

# **Earnings Benefit and Party Membership in Urban China**

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## **Abstract**

This paper investigates the earnings benefit of China Communist Party members by male and female in year of 1988 and 1995. We use the cross-sectional data for both years from Chinese Household Income Project (CHIP) and set up semi-log model to get the OLS estimation, which indicates that the Party membership significantly make people and their spouse earn more income. Additionally, we compare the income benefit of Party member for both years. The result shows that Party member earn even more as the economic reform goes through.

**Keywords:** Party member, cadre, income, China

## **I. Introduction**

At the Third Plenum of the 11<sup>th</sup> Central Committee in December 1978, the Chinese Communist Party decided to turn the focus of their work to economic development, featured by Four Modernizations of agriculture, industry, national defense, and science and technology (Riskin 1987 and Chang 1988). Following the market-oriented economic reform China has witnessed great economic growth and upsurge of personal income in the 1980s and 1990s. The per capita annual income of urban households grew from 343.4 Yuan in 1978 to 1626.11 Yuan<sup>1</sup> adjusted for inflation in 1999<sup>2</sup>.

There is an increasing income inequality in urban China due to the economic system reform (Zhao 2001). Many former studies showed that being a Communist Party member is an important factor that contributes to widen the income gap. Some researchers found that the differences in income between Party member and Non-Party member are as much as 32 percent (Knight and Song 1993).

The changes in economic benefit from being a Party member have been the subject of much attention. There are debates on whether the economic advantages of Party members will persist in the transition economy (Lam 2003). Some researchers argue that the advantage and personal network of Party member will make them easy to access leadership and cadre position throughout the reform period (Bian and Logan 1996), while the others insist that since ownership transform from state-owned enterprises (SOEs) and collectively-owned enterprises to private- or foreign-owned

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<sup>1</sup> The exchange rate is about USD: RMB≈1: 8.28 according to the standard exchange rate in Bank of China on Apr 19, 2005.

<sup>2</sup> Come from [www.China.org.cn](http://www.China.org.cn).

enterprises, there will be some negative effect on Party domination and economic advantage in this period (Lee 1999).

According to the above results, we examine the data in urban China for 1988 and 1995. For the purpose of comparability we restrict our data for the labor force, excluding people who are retired, students and have no income. We will focus on the following questions: Does the Party member really earn more than non-Party member? If so, does the benefit come from the Party membership or the human capital itself? What is the other ways that bring Party member benefit? For example, the spouse of Party member may get more income advantage. Additionally, we discuss the benefit of being cadre in government and compare it with that of being Party member.

## **II. Data**

Our data set comes from the Chinese Household Income Project (CHIP) in 1988 and 1995, which are major research program of the Chinese Academy of Social Sciences (CASS). The data set comprises samples of both urban population and rural population in China. The urban population data consists of two data files. The first part is urban individuals' information, including their age, gender, education, relationship to the household head, whether or not they are Party member and their annual income, etc. The second part is urban households' information, including assets and debts of household, expenditures, living conditions, and so on.

We use this data set because it is not only large sample size but also representative set. The 1988 data consists of 9,009 urban households (31,827 individuals) in ten provinces and Beijing, and the 1995 data consists of 6,931 urban households

(21,698 individuals) in ten provinces and Beijing. On the other hand, the survey was designed so comprehensive in the information that it enables the researchers, especially the economists, to evaluate the characteristic of individuals and households with respect to the change of the economy in China.

We constrained our data to meet the study requirements for this paper. First, we merge the sets of individual and household data by the household members. Since our study will focus on the earnings benefit on Party members, we delete the observations whose age is less than or equal to 18 and whose income is zero or omitted value. Then we have the working force data file contained both individual and household situation.

Second, we keep the observations that are household head or household's spouse and then create new dummy variables "SPS\_noncadre\_Party" and "SPS\_Cadre".

"SPS\_noncadre\_Party" is equal to 1 when one's spouse is party. The similar definition to "SPS\_Cadre" is applied. We introduce these variables because we think some of the earnings benefit to Party member or cadre may not directly go to themselves, it may be reflected as the partial benefit to their family members, such as spouse or children. Then we merge the new data set including spouse status with the original data. In this procedure, we found some of our data are miscoded in gender variable, which is shown as unequal number of males and females observations. Since we only pick up the household head and their spouse, the final data set should only have matched males and females. To solve this problem, we create another dummy variable "SPS\_gender" which is equal to 1 when spouse is male. After merging data, we delete those observations in which gender and spouse gender are the same.

Third, to investigate the education effect we need find out some cut off point that can differentiate the majority of education population. After plotting the distribution of school year, we found that the most of population are concentrated on 9-year education. This is very suitable to the reality in China. Since 1986 the Chinese government has passed the Compulsory Education Act and enforced the 9-year compulsory education throughout the country.

Table 1 and Table 2 present the mean value of some independent variables for the population in 1988 and 1995. The whole population is divided into three categories: non-Party, non-cadre Party and cadre, which are exclusive to each other. There are 6421 observations in data of 1988 and 6141 observations in data of 1995. Out of employment population, 45.6% individuals are non-cadre Party member in 1988 and 52.5% in 1995. Some people believe that the transformation in economic reform may have some negative effect on the amount of Communist Party members in China, while the trend shows that the Party member increased steadily.

For both male and female individuals, the age, year of education and earnings are all increasing from 1988 to 1995. For example, the earnings increased 66% for male Party members. Since earnings has been adjusted by price index<sup>3</sup> for year of 1995, we can draw a conclusion that the earnings of Party member soar up to a great extent, not only because the earnings rise up through the economic reform but more earnings advantage flowed to Party member.

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<sup>3</sup> Price index:  $P_{1988}/P_{1995}=2.28$

### III. Models

Most prior researches concerned about the benefit brought by Party membership, either shown in income or consumption goods. We think the constitution of Party member is complicated, so the benefit may not be viewed as only flowing to the Party. Then we define the Party member as non-cadre Party member, who is a Party member but not a cadre. This can separate the effect of Party member from that of cadre. We are also interested in the earning benefit to cadre. The so called cadre here is refer to those who are responsible officials of government or institution in 1988 data codebook and those who are cadre and work for government, Party organs and organizations in 1995 data codebook. These two categories in both years are pretty matched and comparable.

We set up semi-log regression models and use OLS to get the estimation result. The basic model (**Model 1**) considered only the “Party” variable as the determination of the earnings for average person,

$$\text{Log\_earnings} = \beta_0 + \beta_1 \text{Party} + \beta_x X + u, \quad (1)$$

where “Party” is a dummy variable, which equals to 1 when individuals are Party members, and “X” is a composite variable which includes some other variables having direct effect on earnings, such as age, year of education and regions. “u” is error term and assumed to be normally distributed with mean equal to 0 and constant variance equal to  $\sigma^2$ .

In order to present diminishing returns of age variable, we added a polynomial term, age-square, and as we expected, the coefficient on it is negative. This is very

meaningful for the reality since personal earnings will increase with age but at a decreasing rate. For convenient expression, we divided the value of age by 10.

It is well known that Party consists of individuals with high human capital such as high education. But the question is whether people enter Party because of their inherent human capital or people get their human capital through being Party members. To study this question, we expand our model with more independent variables and get Party-cadre model (**Model 2**),

$$\text{Log\_earnings} = \beta_0 + \beta_1 \text{Non\_Cadre\_Party} + \beta_2 \text{Cadre} + \beta_x x + u, \quad (2)$$

where  $\text{Non\_cadre\_Party}$  and  $\text{cadre}$  are dummy variables.

To investigate the invisible benefit to Party and cadre, we introduce Party-cadre spouse model (**Model 3**),

$$\begin{aligned} \text{Log\_earnings} = & \beta_0 + \beta_1 \text{Non\_Cadre\_Party} + \beta_2 \text{Cadre} + \beta_3 \text{SPS\_noncadre\_party} \\ & + \beta_4 \text{SPS\_cadre} + \beta_x x + u, \end{aligned} \quad (3)$$

where  $\text{SPS\_noncadre\_party}$  equals to 1 when one's spouse is a party member and  $\text{SPS\_cadre}$  equals to 1 when one's spouse is a cadre. Many Party member and cadre may not get themselves more access to earnings benefit due to the strict administration.

However, they can use their authority and personal network to get more advantages for their spouse and family.

In the next step, we want to find out whether people capture human capital by being a Party member or party identify people with higher human capital. First, we divided the non-cadre Party into three categories: less than high school, high school and

more than high school<sup>4</sup>. Then we setup Party-cadre education model (**Model 4**) with two more dummy variables,

$$\begin{aligned} \text{Log\_earnings} = & \beta_0 + \beta_1 \text{Non\_Cadre\_Party} + \beta_2 \text{Cadre} + \beta_3 \text{SPS\_noncadre\_party} \\ & + \beta_4 \text{SPS\_cadre} + \beta_5 \text{Non\_Cadre\_Party\_lths} \\ & + \beta_6 \text{Non\_Cadre\_Party\_hs} + \beta_x x + u, \end{aligned} \quad (4)$$

where `Non_Cadre_Party_lths` equals to 1 when a non-cadre Party member has less than high school education and `Non_Cadre_Party_hs` equals to 1 when a non-cadre Party member has exactly high school education.

#### IV. Estimation Results

For both male and female the effect of `Non_cadre_Party` on earnings is almost the same with that of `Party` in Model 1, no matter which year is. However, the effect of `cadre` on earnings is always higher than that of `Party` members. For a female individual in 1988, being a `cadre` will increase her earnings by 22.1%, while being a non-cadre `Party` member will only increase earnings by 16.3%. Both results are statistically significant and give the intuition that earnings benefit would be more for `cadre`. The `cadre` categories we defined in this paper are almost all in `Party`. In China, `cadre` candidates are always from `Party`, especially for high-level `cadre`. The `cadre` has more access to authority and in kind benefit compared with the average `Party` member. From **Table 2** we can also derive that the earning benefit of female is much more than that of male. It may be explained by gender difference. Due to a small amount of female are `Party` members and `cadre`, the difference of earning benefit among average females must be significant. In addition, the

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<sup>4</sup> High school means school year equals to 9 years.



effects are increasing from 1988 and 1995. So earnings benefit of Party member and cadre are positive related to the economic reform.

Both **Table 3** and **Table 4** reveal that the spouse of Party member or cadre earned more than average person, although some of the results are not significant. For a male cadre in 1995 whose wife is also a cadre, he earns 28.2% more than average individuals with the same age, education and region. So the earnings benefit may be much more than that in prior research if taking these invisible advantages into account.

We expect that in 1988 there is no significant difference in earnings between individuals with different levels of education since people did not earn income according to their contribution. However, in 1995 the income distribution conformed to their human capital, i.e. their education, personal network, age and year of experience. **Table 3 and Table 4** demonstrate this result. A female non-cadre Party member with less than high school education will earn 21% more than average individual in 1988 and 29.8% more in 1995.

Earnings for non-cadre Party member with less than high school education are significantly different from average person, especially in 1995. Comparing with this, the effect of those with high school education is insignificant and very small. From this empirical result, we can conclude that for individuals with lower education the Party membership will bring them more earning benefit, while this effect is lower and insignificant for those with higher-level education. So it is the human capital itself that makes individuals earn more income, not the Party membership, although Party always selects individuals with higher human capital. But for individuals with lower human capital, Party membership will bring them more income benefit.

By estimation result of **Model 4**, we draw a graph of age variable for a non-cadre Party member with high school education. **Figure 1** illustrates the relation between age and log-earnings. As we mentioned in the last section, earnings will increase with age but at a diminishing rate. Therefore the shape of these curves is non-linear. To correctly interpret age variable, we need divided it by 10. A 40-year old male in 1988 earned 16.8% more than a 30-year old male.

## **V. Conclusions**

Being a Party member really brought earnings benefit in both 1988 and 1995. But this benefit is not simple. Taking cadre status and spouse status variables into account, the earnings benefit of Party member will be far more than what we thought before.

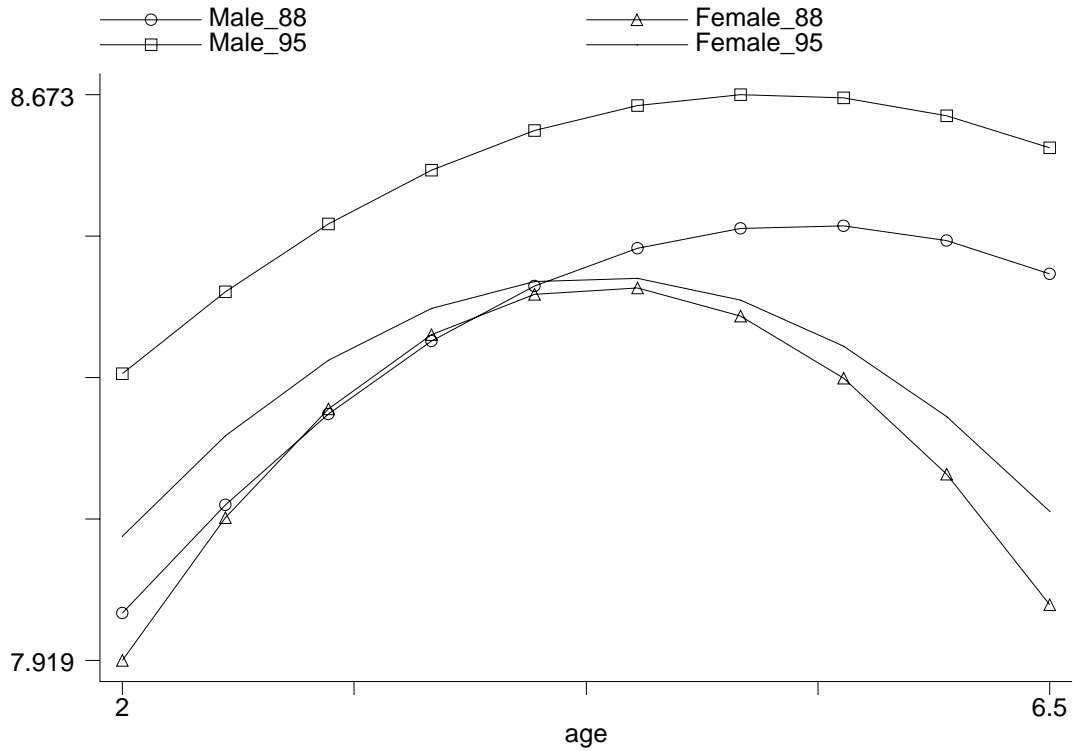
Earnings benefit in 1988 depends on the age and other status variable, such as non-cadre Party and cadre. The education effect is not significantly different from zero. However, the earnings benefit became more dependent on status and education in 1995 than in 1988. That means the income distribution has become more related with the human capital and individuals' status, not as equal as in 1988.

For Party members with high school education or college degree, they earn more income due to their own human capital. While for Party members with less than high school education, their earning advantage mainly depends on their Party membership. Therefore, Party membership will bring more earning benefit for individuals with low education than for those with high education.

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**Figure 1. Age effect on Log-Earnings**



$$\text{Male\_88} = 7.190 + 0.038 - 0.007 - 0.051 + 0.500 * \text{age} - 0.047 * \text{age}^2$$

$$\text{Female\_88} = 6.652 + 0.119 + 0.027 - 0.095 + 0.790 * \text{age} - 0.091 * \text{age}^2$$

$$\text{Male\_95} = 7.653 + 0.123 + 0.053 - 0.156 + 0.390 * \text{age} - 0.038 * \text{age}^2$$

$$\text{Female\_95} = 7.231 + 0.166 + 0.052 - 0.225 + 0.560 * \text{age} - 0.065 * \text{age}^2$$

Figure of Model 4: For a Non-cadre Party member with high school education. (dummy variables of regions are not included)

**Table 1 Descriptive Statistics for Male and Female (1988)**

	Male			Female		
	non_party	non_cadre party	cadre	non_party	non_cadre party	cadre
Age	39.10	42.70	46.33	37.52	41.67	43.76
Year_educ	9.27	9.88	10.44	8.39	8.88	8.57
Earnings	4682.44	5108.72	5200.69	3912.89	4707.15	4706.21
Observations	3817	2126	478	5542	804	75

**Table 2 Descriptive Statistics for Male and Female (1995)**

	Male			Female		
	non_party	non_cadre party	cadre	non_party	non_cadre party	cadre
Age	44.28	48.68	47.78	42.80	46.93	43.98
Year_educ	10.10	11.30	12.37	9.24	10.60	12.35
Earnings	6956.04	8482.16	8254.05	5559.86	7187.49	8525.18
Observations	3681	2210	250	5062	1014	65

**Table 3 Regression of Party and Cadre Benefit for Male and Female (1988)**

Dependent variable is log\_earnings

	Male Earnings				Female Earnings			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Observations	<b>6421</b>	<b>6421</b>	<b>6421</b>	<b>6421</b>	<b>6421</b>	<b>6421</b>	<b>6421</b>	<b>6421</b>
Party (SD)	<b>0.049**</b> (0.008)	/	/	/	<b>0.168**</b> (0.015)	/	/	/
Non_cadre_party (SD)	/	<b>0.048**</b> (0.008)	<b>0.043**</b> (0.009)	<b>0.038**</b> (0.013)	/	<b>0.163**</b> (0.016)	<b>0.155**</b> (0.016)	<b>0.119**</b> (0.025)
Cadre (SD)	/	<b>0.054**</b> (0.015)	<b>0.047**</b> (0.015)	<b>0.047**</b> (0.016)	/	<b>0.221**</b> (0.047)	<b>0.217**</b> (0.048)	<b>0.216**</b> (0.048)
SPS_noncadre_party (SD)	/	/	<b>0.038**</b> (0.012)	<b>0.037**</b> (0.012)	/	/	<b>0.031**</b> (0.011)	<b>0.031**</b> (0.011)
SPS_cadre (SD)	/	/	<b>0.026</b> (0.036)	<b>0.026</b> (0.036)	/	/	<b>0.014</b> (0.021)	<b>0.015</b> (0.021)
Non_cadre_party_lths (SD)	/	/	/	<b>0.030</b> (0.021)	/	/	/	<b>0.091**</b> (0.037)
Non_cadre_party_hs (SD)	/	/	/	<b>-0.007</b> (0.019)	/	/	/	<b>0.027</b> (0.037)
Age (SD)	<b>0.500**</b> (0.044)	<b>0.500**</b> (0.043)	<b>0.497**</b> (0.044)	<b>0.500**</b> (0.044)	<b>0.790**</b> (0.061)	<b>0.791**</b> (0.061)	<b>0.779**</b> (0.062)	<b>0.790**</b> (0.062)
Age <sup>2</sup> (SD)	<b>-0.046**</b> (0.005)	<b>-0.047**</b> (0.005)	<b>-0.046**</b> (0.005)	<b>-0.047**</b> (0.005)	<b>-0.090**</b> (0.008)	<b>-0.091**</b> (0.008)	<b>-0.090**</b> (0.008)	<b>-0.091**</b> (0.008)
lths (SD)	<b>-0.050**</b> (0.010)	<b>-0.050**</b> (0.010)	<b>-0.048**</b> (0.010)	<b>-0.059**</b> (0.013)	<b>-0.148**</b> (0.014)	<b>-0.148**</b> (0.014)	<b>-0.147**</b> (0.014)	<b>-0.161**</b> (0.015)
hs (SD)	<b>-0.054**</b> (0.009)	<b>-0.054**</b> (0.009)	<b>-0.052**</b> (0.009)	<b>-0.051**</b> (0.011)	<b>-0.091**</b> (0.013)	<b>-0.091**</b> (0.013)	<b>-0.089**</b> (0.013)	<b>-0.095**</b> (0.013)
Intercept (SD)	<b>7.188**</b> (0.090)	<b>7.187**</b> (0.090)	<b>7.194**</b> (0.090)	<b>7.190**</b> (0.090)	<b>6.649**</b> (0.118)	<b>6.649**</b> (0.118)	<b>6.669**</b> (0.118)	<b>6.652**</b> (0.118)
Adj. R <sup>2</sup>	<b>0.260</b>	<b>0.260</b>	<b>0.260</b>	<b>0.261</b>	<b>0.171</b>	<b>0.171</b>	<b>0.171</b>	<b>0.172</b>

**Table 4 Regression of Party and Cadre Benefit for Male and Female (1995)**

Dependent variable is log\_earnings

	Male Earnings				Female Earnings			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Observations	<b>6141</b>	<b>6141</b>	<b>6141</b>	<b>6141</b>	<b>6141</b>	<b>6141</b>	<b>6141</b>	<b>6141</b>
Party (SD)	<b>0.165**</b> (0.012)	/	/	/	<b>0.219**</b> (0.020)	/	/	/
Non_cadre_party (SD)	/	<b>0.162**</b> (0.013)	<b>0.155**</b> (0.013)	<b>0.123**</b> (0.016)	/	<b>0.214**</b> (0.021)	<b>0.206**</b> (0.021)	<b>0.166**</b> (0.027)
Cadre (SD)	/	<b>0.178**</b> (0.030)	<b>0.160**</b> (0.030)	<b>0.151**</b> (0.030)	/	<b>0.306**</b> (0.073)	<b>0.296**</b> (0.075)	<b>0.289**</b> (0.075)
SPS_noncadre_party (SD)	/	/	<b>0.047**</b> (0.016)	<b>0.047**</b> (0.016)	/	/	<b>0.037**</b> (0.016)	<b>0.036**</b> (0.016)
SPS_cadre (SD)	/	/	<b>0.128**</b> (0.057)	<b>0.131**</b> (0.057)	/	/	<b>0.028</b> (0.039)	<b>0.026</b> (0.039)
Non_cadre_party_lths (SD)	/	/	/	<b>0.109**</b> (0.031)	/	/	/	<b>0.132**</b> (0.050)
Non_cadre_party_hs (SD)	/	/	/	<b>0.053</b> (0.033)	/	/	/	<b>0.052</b> (0.054)
Age (SD)	<b>0.382**</b> (0.040)	<b>0.382**</b> (0.040)	<b>0.376**</b> (0.040)	<b>0.390**</b> (0.040)	<b>0.564**</b> (0.053)	<b>0.562**</b> (0.053)	<b>0.549**</b> (0.053)	<b>0.560**</b> (0.053)
Age <sup>2</sup> (SD)	<b>-0.036**</b> (0.004)	<b>-0.036**</b> (0.004)	<b>-0.036**</b> (0.004)	<b>-0.038**</b> (0.004)	<b>-0.065**</b> (0.006)	<b>-0.064**</b> (0.006)	<b>-0.063**</b> (0.006)	<b>-0.065**</b> (0.006)
lths (SD)	<b>-0.188**</b> (0.015)	<b>-0.188**</b> (0.015)	<b>-0.185**</b> (0.015)	<b>-0.220**</b> (0.018)	<b>-0.414**</b> (0.018)	<b>-0.414**</b> (0.018)	<b>-0.410**</b> (0.018)	<b>-0.429**</b> (0.020)
hs (SD)	<b>-0.138**</b> (0.016)	<b>-0.138**</b> (0.016)	<b>-0.136**</b> (0.016)	<b>-0.156**</b> (0.019)	<b>-0.217**</b> (0.020)	<b>-0.217**</b> (0.020)	<b>-0.215**</b> (0.020)	<b>-0.225**</b> (0.022)
Intercept (SD)	<b>7.663**</b> (0.096)	<b>7.662**</b> (0.096)	<b>7.672**</b> (0.096)	<b>7.653**</b> (0.097)	<b>7.223**</b> (0.121)	<b>7.224**</b> (0.121)	<b>7.244**</b> (0.121)	<b>7.231**</b> (0.121)
Adj. R <sup>2</sup>	<b>0.246</b>	<b>0.246</b>	<b>0.247</b>	<b>0.248</b>	<b>0.254</b>	<b>0.254</b>	<b>0.254</b>	<b>0.255</b>



Note:

\*\* 5% significance level    \*10% significance level

Non\_cadre\_party\_lths: non\_cadre party member who has less than high school education (less than 9 years)

Non\_cadre\_party\_hs: non\_cadre party member who has high school education (equal to 9 years)

Regression also includes regional dummy variables: BJ SX LN JS AH HN HB GD SC YN.

Independent variable age=age/10.

