

How Many Poor People in Shanghai Today? The Question of Poverty and Poverty Measure

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This paper identifies a wide incidence of poverty in Shanghai using relative measures. It is estimated that 12 percent of the Shanghai population was poor in 1996, a figure which is far greater than that of official estimates. Two sets of objective social indicators are used to indicate the conditions for including a comparative component into the poverty measure. Despite the magnitude of poverty in Shanghai, the financial implications for its eradication amount to only 0.6 percent of the city's gross domestic product.

Keywords: poverty measure; poverty indicators; poverty line; Shanghai; China

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Measuring the incidence of poverty is usually controversial because it implies the need for redistributing social resources. Generally, those who control social resources tend to underestimate poverty, while those who do not or who are advocates for the "have-nots" are likely to exaggerate it. In other words, estimating the incidence of poverty is definitely not a purely academic pursuit; it is also a political and economic issue. Hence, defining poverty as absolute dispossession implies a small incidence of poverty and a correspondingly minimal obligation for poverty relief. This paper attempts to use a relative poverty measure to reflect the wider incidence of poverty in the most important city in China today—Shanghai, which was the first Chinese city to

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institutionalize poverty relief by setting up a minimum urban living security line in 1993.¹ However, due to financial considerations, poverty relief standards were set at a low level and have not included the new batch of poor people created by economic restructuring—the unemployed and underemployed. This clearly reflects the arbitrary nature of official poverty measures convenient to political and economic considerations.

The issue of the number of poor people in urban China today is relevant to the country's prevailing development strategy, which uses a widening income gap to provide material incentives for economic growth.² This is apparently underpinned by a belief in the trickle-down thesis. As a consequence of this new development strategy, some studies of urban income distribution have identified higher income inequalities using Gini ratios.³ In this regard, how far the poor can tolerate the hardships brought forth by economic reform is an important social issue that any municipal government in China must pay attention to. Undoubtedly, the main issue is minimum protection for the sake of social stability; if left unaided, the new poor will not be entitled to relief benefits and would also find it difficult to cope with the new charges levied by increasingly privatized social services. The newly-established minimum urban living security line, which was implemented by seventy-six cities in late 1996,⁴ indicates an attempt to establish a safety net for those who cannot fend for themselves or are without a work unit (*danwei*) to look after them. However, poverty relief is still based on a subsistence conception of poverty; hence, how many poor people have been left out remains a critical question to be answered.

¹Civil Affairs Ministry, People's Republic of China, *Tansuo jianli chengshi zuidi shenghuo baozhang xian* (An exploration of the establishment of the system for the minimum urban living security line) (Beijing: Zhongguo shehui chubanshe, 1995); Jun Tang, "The Determination of Poverty Line in Urban China: A Case Study in Jiangsu Province" (Unpublished M.Phil. thesis of the Hong Kong Polytechnic University, 1996).

²Bai Baier, Zhu Yan, and Wang Ling, "A Quantitative Analysis of China's Urban Household Income," in *Studies on Economic Reforms and Development in the People's Republic of China*, ed. Hsueh Tien-tung, Sung Yun-wing, and Yu Jing-yuan (Hong Kong: The Chinese University Press, 1993), 325-36; Kuan Hsin-chi, "Introduction" to *China Review 1991*, ed. Kuan Hsin-chi and Maurice Brosseau (Hong Kong: The Chinese University Press, 1991), 1.1-16.

³E.g., Bai, Zhu, and Wang, "A Quantitative Analysis of China's Urban Household Income," 333; Li Roujian, "An Analysis of Differences in the Distribution of Income of People Living in China's Cities and Towns, with an Examination of Simon Kuznets' Inverse 'U' Hypothesis," *Hong Kong Journal of Social Sciences*, no. 1 (1993): 10-34; Azizur R. Khan, Keith Griffin, Carl Riskin, and Renwei Zhao, "Household Income and Its Distribution in China," *The China Quarterly*, no. 132 (December 1992): 1056; and Chack-kie Wong, "Measuring Third World Poverty by the International Poverty Line: The Case of Reform China," *Social Policy and Administration* 28, no. 3 (1995): 189-203.

⁴*Oriental Daily* (Hong Kong), November 18, 1996, A4.

In tackling the question of urban poverty in Shanghai today, this paper makes use of an income-based poverty line in identifying a wider scope of people as poor. First, it will argue why the income-based poverty line should be used in Shanghai, China's largest affluent city. Next, it will explore the conditions, with the use of two sets of indicators (food-income share and selected durable consumer goods), under which the relative component of poverty measure would be ripe for measuring poverty in Shanghai: specifically, it will measure the extent of affluence as projected by household consumption patterns. The findings from a cross-sectional household survey, together with government statistics related to poverty, will then be used to see whether the proposed sets of indicators can be justified as an appropriate measure of the wider incidence of poverty in Shanghai today.

Why the Income-Based Poverty Line Should Be Used

There are two international poverty lines commonly found in international analyses of poverty. The first line uses a nutritional cut-off point of about 2,100 calories per person per day⁵ to measure Third World poverty based on the quantity of dietary requirements necessary for a person's survival.⁶ The second international poverty line adopts half of the average or median disposable household income as the threshold for measuring the poverty of advanced industrial countries, using the comparative notion of poverty.⁷ The first international poverty line uses monetary values to denote the expenses incurred for a person's dietary requirements. For instance, one U.S. dollar of purchasing power parity is used at 1985 constant value to measure the necessary

⁵Shao Chen, Gaurav Datt, and Martin Ravallion, *Is Poverty Increasing in the Developing World?* (Washington, D.C.: Policy Research Department, World Bank, July 1993); World Bank, *World Development Report 1990* (New York: Oxford University Press, 1990); World Bank, *Poverty Reduction and the World Bank* (Washington, D.C.: The World Bank, 1996).

⁶Apparently, measuring Third World poverty is more complicated than the diet intake measurement, as there are variations for different standards of need satisfaction. For instance, the destitution line indicates that households on poverty very probably suffer from severe nutrient deficits, and the subsistence poverty line represents the destitution line plus an amount for other basic needs: housing, clothing, and sundries. See Vic George, *Wealth, Poverty, and Starvation: An International Perspective* (Hertfordshire: Wheatsheaf, 1988), 148.

⁷Wilfried Beckerman, *Poverty and the Impact of Income Maintenance Program* (Geneva: International Labor Office, 1979), 11; Victor Fuchs, "Redefining Poverty and Redistributing Income," *Public Interest*, no. 8 (1967): 96; Timothy M. Smeeding, Michael O'Higgins, and Lee Rainwater, *Poverty, Inequality and Income Distribution in Comparative Perspective* (Hertfordshire: Wheatsheaf, 1990), 64-74.

calories for survival.⁸ In contrast, the second international poverty line also uses income to measure poverty, but indicates a different meaning for the latter. As nutritional requirements are constant despite variations in commodity forms, this implies a significant difference between the two measurements. If the amount of dietary requirements for survival needs is fixed, monetary values at constant prices will not change over time. Thus, the first international poverty line measures a fixed and hence absolute amount of dietary requirements. In the case of the poverty line which uses median or average income, the share assigned for consuming the same amount of food for dietary requirements will vary according to income changes. Thus, only the second international poverty line is directly income-based and links the changing face of poverty to income.

In an income-based poverty line, an income threshold is set, with those people below it being classified as poor. As income always changes over time and between regions, in this light, poverty is seen as comparative. Thus, changes in the general population's income also affect the section of population defined as the poor. Because this poverty line is linked to income changes, the benefits of growth are automatically reflected in its measurement. Unfortunately, this relative measurement has generally not been undertaken by policymakers in the fast-growing economies of Third World countries, and particularly in China, since adopting it would leave governments vulnerable to criticism if they do not assign the appropriate amount of national wealth to poverty relief. This presupposes the adoption of a social development policy that links economic growth with social equality, specifically the preferential use of income redistribution for poverty relief. This means that the government (in this case, the Shanghai municipal government) could be forced to face the equity issue of economic growth and social equality. This does not mean that responsible governments would be deprived of alternative policy options (i.e., education and training); rather, it implies that a good explanation is required for the policy choices they make.

Moreover, an income-based (international) poverty line also serves as a warning signal for governments because it is usually higher than the official (national) threshold. In this regard, it allows the inclusion of people who otherwise would be classified as non-poor.⁹ The wider scope of poverty means that governments would have to be more cautious in implementing policies that have an impact on the lower socioeconomic classes. In short, the

⁸World Bank, *Poverty Reduction and the World Bank*, table 1.2.

⁹Beckerman, *Poverty and the Impact of Income Maintenance Program*, 11; Wong, "Measuring Third World Poverty," 192.

income-based poverty line can serve as an indicator of social miseries in that it takes changes in household incomes via income transfers into account in assessing the impact of state actions on the alleviation of poverty.¹⁰ In this light, poverty can be removed once relief benefits match the amount of shortfall below the threshold.

Conditions for the Use of the Income-Based Poverty Line

The next question is when a comparative component should be included in poverty measure. The prerequisite seems to be a country having sufficient wealth to enable its general population to enjoy a lifestyle characterized by a certain degree of comfort and convenience. If the basic characteristics of a modern lifestyle can be identified, it would be more reasonable to suggest using an income-based poverty line to measure poverty. In other words, the general population of a country should be relatively affluent. Translating this into an operational indicator, this means that ordinary citizens should have the capacity to delegate more of their household income to expenses other than the food necessary for survival, the latter of which we can express as the "food-income share." After survival needs are met, household income can be used to enrich lifestyles in a manner commensurate with the basic standards in any affluent society. In addition, the possession of selected durable consumer goods is proposed as indicating affluence, as it is assumed that household appliances and equipment such as television sets, refrigerators, washers, and telephones are commonly owned and essential for a convenient and comfortable urban living.

Food-Income Share

In the use of the food-income share indicator, we refer to calculations based on Engel's Ratio.¹¹ Engel was a nineteenth century German researcher who found that low-income households spent most of their income on basic necessities. The U.S. government has used his ratio to estimate poverty, setting a threshold of one-third of the household budget on food in the 1960s.¹² In

¹⁰Smeeding, O'Higgins, and Rainwater, *Poverty, Inequality and Income Distribution*, 64-74.

¹¹Peter Alcock, *Understanding Poverty* (London: Macmillan, 1993), 7-78.

¹²Vic George and Irving Howards, *Poverty Amidst Affluence: Britain and the United States* (Hants: Edward Elgar, 1991), 13; Mollie Orshansky, "How Poverty Is Measured," *Monthly Labor Review* 92, no. 2 (1969): 37-41.

that case, the poverty line was set in relation to food consumption, and it was also assumed that people spent another third of their household budget on housing, with the rest used for other expenses. The problem with Engel's Ratio is that there are variations in expenditure patterns and price levels between countries.¹³ Nevertheless, if housing expenses are taken out of the formula, then poverty is defined by a household budget with over 60 percent spent on food. In this study, it is assumed that if the general population spends *less than* 60 percent of its average household income¹⁴ on food, dietary requirements should still be met.

Using the food-income share is different from using Engel's Ratio in that the latter basically adopts an absolutist approach to poverty, indicating a minimum standard by which the poor people can maintain a subsistence standard of living. There is no inherent mechanism to adjust the poverty threshold due to changes in national wealth. In contrast, the food-income share used in this study is regarded as the threshold in the subsequent use of a predominantly first-world poverty measure. Once this threshold is passed, poverty measurement and respective relief benefits are adjusted by comparative standards.

Selected Durable Consumer Goods

Food-income share alone is insufficient in measuring affluence because governments can adopt different income policies. For instance, a low-income policy for industrialization can result in a food-income share of less than 60 percent. Consequently, the average household would not be able to afford a lifestyle characterized as convenient and comfortable. Table 1 illustrates this scenario with the examples of Guangzhou and Shanghai.

Guangzhou is the provincial city of Guangdong Province, while Shanghai is the largest commercial and industrial center in China. The former even began experiencing reforms much earlier than Shanghai, but the living standards in these two cities can be taken to reflect the more affluent coastal regions of China in the early 1980s. Evidently, income per capita was still very low during this period.¹⁵ In other words, even if people used a substantial share of their income for expenses other than food (59.1 percent and 52.2 percent in

¹³Tang, "The Determination of Poverty Line in Urban China," 64-65.

¹⁴The rationale for the use of income instead of expenditures is that apart from the constraints imposed by our household survey data, its use is also more consistent with a poverty measurement which is income-based.

¹⁵A decade later, the average monthly income in Guangzhou reached 507.83 *yuan*, which is more than 7.6 times that of 1983, while the respective amount in Shanghai was 358 *yuan*, or a sixfold increase from 1983.

Table 1**Food-Income Share and Possession of Selected Durable Consumer Goods by Guangzhou and Shanghai Urban Residents, 1983^a**

	Guangzhou	Shanghai
Monthly income per capita	66.30 <i>yuan</i>	57.58 <i>yuan</i>
Monthly food expenses per capita	39.13 <i>yuan</i>	30.04 <i>yuan</i>
Food-income share	59.1% ^b	52.2%
Possessions of durable consumer goods for every 100 households (%)		
Refrigerators	14.0	1.8
Washers	37.0	8.6
Television sets		
Color	7.5	3.4
Black & white	83.5	88.0
Air conditioners	Not surveyed	Not surveyed
Telephones	Not surveyed	Not surveyed

Sources: *Guangzhou jingji nianjian 1984* (Guangzhou economic yearbook 1984) (Beijing: Zhongguo tongji chubanshe, 1984), 718-19; *Shanghai tongji nianjian 1986* (Shanghai statistical yearbook 1986) (Beijing: Zhongguo tongji chubanshe, 1986), 440-43.

Notes:

^aGuangzhou data drawn from household expenses survey of 200 urban households, whereas the Shanghai data based on a 500 household survey.

^bHousing expenses have been and are still a heavily subsidized commodity in China either by the state or by the work unit a person is employed. In terms of income share, household housing expenses amount to a few percentage points. For example, in 1993, the average household member spent 2.6 percent of his/her monthly income on housing costs. See *Guangzhou nianjian 1994* (Guangzhou yearbook 1994) (Guangzhou: 1994), 429-31.

Guangzhou and Shanghai for food, respectively), they could not afford to consume expensive durable consumer goods. Other than black and white television sets (83.5 percent in Guangzhou, 88.0 percent in Shanghai), items such as refrigerators (14.0 percent in Guangzhou and 1.8 percent in Shanghai), washers (37.0 percent in Guangzhou and 8.6 percent in Shanghai), and color television sets (7.5 percent in Guangzhou and 3.4 percent in Shanghai) were not commonly owned by the average resident in these two cities in 1983. Air conditioners and telephones were not even included in the survey by the two municipal governments, suggesting that they were not yet considered to be common items at the time. From this illustration, it is evident that food-income share alone is not sufficient for proof of affluence in a modern society; the number and the extent of durable consumer goods possessed should be in-

cluded to define a modern lifestyle.¹⁶

Urban Poverty in Shanghai

The Survey Sample and Urban Poverty

With the benefit of having conducted household surveys in Shanghai, we were able to use the collected data with one thousand respondents¹⁷ for the purpose of analysis. The survey was conducted in the fall of 1996 by a team of interviewers supervised by the Shanghai Academy of Social Sciences, and was fairly representative of urban households in Shanghai. A multi-stage clustered random sampling technique was also applied.¹⁸

First, we examined two selected indicators of a household: its size and number of workers. The most recent official income and expenditures survey,¹⁹ conducted by the Shanghai municipal government in 1995 for 500

¹⁶Poverty measures in mainland China are still primarily centered on calculating the number and quantities of basic necessities such as food and other sundry expenses, with the use of durable consumer goods to assess poverty or affluence apparently out of the question. A study similar to ours conducted by Richard Rose on social protection in Romania, a centrally planned economy in transition, should provide some insight. He suggests that durable consumer goods are better indicators than nominal values of money in reflecting poverty or affluence for several reasons. First, nominal values of money vary with inflation and foreign exchange rate; thus, they may distort purchasing power parities. Second, the pricing system in these societies may not reflect cost, as in market economies, as food, housing, and other basic commodities have usually been subsidized. Third, it is not uncommon that households obtain "unofficial" cash income from second jobs, bribes, and other sources. In other words, durable consumer goods are better indicators of assessing affluence or poverty because they reflect actual purchasing power after basic needs of survival are satisfied. In our case, we argue that food-income share alone is not enough in measuring affluence in China. In other words, we set the possession of durable consumer goods as an additional condition for the use of an income-based poverty line in reflecting the changing face of urban poverty in mainland China. See Richard Rose, "Who Needs Social Protection in East Europe? A Constrained Empirical Analysis of Romania," in *Societies in Transition: East-Central Europe Today*, ed. Stein Ringen and Claire Wallace (Hants: Avebury, 1994), 1:191-92.

¹⁷For our analysis, a sample of 985 respondents with completed income data were used in the following tabulated tables.

¹⁸The survey covered Shanghai's thirteen urban districts, excluding the rural districts. From each district, the number of resident committees randomly selected was in proportion to their population size (on the basis of the latest government published data); sixty households from each resident committee were then selected as respondents. Resident committees are administrative units within each urban district, with an average population range of 2,000-3,000 residents. Unsuccessful visits (e.g., address changes due to demolition, refusal, and no people at home) were replaced with the nearest households in the sample frame. For those without people at home, three visits were required before going to the next nearest random address. The Kish table was applied to randomly select the respondent who was over eighteen years old within each household. Twenty percent of the respondents were later contacted to ensure that interviewers had really made the visits.

¹⁹Shanghai Municipal Statistical Bureau, *Shanghai tongji nianjian 1996* (Statistical yearbook of Shanghai 1996) (Beijing: Zhongguo tongji chubanshe, 1996), 68.

urban households, revealed an average household size of 3.11; in our sample, the average size was 3.25. In terms of the average number of workers in each household, the government survey listed 1.65 persons, while our survey had a figure of 1.76 persons. Thus, the survey matches the government survey fairly accurately on both sets of indicators.

Second, we examined two sociodemographic indicators of individuals—sex and marital status—to determine the representativeness of our sample population. The sex distribution of respondents in our sample was rather even: 48.9 percent were male and 51.1 percent were female. This pattern resembles that found in the 1 percent sampling census data conducted by the Shanghai municipal government in 1996 (49.6 percent male and 50.4 percent female).²⁰ Marital status patterns in our sample also matched with those of the sampling census: 13.4 percent in the former were single, as compared to 13.1 percent in the latter; and 81.3 percent in the former were married, as compared to 79.4 percent in the latter. Our sample population is also a fairly educated one: only 10.9 percent of the respondents were illiterate or had only a primary school education, while 22.2 percent had post-secondary educational qualifications. In short, both checks of our data-set with available survey data about the general population, in household and individual terms, suggest that our sample is fairly representative.

Shanghai is the most important city in China. In 1995, it had 1.2 percent of China's population (13 million residents, including the 3.7 million rural population), and contributed more than one-tenth (11.1 percent) to the central government's financial revenue.²¹ In the period 1979-95, Shanghai's average annual GDP growth rate was 9.1 percent, which was slightly higher than that of the whole country (8.2 percent between 1980 and 1993). As they live in China's industrial and commercial capital, Shanghai's urban residents earn much more than their compatriots in the rest of the country. For instance, Shanghai's average per capita annual household income in 1995 was 7,196.4 *yuan* (8.2 *yuan*=US\$1), whereas the Chinese average urban resident earned only 4,288.08 *yuan* in the same year.²²

In China, the "bottom" 5 percent of households are often regarded as *kunnan hu* (households in hardship). According to 1993 estimates by the State Statistical Bureau, 3.7 million households, or 12 million people, were *kunnan*

²⁰Shanghai Academy of Social Sciences.

²¹*Shanghai tongji nianjian* 1996, 3.

²²*Ibid.*, 68; *Zhongguo tongji nianjian* 1996 (Statistical yearbook of China 1996) (Beijing: Zhongguo tongji chubanshe, 1996), 282.

hu in China's urban regions,²³ which is commensurate with the 5 percent estimate. Their average per capita expense was 1,183 *yuan*, which was 124 *yuan* more than their respective income; in other words, they had to rely on borrowing or saving to make ends met.²⁴ Apparently, poverty has been officially defined and measured in terms of material deprivations, which definitely falls short of arriving at an accurate conception of the changing face of poverty due to affluence.

According to the national measurement of urban poverty, there should have been around 160,000 *kunnan hu* in Shanghai in 1995 (5 percent of 3.3 million urban households). However, poverty relief in China is independent of the scope of poverty measured; the former is often considered only in relation to the financial capacity of the respective municipal governments. Shanghai is not exceptional in this aspect; poverty relief beneficiaries, under the category of the newly-established minimum urban living security line, amounted to only 7,651 cases in 1996.²⁵ This is definitely a minimal figure compared with the 5 percent estimate for *kunnan hu*. Those who qualify as poverty relief beneficiaries receive comprehensive benefits, albeit at bare subsistence standards, which include income support, medical subsidies, and other home care assistance organized by the municipal government's lowest-level officials. In view of the small number of beneficiaries, in 1995 the Shanghai municipal government began to provide in-kind relief in the form of food coupons to residents with income just above the official poverty line.²⁶ Food coupons can purchase basic foodstuff such as rice, oil, and flour products at a submarket price. The value of the food coupon is a nominal 15 *yuan* a month, an amount equivalent to 2.5 percent of Shanghai residents' average income in 1995. However, the number of food-coupon beneficiaries seems to match with the official *kunnan hu* estimate—505,246 persons, or equivalent to 160,000 households (3.11 persons per household).²⁷

If the income-based poverty line²⁸ is used to estimate the poverty rate in

²³State Statistical Bureau, *Zhongguo tongji nianjian 1993* (Statistical yearbook of China 1993) (Beijing: Zhongguo tongji chubanshe, 1993), 287, table 8-12.

²⁴*Xin bao* (Hong Kong Economic Journal), December 8, 1994, 11.

²⁵Shanghai Civil Affairs Bureau internal report.

²⁶In 1995, the threshold of official poverty line was set at 165 *yuan* a month, while the low-income threshold was set at 230 *yuan* a month. People with income between these two income thresholds were eligible for food coupons.

²⁷"500 Household Expenditure Survey," in *Shanghai tongji nianjian 1996*, 68.

²⁸Because of the underdevelopment of personal income taxes in China today, pre-tax household income was used. Our data reveals that the median household income was less than the average household income. If figures for the average household were adopted, a higher incidence

Table 2
Food-Income Share and Possession of Selected Durable Consumer Goods
in Shanghai, 1996

	N = 985
Median monthly household income	2,000.0 <i>yuan</i>
Average monthly household income	2,140.5 <i>yuan</i> (S.D. 1,318.8)
Half of median income	1,000.0 <i>yuan</i>
Poverty rate	12%
Monthly household food expenses	1,033.8 <i>yuan</i> (S.D. 485.3)
Food-income share	48.3%
Possessions of durable consumer goods (%)	
Refrigerators	97.5
Washers	86.9
Television sets	99.3
Air conditioners	55.2
Telephones	75.6

Shanghai, a much higher incidence of urban poverty would be identified—12 percent in our sample population²⁹ (see table 2), equivalent to 395,000 households, or 1.23 million people. Clearly, the kind of threshold adopted affects the number of the poor people as well as the standards of poverty relief benefits. At this stage, the issue is not about whether the poor identified by the income-based poverty line are genuinely poor, but supporting the claim that Shanghai has the kind of affluence appropriate for the use of a relativist poverty measure. As discussed above, a non-housing food-income share of less than 60 percent can be adopted as the first indicator for the use of the income-based poverty line. In Shanghai, the share was 48.3 percent in 1996 with our sample population (see table 2). Undoubtedly, this is far above the threshold, even if a few percentage points of housing expenses by rent are included (i.e., 0.5 percent of total income for rent in 1995).

We will now examine whether the average Shanghai resident has been able to enjoy a lifestyle characterized as modern. Table 2 lists the possession of selected durable consumer goods by Shanghai respondents. Nearly all re-

of poverty would be reported. In this regard, we take a more conservative approach and choose a lower-income threshold as a measurement of poverty.

²⁹This is not to say that the 12 percent of the population surveyed in this sample are all poor. An alternative method is to measure poverty rate by different household sizes. However, this is also unsatisfactory because those with smaller household sizes probably have a higher incidence of poverty (due to higher retirement rate, family structure, etc.).

spondents had a television set and refrigerator in their home: 99.3 percent possessed a television set,³⁰ while 97.5 percent possessed a refrigerator. The nearly universal possession of these two modern household appliances suggests that poverty in this comparatively affluent city can definitely not be determined by using an absolutist approach.

A modern urban lifestyle is also characterized by the massive use of electrical equipment such as washers, which can lessen domestic manual labor. The popular use of this appliance illustrates the extent of Shanghai residents' affluence: 86.9 percent of the respondents reported that they owned a washer. Another electrical appliance that reflects the extent of material affluence is the air conditioner. Perhaps due to the heavy recurrent cost for electricity, less respondents possessed air conditioners than washing machines: only five out of nine households (55.2 percent) in the survey (see table 2).

Another feature of a modern lifestyle is the popular use of communications. In other words, in assessing affluence, the list of durable consumer goods should include modern communications equipment such as telephones and television sets. We have already mentioned television sets, but they differ from telephones in that television users are passive. In contrast, telephones allow users to actively engage in exchanging information and maintaining social relations. In our sample population, three out of four households (75.6 percent) possessed communications equipment (see table 2). As both television sets and telephones are essential to maintaining social relations, deprivation of these items would likely lead to social exclusion from mainstream society, which is the commonly-used modern conception of poverty.³¹ It is therefore suggested that the concept of social deprivation can be used to measure poverty in Shanghai, since most of its residents have access to a lifestyle that is somewhat modern in terms of the various means of participation in city life.

Are the Poor More Deprived?

In the above section, it is suggested that Shanghai, on the basis of data

³⁰We did not ask whether the television set was black & white or color because we assumed that color television sets are popular in Shanghai. For example, a survey of 500 urban households by the municipal government indicated that 94 color television sets were possessed by every 100 urban households in 1993. See *Shanghai tongji nianjian 1994*, 59.

³¹Godfried Engbersen, "Modern Poverty and Second Class Citizen," in *Work and Citizenship in the New Europe*, ed. Harry Coenen and Peter Leisink (Hants: Edward Elgar, 1993), 35-47; Bill Jordan, *A Theory of Poverty and Social Exclusion* (Cambridge, Mass.: Polity Press, 1996), 1-39; Peter Townsend, *The International Analysis of Poverty* (Hertfordshire: Wheatsheaf, 1993), 42.

from our sample population, is well qualified as a city with the required affluence for the use of the income-based poverty line as a poverty threshold. Now we will see whether the poor, as defined by this line, are substantially worse-off than the "non-poor," which are defined here as the households in our sample population that have a monthly income of 1,000 *yuan* and above (i.e., above half of the median household income). The comparison between the poor and the non-poor should enable us to claim that the income-based poverty line is a useful measure; that is, it should identify a poverty group with comparative disadvantages compared to the general population.

Table 3 illustrates the differences between the poor and the non-poor in our sample. The poor have an average monthly household income of 666.1 *yuan* (S.D. 218.5) while the non-poor average 2,343.4 *yuan* (S.D. 1,277.4). The poor also spend much less than the non-poor on food, with a monthly household average of 562.5 *yuan* (S.D. 204.6), compared to 1,099.4 *yuan* (S.D. 477.4) for the latter. In terms of food-income share, the poor are substantially worse-off than the non-poor, with 84.5 percent of household income spent on food as compared to 46.9 percent. This indicates that the poor, on average, have little income left to spend after purchasing food, a view which is also supported by figures on durable consumer goods owned by urban residents in Shanghai. The poor possessed slightly fewer television sets (3.1 percentage points less than the non-poor), less refrigerators (9.5 percentage points less

Table 3

Poor and Non-Poor Shanghai Residents as Compared by Food-Income Share and Selected Durable Consumer Goods, 1996

	The Poor (N=119)	Non-Poor (N=866)	
Average monthly household income	666.1 <i>yuan</i> (S.D. 218.5)	2,343.4 <i>yuan</i> (S.D. 1,277.4)	
Average monthly household food expenses	562.5 <i>yuan</i> (S.D. 204.6)	1,099.4 <i>yuan</i> (S.D. 477.4)	
Food-income share	84.5%	46.9%	
Possessions of durable consumer goods (%)			Difference ^a (Poor-Non-Poor)
Refrigerators	89.1	98.6	-9.5
Washers	69.7	89.3	-19.6
Television sets	96.6	99.7	-3.1
Air conditioners	31.1	58.5	-27.4
Telephones	53.8	78.6	-24.8

^aAll are statistically significant with a probability of less than 0.05.

than the non-poor), and significantly less washers (19.6 percentage points), air conditioners (27.4 percentage points), and telephones (24.8 percentage points) (see table 3). All the differences were statistically significant ($P < 0.05$).

Table 4 illustrates the differences between the poor and the non-poor in terms of their individual sociodemographic attributes. Age, marital status, employment status, and education level are used to indicate relativity in social deprivations by income groups. It was found that the poor were generally older: 15.1 percent of poor respondents were between 60-64 years old as compared to 5.8 percent of the non-poor, and 24.4 percent were 65 years old and above as compared with 8.4 percent of the non-poor. The poor group also has more divorced or widowed members: 19.3 percent in contrast to 3.5 percent of the non-poor group. Employment difficulties are also often associated with inadequate or missing financial sources. The poor group in the survey had more retired (40.2 percent as compared to 13.7 percent of the non-poor) and unemployed (21.6 percent as compared to 6.2 percent of the non-poor) respondents. Last, the poor respondents' education levels were low: more than

Table 4
Poor and Non-Poor Shanghai Residents as Compared by Sociodemographic Attributes (%)

Attributes	The Poor (N=119)	Non-Poor (N=866)
Age	(%)	(%)
<60	60.5	85.8*
60-64	15.1	5.8
65 and above	24.4	8.4
Marital status		
Single	17.6	12.6*
Married	63.0	83.9
Divorced or widowed	19.3	3.5
Employment status		
Retired	40.2	13.7*
Unemployed	21.6	6.2
Employed	38.1	80.1
Education		
Illiterate/primary school	26.1	8.9*
Secondary junior	36.1	25.6
Secondary senior	29.4	41.7
Post-secondary/university	8.4	23.8

*All are statistically significant with a probability of less than 0.05.

one quarter of the poor (26.1 percent) and less than one-tenth (8.9 percent) of the non-poor respondents were illiterate or had only a standard primary school education. On the other hand, only 8.4 percent of the poor respondents had post-secondary or university qualifications, while nearly a quarter (23.8 percent) of the non-poor respondents had attained this education level. All the differences in sociodemographics between the poor and non-poor respondents were also statistically significant ($P < 0.05$).

A Litmus Test

The use of household survey findings gives us a cross-sectional view of Shanghai which allows us to claim that by 1996, an income-based poverty line could be used to measure poverty in affluent Shanghai. However, we still need to see whether this poverty threshold can be used for periods earlier than 1996.

The selected annual data presented in table 5 on Shanghai over the past decade and a half can provide us with a litmus test on two sets of indicators which will aid us in determining if the income-based poverty line can be used: food-income ratio and the possession of durable consumer goods. Between 1980 and 1995, it is clear that the food-income share remained at 50.0 percent (in 1988) or below (the rest of the period) (see table 5). Together with the insignificant percentage points added by rent-income share (no more than 1.5 percent at the most), it can be inferred that Shanghai residents have had adequate household income to purchase modern household appliances and equipment to improve their living standards, which was clearly not the case in the early 1980s. In 1980, for example, Shanghai residents' only possession would be television sets, while the food-income share was far below the 60 percent which is threshold of Engel's Ratio.

With the increase in Shanghai residents' income, black and white television sets have been replaced by their color counterparts. As illustrated in table 5, a 1995 survey found that the possession of color television sets in Shanghai households had reached 109 percent, while the average monthly household income per capita was 599.7 *yuan*, more than eleven times that of 1980. The number of households which possessed refrigerators and washers also increased substantially between 1985 and 1988 (from 19.8 percent to 73.0 percent for the former, and 26.2 percent to 62.0 percent for the latter) before stabilizing afterwards. Over 75 percent of Shanghai's households have owned a refrigerator since 1990 and a washer from 1993 onward. On the basis of this, together with the data on color televisions, we can conclude that Shanghai qualifies as an affluent modern city for which the income-based poverty

Table 5
Shanghai Residents' Food-Income Ratio and Possession of Selected Durable Consumer Goods by Year

Year	1980	1985	1988	1990	1993	1995
Average monthly household income per capita (<i>yuan</i>)	53.1	90.5	144.6	183.2	358.0	599.7*
Average monthly household food expenses per capita (<i>yuan</i>)	25.8	43.1	72.3	91.2	155.7	260.0
Food-income share (%)	48.6	47.6	50.0	49.8	43.5	43.4
Rent-income share (%)	1.5	1.2	0.9	0.8	1.0	0.5
Possessions of durable consumer goods by every 100 households (%)						
Refrigerators	—	19.8	73.0	88.0	92.0	98.0
Washers	—	26.2	62.0	72.0	76.0	78.0
Television sets						
Non-differentiated by color	59.0	—	—	—	—	—
Black & white	—	88.0	72.0	65.0	45.0	29.0
Color	—	22.4	54.0	77.0	94.0	109.0
Air conditioners	—	—	—	—	5.0	33.0
Telephones	—	—	—	—	—	49.0

Sources: Tabulated from communications profile and 500 household expenditure survey, in *Shanghai tongji nianjian*, various issues.

*This is the average monthly household income per person. In other words, the total household monthly income (i.e., 599.7 *yuan*) must be multiplied by the average household size (i.e., 3.11), resulting in a monthly household income of 1,865 *yuan* in 1995. The corresponding figure is 2,343 *yuan* in 1996 from our survey sample (see table 3). Given a year's time lag, a 25 percent increase in income (i.e., by 478 *yuan*) should not be surprising in a fast-growing economy like Shanghai; thus, it will make our household income figure representative. Moreover, the rate of income increase between 1993 and 1995, as revealed in this table, is at an average annual rate of 29.5 percent (i.e., from 358.0 *yuan* to 599.7 *yuan*).

line can be used. However, we should add that if air conditioners and telephones are included on the list of selected durable consumer goods, we will get a different picture: less than half of Shanghai's urban residents owned these devices in 1995 (33.0 percent for air conditioners and 49.0 percent for telephones).³²

³²In the household survey data collected for table 2, half of the sample population (55.2 percent) had air conditioners while over three quarters (75.6 percent) had telephones. Judging from the rate of increase in air conditioners, from 5 percent in 1993 to 33 percent in 1995 (see table 5), the recent substantial increases of these two items should not be astonishing, given a fast-growing economy like Shanghai.

The issue remains: should air conditioners or telephones be included as qualifying indicators for assessing the extent of Shanghai's affluence? And if they are included, what level should be set as the threshold, 50 or 75 percent? As with the use of the income-based poverty line itself, these questions also have political and economical considerations, and the kinds of durable consumer goods selected are open to debate. Nevertheless, the evidence in this study suggests that some consumer goods are good indicators for determining an affluent modern lifestyle. In this respect, they are also linked to the use of the income-based poverty line in measuring poverty. Thus, the more consumer goods are included, the more stringent the conditions of poverty measures and relief will be, and vice versa. Stringency also increases with confidence in the use of these indicators for the income-based poverty line.

In this litmus test, it is also clear that the number of durable consumer goods and the percentage of Shanghai households that possess them have risen with the increases in household income, while food-income shares have remained at a similar level of around 50 percent. As these items have been added to surveys by Shanghai authorities as the city has increased in wealth, they indirectly validate the view that they are relevant indicators of affluence.

Conclusion

This paper argues for the use of the income-based poverty line to reflect the wider incidence of poverty in Shanghai. It is also suggested that the income-based poverty line must be qualified by two additional sets of indicators: food-income shares and selected durable consumer goods. Survey data from Shanghai were used to examine these two sets of indicators as well as to validate the claim that the poor, as defined by the income-based poverty line, are socially and materially more deprived than the non-poor. Finally, a litmus text was applied by the use of food-income share and consumer goods data over time.

In the case of Shanghai, great variations have clearly existed between the number of poor people as identified by official poverty thresholds and those identified by the income-based poverty line. Although more poor people can be identified in Shanghai using the latter method—395,000 households, compared to 160,000 households (the number of food-coupon recipients) and 7,000 households (the number of poverty relief recipients)—the financial expenses for poverty relief should be affordable. If our survey sample is repre-

sentative of the general population, an additional amount of 1.5 billion *yuan* is required to fill the poverty gap. This is an amount equivalent to 0.6 percent of Shanghai's GDP, or 5.6 percent of the Shanghai government's total expenditures in 1995.³³ This is an amount that could be afforded by Shanghai, the largest Chinese city with a fast-growing economy. In other words, its urban poor people's living standards can be raised to a level comparable to that of their compatriots if the municipal government adopts the income-based poverty line as the basis for setting standards for relief benefits. The required resources allocated for poverty eradication could be easily calculated; hence, the immediate financial implications could also be competently assessed.

As objective social indicators, food-income shares and the possession of durable consumer goods are data that could easily be obtained by the Shanghai municipal government and turned into a composite index like the Human Development Index, which has only three indicators: longevity, literacy, and income.³⁴ Through this, comparisons on poverty incidence can be made over time and with other cities in China. On the basis of data compiled on these sets of indicators, it can be said that in Shanghai's case, a relativist component in poverty measurement could be incorporated by the use of the income-based poverty line from the mid-1990s onwards.

It should also be noted that food-income shares are not sufficient by themselves to prove affluence, as income can be inefficient to allow the purchase of expensive durable consumer goods. However, whether food-income shares can be left behind in the direct measure of affluence or the indirect measure of poverty remains unanswered, since they reflect the fulfillment of basic survival needs and the absolute component of an income-based poverty measure. However, in terms of the "timing" for the inception of the income-based poverty line, food-income shares offered no clear indications in our study of Shanghai.

³³Calculations of the government's social spending for the elimination of poverty are based on the following formula and figures: Number of households in poverty \times [half of the median household income (1,000 *yuan*) – average household income of households under poverty (666.1 *yuan*)] \times 12 (months). Shanghai's GDP is based on the 1995 figure of 246.2 billion *yuan*, whereas its public expenditures were 26.8 billion *yuan*.

³⁴United Nations Development Program, *Human Development Report 1993* (New York: Oxford University Press, 1993), 100.