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Hewei Shen April 11, 2013

Economic Returns to Chinese Communist Party Membership

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Abstract

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This paper uses data from the 2003 Chinese General Social Survey to examine the economic return to Chinese Communist Party membership. China is currently under an economic transition from planned economy to socialist market economy and there is a debate about whether the economic return to the party membership will continue to exist under the new economy. Therefore, this paper employs OLS and Fix-Effect analysis to study the economic return to political capital under this transition economy in China. The Fixed-Effect model suggests that economic return to party membership is smaller in wealthier provinces rather poor provinces in China because of the entry of foreign invested and private firms in the labor market. In addition, the OLS models imply that party membership helps male members to increase their household income and helps them change their household registration classification from agricultural status to non-agricultural status in order to enjoy the social benefits that are provided exclusively to urban residents.

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Table of Contents

1. Introduction

Since the 1950s, the Communist Party of China has been the sole ruling party of the big country with a 1.3 billion population. In the Maoist era, the party enjoyed a near monopoly on goods and resources, such as housing, education and food. Therefore, party members could enjoy great material benefits compared to non-members. (Dickson, Rublee 2000) However, as the Maoist era ended, the Communist Party of China has been modifying its primary mission from socialist "modernization" in the 1980s to building the socialist "market economy" in the mid-1990s. (Sato & Eto 2006)

Since the start of the economic transition, there is a debate about whether the economic return to the party membership will continue to exist under the new economy. For example, Lam points out that the return to political capital is significant in state-owned enterprises but insignificant in foreign invested or private companies. However, in state-owned companies, the economic return to party membership is only significant for male employees but not female employees. (Lam 2003) Bian and Logan conclude that the economic return to party membership exists and the income inequality between party membership and non-members has increased in Tianjin since the 1980s. (Bian, Logan 1996) Similarly, Walder points out the fact that administrative occupations are only given to the people with good political reliability. As a result, party members enjoy an advantage in terms of income and quality housing. (Walder 1995) On the other hand, Li, Liu, Zhang and Ma conclude that the income inequality is not caused by party membership but by unobserved or hidden family backgrounds. (Li, Liu, Zhang, Ma 2007)

Based on the findings from other papers, this paper uses the 2003 China Social Survey to examine the economic return of communist party membership in China and explores whether the Chinese communist party members have utilized their political advantages to bring economic benefits to themselves or their households. It also explores if communist party membership can help people change their household registration classification from agricultural to non-agricultural status and thus enjoy the better education, housing and social benefits that are exclusively provided for urban residents.

This paper is organized as follows. In section 2, I discuss some related literature and how I can contribute to my paper based on others' findings. In section 3, I describe the dataset I use in this paper. In section 4, I explore the effect of party membership on individual and household income and how communist party membership helps people change their household registration from agricultural to non-agricultural registration and thus enjoy the education, housing and social benefits that are exclusively provided to the urban residents. Section 5 is the conclusion of this paper.

2. Literature Review

There are many papers that are related to the economic return of communist party membership in China. For example, Lam used a survey sample conducted in 1996 to explore the income difference between communist party members and non-members. The random sample survey was conducted by the institute of Economics, Shanghai Academy of Social Sciences in January 1996 and consists of 3000 observations of individuals between 15 and 60. In her

paper, she controls for the type of companies and the gender of interviewees and finds out that the economic return to political capital is significant in state-owned enterprises and collective enterprises. However, in private firms, even though the average gross earnings of party members are also higher than that of non-members, the difference is due to the fact that party members usually have greater human capital, such as education and work experience. When these human capital variables are controlled in her models, Lam finds that the return to party membership is insignificant in private firms. (Lam 2003) In addition, Lam finds that such return to political status is very small for female workers and she suggests that there may be sex discrimination in return to political capital. This paper gives a plausible explanation of the income difference between members and non-members and provides some evidence to support its hypothesis. However, this paper does not take into account some variables such as geographical difference in income among different regions in China.

Similarly, Walder affirms that party members receive higher income and housing benefits because of their party membership. In his paper, he introduces a hypothesis which claims that occupation and party membership are simply two measures of elite status, both of which are attained via education. Under this dual elite hypothesis, any correlation between party membership and occupation would be spurious and there should be no causal relationship in either direction and political screening should not be important in the process of selecting candidate for cadre and administrative occupations. (Walder 1995) To test this hypothesis, Walder uses a 1986 survey's data which contains data of 1,011 households in the urban districts of Tianjin, China's third largest city. In contrast to the dual elite hypothesis, the results of OLS analysis show that the candidates for administrative positions are screened for

both educational and political credentials. In addition, Administrators enjoy income and housing advantages over professionals and all other occupational groups. On the other hand, professionals are only screened for educational but not political credentials and they are not preferentially incorporated into the party. (Walder 1995) As a result, the professionals' high education attainment does not bring them the advantages in income and housing enjoyed by the administrators. This result contradicts the dual elite hypothesis and shows that party membership helps job candidates receive administrative occupations and therefore advantage in income and housing over other candidates who have similar education attainment but not party membership. This finding also corresponds to Morduch and Sicular's conclusion that party members hold cadre positions during the economic transition and thus earn a higher income.

While many papers indicate that party membership can increase people's income, there are many other scholars who have different opinions on this question. For example, Li, Liu, Zhang and Ma used twin data to explore the economic benefit brought by the communist party membership. The data that they used were derived from the Chinese Twins Survey, which was carried out by the Urban Survey Unit of the National Bureau of Statistics in June and July 2002 in five cities in China. This paper suggests that Communist Party membership's economic benefits are caused by family background and unobservable abilities. These factors are hard to control and quantify and thus are rarely considered or analyzed in other papers. In order to control the effect of the family background or unobservable family backgrounds, they studied the income difference between identical twins so that they can neutralize the effect of race, age, gender and, most importantly, family background and other unobservable abilities.

Their OLS estimates that being a party member increase the income by 10% but the within-twin-pair estimate becomes zero. (Li, Liu Zhang & Ma 2007) They also state that higher income for party memberships may be caused by corruption and their higher-possibility to accept bribes. This paper provides a new approach to explain and explore the income difference between members and non-members of the Communist Party of China. However, such approach also has some drawbacks. Sometimes identical twins can be different from each other in many aspects, such as characteristics, intelligence, sociability ability, health condition, education level etc. Therefore, the twin data cannot control for the unobservable ability perfectly.

In addition to Li, Liu, Zhang and Ma, Gerber also states that, after the collapse of the Soviet Union, the advantage in income that former Russian Communist Party members enjoy are not caused by the party membership but the human capital, network or material assets that the party members possess. (Gerber 2000) Using the Russian component of the multinational survey, ‘‘Social Stratification in Eastern Europe after 1989: General Population Survey’’, he examines if former party members still enjoy an advantage in income after the collapse of the Soviet Union. OLS analysis shows that as the summer of 1993, communist party members still enjoy material advantage and earn more than the Russians who do not belong to the party. (Gerber2000) Since the institutional environment has changed due to the collapse of Soviet Union, Geber points out that the earnings of party members exceed those of non-party members due not to membership benefits, but to the selection process of the Russian Communist Party. When Russian Communist Party was recruiting new members, it was more inclined to invite the people with higher human capital, such as talent and productivity, to join

the party. In addition, after joining the party, the party members form a large network and this network persist after the collapse of Soviet Union. Therefore, even though the institutional environment has changed, the former-members still preserve their advantage in human capital and networks and earn a higher income than non-members after the collapse of the Soviet Union. (Gerber 2000) These findings are similar to the conclusion of Li, Liu, Zhang and Ma and shows that the earning advantage the party members enjoy in a socialism country is not caused by the party membership itself, but by the superior human capital that party members possess before they join the party.

Most of these papers examine the economic return of party membership and they give different answers and evidence towards this controversial topic. However, there are some other questions that remain unanswered by theses scholars. The first question is whether the economic return to party membership, if it exists, is geographically identical within all the provinces or municipalities in China. The second question is how party membership can help the households of the members as a whole, rather than just increase personal income. The third question is about which social or non-material benefits party members can obtain through their membership other than monetary income. I will start from the results of other scholars and explore these questions in this paper.

3. Dataset

In this paper I use data from the 2003 General Social Survey of China, which is conducted jointly by the HKUST's Survey Research Center and the Sociology Department of People's University of China in 2003. This survey interviewed 5900 urban respondents from 28 provinces or municipalities. This survey covers some basic questions such as gender, age, education level, yearly and monthly income, current occupation, previous occupation etc. Such information provides me the personal information that I can control for in my regressions. It also contains family information about the interviewees such as number of family members, household income, number of real estate owned, number of electronic appliances, number of motor vehicles and current value of the house etc. These questions provide me an estimation of the family wealth of the respondents. Also, this survey has many questions regarding the political status of the respondents and their family members, such as the political status of the interviewee, if they have previously applied to the party before, number of years in the party, and the political status of the parents of the interviewees.

4. Benefits of Chinese Communist Party Membership

In this section I employ linear regression methods to examine if Chinese Communist Party members enjoy a higher income or better social benefits than non-members. This section is divided into four subsections and organized as follows: In the first subsection I examine if the economic return to party membership is geographically different and adversely affected by the marketization process in China. In the second subsection I use the average household

income, rather than personal income, to measure the effect of party membership on household incomes. In the third subsection I employ instrumental variable analysis to examine the validity and unbiasedness of the OLS models. Finally, in the last subsection, I discuss if people can utilize their party membership to change their household registration classification and thus enjoy better social benefits.

i. Geographical Difference

Hypothesis

Since the start of the economy's transformation in China, many scholars have been studying the economic return of party membership in China under this economic transition. Bian and Logan concluded that the income inequality has increased dramatically in Tianjin since the start of the transition by using a 15-year lag and communist party memberships were particularly advantageous in the new market sector in 1980s. (Bian & Logan 1996) Similarly, Morduch and Sicular pointed out that Communist Party members still hold the cadre positions during the transition in China and received economic benefits from these high paying positions. (Morduch & Sicular 2000) On the other hand, there are papers that give the opposite conclusion. Lam states that although the earning difference between party members and non-members is significant in state-owned enterprises and collective enterprises, the difference is very small in private and foreign invested companies. (Lam 2003) In addition, Nee also points out that the political advantage for party members will decline in the transition of the economy. (Nee 1996)

In her paper, Lam concludes that foreign invested and private companies usually focus more on human capital endowment rather than political status during the recruitment process so that party members are less likely to receive a higher income than non-members when employed by foreign invested or private companies. (Lam 2003) Based on her results, I would like to extend her study and explore the geographical differences of the economic return to party membership. My hypothesis is that economic return to party membership is lower in the more developed or wealthier provinces or municipalities since there are more foreign invested or private firms in the high-income provinces.

Methodology

In order to test my hypothesis, I designed my analysis as follows: I use the population and GDP for each province or municipality from the China Statistical Yearbook in 2003 and calculate the GDP per capita. Then I rank the provinces or municipalities in the order of GDP per capita and put them into three categories: high income, medium income and low income provinces. (Table 1.a)

As shown in table 1.a, I separate out Shanghai, Beijing, Tianjin, Zhejiang and Guangdong and put them in the high income provinces category because they are the five most developed provinces or municipalities in China and the transformation towards a market economy in these provinces is faster than other provinces in China. Table 1.b is a summary of data in each category.

For the empirical strategy, firstly I employ linear regression on the independent variables delineating the basic information of the interviewees, displayed in formula (1).

$$Log\ Income\ last\ year = \beta_0 + \beta_1 X + \beta_2 Party + u \quad (1)$$

The dependent variable is the log value of individual's income last year, where X is the set of independent variables that represent the individual's personal information such as age, gender, education level etc. β_2 captures the coefficient of the party membership and its effect on the income for the entire dataset.

Secondly, I generated dummy variables representing the low, medium and high income provinces and then created interactive variables by multiplying the province category variables with the party variable and added them to the second model, and I also removed the party dummy variable in order to avoid multicolinearity problem.

$$Log\ Income\ last\ year = \beta_0 + \beta_1 X + \beta_2 Party * Low + \beta_3 Party * Medium + \beta_4 Party * High + u \quad (2)$$

In this model, β_2, β_3 and β_4 capture the coefficients of party membership on the income in the low, medium and high income provinces and municipalities.

Lastly, since the coefficient of interactive variables may be biased because of the difference in income among the individuals in each group, in the next model I introduce a new model to control for geographical fixed effect. It is shown in formula (3):

$$Log\ Income\ last\ year = \beta_0 + \beta_1 X + \beta_2 LowParty + \beta_3 MediumParty + \beta_4 HighParty + \theta + u \quad (3)$$

where θ is the fixed effect for being in the low, medium or high GDP/Capita categories.

Discussion

The results of these three regressions are displayed in table 1.c in the appendix. The first OLS model shows that part membership increases one's personal income by 16.99% and it is significant at the 1% level. In the second OLS model, the party membership dummy variable is replaced by the three interactive variables in order to explore the effect of party membership on income in the low, medium and high income provinces. The coefficient of the Party*Low interactive variable is 0.089 while the coefficients of the Party*High interactive variable is 0.225. This result shows that party membership generates a much higher economic return in the high income provinces than in medium and low income provinces and it contradicts my intuition and my hypothesis that economic return to party membership is lower in more developed provinces. However, this counter-intuitive result may be caused by the high average income in the high GDP/Capita provinces. Therefore, I use a geographical fixed-effect model as my third model in order control the unobserved difference between each provinces. The fixed-effect models shows that in the low income provinces the party membership can increase personal income by 18.41%, and in the medium and high income provinces the party membership can increase income by 14.22% and 8.76%, respectively. This result affirms my hypothesis that the economic return of party membership is lower in the high income provinces. Furthermore, it also implies that as marketization process continues in China, more and more private and foreign investor will enter the market, and the economic return to party membership will decrease in the future due to the entry of private firms on the labor market.

ii. Average Household income and Party Membership

Hypothesis

Many scholars have studied the effect that party membership has on personal income and the difference of economic return to party membership between two genders. For example, Li, Liu, Zhang and Ma concludes that party membership does not increase people's income by using Chinese twin data. They claim that the income difference between party members and non-members is due to the unobservable effect of different family background and personal abilities rather than party membership. (Li, Liu, Zhang, Ma 2007) On the other hand, Morduch and Sicular point out that being a communist party member gives a higher probability of obtaining a cadre position and earning a higher income. (Morduch and Sicular 1999) Also, Lam claims that male party members enjoy a higher income due to their political status but the economic return of party membership for females is not significant. (Lam 2003) However, only a few of them have studied the effect of party membership on household income and how such an effect differentiates between males and females. Therefore, in this subsection I explore the effect of party membership on household income. My hypothesis is that both male and female party membership will increase their household income but male members generate higher economic return for their households.

Methodology

To test my hypothesis, I use the log value of average household income as the dependent variable in order to control for the size of the households. For married observations, there will be two adults earning income for their households, so I divide the dataset into four categories

based on the gender and marital status of the observations: single male, married male, single female and married female. For the single male and single female, I test how the average household income is influenced by their party membership, shown in formula (4):

$$Log\ Average\ Household\ Income = \beta_0 + \beta_1 X + \beta_2 Party + u \quad (4)$$

The dependent variable is the log average household income, where X is the set of independent variables that represent the individual's basic personal information. β_2 captures the effect of party membership on average household income. For married males and females I introduce a new independent variable: Spouse' Party Membership into the model. While the survey data were collected, one representative of each household was interviewed, and the spouse' party membership is a dummy variable which represents the party membership of the interviewee's husband or wife. The new model is displayed as formula (5).

$$Log\ Average\ Household\ Income = \beta_0 + \beta_1 X + \beta_2 Party + \beta_3 Spouse\ Party + u \quad (5)$$

β_3 captures the effect of party membership of the spouse of the observation on the average household income. Then I run four regression models on each of the categories based on gender and marital status and the results are shown in table 2 in the Appendix.

Discussion

Table 2 shows that for single females, party membership increases their average household income by 28.5% but it is statistically insignificant. On the other hand, party membership increases the average household income of the single male party members by 43.6% and it is significant at 5% significance level. Such a large difference indicates that single male party members are more likely to utilize their political status in order to generate more income for

their families compared to single female party members. The second and fourth regression models generate similar outcomes. The regression result shows that party membership increases the average household income by 17.2% for married male members and by 13.1% for married female members. Also, for married males, their spouses' party membership increases their average household income by 15.6%. In contrast, for married females, their spouses' party membership increases their average household income by 20.1%. All of these four regression models show that both males and females can utilize their party membership to earn economic return for their households. However, for both married and single observations, male party members can earn a higher economic return for their family than female party members. These findings correspond with my hypothesis and Morduch, Sicular and Lam's conclusion.

iii. Instrumental variable

Even though many scholars claim that party membership can influence one's income positively, there are many other papers stating that the positive effect of party membership on individual income is merely caused by other unobserved and hidden variables. For example, Li, Liu, Zhang and Ma state that the income difference between party members and non-members is caused by hidden effect of family backgrounds and unobserved abilities. Therefore, they use 2002 Chinese twin data in order to control for unobserved family background, age, race and gender. According to their analysis, OLS shows that party membership increases income by 10% but within-twin-pair estimate becomes zero. (Li, Liu Zhang & Ma 2007) Thus, they conclude that it is the unobserved effect of family backgrounds

and other hidden variables, rather than party membership, which positively affect income in the observations.

Based on the finding of Li, Liu, Zhang and Ma, I want to examine if OLS is a valid estimate of the effect of party membership on income. Formula (6) shows the OLS equation.

$$Log\ Income = \beta_0 + \beta_1 X + \beta_2 Party + u \quad (6)$$

In formula (6), β_2 captures the party membership's effect on income and the error term u represents the effect of other hidden or unknown variables on personal income. In order for the OLS estimate to be valid, one important assumption is that the error term u is uncorrelated with the independent variable party membership. However, according to Li, Liu, Zhang and Ma, people may have some hidden or unknown characteristics that can affect party membership. (Li, Liu, Zhang, Ma 2007) For example, Communist Party may prefer people with higher IQ, more diligence, or even better personal appearances when recruiting new members. These hidden characteristics, if they exist, are correlated with the party membership variable and captured by the error term, causing the OLS estimator to be biased.

In order to explore whether the coefficient of party membership under OLS is biased, I use another variable as the instrumental variable of party membership to examine if party membership truly affects individual income. To be a valid instrument for party membership, the instrumental variable has to be correlated with the party membership variable but uncorrelated to the hidden characteristics such as IQ, diligence, or personal appearance. Based on this criteria, I choose the political status of the father of the observations as the instrumental for the following reasons. Firstly, people's political views may be heavily influenced by their

parents during their adolescence and thus people are more likely to join the communist party if their fathers are also members. Secondly, some of, if not all, the hidden characteristics that are correlated with party membership are presumed to be not heritable. As a result, father's party membership are unlikely to be correlated with the error term and the hidden characteristics that can affect party membership. For the reasons above, the father's party membership is selected as an instrumental variable for the party membership in my analysis.

The next step of this instrumental variable analysis is to run a two-stage regression on income by using the father's party membership dummy variable to test the validity of the selected instrumental variable. The result of the two stage regressions is shown in table 3 in appendix. The results show that in the first stage regression, the coefficients of the father's party membership are 0.063 and 0.079 for female and male observations, respectively. Also, both coefficients are significant at the 1% significance level. Thus, the first stage regressions show that the observations' father's party membership is positively correlated with their own party membership and such a correlation is statistically significant. This result corresponds with my statement that the observations' father's party membership is correlated with their own party memberships. The result of the second stage regression shows that the coefficients of party membership become insignificant for both male and female after using father's party membership as instrumental variables. However, this result contradicts the results that I have found in the other sections which imply that party membership influences income positively.

There are several possible interpretations to the conflict between the results of OLS and instrumental variable analysis. One possible explanation is that the father's party membership

is an effective and valid instrumental variable for the party membership of the observations. Therefore it means that OLS may be biased and the coefficient of party membership under OLS is invalid. However, I made an assumption that all the hidden or unobserved characteristics that are preferred by the communist party are not heritable when I was choosing the instrumental variable for the observations' own party membership. Another possible explanation is that the assumption I made during my selection of instrumental variable is not true, thus causing the father's party membership to be an invalid instrumental variable of the observations' own party membership. One limitation of this dataset is that I can find no evidence to prove either explanation so it requires further study to examine whether the father's party membership is a truly valid instrumental variable for the observations' own party membership.

iv. Change of Household Registration Classification

Hypothesis

China's household registration became law in 1958, when the National People's Congress passed its "Regulations on Household Registration in the People's Republic of China." (Fan 2008) Under this law, every Chinese citizen is assigned a household registration, location and an "agricultural" or "non-agricultural" household registration classification. (Fan 2008) This registration system has segregated the rural and urban populations not only geographically, but also fundamentally in society, economics, and politics. Under this system, "agricultural" registration holders are not allowed to permanently live in cities and cannot have the basic social benefits and state-provided services which are enjoyed by regular urban residents. (Chan 1999) Therefore, for more than half a century, the household registration classification

has played a powerful role in creating social identities and it can greatly influence one's social and economic circumstances. (Afridi, Li, Ren 2012)

Many scholars have been studying the inequality caused by the household registration system in China and claim that the household registration system in China has caused social inequality. For example, Afridi, Li and Ren conducted an experimental study to investigate the causal impact of social identity on individuals' response to economic incentives. They randomly assigned primary school students in Beijing, with different household registration backgrounds, to two treatments. In the identity treatment they make the household registration identify salient through a pre-experiment questionnaire followed by a public verification of their household registration status. In the control treatment the students' household registration identity is kept private. Then they found out that when rural migrant students' "inferior" registration status is made salient, they significantly underperform by 10 percent on assigned tasks compared to when their identity is kept private. (Afridi, Li, Ren 2012) In addition, Whalley and Zhang also state that the household registration system prevents movement towards a more equal distribution of income in China and the people with agricultural household registration have a substantially lower income than non-agricultural household registration holders. (Whalley, Zhang 2004)

In Mao's era, changing household registration was very rare and Chinese citizens were confined to their household registration location. In 1980s, China started a household registration reform and allowed rural migrants to receive "temporary residence permits" and

they could use their identity cards instead of household registration as their proof as identity. (Yu 2002) In the meantime, many cities started to "sell household registration" and rural migrants can obtain city household registration if they met some criteria and contribute a certain amount of investment to the city. (Wong and Wai-Po 1998) However, large cities such as Beijing and Shanghai are still reluctant to grant too many city household registrations to rural migrants and only those who met stringent criteria such as education level, skills and financial condition will be granted city household registration in those big cities. (Fan 2008)

Since there is an obvious difference between the social benefits provided to agricultural and non-agricultural household registration holders, it is desirable for the rural residents to obtain non-agricultural household registration and enjoy the social benefits and resources that are exclusively provided for urban residents. However, the rural residents have to meet many stringent criteria in order to be granted the urban household registration. Thus, in this section, I want to examine if party membership can help people switch from agricultural household registration to non-agricultural household registration. My hypothesis is that among all the observations who used to be or currently are rural residents, party members are more likely to utilize their political endowment to change their household registration classification and become urban residents.

Methodology

Since I am examining if party membership can help people change their household registration classification from agricultural to non-agricultural, in this section I only include

the observations which individuals had agricultural household registration when they were born. Table 4.a is a summary of the observations who used to or currently hold agricultural household registration.

Table 4.a shows that about 80% of the party members in the dataset who used to or currently have agricultural household registration are male and only 39% of the non-party members are male. Therefore, in my analysis, I create a dummy variable called "Switch Household Registration" and regress on this dummy variable for male and female observations separately. The result is displayed in table 4.b in the appendix.

Discussion

The result shows that the coefficient of the party variable is not significant for female observations who used to or currently hold agricultural household registrations. However, for male observations, the coefficient of the party dummy variable is 0.068 and it is significant at the 5% level. It implies that party membership increases the probability of changing household registration classification by 7.03% but it does not help females in switching household registration classification. One plausible explanation for this gender difference is that males usually manage to change their household registration out of their own human capital or political credentials. Meanwhile, their wives can take advantage of this opportunity and change household registration classification with their husbands. Therefore, when the wives can change household registration classification with their husbands, they do not need party membership for themselves to change the household registration. There is some evidence in

the dataset to support this explanation. Table 4.c shows the percentage of the reasons that the male and female observations change their household registration.

Among all the male observations who had changed their household registration in the dataset, about 11.34% changed their household registration classification with their family members. However, 40.74% of the female observations changed their household registration classification with their family members. Such difference implies that many women changes their household registration classification with their husbands and therefore explains why the effect of party membership on the change of household registration is insignificant for female observations.

5. Conclusion

In this paper I used 2003 China Social Survey data to examine the economic and social return of Communist party membership in China. Based on the findings by other scholars, I introduce my hypothesis that the economic return to party membership is smaller in wealthier provinces because of the larger number of foreign invested or private companies in the wealthy provinces. The result from the geographical fixed-effect model shows that party membership increases people's income by 8.76% in the wealthy provinces and by 14.2% and 18.4% in medium and low income provinces, respectively. It also implies that as the marketization process continues in China, more and more private and foreign invested

companies will enter the market and the economic return to party membership will decrease in the future.

Other than personal income, I also explored the effect of party membership on household income. In order to control for the household size and the membership of the observations' spouses, I used average household income as the dependent variable and introduced the spouse's party membership as a new independent variable. The OLS models' results show that the effect of party membership on average household income is significant for male observations but insignificant for female observations. The coefficients of the spouse party membership gives similar results and indicates that the effect of men's party membership on average household income is significant while women's party membership does not influence average household income significantly.

In order to verify the validity of the OLS models, I used the father's party membership as an instrumental variable to test if party membership truly affect personal income, assuming that the father's party membership is a valid instrumental variable. The first stage regression shows a strong correlation between the father's party membership and the observations' own party membership. The result of the second stage regression shows that the effect of party membership on income is insignificant and implies that the previous OLS estimates are biased. However, it requires further study to verify if father's party membership is a valid instrument for the own party membership of the observations.

Lastly, I examined if party membership can help people change their household registration from agricultural status to nonagricultural status in order to enjoy the education, housing, jobs and other social benefits that are provided exclusively for urban residents. The OLS shows that the effect of party membership on changing household registration classification is significant for males but not for females. One plausible explanation for the result from the OLS model is that women usually changes their household registration with their husbands when their husbands have an opportunity to change. In addition, when I tried to utilize two-stage regression method to test the validity of this OLS model, I found out that there are no variables in the dataset can serve as a valid instrumental variable for party membership of those who used to or currently hold agricultural household registration status. Therefore, I stay with my OLS model and conclude that male members can utilize their party membership to help them change their household registration classification, while women do not need to have party membership in order to change their household registration status.

Overall, this paper examines the different benefits that people can receive by acquiring a party membership. Even though the data in this paper was acquired in 2003, the conclusion is still meaningful because China is still under a transition from planned economy to market economy now and the political environment has not significantly changed since 2003. However, there are also some drawbacks when discussing the dataset and models were utilized. Firstly, the survey data was mainly collected in urban areas, so it may not be able to represent all the rural residents. Secondly, the majority of the respondents of the survey are married. Therefore, the sample size of single observations is relatively small and thus may cause the result to be biased or insignificant. Lastly, it is still unknown whether the father's

party membership is a valid instrument for the party membership of the observations. As a result, further study is required in order to examine the validity of the instrumental variable analysis.

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Appendix:

Table 1.a: Low, Medium and High Income Provinces

High GDP/Capita		Medium GDP/Capita		Low GDP/Capita	
Province/ Municipality	GDP/Capita	Province/ Municipality	GDP/Capita	Province/ Municipality	GDP/Capita
Shanghai	36533.08007	Jiangsu	16825.7263	Qinghai	7310.041214
Beijing	25151.74403	Fujian	15000.4874	Henan	7291.3934
Tianjin	24203.10491	LiaoNing	14257.8147	Chongqing	7190.28754
Zhejiang	20076.71678	Shandong	13628.4164	Hunan	6962.133037
GuangDong	17130.36115	Heilongjiang	11612.0577	Tibet	6829.033571
		Hebei	10486.185	Jiangxi	6653.283908
		XinJiang	9708.67913	Ningxia	6640.358435
		Jiling	9330.25114	Shaanxi	6501.09771
		Inner Mongolia	9036.83754	Sichuan	6271.343846
		Hubei	9000.29992	Anhui	6197.160686
		Hainan	8277.77229	Yunnan	5634.175884
		Shanxi	7412.11542	Guangxi	5631.315627
				GanSu	5011.254773
				GuiZhou	3504.468093

Table 1.b: Summary of Low, Medium and High Income Category

Variable	Dataset	Low GDP/Capita Provinces	Medium GDP/Capita Provinces	High GDP/Capita Provinces
Male	48.10%	48.38%	46.71%	49.47%
Average Age	43.38073	42.52284	43.29143	44.55733
Average Income Last Year	9786.837	8368.868	8445.291	13620.25
Party %	18.64%	21.10%	17.52%	16.67%
Average income Party member	13941	11657.95	12888.11	19170.26
Average income non-member	8743.497	7455.942	7445.832	12270.54
Observations	5,894	2102	2100	1692

Table 1.c: Party Membership and Individual Income

Dependent variable: Log Individual Income Last Year			
	OLS 1	OLS2	Fixed Effect
Female	-0.175 (0.025)***	-0.19 (0.024)***	-0.19 (0.024)***
Party	0.157 (0.032)***		
Minority	-0.181 (0.052)***	-0.176 (0.052)***	-0.127 (0.051)**
Age	0.007 (0.001)***	0.007 (0.001)***	0.005 (0.001)***
Primary School	0.328 (0.075)***	0.317 (0.075)***	0.305 (0.073)***
Secondary School	0.574 (0.072)***	0.581 (0.071)***	0.527 (0.070)***
Vocational/Technical School	0.937 (0.077)***	0.952 (0.076)***	0.892 (0.074)***
High School	0.756 (0.074)***	0.77 (0.074)***	0.701 (0.072)***
Associate Degree	1.216 (0.077)***	1.238 (0.077)***	1.164 (0.075)***
College Degree	1.499 (0.084)***	1.525 (0.084)***	1.435 (0.082)***
Graduate Degree	2.18 (0.192)***	2.179 (0.185)***	2.128 (0.181)***
Party*Low		0.089 (0.036)**	0.169 (0.037)***
Party*Medium		0.037 (0.04)	0.133 (0.040)***
Party*High		0.225 (0.044)***	0.084 (0.044)*
Constant	7.958 (0.092)***	7.954 (0.092)***	8.103 (0.090)***
R^2	0.2	0.2	0.24
Observations	4,399	4,491	4,491

* p<0.1; ** p<0.05; *** p<0.01

Table 2: Average Household Income, Party Membership and Spouse's Party Membership

Dependent variable: Log Average Household Income				
	OLS1: Single Female	OLS2: Married Female	OLS3: Single Male	OLS4: Married Male
Minority	-0.519 (0.201)**	-0.303 (0.081)***	-0.362 (0.199)*	-0.342 (0.088)***
Age	0.005 (0.004)	0.018 (0.002)***	0.007 -0.004	0.015 (0.002)***
Party	0.251 (0.223)	0.123 (0.063)*	0.362 (0.170)**	0.159 (0.045)***
Primary School	0.176 (0.257)	0.155 (0.089)*	-0.472 (0.483)	0.295 (0.139)**
Secondary School	0.53 (0.229)**	0.465 (0.085)***	-0.245 (0.473)	0.544 (0.136)***
Vocational/Technical School	1.035 (0.263)***	0.93 (0.098)***	0.335 (0.489)	0.934 (0.142)***
High School	0.98 (0.250)***	0.8 (0.092)***	-0.026 (0.479)	0.742 (0.139)***
Associate Degree	1.364 (0.263)***	1.428 (0.103)***	0.551 (0.484)	1.273 (0.143)***
College Degree	1.828 (0.274)***	1.646 (0.132)***	0.834 (0.488)*	1.618 (0.151)***
Graduate Degree	1.848 (0.623)***	2.224 (0.301)***	0.473 (1.094)	2.536 (0.312)***
Spouse Party		0.183 (0.043)***		0.145 (0.066)**
Constant	7.302 (0.306)***	6.909 (0.126)***	8.286 (0.521)***	6.915 (0.166)***
R^2	0.23	0.22	0.17	0.22
Observations	392	2,309	377	2,220

* p<0.1; ** p<0.05; *** p<0.01

Table 3: Two-stage Regression and Instrumental Variable

	Dependent variable: Log Income Last Year			
	First Stage		Second Stage	
	Female	Male	Female	Male
Party			0.949	0.542
			(0.68)	(0.53)
Minority	-0.015	0.026	-0.215	-0.147
	(0.03)	(0.038)	(0.077)***	(0.077)*
Age	0.007	0.012	0.003	0.001
	(0.00063)***	(0.0007)***	(0.005)	(0.006)
Primary School	0.047	0.021	0.302	0.203
	(0.039)	(0.065)	(0.105)***	(0.128)
Secondary School	0.096	0.084	0.575	0.375
	(0.036)***	-0.063	(0.116)***	(0.133)***
Vocational/Technical School	0.224	0.26	0.875	0.633
	(0.040)***	(0.065)***	(0.191)***	(0.193)***
High School	0.18	0.178	0.751	0.466
	(0.039)***	(0.064)***	(0.163)***	(0.161)***
Associate Degree	0.317	0.432	1.188	0.761
	(0.041)***	(0.065)***	(0.248)***	(0.271)***
College Degree	0.427	0.471	1.391	1.052
	(0.047)***	(0.068)***	(0.321)***	(0.292)***
Graduate Degree	0.251	0.607	1.99	1.86
	(0.105)**	(0.152)***	(0.327)***	(0.449)***
Father's Party Membership	0.063	0.079		
	(0.017)***	(0.021)***		
Constant	-0.377	-0.454	7.861	8.371
	(0.049)***	(0.739)***	(0.272)***	(0.267)***
R^2	0.12	0.18	0.15	0.12
Observations	2033	2366	2,033	2,366

* p<0.1; ** p<0.05; *** p<0.01

Table 4.a: The Observations who Used to or Currently Hold Agricultural Household Registration

	All	Party Member	Non-member
Male	47.24%	79.81%	39.13%
Average age	43.38	48.69	42.06
Changed household registration classification	79.48%	93.43%	76.01%
Observations	2,062	411	1,651

Table 4.b: Party and Change of Household Registration Classification

Dependent Variable: Switch Household Registration Classification		
	Observations who used to currently hold agricultural household registration	
	Female	Male
Minority	0.064 (0.054)	0.084 (0.061)
Age	0.011 (0.001)***	0.006 (0.001)***
Party	0.009 (0.048)	0.068 (0.028)**
Primary School	0.093 (0.045)**	-0.039 (0.075)
Secondary School	0.198 (0.045)***	0.009 (0.074)
Vocational/Technical School	0.328 (0.057)***	0.157 (0.079)**
High School	0.265 (0.054)***	0.113 (0.077)
Associate Degree	0.488 (0.064)***	0.208 (0.079)***
College Degree	0.443 (0.083)***	0.255 (0.085)***
Graduate Degree	0.321 (0.397)	0.28 (0.165)*
Constant	0.097 (0.072)	0.436 (0.090)***
R^2	0.12	0.12
Observations	1,088	974

* p<0.1; ** p<0.05; *** p<0.01

Table 4.c: Reasons of Change of Household Registration Classification

Reason of Change	Male	Female
Receive Higher Education	21.09%	11.46%
Serve the Military	13.19%	0.58%
Job Support	24.66%	15.16%
Change with Other Family Members	11.34%	40.74%
Land Expropriation	13.44%	13.77%
Expansion of City	2.34%	3.24%
Other	13.94%	15.05%
Total	100.00%	100.00%