

## Study on the Time Differentiation of the Income and Expenditure Structure of the Rural Relative Poor Residents in Guangxi

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### Abstract

In order to grasp the time change characteristics of the income and expenditure structure of rural relative poverty in Guangxi and promote the development of anti-poverty. Based on the data of China Family Panel Studies in 2010, 2012, 2014, 2016 and 2018, the time change trend and characteristics of income and expenditure structure of relatively poor rural residents in Guangxi are studied by using A-F method and kernel density estimation. It is found that the main income sources of relatively poor rural residents in Guangxi are wage income, operating income and transfer income. Wage income accounts for the largest proportion, the proportion of operating income decreases rapidly and lower than the transfer income finally. However, the proportion of property income is extremely small. The consumption structure is mainly survival consumption, which is gradually transferred to development consumption, and the Engel coefficient is biased towards the well-off level. In this regard, in order to optimize the income and expenditure structure, we propose to guide the transfer of rural labor force to urban non-agricultural industries orderly ; Improve the government's Rural Agricultural transfer payment policy system, and support the development of the new agricultural operating entities; Adhere to the guidance of market-oriented reform and promote the reform of rural collective property right system; Improve the rural consumption environment.

### Keywords

Income and Expenditure Structure; Relative Poverty; Kernel Density Analysis; Anti-Poverty.

### 1. Introduction

The overall well-off is a key step for the Chinese nation to move toward great rejuvenation, and it is also an important part of China's "four comprehensive" strategic layout. In the process of moving towards a well-off society in all aspects, China's rural per capita disposable income and consumption expenditure continue to increase, according to China's current poverty identification standards, the number of rural poor people in the country has decreased from 98.99 million in 2012 to 5.51 million in 2019, and to achieve comprehensive poverty alleviation in 2021, the largest poverty reduction project in human history has been victorious, and it also marks the beginning of a new stage of anti-poverty work.

Sustained growth in rural income is one of the important factors in preventing the trend of returning to poverty, but focusing only on income growth and ignoring the rationality of the structure of income and expenditure cannot ensure the high quality of anti-poverty work. The existing literature shows that the macro overall income growth and the micro level of the household income structure change are conducive to solving the problem of poverty, and the existing literature can be divided into four categories: the internal correlation study of the income and expenditure structure, the correlation between the structure and poverty reduction,

the study of the influencing factors of the income and expenditure structure and the geographical gap of the income and expenditure structure. In the study on the internal correlation of income and expenditure structure. Wang Zhiyong (2012) analyzed the linear regression relationship between the income structure of rural residents, the consumption structure, and the income and total consumption in China[1]. Gong Shien (2013) analyzed the linear regression relationship between the income structure of rural residents in China and food consumption and non-food consumption[2]. In the study on the correlation between the structure of income and expenditure and poverty reduction, Li Mingqiao (2016) and Jiang Kezhong (2017) studied the impact of changes in the income structure of mountain residents in Guizhou and rural residents in China on the depth and intensity of poverty[3][4]; Zhang Xuepeng and Sun Mingyu (2020) compared the relationship between the poverty reduction effect of different types of income increases of poor and non-poor farmers in China and the initial income level of farmers [5]. The study on the influencing factors of income and expenditure structure mainly reveals the factors that affect the absolute value of a certain component of income and expenditure. For example, Li Dong and Wan Junyi (2021) analyzed the influencing factors of rural household operating income, and the results showed that land type, land assets, agricultural machinery value and input of productive fixed investment had a significant impact on the operating income of peasant families [6]. In the study of the regional gap between income and expenditure structure. Zhu Wei, Wang Xiaowen (2010), Wang Mengsi and Liu Hongguang (2015) respectively compared the inter-provincial rural income structure and income gap in China and the income structure and regional differences of rural residents in China from 1990 to 2012, and concluded that the income gap between different regions and provinces showed an enlarging trend[7][8]. Starting from the structure of rural household income and expenditure, the above literature studies its change characteristics, spatial differences and correlation with poverty, and draws a series of scientific results and policy suggestions, showing the practical significance of the analysis of the household income and expenditure structure of residents in national and regional provinces to guide anti-poverty practice.

Therefore, based on Guangxi Zhuang Autonomous Region, this paper uses the idea of relative poverty to screen microscopic research objects, takes time change as the research clue, and uses the kernel density estimation method to analyze the changes in the income and expenditure structure of relatively poor residents in rural Guangxi, in order to reveal the change characteristics of the income and expenditure of relatively poor residents in rural Guangxi and the internal distribution differences of consumption structure in the process of anti-poverty, and contribute to the anti-poverty work in the new stage of rural areas in Guangxi.

## 2. Regional Profiles and Study Design

### 2.1. Regional Overview

Guangxi is located in the southwest region of China, the region is distributed in a variety of mountainous, hills and basins, is the main gathering area of ethnic minorities such as the Zhuang ethnic group, the ethnic minority population accounts for 37% of the total population of the region. At the same time, Guangxi is also a key area for poverty alleviation and development in China, with a GDP of nearly 2.5 trillion yuan in 2021, ranking 19th in China, and all poor counties in the autonomous region were lifted out of poverty in the same year. However, the incidence of poverty in Guangxi was 2.3 times that of the whole country before it was lifted out of poverty. Therefore, after the realization of comprehensive poverty alleviation, Guangxi's new stage of anti-poverty work is still a long way to go.

## 2.2. Data Sources

The research data was selected from the micro-family data samples of 2010, 2012, 2014, 2016 and 2018 in the China Family Panel Studies (CFPS), which contained three levels of individuals, families and communities in different provinces in China, involving social, economic, educational, health and other dimensions, as well as subjective self-evaluation and objective information. The content of the data will facilitate the identification of relative poverty in micro-household samples and the acquisition of corresponding information on the structure of income and expenditure. The China Family Panel Studies divides the income structure into wage income, operating income, property income, transfer income and other income (gift money and income reported in "other income"), and the expenditure structure is divided into food, housing, transportation, clothing, household equipment and daily necessities and services, culture, education and entertainment expenditure, medical care expenditure, and other expenditure. In addition to "other income", the classification standard is the same as the statistical classification of China's Bureau of Statistics, and the following will analyze the income and expenditure structure of relatively poor residents in rural Guangxi based on the classification standard of CFPS.

## 2.3. Research Methodology

### 2.3.1. A-F Double Critical Value Method

In order to screen the relatively poor household samples in the sample population, the A-F double critical value method was used to identify the relatively poor residents in the selected samples who met the identification indicators. In the double threshold, the first threshold represents the poverty determination value of each indicator to determine whether the family sample has poverty on the indicator; Another cut-off value delineates the limit on the number of indicators showing the state of poverty in the sample, measuring whether the household sample has poverty in multiple indicator dimensions, that is, whether it is multidimensional poverty.

### 2.3.2. Non-parametric Kernel Density Estimation

The non-parametric kernel density estimation method is used to analyze the time change trend of the income and expenditure structure, which has little dependence on the model, and the result stability is strong, which can show the advantages of the overall distribution pattern of the sample compared with the ordinary line chart. Kernel density estimation uses a continuous density curve to express the internal distribution pattern of the income and expenditure structure of poor rural residents in Guangxi, and comparing the kernel density curves of samples of different years can reveal the dynamic evolution characteristics of the income and expenditure structure of poor rural residents in Guangxi, and the formula is:

$$f(x) = \frac{1}{nh} \sum_{i=1}^n K\left(\frac{x_i - \bar{x}}{h}\right)$$

wherein,  $n$  is the sample size of the current year,  $x_i$  is the proportion of a certain income or expenditure structure of the  $i$ th sample unit, and  $\bar{x}$  is the mean of the proportion of a certain income or expenditure structure in the current year;  $K(U)$  and  $h$  represents the kernel function and window width respectively, using the default kernel function and bandwidth of the stata16 software.

### 3. Relative Poverty Sample Identification

According to the existing Data of China Family Panel Studies, the samples of rural families in Guangxi with complete family member information in five years were sorted out, and the sample sizes that met the conditions in each year are shown in the following table:

**Table 1.** Sample households and number of people

Year	2010	2012	2014	2016	2018
Household	71	119	88	96	82
Population	253	417	293	369	243

In addition to measuring whether a family is poor by income level, the multidimensional poverty indicator introduces other dimensions that reflect the living conditions of the family, and when a family indicator falls below the threshold value, it is considered to have relative poverty in that dimension. In recent years, the multi-dimensional relative poverty studies have expanded from the income and expenditure dimension to the ability poverty, including the ability to obtain food, clothing, housing, action, education, health, social participation and other functional activities, this paper refers to the multidimensional relative poverty identification dimension proposed by Lei Tin (2021) [9], sets the corresponding deprivation threshold, and the indicator system is shown in Table 2:

**Table 2.** Multidimensional poverty indicator system

Dimension	Indicators	Deprivation critical value
Economic conditions	Annual net income per capita of the household	The per capita annual net income of households is below the national poverty line of the year, which is considered to be poor on this indicator
Health status	Catastrophic household health care expenditures	In the previous year, the proportion of household medical expenditure to household net income was greater than or equal to 0.4
Educational level	The level of education of young people from families (18-29 years old).	Those who have had less than 9 years of schooling are considered to be poor on that indicator
standard of living	Housing value	Housing values below 40 per cent of the local median value were considered poor on that indicator
	Furniture durables value	The value of furniture durable goods is less than 40% of the local median value of furniture durable goods, which is considered poor on this indicator
Social development capacity	Labor level	Families without a healthy young adult labour force are considered poor on this indicator

Taking multidimensional poverty index system as the standard, the critical value of selected deprivation is equal to 1, which means only one dimension is needed to exceed the critical value to be considered as a relatively poor family. The relative poverty measurement of selected rural sample families in Guangxi is carried out to screen out the number of sample families with a single dimension of relative poverty and the number of covered population in each year, as shown in Table 3:

**Table 3.** Sample number of households and population in single dimension poverty

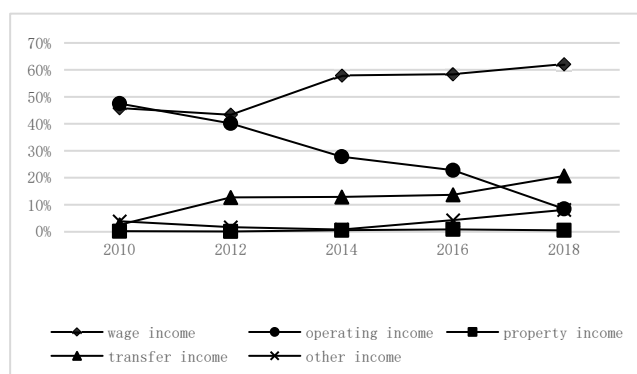
Year	2010	2012	2014	2016	2018
Household	51	60	61	57	48
Population	168	176	186	188	106

#### 4. Descriptive Analysis of Time Variation of Income and Expenditure Structure

In order to better show the overall situation and change trend of income and expenditure structure, the following line graph reflects the proportion change of income and expenditure structure in five years, and then relying on non-parametric kernel density method. The data of 2010, 2014 and 2018 were selected to judge the dynamic evolution trajectory, differences and trend characteristics of different income and expenditure types (as "other income" refers to gift and income reported in the category of "other income", however the act of giving gifts is random, so the kernel density distribution of "other income" is not analyzed below).

##### 4.1. Temporal Characteristics of Income Structure

Family samples with single-dimension relative poverty were screened out through the multidimensional poverty index system, and the income and expenditure information of family samples was complete in the China Family Panel Studies, which provided effective data for explaining the characteristics of income and expenditure change of rural relative poor families in Guangxi, and obtained the overall trend of income structure change, as shown in the figure below:

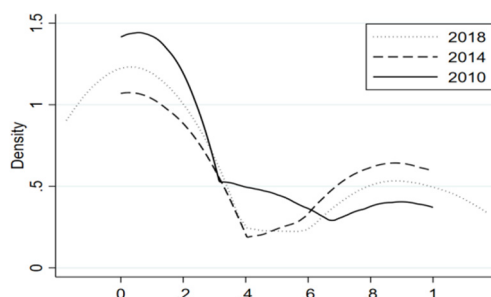


**Figure 1.** Changes in the proportion of income structure in rural sample households in Guangxi

The chart shows the change trend of the proportion of five income structures over the past 8 years. In general, different income structures show different importance in different years. In 2010, the proportion from large to small was operating income, wage income, transfer income, other income and property income, and it changed to transfer income, wage income, operating income, other income and property income in 2018. Among them, wage income, operating income and transfer income have been translocated, but they are still important sources of income for relatively poor residents. Among the five types of income, property income shows a gentle fluctuation trend over time, and its relative proportion remains stable and extremely low, approximately 1%. The proportion of wage income, transfer income, other income and operating income has a large change, the former three showed an upward trend, the proportion of wage income increased from 46% to 61%, has occupied an absolute position in the total income; Transfer income increased from 3% to 21%, and other income increased from 5% to 8%; The relative share of operating income continued to fall from 48% to about 10%.

Comparing the relative poor family sample with the income structure of rural residents in Guangxi, both of them show the same trend of change, but the trend of the micro family sample data changes more widely, and there is a translocation of different income structures, reflecting the special situation that the income and expenditure structure of relative poor families changes over time.

#### 4.1.1. Temporal Characteristics of Wage Income



**Figure 2.** Kernel density distribution of wage income proportion in rural samples of Guangxi

In terms of shape, the kernel density curve of the wage income proportion of relatively poor rural families in Guangxi in the three years presents an obvious "double peak" state, and the wage income proportion shows a trend of differentiation on both sides of the high ratio and low ratio, and there is a large gap between the wage income proportion of different sample families. In terms of the general trend, the density of the kernel density curve decreases in the low specific gravity region, while the density of the kernel density curve increases in the high specific gravity region. The density of households in the lower and middle level of wage income decreased, while the density of households in the higher level of wage income increased, reflecting the increasing importance of wage income in the income source of relatively poor families, the income of more rural relatively poor families will tend to be dominated by wage income. This is related to the background of a large loss of rural labor force in the current era. In 2019, the total number of migrant workers was 290 million, an increase of 2.41 million over the previous year. From 2015 to 2019, the number of migrant workers increased at an average rate of 1.09%, and the wage income of this group increased steadily. By 2019, the national average monthly income of migrant workers was 3802 yuan [10]. The proportion of wage income in the total income of rural poor families is rising and the gap with other types of income is increasing.

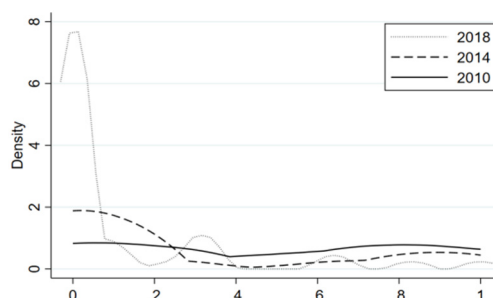
From the perspective of internal factors, the phenomenon of large wage income gap is related to the index system of identifying relatively poor families. Wage income mainly includes the stable and temporary wage income that farmers get from out-migrating for work. According to the sample data, when some families show the characteristics of developmental poverty, this part of the family labor force is in poor health or old age. Most of these households derive their income from transfer payments and other income. A small number of households rely on operational income sources, so the proportion of wage income in some sample households is low and the distribution is highly differentiated.

#### 4.1.2. Temporal Characteristics of Operating Income

The kernel density curve of operating income changed greatly in the selected three years, from a flat curve in 2010 to a "single-peak" curve with a right-skewed distribution in 2018. The kernel density curve changed from a flat curve to a steep curve, indicating that the differences in the proportion of operating income among relatively poor families narrowed. In 2010, the dispersion of the proportion of operating income gradually concentrated to the left region with low proportion. The narrowing of the gap in the proportion of operating income of rural



relatively poor families was accompanied by a general decline in the proportion of operating income.

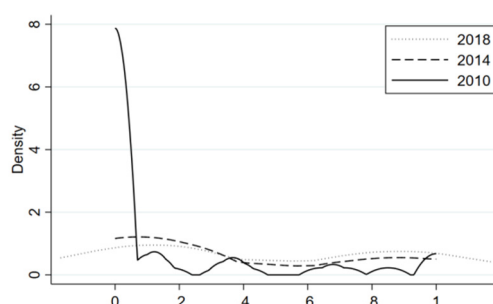


**Figure 3.** Kernel density distribution of operating income in rural samples of Guangxi

For this phenomenon, Li Dong et al. conducted a study on the influencing factors of rural relative poor households' operating income and found that labor force, health status of household head, province and land type of the family have a significant impact on rural households' operating income [6]. In defining the rural relative poor population in Guangxi, this paper introduces the identification standards of the health level of the family labor force and the medical expenses of the family, which are related to the quantity and quality of the family labor force. Some of the families in the sample lack healthy labor force, and a large number of rural labor force devote themselves to other industries to obtain wage income, which will have a large negative impact on the family operating income. The geographical distribution of Guangxi also has its own characteristics. Belonging to the typical karst landform, there is serious rock desertification phenomenon in Guangxi, covering 37.8% of the land, and the distribution is more concentrated in the northwest, southwest and a small part of the central Guangxi; At the same time, southeastern Guangxi is plagued by the lack of plains, which makes large-scale farming impossible [11]. Guangxi rural planting industry accounts for about 60% of the primary industry production, and it is also the main source of the rural primary industry [12]. Therefore, inappropriate farming conditions, lack of healthy labor force and higher wage income attraction lead to a continuous and rapid decline in the proportion of operating income of the sample relative poor families, which also confirms that poor families have the highest proportion of wage income in western China due to poor production and operation conditions [5].

**4.1.3. Temporal Characteristics of Transfer Income**

In 2010, the kernel density curve of the proportion of transfer income showed a right-skewed distribution, which changed from steep to gentle over time, and gradually became uniform and dispersed from the highly concentrated state, which means the gap of transfer income among the relatively poor families in rural areas increased.



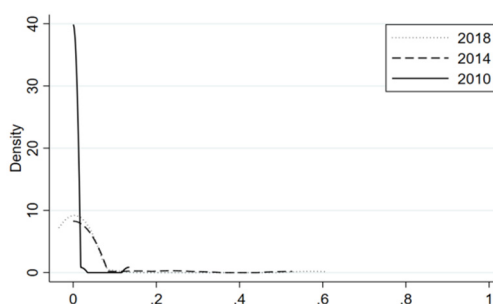
**Figure 4.** Kernel density distribution of transfer income in rural samples of Guangxi

Transfer income comes from transfer payments made by the government, including the national grain subsidies, subsidies for growing superior seed varieties and purchasing agricultural machinery and tools and comprehensive direct subsidies for agricultural supplies and subsidies for survival allowances, this part accounted for the proportion of per capita net income of farmers is low, the main factors affecting the farmers transfer income including agricultural production conditions and efficiency of the government departments at all levels to carry out the subsidies[13]; Density curve change status of Guangxi in 2010 the government subsidies for rural relative poverty families metastatic small coverage, low efficiency agricultural subsidies, but until 2018 the rural relative poverty families have widely enjoyed transfer payments from the government, the curve of the flat trend reflects the Guangxi government's anti-poverty work earnestly. The government has provided corresponding financial support to rural poor families through transfer payments and strengthened the government's guarantee of farmers' production and life through public financial resources. It's observed that transfer income in different rural relative poverty families is different, the reason is that elderly households rely on transfer income as their main source of income. Moreover, the amount of transfer income is generally larger than that of households with wage or operating income as the main source of income. The implementation of anti-poverty work guided by the concept of targeted poverty alleviation has achieved remarkable results.

By comparing the kernel density curves of the proportions of operating and transfer income, it is found that the temporal variation trend of the kernel density curves of the two is opposite and the variation range is similar, which is well consistent with the phenomenon that the two broken lines corresponding to the proportions of operating and transfer income are approximately symmetric about the 20% horizontal line in the broken line graph of figure 1. With the increase of the year, the share of operating income in 2018 has been reduced to the same level as the share of transfer income.

#### 4.1.4. Temporal Characteristics of Property Income

The kernel density curves of property income in 2010, 2014 and 2018 showed a significant single-peak shape and the density curve in 2010 is most prominent. In 2014 and 2018, the density curve was flat. The opening span of the three curves is small and highly concentrated in the region of low proportion, and the density of the region of middle and high proportion tends to zero. It means that the share gap of property income among different relative poor families is small, and the share of this income is generally low.



**Figure 5.** Kernel density distribution of property income in rural samples of Guangxi

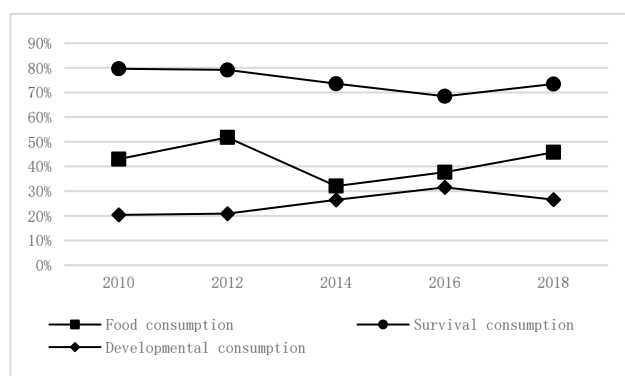
Combining with the definition of property income, the realistic situation of this income can be better clarified. It refers to the income generated by capital participation in social production and living activities, which means the income obtained by movable property (such as bank deposits, negotiable securities, vehicles, collections, etc.) and immovable property (such as houses, etc.) owned by a family. According to the relative poverty identification standard adopted in this paper, some families are included in the relative poverty sample due to their



low housing value and durable goods value, Therefore, the extremely low proportion of property income effectively confirms that the total value of movable and immovable property owned by relatively poor families in some rural areas of Guangxi is low, which leads to the causal relationship between low income from the use of assets; Another part relatively poor families in rural areas have sufficient income-generating assets but have no channels and guarantees to use assets to bring income. The existence of this practical shortcoming means that the property income of relatively poor families has a large space to improve. Guangxi government also noted the importance of rural property income, and introduced rural "Three Changes" in Guangxi Autonomous Region (rural resources into assets, capital into stocks, farmers become shareholders), combined with the market as guidance of rural collective property rights system reform, activate the rural collective economic vitality and improve the level of farmers' income, encourage local to revitalize the rural collective joint venture, to rationally integrate and utilize various resources, unite market subjects, bring into full play the maximum benefits of collective three resources and fully mobilize the enthusiasm of farmers. These measures will effectively promote the growth of property income of rural residents.

#### 4.2. Time Series Changes of Expenditure Structure

According to the standards of the National Bureau of Statistics, resident expenditure includes eight consumption expenditure parts. In order to intuitively show the changing characteristics of the expenditure structure of relatively poor families in Guangxi, the eight consumption expenditure structures are combined into three categories: food expenditure, survival expenditure and development expenditure. Survival expenditure includes food, clothing, housing, transportation, household equipment, daily necessities and service expenditure, while developmental expenditure includes culture, education and entertainment expenditure, medical care and other expenditure.

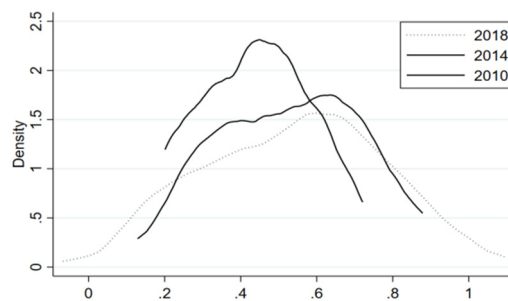


**Figure 6.** Changes in the proportion of household consumption structure in rural samples of Guangxi

From the change trend of the annual average proportion, the proportion of the three consumption categories of relatively poor rural residents in Guangxi fluctuates but is generally stable, and the proportion of developmental consumption is always lower than that of food consumption. During the five-year observation period, food consumption accounted for about 41% of total household consumption expenditure on average. According to the Engel's coefficient, the proportion of food consumption was at the level of moderately prosperous. Survival expenditure accounts for the largest proportion, about 75% of total consumption expenditure on average. The proportion of development expenditure is the lowest and about 25% of total consumption expenditure on average. It can be observed that among the five items of survival consumption expenditure, the expenditure from food consumption accounts for 55% on average, which means about half of the survival consumption of relatively poor rural families

is spent on food, while the total cost of living, transportation, clothing, furniture and daily necessities is less than the single item cost of food. By calculating the difference between survival consumption and food consumption expenditure, it is found that the fluctuation trend of the broken line distribution of the difference is obviously opposite to that of food consumption. When the proportion of food consumption increases, the proportion of Survival consumption expenditure excluding food consumption decreases significantly, and vice versa. Combined with the fact that the developmental consumption line showed a slow upward trend during the observation period, it indicates that the proportion of survival consumption only fluctuates slightly even if the food consumption increases or decreases greatly. The increase in food expenditure mainly comes from the reduction in the consumption of housing, transportation, clothing and household necessities. The relative poor families in Guangxi rural areas pay more and more attention to culture, education, entertainment, medical care and other aspects.

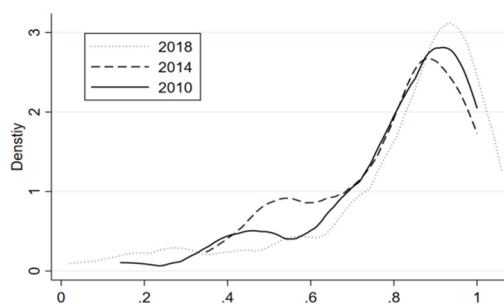
**4.2.1. Temporal Characteristics of Food Consumption**



**Figure 7.** Kernel density distribution of food consumption in rural samples of Guangxi

The kernel density curve of food consumption presents a "single peak" shape, with a general change pattern of "first left and then right, first up and then down". In 2010, the kernel density curve of food consumption was relatively flat in the abscissa range of 0.4 to 0.7, and the peak appeared around 0.7, with a large opening span, indicating that the proportion of food consumption in the sample household income in that year had a large gap, but most of them were concentrated in this value range. From 2010 to 2014, the kernel density curve moved upward, and the maximum density moved to the left. Meanwhile, the opening narrowed, indicating that the proportion of food consumption of sample families decreased in 2014, and the gap between families in food consumption narrowed. In 2018, the kernel density curve moved downward from steep to gentle, and the opening span was large, which was similar to the kernel density curve of food consumption in 2010. In general, the change in the proportion of food consumption between 2010, 2014 and 2018 as well as its internal differences fluctuated but remained stable.

**4.2.2. Temporal Characteristics of Survival and Developmental Consumption**



**Figure 8.** Kernel density distribution of survival consumption in rural samples of Guangxi

As the sum of the proportion of survival consumption and developmental consumption is equal to 1, the kernel density curves of the two are completely symmetrically correlated. Only the kernel density distribution of survival consumption is shown here and the two are described and analyzed together.

The kernel density curves of the proportion of survival consumption and development consumption both show a "single peak" shape, with steep "peak" and large opening span, and little change in curve shape between different years. The main difference between the two is that the kernel density curves of the proportion of survival consumption are left-biased, while the proportion of developmental consumption is vice versa. According to the morphology and change characteristics of the kernel density curve, it can be seen that the changes of the proportion of survival consumption and developmental consumption of the samples are stable, and the difference of the proportion within the sample families is small, and the proportion level is highly concentrated. The instability factor of the sample family consumption is mainly from the change of food consumption. The proportion of survival consumption in the consumption structure fluctuates and declines slowly. The consumption structure is still dominated by Survival consumption, in which food consumption is dominant and the proportion of developmental consumption is small. In general, the consumption of relatively poor rural residents in Guangxi is gradually inclined to development-oriented consumption, and the consumption structure of relatively poor rural families is slowly shifting to development-oriented consumption. It is possible to further expand the rural consumption market guided by reasonable policies.

## 5. Basic Conclusion and Policy Implications

This paper is based on the data of China Family Panel Studies in 2010, 2012, 2014, 2016 and 2018, using A - F method and kernel density estimation method, selects out rural relatively poor families in Guangxi, describes and analyzes the time changes of their income and expenditure structure and the internal distribution differences of income and expenditure types. The main conclusions are as follows:

First, wage income has become the largest part of the income of the rural relative poor families in Guangxi, which is related to the phenomenon that the number of migrant workers continues to rise before 2020, most of the rural labor force goes out for work, and the income from non-agricultural production is much higher than that from agricultural operation. Secondly, the proportion of operating income of rural relatively poor families in Guangxi is on the decline due to the fact that the labor force flows to non-agricultural industries, and some families lack healthy labor force, as well as Guangxi's poor agricultural planting environment and economic benefits. Thirdly, with the implementation of the rural special transfer payment policy to promote the development of rural collective economy in Guangxi, the proportion of transfer income in the total income is increasing, and some of them rely on transfer income as their main source of income. Forth, the proportion of property income of rural relatively poor families in Guangxi is extremely low, and are faced with the problem of having few assets and lack of effective ways to transform resources into assets. Fifth, the proportion of food consumption of rural relatively poor families in Guangxi fluctuates greatly, and the average proportion tends to be relatively well-off level. The change of the proportion of food consumption has little impact on the total proportion of survival consumption. And the increased cost of food expenditure mainly comes from the reduction of the proportion of other survival consumption. Sixth, the proportion of developmental consumption expenditure of rural relatively poor families in Guangxi is stable, accounting for about 3:1. Residents are paying more and more attention to developmental consumption, and the proportion of developmental consumption is rising slowly.

According to the above research conclusions, in order to solve the problems, the following policy implications can be drawn: First, guide the orderly transfer of rural labor to non-agricultural production sectors in cities and towns, give full play to the role of wage income in increasing total income, protect the legitimate rights and interests of rural families in obtaining wage income through work, and crack down on illegal acts such as maliciously breaking contracts and defaulting on wages that endanger workers' access to wage income. Second, Optimize the government's rural agricultural transfer payment policy system and enhance the role of agricultural subsidies in promoting the production and operation of relatively poor rural families. To encourage and support the development of local advantages of agriculture, and guide the organization degree of farmers, through the establishment and development of new type of agricultural management organization, such as farmers' professional co-operatives, the family farm, provide service of agricultural production for farmers, cultivated and technical training, stable peasants and market coupling channels to alleviate rural relative poverty family operating income proportion downward trend. Third, the government should adhere to the market-oriented guidance for the reform of the rural collective property right system, clarify the rural collective assets, clarify the property rights of farmers to their homesteads, and give full play to the promotion of the reform of the rural land property right system to the innovation of the agricultural management system and the innovation of farmers' interest connection mode, so as to increase the property income of rural residents. Fourth, the government needs pay attention to the expenditure of rural families on culture, education, entertainment, medical care and other developing consumption, guide the upgrading of rural consumption structure and increase the market supply of targeted and high-quality products in rural areas. And then improve the rural consumption environment, strengthen the supervision of rural consumption environment and open up the way of protecting rural consumption rights, so as to improve the consumption quality of rural residents and consumption to improve their living standards.

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