AFTER THE CITIZENIZATION: CAN HOUSEHOLD REGISTRATION CHANGE ELIMINATE THE CONSUMPTION GAP?

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After the Citizenization: Can Household Registration Change Eliminate the Consumption Gap?

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Abstract

The urban-rural consumption gap under the influence of the household registration system is a social issue with Chinese characteristics. Can the current reform of the household registration system eliminate this gap? Using the survey data from Chinese Household Income Project (CHIP), this paper adopts the methods of Propensity Score Matching (PSM) and RIF (Re-centered Influence Function) Quantile Decomposition to quantitatively analyze the impact of changes in household registration on the consumption level of "urban *hukou* (household registration) obtainers" and the influence mechanism. Studies show: (1) There is still a significant difference in the consumption level between "urban *hukou* obtainers" and urban natives after the citizenization, and the consumption gap between the two groups is even greater after taking endogenous problems into consideration; (2) The impact of the citizenization on the consumption level of "urban *hukou* obtainers" has a significant heterogeneity. There are significant consumption differences due to different sources of the household registration, and this consumption gap has an expanding trend over time; (3) By decomposition, it is found that such consumption gap mainly comes from the gaps in income and social security between the two groups and its mechanism has been confirmed.

Keywords: citizenization, consumption gap; Propensity Score Matching, Re-centered Influence Function, social security, social identity.

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Introduction

Since the global financial crisis in 2008, demand in overseas markets has continued to weaken, and the export-oriented growth model that China's economy has long relied on has faced severe challenges. Especially, the trade friction between China and the US in 2018 has further made the expansion of domestic demand and the transformation of driving forces for economic development major challenges that the Chinese government needs to solve urgently. Although domestic demand has become the first driving force for national economic growth for four consecutive years from 2013 to 2017. However, if western developed countries are taken as a reference frame, the driving effect of consumption on China's economy, whether in terms of contribution rate or stability, needs to be further improved. This means that some long-standing underlying constraints of normal growth of domestic consumption have not been fundamentally eradicated.

The heterogeneity of consumption caused by household registration remains to be an important issue of concern for economists both at home and abroad. Evidences from historical documents uniformly show that the existence of household registration system significantly inhibits the consumption level of agricultural migrants in cities (Ligang, Jiang, & Yongsheng, 2010; Chen, Lu, & Zhong, 2010; Chen *et al.*, 2017; Hang *et al*., 2013). For instance, the empirical study of Chen *et al.* (2017) shows that the consumption level of an non-local household registration migrant is 17% to 21% lower than that of an urban resident with a local household registration. While Ligang, Jiang, & Yongsheng (2010) found that the agricultural migrants show a lower marginal propensity to consume and their income elasticity of demand for consumption is less than half of the urban registered population. An important policy implication of the citizenization which is being actively promoted by Chinese governments at all levels lies in that it tries to bridge the consumption gap between urban population and rural population through eliminating the duality of the household registration and achieve the policy goal of further stimulating and expanding domestic consumption. Through an empirical study based on data from China Household Finance Survey, Gui Heqing *et al.* (2018) found that the citizenization of agricultural migrants is able to expand the consumption demand by 17.05% on average and the growth in income and property of agricultural migrants is the main mechanism that can explains the expansion of their consumption demand under citizenization. Yang Cuiying and Du Runquan (2016) believe that the improvement of social security level for agricultural migrants during the citizenization process can help to improve their marginal propensity to consume. However, an ensuing question is whether it is really possible to completely narrow the huge gap between the urban population and agricultural migrants simply by getting rid of household registration difference between them. In order to answer this question, this paper, based on the analysis of changes in income of "urban *hukou* obtainers", social security system, in the process of citizenization, discusses the impact of household registration change

on residents' consumption difference by using CHIP 2013 data and the empirical method of Propensity Score Matching (PSM).

Compared with previous documents, marginal innovation of this paper mainly lies in the following three aspects: (1) in previous studies, scholars paid more attention to the consumption gap between agricultural migrants whose agricultural *hukou* is still retained and urban residents before the citizenization, while this paper places more emphases on whether the existing consumption gap has been narrowed rapidly and how long it will take to be completely closed after the citizenization, namely, after the obtaining of an urban *hukou* of agricultural migrants. The answer to this question will influence the policy orientation of a series of institutional designs in the process of household registration reform; (2) Under the condition of basically solving the sample self-selection problem and applying Ordinary Least Squares (OLS), Propensity Score Matching (PSM) and other empirical tools, this paper discusses the consumption gap between urban natives and "urban *hukou* obtainers" and distribution law of such difference among groups with different sources of household registration and different times. (3) Applying RIF Regressions Decomposition, this paper further analyzes the contribution rate of income and social security to the consumption difference after the citizenization and the generation mechanism of such difference.

Theoretical Basis: How Does the Process of Citizenization Affect the Consumption Level of Residents?

It is an important goal of the national economic development and institutional arrangements to improve the overall consumption level of residents and then boost their sense of happiness. From an economic point of view, consumption is the most important part of the personal utility function, though it is not the sole source of personal utility. In a macro sense, the improvement of consumption level is also of great practical significance for economic development. In previous documents concerning the impact of the household registration system on consumption level of residents, relevant researchers focused on how household registration affects the consumption level of residents in different directions through income and social security, but in the context of household registration system reform, whether the consumption gap between the two groups has been eliminated with the elimination of effects of household registration. If not, what reason are and what heterogeneity characteristics the gap bears. However, such questions are rarely studied. Through teasing out relevant documents, we believe that the change of identity in the process of citizenization may affect the consumption level of "urban *hukou* obtainers" through the following two main mechanisms.

Effects of Income Changes on the Consumption Level During the Citizenization Process

Both empirical studies based on data from foreign countries and relevant studies at home uniformly support the conclusion that income is a key variable in determining the consumption level of residents and there is a positive correlation between the two factors. In the process of citizenization, the change of household registration has a very complex impact on residents' income and is transmitted to the consumption end. Previous studies show that the inequality of rights derived from the household registration system is an important reason that causes the agricultural migrants suffering from wage discrimination before the citizenization (Qinli, 2003). The basis of such wage discrimination may collapse with the change of household registration of agricultural migrants and gradually disappear. However, we should also realize that "urban-rural dualistic structure", the underlying reason for wage discrimination, is not simply about inequality in the employment system but more obviously embodied in the difference between urban natives and agricultural migrants in the ability of acquiring social and economic resources and information, as well as their difference in social identity cognition (Yunsong, & Zhang, 2016; Afridi, Li, & Ren, 2015; Schau, *et al*., 2009). All these differences mentioned above will not disappear rapidly with changes in household registration and farmers in cities will not immediately obtain the same economic resources and social capital as urban natives after obtaining urban household registration. As a result, simply changing the household registration can not fundamentally eradicate wage discrimination and income differences caused by such discrimination will inevitably affect the consumption difference between "urban *hukou* obtainers" and urban natives.

On the other hand, the change in household registration during the citizenization is often premised on the giving up of rural land rights by agricultural migrants voluntarily or involuntarily. If their willingness and right of autonomous settlement selection can not be fully respected and their rights of contracting land, using homestead and distributing collective benefits can not be protected by law during the citizenization, the process of citizenization has the potential risk of damaging the actual income level of these urban *hukou* obtainers as land is the most important wealth carrier for them (Research Group of the Development Research Center of the State Council, 2009). Some documents believe that real income of farmers who have changed their *hukou* will get improved during the process of transferring land rights in developed regions. However, as long as farmers can not fully participate in the process of allocating interests of land acquisition and can not fully express their opinions to obtain their due rewards as the landowners during the process of transferring land rights, it is possible to form a sense of relative deprivation of income, which will naturally reduce the consumption level of them.

Influence of Changes in Social Security System on the Consumption Level
During the Citizenization Process

In the aspect of allocating public service resources, China's "urban-rural dualistic structure" presents a significant difference in both the coverage and level of social security between rural and urban residents which may lead to differences in long-term consumption behavior and consumption inertia (Lei, 2009; Bin, 2011). And the different degrees of uncertainty caused by the difference in social security levels will enhance residents' motivation of precautionary savings and crowd out current consumption expenditures (Clark, Frijters, & Shields, 2001), thereby reducing current consumption. This is also an important reason that causes the differentiation in the consumption level between rural and urban residents before the citizenization. And it is also a focus of many scholars whether changes in household registration will have an impact on consumption of "urban *hukou* obtainers" through social security. First of all, the citizenization will have a positive effect on the consumption of agricultural migrants through expanding the coverage and quantity of social security for residents. During the citizenization process, the change in household registration means not only a switching of an identity label, but more importantly, it means the improvement of various explicit or invisible social security benefits. For instance, the per capita spending on social security of urban and rural residents in 1993, 1998, 2005, 2014 were 168 yuan and 8.6 yuan, 1310 yuan and 34.7 yuan, 2728 yuan and 97.3 yuan, 8236.10 yuan and 328.5 yuan respectively, and even in 2014, the gap in the per capita spending on social security between them is still as high as 35 time. Besides, compared with rural social security, the social security for urban residents covers projects concerning maternity, unemployment, occupational injury, etc in addition to endowment and health care. Therefore, the improvement in both the coverage and level of social security will obviously help to enhance the consumption level of rural residents in the process of citizenization.

Second, the change in household registration does not necessarily bring the same level of social security support. The key lies in the ways of obtaining urban household registration. The difference in ways of obtaining urban household registration will bring different level and coverage security for residents who have transferred their household registration, which will have an impact in different directions on the consumption level of residents obtaining household registration in different ways. Compared with residents who obtain urban household registration through their own efforts, a vast majority of urban *hukou* obtainers passively accept their urban status when their land is confiscated by the government or due to local reform of household registration system. These residents must not only give up the land on which they depend but also passively receive the lowest level of social security offered by the government. Since agricultural migrants have lost the most important source of income and only receive the lowest level of social security, they will inevitably suffer from increased uncertainty in the future life,

thereby reducing their current consumption expenditure, resulting in the decrease of consumption level.

All in all, although the change in household registration means rising income and social security level, the existing discrimination and the difference in source of household registration may lead to different level and coverage of security, all of which may have negative effects on the improvement of the consumption level of "urban *hukou* obtainers". As a result, a consumption gap may still exist between them and urban natives despite the change of their household registration.

Data and Empirical Analysis Framework

Data

The micro data used in this paper is from China Household Income Survey (CHIP) Urban Household Survey 2013, which was jointly conducted by the Institute of Economic of Chinese Academy of Social Sciences and the National Bureau of Statistics. The survey data is a nationwide labor database established with a stratified sampling method, which is currently quite an authoritative database for studies of Chinese residents' income and consumption. This database covers 126 cities in 15 provincial administrative regions of Beijing, Chongqing, Shanxi, Liaoning, Jiangsu, Zhejiang, Anhui, Shandong, Henan, Hubei, Hunan, Guangdong, Sichuan, Yunnan, Gansu, with an effective sample size of 30,000 people. The CHIP 2013 is also a social survey with the largest coverage and number of respondents in the history of CHIP surveys. After the further screening of personal or household data such as consumption, education background, age, "urban *hukou* obtaining experience" and reasons for *hukou* transferring, 15452 cases of valid family samples are acquired.

Based relevant questions in the CHIP 2013 questionnaire, three core variables involved in this paper are mainly defined as follows: (1) "urban *hukou* obtainers" mainly refer to urban residents whose agricultural household registration has been transferred to an non-agricultural one, and also include residents whose original agricultural household registration has been unified as a resident registration due to the pilot reform of the household registration system. The specific question for this variable is "Have you ever changed your *Hukou* from rural to urban?" If the answer is yes, the variable will be assigned a value of 1, otherwise 0; (2) household per capita consumption. Since there is no exact household per capita consumption but only the total consumption expenditure in the CHIP 2013, the ratio of total household consumption expenditure to the number of family members is used to measure household per capita consumption. In order to reduce the impact of outliers on quantitative analysis, this paper removed the samples with a household per capita consumption more than 200,000 yuan and less than 100 yuan; (3) Source of household registration. The Change in household registration of rural

natives have direct effects on the differences in social security and motivation of precautionary savings, and such differences have profound impacts on both quantity and structure of household consumption. Therefore, in-depth subdivision study of the differences in consumption between the two groups helps to have a better understanding on the impact and evolution of household registration changes on the consumption of "urban *hukou* obtainers". Following the classification method of Zhang & Treiman (2013) and combining relevant questions in the questionnaire, this paper classifies the source of household registration of "urban *hukou* obtainers" into two categories: one is selective "urban *hukou* obtainers", namely, people who their obtain non-agricultural household registrations through education, becoming a cadre, joining the army, house purchases and marriage. The change in household registration of this group are realized through their own efforts which bears obvious endogenous characteristics; the other is policy-based "urban *hukou* obtainers", namely, people who obtain their urban household registrations due to land confiscation (exchanging land for *hukou*) or the reform of household registration. The change of their household registration is basically the results of the government's cares rather than their own efforts, ability or self-decision. Policy-based transferring of rural household registration to urban house registration one indicates exogenous influences of household registration arranged by government policy.

Empirical Analysis Framework

the Basic Linear Regression Model

The baseline model applied in this paper is Ordinary Least Squares (OLS), and according to the above theoretical analysis, the linear regression model equation is set as follows:

$$C_i = \alpha_0 + \alpha_1 nzf + \beta Y_i + \varphi P_i + \lambda X_i + \varepsilon_i \tag{1}$$

In formula 1, *i* stands for the individual, C_i the quantity of household per capita consumption and *nzf* a dummy variable. If the target resident has the experience of transferring his agricultural household registration to an non-agricultural one, this dummy variable is 1, otherwise, it should be 0; Y_i stands for per capita income of family members. P_i is a variable measuring the motivation of precautionary savings. According to the CHIP 2013 questionnaire, this paper uses two indexes including the type of employment of the head of household and whether he is covered by endowment insurance, medical insurance and unemployment insurance (Chen, 2015), to measure the effects of motivation of precautionary savings on income. X_i represents other factors that affect household consumption.

Propensity Score Matching (PSM)

The identity of "urban *hukou* obtainers" and urban residents is not randomly distributed but the result of the interaction of individuals and external policies (Xuyan, 2018). Thus the Ordinary Least Squares is not able to overcome the estimation bias caused by sample self-selection (Green, 2012). In order to identify the effects of experience of transferring an agricultural household registration to an non-agricultural one on residents' quantity of consumption, the biggest challenge faced in the empirical research of this paper is to find the counterfactual hypothesis. That is to say, if a resident originally living in city is changed into an "urban *hukou* obtainer" with other controlled variables kept unchanged, whether his consumption will go through an obvious change. If his consumption reduced, it proves that there are other factors affecting consumption of this group of residents except changes in household registration under the condition that income and social security are guaranteed. However, urban natives and "urban *hukou* obtainers" are both a historical property of residents, and such property cannot be changed simply through human will. There is no one can be an "urban *hukou* obtainer" with both a non-agricultural *hukou* and an agricultural *hukou* at the same time. Therefore, it is only possible to observe residents' quantity of consumption under just one condition while it is difficult to construct a strict natural experiment framework for research in this field. However, the PSM proposed by Rosenbaum & Rubin (1983) allows us to construct an approximate counterfactual "treatment group" and "control group".

Specifically, using PSM, we first establish a Logit model that contains individual factors affecting urban household registration changes. Then, we can calculate the probability score of each individual sample in the treatment group (in this paper, which refers to city residents with "rural" experience). The model is as follows:

$$Logit(treated_i = 1) = \beta_0 + \beta_1 X_i + \varepsilon_i \tag{1}$$

In the above model, $treated_i$ is a dummy variable that indicates whether the individual is an "urban *hukou* obtainer", and $treated_i$ is 1 if one is an "urban *hukou* obtainer", otherwise, $treated_i$ is 0. In this way, the subjects were divided into "treatment group" ("urban *hukou* obtainer") and "control group" ("urban natives"). X_i is a covariate that may affect the change of urban household registration and the quantity of personal consumption, and the covariate can predict the propensity score P (X) of entering the treatment group of an individual. By matching the propensity scores, we can choose the appropriate comparisons for the individuals in the control group given the same individual traits in order to reduce the estimation error caused by sample selection. Based on the analysis above, this paper establishes the following empirical equation to estimate the consumption against "urban *hukou* obtainers".

$$ATE_{PSM} = E_{P(X)|D=1} \left\{ E\left[Y(1 \mid Treated_i = 1, P(X)\right] - E\left[Y \ 0 \mid Treated_i = 0, P(X) \right] \right\} \quad (2)$$

In the equation above, ATE_{PSM} indicates Average Treatment Effect, and *treated_i* is the dummy variable in "treatment group" (1) and "control group" (0); P (Xi) indicates the propensity score; $Y(1)$ indicates the per capita quantity of consumption of "urban *hukou* obtainers"; $Y(0)$ indicates the per capita quantity of consumption of urban natives.

Specific Decomposition Based on RIF (Re-centered Influence Function) Regression

In order to figure out the contribution of a univariate to the difference in residents' consumption, characteristic effect or coefficient on each quantile, this paper adopts the method of combining Unconditional Quantile Regression (UQR) and Oaxaca-Blinder Mean Decomposition put forward by Firpo, Fortin, & Lemieux (2009). According to Firpo, Fortin, & Lemieux (2009), Unconditional Quantile Regression (UQR) is generally divided into two steps: the first step is to derive the mapping of the quantile RIF (Re-centered influence Function) of the explained variables on the consumption of residents:

$$RIF(consume_i; Q_\tau^i, F_{consume_i}) = Q_\tau^i + \frac{\tau - I(consume_i \le Q_\tau^i)}{f_{consume_i(Q_\tau^i)}} (i = nzf, local, c)$$

$F_{consume_i}$ indicates the distribution function of residents' consumption, $I(.)$ indicates the corresponding influence function of residents' consumption, Q_τ^i indicates the unconditional distribution of i on the quantile of τ, and *nzf* indicates urban residents with the experience of transferring their agricultural household registration to an non-agricultural one, while *local* indicates urban natives.

The second step is to conduct OLS regression on the core independent variable *nzf* with the obtained RIF variables:

$$RIF(consume_i; Q_\tau^i, F_{consume_i}) = \beta_i X_i + \varepsilon_i$$

Coefficient β_i obtained from the above formula is a consistent estimation of the marginal effect of the unconditional quantile variation of the dependent variable when the distribution of the dependent variable (X_i) gets subtle change under the condition that other factors remain unchanged. Therefore, we can perform a

quantile decomposition similar to Oaxaca-Blinder decomposition method to obtain the different effects of various factors on the consumption demand of "urban *hukou* obtainers" under different consumption levels:

$$\hat{RIF}_{nzf\tau} - RIF^c_{local\tau} = \hat{\beta}^c_{local\tau}(\overline{X}_{nzf} - \overline{X}^c_{local}) + (\beta_{nzf\tau} - \beta^c_{local\tau})\overline{X}_{nzf} \qquad （3）$$

$\hat{RIF}_{nzf\tau}$ and $\hat{RIF}^c_{local\tau}$ indicate respectively the centered influence function value on the τ quintile of "urban *hukou* obtainers" and re-empowering urban households.

$\hat{\beta}_{nzf\tau}$ and $\beta^c_{local\tau}$ indicates respectively the vector of estimated coefficients obtained through the regression analysis of "urban *hukou* obtainers" and re-empowering urban households on the τ quintile. Compared with the general estimation method, the RIF quantile regression model can not only fully display the status of consumption distribution on each quantile, but also calculate the contribution of each dependent variable to the consumption gap. In addition, this method has advantages in computation.

Statistical Description of the Data

According to the above theoretical analysis combined with the question setting of the CHIP 2013 survey, the main variables selected in this paper include: per capita income, gender, marital status, age, education year, health status, nature of labor contract, coverage status of medical insurance, endowment insurance and unemployment insurance, etc. At the same time, the incomplete samples of the data were excluded, and finally 15452 effective samples were obtained. Table 1 gives the definition of variables and descriptive statistics.

Table 1: The Definition of Main Variables and Descriptive Statistics

variable name	definition	mean value	standard deviation	maximum	minimum
per capita consumption (*C*)	annual per capita household consumption in 2013 (unit: Yuan)	15855.08	9937.434	66666.67	8333.14
per capita disposable income (*Y*)	annual per capita household disposable income in 2013(unit: Yuan)	27046.38	22051.27	673914.00	8090.67

the experience of changing your *Hukou* from rural to urban (*nzf*)	1 for yes; 0 for no	0.2649	0.4413	1	0
gender (*male*)	1 for male; 0 for female	0.5069	0.4999	1	0
age (*age*)	the age of urban residents	46.60	15.6485	92	18
marital status: married (*married*)	1 for married; otherwise 0	0.8079	0.3939	1	0
marital status: divorced (*divorced*)	1 for divorced; otherwise 0	0.021	0.1422	1	0
marital status: widowed (*widowed*)	1 for widowed; otherwise 0	0.0348	0.1834	1	0
education year (*edu*)	years of formal education (year)	10.9419	3.6515	26	0
self-evaluation of health status (*health*)	1 for "good" or "very good", otherwise 0	0.9461	0.2258	1	0
whether covered by urban medical insurance (*med*)	1 for yes, otherwise 0	0.8495	0.2014	1	0
whether covered by urban social endowment insurance (*old*)	1 for yes, otherwise 0	0.8123	0.3905	1	0
whether covered by urban unemployment insurance (*job*)	1 for yes, otherwise 0	0.7528	0.2354	1	0
whether sign a labor contract (*contract*)	1 for yes, otherwise 0	0.3576	0.2615	1	0
whether self-employed (*self*)	1 for yes, otherwise 0	0.1023	0.0768	1	0
the number of people over 60 and minors in the family (*num*)	the sum of the number of minors and people over 60 in the family	3.7821	1.2812	9	0

Table 2 reports the descriptive statistics of per capita quantity of consumption of urban natives and "urban *hukou* obtainers" and other factors affecting consumption. After comparison, it is found that although the per capita disposable income and years of education of urban natives are slightly higher than these of "urban *hukou* obtainers", the difference is small. Moreover, the proportion of "urban *hukou* obtainers" who participate in social medical insurance and self-employment is even higher than that of urban residents. From the above statistics, we can also find that even in the case of similar basic characteristics, the per capita consumption of "urban *hukou* obtainers" in 2013 was 3037 yuan lower than that of urban natives. Intuitively, the slight differences in individual households cannot fully explain such large consumption gaps. This also shows that under the condition that other consumption factors are similar and with the same household registration, the consumption level of "urban *hukou* obtainers" may be affected by other factors, leading to consumption differences.

Table 2: Statistical Description of Different Types of Household Registration

variables	urban *hukou* obtainers		urban natives		the difference of the mean value of the two groups
	mean value	standard deviation	mean value	standard deviation	
C	13148.64	8954.85	16185.51	10216.41	-3036.87
Y	24340.38	15711.17	27938.27	23660.15	-3597.89
edu	10.1444	3.7321	11.2787	3.5639	-1.1343
health	0.9277	0.2417	0.9496	0.2187	-0.0219
med	0.9631	0.1885	0.9437	0.2304	0.0194
old	0.8117	0.3910	0.8126	0.3902	-0.0009
contract	0.2981	0.3910	0.3116	0.4631	-0.0135
self	0.1202	0.0751	0.1012	0.0823	0.019

Results

Results of Linear Regression Models

According to formula 1, regression analysis was carried out by gradually adding controlled variables. Model 1 represents the baseline results. Model 2 represents the results after basic controlled variables were added, and model 3 represents the regression results after the variable of precautionary saving motivation was added. The explained variable is the annual per capita consumption. In each model, the regression coefficient of the *nzf* variable is stable between 1388.70-2239.13 and significant at the level of 1%. It shows that under the condition that other observable variables are controlled, the consumption of urban residents with the experience of transferring their agricultural household registration to an non-agricultural one is nearly 1400 yuan lower than that of urban natives. This result also preliminarily confirms the previous theoretical inference that although

the urban *hukou* obtainers have no difference with urban natives in household registration, there is still a certain consumption gap between them. Other regression coefficients are basically consistent with those in the literature on studies of consumption influencing factors with CHIP data.

Table 3: Estimated Results of Baseline Model

	(1)	(2)	(3)
	model1	model2	model3
nzf	-2239.13***	-1427.686***	-1388.704***
	(414.2246)	(414.0805)	(413.3732)
Y	0.3410***	0.3477***	0.3452***
	(0.0028)	(0.0029)	(0.0029)
male		-1027.353**	-1307.659***
		(364.9718)	(366.9101)
age		555.373***	650.5101***
		(66.3275)	(67.0254)
age2		-5.0056***	-6.0155***
		(0.6751)	0.6818
married		6374.429***	4982.608***
		(810.1315)	(822.3235)
divorced		-129.8477	-1316.624
		(1550.313)	1552.307
widowed		4518.443***	2962.313**
		(1389.789)	(1398.698)
edu		982.1429***	863.5216***
		(53.1723)	(55.134)
self		1019.84	998.267
		(853.25)	(729.51)
num		1025.36**	1062.25**
		(423.57)	(502.14)
health		631.08*	620.28*
		(257.34)	(352.4)
med			376.968***
			(24.1560)
pension			3399.709***
			(522.9127)
job			-187.231
			(202.374)
contract			2723.913***
			(477.1304)
urban fixed effect	controlled	controlled	controlled
N	15452	15024	14827
Adj. r²	0.2974	0.3393	0.4425

Note: ***, ** and * represent the significance levels of 1%, 5% and 10% respectively, and the figures reported in brackets are standard deviation.

Robustness Test

In order to test whether the above research results are stable, this paper introduces the Propensity Score Matching (PSM) method to verify the stability of the above regression results. The advantage of this method is that the observed information can be used to reduce the estimation bias in the process of causal inference. For this reason, this method has been increasingly applied in the field of social science research (Brand & Xie, 2010; Xie & Wu, 2005). In the practice process, there are many matching methods of PSM, such as one-to-one matching, k-nearest neighbor matching, radius matching and kernel function matching. However, as long as the theory is correct, no matter which method is adopted, the estimated results tend to converge to those of exact matching without obvious difference (Smith & Todd, 2005; Vandenberghe & Rubin, 2004). According to Peikes, D. N., Moreno, L., & Orzol, S. M. (2008), this paper carried out estimation and verification by adopting k-nearest neighbor matching method in combination with one-to-one matching method. The specific results are shown in *Table 4*.

*Table 4: A*verage Treatment Effect (ATE) Estimated by Different Methods

OLS		sample size	regression coefficient	standard error
		14827	-1388.704***	413.3732
matching method of PSM for estimation	matching parameters	common support sample size	ATE (average treatment effect)	standard error
k-nearest neighbor matching	k=10; δ=0.001	13157	-1330.356**	454.6939
	k=10; δ=0.005	13167	-1245.581**	460.0648
	k=10; δ=0.01	13208	-1244.341**	459.2183
	k=10; δ=0.01	13314	-1243.974**	459.7862
	k=10; δ=0.5	13314	-1243.974**	459.7862
one-to-one matching	δ=0.001	13587	-1691.952***	559.4996
	δ=0.005	13675	-1686.651***	567.9371
	δ=0.01	13754	-1686.245***	568.5808
	δ=0.1	13762	-1686.245***	568.5773
	δ=0.5	13762	-1686.245***	568.5773

Note: (1) k indicates the number of neighbors of results calculated through specified matching method, and δ indicates the bandwidth of the matching score; (2) according to Adadie & Imbens (2008), both the P-value and standard error of ATE in this paper are the results of repeated sampling with "Bootstrap" for 500 times; (3) ***, ** and * represent the significance levels of 1%, 5% and 10% respectively.

According to the results gained through PSM reported in Table 4, with different matching methods and different matching bandwidths, the net difference of annual per capita consumption of urban *hukou* obtainers to urban natives is negative, falling within the range of 1243.974 to 1686.245, and it's statistically at least significant at 5% level. It can be found through comparison that at a similar

significance level the results after matching are higher than the results of OLS regression analysis. The above empirical results further verify the conclusion of theoretical analysis, and also explain that if the selection bias of sampling is not taken into account, the impact of the experience of transferring agricultural household registration to an non-agricultural one on the consumption level of urban natives may be underestimated.

Statistical Test of Matching Balance

No significant difference between the treatment group and the control group in the propensity score of covariates is the prerequisite to ensure the stability of propensity score matching results. In order to verify this prerequisite, according to Afridi, Li, & Ren (2015), this paper selects two indicators to perform the balance test: one is the two-sample t-test of covariates and the reduced proportion of standardized bias across covariates before and after matching; the other is the average variation across covariates and the P-value which indicates whether there is significant difference between the joint distribution of unmatched and matched covariates. The specific results are shown in the following table.

Table 5: Balance Test

variables	samples	"urban *hukou* obtainers"	urban natives	two-sample t-test t-statistic	bias proportion (%)	reduced proportion of bias (%)
Y	unmatched	22198.48	25401.33	-9.78	-18	99.1
	matched	22200.61	22171.95	0.1	0.2	
male	unmatched	0.509	0.50641	0.3	0.5	-131.8
	matched	0.50911	0.5151	-0.58	-1.2	
age	unmatched	45.492	41.643	12.33	22	96
	matched	45.49	45.645	-0.48	-0.9	
age2	unmatched	2313.7	2101.6	7.74	13.6	93.5
	matched	2313.6	2327.4	-0.47	-0.9	
married	unmatched	0.82998	0.67962	19.84	35.5	98.3
	matched	0.82994	0.82736	0.33	0.6	
divorce	unmatched	0.0144	0.01988	-2.39	-4.2	92.3
	matched	0.0144	0.01482	-0.17	-0.3	
widowed	unmatched	0.02668	0.03094	-2.47	-2.5	92.3
	matched	0.02668	0.02701	-0.1	-0.2	
edu	unmatched	10.013	10.488	-6.98	-12.1	97
	matched	10.015	10.029	-0.19	-0.4	
self	unmatched	0.1202	0.1012	-1.74	2.7	93.1
	matched	0.1202	0.1197	0.16	0.3	
num	unmatched	3.6821	3.9821	1.20	-8.4	85.7
	matched	3.6574	3.6728	-0.09	0.4	

health	unmatched	0.94072	0.95608	-4.2	-6.9	90.5
	matched	0.94091	0.93485	1.22	1.7	
med	unmatched	0.96252	0.93403	7.14	12.9	95.5
	matched	0.96252	0.9638	-0.33	-0.6	
pension	unmatched	0.79272	0.73533	7.78	13.5	95.8
	matched	0.79288	0.79531	-0.29	-0.6	
job	unmatched	0.7328	0.7728	-1.67	-7.3	98.6
	matched	0.7372	0.7514	0.51	-1.8	
contract	unmatched	0.28986	0.27084	2.49	4.2	86.8
	matched	0.28992	0.29242	-0.27	-0.6	
		Mean Bias		LR chi2		P>chi2
unmatched		12.2		896.36		0.000
matched		0.8		3.15		0.994

According to the results shown in *Table 5*, the significant difference between the treatment group and the control group in covariates before matching is not equal to zero, and the P-value of covariate joint distribution test before matching is very small. The two characteristics indicate that there is a significant difference in the distribution of covariates between the treatment group and the control group before matching. After matching, the bias proportion of all covariates is less than 1.5%. And the reduced proportion of bias of most covariates is up to more than 85% with the highest being 99.1%. This means that the difference between the treatment group and the control group after matching has been significantly reduced. The P-value of the combined distribution test of matched covariates of the two groups is 0.994, close to 1, which indicates that the distribution of covariates of the urban *hukou* obtainers group and the urban natives group is basically consistent after matching with no significant differences. Or it can be considered that statistically they are the same group in addition to the variable of *nzf*. The above results show that the matched samples can pass the balance test and basically meet the requirements of "control-processing" quasi-natural experimental framework.

Analysis on the Heterogeneity of Consumption of Migrant Population after Citizenization

the Influence of Household Registration Source on the Consumption of Migrant Population

With the adjustment of household registration system, the approaches to obtain urban household registration have become diversified (Zhang & Treiman, 2013). In addition to traditional ways such as entering a higher school, taking part in civil servant exam, joining the army and becoming a cadre (Wu & Treiman, 2004), more and more rural residents` have obtained their non-agricultural household registrations through land transferring, household registration adjustment and other means which also have become the way for more and more rural residents to obtain urban *Hukou*. However, will the difference in the obtaining channels of urban household registration affect the consumption level of urban *hukou* obtainers? In

order to answer this question, under the condition that the control group remained unchanged and according to the difference in the ways of obtaining urban household registration, this paper divided the urban *hukou* obtainers into two groups: policy-based urban *hukou* obtainers and selective urban *hukou* obtainers. And the PSM measurement method was used to compare the consumption difference between urban natives and the two groups respectively. The specific results are shown in *Table 6* below.

Table 6: The Influence of Household Registration Source on Consumption Level

	matching parameters	all samples	selective urban *hukou* obtainers VS urban natives	Policy-based urban *hukou* obtainers VS urban natives
k-nearest neighbor matching method	k=10; δ=0.001	-1330.356*** (454.6939)	-892.7775 (564.0986)	-2321.4773*** (755.8967)
	k=10; δ=0.005	-1245.581*** (460.0648)	-885.2253 (552.2711)	-2289.1275*** (762.7428)
	k=10; δ=0.01	-1244.341*** (459.2183)	-873.2571 (550.3262)	-2274.2241*** (764.3012)
	k=10; δ=0.01	-1243.974*** (459.7861)	-872.3728 (548.3628)	-2263.1428*** (770.3126)
	k=10; δ=0.5	-1243.974*** (459.7862)	-872.3728 (548.3627)	-2263.1428*** (770.3126)
mean value of ATE		-1261.6452	-879.2011	-2282.2229

Note: (1) k indicates the number of neighbors of results calculated through specified matching method, and δ indicates the bandwidth of the matching score; (2) both the P-value and standard error of ATE are the results of repeated sampling with "Bootstrap" for 500 times; (3) ***, ** and * represent the significance levels of 1%, 5% and 10% respectively.

According to the above table, first of all, there is no significant difference in the consumption level of selective urban *hukou* obtainers and urban natives, which is reflected in the fact that the coefficient of the *nzf* variable does not reach the significant level of at least 10%. Secondly, the consumption difference between the policy-based urban *hukou* obtainers and urban natives increases to 2,321.5 yuan, which reaches the significant level of 1%. The results indicate that despite policy-based urban *hukou* obtainers have obtained a urban household registration, their consumption is significantly different with that of urban natives and reduced by about 15% (2263.1428/15855.08=14.2%). The theoretical analysis of this paper can well explain the difference in consumption caused by the difference of household registration source. According to the above theoretical analysis, social security, income will affect the consumption level of residents, and the different ways of obtaining household registration also indicate the difference in the scope and level of social security and income level (Chu, Liu, & Shi,

2015). First of all, compared with autonomous urban *hukou* obtainers who won in the household registration competition on their own, policy-based urban *hukou* obtainers are obviously lack of autonomy in obtaining their urban *hukou*. They can just passively accept the resettlement of the government and the change of their residential status under the household registration system. The passive identity change makes the link between the institutional identity and actual role of the passive urbanized group broken, hindering them in self-identification as urban residents, thereby affecting the improvement of their consumption level (Chu, Liu, & Shi, 2015). Secondly, differences in ways of obtaining urban household registration may lead to differences in the level of social security. Compared with autonomous urban *hukou* obtainers, policy-based urban *hukou* obtainers have obtained urban household registration but have not been offered with formal urban employment opportunities by the government. They can only accept the lowest level of social security provided by the government. As they have lost stable agricultural earnings, policy-based urban *hukou* obtainers are affected by the preventive saving motivation, thereby cutting down their consumption to cope with uncertainties in the future. Thirdly, the increase in income is limited. Before the change of their household registrations, the majority of the policy-based urban *hukou* obtainers engaged in agricultural production. In the face of fierce labor market competition in cities, they can only engage in low-skilled jobs or earn their own living outside the system due to the lack of human capital and social capital advantages. With a relatively limited income increase and faced with statistical wage discrimination (Xu Yan, Fu Xiaopeng, 2018), the instability of their income level may reduce the improvement of their consumption level.

The Change Trend of Consumption Level in Time Dimension

With the deepening of the reform of household registration system, more and more rural-origin residents have obtained an urban household registration. How does this trend affect the consumption level of urban residents? If so, what explains this phenomenon? For this end, this paper used the CHIP data in 1999, 2002 and 2007 to estimate the impact of the experience of transferring agricultural household registration to an non-agricultural one on urban residents' consumption level through PSM in each year. The specific results are shown in Table 7 below.

Table 7: Change Trend of Consumption Difference in Time Dimension

	matching parameters	1999	2002	2007	2013
k-nearest neighbor matching method	k=10; δ=0.001	-759.2661[*] (389.2625)	-896.3328[**] (378.0394)	-1025.7289 (632.0793)	-1330.356[***] (454.6939)
	k=10; δ=0.005	-755.3254 (392.2325)	-890.1307[**] (386.4205)	-1008.9208 (624.2704)	-1245.581[***] (460.0648)
	k=10; δ=0.01	-752.2081[*] (396.5203)	-889.7201[**] (390.7504)	-998.5207 (615.8027)	-1244.341[***] (459.2183)
	k=10; δ=0.01	-748.4283[*] (401.4208)	-887.0289[**] (398.4209)	-992.8706[*] (600.6138)	-1243.974[***] (459.7861)
	k=10; δ=0.5	-748.4283[*] (401.4209)	-877.0272[**] (398.4211)	-992.8105[*] (600.6140)	-1243.974[***] (459.7862)
mean value of ATE	\	-752.73124	-888.04794	-1003.7703	-1261.6452
proportion of consumption balance to the per capita consumption of urban *hukou* obtainers		5.52%	5.8%	6.09%	7.9%

Note: the same as the above table

According to the above table, it can be found that the consumption gap between urban *hukou* obtainers and urban natives is widespread and presents an obvious uptrend in time dimension. As the overall consumption of residents changes over time, the absolute value of consumption difference may not accurately measure the change of consumption gap. Considering this, we further reported the proportion of consumption difference to residents' consumption expenditures. It can be learned that the consumption difference accounted for 5.52% of the average consumption of the group total in 1999, which reached 7.9% in 2013. It indicates that the consumption gap between the two groups of people is indeed on the path of continuous increase. The theoretical analysis of this paper can also well explain the above phenomenon. First of all, the proportion of policy-basedpolicy-based urban *hukou* obtainers in the urban *hukou* obtainers has been rising. The consumption difference between urban *hukou* obtainers and urban natives is not a matter of course but has been expanding from scratch. Before the more flexible implementation of household registration system, the opportunity for household registration transformation has always been held by the rural elites, that is, the selective urban *hukou* obtainers (who accounted for 76.4% of the total in 1999).

When restrictions on the system began to be relaxed, the threshold for urban residency has been gradually lowered or even abolished, and policy-based urban *hukou* obtainers have begun to become the majority of transferring agricultural household registration to an non-agricultural one (accounted for 65.9% of the total in 2013). According to the analysis in the previous section, the difference in consumption level between policy-based urban *hukou* obtainers and urban natives is significantly higher than that between selective urban *hukou* obtainers and urban natives, which lead to the expansion of consumption gap between policy-based and selective urban *hukou* obtainers. Secondly, as the degree of wage discrimination increases, the income gap widens. According to Chen's estimation (2017), with the passage of time, as the threshold for urban household registration begins to be lowered, a large number of land-lost farmers flood into the urban labor market. They can only passively accept wage discrimination as they cannot gain competitive advantages. As the degree of discrimination increases, the labor income gap between urban *hukou* obtainers and urban natives begins to widen. Their income ratio expanded from 1.8 in 1999 to 3.2 in 2013. The widening of income gap between the two groups will directly affect the improvement of consumption level, thereby their consumption gap starting to widen.

Decomposition and Path analysis of the Consumption Difference of Urban Hukou Obtainers under Citizenization

Decomposition of the Consumption Difference of Urban Hukou Obtainers under Citizenization

Based on the above empirical analysis, it can be found that despite the change of household registration, there is still a significant consumption difference between "urban *hukou* obtainers" and urban natives, which will become larger and larger over time. In order to find out what factors contribute to the consumption gap between the two groups and how the difference in different consumption level changes, this paper used the method of quantile decomposition to answer these questions. The specific results after decomposition are shown in the following table.

Table 8: RIF Decomposition Results

	the 10th quantile	the 50th quantile	the 90th quantile
RIF (urban natives)	15263.15	17923.41	26431.78
RIF (urban *hukou* obtainers)	13416.07	16849.52	22376.41
difference between the two (absolute value)	1847.07***	1073.88***	4055.36***
	(18.2469)	(50.1551)	(104.8439)
attributing the total difference to various factors			
income (absolute value)	283.09*** (40.2351)	249.810*** (45.0382)	2229.182*** (75.1268)
difference contribution rate	15.33%	23.26%	54.93%
social security (absolute value)	352.54	285.06	521.208
difference contribution rate	19.09%	25.54%	12.8%
the total of unexplained variables (absolute value)	227.61*** (23.1283)	112.29*** (60.2357)	250.33*** (50.3762)
difference contribution rate	12.32%	10.46%	6.17%

Note :(1) other controlled variables and explained variables are the same as those in Table 4; (2) ***, **, and * represent the significance levels of 1%, 5%, and 10% respectively and the figures in brackets are standard error.

It can be learned from the above table that, first of all, there is a significant difference in the consumption gap between urban *hukou* obtainers and urban natives on different quantiles. Compared with the gaps on high quantile (the 90th quantile) and the low quantile (the 10th quantile), the gap between the two groups on the 50th quantile is relatively small, only 1,074 yuan. One possible reason may be that most medium consumption level families are "autonomous urban *hukou* obtainers" who obtained their urban household registration through fierce competition, also known as the "elite group" among rural residents. They can gain a higher income through their own efforts and enjoy a similar social security to urban natives. Therefore, the consumption level of these residents is basically similar to that of urban natives. Secondly, the contribution rate of various factors to the consumption gap shows different trends. Specifically, with the increase of consumption, the contribution rate of income gap to the expansion of consumption gap between the two groups is gradually increasing, but that of social security to the consumption gap is gradually decreasing. This means that for low consumption level families, social security has a greater impact on their consumption. While for high consumption level families, income level is an important determining factor for consumption difference. One possible explanation is that low consumption groups are more sensitive to future uncertainties and obtaining social security is one of the few ways to reduce future life uncertainties. Hence, the difference in social security has a greater impact on their consumption difference. It is in line with the goal of social security establishment to guarantee the basic living standard of residents in China.

Analysis on the Mechanism Arising from Consumption Difference

According to the previous analysis of historical documents and empirical results, income and social security play a very important role in the change of consumption difference between "urban *hukou* obtainers" and urban natives. On the 50th percentile, about 50% of the consumption difference can be explained by the two factors. Based on this, we propose a mechanism that may affect the consumption difference between the two groups: despite the change of household registration, there is still a certain gap in income and social security between the two groups. It is also an important mechanism for the difference in consumption between the two groups. Next, we used the CHIPS data in 2013 to further identify and test the above possible mechanism empirically.

Change of Household Registration and Residents' income

Although it has been proved that the change of household registration can reduce wage discrimination and improve the income level of "urban *hukou* obtainers", agricultural migrants will still confront with many unfavorable factors for entering the urban labor market. As a result, no matter whether enterprises have subjective discrimination behaviors or not, the difference in wage bargaining power and social capital between urban natives and "urban *hukou* obtainers" may lead to an actual wage discrimination (Xu Yan, 2018). In order to verify that there will still be income difference after the change of *Hukou*, thereby leading to the consumption difference, we included the variable of *nzf* into the income equation and used OLS and PSM empirical methods with urban natives remained as the control group for verification. In this equation, the explained variable is the annual income of workers, while explanatory variables, in addition to "*nzf*", also include workers' gender, marital status, age, work experience, the square of work experience, education background, health condition, political affiliation, labor contract, type of work and ownership of their working units. In order to ensure the robustness of the results, the estimated results of different matching bandwidth under each matching method are also given. The specific results are shown in *Table 9*.

Table 9: Average Treatment Effects Estimated by Different Methods

OLS		sample size	regression coefficient	standard error
		9309	-1846**	855
PSM estimating matching method	matching parameters	common support sample size	ATE (average treatment effects)	standard error
k-nearest neighbor matching	k=10; δ=0.001	9203	-2141***	827
	k=10; δ=0.005	9269	-2208***	830
	k=10; δ=0.01	9273	-2213***	806
	k=10; δ=0.01	9277	-2203***	815
	k=10; δ=0.5	9277	-2204***	790
one-to-one matching without replacement	δ=0.001	6010	-2272***	814
	δ=0.005	6102	-2240***	780
	δ=0.01	6155	-2091***	837
	δ=0.1	6219	-5680***	847
	δ=0.5	6342	-6769***	892

Note: (1) k indicates the number of neighbors of results calculated through specified matching method, and δ indicates the bandwidth of the matching score; (2) ***, ** and * represent the significance levels of 1%, 5% and 10% respectively.

As can be learned from the results reported in Table 9, although "urban *hukou* obtainers" have undergone the change of household registration and become "urban citizens", their income still lags behind that of urban natives. The historical characteristics of agricultural household registration gained through OLS estimation have a net impact of -1846 on urban workers' wage income which is significant at the statistical level of 5%. This is consistent with the theoretical expectation of this paper. However, considering the potential problem of sample self-selection, this result may be biased. According to the PSM estimation results reported in Table 9, no matter which matching method and bandwidth are adopted, the ATE value is negative and significant at the statistical level of 1%. The net effect of discrimination on wages under different matching methods is between -1953~-6769 yuan, which is a considerable impact on wage income. This shows that under the condition of overcoming the problem of sample self-selection, the wage discrimination effect of urban labor market on "urban *hukou* obtainers" is still significant. This conclusion is consistent with the theoretical expectation of this paper, namely, household registration change cannot eliminate wage discrimination and wage discrimination effect still exists. One possible reason for this income difference lies in the fact that "urban *hukou* obtainers" whose household registration have been changed still have a gap with urban natives in terms of wage bargaining power, social network and unpaid time that individuals can afford. These differences lead to the lower income of "urban *hukou* obtainers" to urban natives, which to some extent can cause consumption gap between them.

Change of Household Registration and Social Security for Residents

According to the previous theoretical analysis, although the change of household registration means the increase of various explicit or implicit social security benefits which helps to reduce uncertainties and improve the consumption level of "urban *hukou* obtainers", there are also differences in the scope and degree of social security. Compared with "autonomous urban *hukou* obtainers" who can obtain the security of relatively complete and high-level social security programs, "policy-based urban *hukou* obtainers" can only passively accept the security of the lowest-level social security. Differences in the degree and scope of social security will have an impact on the degree of uncertainties of residents' life, thereby resulting in consumption differences. This may be an important path and mechanism for the consumption difference among residents. In order to verify this path and mechanism, we examined the relationship between the participation rate of social security and the change of identity to verify whether there is a difference in social security between "urban *hukou* obtainers" and urban natives after the change of household registration.

Based on the relevant information of residents' participation in social security from CHIPS2013, we extended the definition of social security to include: endowment insurance for urban employees, medical insurance for urban employees, endowment insurance for urban residents, and medical insurance for urban residents. In addition, we defined the social insurance for urban employees as one group and the social security for urban residents as another group. Then we conducted an empirical analysis on the two groups respectively with urban natives being the control group. The variable of "*nzf*" was included into the equation of social security participation, and the Logit model was used to test whether there was still a difference in the participation rate after the change of household registration. The dependent variable are dummy variables of whether participated in the social security of the above two groups; if the respondents participated, the value is 1; otherwise, it is 0. The specific empirical results are shown in *Table 10*.

Table 10: The Influence of Household Registration Change on Social Security Participation Rate and Consumption

	social security for urban employees		social security for urban residents	
	selective urban hukou obtainers	policy-based urban hukou obtainers	selective urban hukou obtainers	policy-based urban hukou obtainers
empirical method	Logit regression		Logit regression	
nzf	-0.1023 (0.0725)	-0.3504*** (0.1021)	-0.1281* (0.0713)	-0.2015** (0.0917)
personal characteristics	controlled	controlled	controlled	controlled
urban characteristics	controlled	controlled	controlled	controlled
R_{Mcf}^2	0.5201	0.4138	0.3814	0.4022
sample size	5852	6201	4103	5136

Note: (1) ***, ** and * represent the significance levels of 1%, 5% and 10% respectively and the figures reported in brackets are standard deviation; (2) the results of controlled variables are omitted here due to limitations in length.

As can be seen from *Table 10*, despite the change of household registration, there is a significant difference in the participation rate of social security between "urban *hukou* obtainers" and urban natives. And the different source of urban household registration also leads to a significant difference in the participation rate. To be specific, first of all, the participation rate of policy-based urban *hukou* obtainers who have undergone household registration transformation in the social security for urban employees is significantly lower than that of urban natives. And there is no significant difference in the participation rate between selective urban *hukou* obtainers and urban natives. According to the previous analysis, the social security provided for urban employees is more comprehensive and higher in substitution rate, which can reduce more uncertainties in the future. Therefore, the consumption level of urban natives with higher social security participation rate is naturally higher than that of policy-based urban *hukou* obtainers. At the same time, as the participation rate of selective urban *hukou* obtainers is not significantly lower than that of urban natives, the social security has no significant impact on the consumption of these residents, which can partly explain some results in Table 7. Secondly, the participation rate in the social security of both selective and policy-based urban *hukou* obtainers is significantly lower than that of urban natives, but the latter is lower. Therefore, there is a greater consumption difference between policy-based urban *hukou* obtainers and urban natives due to the difference in social security for residents. The above empirical results also confirm the results of theoretical analysis, that is, even after the change of household registration,

there is still a difference in the participation rate of social security between "urban *hukou* obtainers" and urban natives, which is also an important mechanism for the consumption difference between the two groups.

Conclusion

The consumption difference between residents caused by household registration has always been an important research subject for domestic economists. At present, Chinese governments at all levels are actively promoting the reform of the household registration system. One of the very important policy goals is to eliminate the income and consumption gap between urban and rural areas through citizenization of agricultural migrant population, so as to facilitate the smooth integration of them into urban life, thereby promoting active urbanization. Can the elimination of household registration restrictions fundamentally eliminate the difference in consumption? In order to answer this question, based on theoretical analysis and CHIPS2013 data, this paper adopted the empirical research methods of linear regression and PSM to empirically analyze the impact of household registration change on the consumption gap between residents. The results show that even with the change of household registration, there is still a very obvious consumption gap between urban *hukou* obtainers and urban natives, and this gap even tends to be widened with the lower of the threshold for urban household registration. From the perspective of individual workers, the difference in the obtaining ways of household registration also directly affects the change of consumption gap. Policy-based urban *hukou* obtainers who held their urban household registration through land transferring and household registration system reform have a greater consumption gap with urban natives. Further empirical studies have found that such consumption differences can be explained by income differences and differences in social security participation rate.

Policy implications of the research conclusion of this paper are clear: although the household registration system reform has smoothed the difference in the label of identity between "urban *hukou* obtainers" and urban natives, under the great institutional inertia of the urban-rural dualistic system, the gap between the two groups in terms of labor income, social security they enjoy cannot be narrowed in a short time. These are the key factors that lead to the low consumption level of "urban *hukou* obtainers", and the deep-seated reasons that they cannot really integrate into urban life. If these obstacles cannot be removed, then any upper level system design cannot fundamentally eliminate the differences between the two groups, which will also increase the difficulty for rural migrant population to integrate into urban life and is not conducive to the improvement of residents' happiness. In conclusion, the reform of the household registration system is only the beginning of the citizenization process. China still has a long way to go to build an equal, orderly and harmonious urban society.

Acknowledgments

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