How Effective is the Minimum Living Standard Assistance Policy in Urban China?

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Abstract:

Since its inception more than a decade ago, the Minimum Living Standard Assistance (MLSA) has been serving as a last-resort for the urban poor. How effective has the MLSA been? Using newly available national household survey data, this paper provides updated evidence on the participation rate, delivery gap, and anti-poverty effectiveness of MLSA in urban China. It also explores the determinants of MLSA participation and receipt amount. We find that 2.28 percent of all urban residents are eligible for MLSA, but only slightly less than half of them are actual beneficiaries. MLSA eligible families tend to have less human capital and fewer socioeconomic resources than the ineligible ones. The MLSA benefits lower the poverty rates among the participants, but poverty remains a serious problem among the eligible families due to partial coverage and delivery. A simulation of full participation and delivery suggests that the anti-poverty effects of the MLSA can be much more prominent. More generous city MLSA assistance lines and higher entitled amounts both significantly predict higher participation rate and increased amount of benefits received. These results suggest that, despite some acclaimed progress, the overall effectiveness of the MLSA policy is under achieved and can be strengthened by full coverage and delivery of the benefits and by paying special attention to the more vulnerable subgroups.

Introduction

The primary goal of China's market economy reforms during the past quarter century has been to improve economic productivity and efficiency. In the urban areas, the reforms largely focused on restructuring the formerly dominant state-owned and collective enterprises as well as encouraging and facilitating private and joint-venture enterprises. In this process, many state-owned and collective enterprises had bankruptcy and layoffs, yielding a newly emerged group of the urban poor, especially during the 1990s. The number of laid-off workers from state-owned enterprises (SOEs) was 5.9 million in 1998 and it peaked at 6.6 million in 2000 (National Bureau of Statistics [NBS] 2005). The official urban unemployment rate rose from two percent in 1988 to 3.1 percent in 2000, and kept increasing to 4.2 percent in 2004 (NBS 2005). Still, these figures are underestimates. They leave out the many who are not officially laid off, but stay on the job roster and receive very low or no earnings. Those who have no jobs but are not officially registered as unemployed are also excluded.

At the same time, a series of social policy reforms have taken place in the urban areas to facilitate market economy reforms. The state-owned and collective enterprises who were the major providers of urban social benefits needed to reduce the welfare burden to lower costs and improve productivity. Consequently, urban social benefits have transited from their original massive coverage and generous provision to a more marginal and supplementary role (Gao 2006; Guan 2005; Hussain 2007). The financing of most social benefits has been shifted away from work units to general taxes or shared responsibilities among individuals, employers, and sometimes the government. Individuals have taken much greater responsibilities in financing social benefits, either indirectly through taxation or directly through contributions to specific programs such as pension and health care (Gao 2006). Empirical evidence shows that the urban

social benefits comprised one quarter of total household income in 2002, shrinking significantly from 44 percent in 1988 (Gao and Riskin, forthcoming).

As a consequence of the economic and social policy reforms, a group of vulnerable urban residents have been left behind by both market competition and social protection. To lift the economic well-being of this group and to prevent potential social unrest, the government launched the Minimum Living Standard Assistance (MLSA) scheme to serve as a last-resort for the urban poor. It was initiated in several cities in the early 1990s and adopted nationwide in 1999. As the major public assistance program in urban China, the MLSA has developed rapidly and made significant impacts. The number of MLSA beneficiaries rose from 0.89 million in 1997 to 2.66 million in 1999, and has been around 22.40 million since 2003 (Ministry of Civil Affairs [MCA] 2006a). Recent empirical work identifies MLSA as the only progressively distributed social benefit that targets the poor and reduces income inequality (Gao and Riskin, forthcoming).

How effective has the MLSA been since its inception more than a decade ago? Despite the increasing number of relevant studies, the lack of national household survey data has limited empirical investigations on this topic (Leung 2006). To build upon recent work that started to fill this gap, this paper provides empirical evidence on three important aspects of the MLSA's effectiveness. First, what is the participation rate among eligible families and how is the overall targeting effectiveness? Second, are the benefits fully delivered? Or, is there a gap between the actual benefit received and the entitled benefit level among the recipients? Third, to what degree does the MLSA lift families out of poverty?

This paper uses the newly available China Household Income Project (CHIP) 2002 urban dataset. It covers many cities representing various geographic regions and developmental stages.

It contains detailed information on household demographics, income sources, and social benefit receipts. It is also the same data source used by one recent study (Gustafsson and Deng 2007), which allows verification and updates of the findings.

This paper makes several unique contributions. First, little research has directly examined the participation rate of the MLSA, an important indicator of its effectiveness. Using the rich individual and household income data of CHIP, this paper makes a first effort to simulate families' MLSA eligibility and derive the participation rate. Second, this paper takes into account the variations of MLSA benefit generosity at local city level and assesses how such differences affect participation rate and family poverty status. Third, this paper conducts regression analysis to explore the determinants of participation rates and receipt amounts using a rich set of controls including family demographics and economic and policy contextual variables. .

It should be noted that another important transition during the reform period is the migration tide from rural to urban China. The number of migrants jumped from 18 million in 1989 to 70 million in 1993 and 150 million by 2004 (Liang 2001; Zhu and Zhou 2005). They now make up 11 percent of the national population and more than 20 percent of urban residents. However, due to the lack of registered local resident status, the migrants are not entitled to the MLSA benefits and thus are excluded from this analysis. This, however, is a huge omission. Were the migrants allowed access to the MLSA, at least 15 million (about ten percent of all migrants) are estimated to be eligible.[1] Further, excluding the migrants also overestimates

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[1] This is based on authors' calculations using the CHIP 2002 migrant data. This, however, tends to be an underestimate because the CHIP 2002 migrant sample very possibly represents the relatively better-off subgroup of the overall migrants in China. Families in provincial capital cities were more likely to be in the sample; and within a chosen city, those who had more stable employment and better economic conditions, namely those living in resident communities rather than in city margins, construction sites, or slums, were selected. It is observed that migrants in smaller cities and living in less stable conditions tend to have lower incomes.

poverty outcomes in urban China as the migrants on average earn much less than their peers with urban registration status. In 2002, the average migrant household's income was only two-thirds of that among those with urban registration status (Khan and Riskin 2005).

The rest of the paper is organized as follows. The next section provides a policy background, followed by a review of the literature. Data and methods are then introduced. Next we present the results, first on descriptive results of the participation rate and benefit receipt gaps, then on the effects of MLSA on poverty, and lastly on the determinants of participation rates and receipt amounts. The last section concludes.

Policy Background

Establishment History

A combination of increased unemployment, low wages, inadequate pensions, and rampant inflation yielded a growing number of urban poor in the early 1990s (Gao 2006; Guan 2005; Leung 2006; Saunders and Shang 2001). To establish a basic safety net for this group, Shanghai initiated its MLSA in 1993, expanding its coverage to the new urban poor. The city government set up the assistance lines and committed financial budget. Based on the successful experience in Shanghai, the Ministry of Civil Affairs (MCA) in 1994 encouraged other cities to adopt this program. In 1995, 12 cities established MLSA. The number increased to 116 cities in 1996 and 334 cities in 1997. By October 1999, all 668 cities and 1,689 counties implemented MLSA (Information Office of the State Council [IOSC] 2002, 2004; Leung 2006).

To regulate MLSA across the country, the central government in 1999 enacted the Regulation on Assuring Urban Residents' Minimum Standard of Living (hereinafter "the Regulation"). It stipulated that urban residents whose household per capita income was lower

than the local minimum living standard line were entitled to basic assistance from the local government. It prescribed all local governments to include MLSA expenses in city budgets with financial support from the central government (IOSC 2002, 2004; Leung 2003).

Assistance Lines

The MLSA assistance lines are set up by local governments following the general guidelines issued by the central government. Two criteria were used to determine the assistance line. First and in principle, the assistance line should be computed according to local minimum standard of living, based on local average per capita income and basic consumption needs. According to the Regulation, the assistance should cover the basic food, clothing, and shelter needs, taking into consideration utility, medical care, and tuition expenses (Hong 2005a; Ru et al. 2002). In reality, however, the determinacy of the assistance line is often restricted by local governments' financing capacity (Du and Park 2006). As a result, the assistance lines in many less developed cities tend to be lower than the actual basic needs (Guan 2005). The city assistance line is set as a monthly amount in yuan.

To implement the guideline, four different approaches were used. First, some cities conducted household surveys to collect data on income and consumption needs and determined the local MLSA lines accordingly. Beijing and Shanghai are among this category. Second, a thorough discussion was held among relevant government departments, including civil affairs, finance, statistics, consumer prices, etc., to determine the appropriate assistance lines. Local fiscal capacity was often a major concern for cities using this approach. Third, some cities decided on the assistance line in reference to those adopted by their neighbor cities. They sometimes used another reference rule that the minimum living assistance line should be lower than other existing assistance standards, such as minimum wage and subsidies for the

unemployed. The fourth approach was a combination of the three specified above. The rationale

for choosing a certain assistance line using this approach thus is least well documented (Hong

2005a).

As a result, the assistance lines vary substantially across cities, even within the same

province. For example, the highest assistance line in 2002 was 320 yuan in Nanhai city of

Guangdong province, and the lowest line was 52 yuan in Lingshui county of Hainan province.

Within the respective provinces, the widest gap in assistance lines across cities was 224 yuan in

Fujian province, and the narrowest gap existed in Qinghai province at only 20 yuan. In general,

the assistance lines of the more developed areas are higher than those in economically laggard

areas, and the lines of large cities are higher than medium and small cities, while the counties

usually have the lowest assistance lines (Hong 2005a).

The assistance lines have been adjusted annually according to changes in consumer prices

and local governments' financial capacity. Some cities raised their assistance lines constantly,

while some others had to lower their lines. For example, among the provincial capital cities, the

assistance line in Nanjing increased from 180 yuan in 1999 to 220 yuan in 2002 and 246 yuan in

2006, an increase of 37 percent over the entire period. In contrast, the assistance line in Harbin

increased during 1999 to 2002 (from 182 yuan to 200 yuan), but dropped to only 143 yuan in

2006, a decrease of over 20 percent during the period.[2] Beijing and Shanghai both increased their

assistance lines by 14 percent over the period, with an assistance line of 310 yuan and 320 yuan

in 2006, respectively (Hong 2005a; MCA 2006b). These lines, however, remain low relative to

average income. In 2003, the average national assistance line was only 14 percent of the average

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[2] This is likely due to the decreasing financial capacity of the local government because of its economic problems such as large state-owned and collective enterprise bankruptcies and heavy financial burdens in pension payment and unemployment insurance.

wage and 23 percent of the average per capita disposable income of urban residents (Leung 2006).

Eligibility Rules

In principle, any urban residents whose family's per capita income is lower than the local MLSA line are entitled to the benefits. However, the Regulation differentiates two groups of beneficiaries (Hong 2005a; Leung 2006). The first group is the traditional recipients of social assistance, i.e., the "Three No's," namely those without income source, working capability, or legal guardian or supporter. This group can receive the full amount of benefits equal to the local assistance line. The second group is the newly emerged urban poor, including families with financial difficulties due to unemployment, those who are unemployed but ineligible for unemployment benefits or whose time-limited unemployment benefits are terminated, and pensioners with inadequate income. This group often has family members who are in their working ages and/or have some level of income. Their entitled benefit amount is the local assistance line less their total household income.

As a strictly means-tested program, the MLSA conducts two tests for families' eligibility (Hong 2005a). The first is a financial investigation. The value of an eligible family's total financial resources, including income and assets, must be below the local assistance line. The MLSA adopts a very inclusive income definition to decide families' eligibilities. Household income is measured as cash income from any source, including earnings, social benefits, and private transfers. Savings and stocks are also counted part of income. However, due to difficulties of income measurement, some other indicators, such as financial assets, employment, health status, and housing conditions, are also considered (Chen, Ravallion, and Wang 2006; Du and Park 2006). Many cities also take into account ownership of durable goods. For example,

Beijing specified that families who own luxury goods such as a vehicle, motorcycle, cell phone, or who have pets, are ineligible for MLSA benefits (Hong 2005a).

The second eligibility test concerns residency status and family formation (Hong 2005a). Only members who have official local urban residency status are eligible. Cities treat adult children who still live with parents in the same household differently. Some consider them members of the family, while others treat them separately. Beijing belongs to the latter category.

Most cities provide cash assistance to MLSA eligible families. Very few used to provide in-kind goods such as food and clothing, but this practice has been gradually eliminated (Hong 2005a). Some cities also provide in-kind services such as health care and school enrollment as part of the MLSA benefits (Chen, Ravallion, and Wang 2006).

Previous Research

Eligibility and Participation: How Effective is the Targeting?

The targeting effectiveness of the MLSA has been examined in three recent studies. Using a sample of 35 largest cities from the NBS's Urban Household Survey for 2003/04, Chen, Ravallion, and Wang (2006) find that 71 percent eligible households are not covered by the MLSA, while 43 percent households that receive MLSA are ineligible. They argue that, based on international standards, such targeting performance is excellent for a means-tested public assistance program. Using data collected from five big cities (Shanghai, Wuhan, Shenyang, Fuzhou, and Xi'an) in 2001 and 2005, Du and Park (2006) find that about 49 percent households eligible for MLSA are not covered, while 42 percent participating households are not qualified. Using a sample of 14 cities of various sizes, Wang (2007) indicates that 61 percent of eligible

households are excluded from receiving the MLSA benefits, while 40 percent who are covered are ineligible.

Because eligibility is largely decided by income, it is important to understand what income sources are included in the previous studies and whether they match those specified in the MLSA policy regulations. Chen, Ravallion, and Wang (2006) rely on a single question available in the survey which provides their data, "What is your household's total income?" to estimate household income. This is unlikely to give an accurate measure of income that meets the MLSA regulations. Du and Park (2006) explain that their pre-transfer income measure excludes laid-off allowances, unemployment insurance, and MLSA payments, but the sources of the included components are not elaborated. Wang (2007) mentions that the survey asked about transfer income and social benefits received, but does not specify whether other income sources such as income from property and in-kind supports are included. The present paper addresses this problem by utilizing the rich income data available in CHIP and by trying three different income definitions to mimic the leniency or strictness of MLSA administrative process.

One weakness of these studies is the inconsistency between the actual and analytical accounting period. The MLSA assistance lines are set as monthly amounts and eligibility is determined based on income during the current month. However, income and MLSA participation in surveys are usually reported in annual terms. Thus only annual accounting period can be used in survey data analysis. Because income varies over the course of a year, it is possible for annual income to be above the MLSA eligibility level, but for income in some months to be below the MLSA level. Consequentially, studies based on survey data over-estimate the number of mis-targeted families. Unfortunately, our study also relies on survey data and cannot address this issue.

Determinants of MLSA Receipt Status and Amount

Unemployment, low wages, inadequate pensions, and other hardships such as health problems have been identified as the major factors leading toward MLSA receipt (Hong 2005a; Leung 2006). MCA reports that, in 2002, over half of the MLSA recipients were unemployed (either laid-off or nominally on the job roster but not working or receiving any income). Another ten percent had low wages and five percent were retired. About 30 percent received the MLSA because they had family members unemployed, with low wages, or retired. An additional five percent recipients were the traditional "Three No's" (Hong 2005b). A national survey of 10,000 MLSA recipients conducted by MCA in 2003 indicates that 34 percent of the households had disabled members, and 65 percent had chronically sick members (Leung 2006). In a study of five major cities in 2003, Tang (2004) finds that 53 percent of all MLSA recipients are unemployed, 26 percent are children, and 12 percent are elders, chronically sick or disabled.

Using data from the CHIP 2002 survey, Gustafsson and Deng (2007) find that MLSA receipt is positively correlated to joblessness among household members, household expenditure burden, and lack of financial assets, and negatively correlated to high education of household head and Communist Party membership. They also find that the probability of receiving MLSA varies greatly across cities: city-level employment rates and average income adversely affect the probability of receiving MLSA. Du and Park (2006) find that, controlling for household per capita income before any public transfers, families with low education, small living areas, less durable consumptions, and poor health status are more likely to receive MLSA. Chen, Ravallion, and Wang (2006) find that, controlling for household per capita income and conditions of dwelling, MLSA participation is more likely for households who have lower financial wealth and

larger sizes, and whose heads are retired, working at home, unemployed, with disability or sickness, or with little schooling.

None of the existing studies examine the measures of benefit generosity and their effects on MLSA receipt status or amount. The strictness or leniency of MLSA administration has been mentioned in some discussions, but has not been investigated through empirical analysis. Nor any of the previous studies examine the determinants of the actual benefit amount received.

Anti-Poverty Effectiveness

Chen and colleagues (2006) find that the MLSA has a sizeable impact on poverty reduction among the participants, but much less impact in the population as a whole. The MLSA only covers a small proportion (about 10 percent) of those who report to have inadequate income to meet their needs. The MLSA does better at reaching the chronically poor than those who may be vulnerable to poverty in the future. Gustafsson and Deng (2007) find that MLSA has successfully lessened poverty severity, although it is typically only an income supplement for recipients and does not help many households cross the poverty line. Du and Park (2006) indicate that MLSA has become the dominant social assistance program in urban China, with the poorest 20 percent of population receiving 80 percent of its transfers. They also find that MLSA tends to increase recipients' consumption on food, health, and education, while decrease their labor supply. It has been noted that the poverty reduction effects of the MLSA vary substantially across cities (Chen, Ravallion, and Wang 2006).

Issues

Tang and colleagues (2003) conduct an extensive examination of the administrative procedures of MLSA and its outcomes among the urban poor. They identify several important pitfalls of the system. First, the eligibility rules for receiving MLSA benefits have been set to be

overly restrictive so that many in need are excluded from the benefits. For example, individuals who have minimal early retirement payments or survival benefits, who are nominally employed but do not have actual income source, and who are ever incarcerated are not covered by the system. Second, the lengthy application and means-testing procedures often deter or slow those in need to apply and receive benefits. Third, other possible problems, such as corruption and personal interest conflicts incurred by family investigators who are often local community service center personnel, have negative impact on the participation and benefit levels of the urban poor.

Leung (2006) further notes that the administration of MLSA has relied too much on local communities. There is a lack of professionally trained administrators, systematic and standardized procedures to handle investigations, and an effective appeal system. As a result, the application and investigation process may involve personal relationships between administrators and applicants and thus is subject to corruption and manipulation. Chen, Ravallion, and Wang (2006) indicate that the income measured in surveys may not the same measure used by local authorities to determine the eligibility and receipt of MLSA benefits due to the measurement errors of income in survey data and participants' incentive to under-report their income to local authorities.

The central government in 2001 set the goal on implementing MLSA is to assure all who are entitled (*yin bao jin bao*). It implies two elements: to provide assistance to all that are eligible and to assure the entitled benefit amount to be fully delivered. Building upon the existing literature, this study examines empirically whether and to what degree this goal has been achieved.

Data and Methods

This paper uses the China Household Income Project (CHIP) 2002 urban survey data. The CHIP is a national cross-sectional study collectively designed by a team of Chinese and Western scholars 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. It provides detailed information on demographics, income, and expenditures. To generate a nationally representative sample, the CHIP includes sample provinces from eastern, central, and western regions of China. More specifically, Beijing municipality and the provinces of Liaoning, Jiangsu, and Guangdong represent the eastern region; the provinces Shanxi, Anhui, Henan, and Hubei represent the central region; and Chongqing municipality and the provinces of Sichuan, Yunnan, and Gansu represent the western region. The CHIP 2002 sample contains 77 cities, 12 of which are municipality or provincial capital cities. It has a sample size of 6,835 households and 20,632 individuals.

Estimating Eligibility and Participation Rate

Three types of MLSA eligibility—namely, the lenient, the middle, and the strict—are estimated depending on the leniency or strictness of the administrative process of the MLSA. As discussed earlier, the MLSA eligibility rules vary significantly across cities, especially with regard to how to treat financial and other assets. Families have the incentive not to report certain income components that are not easily detected, such as income from property and private transfers. In addition, government officials who are in charge of deciding the eligibility and receipt amount of MLSA could vary from being lenient to very strict.

The lenient eligibility assumes the minimal exposure of families' income to the officials implementing MLSA. It thus only takes into account three income components that are easily

detected: earnings of working members, pensions of retirees, and other public transfers such as unemployment insurance and lump-sum payment for layoffs from employers.

In addition to these income components, the middle eligibility includes income from private or individual enterprises, an income source that should be counted for MLSA purposes but is not always easy to detect. It might be especially difficult for some low-income families since they may engage in irregular small businesses.

The strict eligibility approximates the general MLSA eligibility guidelines, assuming all income components specified in the guidelines are captured, and thus is the closest estimation of actual eligibility. It further includes three other income sources, namely income from property (including interest, dividend for share-hold, insurance benefit, dividend from other kinds of investment, house-rent income, income from intelligent property, and other), private transfers, and housing subsidy in kind. It also takes into account families' ownership of two important durables—vehicles and motorcycles. Even though some cities have regulations restricting families who own other durables such as air conditioners and cell phones from receiving MLSA, this paper chooses to ignore them because in reality they tend to be necessities and are easy to hide from the officials.

MLSA participation is estimated as follows. Families in the CHIP study are asked about their income from "social relief," which is interpreted as the equivalent of MLSA.[3] If any member of a household received MLSA in 2002, the household is considered participating in MLSA. This analysis, as in previous studies, bears the weakness of the inconsistency between

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[3] The CHIP 2002 urban data contain two data files: a main survey from the NBS "mother" questionnaire and an appendix survey using a more detailed questionnaire designed by the CHIP research team. In the NBS survey, a question was directly asked about MLSA amount received; however, it seems to be seriously under reported (2.1 percent of participation rate) in comparison to the question on "social relief" in the appendix survey (3.7 percent of participation rate). Using the latter allows us to be consistent with what was used by Gustafsson and Deng (2007). Dr. Gustafsson is one of the PIs of the CHIP 2002 study.

the actual (monthly) and analytical accounting period (annually) discussed earlier. It is unable to account for household monthly fluctuations in income and MLSA participation.

Targeting Effectiveness

To examine the targeting effectiveness of the MLSA, families are categorized into four groups based on their MLSA eligibility and participation: 1) eligible and received assistance, 2) eligible but did not receive assistance, 3) ineligible but received assistance, and 4) ineligible and did not receive assistance. Those in group 2) are the "leaked" families who were in need but did not benefit from what they were entitled to, while those in group 3) are the mis-targeted families who benefited from MLSA that they were not entitled to. The leakage and mis-targeting rates are computed using the three different eligibility rules and compared against those reported in the literature. As in previous studies, this analysis over-estimates the number of mis-targeted families due to the differences in accounting periods between MLSA and our data.

Because those who are eligible are the target population of the MLSA, the analyses of effects on poverty and determinants of participation and receipt gap are mostly restricted to eligible families. These analyses only rely on the strict eligibility because it most closely approximates the actual eligibility rules.

Receipt Gap and Effects on poverty

This paper investigates to what degree the MLSA benefits—both received and entitled—lift the eligible families out of poverty. First, self-reported MLSA benefit received is compared against the entitled benefit level to examine whether and to what degree the MLSA benefits are fully delivered. If the benefits are not fully delivered, the difference is considered the receipt gap.

Second, to examine the effects of MLSA benefits on poverty, two poverty lines—a low one and a high one—developed by Khan (2004) using the minimum food energy requirement are

adopted. The low poverty line is set at 1,774 yuan per capita per year, and the high poverty line is set at 2,534 yuan per capita per year. The same poverty measures are used Gustafsson and Deng (2007). Families' pre-MLSA and post-MLSA poverty status are compared to see how many have escaped from poverty due to the MLSA transfers.

Third, a simulation on families' post-MLSA poverty status is conducted, assuming full participation and benefit delivery to fill in the receipt gap. This exercise reveals the potential anti-poverty effects of MLSA given full coverage and delivery.

Determinants of Participation and Amount Received

Regression models are used to detect the determinants of MLSA participation and amount received. Two key independent variables are examined. The first is city MLSA assistance lines, which measures city MLSA generosity. Presumably, the more generous a city's MLSA, the higher the participation rate. The second is the amount of household per capita entitled benefit. A higher amount of entitled benefit is expected to be a higher incentive for families to participate and to actually receive more.

A rich array of family demographic and policy contextual characteristics is controlled for. Family demographics include household head characteristics such as age, education, self-rated health, marital status, ethnicity, Chinese Communist Party (CCP) membership, employment status, and whether sent down to the countryside during the Cultural Revolution. Household level characteristics include household size, the numbers of children and elders, whether family live in a municipality or a provincial capital city, and region of residence. Several provincial level policy contextual variables are also controlled for, including GDP growth rate, mean per capita income, and unemployment rate. Alternatively, province fixed effects are included in place of these policy variables to account for the unobserved heterogeneity among provinces.

Determinants of participation are examined among two samples. The first is all urban households and the second is all eligible families who are the target population of the MLSA. The effects of the two key independent variables as well as other controls therefore are expected to be stronger in the second sample than in the first one. Because participation is a dichotomous variable, logistic regression models are used.

Determinants of the MLSA benefit amount received are also examined among two samples. The first is all eligible families who are the potential recipients, and the second is the eligible families who are actual participants. Again the effects of the determinants are expected to be stronger in the second sample. Tobit regression models are run among all eligible families, with the fixed censoring value of receiving no MLSA benefits for the non-participants. OLS regression models are run among all eligible participants.

Results

The section first presents descriptive statistics on the participation rate and benefit receipt gaps. It then examines the effects of MLSA on poverty rate and simulates the potential effects on poverty provided with full participation and delivery. Lastly regression results on the determinants of participation rates and receipt amounts are presented.

Eligibility, Participation, and Targeting Effectiveness

Table 1 presents the estimates of eligibility, participation, and targeting effectiveness using the CHIP 2002 urban sample. Using the strict eligibility, the one that is the closest approximate of the regulations, 2.28 percent of all urban residents are estimated to be eligible for the MLSA. Among these, slightly less than half participate in and actually benefit from the MLSA, while the other half are leaked and do not receive assistance. Among the ineligibles,

however, a small proportion (2.66 percent of all residents) are mis-targeted and receive MLSA.

Overall, the leakage rate is estimated to be 53.4 percent, which is in the range of previous

estimates (49 to 71 percent), while the mis-targeting rate is 71.48 percent, which is much higher

than the previous estimates of about 40 percent. This is probably because of the very inclusive

income measure adopted in this study according to the strict eligibility, whereas some important

income components such as income from property, private transfers, and in-kind housing

subsidies are not captured in previous studies but are included in the MLSA eligibility

regulations.

[Table 1 about here.]

Assuming the administration of MLSA is lenient, the share of eligible families increases

to 6.9 percent, three times of that by the strict eligibility. The leakage rate increases to 76.25

percent while the mis-targeting rate drops to 55.99 percent. This suggests how administrative

procedures in reality can vary the eligibility and participation of families. Because the strict

standard most closely approximates the MLSA regulations, it will be used for further analyses in

this study.

Table 2 compares the demographic characteristics of the participants and non-participants

among the eligible families, with the ineligibles as a comparison group. As expected, overall, the

eligible families tend to have less human capital and fewer socioeconomic resources than the

ineligible ones. Among the eligible families, the participants tend to fare worse than the non-

participants.

[Table 2 about here.]

Relative to the ineligible families, the household heads of the eligible families tend to

have lower education levels and poorer health status, and are more likely to be unmarried and

less likely to be CCP members. The eligible families also are larger, have more children and elder members on average, and are more likely to be from the central and western regions which are less developed than the eastern region.

Among the eligible families, household heads of the participating families tend to be older and with poorer health than the non-participants. They also are more likely to be ethnic minorities, non-CCP members, retired or unemployed, with a larger household size, and residing in the central region. Interestingly they are more likely to be from cities other than provincial capitals.

MLSA Generosity, Entitled vs. Received Amount, and Receipt Gap

Before examining the MLSA receipt amounts and gaps, we first describe the variations in city MLSA generosity and entitled benefits. Figure 1 shows the variations in city MLSA generosity by region. The vertical axis indicates the city monthly MLSA assistance lines in yuan. Each dot on the three lines represents a city in one of the three regions. It is clear that on average, cities in the eastern region have higher assistance lines than the other two regions, and seven of the eastern cities (i.e., the seven dots at the right end of the eastern region line) have assistance lines that are more generous than any other cities. The MLSA benefits are more generous in the western region than the central region, despite that the western region is less developed. This could be an indication that the local governments are responding to the lower pre-MLSA income levels, or the increased financial capacity of the western city governments since the Western China Development movement started in 1999.

[Figure 1 about here.]

The city MLSA generosity is expected to be positively correlated to city mean per capita income. Figure 2 indicates that as city mean per capita income increases, its MLSA line also

rises, especially among the cities whose mean per capita income is not extremely high. The correlation coefficient between the two is 0.20.

[Figure 2 about here.]

Figure 3 shows the distribution of the MLSA benefit amount received by the eligible participants. The vast majority of participants receive less than 500 yuan MLSA benefits, and most of them concentrate at the lower end of below 250 yuan.

[Figure 3 about here.]

Table 3 presents results on the city variations in amounts of MLSA benefit entitled and received, and the remaining gaps. The overall average entitled benefit is 679 yuan, but families on average only receive 169 yuan, leaving a gap of 510 yuan. This gap is wider in the least developed western region and narrower in the central region, with the eastern region in between. This indicates that the western region is less effective in delivering the MLSA benefits than the central region, despite that the western region has more generous assistance lines as shown above. Within each region, the provincial capital cities tend to have significantly wider receipt gaps than the non-capital cities, probably because the capital cities have higher assistance lines and more people in extreme poverty that need assistance. Among all provinces as well as municipalities, Beijing has the narrowest receipt gap at 68 yuan, suggesting that Beijing has been more effective than other cities in delivering the MLSA benefits. The widest receipt gap exists in Chongqing municipality. Its receipt gap is at an astonishingly high level of 1,203 yuan.

[Table 3 about here.]

At the aggregate level, Table 4 presents the MLSA receipt amounts and gaps among all eligible families and compares the results for participants and non-participants. Overall, the MLSA is not able to sufficiently lift the incomes of its target population to the assistance line

levels, nor does it raise the incomes of the participants to be at the similar level with non-participant peers.

[Table 4 about here.]

On average, the participants' pre-MLSA annual per capita household income is significantly lower than that of the non-participants, with a difference of over 700 yuan which accounts for about 70 percent of the participants' income. As a result, the participants are entitled to an average of 1,046 yuan MLSA benefits, which is even slightly higher than their pre-MLSA per capita household income. The non-participants are entitled to an average amount of 359 yuan, about one-fifth of their pre-MLSA per capita household income. These entitlements can be defined as pre-MLSA receipt gaps.

Nevertheless, these entitled benefits are either under-delivered (to the participants at an average amount of 363 yuan) or not provided at all (for the non-participants). Consequently, the participants' post-MLSA average income is still 683 yuan less than the average MLSA assistance line, and this post-MLSA receipt gap is 359 yuan for the non-participants.

Effects on poverty: Observed and Simulated

Table 5 presents the effects of the MLSA benefits on poverty status using the low and high poverty lines. The top panel shows the actual effects observed. Overall, the MLSA benefits lower the poverty rates among the participants, but poverty remains a serious problem among the target population of MLSA due to partial coverage and delivery.

[Table 5 about here.]

Based on the low poverty line, the poverty rate among all eligible families is 71 percent. It is much higher for the eligible participants (87 percent) than for the non-participants (57 percent). The MLSA benefits reduce the poverty rate among the participants to 74 percent, a

decrease of 13 percent. The post-MLSA poverty rate for all eligible families therefore is lowered to 65 percent, still a very high rate given that the MLSA aims to be a safety-net program for this group. The picture looks more dismal when the high poverty line is used. The pre-MLSA poverty rate for all eligible families is 92 percent, and the anti-poverty impact of the MLSA is trivial.

The bottom panel of Table 5 simulates the effects of poverty if full participation and delivery are warranted. It clearly suggests that the anti-poverty effects of the MLSA can be much more prominent, especially when using the low poverty line. Based on the low poverty line, the MLSA is estimated to reduce poverty rate among all eligible families by 34 percent, relative to only six percent currently observed. The reduction for the participants is simulated to be 54 percent (comparing to the observed 13 percent), and for the non-participants 17 percent (comparing to zero percent observed). Using the high poverty line, the MLSA benefits are simulated to reduce poverty by three percent among all eligible families.

If we believe that the poverty lines are reasonably set to reflect the minimum food energy requirement, these results suggest the MLSA assistance lines are still too low to meet the basic needs of the urban poor. Moreover, the poverty lines are set as national standards which may disregard the important local variations in living standards and cost. In future research, other poverty lines can be adopted as sensitivity tests, and city Consumer Price Indices (CPI) can be used to adjust for local consumer prices.

Determinants of Receipt Status and Amount

Next we examine the determinants of MLSA participant and amount received. We focus on two key independent variables: the city MLSA generosity and the amount of household per

capita entitled benefit. Both variables are monthly values divided by ten so that the results are easier to interpret.

First, to understand the determinants of MLSA participation, two samples—namely all families (full sample) and the eligible families—are used. Table 6 presents the complete regression results on MLSA participation among all families. The first column shows the results of the city MLSA generosity controlling for demographics and provincial policy contextual variables, while the second column replaces these policy variables with province fixed effects. The third and fourth column results are similar to the first two, with the only difference being the key independent variable is now the household entitled benefit level. The results suggest that more generous MLSA and higher entitled amounts both significantly predict higher participation rate. More specifically, a ten yuan increase in the monthly MLSA generosity is associated with five percent higher likelihood of participation, and a ten yuan increase in the monthly entitled benefit is associated with more than 50 percent higher likelihood of participation.

[Table 6 about here.]

The results on the demographic and policy contextual variables are largely as expected and consistent with the existing literature. Unemployment, poor health, being unmarried, larger household size, and residing in a less developed region (central or western) are all significant risk factors for participating in the MLSA. Being sent down to the countryside during the Cultural Revolution is associated with higher likelihood of participating in MLSA, manifesting the long-term negative effects of such experience previously documented (Gustaffson and Deng 2007). Higher education levels and CCP membership of the household heads are associated with lower odds of MLSA participation. With regard to policy contextual variables, provincial GDP growth

rate and unemployment rate are found to be positively related to participation, while mean per capita income is negatively associated with participation.[4]

Table 7 summarizes the logistic regression results of the two key independent variables on MLSA participation. The top panel repeats the results on the full sample shown in Table 6. The bottom panel limits the sample to the eligible families. The results suggest that the positive effects of both the city MLSA generosity and household entitled benefits are larger among those who are eligible than among all families. More specifically, a ten yuan increase in the monthly MLSA generosity is associated with 1.17 to 1.30 times the odds of participation, and a ten yuan increase in the monthly entitled benefit amount is associated with 1.37 to 1.64 times the odds of participating in MLSA.

[Table 7 about here.]

Table 8 presents tobit (for all eligible families) and OLS (for eligible participants only) regression results on the monthly amount of MLSA benefit received. For all eligible families, a ten yuan increase in the monthly city MLSA generosity is associated with a 3.18 to 4.28 yuan increase in the monthly amount benefits received, while a ten yuan increase in the monthly entitled benefits is associated with an increase of 3.64 to 3.70 yuan in the monthly received amount. Further, in the most restrictive sample—the eligible participants, a ten yuan increase in the monthly city MLSA generosity is associated with a 1.55 yuan increase in the monthly received amount, and that in the entitled benefits is linked to a 2.04 to 2.40 yuan increase in the monthly received amount.

[Table 8 about here.]

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[4] Some of the policy variables are not statistically significant in results in Table 6, but they turn to be significant in the same direction and their magnitudes turn to be larger in most of the later models. Those results are not shown but available upon request.

Conclusion and Discussion

Using newly available national household survey data, this paper provides updated evidence on the participation rate, delivery gap, and anti-poverty effectiveness of the Minimum Living Standard Assistance (MLSA) policy in urban China. It also explores the determinants of MLSA participation and receipt amount.

Using the income definition that closely approximates the MLSA regulations, we find that 2.28 percent of all urban residents are eligible for MLSA, but only slightly less than half of them are actual beneficiaries. Meanwhile, a small proportion (2.66 percent of all residents) appear to be mis-targeted and receive MLSA, but may actually be eligible because of temporarily low income. MLSA eligible families tend to have less human capital (e.g., lower education, poorer health) and fewer socioeconomic resources (e.g., being unmarried, non-CCP member, with larger household size, residing in a less developed region) than the ineligible ones. Among the eligible families, the participants tend to fare worse than the non-participants.

With regard to anti-poverty outcomes, the MLSA benefits lower the poverty rates among the participants, but poverty remains a serious problem among the eligible families due to partial coverage and delivery. A simulation of full participation and delivery of MLSA suggests that the anti-poverty effects of the MLSA can be much more prominent. For example, using the low poverty line adopted in this study, poverty among eligible families could be reduced by 34 percent given full participation and delivery, instead of only six percent observed.

More generous city MLSA assistance lines and higher entitled amounts both significantly predict higher participation rate and increased amount of benefits that families actually receive. Not surprisingly, these effects on participation rate are larger among those who are eligible than among all families. Unemployment, poor health, being unmarried, larger household size, and

residing in a less developed region (central or western) are all significant risk factors for participating in the MLSA. Provincial GDP growth rate and unemployment rate are found to be positively related to participation, while mean per capita income is negatively associated with participation.

These results suggest that, despite some acclaimed progress, the overall effectiveness of the MLSA policy is under achieved and can be strengthened from several aspects. First, the targeting effectiveness of the MLSA can be improved by conducting better quality income surveys to determine eligibility, and to focus on providing a full coverage for the eligible in the implementation process. Second, it is important to understand the existence and extent of the receipt gaps, which impedes MLSA from lifting the participants from poverty. Therefore, not only eligible families need to participate in the program, but their entitled benefits should be guaranteed full delivery. Third, understanding the risk factors that lead to participation and receipt gaps can help improves achieving full coverage and delivery. Certain demographic subgroups, such as those less educated, with poorer health, unemployed, or with larger household size, should be paid particular attentions. Special considerations should also be given to regions and cities with laggard economic developmental conditions.

References

Chen, S., Ravallion, M. and Wang, Y. (2006) "*Di Bao*: A Guaranteed Minimum Income in China's Cities?" World Bank Policy Research Working Paper 3805.

Croll, Elisabeth J. (1999). *Social welfare reform: Trends and tensions.* China Quarterly, 159, Special Issue: The People's Republic of China after 50 Years: p. 684-699.

Du, Yang and Park, Albert (2006). The effects of social assistance on poverty reduction: Evidence from household surveys in Urban China. The International Conference on Policy Perspectives on Growth, Economic Structures and Poverty Reduction, June 2007, Beijing, China.

Gao, Qin (2006). "The Social Benefit System in Urban China: Reforms and Trends from 1988 to 2002." *Journal of East Asian Studies, 6*(1), 31-67.

Gao, Qin and Riskin, Carl (forthcoming). "Explaining China's Changing Inequality: Market vs. Social Benefits." In Davis, D. & Wang, F. (Eds). *Creating Wealth and Poverty in Contemporary China.* Stanford University Press.

Guan, Xinping (2005). Poverty in Urban China: An Introduction. Chapter 1 in *Poverty and the Minimum Living Standard Assistance Policy in Urban China.* Beijing: The Social Policy Research Center, Chinese Academy of Social Sciences. Available online at http://www.chinasocialpolicy.org/Paper_Show.asp?Paper_ID=40 (in Chinese).

Gustafsson, Bjorn and Deng, Quheng (2007). Social Assistance Receipt and its Importance for Combating Poverty in Urban China. IZA Discussion Paper No. 2758.

Hong, Dayong (2005a). The Minimum Living Standard for Urban Residents. Chapter 5 in *Poverty and the Minimum Living Standard Assistance Policy in Urban China.* Beijing:

The Social Policy Research Center, Chinese Academy of Social Sciences. Available online at http://www.chinasocialpolicy.org/Paper_Show.asp?Paper_ID=40 (in Chinese).

Hong, Dayong (2005b). Recent Developments in the Minimum Living Standard Assistance Policy for Urban Residents. Chapter 3 in *Poverty and the Minimum Living Standard Assistance Policy in Urban China.* Beijing: The Social Policy Research Center, Chinese Academy of Social Sciences. Available online at http://www.chinasocialpolicy.org/Paper_Show.asp?Paper_ID=38 (in Chinese).

Hussain, Athar (2007). Social Security in Transition. Chapter 5 in Vivienne Shue and Christine Wong (eds), *Paying for Progress in China: Public Finance, Human Welfare and Changing Patterns of Inequality.* London and New York: Routledge.

Information Office of the State Council (IOSC; 2002). White Paper on China's Social Security and its Policy. Beijing, Information Office of the State Council of the People's Republic of China.

Information Office of the State Council (IOSC; 2004). White Paper on China's Social Security and its Policy. Beijing, Information Office of the State Council of the People's Republic of China.

Khan, A. R. (2004). Growth, Inequality and Poverty in China: A Comparative Study of the Experience in the Periods before and after the Asian Crisis. International Labour Office (ILO), Issues in Employment and Poverty Discussion Paper 15.

Khan, A. R. and C. Riskin (2001). Inequality and Poverty in China in the Age of Globalization. New York, NY, Oxford University Press.

Khan, A. R. and C. Riskin (2005). China's Household Income and its Distribution, 1995 and 2002. *The China Quarterly*, 182: 356-384.

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

Leung, J. C. (2006) The Emergence of Social Assistance in China. International Journal of Social Welfare, 15: 188-198.

Liang, Zai (2001). The Age of Migration in China. *Population and Development Review* 27(3): 499–524.

Ministry of Civil Affairs (MCA; 2005). China Civil Affairs Yearbook 2005. Beijing: China Statistical Press.

Ministry of Civil Affairs (MCA; 2006a). *Statistical Report of Civil Affairs 2006* (Minzheng Shiye Fazhan Tongji Baogao). Available online at http://admin.mca.gov.cn/news/content/recent/2007523122309.htm.

Ministry of Civil Affairs (MCA; 2006b). *Minimum Living Standard Assistance Lines* (Shehui Jiuji Biaozhunbiao). Available online at http://www.mca.gov.cn/mztj/bzbz/200633.htm.

National Bureau of Statistics (NBS; 2005). *China Labor Statistical Yearbook.* Beijing: China Statistical Press.

Ru, X. and et al (2002). The Blue Book of Chinese Society 2002 (Zhongguo Shehui Lanpishu 2002). Beijing, Chinese Social Science Press (Zhongguo Sheke Chubanshe) (in Chinese).

Saunders, P. and X. Shang (2001). "Social security reform in China's transition to a market economy." Social Policy & Administration 35(3): 274-289.

Tang, J. (2004). The Situation and Prospects of the MLSA. In Ru X., Lu, X. and Li, P. (eds), China's Social Situation Analysis and Prediction. Bejing: Social Sciences Documentation Press.

Tang, J., L. Sha, and Z. Ren (2003). *Report on Poverty and Anti-Poverty in Urban China (Zhongguo Chengshi Pinkun yu Fanpinkun Baogao).* Beijing: Huaxia Press (in Chinese).

Wang, Meiyan (2007). Emerging Urban Poverty and Effects of the Dibao Program on Alleviating Poverty in China. *China & World Economy, 15*(2): 74-88.

Zhu, Y. (2002). "Recent developments in China's social security reforms." International Social Security Review 55(4): 39-54.

Zhu, Yu & Zhou Tingyu (2005). Total Number of Migrants Doubled within 10 Years, Making up more than 10% of Total Population, in *Xinhua Net,* as cited by the China Web at www.china.org.cn/chinese/renkou/748584.htm.

Table 1: MLSA Eligibility, Participation and Targeting Effectiveness (%)

	Eligibility Type		
	Lenient	Middle	Strict
Eligibility and Participation			
Eligible			
1) Eligible and received assistance	1.64	1.41	1.06
2) Eligible but did not receive assistance	5.26	2.09	1.22
All	6.90	3.50	2.28
Ineligible			
3) Ineligible but received assistance	2.08	2.31	2.66
4) Ineligible and did not receive assistance	91.02	94.18	95.06
All	93.10	96.49	97.72
Targeting Effectiveness			
Leakage rate: among the eligible, share of non-recipients	76.25	59.75	53.40
Mis-targeting rate: among the recipients, share of ineligible	55.99	62.11	71.48

Table 2: Demographic Characteristics of Families by MLSA Eligibility and Participation

Eligibility by the strict standard	Eligible		Ineligible
Participation Status	Yes	No	
Household Head Characteristics			
Age (mean)	48.55	47.12	47.67
18-29	1%	2%	2%
30-39	19%	22%	23%
40-49	44%	41%	35%
50-59	21%	22%	24%
60+	15%	13%	15%
Education (mean years of schooling)	8.63	8.39	10.71
primary school or less	17%	19%	7%
junior high school	49%	47%	29%
senior high school	32%	32%	37%
2-year college+	2%	1%	27%
Self-rated Health			
Excellent	10%	16%	21%
Good	29%	29%	40%
Fair	38%	42%	33%
Poor	23%	13%	6%
Unmarried	7%	7%	4%
Ethnic Minority	5%	2%	4%
CCP Member	6%	9%	38%
Sent down to countryside	17%	16%	18%
Employment Status			
employed	50%	58%	71%
retired	19%	14%	25%
unemployed	31%	28%	4%
Household Characteristics			
Household Size (mean)	3.71	3.67	3.21
Number of Children <18 (mean)	0.81	0.84	0.58
0	32%	29%	46%
1	54%	60%	51%
2	14%	11%	4%
Number of Elders >60 (mean)	0.35	0.39	0.36
0	73%	71%	75%
1	20%	18%	13%
2+	7%	11%	12%
Region			
eastern	26%	30%	37%
central	42%	36%	37%
western	32%	33%	27%
Provincial Capital City	37%	42%	37%
N of households	63	75	6,697
N of individuals	219	251	20,162

Table 3: Variations in MLSA Benefits Entitled and Received among the Eligible Families (annual amount in yuan)

	Entitled	Received	Gap
All	679	169	-510
Eastern Region			
City Average by Province			
Beijing	355	287	-68
Liaoning	581	159	-422
Jiangsu	627	104	-523
Guangdong	1,238	247	-991
Provincial Capital City			
Yes	896	289	-607
No	554	105	-449
All	707	188	-519
Central Region			
City Average by Province			
Shanxi	503	254	-249
Anhui	748	172	-576
Henan	674	107	-567
Hubei	636	117	-519
Provincial Capital City			
Yes	694	172	-522
No	603	148	-455
All	642	159	-483
Western Region			
City Average by Province			
Chongqing	1,658	455	-1,203
Sichuan	547	43	-504
Yunnan	494	187	-307
Gansu	291	198	-93
Provincial Capital City			
Yes	1,183	335	-848
No	473	88	-385
All	702	168	-534

Table 4: MLSA Receipt Amounts and Gaps by Participation among the Eligible (annual amount in yuan)

	Participants	Non-Participants	All
(a) pre-MLSA per capita household income	1,017	1,731	1,398
(b) pre-MLSA gap = (a)-MLSA assistance line	-1,046	-359	-679
(c) MLSA benefit received	363	0	169
(d) post-MLSA gap = (a)+(c)-MLSA assistance line	-683	-359	-510

Table 5: Observed and Simulated Poverty Rates by Participation among the Eligible (%)

	Participants	Non-Participants	All
Observed			
By low poverty line (1,774 yuan)			
pre-MLSA	87	57	71
post-MLSA	74	57	65
Δ (Post - Pre)	-13	0	-6
By high poverty line (2,534 yuan)			
pre-MLSA	96	89	92
post-MLSA	95	89	92
Δ (Post - Pre)	-1	0	-1
Simulated			
By low poverty line (1,774 yuan)			
pre-MLSA	87	57	71
post-MLSA	32	40	37
Δ (Post - Pre)	-54	-17	-34
By high poverty line (2,534 yuan)			
pre-MLSA	96	89	92
post-MLSA	91	88	89
Δ (Post - Pre)	-5	-1	-3

Table 6: Effects of City MLSA Generosity and Household Entitled Benefit Amount on Participation among All Families

(Both city MLSA generosity and household entitled amount are measured in monthly yuan divided by 10. Odds ratios from logistic regression models are presented with t statistics in parentheses. + significant at 10%; * significant at 5%; ** significant at 1%)

	City MLSA Generosity		Household Entitled MLSA Amount	
Province Fixed Effects included	**No**	**Yes**	**No**	**yes**
MLSA Generosity or Entitled Amount	1.05**	1.02	1.55**	1.59**
	(2.99)	(1.39)	(18.99)	(19.52)
Household Head Characteristics				
Age (18-39 omitted)				
40-49	1.34*	1.36**	1.40**	1.45**
	(2.50)	(2.62)	(2.75)	(3.01)
50-59	0.90	0.95	0.90	0.95
	(0.73)	(0.37)	(0.66)	(0.31)
60+	0.84	0.89	0.59*	0.59*
	(0.81)	(0.54)	(2.26)	(2.25)
Education (primary school or less omitted)				
Middle school	0.85	0.82	0.91	0.86
	(1.22)	(1.51)	(0.67)	(1.04)
High school or secondary technology school	0.56**	0.53**	0.61**	0.58**
	(4.26)	(4.51)	(3.30)	(3.65)
Two-year college or higher	0.26**	0.23**	0.29**	0.25**
	(7.50)	(7.91)	(6.50)	(7.03)
Self-reported health status (very healthy omitted)				
Healthy	1.05	1.06	1.13	1.12
	(0.40)	(0.52)	(1.04)	(0.96)
Fair	1.26*	1.32*	1.14	1.17
	(2.02)	(2.35)	(1.03)	(1.25)
Bad	3.14**	3.17**	3.05**	3.06**
	(8.34)	(8.33)	(7.59)	(7.54)
Unmarried	2.13**	2.03**	2.25**	2.16**
	(4.88)	(4.50)	(4.97)	(4.68)
Ethnic minority member	1.01	0.92	1.07	0.95
	(0.04)	(0.45)	(0.33)	(0.25)
Chinese Communist Party member	0.69**	0.66**	0.81*	0.78*
	(3.70)	(4.08)	(2.01)	(2.33)
Sent down to countryside during cultural revolution	1.35**	1.36**	1.39**	1.40**
	(3.06)	(3.08)	(3.08)	(3.15)
Employment status (employed omitted)				
Retired	1.00	0.97	1.24+	1.20
	(0.03)	(0.22)	(1.65)	(1.39)
Unemployed	4.22**	4.32**	2.82**	2.94**
	(12.92)	(12.96)	(8.10)	(8.29)
Household Characteristics				
Household size	1.27**	1.26**	1.12+	1.08
	(4.28)	(3.98)	(1.85)	(1.20)
Number of children aged <18 (none omitted)				
One	1.06	1.10	1.09	1.15
	(0.57)	(0.95)	(0.81)	(1.26)

Two or more	2.19**	2.12**	2.04**	2.01**
	(4.34)	(4.09)	(3.60)	(3.49)
Number of elders aged >60 (none omitted)				
One	1.10	1.15	1.32+	1.43*
	(0.74)	(1.01)	(1.95)	(2.50)
Two or more	0.64*	0.67+	0.81	0.92
	(2.09)	(1.85)	(0.94)	(0.37)
Provincial capital city	0.88	0.89	0.87	0.83*
	(1.25)	(1.02)	(1.46)	(1.98)
Region (eastern omitted)				
Central	1.75**	-	1.31	-
	(2.59)		(1.18)	
Western	2.23**	-	1.71**	-
	(4.33)		(2.85)	
Province Characteristics				
GDP growth rate	1.09+	-	1.02	-
	(1.93)		(0.56)	
Per capita income divided by 1000	0.83**	-	0.85**	-
	(2.84)		(2.74)	
Unemployment rate	1.08	-	1.06	-
	(1.12)		(0.78)	
Province Fixed Effects	no	yes	no	yes

Table 7: Effects of City MLSA Generosity and Household Entitled Benefit Amount on Participation

(Both city MLSA generosity and household entitled amount are measured in monthly yuan divided by 10. Odds ratios from logistic regression models are presented with t statistics in parentheses. + significant at 10%; * significant at 5%; ** significant at 1%)

	Without Province Fixed Effects	With Province Fixed Effects
Full Sample		
City MLSA generosity	1.05**	1.02
	(2.99)	(1.39)
Household Entitled MLSA amount	1.55**	1.59**
	(18.99)	(19.52)
Eligible Sample		
City MLSA generosity	1.17**	1.30**
	(3.39)	(4.09)
Household Entitled MLSA amount	1.37**	1.64**
	(8.45)	(8.69)

Table 8: Effects of City MLSA Generosity and Household Entitled Benefit Amount on Monthly Receipt Amount (in yuan)

(Both city MLSA generosity and household entitled amount are measured in monthly yuan divided by 10. OLS or tobit regression coefficients are presented with standard errors in parentheses. + significant at 10%; * significant at 5%; ** significant at 1%)

	Without Province Fixed Effects	With Province Fixed Effects
Eligible Sample (tobit model)		
City MLSA generosity	3.18**	4.28**
	(1.02)	(1.10)
Household Entitled MLSA amount	3.64**	3.70**
	(0.21)	(0.20)
Eligible Participant Sample (OLS model)		
City MLSA generosity	0.81	1.55+
	(0.83)	(0.93)
Household Entitled MLSA amount	2.04**	2.40**
	(0.14)	(0.15)

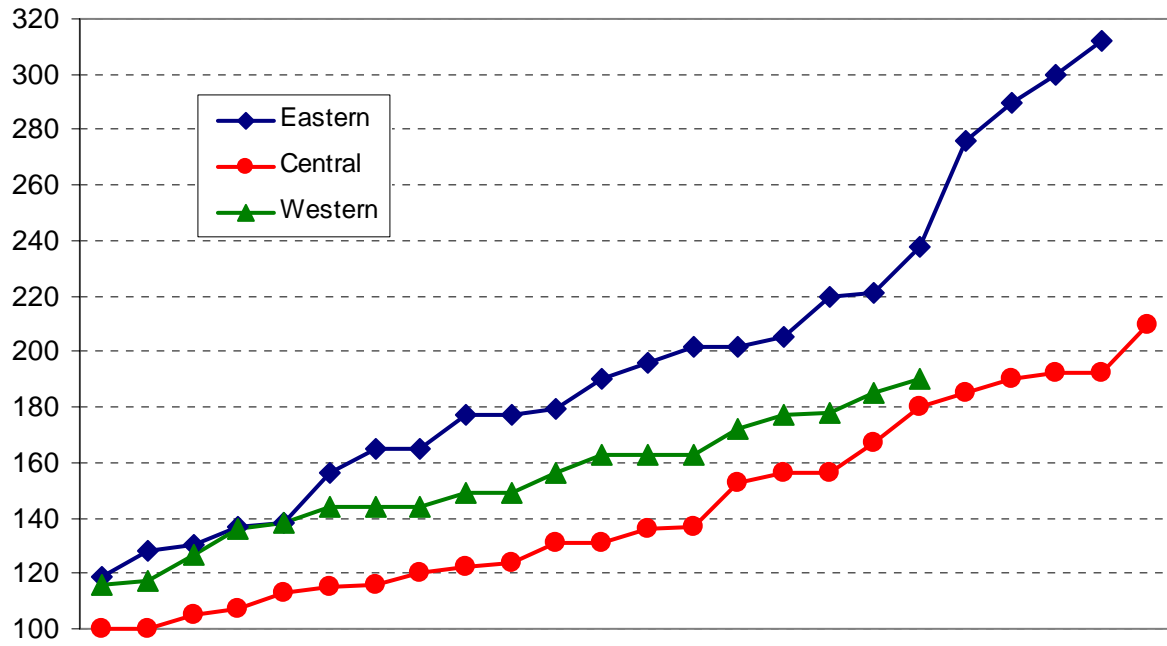**Figure 1: Variations in City MLSA Generosity by Region (Yuan)**

Figure 2: Correlation between City MLSA line and Mean Per Capita Income (annual amount in yuan)
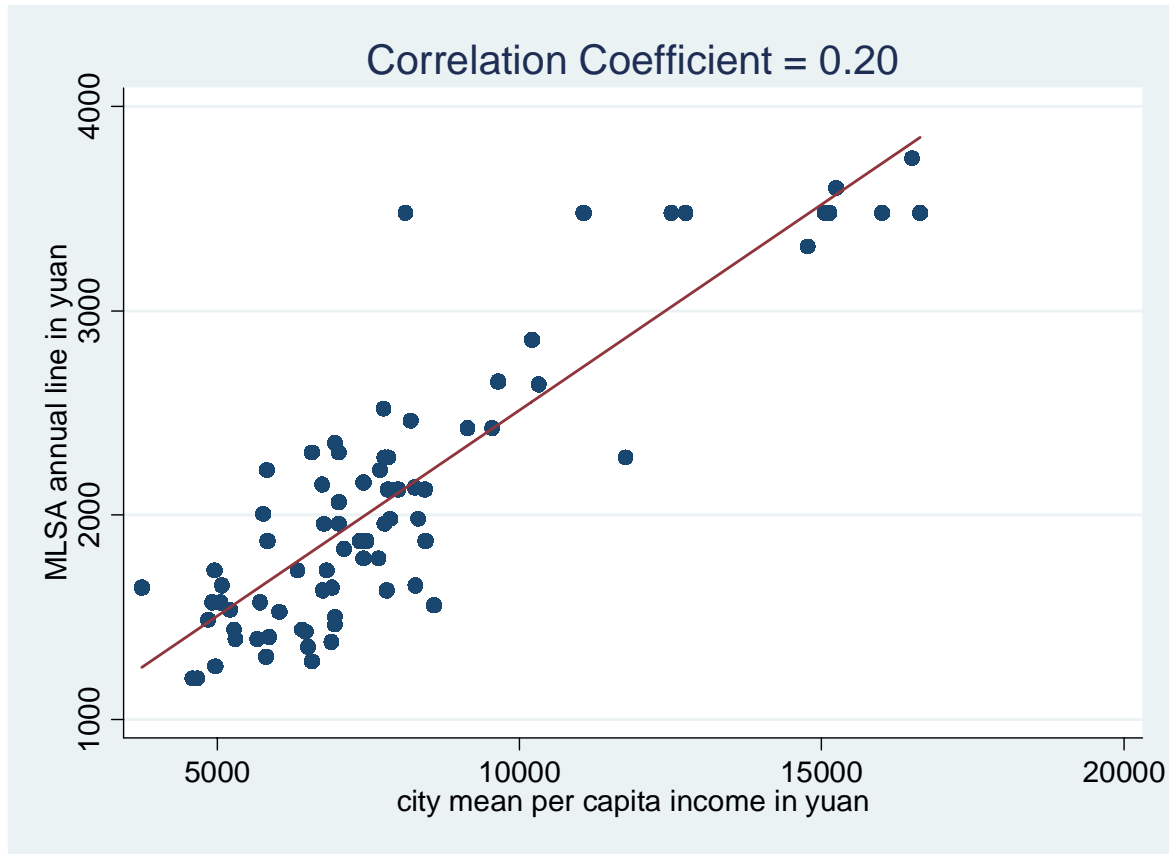
Figure 3: Distribution of MLSA Receipt Amount among the Eligible Participants