

# **Research Article**

# Study on the Heterogeneity of Social Security Affecting the Sense of Security of Urban and Rural Residents

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Social security is an important part of the national security system from the perspective of the overall security concept, and social security is an important influencing factor of social security. Using the CFPS2018 data, this study uses the critical weight method to measure residents' individual security and uses path analysis to empirically study the impact of endowment insurance and medical insurance on residents' security in urban and rural areas. The results show that the depth of endowment insurance has a significant positive impact on the sense of security of urban residents. The depth of meniscal insurance has no impact on the sense of security of urban residents. The depth of endowment insurance and medical insurance has a significant positive impact on the sense of security of urban residents. The depth of endowment insurance has a significant positive impact on the sense of security of urban residents. The influence of full sense is greater than that in rural areas, and the influence of meniscal insurance coverage depth on residents' sense of security in rural areas is greater than that in urban areas. Therefore, the impact of social security investment to urban and rural areas in a reasonable and balanced way to promote the overall sense of security of social residents. Integrate and improve the social security system and promote regional and group equity. Change the concept of government management, build a communication platform between the government and the people, and improve residents' subjective sense of security. We should continue to expand the coverage of the system, promote the coverage of basic social security projects, and improve the ability of urban and rural residents to cope with risks.

## 1. Introduction

In Maslow's hierarchy of needs theory, security needs are the premise of interpersonal communication and self-realization. People often face many uncertain risks in social life. Residents' low sense of security is not conducive to the harmonious and stable development of society. In the process of socialism with Chinese characteristics in the new era, President Xi emphasized the "overall national security concept." Social security is an important part of the national security system from the perspective of the overall security concept, and social security is an important influencing factor of social security. The social security system can ensure the economic security of individuals and meet the needs of individuals and their families to avoid lack of food, clothing, housing, medical treatment, and necessary social services. The report of the 19th CPC National Congress pointed out that socialism with Chinese characteristics in the new era should take enhancing the people's sense of gain, happiness, and security as the starting point of all work. Under the basic background of China's comprehensively deepening reform, the formulation, implementation, and performance evaluation of policies can no longer take the change of simple objective indicators as the judgment standard. The change of objective indicators is not equal to the change of social psychology. In order to meet the growing security needs of the people, it is more effective and realistic to use the sense of security to measure the scale and level of social security services. The lack of security will affect people's behavior choice and decision-making, make some people become risk averses and evaders, pay more attention to savings than consumption, and restrict economic development and the improvement of people's living standards. Another part of the people become speculators and choose to put all their eggs in one basket or change the current situation and future through speculation, which is not conducive to social stability and individual rapid development. At present, China's urban and rural economic development is unbalanced, resulting in huge differences in the level of social security enjoyed by urban and rural residents. We should coordinate the urban and rural social security system so that rural residents can enjoy the same treatment as urban residents. Therefore, it is of great significance to study whether social security, as a "social safety net," can protect and enhance the sense of national security, how to protect and enhance the sense of national security, and whether there is regional heterogeneity between urban and rural areas, so as to improve the social security system, enhance the sense of national security, promote economic development, and reduce the differences between urban and rural areas.

#### 2. Literature Review

Maslow believes that the sense of security refers to the feeling of confidence, security, and freedom separated from fear and anxiety and has compiled the sense of security insecurity questionnaire, which consists of 75 questions. Domestic research on the sense of security mainly focuses on the sense of occupational security and the sense of youth growth security. At present, most domestic scholars use their own definition and measurement indicators of sense of security. The 2018 "China urban public security" survey constructed subindicators of public security, including natural security, public facilities security, food security, social security, traffic security, public health security, ecological security, social security, and information security. The "survey report on the sense of security of China's urban social security" said that the survey designed the questionnaire and established indicators based on the residents' overall worry about social security, their worry about pension, meniscal, and social assistance, and the residents' behavior (whether to participate in a certain insurance or not). The measurement indicators are the overall sense of security of social security, the sense of security of the elderly, the sense of medical security, and the sense of security of social assistance. Yang and Yang [1] measured the sense of security through three indicators: sense of belonging, security needs, and determination of sense of control, to divide the impact of crisis events, government response, mEIPa response, individual emergency response ability, and group emergency psychology on the public sense of security. Zhou and Yin [2] studied the impact of urbanization on residents' sense of security by taking residents' evaluation of social security as a representative of residents' sense of security. Yang et al. [3] used four indicators to measure the sense of security: feeling afraid, feeling lonely, feeling sad, and feeling unfriendly to explore the impact of social insurance on the sense of security of working age population. In addition, the security scale with 16 topics compiled in [4] is widely used.

As a complex psychological perception, there are many influencing factors of people's sense of security. For example, Wang and Lai [5] have proved that the functional identity of community safety management and the recognition of community residents' quality of life have a significant impact on the sense of security of community residents. Wu and Wang [6] studied the impact of their own or family experience, the allocation level of police resources, and negative mEIPa reports on the public's sense of security. Qing [7] mentioned that the social security system is the pillar force and the most important security mechanism to enhance China's national security. Among them, the research results on the impact of social security on the sense of security include that the increase of social security expenditure will reduce people's sense of insecurity, which is reflected in reducing people's sense of job insecurity and income insecurity (van orschot, 2015). Endowment insurance has a significant positive effect on the elderly's sense of security in rural areas, but it is not robust [8].

Although many studies have discussed which factors affect the sense of security, there are few articles focusing on the impact of social security on the sense of security, and there are few discussions on the heterogeneity between urban and rural areas. In general, the existing studies have different definitions and measurement indicators of sense of security, and there are few empirical studies to directly verify the impact of social insurance on sense of security. In view of this, this study focuses on whether there is urban-rural heterogeneity in the impact of social security on national security and defines security as an individual's subjective understanding and evaluation of their own security state, which can reflect their quality of life and state and reflect their risk awareness and anxiety. Using the data of China Household tracking survey (CFPS), five indicators of residents' happiness, life satisfaction, institutional identity, future confidence, and social trust are selected to measure their sense of security, and the path analysis method is used to study the urban-rural heterogeneity of the impact of social security on their sense of security.

#### 3. Data Source and Model Construction

*3.1. Data Source.* The research data of this study comes from the data of China Household tracking survey (CFPS) in 2018. The survey includes 25 provinces (autonomous regions and municipalities) in China. Considering that the original data may have statistical errors that affect the analysis results, the samples are processed as follows before empirical analysis: the samples with missing values in various variables are excluded, and the samples with inapplicability caused by questionnaire answers are excluded; excluding registered residence, it is a sample which does not belong to agricultural household accounts and nonagricultural accounts. After data processing, a total of 25206 sample data are retained in this study, including 6003 urban sample and 19203 rural sample.

*3.2. Model Construction.* The explanatory variable of this study is "sense of security," which is not directly expressed in the data of Chinese family tracking survey. Therefore, five

indicators of residents' happiness, life satisfaction, institutional identity, future confidence, and social trust are preliminarily selected, and the critical weight method is used to determine the weight of each indicator and assign a value to "sense of security." The critical weight method is an objective evaluation method. When there is correlation and data volatility between data, the critical weight method can be used for comprehensive evaluation. The idea is to use it for two indicators: contrast intensity and conflict index. The contrast intensity is expressed by standard deviation. If the standard deviation of the data is larger, the fluctuation is larger and the weight will be higher. The conflict is expressed by the correlation coefficient. If the correlation coefficient between indicators is larger, it means that the conflict is smaller, and its weight is lower. When calculating the weight, the contrast intensity is multiplied by the conflict index and normalized to obtain the final weight.

China's social security system includes social insurance, social welfare, preferential treatment and resettlement, social assistance, and housing security. Social insurance is the core part of the social security system, including endowment insurance, unemployment insurance, medical insurance, industrial injury insurance, and maternity insurance. Among them, endowment insurance and medical insurance are the most universal, so endowment insurance and hospital insurance are selected to represent social insurance.

In order to study the pension insurance and medical insurance participation on the sense of security of urban and rural residents, this study uses path analysis to study the impact relationship of the model. The path analysis model can be regarded as a simplified structural equation model. Since the data of the study are not the data of Likert scale, we choose to assign values to the variables and establish a structural model to study the impact of endowment insurance and medical insurance on residents' sense of security.

Although path analysis and simple linear regression analysis can study the influence relationship between the two variables, however, the linear regression analysis can only have one dependent variable at a time, and the path analysis can analyze the influence relationship between multiple independent variables and multiple dependent variables at the same time. Therefore, using path analysis can better verify and test the multicause and multieffect relationship between each dimension index in this study.

First, establish the model. Then, verify the model assumptions and adjust the model. In the process of establishing the model, the influence relationship between the variables in the model is studied, and the assumptions between the variables in the model are verified. Finally, the model is analyzed, as shown in Figure 1 and Table 1.

#### 4. Model Estimation Results

4.1. The Influence of Endowment Insurance on the Sense of Security (City). It can be seen from Table 2 that, in urban areas, gender, marital status, education level, and health status have a significant positive impact on pension insurance participation, age has a significant negative impact on pension insurance participation, and political outlook and



FIGURE 1: "Sense of security" path analysis model.

TABLE 1: Variable definition.

Variable name	Label
AGE	Age
GEN	Gender
MAS	Marital status
EDU	Education level
PTS	Political status
RGB	Religious belief
PSC	Physical condition
EIP	Endowment insurance participation
MIP	Medical insurance participation
SSY	Sense of security

religious belief have no impact on pension insurance participation. Age, marital status, education level, political outlook, and health status have a significant positive impact on the sense of security, gender has a significant negative impact on the sense of security, and religious belief has no impact on the sense of security. In addition, when pension insurance has an impact on the sense of security, the standardized path coefficient is 0.039 > 0, and this path shows a significant level of 0.01 (z = 2.777 and P = 0.005 < 0.01), which shows that pension insurance will have a significant positive impact on the sense of security.

4.2. The Influence of Medical Insurance on the Sense of Security (*City*). It can be seen from Table 3 that, in urban areas, age, marital status, education level, and political outlook have a significant positive impact on medical insurance participation, while gender, health status, and religious belief have no impact on medical insurance participation. Age, marital status, education level, political outlook, and health status have a significant positive impact on the sense of security, gender has a significant negative impact on the sense of security, and religious belief has no impact on the sense of security. In addition, when medical insurance has an impact on the sense of security, this path does not show significant (z = 0.885 and P = 0.376 > 0.05), which shows that medical insurance has no impact on the sense of security.

4.3. The Influence of Endowment Insurance on the Sense of Security (Rural). It can be seen from Table 4 that, in rural areas, gender, marital status, and religious belief have a

Х	$\longrightarrow$	Y	Nonstandardized path coefficient	SE	Z	р	Standardized path coefficient
AGE	$\longrightarrow$	EIP	-0.011	0.001	-20.081	0.000	-0.360
AGE	$\longrightarrow$	SSY	0.001	0.000	2.887	0.004	0.059
GEN	$\longrightarrow$	EIP	0.079	0.012	6.772	0.000	0.078
GEN	$\longrightarrow$	SSY	-0.015	0.005	-2.852	0.004	-0.036
MAS	$\longrightarrow$	EIP	0.195	0.015	13.210	0.000	0.154
MAS	$\longrightarrow$	SSY	0.024	0.007	3.550	0.000	0.046
EDU	$\longrightarrow$	EIP	0.031	0.005	6.408	0.000	0.114
EDU	$\longrightarrow$	SSY	0.016	0.002	7.232	0.000	0.142
PTS	$\longrightarrow$	EIP	0.039	0.041	0.940	0.347	0.011
PTS	$\longrightarrow$	SSY	0.039	0.019	2.110	0.035	0.027
RGB	$\longrightarrow$	EIP	0.021	0.013	1.627	0.104	0.019
RGB	$\longrightarrow$	SSY	-0.007	0.006	-1.292	0.196	-0.016
PSC	$\longrightarrow$	EIP	0.011	0.005	2.066	0.039	0.025
PSC	$\longrightarrow$	SSY	0.032	0.002	12.767	0.000	0.169
EIP	$\longrightarrow$	SSY	0.016	0.006	2.777	0.005	0.039
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TABLE 2: Estimated results of the impact of endowment insurance on the sense of security (city).

Note:  $\longrightarrow$  indicates the path influence relationship.

TABLE 3: Estimated results of the impact of medical insurance on sense of security (city).

Х	$\longrightarrow$	Y	Nonstandardized path coefficient	SE	Z	р	Standardized path coefficient
AGE	$\longrightarrow$	MIP	0.003	0.001	5.451	0.000	0.109
AGE	$\longrightarrow$	SSY	0.001	0.000	2.194	0.028	0.043
GEN	$\longrightarrow$	MIP	0.018	0.011	1.606	0.108	0.021
GEN	$\longrightarrow$	SSY	-0.014	0.005	-2.637	0.008	-0.033
MAS	$\longrightarrow$	MIP	0.108	0.014	7.763	0.000	0.101
MAS	$\longrightarrow$	SSY	0.027	0.007	3.964	0.000	0.051
EDU	$\longrightarrow$	MIP	0.027	0.005	5.943	0.000	0.118
EDU	$\longrightarrow$	SSY	0.016	0.002	7.392	0.000	0.145
PTS	$\longrightarrow$	MIP	0.096	0.039	2.476	0.013	0.032
PTS	$\longrightarrow$	SSY	0.039	0.019	2.114	0.035	0.027
RGB	$\longrightarrow$	MIP	0.011	0.012	0.922	0.356	0.012
RGB	$\longrightarrow$	SSY	-0.007	0.006	-1.244	0.214	-0.016
PSC	$\longrightarrow$	MIP	0.003	0.005	0.635	0.525	0.009
PSC	$\longrightarrow$	SSY	0.032	0.002	12.830	0.000	0.170
MIP	$\longrightarrow$	SSY	0.006	0.006	0.885	0.376	0.011

Note:  $\longrightarrow$  indicates the path influence relationship.

significant positive impact on pension insurance participation, age, education, and health status have a significant negative impact on pension insurance participation, and political outlook has no impact on pension insurance participation. Age, marital status, education level, and health status have a significant positive impact on the sense of security, religious belief has a significant negative impact on the sense of security, and gender and political outlook have no impact on the sense of security. In addition, when pension insurance has an impact on the sense of security, the standardized path coefficient is 0.022 > 0, and this path shows a significant level of 0.01 (z=2.942 and P=0.003 < 0.01), which shows that pension insurance will have a significant positive impact on the sense of security.

4.4. The Influence of Medical Insurance on the Sense of Security (*Rural*). It can be seen from Table 5 that, in rural areas, age, marital status, and education level have a significant positive impact on medical insurance participation, while gender, political outlook, health status, and religious belief have no

impact on medical insurance participation. Age, marital status, education level, political outlook, and health status have a significant positive impact on the sense of security, gender has a significant negative impact on the sense of security, and religious belief has no impact on the sense of security. In addition, when medical insurance has an impact on the sense of security, the standardized path coefficient is 0.027 > 0, and this path shows a significant level of 0.01 (z = 3.776 and P = 0.000 < 0.01), which shows that medical insurance will have a significant positive impact on the sense of security.

#### 5. Robustness Check

In order to ensure the robustness of the empirical research results, this study further considers the problems of sampling error and index measurement error. On the one hand, in order to avoid the generation of extreme values, the samples with a sense of security greater than 0.9 are deleted and re-regressed, but the basic conclusion of this study is not changed. On the other hand, in order to avoid the

#### Complexity

Х	$\longrightarrow$	Y	Nonstandardized path coefficient	SE	Z	р	Standardized path coefficient
AGE	$\longrightarrow$	EIP	-0.009	0.000	-26.625	0.000	-0.272
AGE	$\longrightarrow$	SSY	0.001	0.000	10.420	0.000	0.110
GEN	$\longrightarrow$	EIP	0.036	0.007	5.077	0.000	0.036
GEN	$\longrightarrow$	SSY	-0.000	0.003	-0.083	0.934	-0.001
MAS	$\longrightarrow$	EIP	0.223	0.009	23.782	0.000	0.171
MAS	$\longrightarrow$	SSY	0.018	0.004	4.287	0.000	0.032
EDU	$\longrightarrow$	EIP	-0.028	0.004	-7.346	0.000	-0.075
EDU	$\longrightarrow$	SSY	0.026	0.002	15.934	0.000	0.165
PTS	$\longrightarrow$	EIP	0.019	0.038	0.504	0.614	0.004
PTS	$\longrightarrow$	SSY	0.018	0.016	1.113	0.266	0.008
RGB	$\longrightarrow$	EIP	0.029	0.008	3.458	0.001	0.024
RGB	$\longrightarrow$	SSY	-0.018	0.004	-4.942	0.000	-0.035
PSC	$\longrightarrow$	EIP	-0.012	0.003	-4.061	0.000	-0.030
PSC	$\longrightarrow$	SSY	0.026	0.001	20.525	0.000	0.153
EIP	$\longrightarrow$	SSY	0.009	0.003	2.942	0.003	0.022

TABLE 4: Estimation results of the impact of endowment insurance on sense of security (rural).

Note:  $\longrightarrow$  indicates the path influence relationship.

TABLE 5: Estimated results of the impact of medical insurance on sense of security (rural).

Х	$\longrightarrow$	Y	Nonstandardized path coefficient	SE	Z	р	Standardized path coefficient
AGE	$\longrightarrow$	MIP	0.002	0.000	7.333	0.000	0.077
AGE	$\longrightarrow$	SSY	0.001	0.000	9.833	0.000	0.102
GEN	$\longrightarrow$	MIP	0.005	0.004	1.107	0.268	0.008
GEN	$\longrightarrow$	SSY	-0.000	0.003	-0.005	0.996	-0.000
MAS	$\longrightarrow$	MIP	0.099	0.006	16.627	0.000	0.123
MAS	$\longrightarrow$	SSY	0.018	0.004	4.371	0.000	0.032
EDU	$\longrightarrow$	MIP	0.017	0.002	6.909	0.000	0.072
EDU	$\longrightarrow$	SSY	0.026	0.002	15.595	0.000	0.161
PTS	$\longrightarrow$	MIP	0.045	0.024	1.887	0.059	0.014
PTS	$\longrightarrow$	SSY	0.017	0.016	1.072	0.284	0.008
RGB	$\longrightarrow$	MIP	0.010	0.005	1.851	0.064	0.013
RGB	$\longrightarrow$	SSY	-0.018	0.004	-4.921	0.000	-0.035
PSC	$\longrightarrow$	MIP	-0.002	0.002	-1.210	0.226	-0.009
PSC	$\longrightarrow$	SSY	0.026	0.001	20.482	0.000	0.153
MIP	$\longrightarrow$	SSY	0.018	0.005	3.776	0.000	0.027

Note:  $\longrightarrow$  indicates the path influence relationship.

measurement error of the sense of security index and ensure the good quality of the measurement relationship, the exploratory factor analysis and confirmatory factor analysis are carried out on the five indexes of the sense of security. The results show that the measurement relationship is good.

#### 6. Conclusions and Policy Recommendations

6.1. Conclusions. Using the data of China's household tracking survey in 2018, this study explores the impact of social security (endowment insurance and medical insurance) on the sense of security of urban and rural residents. The empirical results show the following. (1) The depth of pension insurance has a significant positive impact on the sense of security of urban residents, and the depth of medical insurance has no impact on the sense of security of urban residents. This shows that promoting the development of endowment insurance is conducive to improving the sense of security of urban residents. (2) In rural areas, the depth of

pension insurance and medical insurance has a significant positive impact on the sense of security. This shows that there is significant heterogeneity in the impact of medical insurance on the safety of urban and rural residents. In the process of promoting the development of social security in rural areas, we should focus on the development of medical insurance. (3) For every one standard deviation increase in the depth of pension insurance, the sense of security of residents in urban areas will increase by 0.039 standard deviations and that of residents in rural areas will increase by 0.022 standard deviations. (4) For every 1 standard deviation increase in the depth of medical insurance, the sense of security of residents in urban areas will increase by 0.011 standard deviation and that of residents in rural areas will increase by 0.027 standard deviation. (5) Whether in urban or rural areas, age has a significant negative impact on the participation of old-age insurance, indicating that there is a gap in the coverage of China's old-age insurance system for the elderly population.

6.2. Policy Recommendations. First, integrate and improve the social security system to promote regional equity and group equity. Among the various problems faced by the development of social security in China, the unfairness between groups and regions has always been the focus of attention of the society, the government, and the masses. Although China has unswervingly promoted the integration and improvement of relevant systems at the practical level to realize the relative balance and fairness of systems and treatment among groups, the differences in social security sense between regions and groups are still common. We should start with the top-level design, reasonably and evenly distribute the limited social security investment to urban and rural areas, and promote the balanced improvement of the overall sense of security of social residents. Second, change the concept of government management, build a communication platform between the government and the people, and improve the subjective sense of security of residents. For a long time, government departments are used to measure the development performance of social security in a certain area through objective indicators and relatively ignore the subjective needs, feelings, and evaluation of the security objects. In fact, whether the social security system provides citizens with a sufficient sense of psychological security is also an important indicator to measure the development of social security in our country. Residents' ignorance, incomprehension, or misinterpretation of their own social security policies will directly affect residents' value judgment of systems and policies and their sense of security. Therefore, the relevant departments of social security actively build a communication platform between the government, society, and people, and actively, timely, and effectively understand the people's psychological perception. Third, continue to expand the coverage of the system, promote the full coverage of basic social security projects, and improve the ability of urban and rural residents to cope with risks. At present, China's basic social security projects, such as the participation rate of old-age insurance, still have a certain gap from covering the whole people. Therefore, local governments must pay attention to continuously expanding the coverage of the social security system.

#### **Data Availability**

The experimental data used to support the findings of this study are available from the corresponding author upon request.

# **Conflicts of Interest**

The authors declare that they have no conflicts of interest to report regarding the present study.

#### References

 J. Yang and M Yang, "Research on the influencing factors and Governance Countermeasures of public security in major emergencies -- an Empirical Analysis Based on the public security in the 4.20 Ya'an earthquake," *Exploration*, no. 1, pp. 172–179, 2016.

- [2] J. Zhou and Y. Yin, "Impact of urbanization on Residents' sense of security," Urban development research, vol. 27, no. 4, pp. 14–20, 2020.
- [3] Y. Yang, H. Jia, and K. Zhan, "Research on the impact of social insurance on the "sense of security" of working age population," *China Population Science*, vol. 127, no. 2, pp. 44–55, 2020.
- [4] "Among the bushes, Ann Lijuan Preliminary preparation and reliability and validity test of sense of security scale," *Chinese Journal of mental health*, no. 2, pp. 97–99, 2004.
- [5] W. Wang and T Lai, "An empirical study on the influencing factors of community residents' sense of security -- Based on the survey in Shanghai," *Xuebai*, vol. 77, pp. 06–2, 2020.
- [6] K. Wu and K Wang, "Study on the influencing factors of urban public security -- Taking m District of Haikou City as an example," *Journal of Guangzhou University (SOCIAL SCIENCE* EDITION), vol. 15, no. 8, pp. 24–30, 2016.
- [7] L. Qing, "where does Chinese people's sense of security come from," *People's forum*, no. 10, pp. 15–17, 2018.
- [8] J. Ding and Y. Tong, "Sources of social support, social security and the sense of security of the elderly in rural areas," *Journal of agriculture and forestry economics and management*, vol. 13, no. 5, pp. 544–550, 2014.