924***		60.848***		17.501***	
R <sup>2</sup>	0.144		0.153		0.045	
Adjusted R <sup>2</sup>	0.141		0.150		0.043	
Sample size	4095		4095		4095	

\*p<0.5; \*\*p<0.01; \*\*\*p<0.001

The relationship between economic development and relative deprivation is assessed in Model 1 of Table 3. As can be seen from Model 1, economic development has a significant negative effect on relative deprivation (B=-0.294, SE=0.047, p<0.001), indicating that residents in areas with a higher level of economic development have a lower sense of relative deprivation. So, it is consistent with hypothesis H1.

The mechanism of social fairness between economic development and relative deprivation is explored in Model 2 of Table 3. As can be seen from Model 2, the sense of social fairness has a significant negative effect on the sense of relative deprivation (B=-0.096, SE=0.015, p<0.001), which means that higher levels of social fairness will reduce residents' relative deprivation. Meanwhile, the effect of economic development on relative deprivation is still significantly negative (B=-0.279, SE=0.046, p<0.001), and the absolute coefficient is reduced compared to model 1, which suggests that the sense of social fairness may mediate between economic development and relative deprivation. Model 3 in Table 3 shows that economic development has a significant positive effect on the sense of social relative fairness (B=0.151, SE=0.049, p<0.01), which means economic development can enhance the residents' sense of social fairness. As such, hypotheses H2 are verified, and the sense of social fairness play a partial mediating role between the level of regional economic development and the relative deprivation.

### 3.3. Analysis of the mediating effects of the sense of social fairness



**Figure 1.** Relationship between economic development, sense of social fairness and relative deprivation.

To further test the mediating role played by the sense of social fairness between the level of regional economic development and relative deprivation, we adopted the Process plug-in and analyzed it using the Bootstrap method. The level of regional economic development can significantly increase the residents' sense of social fairness ( $B=0.151$ ,  $SE=0.049$ , 95% CI [0.055, 0.248]), and a higher sense of social fairness can reduce relative deprivation ( $B=-0.096$ ,  $SE=0.015$ , 95% CI [-0.125, -0.067]). So, it is consistent with hypothesis H2. The relationship between economic development, sense of social fairness and relative deprivation can be represented in Figure 1.

## 4. Discussion and conclusion

The relation between economic development and social mentality is an important topic in academia. But as a social mentality, relative deprivation has been less studied, let alone the mechanisms behind it. In order to fill this gap, this study uses CSS 2021 data for empirical research.

First, this study finds that the higher the level of economic development, the lower the level of relative deprivation. With the development of the economy, the construction of public services in each region has been improved and the social resources have been enriched, which will effectively reduce residents' relative deprivation. This conclusion recognizes the achievements of China's high-quality economic development, through which the people's sense of gain, happiness and security is better guaranteed, and the social mentality has continued to improve. However, the conclusion also reflects the gap between different provincial regions. Regions with a higher economic level not only have a higher material level, but also a better social mentality among their residents, while regions with a lower economic level have a lower material level and a worse social mentality among their residents.

Secondly, the study found a partial mediating effect of social fairness between economic development and relative deprivation. This finding answers the controversial question about the impact of economic development on the sense of social fairness. The generally accepted theory on the influence of social fairness is the "structural determinism", which suggests that people with higher economic status are in a more favorable position in the distributional structure, thus they will recognize the reasonableness of the current distributional situation and have a higher sense of social fairness; conversely, people with lower economic status will have a lower sense of social fairness. Regions with higher levels of economic development have stronger financial resources, better infrastructure, more abundant external resources, and a relatively higher standard of living for their residents, therefore will have a higher level of sense of social fairness. Besides, in social environments with a weak sense of social fairness, residents are more likely to have a sense of falling short compared to other reference groups and a greater likelihood of relative deprivation; conversely, in social environments with a stronger sense of social fairness, individuals are less likely to have relative deprivation.

This study provides direct evidence that economic development improves residents' social mentality, but this positive effect is not universal, mainly because of China's uneven regional economic development. Residents in regions with lower levels of economic development are also more negative in their social mentality, which poses a challenge to the issue of social cohesion in China. Therefore, future research should explore more about the development of social mentality of

residents in regions with lower levels of economic development and promote the continuous improvement of residents in different regions.

## References

- [1] Bai Lu, Qiao Zhuang. Psychology, culture, and belief: the three-dimensional direction of core socialist values leading common prosperity in spiritual life [J]. *Studies on Core Socialist Values*, 2023, 9(04): 14-22.
- [2] Zhang Pan. Happiness inequality has a Kuznets-style relation with economic growth in China [J]. *Scientific Reports*, 2022, 12(1): 15712.
- [3] Xu Qi, He Guangye, Hu Jie. Marketization change and of perceptions about distributive justice in China:2005-2015 [J]. *Chinese Journal of Sociology*, 2020, 40(03): 88-116.
- [4] Xu Yanhui, Li Zhibin. Social quality and urban residents' sense of gain [J]. *Nankai Journal (Philosophy Literature and Social Science Edition)*, 2021(04): 169-181.
- [5] Zhao Sibao, Yan Wenqun, Tao Lifan, et al. The association between relative deprivation, depression, and youth suicide: evidence from a psychological autopsy study [J]. *OMEGA-Journal of Death and Dying*, 2023.
- [6] Jitlal M, Amirthalingam G N K, Karania T, et al. The influence of socioeconomic deprivation on dementia mortality, age at death, and quality of diagnosis: a nationwide death records study in England and Wales 2001-2017 [J]. *Journal of Alzheimer's Disease*, 2021, 81(1): 321-328.
- [7] Chen Zhuosheng, Ye Yonghao, Xing Hongmei, et al. The effect of family closeness on criminal attitudes among inmates: chain-mediated effects of relative deprivation and mental health [J/OL]. *China Journal of Health Psychology*, 2021.
- [8] Tao Chunhai, Xu Jun, Tao Ruoyan, et al. Influences of relative deprivation on health inequality of rural residents in China: a moderated mediation model [J]. *Frontiers in Psychology*, 2022.
- [9] Zhao Sibao, Peng Li. Feeling matters: perceived social support moderates the relationship between personal relative deprivation and depressive symptoms [J]. *BMC Psychiatry*, 2021, 21: 1-10.
- [10] Jusic M. You're better off than me: personality predictors of relative deprivation in youth [J]. *Československá Psychologie*, 2023, 67(5): 244-259.
- [11] Wang Jiangyan, Zhang Jiahao, Lin Han, et al. Economic development, weak ties, and depression: evidence from China [J]. *Journal of Affective Disorders*, 2023, 334: 246-257.
- [12] Wu Benjian, Shi Xue, Xiao Shihua. Can the inclusive digital finance alleviate rural multidimensional relative poverty [J]. *Journal of South China Normal University (Social Science Edition)*, 2022(03): 26-41+205.
- [13] Nordheim O, Martinussen P E. Happiness and the role of social protection: how types of social spending affected individuals' life satisfaction in OECD countries, 1980-2012 [J]. *Journal of International and Comparative Social Policy*, 2020, 36(1): 1-24.
- [14] Qiu Hui, Du Zhonglian. The multi-dimensional dilemmas of relative poverty governance and the construction of its mechanisms [J]. *Academic Exchange*, 2024(02): 143-157.
- [15] Yang Chengchen, Zhang Haidong, Zhou Tianran. Social mobility and the sense of social fairness of residents in Megacities—an introduction to the differences in the sense of social fairness between new social classes and institutionalized people [J]. *Fujian Forum (Humanities and Social Sciences Edition)*, 2023(12): 102-118.
- [16] Feng Xia, Su Zhenhua. The impact of economic development on the sense of social fairness—an analysis based on expectations of social mobility [J]. *Social Scientist*, 2021(05): 86-93.
- [17] Zhang Wenhong, Li Guixing. Education degree, marketization level and the people's sense of fairness [J]. *Social Science Front*, 2024(03): 176-187.
- [18] Wan Jin, Qin Mingyue, Zhou Wenjun, et al. Procedural justice, relative deprivation, and intra-team knowledge sharing: the moderating role of group identification [J]. *Frontiers in Psychology*, 2023.
- [19] Huang Yongliang. The perception of social fairness of middle-income group in the context of common prosperity: an empirical analysis based on CSS2021 Data [J]. *Academia Bimestris*, 2022(06): 150-157.