Chapter 5

Gender Gap of Communist Party of China Membership

Abstract Using data of the Chinese Household Income Project survey (CHIPs), this study investigates the determinations for becoming a CPC member, and decomposes the wage gap between CPC and non-CPC members based on the Blinder-Oaxaca decomposition model. It is found that the probability of becoming a CPC member is 7.3–7.7% points lower for female workers than for male workers; the wage premium of CPC membership is higher for female workers (around 34.7%) than for male workers (4.8–30.8%); the endowment differentials such as the difference in years of schooling, distributions of occupations, and industry sectors are the main factors affecting the wage gap for both female and male workers, and the contributions of endowment differentials are greater for female workers than for male workers.

Keywords Gender gap · Communist Party of China · Membership · Wage premium

5.1 Introduction

In China, despite the drastic transition from a planned economy to a market-oriented economy, because the government has employed a gradual reform, the de facto Communist Party of China (CPC) dictatorship is strongly maintained in the political sphere.¹ This fact creates a very unique aspect of the Chinese economy. Therefore the wage premium of CPC membership is an important issue in Chinese economy.

Neither theoretical nor empirical works can reach a certain conclusion on this issue. From a theoretical perspective, five hypotheses can explain the influence of CPC membership on wages (Ma and Iwasaki 2021). Concretely, it is thought that the ability of an individual to become a CPC member is a kind of human capital that includes organizational ability, collective control capability, job motivation, and non-cognitive social ability (the human capital theory). In addition, CPC membership works as a clear signal to distinguish CPC members from citizens by a third party (the signaling hypothesis). Furthermore, as compared with nonmembers, CPC members

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can utilize CPC organizations and connections with other members to effectively obtain economic benefits (Bian et al. 2015; McLaughlin 2017; Ma 2019). In other words, party membership can be regarded as a sort of political and social capital in China (the political and social capital hypothesis). Based on these three hypotheses, it is expected that CPC membership positively affects the wage level of CPC members. In contrast, with the progress of the market-oriented economy reform and the separation of the political and economic systems, the unique abilities of CPC members, represented by their belief in Marxist ideology and organizational loyalty to the party, may become a harmful factor for firm management based on market mechanisms (the marketization hypothesis). In addition, when the corruption of the CPC organization and party members is revealed, it may increase social criticism or popular psychological antipathy toward them (the negative rumor hypothesis). Because the above-mentioned hypotheses contradict each other, we cannot theoretically predict the direction of the impact of CPC membership on wage levels in China based on the above-mentioned hypotheses. Thus, empirical studies should be employed to investigate the impact of CPC membership on wages.

The results of empirical analysis are also inconclusive.² In fact, there is a series of studies (Gustafsson and Li 2000; Knight and Song 2003; Appleton et al. 2005, 2009; Bishop et al. 2005; Li et al. 2007, 2012; Xing 2014; McLaughlin 2017; Ma 2018a, b; MacDonald and Hasmath 2018; Wang and Lien 2018; Nikolov et al. 2019) that found a positive association between CPC membership and wage levels, whereas a set of studies, such as those of Li and Zhang (2003) and Wang and Lien (2018), reported that the effect of CPC membership on wages is not statistically significant. Moreover, more than a few studies supporting the marketization hypothesis and the negative rumor hypothesis, such as Xing (2014) and Ma (2018a) found that CPC membership negatively affects wage levels.

Although some empirical studies have estimated the influence of CPC membership on wages, a set of important issues remains to be discussed as follows. First, empirical studies on the determinants of becoming a CPC member are scarce. Second, most previous studies did not address the sample selection bias problem in the wage function, which is usually caused by the fact that the probability of becoming a CPC member is not a random distribution.³ Third, although it is predicted that the wage gap between CPC members and nonmembers may be caused by human capital differentials (eg., educational attainment)⁴ between these two groups or the wage determinate system, including discrimination against nonmembers, no empirical study has focused on the issue. In China, with the progress of market-oriented economy reform, the problem of income inequality is worsening; therefore, a study on the wage gap between CPC members and nonmembers can provide new evidence. Fourth, although it can be assumed that the determinants of participation in the CPC and the wage gap between CPC members and nonmembers may differ by gender, there has been no empirical study of this issue.

The main contributions of this study are as follows. First, we investigate the determinants of becoming a CPC member, which has not been analyzed in previous studies. Second, to consider the sample selection bias problem, we utilize the Heckman two-step model (Heckman 1979) in the wage function. Third, based on

the Blinder-Oaxaca decomposition model (Blinder 1973; Oaxaca 1973; Oaxaca and Choe 2016), this study investigates how the explained component (human capital differentials) and unexplained component (the wage system or discrimination) affect the wage gap between CPC members and nonmembers, considering the sample selection bias problem simultaneously. Fourth, this is the first study to compare the wage premium of CPC membership and its impact on the wage gap between CPC members and nonmembers by gender.

The remainder of this chapter is organized as follows: Sect. 5.2 introduces the methodology including the decomposition model and data. Section 5.3 summarizes the results of descriptive statistics by CPC members and nonmembers. Section 5.4 introduces and explains the econometric analysis results. Section 5.5 summarizes the major findings and concludes the study.

5.2 Methodology and Data

5.2.1 Model

First, to investigate the determinants of participation in the CPC, a probit regression model is utilized as follows:

$$\Pr(Y_i = 1) = \Pr(a + \beta_H H_i + \varepsilon_i > 0) \quad (5.1)$$

In Eq. (5.1), $\Pr(Y_i = 1)$ is the dependent variable, which is the probability of participation in the CPC organizations. i represents the individual, H represents factors (e.g., individual characteristics, job, parents in the public sector) that affect the probability of participation in the CPC, β is the estimated coefficient, and ε is a random error item.

Second, to estimate the wage premium of CPC membership, the wage functions are estimated. The wage function by the ordinary least squares (OLS) model is expressed as Eqs. (5.1) and (5.2).⁵

$$\ln W_i = a + \beta_{cpc} CPC_i + \beta_X X_i + u_i \quad (5.2)$$

In Eq. (5.2), $\ln W$ is the logarithmic value of the average wage, X represents factors (e.g., education, years of experience) that may affect the wage level, β is the estimated coefficient, and u is a random error item. When β_{cpc} is statistically significant and is a positive value, it indicates that when other factors (e.g., human capital) are held constant, a wage premium of CPC membership remains—the wage level is higher for CPC members than for their non-CPC counterparts.

To consider the sample selection bias problem (a worker chooses by him(her)self or is selected by the CPC to become a CPC member) left in the OLS model, the Heckman two-step model (Heckman 1979) is used. Using the estimated results of

the distribution function ($\Phi(\cdot)$) and the density function ($\phi(\cdot)$) by the probit regression model (the dependent variable is $\Pr(Y_i = 1)$, which indicates the probability of becoming a CPC member; see Eq. (5.1), the adjusted item for CPC members and nonmembers are calculated. Concretely, the adjusted item for the CPC member group is calculated as $\lambda = \phi(\cdot)/\Phi(\cdot)$. The corrected wage function expressed by Eq. (5.3) is estimated using the adjusted item.

$$\ln W_i = a + \beta_{cpc} CPC_i + \beta_X X_i + \beta_\lambda \lambda_i + u_i \quad (5.3)$$

Finally, Blinder-Oaxaca decomposition model based on variable means is used to estimate the determinants of wage gap between CPC members and nonmembers. As referenced in Blinder (1973), Oaxaca (1973), and Oaxaca and Choe (2016), the Blinder-Oaxaca model is expressed by Eq. (5.4) and Eq. (5.5), and the Oaxaca and Choe model is expressed by Eqs. (5.6) and (5.7) as follows⁶:

$$\ln W_{cpc} - \ln W_{ncpc} = \beta_{cpc}(X_{cpc} - X_{ncpc}) + (\beta_{cpc} - \beta_{ncpc})X_{ncpc} \quad (5.4)$$

$$\ln W_{cpc} - \ln W_{ncpc} = \beta_{ncpc}(X_{ncpc} - X_{cpc}) + (\beta_{ncpc} - \beta_{cpc})X_{cpc} \quad (5.5)$$

$$\begin{aligned} \ln W_{cpc} - \ln W_{ncpc} = & \beta_{cpc}(X_{cpc} - X_{ncpc}) + (\beta_{cpc} - \beta_{ncpc})X_{ncpc} \\ & + \beta_{cpc}(\lambda_{cpc} - \lambda_{ncpc}) + (\beta_{cpc} - \beta_{ncpc})\lambda_{ncpc} \end{aligned} \quad (5.6)$$

$$\begin{aligned} \ln W_{cpc} - \ln W_{ncpc} = & \beta_{ncpc}(X_{ncpc} - X_{cpc}) + (\beta_{ncpc} - \beta_{cpc})X_{cpc} \\ & + \beta_{ncpc}(\lambda_{ncpc} - \lambda_{cpc}) + (\beta_{ncpc} - \beta_{cpc})\lambda_{cpc} \end{aligned} \quad (5.7)$$

X_{cpc} and X_{ncpc} are variable means of CPC members and nonmembers. β_{cpc} and β_{ncpc} are estimated coefficients. Based on the human capital theory (Becker 1964; Mincer 1974) and the discrimination hypothesis (Becker 1957), the decomposition model decomposes the wage gap between CPC members and nonmembers into two parts: for example, in the Oaxaca and Choe decomposition model, the explained component [$\beta_{cpc}(X_{cpc} - X_{ncpc}) + \beta_{cpc}(\lambda_{cpc} - \lambda_{ncpc})$ or $\beta_{ncpc}(X_{ncpc} - X_{cpc}) + (\beta_{cpc} - \beta_{ncpc})\lambda_{ncpc}$] and the unexplained component [$(\beta_{cpc} - \beta_{ncpc})X_{ncpc} + \beta_{ncpc}(\lambda_{ncpc} - \lambda_{cpc})$ or $(\beta_{ncpc} - \beta_{cpc})X_{cpc} + (\beta_{ncpc} - \beta_{cpc})\lambda_{cpc}$].⁷

The explained component expresses the differentials of individual characteristics, such as the differences in human capital endowments. The unexplained component includes differences in the wage determination systems, discrimination, or capabilities not presently measurable. It can be said that the larger the estimated unexplained component is, the greater is the influence of discrimination against CPC members regarding the wage gap.

5.2.2 Data and Variable Setting

Data from the Chinese Household Income Project survey (CHIPs) are used for the analysis. CHIPs 2013 was conducted in 2014 by Beijing Normal University and the National Bureau of Statistics (NBS) of China. CHIPs 2013 covers local urban residents, migrants, and rural residents. Considering that the proportion of CPC members is lower for migrants and most workers earn wages in urban areas, local urban resident samples are utilized in this study. CHIPs 2013 includes information about individual and household characteristic factors, job status, and wages. Particularly, we can obtain information about the parents' workplace (public sector or private sector), which can be utilized as an identification variable in the Heckman two-step model. The CHIPs sample is part of the samples in the NBS, which covers 15 representative provinces or metropolises, including Beijing, Shanxi, Liaoning, Jiangsu, Shandong, Anhui, Guangdong, Henan, Hubei, Hunan, Chongqing, Sichuan, Yunnan, Gansu, and Xinjiang in the eastern, central, and western regions of China.

The analytic objects are workers of urban residents, excluding the unemployed. Regarding the mandatory retirement system implemented in the public sector (e.g., SOEs and government organizations),⁸ the analytic objects are limited to the samples ages 16–59. No answer samples, abnormal value samples,⁹ or missing value samples are deleted. The samples used in the analysis is 10,755.

To see the dependent variables setting, first, in the probability function of participation in the CPC, the dependent variable is a binary category variable; it is equal to 1 when a worker is a CPC member. Second, in the wage function and decomposition model, the dependent variable is the logarithmic value of the hourly wage. The hourly wage is calculated based on wages and work hours. The wage includes the basic wage, bonuses, and cash subsidies.

The independent variables are those likely to affect the probability of participation in the CPC organization and the wage level: they are constructed as follows. First, for the individual characteristic factors, (1) the educational dummy variables (primary school or below, junior high school, senior high school/vocational school, college and above) and years of experience¹⁰ are constructed as an index of human capital. It is expected that the wage level and probability of participation in the CPC are higher for the highly educated and long years of experience groups.

(2) Some previous studies have pointed out that a gender wage gap remains in the Chinese labor market.¹¹ The male dummy variable is constructed to investigate the gender gap. When gender gaps remain in wages and in the probability of participating in the CPC organization, the coefficients of male dummy variables in these models are statistically significant.

Second, for the job factors, (1) five kinds of occupation dummy variables (manager/technician, clerk, manufacturing worker, service worker, and others) are constructed. (2) Five kinds of industry dummy variables (construction, manufacturing, sales, service, and others) are utilized to control the industry sector disparities.¹² (3) It is pointed out that there are wage gaps between the public sector and the

private sector.¹³ The public sector and private sector dummy variables are employed to control the influence of ownership types on wages. Concretely, the public sector (PUB) includes the government organizations (GOVs) and state-owned enterprises (SOEs). The private sector is composed of collectively owned enterprises (COEs), foreign-owned enterprises (FOEs), privately owned enterprises (POEs), and others. It can be expected that the probability of becoming a CPC member and the wage level may be higher for the public sector than the private sector (COEs, POEs, FOEs).

Third, to control the regional disparity, eastern, central, and western region dummy variables are constructed.

Fourth, it can be thought that when a worker's parents are working or have worked in the public sector (e.g., the government organizations, SOEs), the worker may obtain political or social capital and more information about the CPC from the parents, which may increase the probability of becoming a CPC member. Using the information in the CHIPs 2013 questionnaire about the parents' workplaces, a binary dummy variable of parents in the public sector is constructed, which is equal to 1 when a worker's parents (father or mother) are working or worked in the public sector or to 0 when they have not.

5.3 Descriptive Statistic Results

5.3.1 *Differentials of Characteristics of CPC and Non-CPC*

Table 5.1 summarizes the descriptive statistics by total sample, CPC members, and nonmembers. The gap of mean values between CPC members and nonmembers is calculated. It can be observed that the differentials of mean values of variables between these two groups remain. It can be observed that the mean values and the distributions in various sectors differ between these two groups. For example, the proportions of highly educated workers are 8.4% (college) and 30.3% (university) higher for CPC members than for nonmembers. It seems that the human capital level is higher for CPC members, which may affect the wage gap between these two groups.

5.3.2 *Wage Gaps Between CPC and Non-CPC by Gender and Other Groups*

The mean values of hourly wages of CPC members and nonmembers are summarized in Table 5.2. The wage gaps between these two groups are calculated. The main findings are as follows.

Table 5.1 Description statistics of variables

	Total		CPC		Non-CPC		Gap
	Mean	S.D	Mean	S.D	Mean	S.D	
Party	0.189	0.392					
Log wage	2.191	0.784	2.482	0.744	2.123	0.777	0.359
Female	0.440	0.496	0.322	0.467	0.467	0.499	−0.145
Experience year	28.942	11.193	29.344	10.658	28.848	11.313	0.496
<i>Age</i>							
Aged 16–29	0.168	0.373	0.091	0.288	0.185	0.389	−0.094
Aged 30–39	0.278	0.448	0.273	0.445	0.279	0.449	−0.006
Aged 40–49	0.351	0.477	0.360	0.480	0.349	0.477	0.011
Aged 50–60	0.204	0.403	0.276	0.447	0.187	0.390	0.089
<i>Education</i>							
Primary	0.058	0.234	0.004	0.067	0.071	0.257	−0.067
Junior high school	0.289	0.453	0.092	0.289	0.335	0.472	−0.243
Senior high school	0.294	0.456	0.231	0.422	0.309	0.462	−0.078
College	0.179	0.383	0.247	0.432	0.163	0.369	0.084
University	0.180	0.384	0.425	0.494	0.122	0.328	0.303
<i>Occupation</i>							
Manager and engineer	0.225	0.417	0.337	0.473	0.198	0.399	0.139
Clerk	0.144	0.351	0.320	0.466	0.103	0.304	0.217
Manufacturing worker	0.200	0.400	0.104	0.305	0.223	0.416	−0.119
Service worker	0.301	0.459	0.143	0.350	0.338	0.473	−0.195
Other	0.129	0.336	0.096	0.295	0.137	0.344	−0.041
<i>Ownership type</i>							
PUB	0.372	0.483	0.730	0.444	0.288	0.453	0.442
COEs	0.045	0.207	0.045	0.208	0.045	0.207	0.000
FOEs	0.028	0.165	0.011	0.104	0.032	0.176	−0.021
POEs	0.256	0.437	0.099	0.299	0.293	0.455	−0.194
Other	0.299	0.458	0.114	0.318	0.342	0.474	−0.228
<i>Industry sector</i>							
Construction	0.053	0.225	0.029	0.169	0.059	0.236	−0.030
Manufacturing	0.147	0.354	0.098	0.297	0.158	0.365	−0.060
Sales	0.197	0.398	0.048	0.213	0.232	0.422	−0.184
Service	0.183	0.387	0.131	0.337	0.195	0.396	−0.064
Other	0.420	0.494	0.694	0.461	0.356	0.479	0.338
<i>Regions</i>							
East	0.419	0.493	0.424	0.494	0.418	0.493	0.006

(continued)

Table 5.1 (continued)

	Total		CPC		Non-CPC		Gap
	Mean	S.D	Mean	S.D	Mean	S.D	
Central	0.360	0.480	0.355	0.479	0.361	0.480	−0.006
West	0.221	0.415	0.221	0.415	0.221	0.415	0.000
Parent in public sector	0.049	0.215	0.101	0.301	0.037	0.188	0.064
Observations	10,611		2,009		8,602		

Source Calculated based on CHIPS 2013

Note mean values of CPC-mean values of non-CPC

First, although the wage level is lower for women than for men for both CPC members and nonmembers, the wage gap between CPC members and nonmembers is similar (female 1.347, male 1.345) for women and men.

Second, wages increase with age for CPC members, which indicates that the influence of the seniority wage system is greater for CPC members, while for non-CPC members, the relationship between the wage level and age is an inverse U shape; the lowest is at 30–39 years of age. The wage gap between CPC members and nonmembers is greater for the older group (workers aged 40 and over) than the younger group (workers aged 16–39). The wage gap is observed to increase with age.

Third, the wage level is higher for highly educated workers for both CPC and non-CPC groups, which can be explained by the human capital theory (Becker 1964; Mincer 1974). The wage gap between CPC members and nonmembers is smaller for the highly educated group than for the low- and middle-level education groups.

Fourth, the wage level is higher for managers/technicians and clerks than for other occupational groups (e.g., manufacturing worker, service worker) for both CPC and non-CPC groups. The wage gap between CPC members and nonmembers is greatest for managers/technicians; it is smallest for manufacturing workers.

Fifth, an interesting phenomenon related to ownership type is found. Excepting COEs, the wage level is higher for CPC members than nonmembers in the public sector (PUB), FOEs, POEs, and others. The wage level in the FOEs is highest for both CPC members and nonmembers. The wage gap between CPC members and nonmembers is greater for privately owned enterprises (1.411) and the public sector (1.302).

Sixth, the wage level is higher for CPC members than for nonmembers in each industry sector. The wage gap between CPC members and nonmembers is greater for the manufacturing industry and sales industry sectors than for other sectors.

It is also observed that wage levels differ by group, which means that individual characteristics (gender, age, educational attainment) and job (occupation, ownership type of enterprises, industry sector) may affect the wage level for both CPC members and nonmembers. The wage gap between these two groups is shown to be greater for workers who are older, less-educated, in the manager and technician group, in the manufacturing industry and sales industry sectors, and in the public sector and

Table 5.2 Wage gaps between CPC members and nonmembers by group

	CPC (A)	Non-CPC (B)	Gap A/B
<i>Gender category</i>			
Female	19.783	14.689	1.347
Male	24.396	18.135	1.345
<i>Age category</i>			
Aged 16–29	18.341	14.323	1.281
Aged 30–39	22.240	18.011	1.235
Aged 40–49	23.134	16.900	1.369
Aged 50–60	23.841	16.548	1.441
<i>Education category</i>			
Primary	12.211	11.703	1.043
Junior high school	20.315	13.562	1.498
Senior high school	18.532	15.978	1.160
College	21.263	19.054	1.116
University	27.267	26.501	1.029
<i>Occupation category</i>			
Manager and engineer	29.038	22.722	1.278
Clerk	22.408	18.623	1.203
Manufacturing worker	18.840	15.961	1.180
Service worker	16.000	13.295	1.203
Other	19.436	15.346	1.267
<i>Ownership category</i>			
PUB	24.460	18.792	1.302
COEs	16.631	17.086	0.973
FOEs	30.564	23.890	1.279
POEs	22.425	15.889	1.411
Other	16.299	14.549	1.120
<i>Industry category</i>			
Construction	21.436	20.230	1.060
Manufacturing	22.849	16.166	1.413
Sales	19.207	13.624	1.410
Service	19.633	16.015	1.226
Other	23.925	18.248	1.311

Source Calculated based on CHIPs 2013

Note The age is limited from 16 to 59 years old. Hourly wage in each group is used in calculations

privately owned enterprises. Therefore, these factors should be considered when we analyze the wage gap between CPC members and nonmembers.

5.4 Econometric Analysis Results

5.4.1 *Determinants of Participation in the CPC Organization*

Table 5.3 reports the determinants of participation in the CPC organization based on the probit regression model. Five kinds of analyses (Model 1–5) are employed based on the utilizations of various independent variables. The margin effects are shown in Table 5.3.

First, when the other factors are held constant, the probability of becoming a CPC member is 7.3–8.6% points lower for female workers than for male workers. This indicates a remaining gender gap in the probability of participating in the CPC organization.

Second, as compared with the youth group and the low-level education group, the probability of becoming a CPC member is higher for the middle- and older-aged group and for the middle-level and highly educated groups.

Third, the probability of participating in the CPC organization differs by ownership sector. For example, based on the results of Model 5, as compared with workers in the public sector (PUB), the probability of becoming a CPC member is 2.4%, 10.5%, or 10.7% points lower for the workers in the private sector (COEs, FOEs, or POEs, respectively). In addition, the probability of participating in the CPC organization differs by occupation. For example, when other conditions remain constant, the possibility of becoming a CPC member is lowest for manufacturing workers, while it is highest for clerks.

Fourth, it should be noted that having parents in the public sector may positively affect the statistical probability of becoming a CPC member. As is well known, the influence of the CPC is greater in the public sector than in the private sector; when the parents are in the public sector, their children may easily earn loyalty from the CPC, obtain more information about the CPC organization, and gain more political social capital from their parents, which may increase their probability of becoming a CPC member. The results suggest that the intergenerational transference of CPC membership between parents and their children remains, which may cause the intergenerational transference of social economic status. Based on the results, we utilize the parent in the public sector as an identification variable to calculate the sample election bias and adjust items in the following estimations.

Table 5.3 Results of probability of participation into the CPC organization

	(1)		(2)		(3)		(4)		(5)	
	dF/dx	z-value	dF/dx	z-value	dF/dx	z-value	dF/dx	z-value	dF/dx	z-value
Female	-0.086***	-11.27***	-0.077***	-11.05***	-0.081***	-11.60***	-0.073***	-10.85***	-0.073***	-10.90***
<i>Age (Aged 16–29)</i>										
Aged 30–39	0.093***	7.10***	0.082***	6.80***	0.074***	6.15***	0.065***	5.59***	0.065***	5.60***
Aged 40–49	0.097***	7.83***	0.156***	12.93***	0.146***	12.19***	0.112***	9.76***	0.112***	9.73***
Aged 50–59	0.154***	10.59***	0.284***	18.12***	0.258***	16.56***	0.206***	13.87***	0.203***	13.65***
<i>Education (Primary)</i>										
Junior high school			0.188***	5.40***	0.176***	5.14***	0.145***	4.45***	0.144***	4.44***
Senior high school			0.363***	9.72***	0.326***	8.90***	0.264***	7.57***	0.261***	7.50***
College			0.583***	13.49***	0.508***	11.82***	0.407***	9.77***	0.404***	9.71***
University			0.752***	17.82***	0.681***	15.63***	0.570***	12.94***	0.565***	12.84***
<i>Occupation (Manufacturing worker)</i>										
Manager and engineer					0.061***	4.92***	0.045***	3.62***	0.044***	3.54***
Clerk					0.202***	13.18***	0.164***	10.6***	0.162***	10.48***
Service worker					0.007***	0.62***	0.051***	3.79***	0.050***	3.73***
Other					0.040***	2.87***	0.057***	3.85***	0.055***	3.71***
<i>Ownership (PUB)</i>										
COE							-0.026*	-1.83	-0.023***	-1.67
FOE							-0.105***	-7.18	-0.105***	-7.12
POE							-0.107***	-12.96	-0.107***	-12.89
Other							-0.078***	-8.32	-0.076*	-8.14

(continued)

Table 5.3 (continued)

	(1)		(2)		(3)		(4)		(5)	
	dF/dx	z-value	dF/dx	z-value	dF/dx	z-value	dF/dx	z-value	dF/dx	z-value
<i>Industry sector (Manufacturing)</i>										
Construction							-0.028*	-1.63	-0.028***	-1.63
Sales							-0.078***	-5.8	-0.077***	-5.79
Service							-0.017	-1.36	-0.018***	-1.38
Other							0.006	0.52	0.005***	0.39
<i>Region (West)</i>										
Central	-0.005	-0.630	0.023***	2.89	0.023***	2.99	0.002	0.33	0.002***	0.27
West	0.000	0.030	0.038***	3.96	0.037***	3.97	0.022***	2.49	0.022***	2.47
Parents in public sector									0.066***	4.37
Observations	10,755		10,755		10,755		10,755		10,755	
Pseudo R2	0.026		0.191		0.215		0.254		0.259	
Log likelihood	-5072.898		-4214.058		-4087.489		-3884.150		-3860.729	

Source Calculated based on CHIPS 2013
Note (1) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$
(2) Estimated based on the probit regression model

5.4.2 Wage Premium of CPC Membership by Gender

To investigate the wage premium of CPC membership, the wage functions are estimated. Estimation 1 is based on pooling OLS; Estimation 2 utilizes the Heckman two-step model to address the sample selection bias problem. The results using total samples including both female and male workers are summarized in Table 5.4.¹⁴ Four kinds of analyses are employed by using various independent variables. We add more independent variables from Model 1 to Model 4. Concretely, Model 1 utilizes only one—the CPC member dummy variable as the independent variable; the independent variables in Model 2 include CPC membership, female, years of experience, and educational variables; Model 3 adds new variables—the occupation, industry sector, and region variables—to the variables of Model 2; Model 4 adds a new variable—the parents in the public sector dummy variable—to the variables of Model 3. The main findings are as follows.

First, based on the results in Estimation 1 (OLS), when other conditions are not controlled, the wage premium of CPC membership is 32.2% points, which is statistically significant at a 1% level (Model 1). When we control the individual characteristics (gender, education, years of experience), the wage premium of CPC membership decreases greatly to 4.3% points, which is statistically significant at a 5% level (Model 2). However, when job factors (occupation, industry sector) are controlled, the wage premium of CPC membership is not statistically significant (Model 3). The results indicate that work conditions such as the occupation or industry sector may greatly influence the wage premium of CPC membership.

Second, based on the results in Estimation 2 (Heckman two-step), when the sample selection bias is adjusted, the wage premium of CPC membership is not statistically significant in the whole models, and the coefficients of selection items are statistically

Table 5.4 Wage premium of CPC membership (total samples)

		(1)	(2)	(3)	(4)
Estimation 1	CPC	0.322***	0.043**	0.024	0.023
		(17.18)	(2.22)	(1.20)	(1.14)
Estimation 2	CPC	0.020	0.025	0.025	0.024
		(0.97)	(1.20)	(1.23)	(1.21)
	Adjusted	0.760***	0.124***	−0.013	−0.035
	Item	(28.89)	(3.00)	(−0.25)	(−0.48)

Source Calculated based on CHIPs 2013

Note (1) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

(2) Model 1 uses only one—the CPC member dummy variable as the independent variable; the independent variables in Model 2 includes the CPC membership, female, years of experience and education variables; the Model 3 is the one added the new variables—the occupation, industry sector and regions variables to the variables of Model 2; the Model 4 is the one added the new variables—the parents in the public sector dummy variable to the variables of Model 3

(3) t-values are expressed in parentheses

significant at a 1% level in both Model 1 and Model 2. The results suggest that selection bias problem remains in the OLS results; thus, it is necessary to consider this bias in the estimations of wage function and wage decomposition.

To compare the wage premium of CPC membership of female and male workers, we conducted the estimations by gender; these results are summarized in Table 5.5 (female) and Table 5.6 (male). The main new findings are as follows.

First, the wage premium of CPC membership is around 34.7% points for female workers and 4.8–30.8% points for male workers. However, when the job factor and selection items are controlled, the impact of CPC membership on wages is not

Table 5.5 Wage premium of CPC membership for female workers

		(1)	(2)	(3)	(4)
Estimation 1	CPC	0.347***	0.034	0.017	0.017
		(10.63)	(1.03)	(0.50)	(0.51)
Estimation 2	CPC	−0.001	−0.005	0.002	0.007
		(−0.03)	(−0.14)	(0.06)	(0.20)
	Adjusted	1.035***	0.320***	0.210**	0.247*
	Item	(22.10)	(4.31)	(2.12)	(1.83)

Source Calculated based on CHIPs 2013

Note (1) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

(2) Model 1 uses only one—the CPC member dummy variable as the independent variable; the independent variables in Model 2 includes the CPC membership, female, years of experience and education variables; the Model 3 is the one added the new variables—the occupation, industry sector and regions variables to the variables of Model 2; the Model 4 is the one added the new variables—the parents in the public sector dummy variable to the variables of Model 3

(3) t-values are expressed in parentheses

Table 5.6 Wage Premium of CPC membership for male workers

		(1)	(2)	(3)	(4)
Estimation 1	CPC	0.308***	0.048**	0.027	0.028
		(13.58)	(2.02)	(1.13)	(1.13)
Estimation 2	CPC	0.037	0.038	0.032	0.030
		(1.44)	(1.49)	(1.29)	(1.23)
	Adjusted	0.631***	0.067	−0.0628018	−0.080
	Item	(20.00)	(1.33)	(−0.90)	(−0.81)

Source Calculated based on CHIPs 2013

Note (1) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

(2) Model 1 uses only one—the CPC member dummy variable as the independent variable; the independent variables in Model 2 includes the CPC membership, female, years of experience and education variables; the Model 3 is the one added the new variables—the occupation, industry sector and regions variables to the variables of Model 2; the Model 4 is the one added the new variables—the parents in the public sector dummy variable to the variables of Model 3

(3) t-values are expressed in parentheses

statistically significant for female or male workers. These results are consistent with those shown in Table 5.4, suggesting that the influences on wages of job factors and selection are greater for female and male workers. In addition, for female workers, when the individual's human capital such as education and years of work experience is controlled, the significances of the impact of CPC membership on wages disappear. The results indicate that, for female workers, human capital may greatly influence the probability of becoming a CPC member.

Second, in Model 1 to Model 4, the selection items are all statistically significant for female workers, whereas the adjusted item is only statistically significant in Model 1 for male workers. This suggests that the influence of sample selection bias on wage levels is greater for female workers than for their male counterparts.

5.4.3 The Decomposition Results of the Wage Gap Between CPC and Non-CPC

Table 5.7 reports the decomposition results of wage gaps between CPC members and nonmembers for the total sample including female and male workers. Two kinds of decomposition analyses are employed. Model 1 is a decomposition analysis that excludes the selectivity items based on the wage function by the OLS model (Blinder 1973; Oaxaca 1973). Model 2 is a decomposition analysis that includes the selection items based on the wage function by the Heckman two-step model (Oaxaca and Choe 2016).¹⁵ The main results are as follows.

First, in general, the results of Model 1 and Model are different. Concretely, based on Model 1, the contribute rate of the explained component (98.3%) on the wage gap is greater than that of the unexplained component (1.7%); however, based on Model 2, the influence of the unexplained component (92.8%) on the wage gap is greater than that of the explained part (7.2%). Particularly, the contribute rate of unexplained component of adjusted items is 170.2%, which is the largest among these factors. This suggests that the factors that determine the probability of becoming a CPC member and some unobserved factors that are not controlled in the study, such as unobserved ability, may influence the probability of becoming a CPC member, greatly affecting the wage gap. Thus, analyses that consider the sample selection bias should be employed.

Second, for the detailed decomposition results, (1) the differentials of education enlarge the wage gap, the contribution rate is 55.3% in Model 1, 43.2% in Model 2. This indicates that the differentials in human capital between CPC members and nonmembers contribute to the existence of the wage gap. Concretely, because the average educational level is higher for CPC members than for nonmembers, based on the human capital theory (Becker 1964; Mincer 1974), the wage level is higher for CPC members, which contributes to the wage gap. In addition, the contribution rate of wage determination mechanism differs between these two groups. For example, the value of the unexplained component of education is greater for CPC members (12.2%

Table 5.7 Decomposition results of wage gap between CPC and non-CPC (total samples)

	Values		%	
	Explained	Unexplained	Explained (%)	Unexplained (%)
<i>Model 1</i>				
Total	0.354	0.006	98.3	1.7
Female	0.030	0.020	8.3	5.6
Years of experience	0.008	−0.150	2.2	−41.7
Education	0.199	0.044	55.3	12.2
Occupation	0.052	−0.007	14.4	−1.9
Industry	0.000	−0.087	0.0	−24.2
Ownership	0.062	−0.094	17.2	−26.1
Region	0.003	−0.120	0.8	−33.3
Constants	0.000	0.400	0.0	111.1
<i>Model 2</i>				
Total	0.026	0.333	7.2	92.8
Selection	−0.235	0.611	−65.5	170.2
Female	0.025	0.019	7.0	5.3
Years of experience	0.006	−0.164	1.7	−45.7
Education	0.155	0.120	43.2	33.4
Occupation	0.040	−0.004	11.1	−1.1
Industry	0.041	−0.100	11.4	−27.9
Ownership	−0.008	−0.094	−2.2	−26.2
Region	0.002	−0.119	0.6	−33.1
Constants	0.000	0.064	0.0	17.8

Source Calculated based on CHIPS 2013

Note Estimation 1 based on Blinder-Oaxaca model; Estimation 2 based on Oaxaca and Choe model

in Model 1, 33.4% in Model 2), suggesting that the return on education is greater for CPC members than for nonmembers, which expands the wage gap between these two groups. The results indicate that both the gap of educational attainment and the return on education may cause the wage gap between CPC members and nonmembers in China.

(2) The gender proportion may increase the wage gap (8.3% in Model 1, 7.0% in Model 2). The results can be explained as follows. Because the gender wage gap remains (Gustafsson and Li 2000; Maurer-Fazio and Hughes 2002; Demurger et al. 2007; Li et al. 2011; Ma 2018a, c), when the female proportion is higher for non-CPC members, the average wage may be lower for non-CPC members than for their counterparts, which may cause the wage gap between CPC members and nonmembers. In China, as shown by the slogan “women can hold up half of the sky,” the government implemented gender equality employment policies and greatly

promoted female employment in the public sector (Ma 2018a). However, the proportion of females in the CPC is smaller than that of males, which may be caused by discrimination against women or women's own choices (self-selection).

(3) The differentials of occupational distributions between these two groups may cause the existence of the wage gap (14.4% in Model 1, 11.1% in Model 2). In addition, the differentials of industry sector distributions between these two groups increase the wage gap (11.4% in Model 2).

(4) Regarding enterprise ownership, the differentials of distributions of ownership types increase the wage gap (17.2% in Model 1), whereas when sample selection bias is considered, its influence decreased (−2.2% in Model 2). This indicates that the ownership sector may influence the probability of participating in the CPC; thus, the ownership effect on the wage gap is absorbed by the selection item.

Tables 5.8 and 5.9 report the decomposition results of wage gaps between CPC members and nonmembers for female workers and male workers separately. The new findings are as follows.

Table 5.8 Decomposition results of wage gap between CPC and non-CPC (female workers)

	Values		%	
	Explained	Unexplained	Explained (%)	Unexplained (%)
<i>Model 1</i>				
Total	0.419	−0.067	119.0	−19.0
Years of experience	−0.012	0.053	−3.4	15.1
Education	0.309	0.394	87.8	111.9
Occupation	0.064	−0.047	18.2	−13.4
Industry	0.052	−0.065	14.8	−18.5
Ownership	−0.002	−0.004	−0.6	−1.1
Region	0.008	−0.116	2.3	−33.0
Constants	0.000	−0.282	0.0	−80.1
<i>Model 2</i>				
Total	−0.469	0.823	−132.5	232.5
Selection	−0.711	1.318	−200.8	372.3
Years of experience	−0.003	−0.030	−0.8	−8.5
Education	0.212	0.455	59.9	128.5
Occupation	0.041	−0.048	11.6	−13.6
Industry	0.005	−0.040	1.4	−11.3
Ownership	−0.021	−0.011	−5.9	−3.1
Region	0.008	−0.117	2.3	−33.1
Constants	0.000	−0.705	0.0	−199.2

Source Calculated based on CHIPs 2013

Note Estimation 1 based on Blinder-Oaxaca model; Estimation 2 based on Oaxaca and Choe model

Table 5.9 Decomposition results of wage gap between CPC and non-CPC (male workers)

	Values		%	
	Explained	Unexplained	Explained (%)	Unexplained (%)
<i>Model 1</i>				
Total	0.273	0.035	88.6	11.4
Years of experience	0.017	−0.266	5.5	−86.4
Education	0.158	−0.226	51.3	−73.4
Occupation	0.043	0.015	14.0	4.9
Industry	0.046	−0.089	14.9	−28.9
Ownership	0.008	−0.15	2.6	−48.7
Region	0.001	−0.128	0.3	−41.6
Constants	0.000	0.879	0.0	285.4
<i>Model 2</i>				
Total	−0.120	0.426	−39.2	139.2
Selection	−0.266	0.598	−86.9	195.4
Years of experience	0.011	−0.359	3.6	−117.3
Education	0.097	−0.233	31.7	−76.1
Occupation	0.023	0.002	7.5	0.7
Industry	0.016	−0.067	5.2	−21.9
Ownership	−0.002	−0.150	−0.7	−49.0
Region	0.001	−0.130	0.3	−42.5
Constants	0.000	0.765	0.0	250.0

Source Calculated based on CHIPs 2013

Note Estimation 1 based on Blinder-Oaxaca model; Estimation 2 based on Oaxaca and Choe model

First, in general for both female and male workers, when the sample selection bias is controlled, the contribute rate of unexplained component increases from −19.0 to 232.5% (female) and from 11.4 to 139.2% (male); the range of the increase of the unexplained component is greater for female workers than for male workers. This indicates that the factors influencing the self-selection or being selected to participate in the CPC organization greatly affect the wage gap; the influence is greater for female workers than for male workers.

Second, for the detailed decomposition results, (1) although education contributes to the existence of the wage gap for both female workers and male workers, the effect of education is greater for female workers than for male workers. For example, based on Decomposition 2, the calculated values of education are 59.9% (explained component) and 128.5% (unexplained component) for female workers and 31.7% (explained component) and −76.1% (unexplained component) for male workers. The educational attainment gap may be found to enlarge the wage gap between CPC members and nonmembers for both female workers and male workers, and the

difference in the return on education for wages may enlarge the wage gap for female workers while reducing it for male workers.

(2) The differentials in occupational distribution between these two groups may increase the wage gap between CPC members and nonmembers for both female and male workers. For example, based on the explained part results of Decomposition 2, the calculated values of occupation are 11.6% for female workers and 7.5% for male workers. This demonstrates that the influence of differentials in occupational distributions on the wage gap is greater for female workers than for male workers.

(3) The differentials in distributions among industry sectors between these two groups may increase the wage gap between CPC members and nonmembers for both female and male workers, and the influence of the differentials in occupational distributions on the wage gap is greater for female workers than for male workers. Concretely, based on the explained part results of Decomposition 2, the calculated values of industry are 11.4% for female workers and 5.2 percent for male workers.

5.5 Conclusions

Using data from the Chinese Household Income Project survey (CHIPs) conducted in 2014, this study employs an empirical study based on the wage function considering the sample selection bias (Heckman 1979), the probit regression model, and the Blinder-Oaxaca decomposition model (Blinder 1973; Oaxaca 1973; Oaxaca and Choe 2016) to (1) estimate the determinants of participation in the CPC, (2) estimate the impact of CPC membership on wage levels, and (3) investigate the determinants of the wage gap between CPC members and nonmembers in China. We mainly compare the differences in these factors between female and male workers.

Fourth, new findings emerge. First, when the other factors are constant, the probability of becoming a CPC member is 7.3–7.7% points lower for female workers than for male workers. This indicates that a gender gap of participation in the CPC remains.

Second, the wage premium of CPC membership is higher for female workers (around 34.7% points) than for male workers (4.8–30.8% points), and the influence of selection bias on wage levels is greater for female workers than for male workers.

Third, for both female workers and male workers, when the sample selection bias is controlled, the contribution rate of the unexplained component increases from –19.0 to 232.5% (females) and from 11.4 to 139.2% (males); the range of increase of the unexplained component is greater for female workers than for male workers. This indicates that factors influencing self-selection or being selected to become a CPC member greatly affect the wage gap, and the influence is greater for female workers than for male workers.

Fourth, the decomposition results show that, excepting the sample selection bias, endowment differentials—such as differences in years of schooling and distributions of occupations and industry sectors—are the main factors affecting the wage gap for

both female and male workers, and the contribution of endowment differentials is greater for female workers than for male workers.

The results indicate that, in the 2000s, CPC membership positively affected wage levels for both female and male workers, and the wage premium of CPC membership was greater for female workers than for male workers. The decomposition results show that, excepting the selection bias, endowment differentials—including human capital—are the main factors contributing to the wage gap between CPC members and nonmembers, and the influence is greater for female workers than for male workers. This suggests that, as the market-oriented economy reform advances, the influence of market mechanisms on wage determination becomes greater. Although the CPC leadership remains dominant in the political sphere, the influence of market mechanisms on wage determination increased; therefore, endowment differentials become the main factor contributing to the wage gap. It can be expected that, with the progress of market-oriented economy reform, the influence of unexplained component—including discrimination against non-CPC members—on the wage gap may decrease, and the influence of differences in the explained component (endowment differentials)—including human capital—may increase for both female and male workers. However, it should be noted that, in general, when other factors are constant, the probability of becoming a CPC member is lower for female workers than for male workers, and the influence of sample selection bias on wages is greater for female workers than for their male counterparts. This suggests that there may be discrimination against female workers participating in the CPC organization. Moreover, it also may be argued that the wage data used in this analysis only include basic wages, bonuses, and allowances that are reported. It is well known that some parts of income, such as income derived from corruption, may not be reported and cannot be measured, possibly causing the income gap between CPC members and nonmembers to be underestimated.

Notes

1. Since 1949, the CPC has been the dominant party leading the national organization of China. Article 29 of the Constitution of the Communist Party of China stipulates that “China is led by the Communist Party of China.” For details on CPC organization, criteria and the selection process for joining the CPC, and the role of the CPC in Chinese firms, please refer to Ma and Iwasaki (2021).
2. For the survey and meta-analysis on communist party membership and the wage premium in China, please refer to Ma and Iwasaki (2021).
3. Based on Section 1 Article 1 of the Constitution, prospective members of the Communist Party of China must meet five prerequisites. They must be: (1) blue collar workers, farmers, white collar workers, and other revolutionary activists who are Chinese citizens older than 18 years of age; (2) those who accept the party’s program and constitution; (3) those who are willing to join and work actively in one of the party organizations; (4) those who enforce the party’s resolutions; (5) those who regularly pay Communist Party of China membership dues. Even though these five conditions could be met by the majority of Chinese

citizens, the selection process for becoming a CPC member is strict and long (Hu and Zhou 1998; Li and Zhang 2003).

4. Regarding individual characteristics (e.g., education, gender), in fact, CPC members in China can be considered an elite class. For example, based on reports from the China Xinhua News Network Corporation, the proportion of higher education graduates among all CPC members is 45.9%.
5. In order to simplify the expression of equations, all constant items are omitted.
6. In the Blinder-Oaxaca decomposition model (Blinder 1973; Oaxaca 1973), the adjusted item (λ) is not considered.
7. It is debated whether an index number problem exists in the Blinder-Oaxaca decomposition model. Estimated results may vary with the kinds of groups compared. Given the space constraints, and because the two sets of decomposition results are almost identical, only estimated results using Eq. (5.4) are presented in this study.
8. The mandatory retirement ages are as follows: 45 for a female worker, 50 for a male worker, 55 for a female cadre, and 60 for a male cadre.
9. Variable values in the range of the mean value $\pm$ three times S.D. are defined as abnormal values here.
10. Years of experience = age – years of schooling – 6.
11. Gustafsson and Li (2000), Demurger et al. (2007), and Ma (2018c) analyzed the gender wage gaps in China based on decomposition methods and found that discrimination against women is the main factor contributing to the existence of the gender wage gap.
12. There are 16 industry categories in the survey for local urban residents in CHIPs 2013. To confirm the analyzed samples, we reclassified the industrial sectors into five kinds.
13. For empirical studies on the wage gap between the public sector and the private sector in China, please refer to Zhang and Xue (2008), Ye et al. (2011), Demurger et al. (2012), and Ma (2018c).
14. For detailed results, please see Appendix Tables 5.10 and 5.11.
15. The results of the wage function by the OLS model and the Heckman two-step model are shown in the Tables 5.12 and 5.13.

Appendix

See Tables 5.10, 5.11, 5.12 and 5.13.

Table 5.10 Results of wage functions of CPC and non-CPC (OLS)

	(1) CPC		(2) Non-CPC		(3) Gap
	Coef.	t-value	Coef.	t-value	
Female	−0.208***	−6.42	−0.252***	−16.03	0.044
Exp	0.025***	3.39	0.043***	12.61	−0.018
Exp.-sq	−0.000**	−2.26	−0.001***	−11.77	0.001
<i>Education (Primary)</i>					
Junior high	0.057	0.25	0.036	1.08	0.021
Senior high	0.297	1.33	0.189***	5.37	0.108
College	0.447**	1.99	0.414***	10.28	0.033
University	0.654***	2.89	0.658***	14.92	−0.004
<i>Occupation (Manufacturing)</i>					
Manager/engineer	0.130**	2.22	0.137***	5.09	−0.007
Clerk	0.010	0.16	0.013	0.42	−0.003
Service worker	−0.140**	−2.06	−0.126***	−4.80	−0.014
Other	−0.102	−1.47	−0.119***	−4.17	0.017
<i>Ownership (PUB)</i>					
COEs	−0.284***	−3.81	−0.001	−0.02	−0.283
FOEs	0.306**	2.12	0.266***	5.71	0.04
POEs	−0.139**	−2.52	−0.017	−0.75	−0.122
Other	−0.184***	−3.34	−0.047**	−1.99	−0.137
<i>Industry sector (Manufacturing)</i>					
Construction	−0.0195	−0.20	0.253***	6.74	−0.273
Sales	−0.044	−0.50	0.019	0.61	−0.063
Service	−0.079	−1.17	−0.002	−0.06	−0.077
Other	−0.041	−0.72	0.080***	2.99	−0.121
<i>Region (East)</i>					
Central	−0.399***	−11.78	−0.168***	−9.52	−0.231
West	−0.306***	−7.84	−0.143***	−7.00	−0.163
Constants	1.916***	7.56	1.517***	23.60	0.399
Observations	2,009		8,602		
Adj R-squared	0.224		0.237		

Source Calculated based on CHIPs 2013

Note *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$; Gap = CPC-Non-CPC

Table 5.11 Results of wage functions of CPC and non-CPC (Heckman two-step model)

	(1) CPC		(2) Non-CPC		(3) Gap
	Coef.	t-value	Coef.	t-value	
Female	−0.171***	−4.05	−0.212***	−7.85	0.041
Exp	0.020**	2.42	0.040***	9.98	−0.020
Exp.-sq	−0.000*	−1.80	−0.001***	−11.20	0.001
<i>Education (Primary)</i>					
Junior high	0.044	0.20	−0.045	−0.81	0.089
Senior high	0.248	1.10	0.054	0.66	0.194
College	0.362	1.56	0.236**	2.26	0.126
University	0.510**	2.06	0.430***	3.29	0.080
<i>Occupation (Manufacturing)</i>					
Manager/engineer	0.112*	1.89	0.116***	3.94	−0.004
Clerk	−0.059	−0.78	−0.050	−1.06	−0.009
Service worker	−0.162**	−2.34	−0.149***	−5.04	−0.013
Other	−0.129*	−1.81	−0.143***	−4.44	0.014
<i>Ownership (PUB)</i>					
COEs	−0.267***	−3.52	0.011	0.28	−0.278
FOEs	0.392**	2.51	0.360***	5.17	0.032
POEs	−0.085	−1.26	0.050	1.17	−0.135
Other	−0.146**	−2.39	−0.004	−0.12	−0.142
<i>Industry sector (Manufacturing)</i>					
Construction	−0.011	−0.11	0.270***	7.01	−0.281
Sales	−0.012	−0.14	0.070*	1.68	−0.082
Service	−0.070	−1.03	0.007	0.24	−0.077
Other	−0.045	−0.78	0.077***	2.88	−0.122
<i>Region (East)</i>					
Central	−0.400***	−11.78	−0.169***	−9.58	−0.231
West	−0.317***	−7.98	−0.155***	−7.25	−0.162
Adjusted item	0.198	1.42	−0.132*	−1.84	0.330
Constants	1.992***	7.69	1.928***	8.28	0.064
Observations	2,009		8,602		
Adj R-squared	0.2248		0.187		

Source Calculated based on CHIPs 2013

Note *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$; Gap = CPC-Non-CPC

Table 5.12 Results of wage premium of CPC membership

	(1)		(2)		(3)		(4)	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
CPC	0.322***	17.18	0.043**	2.22	0.023	1.20	0.023	1.14
Female	-0.251***	-16.94	-0.275***	-19.63	-0.248***	-17.54	-0.247***	-17.53
Exp			0.042***	13.42	0.039***	12.64	0.0400***	12.86
Exp.-sq			-0.000***	-11.85	-0.001***	-11.42	-0.001***	-11.62
<i>Education (Primary)</i>								
Junior high school			0.063*	1.92	0.055*	1.69	0.048	1.50
Senior high school			0.272***	8.07	0.231***	6.90	0.212***	6.27
College			0.544***	14.84	0.448***	12.04	0.418***	11.07
University			0.839***	21.87	0.683***	17.13	0.645***	15.84
<i>Occupation (Manufacturing)</i>								
Manager and engineer					0.143***	5.95	0.141***	5.86
Clerk					0.025	0.95	0.020	0.75
Service worker					-0.138***	-5.72	-0.124***	-5.08
Other					-0.125***	-4.75	-0.114***	-4.29
<i>Industry sector (Manufacturing)</i>								
Construction					0.200***	5.77	0.231***	6.62
Sales					-0.008	-0.30	0.018	0.63
Service					-0.024	-0.90	-0.002	-0.08
Other					0.059**	2.52	0.070***	2.87
<i>Ownership (PUB)</i>								

(continued)

Table 5.12 (continued)

	(1)		(2)		(3)		(4)	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
COEs							-0.054	-1.55
FOEs							0.246***	5.61
POEs							-0.043**	-2.10
Other							-0.075***	-3.46
<i>Region (East)</i>								
Central	-0.260***	-15.65	-0.219***	-13.99	-0.217***	-13.93	-0.213***	-13.58
West	-0.248***	-12.93	-0.188***	-10.32	-0.179***	-9.88	-0.177***	-9.79
Constants	2.388***	174.09	1.472***	27.86	1.567***	28.71	1.583***	26.83
Observations	10,611		10,611		10,611		10,611	
Adj R-squared	0.082		0.188		0.211		0.215	

Source Calculated based on CHiPs 2013
Notes (1) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$
(2) Gap = coef. of CPC-coef. of non-CPC

Table 5.13 Results of wage premium of CPC membership including adjusted items

	(1)		(2)		(3)		(4)	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
CPC	0.020		0.025	1.20	0.025	1.23	0.0242	1.21
Female	-0.166***	-11.45	-0.261***	-17.57	-0.250***	-16.01	-0.252***	-15.07
Exp			0.039***	12.06	0.039***	11.95	0.040***	12.05
Exp.-sq			-0.001***	-11.22	-0.001***	-11.21	-0.001***	-11.39
<i>Education (Primary)</i>								
Junior high school			0.047	1.43	0.056*	1.71	0.052	1.57
Senior high school			0.236***	6.57	0.235***	6.51	0.219***	5.93
College			0.481***	11.35	0.453***	10.49	0.430***	9.51
University			0.738***	14.46	0.692***	12.73	0.666***	11.17
<i>Occupation (Manufacturing)</i>								
Manager and engineer					0.144***	5.92	0.143***	5.84
Clerk					0.029	0.94	0.030	0.89
Service worker					-0.138***	-5.66	-0.121***	-4.87
Other					-0.125***	-4.71	-0.111***	-4.13
<i>Industry sector (Manufacturing)</i>								
Construction					0.199***	5.71	0.229***	6.51
Sales					-0.010	-0.34	0.015	0.51
Service					-0.025	-0.91	-0.004	-0.14
Other					0.060**	2.52	0.070***	2.88
<i>Ownership (PUB)</i>								

(continued)

Table 5.13 (continued)

	(1)		(2)		(3)		(4)	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
COEs							-0.057*	-1.61
FOEs							0.235***	4.77
POEs							-0.051*	-1.93
Other							-0.081***	-3.21
<i>Region (East)</i>								
Central	-0.255***	-15.96	-0.223***	-14.19	-0.216***	-13.86	-0.213***	-13.58
West	-0.246***	-13.33	-0.194***	-10.62	-0.178***	-9.72	-0.176***	-9.61
Adjusted item	0.760***	28.89	0.124***	3.00	-0.013	-0.25	-0.0349	-0.48
Constants	2.158***	139.92	1.530***	27.20	1.562***	26.20	1.577***	26.19
Observations	10,611		10,611		10,611		10,611	
Adj R-squared	0.149		0.196		0.211		0.215	

Source: Calculated based on CHIPs 2013
Notes (1) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$
(2) Gap = coef. of CPC-coef. of non-CPC

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