

**The Fall in Chinese Poverty:
Issues of Measurement, Incidence and Cause**

Carl Riskin

Queens College and Columbia University
Weatherhead East Asian Institute
420 W. 118th Street, New York, NY 10027
Tel: 212-854-1740; Email: cr6@columbia.edu

March 2004

Prepared for the Keith Griffin Festschrift Conference at Political Economy Research Institute, University of Massachusetts, Amherst, April 23-24, 2004, from a paper originally discussed at the Global Poverty Workshop of the Initiative for Policy Dialogue and the Rockefeller Foundation, Carnegie Council on Ethics and International Affairs, March 30-31, 2003.

China's poverty reduction strategy should be brought out of the shadows and become an integral part of overall economic policy.

-Keith Griffin

*Studies in Development Strategy
and Systemic Transformation*

1. *Introduction.* China's economic record of the past two decades is commonly seen as a great success in generating high rates of growth and greatly reducing poverty. From a comparative perspective, there is no doubt that this view is accurate.¹ Rejecting the "market bolshevik" policies of institutional shock therapy pushed on European transition countries by foreign consultants and international financial organizations, which produced an economic and social disaster in Russia, China adopted a pragmatic, step-by-step approach under which both economic growth and social welfare were greatly advanced.²

Evaluated critically on its own, however, and without the benefit of the contrast with the Russian disaster, China's record displays a number of uncertainties, even about the size and growth of GDP.³ Poverty, too, is an area in which there is much uncertainty. That is unfortunate, because when it comes to the global number of poor, the world including China behaves differently than the world excluding it. Table 1 shows this contrast, according to one set of estimates.

Table 1. China's Impact on Global Poverty, 1987-1998

Change in Global number of poor (%)	- 0.6
-Excluding China	+ 9.3
Change in Headcount Index of Poverty (%)	-17.2
-Excluding China	- 9.3

Source: Calculated from Chen & Ravallion, 2001, Table 2.

When China is taken into account, the absolute number of people in the world who are under the World Bank's PPP\$1/day consumption poverty line fell slightly (by 0.6 percent) between 1987 and 1998. But if China is left out, the total number of poor in the rest of the world actually rose by 9%. China's inclusion causes the headcount index of global poverty (i.e., the proportion of population that is poor) to decline by 17 percent, while China's exclusion brings this rate of decline down to 9 percent. In 1987, China's 303 million poor, by the relevant method of estimation, constituted 26 percent of the

¹ See D. Ellerman, 2002.

²

This is not to say that the European transition economies would have achieved similar high rates of growth had they adopted China's pragmatism. But it is to suggest that they could have avoided the economic and social debacle that resulted directly from the Russian approach. See Griffin (2000) and Ellerman (2002).

³ See Thomas G. Rawski, 2002.

world's poor people. By 1988, however, China's 213 million poor made up only 18 percent of the world's poor. Thus it is evident that China's success in reducing poverty has greatly improved the global poverty picture. Given its importance in this respect, one would hope that the dimensions of poverty reduction in China were known with certainty, or at least great confidence.

This chapter argues, however, that such is not the case. Whereas the incidence of rural poverty in China's countryside *has* by all accounts fallen greatly over the transition period as a whole, there is in fact much uncertainty about the dimensions of this decline, as well as about urban poverty, which has actually risen, and therefore even more uncertainty about the trend in overall poverty in China.

Section 2 presents some criticisms of the common measurements of poverty in China. Section 3 deals with the apparent temporal shape of rural poverty reduction and the reasons for it. Urban poverty and its measurement is taken up in section 4, followed by a summary and conclusion.

2. *Measurement of Rural Poverty*. For many years the world depended upon Chinese government estimates of the poverty rate. These were prepared according to China's very low poverty threshold (equal to about \$0.66 in 1985 PPP\$), and showed rural poverty falling from about one-third of the rural population (some 260 million people) in 1978, to only about 3 percent at the end of 2000 (some 30 million people).⁴

There are various problems with these estimates, suggesting that they substantially overstate the decline in poverty and understate the remaining incidence of it. For one thing, official poverty estimates are for rural poverty only, while urban poverty has been growing in recent years. There is no single official measure combining the two. A recent evaluation of China's poverty statistics points out that they tend to underestimate the incidence of poverty for the following reasons:⁵

- The poverty line has not kept pace with inflation over the years, and thus expresses a declining real income. Park & Wang (2001) estimate that this causes the 2000 poverty line to be 13% lower than it should be.
- Before 1998, the food bundle that provided the foundation of the poverty line excluded items that the government regarded as non-essential. Because of this, grain expenditures constituted 88 percent of the bundle, whereas in reality these came to only about 70 percent of the food expenditures of poor households. Since grain is relatively cheap, over-weighting it leads to an underestimate of the true cost of purchasing a given amount of

⁴ See White Paper on Rural China's Poverty Reduction, issued by the State Council in October 2001, <http://english.peopledaily.com.cn>.

⁵ Albert Park and Wang Sanggui (2001)

calories. This biases the poverty line downward, which of course lowers the measured incidence of poverty.

- After 1998, the non-food share of the consumption bundle was much too low (at 17 percent, compared with actual shares of 27-49 percent in various provinces). This too biases the poverty line and incidence downward.
- The official poverty estimate has been done in terms of income rather than expenditure. A smaller fraction of the population has incomes below a given poverty line than has expenditure below it.

The official rural poverty line (of about 635 yuan/year) comes to about \$0.66/day in 1985 PPP dollars. An alternative set of estimates uses the World Bank's international poverty line of \$1/day in PPP dollars. This generates much higher poverty rates, especially if the line is interpreted as an expenditure line rather than an income line (Table 2):

Although much of the difference between these poverty rates and the official ones is due to the use by the Bank authors of a poverty line that is about one-third higher, even using the PPP equivalent of the official poverty line in 1999, but as an expenditures line, produces a poverty rate of 12.7 percent, much higher than the official rate.

Table 2. World Bank (Expenditure-based) Estimates of Rural Poverty in the 1990s

<u>Year</u>	<u>Poverty Rate</u>
1990	42.5
1992	40.6
1993	40.6
1994	34.6
1995	30.8
1996	24.1
1997	24.0
1998	24.1
1999	24.9

Source: Chen and Wang, 2001. The poverty threshold used is \$1.08 per day in 1993 PPP terms, which is equivalent to the original World Bank \$1 per day standard.

The PPP \$1/day line has itself been criticized by Sanjay Reddy and Thomas Pogge (2003) on the grounds that the use of general consumption PPPs is inappropriate for poverty assessment because they are formed by including many prices irrelevant to the poor (plane tickets, cars, high-end services, etc.) Quite aside from such general criticisms of PPP methodology for measuring poverty, it should be recognized that the PPP estimates for China are particularly weakly based.⁶ China has never participated in a full ICP price survey (there have long been plans for it to do so, which have not yet materialized). The principal existing PPP estimates are based on obsolete price information from secondary sources for a small sample of unrepresentative areas, and for 1986, still an early stage of China's transition to a market economy when both relative prices and expenditure weights were changing markedly. The resulting PPP estimates have been updated using aggregate growth rates based on national accounts rather than on PPP-adjusted sector shares. This procedure exaggerates growth by avoiding the PPP adjustment's effect of reducing the weight of the fastest growing industrial sectors. It has sometimes been suggested that because China's PPP exchange rates, however flawed, were not changed over time, therefore poverty trend estimates must be more or less accurate. However, the opposite argument seems more convincing: Even if initially accurate, fixed PPP rates lose validity if relative prices and expenditure weights change sharply over time.

In fact, the period from the mid-1980s to the end of the century was one of rapid and sharp structural change in China's economy. For instance, from 1985 to 1999 the primary sector's relative contribution to total GDP fell from 28.4 percent to 17.7 percent, while that of industry and construction rose from 43.1 to 49.3 percent, and that of services rose from 28.5 to 33 percent. The primary sector's share of total employment fell from 62 percent 1985 to 50 percent in 1999, while that of the tertiary sector rose from 17 percent to 26 percent (*Statistical Yearbook of China, 2000*). Such structural changes were reflected in expenditure patterns, which shifted in response to advancing incomes, the growing availability of new goods and services, and the freeing up of prices as market forces grew stronger. In the late 1980s, for instance, controls were lifted for most agricultural goods, farm inputs and for many durable goods. Table 3 shows the changing structure of urban and rural spending from 1985 to 1999.

⁶ See Albert Keidel, 1994 for a thorough critique of PPP estimates for China. The following sentences are based on Keidel's discussion.

Table 3. Structure of Expenditures, 1985 and 1999 (% of total consumption expenditures)

<u>Urban</u>	<u>1985</u>	<u>1999</u>
Food	52	42
Clothing	15	10
Housing	5	9
Healthcare	2.5	5
Transport	2	6
Recreation, education & culture	2	7
<u>Rural</u>		
Staple food	26	18
Non-staple food	23	22
Clothing	10	5
Housing	18	15
Healthcare	2	4
Transport, Communic.	2	4
Culture, education, recreation	4	11

Source: calculated from *Statistical Yearbook of China*, 2000

If the initial PPP exchange rate is both inaccurate and also remains unadjusted in the face of changes in relative prices and expenditure weights, there cannot be a coherent interpretation of the resulting trends. Heston's (2001) recent evaluation is surely correct: "The wide range of PPP estimates for China and the large size of their difference from the exchange rate suggest that substantial uncertainty is associated with these numbers...Our earlier hope remains that these PPP estimates for China in PWT 6.0 will soon be superseded by better numbers."

3. *Rural Poverty Trends.* Whatever the uncertainty about the numbers, all observers agree that rural absolute poverty B however defined and measured B did decline greatly between 1979 and 2000. What is less widely known, however, is that this decline occurred almost entirely during two relatively brief periods: (1) the first five years of the reform period B i.e., 1979-1984, and (2) the middle three years of the 1990s. That this is not generally appreciated is probably due to the lack of a single, consistent poverty line for the entire period. The World Bank=s analysis of the years before 1990 used a poverty line consistent with the very low official one. But for the more recent period they have switched to their various international poverty lines, especially the much higher \$1/day one.

The first period of sharp rural poverty decline -- 1978 to 1984 -- corresponding to the beginning of the era of reform and transition, was when reform focused on the countryside. During this period the incidence of absolute rural poverty declined from about 260 million, or about one-third of the rural population, to 89 million, about 11 percent of the rural population (World Bank, 1992). These were the years when farming was de-collectivized, land parceled out to households on an essentially egalitarian basis, farmers were encouraged to abandon the previous Agrain first@ policy and to diversify production, and farm prices were raised 30 percent. In addition, chemical fertilizer supplies were increasing rapidly.

This combination of restored production incentives and rising supplies of farm inputs brought about a huge growth spurt in both farm production and farmer incomes. Between 1979 and 1984 the gross value of agricultural output grew by two-thirds; per capita net real income of rural households more than doubled. The policy package was thought of at the time as particularly helpful to the poorest rural residents of remote and disadvantaged regions and, in fact, it turned out to be remarkably pro-poor.

It is true that much of the increase in output and incomes came from a one-time opportunity for farmers to re-allocate resources away from the distorted allocation of the collective period and toward more profitable uses. Nevertheless, the record of that period is still a remarkable demonstration of the efficacy of pro-poor policies that promoted rapid growth in farm incomes throughout China and concomitantly greatly lowered poverty.

The second period of sharp decline in rural poverty occurred in the middle three years of the 1990s. In 1990, according to the 1992 World Bank report using a very low poverty line, the rural poverty rate was 11.5 percent, higher than it had been in 1984. However, based on the \$1/day expenditure line now used by the Bank, the poverty rate becomes 42 percent of the rural population in 1990 (see table 2). It remained over 40 percent through the first third of the decade, then dropped sharply to about 24 percent by 1996.

The main operative factor in explaining this steep fall is an equally steep rise in farm purchase prices, which doubled in the middle of the decade. Real per capita income of rural Chinese increased by 21 percent in the three years from 1993 to 1996.⁷ Thus, poverty reduction proved to be highly rural income elastic: a 21 percent increase in rural income was accompanied by a 40 percent decrease in rural poverty.

The years between these two periods of rapid decline in poverty B roughly the decade from the mid-1980s until the mid-1990s B saw no decline in poverty. Indeed, the incidence of rural

⁷ *Zhongguo Tongji Zhaiyao* (Statistical Abstract of China), 1998, p. 78.

poverty increased from 89 million (about 11 percent of the rural population) in 1984 to 97 million in 1990 (about 11.5 percent) (World Bank, 1992). During these years, farm incomes stagnated, the rural-urban terms of trade deteriorated and the government's investment programs were skewed toward the coastal cities in what was known as the "coastal development strategy" to attract foreign direct investment. Decentralization of the fiscal system badly hurt poorer regions whose central subsidies declined, causing a concomitant fall in public spending on health and education in poor rural regions.⁸ A highly regressive fiscal regime burdened the poor, as shown by a 1988 study that found rural income distributed far more unequally than rural taxes (net of subsidies).⁹ These years also saw a draconian austerity program to counter rising inflation, but not until the summer of 1988, whereas rural poverty rates had been rising since 1985, despite rapid economic growth. GDP growth averaged around 10% per year from 1984 through 1988. And despite the establishment for the first time in 1986 of a coordinated national institutional framework for fighting poverty, the actual record of poverty reduction during this period was disappointing. Macroeconomic trends and policies had disconnected China's strong economic growth from poverty reduction.

Similarly, there was no decline in rural poverty during the last third of the 1990s; in fact, the poverty rate rose slightly (table 2). During these years the general index of farm prices fell by 23 percent. Prices of wheat and corn dropped by 20-30 percent in 1999 alone.¹⁰ Thus, rising farm prices are associated with both periods of poverty decline, and falling farm prices with the years of stagnating or increasing poverty rates.¹¹ This history points to the importance of general economic policies and trends in affecting poverty. It is these, rather than specific poverty reduction programs, that explains most of what has happened to rural poverty.

In fact, the specific poverty program activities actually correlate poorly with the trend of poverty reduction. For instance, during the period 1979-1985, when the incidence of rural poverty was

⁸ A recent study by IFPRI finds that public spending on education had a bigger effect on poverty reduction in China than any other kind of spending. See Fan, Zhang and Zhang (2002). This study uses a simultaneous equations model on province-level data for 1970-97 to estimate the effects of different kinds of government spending on rural poverty.

⁹ This remains true. In 1995 the top 10% of rural households appropriated 133 per cent of all net subsidies (above taxes and other impositions) received by the rural population, while the two poorest deciles paid nearly half of all net taxes and fees. See Khan and Riskin, 2001 for both studies.

¹⁰ Prices indexes are available from the China Internet Information Center (Beijing) at www.china.org.cn/e-Internet/JJ/HTM/0-2.htm. See also *Zhongguo Tongji Zhaiyao*, 2002, p. 86, and Lardy, 2002, p. 25. Farm prices recovered somewhat in 2001.

¹¹ The argument that falling rural poverty in China is associated with periods of rising relative farm prices has recently been supported by a study by John Weiss (2002) at the ADB Institute. Weiss finds that "The key explanatory variables [re: recent trends in poverty both over time and across regions] appear to be changes in volume of grain production and in procurement prices."

declining fast, there was no organized national public anti-poverty effort established in China. This happened only in 1986 with the formation of the Leading Group for Economic Development of Poor Areas under the State Council, the Chinese government's highest executive body. Thereafter, for many years, poverty stagnated and even increased, while funding for the poverty reduction effort grew rapidly. By far the fastest growth of anti-poverty funding came at the end of the 1990s, as China rushed to meet the goals of the A8-7@ program by the end of the century.¹² Yet that is when rural poverty was in fact increasing again. Helpful as specific poverty reduction interventions may have been in particular localities that received them, these interventions cannot explain the overall trends in poverty reduction, which were due rather to broader economic and policy trends.

4. Urban Poverty. China's cities and towns have been privileged places of residence since the early years of the PRC. Their populations have been restricted in size by a system of household registration (*hukou*) that inhibited population mobility. The state until recently offered employment to nearly all city dwellers; implemented a system of food procurement and supply that guaranteed low-cost access to food in cities; and provided urban residents, as state employees, with free health care and pensions. None of these benefits were available to the rural majority.

The AGreat Wall@ between urban and rural China has been eroding, in that the urban population's special protections and guarantees have faded away while rural-urban labor mobility has greatly increased. There is now unemployment and poverty among urban residents. Yet the history and residue of urban protection has bequeathed a lower absolute poverty incidence to the cities than the countryside.

There has been no nationally unified official urban poverty definition until very recently, and it is still unclear whether there is one or not. The All-China Federation of Trade Unions put the urban poverty count at 18.28 million in April 2002, and in January 2003 the Civil Affairs Ministry reported an urban poverty headcount of 19.3 million, or about 6.2 % of the urban population. This estimate used an urban national income poverty threshold of 152 yuan per month, much higher than the rural poverty threshold (about 53 yuan/month) and amounting to almost \$2/day in 1985 PPP dollars. However, given the problems discussed above with PPP estimates for China and the very different price and cost structures facing urban and rural populations, the urban-rural contrast in PPP poverty lines is perhaps not very meaningful.

¹² The "*baqi*" or "8-7" plan was an ambitious program adopted in 1993 to raise the estimated remaining 80 million rural poor above the poverty line within the 7 years remaining to the end of the century. Having made this estimable commitment, the government hiked spending in the latter years in an effort to meet the goal, at least on paper. Annual government funding of poverty reduction programs, which had been running at less than 5 billion *yuan* from 1986 to 1990, rose to between 5 and 10 billion *yuan* from 1991 to 1995 and to 15, 18 and 26 billion *yuan*, respectively, in 1997, 1998 and 1999. See Feng Lu (2001).

Especially useful in analyzing urban poverty is a recent Asian Development Bank study¹³ which used the urban resident household survey database built by the National Bureau of Statistics to estimate national and provincial poverty lines in 1998. The approach used in this study is generally the same as the one used in defining the rural poverty line, i.e., that proposed by M. Ravallion. Thus, a basic food bundle yielding 2100 kcal. per day was costed province by province, according to the actual consumption practices of the bottom 20 percent of the urban population, and then an Engel curve was fitted to derive the nonfood share of the poverty line, again by province.

The result is a national average urban poverty line of 2,310 yuan in 1998, or 192.5 yuan per month, some 27 percent higher than the Civil Affairs Ministry line for 2002.¹⁴ If this is taken as an expenditure poverty line, the resulting headcount index of urban poverty is 37 million, or about 11.9 percent of the urban population; if it is interpreted as an income poverty line, the poverty incidence is 14.8 million, or 4.7 percent in 1998. The various urban poverty rates are shown in Table 4.

Table 4. Recent Estimates of Urban Poverty

<u>Source</u>	<u>No. of Urban Poor in 2002 (millions)</u>	<u>Urban Poverty Rate (%)</u>
Civil Affairs Ministry, 4 Jan 03*	19.98	6.2
Athar Hussain (ADB) and Dev. Research Center, for 1998	14.7 (income); 37.1 (expenditure)	4.73 11.87
A. Hussain (ADB) estimate of poverty among migrants in cities, 1999, based on income	---	15.2
ACFTU (April 2002)	18.3	5.9

Sources: AFP, Beijing 4 Jan. 03; Hussain (2002); ACFTU: www.chinaonline.com (April 1, 2002).

The ADB study also made use of a special 1999 survey that included data on migrant residents of 31 cities, to estimate the poverty rate among migrants and among full-status residents of the

¹³ Hussain, 2002. This study was led by Athar Hussain, working with the Development Research Center under the State Council.

¹⁴

This change is unadjusted for price changes between 1998 and 2002. However, the urban CPI in fact remained stable over this period, fluctuating very slightly around zero change.

same cities. It found the (income) poverty rate among migrants, at an average of 15.2 percent, to be 50 percent higher than that among full-status residents in the same sample cities (10.3 percent). The implication is that the inclusion of migrants in the urban population sample would produce a substantially higher urban poverty rate. If we use Hussain's estimate of the base population of migrants in the cities (40.4 million) to integrate his migrant poverty rate with that of the full-status urban population, we would derive an overall urban poverty rate of 5.8 percent in income terms for 1998-99.

5. Summary and Conclusion. Trends in world poverty over the past decade or two depend to a peculiar degree on what has happened to poverty in China. This is because of China's great size, the large absolute number of poor there twenty-odd years ago, and the sharp reduction in this number thereafter. Including China in the world picture greatly enhances the decline in world poverty, whereas excluding China leaves a much more ambiguous and unimpressive global picture. Therefore, it is important to assess the poverty measures for China, upon which so much seems to depend.

This chapter has discussed some of the major problems of measuring China's poverty and, consequently, the uncertainties that remain in our understanding of the size of, and trends in, its poverty incidence. Concurrently, we have touched on a broad issue of causality, namely, what the poverty trends seem to tell us about the forces that give rise to them. The main conclusions are as follows:

There is little doubt that rural poverty has fallen sharply in China during the transition period but by how much is still open to debate. This is because the measurement of poverty in China is in some disarray. The official poverty line is too low, and is biased over time in various ways. The World Bank's \$PPP lines for China are not grounded in recent and comprehensive price and expenditure data. Urban and rural poverty are treated entirely separately, except by the Bank when applying the PPP 1\$/day line -- a problematical measure -- to the national population. These problems create considerable uncertainty about the actual incidence of poverty and the true dimensions of the downward trend. Urban poverty has increased in recent years despite rapid economic growth, but the measurement of urban poverty is even less well founded than that of rural, although the recent ADB study has increased our understanding of it.

It is worth pointing out here that, even without these problems, the actual deprivations that constitute poverty are not necessarily comprehensively or accurately reflected in income- and expenditure-based measures of poverty. That is why direct measures of deprivation, such as malnutrition, illiteracy, morbidity, short life expectations, etc., remain important gauges of the extent of true human poverty. Generally, for China, measures of nutritional deprivation indicate a higher poverty rate than the official income poverty measure but are fairly consistent with measures using the dollar-a-day expenditures line.

For instance, a study of independent rural survey data for 19 provinces in 1995 found that 28 percent of the rural population had fewer than 2400 kilocalories per day, which was the nutritional basis of the official poverty line.¹⁵ This compares with an official income poverty rate of 7.1 percent for 1995. Surveys carried out by the Ministry of Health found national rates of stunting for rural children under five years of age to be 39.9 percent in 1995 and 22 percent in 1998, again well above the official income poverty measure.¹⁶

The temporal pattern and causes of the downward trend in rural poverty are less well understood than the fact of the trend itself. Poverty incidence appears to have been governed much more by macroeconomic and general economic policies and patterns than by targeted poverty reduction policies and programs which, in fact, correlate poorly with trends in poverty incidence. This is the essential truth captured by the quote from Keith Griffin that begins this paper. Much work remains to be done in understanding Chinese poverty and accurately assessing the numbers of poor, both urban and rural, and their change over time. This would seem to argue for caution in drawing rosy conclusions about world poverty based so heavily on China's experience.

Bibliography

Chen, Shaohua and Martin Ravallion, "How did the world's poorest fare in the 1990s?," *Review of Income and Wealth*, Series 47, No. 3, September 2001.

S. Chen and Y. Wang, "China's Growth and Poverty Reduction: Recent Trends between 1990 and 1999," The World Bank, July 2001.

Ellerman, David, "Russia: Thoughts on the Privatization Debates A Decade Later," World Bank, Operations Evaluation Dept., Working Paper, 2002.

¹⁵

Zhu Ling, 2001. Zhu found that 17 percent of the rural population consumed less than 2100 kcal. per day, still far above the official income poverty line.

¹⁶

Reported in Park and Wang, 2001, p. 395.

- Fan, Shenggan, Linxiu Zhang and Xiaobo Zhang, *Growth, Inequality and Poverty in Rural China: The Role of Public Investments*, @ IFPRI Research Report No. 125, 2002.
- Griffin, Keith, *Studies in Development Strategy and Systemic Transformation*, London, Macmillan, 2000.
- Heston, Alan, "Treatment of China in PWT 6," draft, December, 2001.
- Hussain, Athar, *Urban Poverty in PRC*, Asian Development Bank, TAR-PRC 33448, 2002
- Khan, A.R. and Carl Riskin, *Inequality and Poverty in China in the Age of Globalization*, New York and Oxford, Oxford University Press, 2001.
- Keidel, Albert, *China: GNP per Capita*, World Bank, East Asia and Pacific Regional Office, China and Mongolia Division, Report No. 13580-CHA, 1994.
- Lardy, Nicholas, *Integrating China into the Global Economy*, Washington, D.C., Brookings, 2002.
- Lu, Feng, "Poverty Reduction Through Growth: China's Experiences," presentation given at regional conference on national poverty reduction strategies, World Bank and UNDP, Hanoi, 4-6 December, 2001, at www.worldbank.org/wbi/attackingpoverty/eap/hanoi_fenglu.pdf.
- Park, Albert and Sangui Wang, *China's Poverty Statistics*, @ *China Economic Review* 12, 2001.
- Rawski, Thomas G., "What's Happening to China's GDP Statistics?", *China Economic Review*, 12.4, 2001.
- _____, "Measuring China's Recent GDP Growth: Where Do We Stand?," working paper, <http://www.pitt.edu/~tgrawski/papers2002/measuring.pdf>, 2002.
- Reddy, Sanjay and Thomas Pogge, "How Not to Count the Poor," (2003) available at www.socialanalysis.org.
- Weiss, John, "Explaining Trends in Regional Poverty in China," Asian Development Bank Institute Working Paper, December 2002.
- White Paper on Rural China's Poverty Reduction*, issued by the State Council in October 2001, <http://english.peopledaily.com.cn>.
- World Bank, *China: Strategies for Reducing Poverty in the 1990s*, Washington, D.C., 1992.
- Zhongguo Tongji Zhaiyao* (China Statistical Abstract), 1998.
- Zhu Ling, "Food Security of Low-Income Groups in Rural China," in Riskin, Zhao and Li, *China's Retreat from Equality*, M.E. Sharpe, 2001.