Session Number: Plenary Session 5
Session Title: Ageing and Demographic Change
Session Organizer(s): Thesia Garner, Bureau of Labor Statistics, Washington, DC, USA,
and Peter van de Ven, Statistics Netherlands, Voorburg, Netherlands
Session Chair: Thesia Garner, Bureau of Labor Statistics, Washington, DC, USA

Paper Prepared for the 29th General Conference of
The International Association for Research in Income and Wealth

Joensuu, Finland, August 20 – 26, 2006

Demographic Changes and Household Income in Urban China

Qin Gao
Fordham University, New York City, U.S.A.

Fuhua Zhai
Columbia University, New York City, U.S.A.

For additional information please contact:

Qin Gao
Address: Fordham University Graduate School of Social Service
113 West 60th Street, RM719B, New York, NY 10023, U.S.A.
Email: aqigao@fordham.edu
Fax: 001-212-636-7876 Tel: 001-212-636-6638

Fuhua Zhai
Address: Columbia University School of Social Work
500 West 122nd Street, #5B, New York, NY 10027, U.S.A.
Email: fz2108@columbia.edu
Tel: 001-212-531-4397

Abstract

This paper documents the major demographic changes during recent years using the urban China Household Income Project 1988, 1995, and 2002 data. It also presents changing levels and compositions of household income in urban China, and examines the impact of the changing demographics on household income. Findings indicate that urban residents had become older and more educated. Individuals were more likely to be employed in the private sector, retire, or be unemployed as the market economic reform progressed. At the household level, household size had been decreasing, with fewer children and more elder members, while the shares of nuclear families with only one child as well as couples without children had been increasing. Meanwhile, household per capita income had been rising continuously over the years. Several important demographic characteristics are significantly associated with household income levels. Households whose heads were older, with higher education levels, Communist Party members, or retired, and households composed of couples without children tended to have higher income across all three years. In addition, households with larger sizes, particularly more children, with unemployed heads, and three-generation families with more than one child tended to receive lower income. More public benefits toward the less advantaged, such as families with more children, elders without pensions or other subsidies, with lower education levels, and unemployed members to meet their needs and improve their economic wellbeing.

Introduction

China has been experiencing dramatic demographic and socioeconomic transitions since the economic reforms launched in 1978. Among these changes, the most noticeable has been the increase in economic resources and living standards among Chinese families, especially those in urban China, alongside the notable economic growth (e.g., constantly high GDP growth rate). Empirical evidence shows that the urban household per capita real income almost doubled between 1988 and 2002, increasing drastically from 4,656 Yuan to 9,232 Yuan[1] (in 2002 constant value) (Gao 2006).

In examining factors that contribute to changes in family income, much of the existing literature has focused on the effects of market economy and (sometimes) social policies, while the impact of demographic changes has been mostly under studied. Using the national China Household Income Project (CHIP) data 1988, 1995, and 2002 waves, this paper studies the changing patterns of demographics and household income in urban China, and explores how such demographic changes impact household income, alongside market and social policy factors. The CHIP data provide the most comprehensive information on family income, expenditures, and assets since the economic reforms and the unprecedented 2002 data in particular make it possible to study the most up-to-date outcomes. Findings of this paper will not only fill in the literature gap, but also provide important implications for taking into consideration the demographic changes in future economic and social policy reforms.

This paper is organized as follows. The next section reviews relevant literature on demographic and income changing trends and existing evidence on the impact of the demographics on household income, followed by the section describing data and methods.

[1] Yuan is denoted by ¥ hereinafter in this article.

The following section presents the results. It first provides a description of changes in demographic composition and family formation in urban China since the economic reforms, with a particular focus on the significant aging trend and the effects of the One-Child Policy launched in 1979. Second, it presents results on the changing household income among urban families over time. Third, it explores the impact of changing demographics on household income using OLS regressions with fixed effects. The last section concludes and discusses research and policy implications.

Review of Existing Evidence

Policy Background and Demographic Trends

Despite being the world's most populous country, China has observed constant declines in both birth rate and population growth rate during the past quarter century (see Figure 1 for detailed trends). This has been largely attributed to the implementation of family planning policies, which eventually evolved into the widely known one-child policy launched in 1979. The one-child policy intended to restrict the population growth rate and eventually reduce the size of population by controlling fertility through family planning, and thereby to conserve the nation's resources to advance economic and social development (Riley, 2004; Chow & Zhao, 1996; Attane, 2002; Jowett, 1991; Yang et al., 1995; Fong, 2002). In 1982, fertility control and family planning became a constitutional duty of both husband and wife, and was implemented strictly nationwide (Attane, 2002). The campaign initially required that all couples have no more than one child and that couples apply for official approval before conceiving a child (Riley, 2004). However, popular resistance, especially among the peasants, forced the government to relax its most stringent rules of one-child policy. The adjustments led to a sharp rise in births and

soon the policy was quickly tightened (Hutzler & Chang, 2004; Merli & Smith, 2002). In December 2001, the Law on Population and Birth Planning, the first state legislation of one-child policy, was passed and came into effect in September 2002 (Winckler, 2002; Leung, 2003). This law declares that practicing birth planning is a basic national policy of the state and the duty of citizens.

[Figure 1 about here]

The one-child policy has effectively stimulated rapid change in the fertility rate and population growth. For example, as presented in Figure 2, the total fertility rate (TFR) was reported to fall from an average of 6.14 children per woman in 1949 to 2.75 in 1979, 2.31 in 1988, 1.77 in 1995, and 1.65 in 2002. China's crude birth rate has been halved in less than three decades, dropping from 33 to 16 per 1,000 between 1970 and 1998 (National Bureau of Statistics (NBS), 1999). It is estimated that China might have had avoided the birth of about 300 million people because of the family planning policies, including the one-child policy (Peng, 2000a). As Riley (2004) indicates, China has experienced one of the most rapid declines in fertility ever recorded in a national population, which is astonishing given China's relatively low gross national product (GNP) and a low level of urbanization. Other Asian countries, such as Thailand and South Korea, have also experienced dramatic fertility declines, but stretched over about 40 years (Riley, 2004). In achieving low fertility, China is far ahead of other developing countries and close to the developed countries (Tu, 2000).As Peng (2000a) points out, China's experience demonstrates that with strong, government supported public health and family planning programs, demographic transition can happen in a society with a relatively low level of socio-economic development.

[Figure 2 about here]

Alongside the overall decline in population and fertility, there are some notable demographic changes especially in population and family structure, dependency ratios, education, employment, and deposable income. Figure 3 shows that the percentage of 0-14 year-old children has declined since the mid-1960s (40.69% of the total population in 1964, 27.69% in 1990, 26.73% in 1995, and 21.29% in 2002), as well as the projections till 2050 (18.30%). In contrast, the percentage of the elderly (65+) has increased steadily from 3.56% in 1964 to 5.57% in 1990, 6.70% in 1995, and 8.16% in 2002, and will be 21.30% in 2050. It is estimated that it will be less than 26 years in China for the increase of those aged 65 and over from 7% of the population to 14%, which took France 115 years, Sweden 85 years, Germany and the United Kingdom 45 years, and Japan—the country with the most rapid pace of ageing—26 years (Tu, 2000). In addition, the annual rate of the increase of those over 60 years old has averaged at 3%, which is more than three times the average rate of natural increase in the national population; while the rate for those aged 80 years old is 5.4% (Leung, 2003). Therefore, aging will be one of the critical social problems for China to deal with in the coming decades, especially considering the rapid decline in fertility.

[Figure 3 about here]

One effect of such rapid aging is that dependency ratios will change, which means there will be fewer young people to support the growing elderly population (Riley, 2004). As shown in Figure 4, the number of workers per retiree in China dropped tremendously from 30.3 in 1978 to 10.1 in 1982, 6.4 in 1988, 4.8 in 1995, and 2.0 in 2002. Another result of aging and declining fertility is the shrinking family size and changing family

structure, especially in urban areas. The average family size of urban households fell from 3.89 in the late 1980s to 3.23 in 1995 and 3.04 in 2002 (NSBA, 1996-2005). Accordingly, the average number of earners of urban household also dropped from 2.15 in the late 1980s to 1.87 in 1995 and 1.58 in 2002 (NSBA, 1996-2005). Family structure has changed as well. For example, three-or-more generation families declined from 27.54% of total households in 1990 to 18.98% in 2000, and one-generation households dramatically increased 5.47% in 1990 to 21.7% in 2000, while two-generation households decreased from 66.98% in 1990 to 59.32% in 2000 (NBS, 2003; Guo, 2000). On the one hand, like the trends in other developing countries, three-or-more generation households have been shrinking in China with the social and economic development. On the other hand, more and more people choose to be single or married but not having children. As a result, the percentage of two-generation households also declines.

[Figure 4 about here]

The overall education level in China has slightly increased in the past decades. Figure 5 shows that college and higher degree graduates increased from 0.74% of age 6 and older in the early 1980s to 1.62% in 1990, 2.32% in 1995, 4.71% in 2002, and 5.77% in 2004. Junior and senior secondary school graduates also increased steadily, while those received primary school or no education declined. For example, the illiterate population dropped from 27.53% in 1982 to 20.49% in 1990, 15.62% in 1996, 10.23% in 2002, and 9.16% in 2004. About 90% of illiterate people are peasants, especially those in western provinces (Peng, 2000b). It should be noted that although China has made progress in improving its education, the overall education level is still low. Those received primary or junior secondary school education have taken up about two-thirds to three quarters of

the population of 6 and up years olds since the 1980s (68.74% in 1990, 74.97% in 2000, and 71.67% in 2004), while college graduates only account for a low proportion of the population of school-age and above.

[Figure 5 about here]

Policy Backgrounds and Changes in Socioeconomics and Household Income

In terms of employment policy, there are two distinctive stages shaped by two economic systems: planned economic system and market economic system with corresponding social security systems. Based on the planned economic system, the social security system before 1978 was characterized as a basic, egalitarian security network with high employment, high welfare and low wages, which has been conceptualized as "iron rice bowl" since it provided full and life-long employment in state- and collective own units for urban residents and workers were safeguarded from the anxieties of unemployment and job seeking (Leung, 2003; Fung, 2001; Tang & Ngan, 2001). However, the full employment-centered and work unit-based social security generated more and more economic and social problems such as an inefficient economy, overloaded work units, unemployment, pension, and urban poverty. As a result, from 1978, particularly the mid-1980s, China began to launch its transformation to a socialist market economy. The state has managed to gradually reduce its responsibilities in employment and welfare provision and allow part of the social services to be marketized, societalized, and privatized so as to disperse the welfare and financial responsibilities.

Figure 6 clearly illustrates the changes in employment as a result of the transformation of economic and social security systems. The percentage of employees in public sector (state- and collective owned units) in urban China had been close to 100%

between 1956 and the early 1990s. However, with the development of the economic system transformation, a large number of employees have been voluntarily or involuntarily out of the “iron rice bowl” system within a relatively short period. For example, the percentage of employees in public sector declined slightly from 99.84% to 94.70% in 1988, but quickly to 75.67% in 1995, 33.43% in 2002. Among the public sector, the percentage of employees working in state-owned units has been dominant and shown almost identical trends as that of the overall public sector. Those working in private sector, including private units and self-employed, took a nearly negligible role between the later 1950s and the early 1990s (0.16% in 1978 and 5.30% in 1988). Since the early 1990s, the number of those employed in private sector has increases rapidly, from 18.46% in 1990 to 24.33% in 1995 and 66.57% in 2002.

[Figure 6 about here]

Many of those who were out of the public sector got jobs in private sector or became self-employed, demonstrated by the rapidly increasing proportion of this sector in Figure 6. Some others took early retirement, which has also contributed to the rising ratio of workers to retirees, as discussed previously. A small percentage of them became unemployed or “laid-off”. As shown in Figure 7, the registered unemployment rate in urban China has increased since the mid-1980s. For example, it rose from 2.0% of urban working population in 1988 to 2.9% in 1995 and 4.0% in 2002. When including those of unregistered, the actual unemployment rate would be higher. For example, it is estimated that unemployed people in urban areas accounted for 8% of the total urban labor force in 1998 and 11.6% in 2000 (Peng, 2000a; Xue & Zhong, 2003).

[Figure 7 about here]

Consistent with previous discussion on social security system transformation, Figure 8 shows that under the planned economic system, the average wages were at low level and had not changed much in constant values before the mid-1980s. The wages paid by state-owned units have been persistently higher than those paid by collective owned units. Due to its small proportion, the private sector did not show record of wages before the mid-1980s. Since then, its average wages have exceeded those paid by state-owned units until recently when being caught up by the latter. Given the dominant proportion of employment in state-own units, as shown in Figure 6, the overall average wages in urban China have been close to the level of those paid by state-own units.

[Figure 8 about here]

Figure 9 shows similar trends of per capita annual disposable income of China urban households in constant 2002 values to that of average annual wages. The annual disposable income of urban households has continuously increased in the last two decades. In constant 2002 values, the per capita annual disposable income in urban China increased 82% from ¥1631.5 in 1978 to ¥2973.9 in 1988. It continued to increase 59% from 1988 to ¥4730.8 in 1995, and to ¥7702.8 in 2002, a 63-percent increase from that of 1995.

[Figure 9 about here]

Demographic Changes and Household Income

The figures and discussions above clearly demonstrate the remarkable changes in demographics and household income in China especially in urban areas. One interesting question is how much the demographic changes in urban China contribute to family economic wellbeing as measured by household annual disposable income. Although

income inequality in China has called up tremendous attention in the literature, few studies have been conducted to directly examine the determinants of household income, especially the role of demographic changes during recent years. This section summarizes the findings on income determinants in urban China from studies using household level data from nationwide surveys, particularly two recent studies by Meng (2004) and Zhou (2000).

Using data from the Household Income Distribution Survey 1988, 1995, and 1999 waves, Meng (2004) conducted analysis to explore the impacts of age, household composition, education, Communist Party membership, unemployment, and employment sector on income variation in urban China. The effect of age, measured as the average of household members, was found to increase from 1998 to 1995 and then decreased from 1995 to 1999. Regarding household composition, an interesting finding was that households headed by females had significant higher income than those headed by males, which was because female-headed households were more likely to be better educated with better jobs. Furthermore, households with a higher proportion of young children were consistently found to have lower income, while households with more members of older than 65 had higher income. Meng also found that larger households had lower per capita income, while more earners in the household were correlated to higher income. The regional variables of households also showed as important determinant of income variation overtime.

Meng (2004) demonstrated the increase in the returns to education, reflecting the effect of market economic reform in the urban labor market. Specifically, one more year of education was correlated with the increase of income by 1.7% in 1988, 3.5% in 1995,

and 4.3% in 1999. Communist Party members were found to earn significantly higher than non-party members overtime. For example, compared to those without party member, households with husband and wife both as party members earned 10% more per capita income in 1988, 12% in 1995, and 20% in 1999. In contrast, unemployment was negatively related to real income. Households with unemployed husbands, wives, or son/daughters received 15.2%, 9.5%, or 9.9% lower household income in 1995, respectively, compared to household where these members were employed. These numbers increased to 29%, 24%, and 17%, respectively, in 1999. Meng did not find consistent trends in terms of the effects of employment sector (central state, local state, or private sectors) on income variations.

Using the household level data with retrospective information collected from 20 cities among 5,000 residents in six provinces of China in 1993 and 1994, Zhou (2000) examined the effects of gender, education, Communist Party membership, occupation and position, and employment sector on income in urban China. Zhou found that in the pre-reform era (1955-1984), female employees earned 84% of what male employees earned, while in the reform era (1987-1994), the earnings of female employees decreased relative to male employees. Consistent to the findings by Meng (2004), Zhou (2000) also showed that the returns to education had been increased overtime. For example, compared to those with elementary or no education, college graduates received 11% higher income and senior high school graduates had 8% higher income during the pre-reform era. In the reform era, these numbers increased to 23% for college graduates and 17% for senior high school graduates. In contrast, the effect of work experience showed an inverted U-shape in the pre-reform era, but in the reform era, there was a sharp decline

in returns to work experience. Zhou (2000) estimated that the net returns to Communist Party membership was about 6% in both pre-reform and reform eras. This was inconsistent with the finding by Meng (2004), where the party membership showed increasing returns.

Zhou (2000) also demonstrated the returns to various occupational statuses. For example, in pre-reform era, high-rank cadres received 27% higher income than unskilled workers. Professionals and low-rank cadres also had higher income than unskilled workers but lower than that of high-rank cadres. Other occupational groups (clerks, service workers, and skilled workers) did not show significant different in income receiving compared to unskilled workers. Zhou's further analysis showed that cadres in the public sector had the highest income, while cadres in the economic sector and professionals in both public and economic sectors received lower income but still higher than unskilled workers. In addition, cadres and professionals gained in income in the 1990s compared with the earlier period, with cadres in the public sector gaining the most. In separate models, Zhou demonstrated that employees in state-owned organizations received higher income than those in collective organizations in pre-reform era. In the reform era, employees in government, public organizations, and private firms had higher income than before, while there were no significant changes for employees in other types of work organizations.

Bian and Zhang (2004) conducted a trend analysis on the changing income differentials among political, managerial, and professional elites using the data of CHIP 1988 and 1995 waves. In contrast to the findings by Zhou (2000), Bian and Zhang (2004) showed that much of the income differential between cadre elite and professional elite

was due to their demographic profiles, which, once included in the model, made the income differential between cadre and professional small in magnitude and statistically insignificant. Gender, age, and party membership showed significant effects on income for both groups, but they were in favor of cadres rather than professionals. Education had positive effect on income, which helped professionals gain more than cadres since the former as a group had higher education level. Cadre elites retained income advantage over professionals from 1988 to 1995 because cadre elites were more likely to have favorable demographic profiles to income, such as males, older, and belong to the Communist Party, while the education gap between these two groups had been narrowing in this period of time.

Data and Methods

This study uses the urban samples of all three waves (1988, 1995, and 2002) of data from the China Household Income Project (CHIP), a national cross-sectional study collectively designed by a team of Chinese and Western economists and conducted by the Institute of Economics at the Chinese Academy of Social Sciences. Samples of the CHIP study were drawn from larger NBS samples using a multistage stratified probability sampling method. The CHIP study is considered the best publicly available data source on household income and expenditures and includes sample provinces from eastern, central, and western regions of China (Riskin, Zhao & Li 2001). Appendix Table 1 presents the sample designs of the three waves of CHIP data.[2]

We adopt a comprehensive measure of total household per capita income, which includes market income, cash and in-kind social benefits, and private transfers, less taxes

[2] More details on the design and sampling methods of the CHIP surveys can be found in Eichen and Zhang (1993) and Gao (2005).

and fees paid. Market income is made up of wages, income from private enterprises, property income, and rental value of owner-occupied housing. Social benefits are composed of cash transfers and in-kind benefits, including health, housing, food, and other in-kind benefits. Health benefits are included because it is an extremely important income item and is essential to family wellbeing. Note that, however, such an inclusion makes the conception of income used here broader than the conventional ones. Cash transfers are made up of pensions, regional subsidies, hardship subsidies, relief benefits, living subsidies for the laid-off, and the Minimum Living Standard Assurance subsidies. Household per capita income is calculated to take into consideration household size and the economies afforded by resource pooling among household members. Official urban Consumer Price Indices (CPI) are used to convert 1988 and 1995 values to constant 2002 values.[3]

In estimating the impacts of demographic changes on household income, OLS regressions with fixed effects are used. The socio-demographic characteristics of household heads (including age, gender and marital status, education level, ethnicity, communist party membership, and employment status and type) as well as household characteristics (including numbers of children, elders, and other adults and the number of earners) are the major independent variables, while the natural log of family total income is the dependent variables. In addition, pre-tax pre-transfer market income decile is controlled for in a second model as an indicator of the market force. Provincial fixed effects are controlled for to account for other unobservable factors that might moderate the effects of changing demographics on household income within provinces.

[3] According to the official CPI, in urban areas, 100 yuan in 2002 is equivalent to 39.7 yuan in 1988 and 90.4 yuan in 1995 (source: China Statistical Abstract 2004, p.88).

Regressions are first run on all urban households and then on only households whose heads were between ages 18 and 59 to see whether the effects are different.

This paper bears the following limitations based on the current methods. First, it does not utilize the newly-included 2002 migrant survey that collects income data on people who held official rural household registration status but moved into and currently resided in the cities. Because the migrants as a whole earn significantly less than the average urban citizens (who have urban registration status), this paper as a result over-estimates the overall income levels of the actual urban residents. For simplicity, hereinafter terms such as “urban residents” or “urban population” refer only to individuals and families studied in this paper.

Second, only one most commonly used equivalent scale (i.e., household per capita income) is adopted. This does not take into account the detailed resource sharing patterns among household members. In future work, other equivalent scales (e.g., square root of household size, or assigned indices for adults and children) can be utilized as sensitivity tests. However, in the literature of studying household income in China (both urban and rural), the best-suited equivalent scale is yet to be discovered and agreed upon. International practice often gives children a lower weight relative to that of adults in estimating resource sharing. This might be true to a much lower degree in urban China, especially during the most recent years. More money as well as other family resources (most notably time) is spent on the single children (who as a group was once called “little emperors”), in particular on their education, health, and entertainment. On the other hand, the increasingly high medical care expenses may result in more to be spent on elder

members. As a consequence, this study stays with the most-often used per capita household income measure, assuming family members share the resources equally.

Results

This section first identifies the major demographic changes through comparing the individual and household characteristics across the three years studied by the CHIP surveys. Second, it presents the changes in household income levels and structures during the period. Third, it estimates the effects of demographics on household income and compares how the impact patterns change over time.

Major Demographic Changes

Individual Demographics

Table 1 shows the changes in individual characteristics in urban China. This is an individual level rather than household level analysis. In other words, all individuals in the urban sample are included. The most noticeable change, first, is the aging of the urban population over the three years. The average age of urban residents rose from 32 in 1988 to 36 in 1995 and 38 in 2002. Consistent to this trend, the share of elders (60 years or older) in the total population increased from 8% in 1988 to 11% in 1995 and 12% in 2002. Rather interestingly, the average age of the elders did not keep such a rising trend—it dropped to 67 in 1995 from 68 in 1988, but climbed back to 68 in 2002.[4]

[Table 1 about here]

Second, parallel to the aging trend is the decrease in the share of children (17 years or younger) in the total urban population. It declined from 27% in 1988 to 22% in

[4] This might be due to that the 1995 survey included a higher proportion of male elders (53% as compared to 48% in 1988 and 50% in 2002) whose longevity is typically shorter than that of women. It is unclear why the 1995 CHIP sample had such a selection bias, and if this is true, the representativeness of the 1995 survey may need reassessment.

1995 and finally to only 17% in 2002. Such a dramatic change during the rather short time period happened heavily because of the implementation of the national one-child policy, which was carried out more strictly in the urban than the rural areas. However, the results do not show an excessively high portion of male children which is a notable and much discussed "side effect" of China's one-child policy. Males made up of 51% of all children in all three years, and among the "young children" (5 years old or younger), the share of males was slightly higher (52%) in both 1995 and 2002 than in 1988 (51%).

Third, the urban population had become more educated over time. Among adults between ages 18 and 59, much fewer people had only elementary education or less (from 16% in 1988 to only 8% in 1995 and 5% in 2002) or junior middle school education (from 37% in 1988 to 30% in 1995 and 27% in 2002). Meanwhile, a much higher proportion of people were going to college over time: for two-year college (*Dazhuan* in Chinese), the share rose from 6% in 1988 to 14% in 1995 and 19% in 2002; for four-year college or graduate study, the share increased from 6% in 1988 to 8% in 1995 and 10% in 2002.

Fourth, there had been significant transitions in the employment status and type of the urban residents as a direct result of the progressive market economic reforms during the period. Among adults between ages 18 and 59, the share of employed individuals decreased dramatically, while those of the unemployed, retired, and other status (mainly homemaker or student, as well as the disabled) increased steadily over the years. The share of the employed dropped from a very high 92% in 1988 to 83% in 1995 and only 70% in 2002. Particularly important are the changes in employment type among those who were employed. As the market economy progressed, individuals who were

employed at the public sector—namely government positions, state-owned or collective enterprises—decreased dramatically from 90% in 1988 to 80% in 1995 and only 47% in 2002. The share of employees at the private sector jumped from only 2% in 1988 and 3% in 1995 to 22% in 2002. Such changes reflect the economic reforms which shifted China's economy—at least in the urban areas as indicated by these results—from public dominated to a much larger private sector.

Alongside the shrinking size of the employed group, there had been a noticeable increase in the urban unemployed. Before the economic reforms, virtually all urban citizens (i.e., those with urban household registration status) were allocated jobs with stable (but low) income and comprehensive social benefit coverage. However, as the market economic reform progressed, those who were less competitive in the market—usually those with lower education, few skills, less healthy, and older—were laid off and many had difficulties achieving reemployment, creating an emerging group of the "urban poor". As shown in Table 1, there were no unemployed in 1988, but the share of unemployed increased to 3% in 1995 and 8% in 2002. It is noteworthy that 1% out of the 8% unemployed in 2002 were "voluntary unemployment," i.e., they were not laid off but chose to leave the previous job positions. This small group might not be among the "urban poor" but rather those searching for other opportunities or those who afforded not to work.

Another important trend was the rising share of retired persons among adults who were younger than 60. It increased from 5% in 1988 to 8% in 1995 and 12% in 2002. This occurred because of the market economic reforms which forced those who were close to the retirement age (usually 55 years old for women and 60 for men) or those who

were less healthy to retire early (often 50 years old for women and 55 for men) or "internally" (i.e., to actually stop working or receiving regular wages and benefits, but stay on the roster of the employees). Among the retired group, one percent had early retirement and 2% were retired "internally." The worrisome issue is that the majority of these who retired early or "internally" were not entitled to retirement pensions, and even if they were, often could not receive the payments on time or not at all, mainly because that their former employers were mostly unprofitable state-owned or collective enterprises.

Household Demographics

Tables 2 and 3 turn to household level analyses. Table 2 presents the demographics of household heads, with the left panel on all household heads and the right on household heads between ages 18 and 59. Household heads were self-identified by the families.

[Table 2 about here]

Among all household heads, the average age increased steadily from 44 in 1988 to 46 in 1995 and 48 in 2002. More specifically, there had been much fewer households headed by persons under age 40, while those headed by older persons increased over time. Households headed by persons under 30 years old diminished to only 2% by 2002 from 7% in 1988 and 5% in 1995. Households headed by persons 30-39 years old also declined from 31% in 1988 to 27% in 1995 and 23% in 2002. The majority of household heads were between ages 40 and 49, whose share increased from 33% in 1988 to 33% in 1995 and 35% in 2002. Interestingly, households headed by persons aged between 50 and 59 dropped from 24% to 19% but rose back to 24%. Consistent with the aging trend,

households headed by elders (60 years or older) increased from 7% in 1988 to 16% in 1995 and stayed at this level by 2002.

In terms of household head gender and marital status, more household heads were female in 1995 (34%) and 2002 (33%) than in 1988 (9%), as identified by families themselves. Interestingly, there were fewer unmarried (including never married, widowed, and divorced) household heads in more recent years regardless of their gender. Three (in 1995) to four (in 2002) percent female household heads and 1% of male household heads were unmarried in 1995 and 2002, as compared to 5 (females) and 4% (males) unmarried household heads in 1988.

Consistent with the individual demographic results, household heads were more and more educated over time. The majority of household heads had junior middle school education, whose share declined to 29% by 2002 from 36% in 1988 and 31% in 1995. Those with senior middle school education increased from 20% in both 1988 and 1995 to 25% in 2002, while those attended two-year colleges increased from 8% in 1988 to 15% in 1995 and 18% in 2002. The share of household heads with four-year college or above education maintained at 9% across all three years.

The trends in employment status and type among household heads echo that among all adult individuals. Much fewer household heads were employed over time: 70% in 2002 as compared to 79% in 1995 and 92 in 1988. Among the employed, the share of those working in the public sector decreased from 90% in 1988 to 77% in 1995 and only 50% in 2002. In contrast, the share of those working in the private sector increased from only 2% in 1988 and 1995 to 20% in 2002. The shares of retired and unemployed household heads both increased significantly over time. The retired household heads were

only 8% in 1988, but rose to 20% in 1995 and 25% in 2002. Unemployed household heads increased from nonexistent in 1988 to 1% in 1995 and 4% in 2002.

The demographic changing trends among household heads between ages 18 and 59 are quite consistent with those among all household heads, and in most cases, show stronger evidence of the observed patterns identified above. Over time, non-elderly household heads tended to be between ages 30 and 59, were more likely to be married, to have higher education levels, and to work in the private sector if employed or to be retired or unemployed if not working, as compared to household heads of all ages.

Table 3 details household characteristics, namely household size and family structure. The top panel presents results among all households while the bottom panel limits the sample to only households whose heads were between ages 18 and 59. Overall, household size was reduced by 0.5 members during the whole period, changing from 3.53 members per household in 1988 to 3.13 in 1995 and 3.02 in 2002. More specifically, the number of children in household decreased significantly from 0.94 in 1988 to 0.68 in 1995 and 0.52 in 2002 (the number of young children under age 6 declined from 0.19 in 1988 to 0.13 in 1995 and 0.09 in 2002). Meanwhile, the number of elder members increased from 0.27 in 1988 to 0.35 in 1995 and 2002. The share of older elders (65 years old or above) increased even more dramatically, from 0.16 in 1988 to 0.19 in 1995 and 0.22 in 2002. As a result of the aging trend and the one-child policy, as well as the increase in unemployed persons, the number of income earners per household dropped from 2 in 1988 to 1.78 in 1995 and 1.51 in 2002.

[Table 3 about here]

Significant shifts also occurred in family structure. Nuclear family with only one child had been the dominant family structure, increasing from 40% of all households in 1988 to 55% in 1995 and 59% in 2002. The share of nuclear families with more than one child dropped sharply over time as the one-child policy were carried out for longer and more strictly: nuclear families with two children decreased from 24% of all households in 1988 to 13% in 1995 and 6% in 2002; those with three or more children diminished from 9% in 1988 to only 1% in 1995 and almost nonexistent in 2002. The share of three-generation families also decreased, especially those with more than one child, from 8% in 1988 to 5% in 1995 and 4% in 2002. There were increasingly more families with only a couple without children, increasing from 7% in 1988 to 12% in 1995 and 16% in 2002. Single household heads with child(ren) increased from 4% in 1988 to 6% in 1995 and 7% in 2002. Households with elder member(s) only also increased, from 4% in 1988 to 6% in both 1995 and 2002.

The trends in household demographics among those whose heads were between ages 18 and 59 were largely similar to those among all households. In comparison to all households, households with heads between ages 18 and 59 had smaller household sizes, slightly more children (except for 2002), fewer elder members, and more nuclear families with one or two children.

Changes in Household Income

Table 4 presents the changes in urban household income levels and compositions, with the top panel showing results among all households and the bottom only households with heads between ages 18 and 59. Among all households, first, there had been significant increase in the CPI-adjusted per capita household final income, rising from

¥4,576 in 1988 to ¥6,521 in 1995 to ¥10,333 in 2002. Market income, the major source of household income, doubled between 1988 (¥2,480) and 1995 (¥4,744) and increased to ¥8,054 by 2002. The level of social benefits families received decreased slightly from 1988 (¥1,997) to 1995 (¥1,738) but rose to ¥2,559 by 2002. The level of private transfers kept increasing during the period, from ¥108 in 1988 to ¥120 in 1995 and ¥170 in 2002. The value of taxes paid by families increased dramatically from only ¥9 in 1988 to ¥80 in 1995 and to a much higher level of ¥450 in 2002.

[Table 4 about here]

The relative contribution of the income components—mainly market income and social benefits—changed quite dramatically from 1988 to 1995, and only slightly between 1995 and 2002. Market income made up of 54% of final income in 1988, whereas social benefits contributed 44%, a strikingly high proportion, to total income. By 1995, the share of market income had increased to 73% of final income, and that of social benefits dropped sharply to only 27%. From 1995 to 2002, the share of market income increased again to 78%, while that of social benefits (25%) fell more slowly than before. Families paid virtually no tax in 1988 and slightly more taxes (1% of total income) in 1995 and quite some more (4% of final income) in 2002. The share of private transfers maintained at 2% of final income across all years.[5]

The Impact of Demographics on Household Income

Table 5 presents the regression results on household total income among all households. Model 1 controls for all demographic and socioeconomic variables as well as province fixed effect, but not pre-tax pre-transfer income deciles, while Model 2 does.

[5] Refer to Gao (2006) and Gao and Riskin (2006) for more detailed analyses and discussions of the changing patterns of each income component and their sources.

The age of household head shows consistent positive effects on household per capita total income. In 1988, compared to those with heads aged 18-29, the gains in income were 6.9% for households with heads aged 30-39, 14.1% for those with heads aged 40-49, 22.4% for those with heads aged 50-59, and 26.7% for those with heads aged 60 and over. After adding the pre-tax pre-transfer deciles of households as controls, the older household heads (aged 40 and older) still were economically advantaged and received 3.3% to 12.0% higher income compared to those with young heads (18-29 years old). The gains of older household heads in per capita household income increased in 1995. Households with heads in three age groups (30-39, 40-49, 50-59, and 60 and over) received 14.3%, 25.0%, 27.3%, and 32.3% higher income, respectively, compared to those with young heads (18-29 years old). Similar to the findings in 1988, even after controlling for the pre-tax pre-transfer deciles of households, older household heads (aged 40 and older) raised household per capita income by 3.7% to 21.2% compared to those with young heads (aged 18-29). In 2002, the economic advantage of old household still existed but the magnitude became smaller and less significant than those of 1995 and 1988. Compared to households with young heads (18-29 years old), those with heads aged 30-39 did not show advantage in income gaining, while those with older heads (aged 40 and older) received 8.7% to 20.6% higher income. After controlling for the pre-tax pre-transfer deciles of households, only those with oldest household heads (aged 50 and older) presented gains in income, about 13.4% to 15.0% higher than household with young heads (18-29 years old). The changing effects of household head age on income over time may indicate that during the transformation of planning economic system, old age was related to higher social status, higher income, and better social benefits, but once

the market-oriented economic system has been well developed, other factors such as education become dominant in determining income and age becomes less important.

[Table 5 about here]

Regarding the effects of the gender and marital status of household heads, married female headed households received consistently higher (3.3% to 10.5%) per capita income across the years and models compared to married male headed households. No consistent and significant differences were found between unmarried female or male and married male. This finding is consistent with those in the literature. As Meng (2000) indicate, the advantage of female-headed households in income was because those households were more likely to be better educated with better jobs.

The returns to education consistently increased with education levels over time across models. For example, in 1988, compared to households with heads of primary school or less education, household whose heads had junior middle school, high school, secondary school, 2-year college, or 4-year college and higher education received 5.3%, 7.7%, 7.6%, 9.2%, and 14.8% higher per capita income, respectively. After controlling for the pre-tax pre-transfer deciles of households, these numbers slightly decreased to 3.7%, 6.2%, 5.7%, 6.8%, and 9.3% respectively. Similarly, in 1995, households with heads received junior middle school and higher education were correlated to 11.4% to 42% higher income and 8.5% to 21.8% higher income after controlling for pre-tax pre-transfer deciles of households, compared to households with heads who had primary or no education. In 2002, the economic advantages of junior middle school and higher graduates increased again, resulting in 12.9% to 65.6% increase in per capita income than

household heads with primary or no education. These findings clearly demonstrate the increasing returns to education as the market economy develops, as discussed previously.

In 1988, households with heads of minority did not show difference in income gains compared to those with non-minority heads. In 1995, those households with minority heads showed economic disadvantages and received 6.9% less in per capita income than those with non-minority heads. However, in 2002, the former groups turned out to be better off and gained 13.2% higher income than the latter groups. The story behind could be that, under the planned economy, the minorities enjoyed the benefits of "iron rice bowl", but with the development of market economy, they were likely to be left behind because of lacking resources, problem of transportation, and low education. Since the late 1990s, the federal government has begun to implement a serial of policies and provide financial support for the development of western regions where the minorities concentrate. Thus being minority household heads appeared to be economically advantaged in 2002.

In contrast, households with heads of Communist Party members had always enjoyed economic advantages. They received 1.5% to 8.7% higher income than households whose heads were not party members, which is consistent with findings in the literature. Results controlling for pre-tax pre-transfer income shows that, as many people have declaimed, the importance of party membership will decline significantly with the development of market economy. Gains in income from being a party member reduced from 5.4% in 1988 to 4.2% in 1995 and then to only 1.5% in 2002. However, this group, who are mainly cadres and professional elites, still enjoy high social status and economic rewards.

The employment status and type of household heads play important roles in household income. As compared to those working in the public sector, in 1988, household heads who were employed in the private sector appeared to have 4.4% income if not controlling for pre-tax pre-transfer income decile. However, they turned to lose 3.5% of income if pre-tax pre-transfer income decile is controlled for. Household heads working in the private sector received lower income than those in the public sector in both models in 1995. In 2002, those in the private sector appeared to receive 8.7% less income than those in the public sector, but such effect disappeared after pre-tax pre-transfer income decile is controlled for. Such inconsistent results may reflect the fact that the private sector is a quite mixed economic domain—some private enterprises are highly profitable while some others are much less successful. Further analyses are needed to sort out the exact effect patterns of working in the private sector on household income.

Having a retired household head was consistently associated with income gains, especially in 1995, particularly after controlling for pre-tax pre-transfer income decile. This indicates that in general, pensions and living subsidies for the retired in urban areas had been quite generous, especially in 1995. Gao and Riskin (2006) documented that the level of per capita social insurance income, which consisted of mainly pensions and living subsidies for the elderly, rose from ¥280 (6% of total income) in 1988 to ¥684 (10% of total income) in 1995 and then to ¥1,443 (14% of total income) in 2002 using the CHIP data. In contrast, households whose heads were unemployed had significantly lower income than those working in the public sector. In 2002, having an unemployed household head was associated with 19.7% (when not controlling for pre-tax pre-transfer

income decile) or 9.9% (when controlling for pre-tax pre-transfer income) decrease in total income, which reveals that the public support to the unemployed is much needed.

In terms of household size, more children in household were consistently associated with lower income in all three years, with or without controlling for pre-tax pre-transfer income decile. One additional child is linked to about 10% income decline, when pre-tax pre-transfer income decile is controlled for. It is consistent with the usual expectation that families with more children were less advantaged economically.[6] Households with more elders had lower income in all three years, if pre-tax pre-transfer is not controlled for. However, after pre-tax pre-transfer income is considered, the number of elders was no longer associated with income loss but rather a 6.6% income gain in 2002. Interestingly, the number of earners in household, which was related to 12.6% (in 1988) to about 19% (in 1995 and 2002) income gains if not controlling for pre-tax pre-transfer income, shows a negative effect (-3.1%) on household income after controlling for pre-tax pre-transfer income in 2002. This suggests that more earners in household may mean more less-educated, low-skilled workers in one household which is link with lower income.

Family structure matters in determining household income. As compared to nuclear families with only one child, those with two or more children tended to have lower income if not controlling for pre-tax pre-transfer income. However, such trend becomes statistically insignificant after pre-tax pre-transfer income is considered. Interestingly, three-generation families with one child gain more income (about 7% in 1995 if not controlling for pre-tax pre-transfer income and 6% if yes) in both 1995 and

[6] Only during the past 5 years or so, a new phenomenon is that some rich people in urban China managed to pay a substantial amount of money to get a quota for a second or even third child.

2002. This again verifies that having elder members in household could bring in many additional resources. Couples without children had 12.4% more income than nuclear families with one child in 1988 if controlling for pre-tax pre-transfer income. It declined to only 10.7% by 1995 and only 5.4% in 2002. As discussed previously, the elderly only households had more and more household income (16.1% in 1988, 22.4% in 1995, and 30.1% in 2002).

The results of the associations between demographics and household income among households with non-elderly heads (18-59 years old), as presented in Table 6, are largely consistent with those among all households. Household heads who were older, female and married, with higher education levels, Communist Party members, or retired, and households composed of couples without children tended to receive higher total income, especially after controlling for pre-tax pre-transfer income. Households with unemployed heads, those had more earners, and three-generation families with more than one child tended to receive lower income.

[Table 6 about here]

Conclusion and Discussion

Using comprehensive demographic and income data in 1988, 1995, and 2002, this paper documents the major demographic changes during this time period. It also presents changing levels and compositions of household income in urban China, and examines the impact of the changing demographics on household income.

Overall, residents in urban China had become older, more educated, and their employment had shifted from almost entirely concentrating in the public sector to working much more likely in the private sector. At the household level, household size

had been decreasing, with fewer children and more elder members, while the shares of nuclear families with only one child as well as couples without children had been increasing. Alongside the market economic reforms, more urban residents became retired (including regular retirement, early retirement, and internal retirement) or unemployed (laid-off or voluntarily unemployed).

Household income, as measured by CPI-adjusted per capita household final income, had been rising continuously over the years. The main income component, market income dominated the rising trend, whose share in total income increased from 54% in 1988 to more than ¾ in 2002. Social benefits, despite its value increase from 1988 to 2002, contributed much less to total income over time (from 44% in 1988 to only 25% in 2002). Urban families paid substantially more taxes—both in absolute levels and relative contribution—over time.

Several important demographic characteristics are significantly associated with household income levels. Households whose heads were older, with higher education levels, Communist Party members, or retired, and households composed of couples without children tended to have higher income across all three years. In addition, households with larger sizes, particularly more children, with unemployed heads, and three-generation families with more than one child tended to receive lower income.

Two important policy lessons emerge from these results. First, as a result of the aging trend and one-child policy, urban China’s dependency ratio has been rising and remains a serious challenge to supporting and improving family economic wellbeing in future. More social support from the government, communalities, and organizations is thus called for to share the elder-caring responsibilities with families. Second, more

public benefits should also be provided to the demographically and socio-economically less advantaged households, such as those headed by persons who are younger (in particular those under 30), with low education, or unemployed, and those with large household sizes (particularly more children), to lift their family income and meet their economic needs.

Further research can be conducted to improve the understanding of related topics and to suggest more relevant and feasible policy proposals. First, the effects of demographics on household income may vary by income levels. In future analysis, regression models may be run among different income groups respectively (e.g., income quintiles) to see whether the demographic characteristics play different roles among different income groups. Second, microsimulation models may be adopted to more closely estimate the effects of aging and one-child policy on family income. In other words, suppose aging and one-child policy stay constant at the levels or implementations of a certain year (for example, 1988), researchers can take into consideration other demographic and socio-economic factors and predict how household income and other dimensions of family economic wellbeing (e.g., poverty, hardship, assets, etc.) would change over time.

References

Attane, I. (2002). China's family planning policy: An overview of its past and future. *Studies in Family Planning, 33* (1), 103-133.

Bian, Y., & Zhang, Z. (2004). Urban elites and income differential in China: 1988-1995. *Japanese Journal of Political Science, 5* (1), 51-68.

Chow, E. N., & Zhao, S. M. (1996). The one-child policy and parent-child relationships: A comparison of one-child with multiple-child families in China. The *International Journal of Sociology and Social Policy, 16* (12), 35-62.

Fong, V. L. (2002). China's one-child policy and the empowerment of urban daughters. *American Anthropologist, 104* (4), 1098-1109.

Fung, H. (2001). The making and melting of the "iron rice bowl" in China 1949 to 1995. *Social Policy & Administration, 35* (3), 258-273.

Gao, Q. (2006). The social benefit system in urban China: Reforms and trends from 1988 to 2002. *Journal of East Asian Studies, 6*(1).

Gao, Q. & Riskin, C. (forthcoming). "Nature vs. Nurture in Explaining Urban China's Changing Inequality." In Davis, D. & Wang, F. (Eds). *Creating Poverty and Wealth in Contemporary China.*

Guo, Z. (2000). Family patterns. In Peng, X. & Guo, Z. (Ed.), *The Changing Population of China*, 101-114. Malden, MA: Blackwell Publishers Inc.

Hutzler, C., & Chang, L. T. (2004). China weighs easing its harsh "one child" rule: Family-planning policies have long drawn flak. *Wall Street Journal, Oct 4, 2004, A.1*.

Jowett, A. J. (1991). China: The one, two, three, four and more child policy. *Focus, 41* (2), 32-36.

Lee, L. E. (1992). Day care in the People's Republic of China. In M. E. Lamb, K. J. Sternberg, C. P. Hwang, A. G. Broberg (Ed.), *Child Care in Context Cross-Cultural Perspectives*. New Jersey: Lawrence Erlbaum Associates, Publishers.

Leung, J. C. (2003). Social security reforms in China: Issues and prospects. *International Journal of Social Welfare, 12*, 73-85.

Meng, X. (2004). Economic restructuring and income inequality in Urban China. *Review of Income and Wealth, Series 50*, 3, September 2004, 357-379.

Merli, M. G., & Smith, H. L. (2002). Has the Chinese family planning policy been successful in changing fertility preferences? *Demography, 39* (3), 557-571.

National Bureau of Statistics (NBS) (1989, 1999). *China Labor Statistical Yearbook 1989, 1999*. Beijing, China: China Statistics Press.

National Bureau of Statistics (NBS) (1996-2005). *China Statistical Yearbook 1996-2005*. Beijing, China: China Statistics Press.

National Bureau of Statistics (NBS) (2004). *China Statistical Abstract 2004*. Beijing, China: China Statistics Press.

Peng, X. (2000a). Introduction. In Peng, X. & Guo, Z. (Ed.), *The Changing Population of China*, 1-10. Malden, MA: Blackwell Publishers Inc.

Peng, X. (2000b). Education in China. In Peng, X. & Guo, Z. (Ed.), *The Changing Population of China*, 115-133. Malden, MA: Blackwell Publishers Inc.

Riley, N. E. (2004). *China's Population: New Trends and Challenges*. *Population Bulletin, 59* (2), 1-36.

Tang, K. L, & Ngan, R. (2001). China: Developmentalism and social security. *International Journal of Social Welfare, 10*, 253-259.

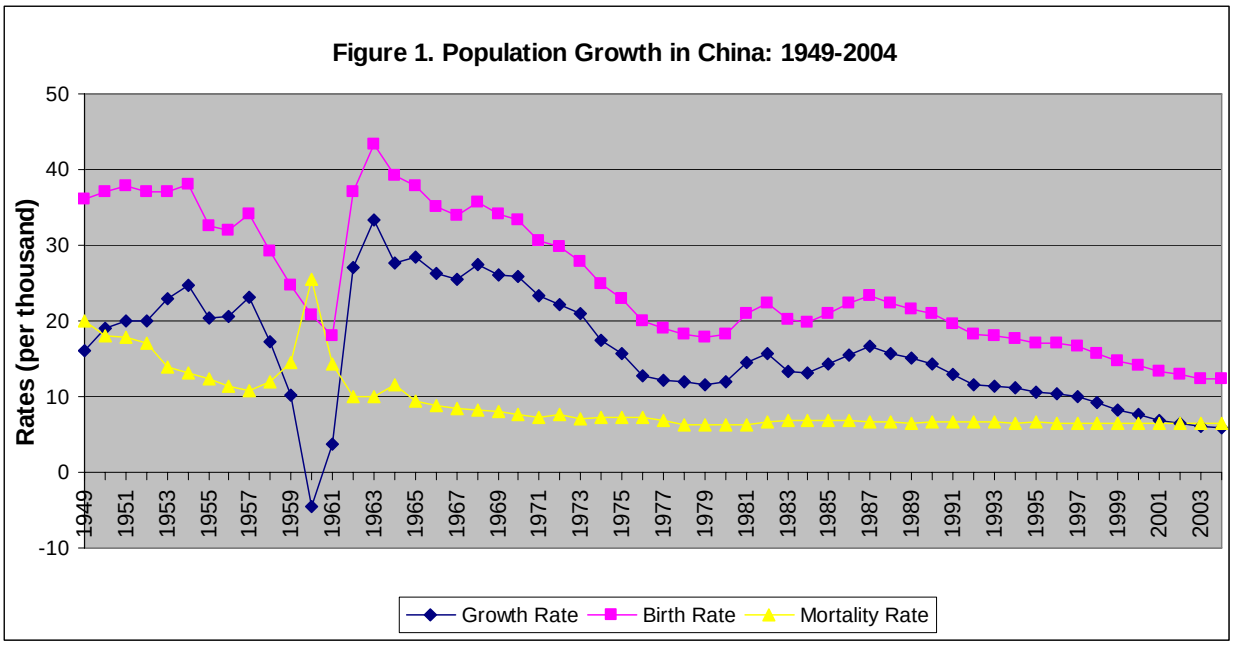
Tu, P. (2000). Trends and regional differentials in fertility transition. In Peng, X. & Guo, Z. (Ed.), *The Changing Population of China*, 22-33. Malden, MA: Blackwell Publishers Inc.

Winckler, E. A. (2002). People's Republic of China Law on Population and birth planning. *Population and Development Review, 28* (3), 579-585.

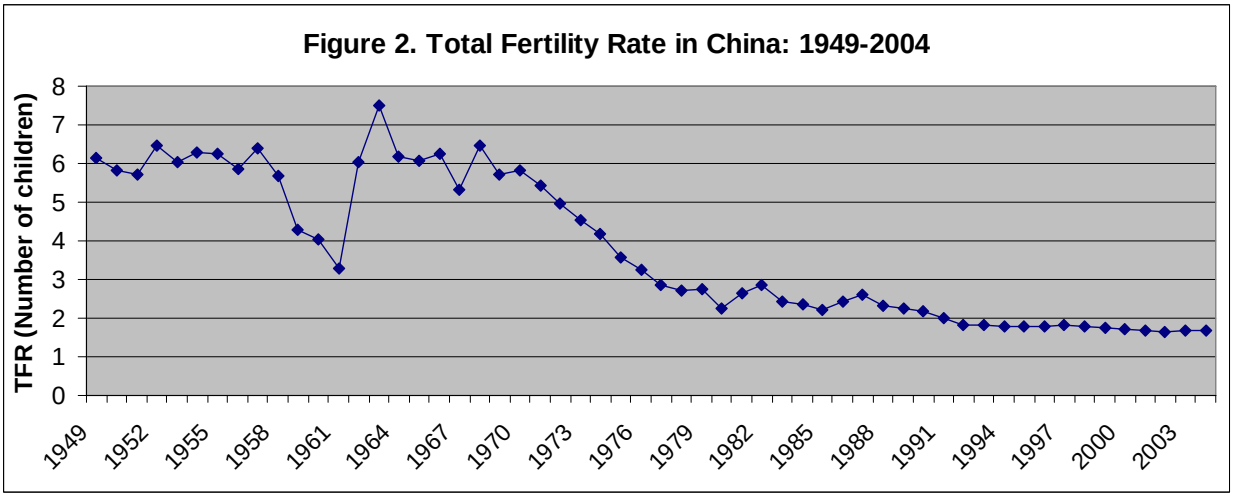
Xue, J., & Zhong, W. (2003). Unemployment, poverty and income disparity in urban China. *Asian Economic Journal, 17* (4), 383-405.

Yang, B., et al. (1995). Only children and children with siblings in the People's Republic of China: Levels of fear, anxiety, and depression. *Child Development, 66* (5), 1301-1311.

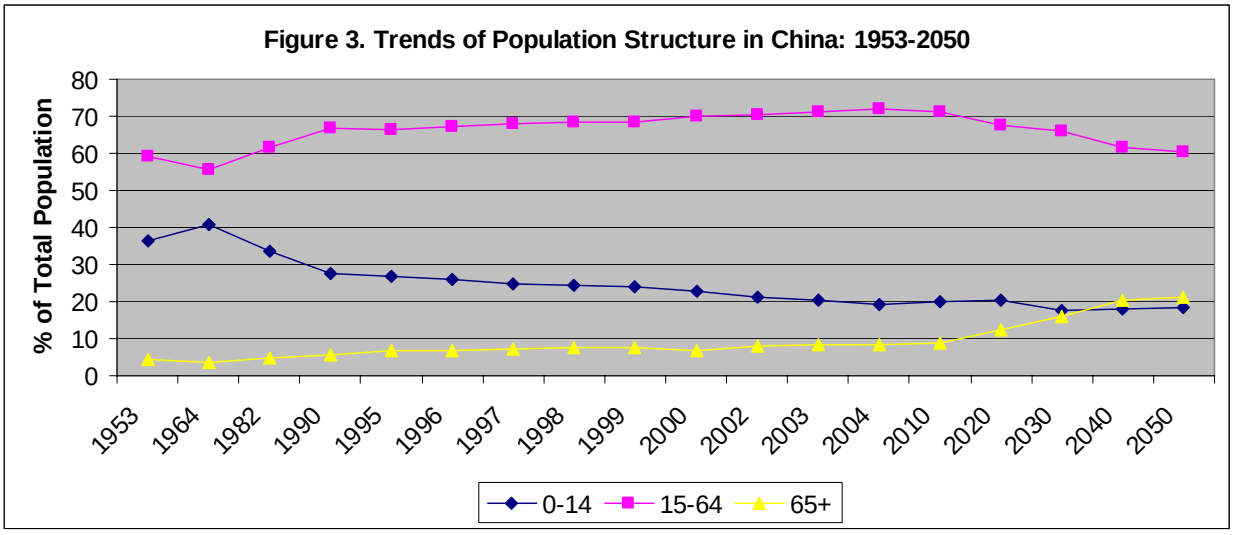
Zhou, X. (2000). Economic transformation and income inequality in urban China: Evidence from panel data. *The American Journal of Sociology, 105* (4), 1135-1174.



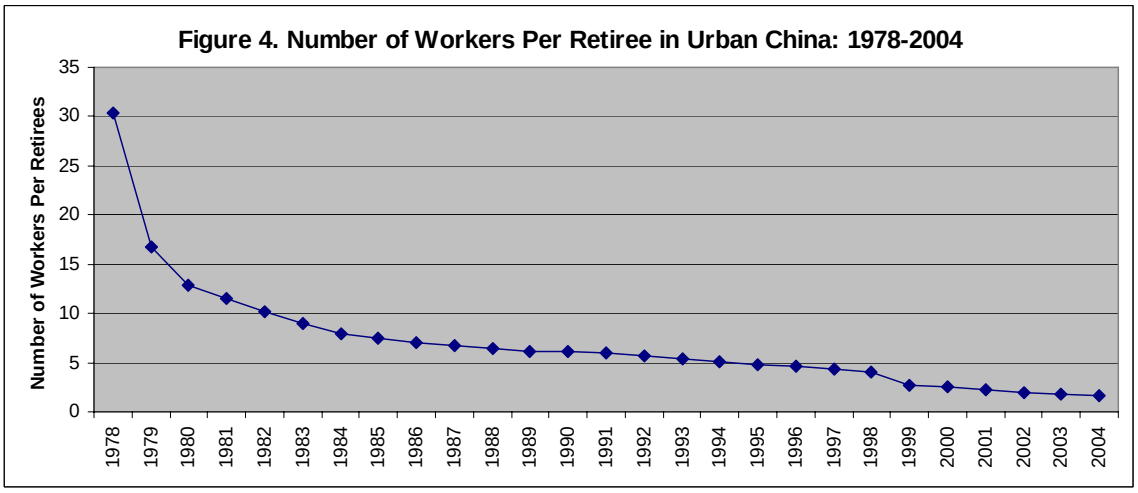
Sources*:* Data of 1949-1990 are based on China Statistical Yearbook 1996-2005, National Bureau of Statistics, China Statistics Press, Beijing, China; and China Population and Development Research Center (www.cpirc.org.cn).
Notes: Total population and population by sex include the military personnel of Chinese People's Liberation Army; the military personnel are classified as urban population in the item of population by residence.



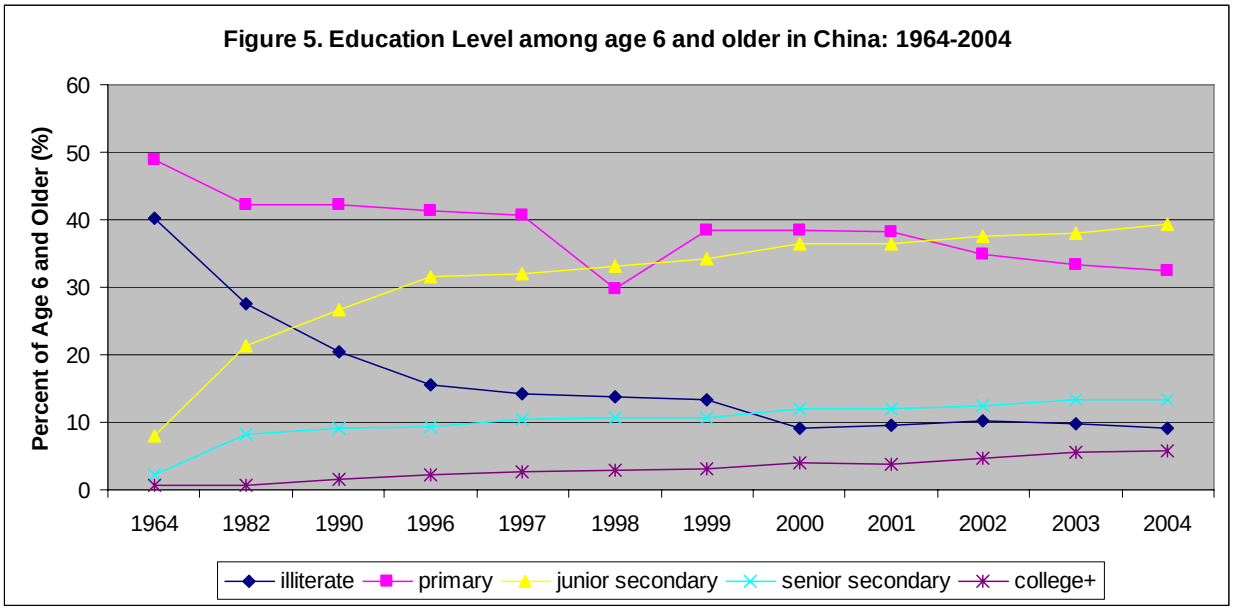
Sources*:* Data of 1949-1990 are based on China Statistical Yearbook 1996-2005, National Bureau of Statistics, China Statistics Press, Beijing, China.



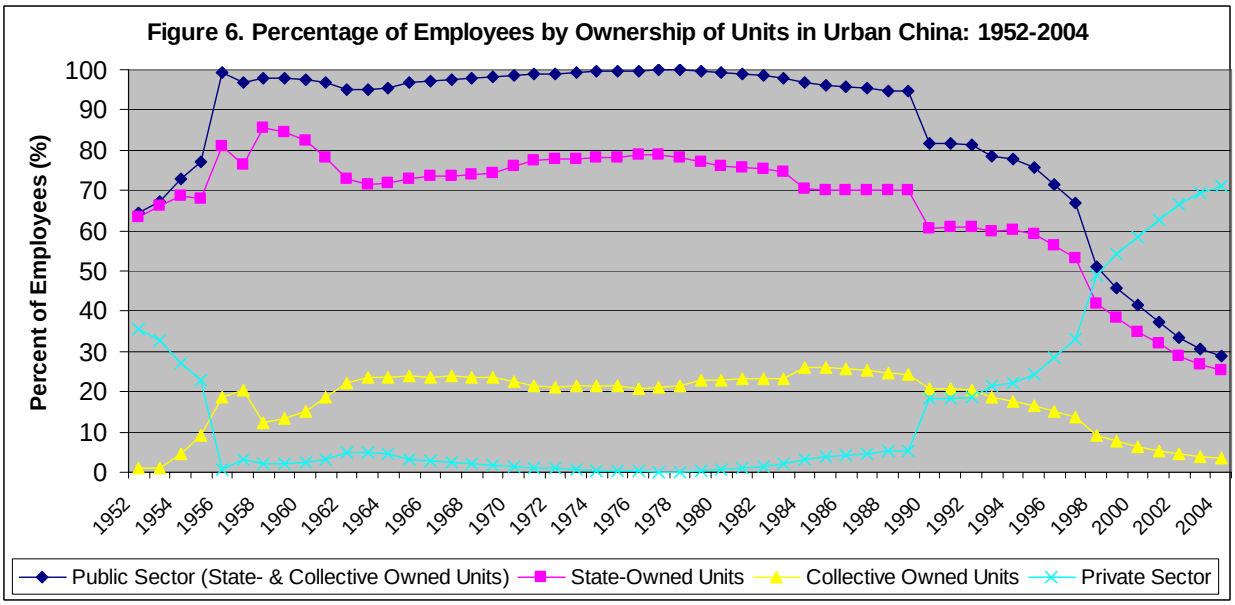
Source: Data of 1953-2003 are based on China Statistical Yearbooks 1996-2005, National Bureau of Statistics of China, China Statistics Press, Beijing, China; data of 2010-2050 are from the estimates of Leung (2003).



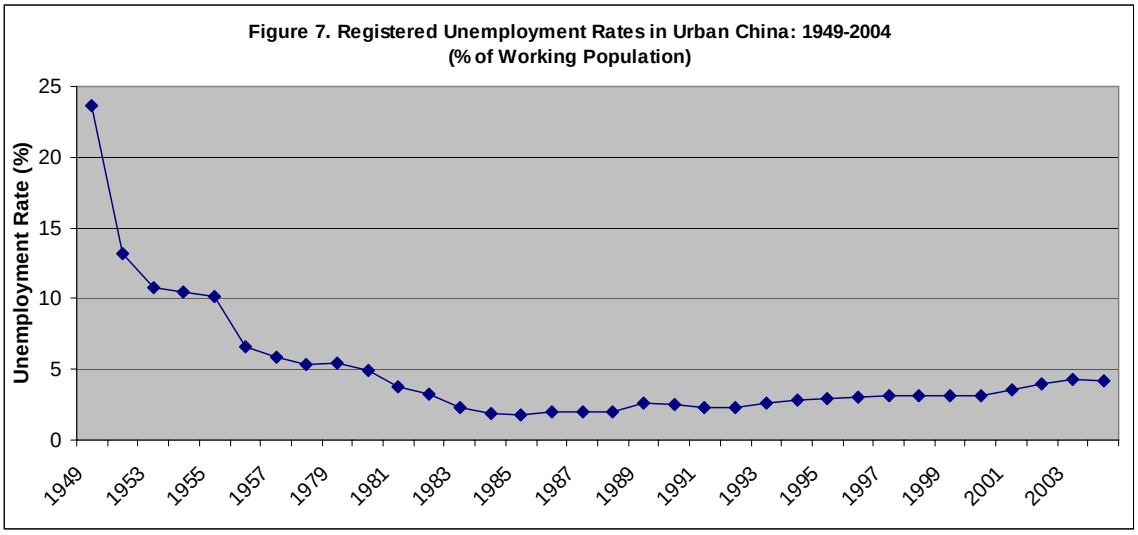
Sources*:* Data of 1978-1998 are from China Labor Statistical Yearbook 1999; data of 1999-2004 are based on China Statistical Yearbook 2005, National Bureau of Statistics, China Statistics Press, Beijing, China.



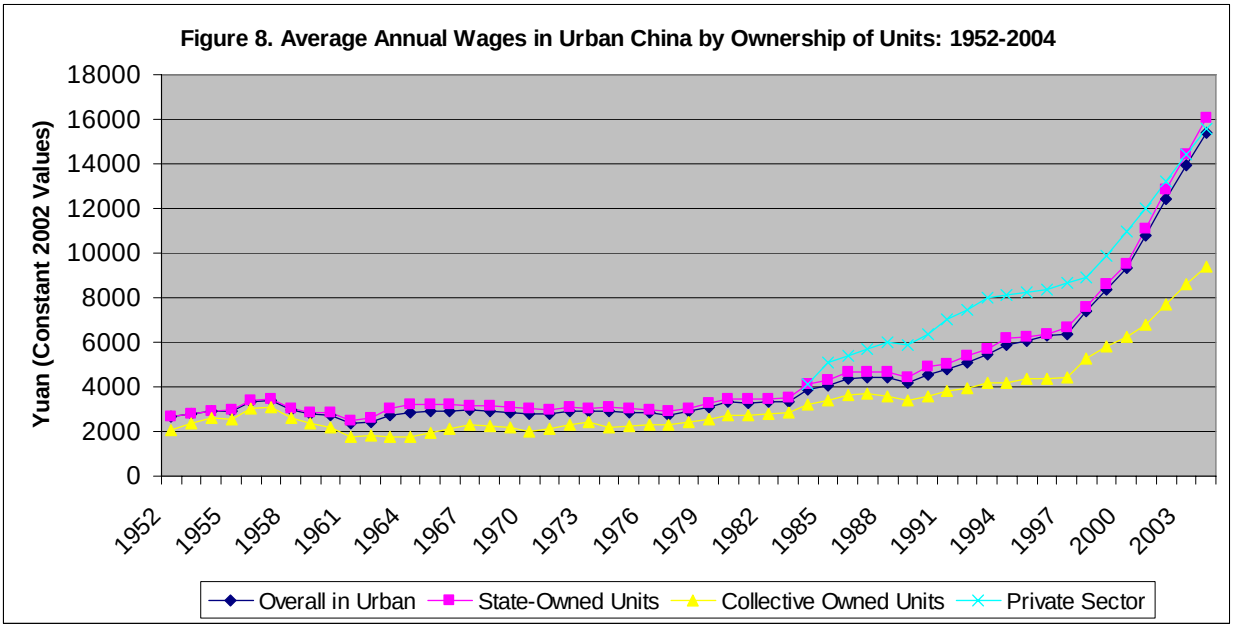
Sources*:* Data of 1949-1990 are based on China Statistical Yearbook 1996-2005, National Bureau of Statistics, China Statistics Press, Beijing, China.



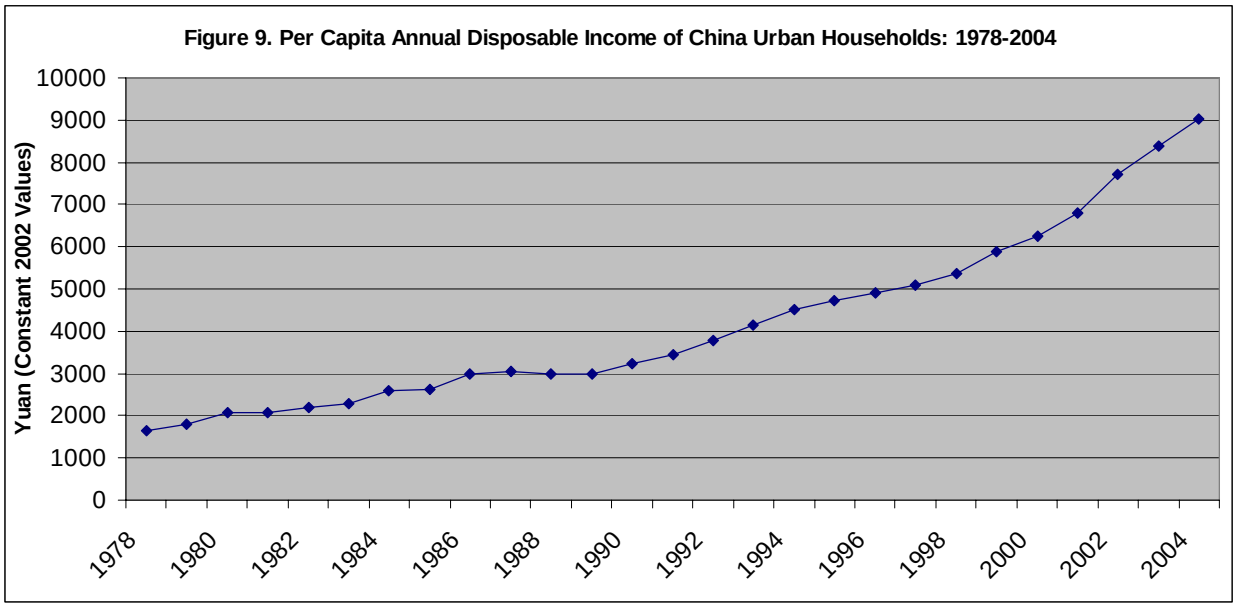
Sources*:* Data of 1952-1984 are based on China Labor Statistical Yearbook 1999; data of 1985-2004 are based on China Statistical Yearbook 1996-2005, National Bureau of Statistics, China Statistics Press, Beijing, China.



Sources*:* Data of 1952-1998 are based on China Labor Statistical Yearbook 1989 and 1999; data of 1999-2004 are based on China Statistical Yearbook 2000-2005, National Bureau of Statistics, China Statistics Press, Beijing, China.



Sources*:* Data of 1952-1985 are based on China Labor Statistical Yearbook 1999; data of 1986-2004 are based on China Statistical Yearbook 2000-2005, National Bureau of Statistics; consumer price index is based on China Labor Statistical Yearbook 1999, China Statistical Abstract 2004, and China Statistical Yearbook 2000-2005, National Bureau of Statistics, China Statistics Press, Beijing, China.



Sources*:* Original data of per capita annual disposable income are from China Statistical Yearbook 1996-2005; consumer price index is based on China Labor Statistical Yearbook 1999, China Statistical Abstract 2004, and China Statistical Yearbook 2000-2005, National Bureau of Statistics, China Statistics Press, Beijing, China.

Table 1: Major Demographic Changes in Urban China--Individual Characteristics

	1988	1995	2002
Age			
Mean	32.31	35.66	38.24
SD	(18.42)	(18.54)	(18.14)
Children (<18)	27%	22%	17%
Mean	10.20	10.32	10.74
SD	(4.70)	(4.53)	(4.49)
Adults (18-59)	65%	67%	71%
Mean	37.17	38.68	40.12
SD	(11.40)	(10.92)	(10.83)
Elders (>59)	8%	11%	12%
Mean	67.90	66.93	68.04
SD	(7.06)	(6.63)	(6.66)
Gender=Male			
All	49%	50%	49%
Children (<18)	51%	51%	51%
Children (<6)	51%	52%	52%
Adults (18-59)	49%	49%	49%
Elders (>59)	48%	53%	50%
Education (among adults 18-59)			
Elementary school or less	16%	8%	5%
Junior middle school	37%	30%	27%
Senior middle school	24%	24%	28%
Technology secondary school	11%	16%	12%
Two-year college	6%	14%	19%
Four-year college or above	6%	8%	10%
Ethnic Minority	4%	4%	4%
Communist Party Membership			
Adults (18-59)	23%	22%	24%
Elders (>59)	24%	32%	37%
Employment Status/Type (among adults 18-59)			
Employed	92%	83%	70%
Government/SOE/Collective Enterprise	90%	80%	47%
Private Sector	2%	3%	22%
Unemployed	0%	3%	8%
Retired	5%	8%	12%
Other	3%	6%	10%

Table 2: Major Demographic Changes in Urban China--Characteristics of Household Heads

	All			18-59 Years Old		
	1988	1995	2002	1988	1995	2002
Age						
Mean	44.01	46.09	47.93	41.75	42.52	44.31
SD	(10.54)	(11.52)	(11.16)	(9.11)	(8.54)	(7.82)
18-29	7%	5%	2%	8%	6%	3%
30-39	31%	27%	23%	37%	32%	27%
40-49	31%	33%	35%	31%	39%	42%
50-59	24%	19%	24%	24%	23%	28%
60+	7%	16%	16%			
Gender and Marital Status						
Male and Married	87%	65%	66%	88%	63%	65%
Female and Married	4%	31%	29%	4%	34%	32%
Female and Unmarried	5%	3%	4%	4%	2%	3%
Male and Unmarried	4%	1%	1%	4%	1%	1%
Education						
Elementary school or less	17%	10%	7%	14%	7%	4%
Junior middle school	36%	31%	29%	37%	31%	28%
Senior middle school	20%	20%	25%	20%	21%	27%
Technology secondary school	11%	16%	12%	12%	17%	12%
Two-year college	8%	15%	18%	8%	16%	20%
Four-year college or above	9%	9%	9%	9%	9%	9%
Ethnic Minority	4%	4%	4%	4%	4%	4%
Communist Party Membership	38%	34%	38%	39%	32%	35%
Employment Status/Type						
Employed	92%	79%	70%	97%	92%	83%
Government/SOE/Collective Enterprise	90%	77%	50%	96%	90%	59%
Private Sector	2%	2%	20%	1%	2%	24%
Retired	8%	20%	25%	2%	8%	13%
Unemployed	0%	1%	4%	0%	1%	5%

Table 3: Major Demographic Changes in Urban China--Household Characteristics

	1988	1995	2002
Among All Families			
Household Size	3.53	3.13	3.02
Children (<18)	0.94	0.68	0.52
Children (<6)	0.19	0.13	0.09
Adults (18-59)	2.32	2.10	2.15
Elders (>59)	0.27	0.35	0.35
Elders (>64)	0.16	0.19	0.22
Number of Earners	2.00	1.78	1.51
Family Structure			
Nuclear family w/ one child	40%	55%	59%
Nuclear family w/ 2 children	24%	13%	6%
Nuclear family w/ 3+ children	9%	1%	0%
Three-generation family w/ one child	5%	4%	4%
Three-generation family w/ 2+ children	3%	1%	0%
Couple without children	7%	12%	16%
Single w/ child(ren)	4%	6%	7%
Single without child(ren)	4%	1%	1%
Elder(s) only	4%	6%	6%
Among Families with Heads 18-59 Years Old			
Household Size	3.61	3.19	3.04
Children (<18)	1.01	0.76	0.56
Children (<6)	0.20	0.14	0.09
Adults (18-59)	2.46	2.32	2.38
Elders (>59)	0.14	0.11	0.10
Elders (>64)	0.10	0.08	0.07
Number of Earners	2.13	1.97	1.67
Family Structure			
Nuclear family w/ one child	43%	62%	67%
Nuclear family w/ 2 children	26%	15%	7%
Nuclear family w/ 3+ children	9%	1%	0%
Three-generation family w/ one child	5%	5%	5%
Three-generation family w/ 2+ children	4%	1%	0%
Couple without children	6%	10%	15%
Single w/ child(ren)	4%	5%	5%
Single without child(ren)	4%	1%	1%

Table 4: Changes in Household Income in Urban China

	1988	1995	2002
Among All Families			
Income Levels (¥)			
Market Income	2,480	4,744	8,054
Social Benefits	1,997	1,738	2,559
Private Transfers	108	120	170
Taxes & Fees	-9	-80	-450
Final Income	4,576	6,521	10,333
Income Composition (%)			
Market Income	54%	73%	78%
Social Benefits	44%	27%	25%
Private Transfers	2%	2%	2%
Taxes & Fees	0%	-1%	-4%
Final Income	100%	100%	100%
Among Families with Heads 18-59 Years Old			
Income Levels (¥)	1988	1995	2002
Market Income	2,515	5,103	8,749
Social Benefits	1,881	1,291	1,724
Private Transfers	98	104	167
Taxes & Fees	-8	-87	-507
Final Income	4,486	6,411	10,132
Income Composition (%)			
Market Income	56%	80%	86%
Social Benefits	42%	20%	17%
Private Transfers	2%	2%	2%
Taxes & Fees	0%	-1%	-5%
Final Income	100%	100%	100%

Table 5. OLS Regression on Household Total Income among All Households

	1988		1995		2002	
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Individual Characteristics						
Age of Household Head (18-29 Omitted)						
30-39	0.069**	0.008	0.143**	0.037+	0.038	-0.000
	(0.013)	(0.010)	(0.027)	(0.020)	(0.042)	(0.028)
40-49	0.141**	0.033**	0.250**	0.084**	0.087*	0.013
	(0.014)	(0.011)	(0.028)	(0.021)	(0.041)	(0.027)
50-59	0.224**	0.100**	0.273**	0.166**	0.206**	0.134**
	(0.015)	(0.012)	(0.031)	(0.023)	(0.043)	(0.028)
60+	0.267**	0.120**	0.323**	0.212**	0.147**	0.150**
	(0.024)	(0.019)	(0.044)	(0.033)	(0.056)	(0.037)
Gender of Household Head by Marital Status (Married Male Omitted)						
Married Female	0.048**	0.073**	0.105**	0.070**	0.099**	0.033**
	(0.015)	(0.012)	(0.013)	(0.009)	(0.013)	(0.009)
Unmarried Female	0.049	0.071**	0.011	0.023	0.044	0.023
	(0.034)	(0.027)	(0.040)	(0.030)	(0.042)	(0.028)
Unmarried Male	0.027	0.026	-0.015	0.023	0.022	0.034
	(0.033)	(0.026)	(0.051)	(0.038)	(0.063)	(0.041)
Education of Household Head (Primary School or Less Omitted)						
Junior Middle School	0.053**	0.037**	0.114**	0.084**	0.129**	0.081**
	(0.009)	(0.007)	(0.020)	(0.015)	(0.024)	(0.016)
High School	0.077**	0.062**	0.193**	0.114**	0.281**	0.138**
	(0.010)	(0.008)	(0.022)	(0.017)	(0.025)	(0.017)
Secondary School	0.076**	0.057**	0.203**	0.105**	0.341**	0.151**
	(0.012)	(0.009)	(0.023)	(0.017)	(0.027)	(0.018)
2-year College	0.092**	0.068**	0.262**	0.141**	0.476**	0.191**
	(0.013)	(0.010)	(0.024)	(0.018)	(0.027)	(0.018)
4-year College and Higher	0.148**	0.093**	0.424**	0.218**	0.656**	0.261**
	(0.012)	(0.010)	(0.026)	(0.019)	(0.030)	(0.021)
Household Head Being Minority	0.017	0.004	-0.069*	-0.026	0.132**	0.042*
	(0.015)	(0.012)	(0.028)	(0.021)	(0.030)	(0.020)
Household Head Being Communist Party Member						
	0.069**	0.054**	0.085**	0.042**	0.087**	0.015+
	(0.006)	(0.005)	(0.012)	(0.009)	(0.013)	(0.008)
Household Head Employment Status (Employed in Public Sector Omitted)						
Employed in Private Sector	0.044*	-0.035*	-0.113*	-0.059+	-0.087**	0.003
	(0.021)	(0.016)	(0.044)	(0.033)	(0.015)	(0.010)
Retired	0.076**	0.195**	0.160**	0.250**	0.178**	0.208**
	(0.016)	(0.013)	(0.025)	(0.019)	(0.023)	(0.015)
Unemployed			0.315	0.169	-0.197**	-0.099**
			(0.221)	(0.165)	(0.031)	(0.020)
Household Characteristics						
Number of Children in Household	-0.204**	-0.105**	-0.287**	-0.135**	-0.284**	-0.118**
	(0.008)	(0.006)	(0.015)	(0.011)	(0.017)	(0.011)
Number of Adults in Household	-0.140**	-0.041**	-0.206**	-0.088**	-0.218**	-0.082**
	(0.008)	(0.006)	(0.015)	(0.011)	(0.015)	(0.010)
Number of Elderly in Household	-0.123**	-0.012	-0.214**	0.002	-0.133**	0.066**
	(0.011)	(0.008)	(0.020)	(0.015)	(0.021)	(0.014)
Number of Earners in Household	0.126**	-0.005	0.190**	-0.015	0.186**	-0.031**
	(0.006)	(0.005)	(0.012)	(0.010)	(0.011)	(0.008)

(*Table to be continued*)

	1988		1995		2002	
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Family Structure (Nuclear Family with 1 Child Omitted)						
Nuclear Family w/ 2 Children	-0.036**	-0.008	-0.065**	0.019	-0.069*	-0.015
	(0.011)	(0.008)	(0.021)	(0.016)	(0.027)	(0.018)
Nuclear Family w/ 3+ Children	-0.068**	-0.005	-0.150**	0.023	-0.107	-0.030
	(0.019)	(0.015)	(0.055)	(0.041)	(0.111)	(0.074)
3 Generation w/ 1 Child	0.014	0.008	0.079*	0.058*	0.071+	0.059*
	(0.018)	(0.014)	(0.035)	(0.026)	(0.037)	(0.025)
3 Generation w/ 2+ Children	-0.026	-0.038*	-0.002	-0.013	-0.109	-0.056
	(0.023)	(0.018)	(0.057)	(0.043)	(0.100)	(0.066)
Couple without Children	0.193**	0.124**	0.197**	0.107**	0.105**	0.054**
	(0.014)	(0.011)	(0.021)	(0.016)	(0.020)	(0.013)
Single Parent Family	-0.102**	-0.066*	-0.046	-0.025	-0.022	-0.025
	(0.036)	(0.028)	(0.029)	(0.022)	(0.034)	(0.023)
Single without Children	0.212**	0.193**	0.244**	0.178**	0.057	0.039
	(0.039)	(0.030)	(0.060)	(0.044)	(0.062)	(0.041)
Elderly Only	0.085**	0.161**	0.134**	0.224**	0.170**	0.301**
	(0.025)	(0.020)	(0.038)	(0.029)	(0.040)	(0.027)
Pre-tax Pre-transfer Income Decile (Lowest Income Decile Omitted)						
2nd Decile		0.142**		0.194**		0.199**
		(0.011)		(0.019)		(0.017)
3rd Decile		0.208**		0.373**		0.418**
		(0.011)		(0.020)		(0.018)
4th Decile		0.272**		0.509**		0.561**
		(0.011)		(0.021)		(0.018)
5th Decile		0.330**		0.611**		0.693**
		(0.011)		(0.021)		(0.018)
6th Decile		0.363**		0.731**		0.800**
		(0.011)		(0.021)		(0.018)
7th Decile		0.425**		0.828**		0.916**
		(0.012)		(0.021)		(0.019)
8th Decile		0.486**		0.959**		1.077**
		(0.012)		(0.022)		(0.019)
9th Decile		0.569**		1.105**		1.250**
		(0.012)		(0.022)		(0.019)
10th Decile		0.807**		1.466**		1.628**
		(0.012)		(0.023)		(0.020)
Province Fixed Effects (Beijing Omitted)						
Tianjin	-0.413	-0.322				
	(0.267)	(0.206)				
Shanxi	-0.458**	-0.362**	-0.785**	-0.381**	-0.617**	-0.314**
	(0.015)	(0.012)	(0.027)	(0.021)	(0.029)	(0.019)
Liaoning	-0.224**	-0.198**	-0.533**	-0.200**	-0.366**	-0.209**
	(0.015)	(0.012)	(0.026)	(0.020)	(0.027)	(0.018)
Heilongjiang	-0.356	-0.428*				
	(0.267)	(0.207)				
Shanghai	-0.303*	-0.252*				
	(0.154)	(0.119)				
Jiangsu	-0.270**	-0.254**	-0.379**	-0.210**	-0.284**	-0.227**
	(0.015)	(0.011)	(0.026)	(0.019)	(0.027)	(0.018)
Anhui	-0.391**	-0.329**	-0.647**	-0.303**	-0.542**	-0.295**
	(0.016)	(0.012)	(0.028)	(0.022)	(0.030)	(0.020)

(*Table to be continued*)

	1988		1995		2002	
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Shandong	-0.738**	-0.447*				
	(0.266)	(0.206)				
Henan	-0.437**	-0.345**	-0.752**	-0.358**	-0.623**	-0.310**
	(0.015)	(0.012)	(0.027)	(0.021)	(0.028)	(0.019)
Hubei	-0.308**	-0.252**	-0.586**	-0.327**	-0.527**	-0.276**
	(0.015)	(0.012)	(0.026)	(0.020)	(0.028)	(0.019)
Hunan	0.277	-0.088				
	(0.267)	(0.207)				
Guangdong	0.218**	0.065**	0.200**	-0.019	0.058*	-0.119**
	(0.015)	(0.012)	(0.028)	(0.021)	(0.029)	(0.019)
Chongqing					-0.478**	-0.232**
					(0.035)	(0.023)
Sichuan	-0.380	-0.340+	-0.638**	-0.376**	-0.584**	-0.316**
	(0.266)	(0.206)	(0.025)	(0.019)	(0.029)	(0.019)
Guizhou	-0.109	-0.517*				
	(0.266)	(0.206)				
Yunnan	-0.242**	-0.222**	-0.580**	-0.339**	-0.466**	-0.267**
	(0.015)	(0.012)	(0.027)	(0.020)	(0.029)	(0.019)
Gansu	-0.173**	-0.121**	-0.732**	-0.349**	-0.580**	-0.298**
	(0.017)	(0.013)	(0.030)	(0.023)	(0.032)	(0.021)
Constant	8.681**	8.288**	8.981**	8.192**	9.371**	8.530**
	(0.029)	(0.024)	(0.054)	(0.043)	(0.069)	(0.048)
Observations	8766	8766	6851	6851	6732	6732
R-squared	0.56	0.73	0.45	0.69	0.44	0.75

Notes:
1. Standard errors in parentheses;
2. + significant at 10%; * significant at 5%; ** significant at 1%

Table 6. OLS Regression on Household Total Income among Households Heads 18-59 Old

	1988		1995		2002	
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Individual Characteristics						
Age of Household Head (18-29 Omitted)						
30-39	0.072**	0.006	0.146**	0.024	0.043	-0.002
	(0.013)	(0.010)	(0.027)	(0.018)	(0.041)	(0.025)
40-49	0.148**	0.028*	0.255**	0.066**	0.091*	0.004
	(0.014)	(0.011)	(0.027)	(0.019)	(0.041)	(0.025)
50-59	0.230**	0.097**	0.279**	0.147**	0.203**	0.117**
	(0.015)	(0.012)	(0.031)	(0.021)	(0.043)	(0.026)
Gender of Household Head by Marital Status (Married Male Omitted)						
Married Female	0.042**	0.074**	0.086**	0.042**	0.088**	0.024**
	(0.016)	(0.012)	(0.013)	(0.009)	(0.014)	(0.009)
Unmarried Female	-0.040	-0.030	0.004	0.017	0.001	0.005
	(0.059)	(0.044)	(0.047)	(0.032)	(0.060)	(0.036)
Unmarried Male	-0.064	-0.084*	-0.022	-0.058	-0.046	-0.034
	(0.056)	(0.042)	(0.067)	(0.046)	(0.090)	(0.054)
Education of Household Head (Primary School or Less Omitted)						
Junior Middle School	0.050**	0.024**	0.137**	0.050**	0.105**	0.008
	(0.010)	(0.007)	(0.025)	(0.017)	(0.031)	(0.019)
High School	0.074**	0.049**	0.206**	0.075**	0.260**	0.051**
	(0.011)	(0.008)	(0.027)	(0.018)	(0.032)	(0.019)
Secondary School	0.074**	0.044**	0.231**	0.071**	0.328**	0.065**
	(0.012)	(0.009)	(0.027)	(0.018)	(0.034)	(0.021)
2-year College	0.093**	0.058**	0.287**	0.103**	0.463**	0.095**
	(0.014)	(0.010)	(0.028)	(0.019)	(0.034)	(0.021)
4-year College and Higher	0.143**	0.077**	0.440**	0.164**	0.648**	0.147**
	(0.013)	(0.010)	(0.031)	(0.021)	(0.037)	(0.023)
Household Head Being Minority	0.018	0.007	-0.045	-0.031	0.127**	0.049*
	(0.015)	(0.012)	(0.029)	(0.020)	(0.033)	(0.020)
Household Head Being Communist Party Member						
	0.064**	0.047**	0.057**	0.009	0.076**	0.005
	(0.007)	(0.005)	(0.013)	(0.009)	(0.014)	(0.008)
Household Head Employment Status (Employed in Public Sector Omitted)						
Employed in Private Sector	0.006	-0.075**	-0.111*	-0.058+	-0.087**	0.002
	(0.025)	(0.019)	(0.044)	(0.030)	(0.015)	(0.009)
Retired	0.135**	0.247**	0.156**	0.275**	0.180**	0.204**
	(0.022)	(0.017)	(0.028)	(0.019)	(0.024)	(0.015)
Unemployed			0.291	0.081	-0.207**	-0.101**
			(0.216)	(0.147)	(0.031)	(0.019)
Household Characteristics						
Number of Children in Household	-0.207**	-0.094**	-0.273**	-0.100**	-0.293**	-0.101**
	(0.008)	(0.006)	(0.018)	(0.012)	(0.020)	(0.012)
Number of Adults in Household	-0.152**	-0.038**	-0.196**	-0.054**	-0.223**	-0.062**
	(0.008)	(0.006)	(0.017)	(0.012)	(0.017)	(0.010)
Number of Elderly in Household	-0.118**	0.012	-0.185**	0.111**	-0.099**	0.134**
	(0.012)	(0.009)	(0.025)	(0.017)	(0.026)	(0.016)
Number of Earners in Household	0.135**	0.000	0.188**	-0.030**	0.182**	-0.033**
	(0.006)	(0.005)	(0.013)	(0.009)	(0.012)	(0.007)
Family Structure (Nuclear Family with 1 Child Omitted)						
Nuclear Family w/ 2 Children	-0.034**	-0.009	-0.068**	0.013	-0.065*	-0.015
	(0.011)	(0.008)	(0.022)	(0.015)	(0.030)	(0.018)

(*Table to be continued*)

	1988 Wave		1995 Wave		2002 Wave	
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Nuclear Family w/ 3+ Children	-0.062**	-0.012	-0.183**	-0.007	-0.157	-0.046
	(0.020)	(0.015)	(0.059)	(0.040)	(0.116)	(0.070)
3 Generation w/ 1 Child	0.013	-0.003	0.051	-0.030	0.046	0.001
	(0.019)	(0.014)	(0.037)	(0.025)	(0.040)	(0.024)
3 Generation w/ 2+ Children	-0.026	-0.062**	-0.049	-0.130**	-0.140	-0.130*
	(0.024)	(0.018)	(0.060)	(0.041)	(0.100)	(0.060)
Couple without Children	0.199**	0.114**	0.219**	0.095**	0.111**	0.051**
	(0.015)	(0.011)	(0.024)	(0.017)	(0.022)	(0.014)
Single Parent Family	-0.024	0.048	-0.049	0.021	-0.012	0.038
	(0.059)	(0.045)	(0.033)	(0.022)	(0.045)	(0.027)
Single without Children	0.315**	0.313**	0.263**	0.161**	0.100	0.072+
	(0.059)	(0.045)	(0.066)	(0.045)	(0.073)	(0.044)
Pre-tax Pre-transfer Income Decile (Lowest Income Decile Omitted)						
2nd Decile		0.158**		0.250**		0.191**
		(0.012)		(0.024)		(0.021)
3rd Decile		0.237**		0.465**		0.420**
		(0.012)		(0.024)		(0.020)
4th Decile		0.303**		0.622**		0.579**
		(0.012)		(0.024)		(0.020)
5th Decile		0.359**		0.730**		0.731**
		(0.012)		(0.024)		(0.020)
6th Decile		0.398**		0.855**		0.845**
		(0.012)		(0.024)		(0.020)
7th Decile		0.465**		0.959**		0.965**
		(0.012)		(0.024)		(0.021)
8th Decile		0.526**		1.103**		1.125**
		(0.012)		(0.025)		(0.021)
9th Decile		0.614**		1.252**		1.309**
		(0.013)		(0.025)		(0.021)
10th Decile		0.863**		1.641**		1.694**
		(0.013)		(0.026)		(0.022)
Province Fixed Effects (Beijing Omitted)						
Tianjin	-0.390	-0.298				
	(0.261)	(0.197)				
Shanxi	-0.435**	-0.332**	-0.797**	-0.335**	-0.615**	-0.288**
	(0.016)	(0.012)	(0.029)	(0.021)	(0.030)	(0.019)
Liaoning	-0.209**	-0.180**	-0.541**	-0.150**	-0.365**	-0.180**
	(0.016)	(0.012)	(0.028)	(0.020)	(0.029)	(0.017)
Heilongjiang	-0.348	-0.436*				
	(0.261)	(0.197)				
Shanghai	-0.291+	-0.235*				
	(0.151)	(0.114)				
Jiangsu	-0.259**	-0.240**	-0.369**	-0.192**	-0.298**	-0.230**
	(0.016)	(0.012)	(0.028)	(0.019)	(0.030)	(0.018)
Anhui	-0.367**	-0.301**	-0.640**	-0.250**	-0.541**	-0.265**
	(0.016)	(0.012)	(0.031)	(0.021)	(0.031)	(0.019)
Shandong	-0.725**	-0.409*				
	(0.261)	(0.196)				
Henan	-0.434**	-0.331**	-0.785**	-0.318**	-0.642**	-0.301**
	(0.016)	(0.012)	(0.029)	(0.021)	(0.030)	(0.019)
Hubei	-0.294**	-0.233**	-0.578**	-0.286**	-0.542**	-0.266**
	(0.016)	(0.012)	(0.028)	(0.019)	(0.029)	(0.018)

(*Table to be continued*)

	1988 Wave		1995 Wave		2002 Wave	
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Hunan	0.292	-0.095				
	(0.261)	(0.197)				
Guangdong	0.233**	0.076**	0.205**	0.012	0.054+	-0.116**
	(0.016)	(0.012)	(0.030)	(0.021)	(0.030)	(0.018)
Chongqing					-0.477**	-0.218**
					(0.036)	(0.022)
Sichuan	-0.364	-0.316	-0.620**	-0.309**	-0.611**	-0.314**
	(0.261)	(0.196)	(0.027)	(0.019)	(0.030)	(0.019)
Guizhou	-0.087	-0.526**				
	(0.261)	(0.197)				
Yunnan	-0.227**	-0.201**	-0.582**	-0.299**	-0.480**	-0.271**
	(0.016)	(0.012)	(0.028)	(0.020)	(0.030)	(0.019)
Gansu	-0.152**	-0.098**	-0.721**	-0.277**	-0.585**	-0.270**
	(0.018)	(0.013)	(0.033)	(0.023)	(0.034)	(0.021)
Constant	8.676**	8.223**	8.940**	8.020**	9.424**	8.524**
	(0.030)	(0.025)	(0.062)	(0.046)	(0.077)	(0.049)
Observations	7979	7979	5759	5759	5646	5646
R-squared	0.55	0.75	0.46	0.75	0.44	0.80

Notes:
1. Standard errors in parentheses;
2. + significant at 10%; * significant at 5%; ** significant at 1%

Appendix Table 1: The China Household Income Project (CHIP) Sample Designs

	1988	1995	2002
Urban			
Households	9,009	6,931	6,835
Individuals	31,827	21,694	20,632
Provinces	10	11	12
Rural			
Households	10,258	7,998	9,200
Individuals	51,352	34,739	37,968
Provinces	28	19	21
Rural Migrants			
Households			2,000
Individuals			5,318
Provinces			12

Source: (Riskin et al., 2001), p. 5, and "Sample Distribution of CHIP 2002 Surveys" by the CHIP Study Principal Investigators, unpublished memo.