INCOME INEQUALITY AND SOCIAL STRATIFICATION: THE EFFECT OF MARKET VERSUS STATE IN TRANSITIONAL URBAN CHINA

by

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The rise of inequality in China is one of the most serious social problems in
the reform era in China. Previous studies have debated the relative importance of
human capital, political capital, and other factors in determining personal income. By
using a new dataset from 2006 China General Social Survey (CGSS2006), I replicate
earlier tests to measure whether the market or state has more impact on incomes as a
way to the competing hypotheses related to human versus political capital.

The results of the ordinary least squares regression analysis show no
significance in party membership, state ownership, and work experience, while I do
find high returns to education, which supports Nee’s market transition theory.
Moreover, the findings indicate that market sectors, including domestic private
enterprises and foreign enterprises have remarkable advantages in earnings, and there
is a great income gap between different regions, sectors, and within the sectors.
However, there are several limitations in my research: 1) the grey income sources that
are not included in the data; 2) some other related variables like occupation, cadre
status, are not covered in the analysis; 3) state cadres are still enjoy many invisible
privileges which is hard to quantified. To summarize, the market and state play a dual
role in determining incomes in transitional urban China.
I would never have been able to finish my thesis without the guidance of my committee members, and support from my friends. Their help in one way or another contributed and extended their valuable assistance in the preparation and completion of this study.

First and foremost, my utmost gratitude goes to Dr. Barry Goetz, chair of my thesis committee. Dr. Goetz has been my inspiration as I hurdle all the obstacles in the completion this research work for the support and guidance he showed me throughout my dissertation writing. I am sure it would have not been possible without his help. I am also sincerely and heartily grateful to Dr. Yuan-kang Wang, for his excellent guidance in methods, and steadfast encouragement to complete this study. and Dr. David Hartmann, for his unselfish and unfailing support as my thesis committee member.

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Thirdly, I would like to thank China General Social Survey Open Database to provide the data of 2006 to me for free.

Fourthly, I would like to thank my friends, who supported and encouraged me. They were always there cheering me up and stood by my side through the good times and bad.
And finally, I am sincerely and heartily grateful to my parents, who are always supporting me and encouraging me with their best wishes.

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CHAPTER I

INTRODUCTION

China's Communist Revolution was founded upon the idea of equality of wealth. It was a basic principle of the early Communist Party that inequalities ought to be eradicated and the power and privilege of elite groups should be dismantled. In pre-reform China, the society was relatively equal in income distribution and resource allocation. Since 1978, China has been carrying out a transformation from a socialist planned economy to market economy, along with a great social change from relative social egalitarianism to a new era of individualism and competition under the market mechanism.

Because of the ongoing reform started from 1978 with a series of effective economic development policies, the unprecedented boom of China's economy has amazed the world. Nowadays China is one of the fastest growing economies in the world and has overtaken Japan as the world's second-biggest economy.

Sir Arthur Lewis said, “development must be inegalitarian because it does not start in every part of the economy at the same time” (Lewis, 1976, p.26). In terms of China,
the government has started a policy to allow and encourage some people to get rich first and some regions to develop quickly, and coastal and urban areas obtained the priority to develop first and faster. As a result, the income gap between the rich and poor, between urban and rural areas, and between different regions has become larger.

The Gini Coefficient is one of the most common used indexes to measure income inequality. The Gini coefficient is based on the differences in incomes of all possible pairs of individuals.

\[
Gini = \left\{ \frac{1}{2n^2} \sum_{i=1}^{n} \sum_{j=1}^{n} |Y_i - Y_j| \right\} / (1/n) \sum_{i=1}^{n} Y_i \quad \text{(Equation 1)}
\]

It can help to "understand income inequality of Chinese national residents as a whole and to have macroscopic impression" (Chen & Zhou, 2005, p.21). According to the data from the National Bureau of Statistics of China (NBS), the national Gini Coefficient was 0.30 in 1978, and increased to 0.412 in 2000.

After 2000, there are no more official data of Gini Coefficient from NBS coming out, but according to some scholars that "it was reported in May 2010 that the Gini coefficient had reached 0.48 in China, overtaking the recognized warning level of 0.4". The World Bank also estimated that "China's Gini coefficient had reached 0.47 in 2009, higher than the internationally accepted threshold of 0.4, which indicates income inequality may threaten social stability" (China Daily,

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1 n is the total number of individuals; i and j are the individual and i = 1, ..., n; j = 1, ..., n; i ≠ j; Y_i is the income of individual i; and Y_j is the income of individual j.
Ma (2005) found that the “Gini coefficient reached 0.53” in 2004.

Compared to the pre-reform era, though inequalities have increased dramatically between workers and professionals, eastern-coastal regions and western regions, “under a market system, everyone ostensibly has an opportunity to try for better jobs and income” (Tang and Parish, 2000, p.51). Chinese society has become more diverse. Specialization helps build a more organic society, in which an individual’s needs are served by markets, rather than by the state.

However, according to the survey results from the national China Household Income Project 2002, 81.5% of people think that the current situation on income distribution is not fair, and the 2006 China General Social Survey also indicated that over 50% of the respondents feel unfair about the income distribution. People’s attitude towards the unfairness of income distribution, to some extent, reflects income inequality in China that ordinary people feel the widen gap between the rich and the poor, the urban-rural divide, between different social classes, and different regions. The income gap has become the most serious social problem in current China, far ahead of crime and corruption, which rank in second and third place based on a survey in 2004. (Xinhua, 2004).

In studies of social change and problems in the societal transformation in the state
socialism, there is a controversy centering on:

1) Whether market reform undermines the income advantages of cadres;

2) Whether the persistence of cadres' privilege simply reflects their technocratic competence;

And 3) whether there are aspects of 'reforming' socialism that systematically reinforce cadres' privilege.

The whole theoretical debate comes down to considering competing hypotheses whether human capital or political capital is more important in determining personal income in urban China.

First, market transition theory argues that "higher returns to education as the market creates more demand for skilled labor" based on Nee's "widespread evidence of the liberating effects of market forces" (Tang & Parish, 2000, p.81).

Second, the power persistence theory challenges Nee's market transition theory and claims that the importance of political power has not declined but continues to play a significant role. The thesis of "power persistence" (Bian and Logan, 1996) contends that political power of party cadres can be transformed into economic advantages on the course of the transition to a market economy. The politically-based privilege is still "deeply embedded in the economic situation" (p.741).

Third, "the mixed solution of technocratic continuity" suggests that the old
In this thesis, I address the issue of the theoretical debate in the literature on the research on social inequality in China by using a newer and different national dataset from CGSS, 2006 as a way to the competing hypotheses related to human versus political capital. The fundamental questions in this study are focused on: 1) Do income returns more on political capital (party membership) or human capital (education and work experience)? 2) How do these changes related to trends in aggregate inequality? And 3) how are the changes associated with the current social stratification?
CHAPTER II

LITERATURE REVIEW

In the sociological literature, there are three contradictory theories regarding social transformation in post-socialist societies: 1) continuing bureaucratic politics (power continuity; 2) market transformation (structural transformation); 3) the mix solution of technocratic continuity (Tang and Parish, 2000, p.83).

The first view focuses on the impact of market transformation. The most remarkable is the model of market transition raised by Nee (1989). He formulated his theory of market transition in state socialist societies in three theses: 1) the market power thesis, which claims that with the transition from central redistribution to free market, there is also a shift in the source of power from the redistributors to market producers; 2) the market incentive thesis, which maintains under the market mechanism, since higher individual productivity leads to more rewards that there are greater incentives for individual effort that is reflected in higher returns of education; and 3) the market opportunity thesis, which states that because of the changes in the structure of opportunities, that entrepreneurship has become a new way for mobility. (Nee, 1989, pp.666-667, 678).
Based on the market transition theory, the transition toward a market economy will result in a decline in the significance of redistributive power and “predicts the gradual replacement of politics by markets as the main mechanism in generating social and economic inequalities” (Hauser and Xie, 2003, p.44). The more complete the shift to market coordination, the less likely that economic transactions will be embedded in networks dominated by cadres, and “the more likely power-control over resources will be located in market institutions and in social networks (Chinese call guanxi) of private buyers and sellers” (Nee, 1989, p.668).

In Nee’s study (1989), he conducted a household-level research using data from Fujian Rural Survey Project conducted in 1985. The dependent variable in the analysis is the household income for 1975 and 1980. Education attainment is the human capital variable. The age of the household head and the number of adult laborers and children in the household are the control variables. His findings support his hypotheses that the sources of power have shifted decidedly from the redistributive economy to the marketplace.

In later articles, Nee extended his market transition conceptual framework into an integrative theory that incorporates three approaches:

1) The market transition approach, which addresses his earlier claims;

2) The society-centered approach, which focuses on “the importance of social networks in shaping political and economic action”;

7
And 3) State-centered approach, which "emphasizes the role of the state in specifying and monitoring the fundamental rules of competition and cooperation in a societal order". (Nee and Cao, 1999, pp.804-806). This approach is close to the power persistence theory, addressing "the persistent advantage and adoptive strategies of the communist elite in the early period of the transition" but different from the power persistence theory, it "maintains that an emergent market economy incrementally enhances the earnings returns to human capital and hence diminishes the significance of political capital" (Nee and Cao, 1999, p.804).

The argument of technocratic continuity also favors education as the key to recruitment. It contends that "the emerging market structure required technocratic skills that were common among the old managerial elite" (Tang and Parish, 2000, p.83). Thus, returns to education are the trend under the market mechanism, but the political capital can be transferred to the human capital in the transitional era, and the political elites still dominate the beneficial positions. The technocratic cadres "can maintain their positions through the acquired expertise" (Rona-Tas, 1994, p.45). But differ from Nee's prediction, the thesis of technocratic continuity suggests that cadres has the advantage in becoming an entrepreneur, (Rona-Tas, 1994, p.47).

The theory of power persistence offers a different proposition. Other scholars demonstrated the significance of political capital, and they claimed that even in transition economies, cadres and party members still remain the advantages. A group
of Chinese sociologists adopted this power persistence theory and provided evidence that challenge Nee’s hypotheses. They emphasized the continuing bureaucratic politics, and claims that the administrators and party members still have the authority in Chinese society.

For example, with an analysis of 1988 data, Xie and Hannnum (1996) contradicted Nee’s prediction. They modified a human capital model based on Mincer’s (1974) by adding party membership. The model is specified as:

\[
\text{Log (Y)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_2^2 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_1^*X_5 + \varepsilon. \quad \text{(Equation 2)}
\]

Y is the earnings; \(X_1\) is the education measured by years of schooling; \(X_2\) is the years of work experience; \(X_4\) is a dummy variable of party (1= Communist party member); \(X_5\) is a dummy variable of gender (female=1). All \(\beta\)s are the unknown coefficients and \(\varepsilon\) is the residual explained by the model.

Xie and Hannnum (data) found that there is no evidence showing a decline in the value of political capital and returns to education are negatively associated with the economic growth, which reflects the level of marketization. (Xie and Hannnum, 1996, p.953).

In addition, Xie and Wu’s research on whether the danwei2 (work unit) still serves as

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2 Danwei or work unit is a special name for the place of employment in China. It is very important in determining workers' social, economic, and political lives especially in pre-reform urban China.
a major agent of social stratification in China after two decades of reform and thus supporting the theory of power persistence. They employed data from a survey called “study of family life in urban China” which was conducted in Shanghai (an eastern coastal city), Xi’an (a large western city) and Wuhan (a large central city) in 1999. In their analysis, the dependent variable is the natural logarithm of total annual earnings in 1998. The independent variables are cities which the respondents were resided, highest education level, work experience, gender, cadre status, sector and the financial situation of danwei for the job worked at the survey time. Their results showed that the danwei continues to play a strong role in determining the earnings among workers, irrespective of city and sector.

Similar to the power persistence theory, there is an argument of power conversion arguing that under state capitalism, “strategically located cadres can take advantage of their positions in acquiring state property” (Rona-Tas, 1994, p.45). Political capital was continuously playing an important role in maintaining an advantaged position during the transition to a market economy. “According to Rona-Tas (1994), once it became clear that the collapse of Hungarian state-socialism was imminent, the old communist elite sought to adapt to regime change by converting its political and social capital—positional power and network ties—into economic capital in the newly privatized corporate economy” (Nee and Cao, 1999, p.804).

Bian and Logan (1996) used surveys conducted in Tianjin (the third largest city in
China) in 1988 and 1993. They obtained income and other data for 1988 and 1993, and retrospective data for 1983 and 1978. The dependent variables included base salary, other income and total income. Independent variables were education level, age, gender, party membership, and occupation. Their final model indicated that education had the greatest impact in the new sector, and Communist Party membership had declined in its “effectiveness” for workers compared to market-connected jobs. This finding is consistent with the market transition theory predicted. But they also found a significant interaction of Communist Party membership with new sector jobs in 1983 and 1988, a finding consistent with the power conversion theory.

According to the findings of several researchers, the earning returns to membership in the Chinese Communist Party (CCP) accounted to 6% by Zhou (2000), 7.6% by Xie and Hannum (1996), and 9% by Walder (1990). This indicates that a member of CCP is expected to earn 6% to 9% more than a non member.

Based on the literature, many sociologists have studied positive returns to human capital and political capital. Human capital include education, work experience, skills, parental education, etc. Political capital refer to party membership, working in the state sector, government and other power agencies, parental party membership, social contact that can get access to political capital. I attempt to explore the important determinants of individual income, find whether earnings returns more to human
capital or political capital, and to verify the theories above using a brand new database that former researchers have never used before. My research hypotheses are as follows:

Hypothesis 1: Human capital is the best indicator of income China today.
In other words, higher educational credentials and more work experience will lead to higher earnings. I derive this hypothesis from Nee’s market transition theory that “higher returns of education, which is among the best indicators of human productivity” (Nee, 1989, p.666).

Hypothesis 2: Political capital (party membership) remains the best predictor of income in China today.
“Communist Party membership continues to yield an income advantage to workers and workers whose jobs hold redistributive power earn more” according to Bian and Logan’s (1996) analysis on survey conducted in Tianjin, China in 1988 and 1993. Bian, Shu, and Logan (2001) also found that during the post-1978 reform era, “party membership had a significant effect on mobility into elite positions of political and managerial authority, and college education increased party members’ chances of moving into positions of political authority but not into managerial positions within the state sector” (p.832).

Hypothesis 3: The role of work unit sector and state ownership remains significant in
determining income.

With an analysis of data survey collected in Shanghai, Xi'an and Wuhan in 1999, Xie and Wu (2008) indicates that “the *danwei* (work unit) continues to play a very important role in determining the economic well-being” (p.13), and it still serves as “a major agent of social stratification in urban China” (p.6).

If I follow Nee’s market transition theory, there would be a less significance on returns to party membership. However, if my results indicate that returns to party membership are considerably crucial just as the findings in Song and Xia (2005) and Zhou (2000), then there may be intervening factors that lead to two explanations: either because China’s Communist Party members who have more knowledge and skills help them become new elites during the era of marketization” as the technocratic continuity theory predicted, or they can intervene in because of their political power, and profit from the operation of the market as the power persistence theory claimed? “In either case, it shows that membership in China’s Communist Party has economic benefit for individuals and that these benefits have continued or increased during reform” (Naughton, 2007, p.199).
CHAPTER III

DATA AND VARIABLES

In this thesis, I employ individual-level data from the urban samples of the 2006 China General Social Survey (CGSS, 2006) under the joint sponsorship of Survey Research Center, Hong Kong University of Science and Technology, and Department of Sociology, Renmin University of China.

The CGSS is an annual or biannual questionnaire survey of China's urban and rural households. It aims to “monitor systematically the changing relationship between social structure and quality of life in urban and rural China” (http://www.ust.hk/~websosc/survey/GSS_e.html). The survey program started from 2003, and the first dataset only covered the urban areas. In 2005, rural areas were added. The data of 2006 encompasses three sections: urban, rural and family questionnaires. For this thesis, I only used the urban data of 2006, for analysis.

The surveys were conducted during September 2006 to October 2006 with 1610 variables and 10,151 cases (6013 cases in urban areas). A multistage cluster sampling procedure selected 28 provinces and municipalities. The respondents are from the age of 18 to 69, in randomly selected 10,000 households in 28 provinces and cities.
nation-wide. The urban questionnaires contained personal general information, work experience, current work situation, family situation, and attitudes towards the society.

In order to estimate the relationships between income distribution and several socio-demographic characteristics of individuals, my analyses rely on OLS regression to predict total individual income in urban China.

First, I selected a subsample of the cases where the individual was currently working or employed for my model (N=3109). Because the Community Youth League (CYL) was established under the leadership of the China’s Communist Party (CCP), a mass organization of advanced youth between the ages of fourteen and twenty-eight, led by the CCP, and it is also a school to study communism in practice and an assistant and reserve of the CCP, I combined the CYL and the CCP together by recoding 3= CYL into 1 (1= CCP). And I also combine those who do not belong to any parties with those who are the members of other parties into one category designated as non CCP members.

Similarly, I recoded the variable type of “Hukou” by combining urban “Hukou” of town and Urban “Hukou” of county into one category designated as 1= urban “Hukou” of small cities; urban “Hukou” of province capital and urban “Hukou” of municipalities into one category— 3= urban “Hukou” of large cities.
“Hukou” is a particular household registration system in China. Dating back about 2000 years ago, when Qin Dynasty united the whole China, and set up this household registration system to collect taxes according to the number of people. After the Communist Party established the People's Republic of China, the Communist regime revived it in 1955 to keep poor rural farmers from flooding into the cities in case that the “extensive rural-to-urban migration would undercut the attempt to develop an urban welfare state”. The “Hukou” registration system “classified each member of the population as having agricultural (rural) or nonagricultural (urban) status (Hukou), with a sharp differentiation of rights and privileges and extremely stringent conditions for converting from rural to urban status” (Wu and Treiman, 2004, p.363).

Due to the restriction of “Hukou”, those who move to large cities to work or study but do not have the local “Hukou” cannot enjoy all kinds of benefits as the citizens, and have to go back to their hometown to get a marriage license, apply for a passport or take the national university entrance exam. Rather, the “Hukou” system create unfair advantages for those who live in large cities especially Beijing and Shanghai. Because in China, most highly regarded universities and hospitals locate in large cities, and those institutions provide more preferential policies to the local Hukou-holders. Moreover, most local enterprises tend to favor in those who are local residents. Thus, those who have the urban “Hukou” of large cities tend to have advantages over those who are originally from smaller places.
In pre-reform China, Chinese urban society was organized by each work unit dominated by the state. “In Chinese official statistics, the *danwei* or work unit is defined as an independent accounting unit with three characteristics: 1) administratively, it is an independent organization; 2) fiscally, it has an independent budget and produces its own accounting tables of earnings and deficits; 3) financially, it has independent accounts in banks and has legal rights to sign contracts with government or business entities” (Bian, 1994, p.23). The role of *danwei* or work unit was extremely significant that it defined one’s social, economic, and political life. Individuals depended on *danwei* for almost everything. Without a work unit, it was difficult to survive in a city because housing, food, and other social services were hardly available through the market.

After the reform, with the emerging of private sector including private enterprises, foreign companies, joint-ventures, and the self-employed, the role of *danwei* has lost some of its importance compared to the era of pre-reform, because through *danwei* is no longer the only way to get all social services, the market has made it more diverse. However, *danwei* does not disappear with the challenge of the market, and remains the main agent of social stratification in contemporary urban China.

Table 1 lists all the variables used in the study.

---

3 The term *danwei* or work unit refers to all work organizations in general, but was often used to refer to state economic enterprises in particular” (Wu, 2002, p.1073).
Table 1

Description of Predictors for the Analysis of Individual Income Inequality in Urban China

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Income (Income2005)</td>
<td>Personal yearly total income in 2005 (Yuan)</td>
</tr>
<tr>
<td>Gender (Gender)</td>
<td>1= Female  2= Male</td>
</tr>
<tr>
<td>Work Experience (Workexp)</td>
<td>Work experience is measured by subtracting the end year of a job from the start year (in years)</td>
</tr>
<tr>
<td>Education Level (Education)</td>
<td>Education is measured by Eight levels&quot;</td>
</tr>
<tr>
<td></td>
<td>1= Never schooled</td>
</tr>
<tr>
<td></td>
<td>2= Classes for eliminating illiteracy</td>
</tr>
<tr>
<td></td>
<td>3= Elementary School</td>
</tr>
<tr>
<td></td>
<td>4= Middle School</td>
</tr>
<tr>
<td></td>
<td>5= High School</td>
</tr>
<tr>
<td></td>
<td>6= Junior College</td>
</tr>
<tr>
<td></td>
<td>7= College/University</td>
</tr>
<tr>
<td></td>
<td>8= Graduate</td>
</tr>
<tr>
<td>Foreign Language Skill (Lanskill)</td>
<td>Four categories: 1= Not at all</td>
</tr>
<tr>
<td></td>
<td>2= Know a little</td>
</tr>
<tr>
<td></td>
<td>3= Somewhat fluent</td>
</tr>
<tr>
<td></td>
<td>4= Very fluent</td>
</tr>
<tr>
<td>Type of “Hukou” (“Hukou”)</td>
<td>Four categories:</td>
</tr>
<tr>
<td></td>
<td>1= Urban “Hukou” in small cities/towns,</td>
</tr>
<tr>
<td></td>
<td>2= Urban “Hukou” in middle cities,</td>
</tr>
<tr>
<td></td>
<td>3= Urban “Hukou” in large cities (Municipalities and Provincial capital);</td>
</tr>
<tr>
<td></td>
<td>4= Rural “Hukou”.</td>
</tr>
</tbody>
</table>
Table 1 - Continued

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Party Membership</strong> (Party)</td>
<td>Two categories: 1= Member of Communist Party of China or Communist Youth League of China; 2= Non-Communist Party member (Other parties or No Party)</td>
</tr>
<tr>
<td><strong>Type of Workplace</strong> (including danwei and other workplaces in the market sector) (Workplace)</td>
<td>1= Government Agencies and State-owned Enterprises (SOEs) 2= Collective Enterprises 3= Private Enterprises 4= Foreign-invested Enterprises (including Hong Kong, Macao, and Taiwan) 5= Institutions 6= Social Organizations or public organizations 7= Other</td>
</tr>
<tr>
<td><strong>Geographic or Residential Location</strong> (Location)</td>
<td>1= Eastern Coastal Regions 2= Central Regions 3= Western Regions</td>
</tr>
</tbody>
</table>

Source: Data from CGSS, 2006.

Except danwei or work unit, "ownership type has always been an important factor in determining income", (Wang, 2008, p. 113). According to the questionnaire in CGSS, 2006, types of work unit and ownership are two separate but close-related questions. The types of work unit include government and party agencies, enterprises, institutions, social organizations, and individual operation or self-employed. Among these work organizations, only those who answered enterprises and institutions have to answer the second question about the type of sector or ownership. The options are...
state-owned, collective, private enterprises, enterprises from Hong Kong, Macao and Taiwan, and foreign-invested or owned enterprises. Since all institutions are government-sponsored, I combine the type of work unit and ownership into one variable *Workplace* to distinguish the different types of enterprises. I distinguish the following type of workplace in urban China:

1. Government agencies and SOEs, which include all levels of government and Communist party agencies and state-owned enterprises is the reference group.

2. Collective enterprises are not directly supported by the state but are mostly sponsored by local governments.

3. Private enterprises include private firms and individual operation or self-employed.

4. Foreign enterprises include foreign-owned, foreign-invested companies and the enterprises from Hong Kong, Macao, and Taiwan.

5. Institutions or public institutions include schools, research institutions, libraries, museums, hospitals and publishing houses, are the backbone of public service providers in China.

6. Social organizations or public organizations are sets of associations emerged in the late 1980s with official encouragement, consisting of genuine NGOs and government-organized NGOs.

7. Others.
Residential location is a control variable that I will use in my analysis. In the survey data, it covers all the provinces and municipalities in China except Qinghai, Tibet and Ningxia, which are all located in the west. I recoded the cities by geographical location into three categories: eastern coastal (=1), central (=2), and western regions (=3).

In my study, the dependent variable is the natural logged personal total income in 2005. The independent variables include gender, education level, foreign language skill, years of work experience, party membership, type of workplace, type of "Hukou" and residential location. My analyses rely on OLS regression to predict the total individual income in urban China. In the analysis, I attempt to find out "trends in the importance of individual-level earnings determinants and their consequences for trends in overall inequality" (Hauser and Xie, 2003, p.52).

**Dependent Variable**

Logged Income2005 – I use the logarithm of total personal income in 2005 (yuan) as the dependent variable.

**Independent Variables**

Education (Education level) – Education is measured by eight levels from never schooled to graduate.
Lanskill (Foreign language skill) – Foreign language skill is measured by four levels from not at all to very fluent.

Workexp (Work Experience) – work experience is measured by being employed in years.

Female (Gender) – gender is coded into one dummy variable Female, and male being the reference category (female=1, and male=0). Female is to examine gender-based variations in the distribution of income.

Nonccp (Party Membership) – since Chinese Communist Party is the one and only ruling party in China, Communist party membership is an important indicator of political capital. I use a dummy variable (nonccp=1) which represents non-membership of Chinese Communist Party, including no party and other parties. Communist Party & Community Youth League is regarded as the reference group.

Small, Mid, Rural (“Hukou”) – I choose Urban “Hukou” of large cities as the reference group, and create three dummy variables Small, Mid, and Rural.

Collective, Private, Foreign, Institution, socialorg, Other (Workplace) – I choose government agencies and SOEs as the reference groups, and set up this set of dummy
variables.

*Central, Western (Residential Location)* – Central and Western are a set of dummy variables to indicate respondents’ residential location to control for region-specific variations in income.
CHAPTER IV

METHODS

In order to estimate the relationships between the logged annual income and several predictors including gender, work experience, education, foreign language skill, party membership, type of “Hukou”, geographical location, and workplace, my analyses rely on Ordinary Least Squares (OLS) regression to predict total individual income in urban China.

Before developing a multiple regression, I did several preliminary analyses, including univariate descriptive analysis, bivariate scatterplots of the income with age and years of education. Table 2 summarizes the descriptive statistics of all the variables in the analysis (See in Table 2).

Table 2

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Income 2005</td>
<td>3109</td>
<td>18383.343</td>
<td>23214.25</td>
<td>416.336</td>
</tr>
<tr>
<td>Education Level</td>
<td>3109</td>
<td>4.8378</td>
<td>1.185</td>
<td>0.0213</td>
</tr>
</tbody>
</table>
Table 2- Continued

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Language Skill</td>
<td>3109</td>
<td>1.5873</td>
<td>0.58826</td>
<td>0.01055</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>Party Membership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=Communist Party &amp;</td>
<td>550</td>
<td>17.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communist Youth League</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=male</td>
<td>1697</td>
<td>54.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2=female</td>
<td>1412</td>
<td>45.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Hukou&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1= Small cities</td>
<td>844</td>
<td>27.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2= Middle cities</td>
<td>635</td>
<td>20.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3= Large cities</td>
<td>950</td>
<td>30.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4= Rural</td>
<td>680</td>
<td>21.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workplace</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1= Government Agencies</td>
<td>1020</td>
<td>32.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and SOEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2= Collective Enterprises</td>
<td>334</td>
<td>10.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3= Private Enterprises</td>
<td>993</td>
<td>31.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4= Foreign Enterprises</td>
<td>48</td>
<td>1.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5= Institutions</td>
<td>519</td>
<td>16.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6= Social Organizations</td>
<td>74</td>
<td>2.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7= Others</td>
<td>122</td>
<td>3.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2- Continued

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1=Eastern Coastal Regions</td>
<td>1731</td>
<td>55.7</td>
</tr>
<tr>
<td>2= Central Regions</td>
<td>880</td>
<td>28.3</td>
</tr>
<tr>
<td>3= Western Regions</td>
<td>498</td>
<td>16</td>
</tr>
</tbody>
</table>

*Note:* used the results from averaging the five imputations.

*Source:* Data from CGSS, 2006.

The mean of personal total yearly income in 2005 is 18383.343 RMB (yuan), the standard deviation is 23214.25. The mean of education level is 4.8378, which roughly reaches high school level, and the standard deviation is 1.185. The mean of level of foreign language skill is 1.5873 (approximately the level of knowing a little of foreign language), and the standard deviation is 0.58826. Among all the respondents, there are 17.7% are members of the Communist Party of China or the Communist Youth League, 82.3% are from other political parties, and those who do not belong to any parties. There are 54.6% of males, and 45.4% of females. For the type of "Hukou", 27.1% are from small cities, 20.4% are from middle-size cities, 30.6% are from large cities, and 21.9% hold the rural "Hukou". In terms of the type of work place, 32.8% of the respondents work at government agencies or state-owned enterprises, 10.7% work at collective enterprises, 31.92% are employed at private enterprises, 1.52% work for foreign enterprises, 16.68% work at institutions, 2.38% work at social organizations, and 3.94% work for other workplace.
Then I ran my regression model and tested the residuals for normality, and found that
the residuals of the dependent variable income are not normal distributed based on a
significant Kolmogorov-Smirnov test. Accordingly, I logged income, and used
lnincome as the dependent variable in subsequent analyses. Though according to the
residual of the regression model using the natural logged income variable were still
not perfectly normal distributed, the distribution looked much closer to normal. With
only a slight departure from normality and a very large sample size, I am confident
that the results of my regression analysis are robust.

Then I generated new scatterplots with the logged income, and found a nonlinear
relationship between logged income and years of work experience. Thus, I used curve
estimation to check for the nonlinearity. By doing the curve fit analysis and
incremental F-test between linear and quadratic models; I found that the quadratic
model is the best in this case. After detecting and correcting for nonlinearity, I ran a
regression and performed the White’s test for homoskedasticity and found that I
needed to correct for heteroskedasticity using weighted least squares regression which
yielded homoskedastic residuals.

According to the results of collinearity diagnostics, all the indexes, including VIF,
square root of VIF, Tolerance, Eigenvalue, and condition index, show that there is no
problem of multicollinearity when excluded the variable workexp.
CHAPTER V

RESULTS

Having fulfilled all the assumptions of OLS regression and corrected for the violation, my regression now is the best linear unbiased estimator. Here are the equations of my models:

Equation 3:

\[
\text{Ln (Income05)} = 8.8012 + 0.2186 \text{ Education} + 0.0742 \text{ Lanskill} - 0.2654 \text{ Small} - 0.1458 \text{ Mid} - 0.1668 \text{ Rural} - 0.2582 \text{ Female} + 0.0898 \text{ Private} + 0.554 \text{ Foreign} - 0.3014 \text{ Central} - 0.3802 \text{ Western}
\]

Equation 4 (Excluded Location as control variable):

\[
\text{Ln (Income05)} = 8.5718 + 0.2216 \text{ Education} + 0.1076 \text{ Lanskill} - 0.34 \text{ Small} - 0.2414 \text{ Mid} - 0.2032 \text{ Rural} - 0.2582 \text{ Female} + 0.0898 \text{ Private} + 0.618 \text{ Foreign}
\]

Table 3 presents the main results from the final regression model with location as the control variable. From the table, we can see that the adjusted R\(^2\) is 0.2652, which indicates that 26.52% of the variation in logged income in 2005 is explained by the sets of independent variables. Also, R is 0.5192, which shows that there is a statistically significant and moderate relationship between logged income in 2005 and the sets of independent variables (See Table 3).
Table 3

Regression Results for LN (Income05) with Location as Control Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>(Exp(B)-1)*100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>0.2136</td>
<td>0.0156</td>
<td>0.309</td>
<td>13.813</td>
<td>0**</td>
<td>23.8</td>
</tr>
<tr>
<td>Lanskill</td>
<td>0.0742</td>
<td>0.0272</td>
<td>0.0544</td>
<td>2.7176</td>
<td>0.0158*</td>
<td>7.7</td>
</tr>
<tr>
<td>Small</td>
<td>-0.2654</td>
<td>0.0348</td>
<td>-0.143</td>
<td>-7.6298</td>
<td>0**</td>
<td>-23.3</td>
</tr>
<tr>
<td>Mid</td>
<td>-0.1458</td>
<td>0.0358</td>
<td>0.0754</td>
<td>4.0694</td>
<td>0.0002**</td>
<td>-13.6</td>
</tr>
<tr>
<td>Rural</td>
<td>-0.1668</td>
<td>0.0476</td>
<td>0.0686</td>
<td>3.4948</td>
<td>0.0016**</td>
<td>-15.4</td>
</tr>
<tr>
<td>female</td>
<td>-0.2582</td>
<td>0.0268</td>
<td>-0.1562</td>
<td>-9.6698</td>
<td>0**</td>
<td>-22.8</td>
</tr>
<tr>
<td>Private</td>
<td>0.0898</td>
<td>0.0382</td>
<td>0.0464</td>
<td>2.3554</td>
<td>0.0456*</td>
<td>9.4</td>
</tr>
<tr>
<td>Foreign</td>
<td>0.554</td>
<td>0.1126</td>
<td>0.0808</td>
<td>4.966</td>
<td>0**</td>
<td>74.0</td>
</tr>
<tr>
<td>Central</td>
<td>-0.3014</td>
<td>0.0314</td>
<td>-0.1676</td>
<td>-9.5776</td>
<td>0**</td>
<td>-26.022</td>
</tr>
<tr>
<td>Western</td>
<td>-0.3802</td>
<td>0.0376</td>
<td>-0.1726</td>
<td>-10.119</td>
<td>0**</td>
<td>-31.6</td>
</tr>
<tr>
<td>(constant)</td>
<td>8.8012</td>
<td>0.0916</td>
<td>95.873</td>
<td>0**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective</td>
<td>-0.0806</td>
<td>0.0458</td>
<td>-0.0308</td>
<td>-1.7658</td>
<td>0.0974</td>
<td></td>
</tr>
<tr>
<td>Institution</td>
<td>0.0252</td>
<td>0.0356</td>
<td>0.013</td>
<td>0.7056</td>
<td>0.497</td>
<td></td>
</tr>
<tr>
<td>socialorg</td>
<td>-0.2042</td>
<td>0.1074</td>
<td>-0.0302</td>
<td>-1.8678</td>
<td>0.128</td>
<td></td>
</tr>
<tr>
<td>nonecp</td>
<td>-0.072</td>
<td>0.0348</td>
<td>-0.0352</td>
<td>-2.0518</td>
<td>0.0738</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>-0.01</td>
<td>0.093</td>
<td>0.0076</td>
<td>-0.4274</td>
<td>0.2584</td>
<td></td>
</tr>
<tr>
<td>Workdev</td>
<td>0.0008</td>
<td>0.002</td>
<td>0.0092</td>
<td>0.427</td>
<td>0.6752</td>
<td></td>
</tr>
<tr>
<td>Workdev2</td>
<td>0</td>
<td>0</td>
<td>-0.0256</td>
<td>-1.26</td>
<td>1.121</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>0.5192</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.2652</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>1.00427</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note: used the results from averaging the five imputations.

*p<.05, **p<.01

Source: Data from CGSS, 2006.

Table 3 also shows the coefficients of each independent variable. The unstandardized slope B for Education is 0.2136. Taking the antilog and multiplying by 100, shows that for each additional level of education, there is a 23.8 percent increase in earning.

The unstandardized slope B for Lanskill is 0.0742. Taking the antilog and multiplying by 100, shows that for each additional level of foreign language skill, there is a 7.7 percent increase in earnings. The unstandardized slope B for Female is -0.2582. Taking the antilog and multiplying by 100, shows that females earn 22.8 percent less than males. The unstandardized slope B for Small is -0.2654. Taking the antilog and multiplying by 100, shows that those who have the urban “Hukou” of small cities tend to have 23.3 percent lower income than those who hold the urban “Hukou” of large cities. The unstandardized slope B for Mid is -0.1458. Taking the antilog and multiplying by 100, shows that those who have the urban “Hukou” of middle cities tend to have 13.6 percent lower income than those who hold the urban “Hukou” of large cities. The unstandardized slope B for Rural is -0.1668. Taking the antilog and multiplying by 100, shows that those who have the rural “Hukou” tend to have 15.4 percent lower income than those who hold the urban “Hukou” of large cities. The unstandardized slope B for Private is 0.0898. Taking the antilog and multiplying by 100, shows that those who work at private enterprises or engage in the private business earn 9.4 percent more than those who work for government and SOEs. The unstandardized slope B for Foreign is 0.1126. Taking the antilog and
multiplying by 100, shows that those who work at foreign enterprises, including the enterprises from Hong Kong, Macao, and Taiwan, earn 74 percent more than those who work for government and SOEs. The unstandardized slope B for Central is -0.3014. Taking the antilog and multiplying by 100, shows that those who live in the central regions earn 26.02 percent less than those who live in the eastern coastal areas. The unstandardized slope B for Western is -0.3802. Taking the antilog and multiplying by 100, shows that those who live in the western regions earn 31.6 percent less than those who live in the eastern coastal areas. The rests of predictors, Collective, Institution, socialorg, noncep, Other, Workdev, Workdev2, are not statistically significant (p> .05).

Table 4 displays the OLS regression coefficients for the model without geographic variables. In Table 5, I report the OLS regression estimates for two models of income determination. Model 1 is a model with all the predictors. In Model1, only the variables education level, foreign language skill, Hukou dummies, Gender dummy, Workplace dummies (Private and Foreign) have significant effects on earnings. In Model 2, I exclude place of residence as a set of dummy variables and find that the estimates of all the predictors increase slightly, but variables party membership dummy, work experience, and workplace dummies (Collective, Institution, socialorg, Other) are not statistically significant (See Table 4).
Table 4

Regression Results for LN (Income05) without Location as Control Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>(Exp(B)-1)*100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>0.2216</td>
<td>0.016</td>
<td>0.3196</td>
<td>13.992</td>
<td>0**</td>
<td>24.8</td>
</tr>
<tr>
<td>Lanskill</td>
<td>0.1076</td>
<td>0.0276</td>
<td>0.0786</td>
<td>3.8708</td>
<td>0.0004**</td>
<td>11.4</td>
</tr>
<tr>
<td>Small</td>
<td>-0.34</td>
<td>0.0348</td>
<td>-0.183</td>
<td>-9.761</td>
<td>0**</td>
<td>-28.8</td>
</tr>
<tr>
<td>Mid</td>
<td>-0.2414</td>
<td>0.0358</td>
<td>-0.124</td>
<td>-6.7642</td>
<td>0**</td>
<td>-21.4</td>
</tr>
<tr>
<td>Rural</td>
<td>-0.2032</td>
<td>0.0488</td>
<td>-0.083</td>
<td>-4.1594</td>
<td>0**</td>
<td>-18.4</td>
</tr>
<tr>
<td>female</td>
<td>-0.254</td>
<td>0.0272</td>
<td>-0.1538</td>
<td>-9.307</td>
<td>0**</td>
<td>-22.4</td>
</tr>
<tr>
<td>Private</td>
<td>0.1238</td>
<td>0.0392</td>
<td>0.0634</td>
<td>3.1598</td>
<td>0.0064**</td>
<td>13.2</td>
</tr>
<tr>
<td>Foreign</td>
<td>0.618</td>
<td>0.114</td>
<td>0.0918</td>
<td>5.5116</td>
<td>0**</td>
<td>85.5</td>
</tr>
<tr>
<td>(Constant)</td>
<td>8.5718</td>
<td>0.0918</td>
<td>93.3516</td>
<td></td>
<td>0**</td>
<td></td>
</tr>
<tr>
<td>Collective</td>
<td>-0.035801</td>
<td>0.0456</td>
<td>-0.014</td>
<td>-0.791</td>
<td>0.4778</td>
<td></td>
</tr>
<tr>
<td>Institution</td>
<td>0.0292</td>
<td>0.0364</td>
<td>0.0156</td>
<td>0.805</td>
<td>0.437</td>
<td></td>
</tr>
<tr>
<td>socialorg</td>
<td>-0.1396</td>
<td>0.1092</td>
<td>-0.0206</td>
<td>-1.2568</td>
<td>0.3308</td>
<td></td>
</tr>
<tr>
<td>nonecp</td>
<td>-0.061</td>
<td>0.036</td>
<td>-0.0296</td>
<td>-1.69</td>
<td>0.1432</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0.0158</td>
<td>0.0948</td>
<td>-0.0064</td>
<td>-0.334</td>
<td>0.0828</td>
<td></td>
</tr>
<tr>
<td>Workdev</td>
<td>-1.47E-05</td>
<td>0.002</td>
<td>0.0012</td>
<td>0.0464</td>
<td>0.861</td>
<td></td>
</tr>
<tr>
<td>Workdev2</td>
<td>-5.16E-05</td>
<td>0</td>
<td>-0.0076</td>
<td>-0.3762</td>
<td>0.6888</td>
<td></td>
</tr>
</tbody>
</table>

R 0.4828

Adjusted R² 0.233

Std. Error of the Estimate 1.00349

Note: used the results from averaging the five imputations.

* p<.05, **p<.01

Source: Data from CGSS, 2006.

Based on my results, in both models (See in Table 5), education is the best indicator to
predict personal income, and in my findings, education has a rate of 24.8%, which is much higher than previous estimates. (Xie and Hannum, 1996; Wu and Xie, 2002; Zhou, 2000) In addition, as part of education, foreign language skill enjoys a 7.7-percent advantage, which also confirm the significance of human capital in determining earnings.

Table 5
OLS Coefficients from Multiple Linear Regression of Logged Income in 2005 on Selected Independent Variables and Control Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(geographic variables controlled)</td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>0.2136 **</td>
<td>0.2216 **</td>
</tr>
<tr>
<td>Foreign Language Skill</td>
<td>0.0742 *</td>
<td>0.1076 **</td>
</tr>
<tr>
<td>Hukou dummy (Small=1)</td>
<td>-0.2654 **</td>
<td>-0.34 **</td>
</tr>
<tr>
<td>Hukou dummy (Mid=1)</td>
<td>-0.1458 **</td>
<td>-0.2414 **</td>
</tr>
<tr>
<td>Hukou dummy (Rural=1)</td>
<td>-0.1668 **</td>
<td>-0.2032 **</td>
</tr>
<tr>
<td>Gender (female=1)</td>
<td>-0.2582 **</td>
<td>-0.254 **</td>
</tr>
<tr>
<td>Workplace dummy (Private=1)</td>
<td>0.0898 *</td>
<td>0.1238 **</td>
</tr>
<tr>
<td>Workplace dummy (Foreign=1)</td>
<td>0.554 **</td>
<td>0.618 **</td>
</tr>
</tbody>
</table>
Table 5- Continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(geographic variables controlled)</td>
<td></td>
</tr>
<tr>
<td>Residential location dummy (Central)</td>
<td>-0.3014 **</td>
<td></td>
</tr>
<tr>
<td>Residential location dummy (Western)</td>
<td>-0.3802 **</td>
<td></td>
</tr>
<tr>
<td>Workplace dummy (Collective=1)</td>
<td>-0.0806</td>
<td>-0.0358</td>
</tr>
<tr>
<td>Workplace dummy (Institution=1)</td>
<td>0.0252</td>
<td>0.0292</td>
</tr>
<tr>
<td>Workplace dummy (socialorg=1)</td>
<td>-0.2042</td>
<td>-0.1396</td>
</tr>
<tr>
<td>Party dummy (nonccp=1)</td>
<td>-0.072</td>
<td>-0.061</td>
</tr>
<tr>
<td>Workplace dummy (Other=1)</td>
<td>-0.01</td>
<td>0.0158</td>
</tr>
<tr>
<td>Work Experience (Workdev)</td>
<td>0.0008</td>
<td>-1.47E-05</td>
</tr>
<tr>
<td>Work Experience (Workdev2)</td>
<td>0</td>
<td>-5.16E-05</td>
</tr>
<tr>
<td>(Constant)</td>
<td>8.8012</td>
<td>8.5718</td>
</tr>
<tr>
<td>R</td>
<td>0.5192</td>
<td>0.4828</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.2652</td>
<td>0.233</td>
</tr>
</tbody>
</table>

Note: *p<.05, **p<.01
Source: Data from CGSS, 2006.

Work experience, another conventional measurement of human capital, has no linear
relationship with the dependent variable in the regression model. After conducted
curve estimation, I set up a quadratic model for work experience by computing
workdev and workdev2. However, the result shows that workdev and workdev2 are not
significant. Thus, overall, work experience is not significant in either model. This
result is different from Xie and Hannum’s findings that work experience has a
positive but concave effect on logged income. Thus, I partially approve my hypothesis
that education has the greatest impact in determining income distribution, while work
experience does not show much significance.

Beyond my expectation, party membership is not significant in either model. This
suggests that party membership has little impact on earnings, and weak support for
hypothesis 2. Compared to government agencies and State-owned enterprises, where
accumulate the redistributive power and political capital, collective enterprises, public
institutions and social organizations, which have more or less connections or
relationships with the state reveal no remarkable advantages in earnings. However,
private sector (private and foreign enterprises) demonstrates considerable disparity on
income. Beyond the regional income differences in urban China, “the gap incomes
between the different state and non-state sectors has become more important in
explaining social inequality as whole, with the rapid growth of the foreign-invested
and domestic private economies” (Guan, 2001, p.246).

My findings also suggest that gender difference in earnings is also estimated to be
large, with females earning 22.8 percent less than males. “Hukou” is still playing a crucial role in that large cities’ residents earn 23.3 percent more than “Hukou”-holders in small cities, 13.6 percent more than citizens in middle cities, and 15.4 percent more than those who originally from rural areas. Regional income disparities are also evident. Residents in eastern coastal areas tend to earn 26.02% more than those who live the central China 31.6% more than the people in the west.

I do find high returns to education, but fail to find high returns to work experience and party membership. And I did not find the significant effect on work unit sector and state ownership either. These findings are consistent with Nee’s prediction that the significance of political power declines with the process of the marketization, and “the income determination will depend more on market credentials (such as education), and less on political factors as economic reform advances” (Xie, 2008, p.195).
CHAPTER VI

DISCUSSION

In this thesis, I have examined the determinants of income in urban China based on the data of 2006. My hypotheses regarding the role of educational credentials was generally supported in both analyses and held up when various controls were introduced. According to the results from the regression models, working at market sector firms, especially foreign enterprises are the most predominant in determining the income distribution in urban China.

Does Political Capital or Power Really Decline Significantly?

Returns to political capital or power "is operationalized in three ways: (a) party membership, (b) cadre position, and (c) jobs with redistributive power" (Bian, 2002, p.100). In China, not everyone can become a member of Communist Party. There are mainly two ways to apply for a membership of Chinese Communist Party. One way is that first one should join the Communist Youth League in middle school or high school, and until when he becomes an adult (>= 18 years old) and enters a college or university, he can write an application letter to show his desire and loyalty to the party. A party membership can be an advantage to find a job in government or
parties and agencies after graduation. Another way to be a party member is to apply at work units, such as public institutions, SOEs. For both ways, “to achieve Chinese Communist Party membership, individuals must pass through five ‘loyalty filters’ (Walder 1995): (1) self-selection, (2) political participation, (3) daily monitoring, (4) closed-door evaluation, and (5) probationary examination” (Bian, Shu & Logan, 2001, p.813). Nowadays, the Chinese Communist Party tends to recruit educated youths and professional, which indicates that the role of educational credentials has become more and more important.

While variables related political capital did not turn out to be significant, things does not mean that party membership ceases to be an important factor in determining income. For example, “grey income is not included in the survey data and the limitation of my current research that does not partition cadre position into the party officials, government bureaucrats, and managers in SOEs.

Income distribution in the foreign enterprises and private companies are directly reflected in salaries, while in the government agencies and SOEs, the base wages may be lower than the workers in foreign and private enterprises, but the hidden bonuses and other forms of welfare benefit including allowance for transportation as well food, a housing packages, medical insurance, unemployment insurance and annuity. Moreover, many SOEs assumed monopoly positions in the new market economy after the structural reforms. Those monopolized enterprises, such as China Mobile, State
Grid, China Telecom and China National Petroleum Corporation occupy the most important and profitable industries, such as mining industry, banking, communication and telecom. With the powerful supporting polices and ample and stable financial support from the state, the profits of these SOEs rose tremendously, given the size and importance of these enterprises in the state sector it would be hard to conclude that political capital has no influence on income.

Moreover, the “grey income” of the state bureaucrats has great widen the income gap that 54% of the respondents of CGSS, 2006 recognize the huge gap between the cadre and the mass (poor vs. rich has 57.7%). In light of this, most people do realize the existence of the “grey income”. According to Xiaolu Wang’s research, an independent nongovernmental research organization, “the government's statistics omit roughly RMB 9.26 trillion (about US$1.36 trillion) in “invisible” income - that is, money earned illegally and under the table or not declared to tax authorities” (http://www.knowledgeatwharton.com.cn/index.cfm?fa=viewArticle&Articleid=2284 &languageid=1).

What’s more, “as private economic activities became legal and market competition played a greater role in economic operations, people with more human capital and political capital began to be involved in business activities. Some cadres also managed to convert their political privileges into new economic advantages in this

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4 Xiaolu Wang is the deputy director and senior research fellow of the National Economic Research Institute of the China Reform Foundation.
stage" (Wu, 2006, p.391). In CGSS, 2006, there is question asking "comparatively, speaking, in the recent decade, which group of people in the following do you think obtain the most benefit?" 38.5% of the respondents think state cadres gain the most, 20.8% claim that it is private entrepreneurs, and 15% favor in foreign investors. Based on the answers, we can clearly find that most people still deem that the state cadres who hold the political capital and power benefit the most. Even in the market system, the state cadres can transfer their political power and skills to revive in the new economy. This is consistent with my third hypotheses of the technocratic continuity. Thus, I advocate that not only capitalists are the winners of the market transition in China, cadre still gain benefits but not as remarkable as in the pre-reform era.

Impact of Marketization and Globalization on Income Inequality

Since the reform, especially after 2001 when China joined the World Trade Organization (WTO), an increasing foreign trade and investment has flown into Chinese market. Along with this trend, the impacts of globalization and marketization from the exterior forces have greatly influenced the patterns of income equality.

First, from the table 6 below, we can see that foreign investment is unevenly distributed which, to great extent, leads to the regional income gap. There are 87.46% of foreign enterprises investing in the eastern coastal areas, while central and western areas all together share 12.45%. To the extent that the unbalanced development pace
and unequal policy support in the initial stage of the reform opened the gap between regions, then the involvement of foreign investment has greatly increased the disparity.

Table 6

Regional Distribution of the Foreign-Invested Enterprises in China (2005)

<table>
<thead>
<tr>
<th>Regions</th>
<th>Number of foreign invested Enterprises (unit)</th>
<th>Total Investment (100 million USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Eastern Coastal *</td>
<td>227401</td>
<td>87.46192</td>
</tr>
<tr>
<td>Central **</td>
<td>21464</td>
<td>8.25385</td>
</tr>
<tr>
<td>Western ***</td>
<td>11135</td>
<td>4.282692</td>
</tr>
<tr>
<td>National Total</td>
<td>260000</td>
<td>100</td>
</tr>
</tbody>
</table>

* Includes: Beijing, Tianjin, Hebei, Liaoning, Jilin, Heilongjiang, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, and Hainan;
** Includes: Shanxi, inner-Mongolia, Anhui, Jiangxi, Henan, Hubei, Hunan, Guangxi, and Chongqing;
*** Includes: Sichuan, Guizhou, Yunnan, Tibet, Qinghai, Shaanxi, Gansu, Ningxia, and Xinjiang.


Second, with more and more foreign-owned enterprises entering Chinese market, many SOEs face more challenges and competitions. From my regression result, we can clearly find that those who work at foreign companies earn much more than any others on average. Moreover, the income advantage in SOEs that gain all kinds of
support from the state has declined greatly.

Third, "income inequality within foreign-invested enterprises is generally much higher than in state and collective enterprises" (Guan, 2001, p.249). According to a survey conducted in Shanghai in 2005, the average annual wages of the highest level managerial personnel, such as Chief Executive Officer (CEO) and Chief Finance Officer (CFO), earn "over 400,000 yuan, which is 13.68 times higher than the ordinary workers who only earn 28,000 yuan yearly" (http://www.ccw.com.cn/work2/culture/clew/htm2006/20060208_13SBO.htm). In the foreign enterprises, the unequal salary structure is considered as a way to stimulate high efficiency under the market mechanism. Thus, SOEs also adopted this method during the structural reform in the mid-1990s and early 2000s, which further widen the income gap within the market sector.

Income Inequality and Social Stratification

According to CGSS, 2006, 40.5% of the respondents think income ranks first among the important factors affect socioeconomic status. Since there is an enlarging income gap between social class, and "class has become an increasingly important source of inequality" (Lin & Wu, 2009, p.104), China is on its way to becoming class society.
“According to Nee, during the transition, markets –rather than the party-state apparatus –increasingly generate power, opportunity, and incentives. and in so doing determine the character of the emerging socioeconomic order. Under this order, state bureaucrats give way to entrepreneurs and professionals who have the human capital and economic capacities to capitalize on market exchanges” (Bian & Zhang, 2006, p.28). Indeed, with the transition to market economy, private entrepreneurs who have human capital or social connections with Chinese elites become the new rising classes. Still, the situation in China is more complicated given that state bureaucrats continue to enjoy high prestige and power.

In the literature, there are mainly three different ways to classify social stratification in China:

First, Lin & Wu (2009) divided ten classes: rural cadres, peasants, collective cadres, collective workers, state cadres, state workers, new middle class (which refers to professionals and managers in the private sector), proletariat, capitalists, and petty bourgeoisie (or self-employed) under the neo-Marxian class schema. (See Table 7, p.93).
Based on the Neo-Marxian class schema, before the reform, the class division depends on authority and “Hukou”. In rural China, those who have authorities are cadres while ordinary farmers have no authority. Similarly, in urban areas, state and collective cadres hold the power, while workers don’t. Since the reform, however, skill and capital become more determinant. Unskilled workers become proletariats, while managers and professionals become the new middle classes. Those who have more capital and skills become new capitalists, while those who have less are petty bourgeoisie.

My findings also support the hypothesis that human capital has become a more crucial factor in determining one’s income and social status. “Capitalists and the new middle
class earn the highest on average” (Lin & Wu, 2009, p.94), which is consistent with my regression results that, in general, government officials earn less than those who work at foreign-owned and private enterprises.

Second, based on Neo-Weberian class schema, Wu and Treiman (2007) classified a six category by adopting the Erikson–Goldthorpe–Portocarero (EGP) class schema originally developed by Erikson, Goldthorpe and Portocarero (1979). The six categories include: 1) large proprietors, professionals and managers; 2) routine non-manual workers; 3) small proprietors; 4) lower grade technicians, manual supervisors and skilled manual workers; 5) Unskilled and semiskilled manual workers; 6) Self-employed farmers and agricultural workers (pp.421-422).

Rather than the neo-Marxian approach that focuses on power or authority, in terms of the relationship to the state. The neo-Weberian perspective considers more about life chances and their relations to markets. According to the 6-category EGP scheme, farmers are the lowest class, and professionals and managers are the highest class. In light of this, those who are more educated, with more human capital involving in the market sector tend to earn more, which also confirms my regression results. However, this schema has a limitation of ignoring the positions of cadres and state sectors.

Third, a group of sociologists from the Chinese Academy of Social Science (CASS)
conducted a classification called Social Stratification in Contemporary China (2001), that focused on occupational differentiation and the possession of organizational resources, economic resources and cultural resources. They defined 5 social classes (upper class, upper middle class, middle class, lower middle class, and underclass) and 10 strata. The ten social strata are: 1) administrators of the state and society (2.1%); 2) managers (1.5%); 3) private entrepreneurs (0.6%); 4) professionals and technicians (5.1%); 5) clerical office workers (4.8%); 6) individual industrial and commercial house holders or self-employed (4.2%); 7) service workers (12%); 8) manufacturing workers (22.6%); 9) agricultural laborers (44%); 10) the jobless/unemployed/semi-employed (3.1%). This is shown in Figure 1 (Lu 2002).

![Proportion of Each Stratus in the Social Structure](image)

*Figure 1.* Distribution of Each Social Stratus in the Structure of Chinese Society

Five Social Class Categories

**Upper Class:**
- High-level cadres
- Managers in large enterprises
- Advanced professionals
- Big private entrepreneurs

**Upper Middle Class:**
- Middle-level and low-level cadres
- Middle-level administrators in large enterprises
- Intermediate professionals and technicians
- Medium private entrepreneurs

**Middle Class:**
- Primary professionals and technicians
- Small private entrepreneurs
- Clerical office workers
- Individual industrial and commercial householders

**Lower Middle Class:**
- Individual workers
- Workers in commercial services
- Industrial workers
- Peasants

**Underclass:**
- Industrial workers and peasants who live in poverty and lack social security and employment
- The jobless, unemployed, and

Ten types of social Strata

- Administrators of the state and society
- Managers
- Private entrepreneurs
- Professionals and technicians
- Clerical office workers
- Individual industrial and commercial householders
- Workers in commercial services
- Industrial workers
- Agricultural laborers
- The jobless, unemployed, and underemployed

*Figure 2. Social Stratification in Contemporary China (revised on the basis of The Research Report on Social Classes in Contemporary China)*
Lin and Wu (2009) conducted an analysis of variance on logged income and years of schooling in the three schemas mentioned above. They concluded that “the neo-Marxian class schema explains 46.5 percent of variations in logged earnings, whereas the EGP class schema explains 44.5 percent and CASS class schema explains 45.5 percent of variations in logged earnings” (p.96). This is shown in Table 8.

### Table 8

An analysis of Variance on Logged Monthly Income and Schooling by Three Class Schemas in China, 2005

<table>
<thead>
<tr>
<th></th>
<th>Logged Income</th>
<th>Years of Schooling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Partial SS</td>
<td>DF</td>
</tr>
<tr>
<td>Neo-Marxian class schema</td>
<td>67842</td>
<td>9</td>
</tr>
<tr>
<td>EGP class schema</td>
<td>65022</td>
<td>5</td>
</tr>
<tr>
<td>CASS class schema</td>
<td>66429</td>
<td>9</td>
</tr>
<tr>
<td>Total sum of square</td>
<td>145990</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>177548</td>
<td></td>
</tr>
</tbody>
</table>


These three class schemas, though from different theoretical perspectives, indicate the ways that has changed Chinese society, producing new capitalists and a new middle class. The class structure of China is neither an olive tree like the U.S., nor typical pyramid mode, or the “onion bulb” put forward by some official authority in China.
I argue that the shape of the structure is more like a spinning top. Because the lower-middle class is the majority, while the upper-middle and middle class take up a relatively small proportions. Moreover, just like a running spinning top, levels of stratification have not set as China continues to experience transformation.

To explain social stratification in China, on one hand, from the perspective of functionalism, "social inequality is an unconsciously evolved device by which societies insure that the most important positions are conscientiously filled by the most qualified persons" (Davis & Moore, 1945, p. 243). A society as a functional mechanism must place individuals in social positions and motivate them to work by connecting the positions to better rewards. The functional stratification system accordingly forms with different positions, and some are more functionally important than others and/or require more talent or training than others. Under socialism, peasants and workers played a functionally significant role to the society for they were the main force to create the wealth of society. After the economic reform, however, the focus of the society has shifted to capitalist economic development. As a result, the position of peasants and workers has become correspondingly marginalized and they has been reduced to the lower-middle class or underclass.

On the other hand, class fractions are also determined by a combination of the varying degrees of political, economic, and human capital. In the schematic presentation of Figure 2, it is easy to discover the fact that the upper and upper-middle class, which
refers to cadres, managers in large enterprises, advanced professionals, and private entrepreneurs, possess at least one of three resources or capital. For example, private entrepreneurs enjoy large portion of economic resources, advanced professionals have plenty of human capital, and high-level state cadres hold great political power. The upper and upper-middle class, to a great degree, control all the capital and resources, and let their children easily become the heir what we called “fu’erdai” or the 2nd generation of the rich in China, and continue to inherit the wealth, status, and resources. In light of this, the dysfunctions of social stratification and high inequality exposes clearly. In the world of today, the children in an upper or upper-middle class family have more opportunities to receive better education because their families can afford to send them to the top universities, or even send them to study abroad. When they possess excellent education as backgrounds and cultural capital, they are more likely to assume high-paying, prestigious jobs, and continue to be elites.

Conversely, those who are from a worker's family or a farmer's family, or even from the bottom of the society, and grow up in poverty, will probably not be in possession of very high academic qualifications and work low-paying jobs in order to survive, thereby shutting them off from the positions that are associated with wealth, power, and prestige.
CHAPTER VII

CONCLUSION

In this thesis, I begin with literature debate on the market transition in China which generally comes down to whether human capital or political capital plays the leading role in income distribution. By using new data from 2006 China General Social Survey (CSSS2006), I conduct an OLS regression analysis on the logged annual income and gender, work experience, education, foreign language skill, party membership, type of “Hukou”, geographical location, and workplace. The results of the OLS regression analysis suggest that there is estimated to be a large gender-based difference, “Hukou” discrimination and regional disparity in earnings.

My empirical results also reveal that education matters more while the political advantage of party membership drops, so do state ownership or non-market workplaces. This finding provides evidence to support Nee’s theory that market transition lead to “a decline of the significance of redistributive power and political capital, relative to market-based non-state economic actors, higher return to human capital than under a centrally planned economy, and new sources of economic advantage associated with entrepreneurship and hybrid/private sector employment” (Nee and Cao, 1999, p.807).
While my findings imply that political capital is less important, I am not ready to reject the role of party membership in determining earnings. First of all, there is a large deal of invisible income (grey income) and all kinds of welfare benefit which are not covered in the survey data, I cannot simply rely on the results from data analysis to make conclusions. Second, my research is limited in that it 1) excludes the variables of occupation and cadre status; 2) parental party membership, parental education level, and the parental social capital link; 3) “grey income” sources; and 4) welfare benefit.

For further research, I would like to take the variables of occupation and cadre status; take parental party membership, parental education level, and the parental social capital link (e.g., education) and how that turns into more market power into account to improve the model, and investigate more in the part of “grey income” and welfare benefit.

In terms of the way to access better education, in China, after the revive of National College Entrance Exam System in late 1977, one has to get a high score in the yearly National College Entrance Exam to enroll in a top university in China. It seems fair that it depends mainly on one’s academic performance, but those who hold a local “Hukou” of Beijing and Shanghai, where accumulate most top universities in China, have more chances to get in, because the universities reserve more places for the local residents. Moreover, those who cannot pass the entrance exam and those who are
excellent in academic performance, as long as their families are wealthy enough, they
can afford to study abroad to get better education. That's why there are an increasing
number of Chinese students (good and bad) studying overseas now.

As in the U.S. society, that one's class determines one's education and therefore one's
income, the social stratification in current China also contribute to the uneven
opportunities of receiving good education and income gap. The rise of new classes in
the market sector, to great extent, has changed the social structure in current China.
With powerful economic and human capital, they become the new upper,
upper-middle, and middle classes, while laid-off workers from SOEs and rural
immigrants become the new working class in urban areas. However, they cannot take
place of state cadres and managers in the SOEs who still occupy the state power and
political capital. Thus, I assume that in the transitional period, China now is suffering
from side effects of both old socialist system and new market system, that is, state
cadres who take charge of economic resources can reap great benefits for themselves
and families (which produced the "guan’erdai" or the second generation of state
cadres), and the children of new capitalists can inherit their parents’ status and wealth
(which formed the “fu’erdai” or the second generation of the rich”). These two
phenomena form a social cleavage, and block the social mobility, which aggravate
social inequality in China.
REFERENCES


