

## RESEARCH REPORT

### **Project title**

The new urban poverty in China: efficiency versus equity?

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### **Applicant**

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## 1. Background and objectives

Throughout the Communist period the urban population of China has enjoyed a privileged and protected position. Government policies of providing guaranteed employment at relatively high wages and comprehensive social services to urban residents while restricting the rural-urban migration of rural residents, created an invisible Great Wall between rural and urban China. Poverty was negligible in the cities: it was almost entirely a rural phenomenon.

Economic reforms in urban China, gathering pace in the 1990s, began to weaken the 'iron rice bowl' that urban workers enjoyed. The relative wages of unskilled workers fell as they became subject to market competition, and job security was lost. After 1994 the state sector was required to retrench surplus labour: between 1995 and 1999 over 25 million urban workers were made redundant. A new urban poverty emerged, particularly among retrenched urban workers and rural-urban migrants trying to settle with their families.

The original project description read: 'The project is intended to investigate a new phenomenon for China: the emergence of urban poverty, associated with the reform of the (predominant) state-owned enterprise sector. It will use a specifically designed urban household survey, containing a retrospective panel element, to analyse the incidence of unemployment and the ease and nature of reabsorption into employment.' This is indeed an accurate description of some of the things we did and achieved.

The DFID grant funded the British contribution to a larger, international project, based in the Institute of Economics, Chinese Academy of Social Sciences and led by Professor Li Shi of that Institute. The foreign participants were from Australia, Japan, Sweden and the United Kingdom.

The British team comprised Professor John Knight (Department of Economics, University of Oxford, assisted by Dr Linda Yueh), Dr Lina Song (now reader in the School of Sociology, University of Nottingham), and Dr Simon Appleton (lecturer in the School of Economics, University of Nottingham) (both assisted by Mr Qingjie Xia). We were joined for the year 2001 by Professor Li Shi (visiting the Department of Economics in Oxford).

The survey on which the research project was based was largely funded by a grant from the Ford

Foundation in Beijing, supplemented by Japanese and DFID funding for particular components. The survey was designed by the research team, and it was conducted by the Chinese National Bureau of Statistics in the early part of 2000. Relating mainly to 1999 but also to earlier years, it covered thirteen cities in six carefully chosen provinces. A workshop of all the project members was held in Beijing in July 2000, in order to examine the data and to set out and co-ordinate research plans. A second two-day workshop for all participants in the wider project was held in Oxford in August 2001, at which the various project papers were presented and discussed.

## 2. Methods

The basic research method was the conducting and analysis of a purpose-designed survey. The survey is sufficiently large (4000 households in 6 provinces) to be representative of China as a whole. The sample was carefully selected as a subsample of the National Bureau of Statistics household survey frame, in close consultation with the NBS team in charge of the annual urban household survey.

The questionnaires were designed jointly by Professor Li Shi, Professor John Knight, Dr Lina Song and Professor Hiroshi Sato; and Dr Linda Yueh designed the additional module on social networks. There were three separate questionnaires: one for urban-registered households, another for rural-urban migrant households, and a third for households which had suffered a redundancy in the previous five years.

The survey was conducted in January and February 2000 by NBS staff based in the chosen provinces and cities. Some members of the research team (including Li Shi and Linda Yueh) joined the interviewers in particular places, sat in on a few interviews and conducted their own, informal interviews after the formal questionnaire had been completed. This served as a check on questionnaire problems and helped with the subsequent interpretation of results.

The data were inputted by a team in the Institute of Economics, Chinese Academy of Social Sciences, and descriptive results were available at the first project workshop, held in Beijing in July 2000. Data and definitional issues were discussed at the workshop, and the NBS team explained the derivation of the official urban poverty lines.

We have described the data collection in some detail because data quality is crucial to the success of a survey-based research project. The research methods were primarily the application of appropriate econometric techniques to the data. These included:

1. earnings functions, e.g. for non-retrenched urban workers, retrenched and re-employed workers, and rural-urban migrants;
2. duration models, e.g. predicting the expected duration of unemployment of retrenched workers;
3. bivariate (or multivariate) logit or probit models, e.g. predicting which urban workers would be retrenched and which of these would be re-employed;
4. consumption functions, e.g. showing how variables representing forms of insecurity or uncertainty affect consumption.

Researchers are nowadays fully aware of the estimation bias that can arise owing to sample selectivity and to the endogeneity of explanatory variables. The research team made every effort to correct for these biases when they arose, even to the extent of planning potential instrumental variables in the design of the questionnaire.

The research was necessarily based on a single survey. Increasingly, researchers prefer to use panel data because with a cross-section it is more difficult to control for unobserved heterogeneity and thus to establish causal relationships. Most of our data relate to 1999 but in some respects we created a panel by gathering information on previous years. Household recall was assisted by the fact that some of the urban households had been in the NBS 'rolling' survey for up to four years.

### **3. Findings**

The DFID-funded study is of course part of a larger research project. We confine our presentation of results to the contribution of the British members of the team (John Knight, Lina Song, Simon Appleton, Linda Yueh and Qingjie Xia) including their collaboration with Li Shi (who spent a year in Oxford, funded by the DFID grant).

It is easiest to present the results paper-by-paper. The papers themselves are enclosed as an appendix.

- [1] *'Labour retrenchment in China: determinants and consequences'* by Simon Appleton, John Knight, Lina Song and Qingjie Xia, 30pp., forthcoming in *China Economic Review*, July 2002.

The recent policy of labour retrenchment in state-owned enterprises in China (known as *xia gang*) has important implications for both efficiency and equity. The paper examines the individual-level determinants and consequences of the *xia gang* policy, using the 2000 survey. As many as 11% of urban workers had been retrenched, and 53% of these remained unemployed. The risk of retrenchment was higher for women, the less educated, the middle-aged, and those employed by local governments or urban collectives. Re-employment rates are low and the expected duration of unemployment is about four years. The duration is longer for the unhealthy, the less educated, and women with young children. Unemployment benefit has no effect on unemployment duration. The income losses from retrenchment stem largely from the loss of earnings while unemployed. However, re-employed workers are paid less than if they were never retrenched.

- [2] *'Unemployment duration and earnings of re-employed workers in urban China'* by John Knight and Li Shi, 28 pp., being polished for journal submission.

Over 25 million workers have been laid off in the last five years as a result of the restructuring of Chinese enterprises. Fewer than half of these have been re-employed, either formally or informally. How do the re-employed workers fare in the labour market? Does their length of unemployment affect their wages? The relationship between unemployment duration and re-employment earnings is modelled within a search framework, and reasons are found for expecting a negative relationship. The 2000 survey is used to test the model. Earnings functions for the re-employed indicate that earnings decline with unemployment duration, and that this effect is substantial. Taken with the evidence that the retrenchment itself reduces wages, it appears that the displaced workers have faced a tough labour market. The minority who have been re-employed may have succeeded because they were willing to lower their sights.

- [3] *'The three poverties in urban China'* by John Knight and Li Shi, 38 pp., submitted for journal publication.

The nature of poverty in urban China is examined by means of the 2000 survey. By combining income and consumption criteria, three types of poverty - 'chronic', 'transient' and 'voluntary' - are distinguished. A large proportion of the poor are in voluntary poverty, i.e. have income above but consumption below the poverty line. The estimated consumption function shows the importance of income smoothing, of precautionary considerations in an increasingly insecure environment, of saving for investment opportunities, and of special needs related to the presence of children or sickness in the household. An exercise is conducted to compare the three types of poverty by decomposing the divergence in the consumption of each poverty group from its benchmark consumption. Predicted (in relation to actual) financial assets and predicted (as a proxy for permanent) income and differences in special needs are important in contrasting and explaining the three poverties.

- [4] *'A labour market in motion? Job mobility in urban China?'* by John Knight and Linda Yueh, 47 pp., submitted for journal publication.

The large-scale reform of the state-owned sector and the development of a private sector in the 1990s changed the nature of employment in urban China. The system of allocated lifetime jobs (the 'iron rice bowl' ) that had previously prevailed under state planning was eroded, permitting more labour turnover and mobility. The degree of mobility of urban workers appears not to have been researched, no doubt because there was so little until recently. Using the 2000 survey (which has rich data on job duration, job change and the reasons for it), we provide an analysis of the degree of inter-firm mobility in the urban labour market, its evolution and its explanation. A distinction is made between the, institutionally favoured, urban residents and the rural-urban migrants. Five criteria are proposed for evaluating mobility: whether high mobility deters investment in firm-specific skills; whether low mobility impedes beneficial matching of workers to jobs; whether labour displacement creates hardship; whether there is sufficient mobility to

generate market-clearing wages; and, more generally, whether the private net benefits of moving equal the social net benefits. It is argued that in the past there was too little mobility of urban residents and too much mobility of migrants. Both mobility rates are moving in the right directions, but it is doubtful that either has yet moved far enough.

- [5] *'Towards a competitive labour market in China?'* by Simon Appleton, John Knight, Lina Song and Qingjie Xia, 32 pp., submitted for journal publication.

The 2000 survey is used to examine the question: does a competitive urban labour market exist in China? Three tests are devised: are the returns to personal characteristics the same across categories of worker; are the wages of the different categories the same when standardised for personal characteristics; are productive characteristics rewarded and (exploiting a panel component) have the rewards increased over time? The tests are applied to three categories of worker - urban workers recently retrenched, non-retrenched urban workers, and rural-urban migrants - distinguished by their likely openness to the forces of market competition. There is evidence of competitiveness, and evidence that this is increasing, but the urban labour market has a long way to go before it is fully competitive.

- [6] *'How does firm profitability affect wages in urban China?'* by John Knight and Li Shi, 34 pp., being polished for journal submission.

The 2000 survey is combined with an earlier and comparable survey conducted by the same team, in order to compare 1995 and 1999. The surveys are used to analyse the effect of enterprise profitability in urban China. The labour market is still at a rudimentary stage and job mobility remains low, so that wage differences across firms are not necessarily ironed out by labour market competition. There is evidence that, standardising for worker characteristics, profitability raised wages substantially; and that this effect became stronger over time. Moreover, whereas in 1995 profitability was closely related to tenure within the firm, in 1999 it occurred across the board. The relationship between profits and wages contributed to a widening of wage inequalities over time. These findings are consistent with causation running either way, i.e. efficiency

wage payments or profit-sharing (the two may in any case be intertwined) but evidence is adduced in favour of at least some profit-sharing.

- [7] *'The role of social capital in the labour market in China'* by John Knight and Linda Yueh, 26 pp., being polished for journal submission.

Social capital can play an important economic role in the labour market. This may be particularly pertinent in China, both because social relationships, known as *guanxi*, have traditionally been pervasive in Chinese society and because its labour market is in transition from an administered to a more market-oriented system. We test for the role of *guanxi* using the 2000 survey and specially designed individual-level measures of social capital. The basic hypothesis is supported. Both measures of social capital - social network and Communist Party membership - have significant and substantial effects in the income functions. Indeed, social capital may be more important than human capital: an additional reported contact contributes more than an additional year of education. Social capital can play a role either in an administered system or in one subject to market forces. We find that it does so in both parts of the labour market, but some evidence suggests that it is more important in the latter.

- [8] *'An investment model of social capital with empirical application to women's labour market outcomes in urban China'* by Linda Yueh, 34 pp., submitted for journal publication.

The paper investigates the role of social capital in determining success in China's urban labour market. Particular attention is paid to gender differences in earnings. The measures of each individual's social capital - in its Chinese variant, *guanxi* - are created from an innovative module in the questionnaire of the 2000 survey. A model is presented in which investment in *guanxi* is a function of time and of resources expended. The model is then tested using our measures of social capital. There are gender differences both in the stock of social capital and in the economic returns to social capital. Women have less social capital than men, and also lower returns in terms of earned income. Social capital is thus a partial explanation for the gender difference in labour market



success, a difference which is observed to be growing in urban China.

- [9] *'The entitled and unentitled in China: urban laid-off workers versus rural migrants'* by Lina Song, 39 pp., being polished for journal publication.

The paper examines how laid-off workers - the urban new poor - and rural-urban migrants - the unentitled citizens - secure their urban jobs, whether they compete for economic opportunities, and whether they are paid according to their productivities rather than to their residential status. Government intervention is particularly highlighted as employment policy is commonly observed to favour the urban laid-off workers and to discriminate against rural-urban migrants. The 2000 survey is employed for this purpose. There is evidence that the migrants and the retrenched urban workers do not operate in the same part of the labour market. This is partly due to the policy of giving the retrenched urban workers priority in securing re-employment. However, it is also partly due to the inflexibility of those laid off and the inappropriateness of their skills. This has impeded their transfer to more profitable sectors.

In addition to these nine DFID project papers, three other closely related papers have been produced by members of the research team.

During his stay in Oxford Professor Li Shi wrote a project report for the Ford Foundation (the main source of funding for the survey). This provided a good deal of descriptive evidence on the effects on households of state enterprise reform, and the extent and incidence of the new urban poverty in China. Three of the most dramatic results reported are that urban unemployment, urban poverty and urban income inequality all rose in the late 1990s. He compared the two representative and comparable urban household surveys for the years 1995 and 1999. In 1995, 9.5% of urban workers were unemployed; and in 1999, 14.3%, roughly half of whom (6.5%) were *xia gang* workers. The 'headcount' poverty index did not rise much (from 4.2% to 4.6%) but the 'weighted poverty gap' doubled over the four years. The 'headcount' figure for 1999 was particularly high (14.6%) among households containing an unemployed worker. The Gini coefficient of household income per capita increased from 0.25 to 0.31.

Li Shi also produced a paper '*Economic insecurity of urban households in China in the 1990s*' which described and analysed unemployment, poverty and income distribution, and the relationships among them, in 1995 and 1999. It provided strong evidence that urban households faced growing economic insecurity. The higher unemployment rate raised the incidence of poverty and increased income inequality. The policy conclusion was that urban unemployment had become a serious problem, and that government should give higher priority to assisting the retrenched and other unemployed workers to be absorbed productively into employment.

John Knight, Lina Song and Li Shi produced an invited paper '*The rural-urban divide and the evolution of political economy in China*', which has been accepted for publication in an edited book. The paper makes use of the book *The Rural-urban Divide. Economic Disparities and Interactions in China* by John Knight and Lina Song (1999). However, it extends their story to incorporate the causes and consequences of state enterprise reform and other urban reforms of the late-1990s, drawing on the results of the current research project.

In general terms, this research project has made possible the detailed investigation of a new phenomenon in China: the emergence of urban unemployment and poverty on a significant scale. The survey on which the project is based is original and purpose-designed. The study provides the only information on this subject which is representative, quantitative and detailed. The underlying policy issues involve the weighing of efficiency against equity considerations, i.e. value judgements have to be made. The findings throw considerable light on the nature of these trade-offs and on the functioning of the emerging urban labour market. This is a prerequisite for good policy-making in China.

#### **4. Dissemination**

The main form of dissemination *within* the international project was the two-day workshop held in Oxford in August 2001. This was attended by almost all project members and by other researchers with closely related interests, e.g. Professor Shujie Yao (Middlesex University), Dr Xiaodong Gong (IZA, Germany), and several China scholars from Japan. Dr Sarah Cook of the Ford Foundation, Beijing, attended. DFID officials in both Beijing (Catherine Martin, who was going to be in Britain at the time) and London were invited, but unfortunately no-one was able to

come. 13 papers were presented, half of them DFID-funded.

John Knight and Lina Song presented project papers at a number of conferences and workshops. These included the American Economic Association Annual Meeting, New Orleans, December 2000 (Lina Song); the International Conference on the Chinese Economy arranged by the Institute for Research on the Economy of China, Clermont Ferrand, May 2001 (John Knight and Lina Song); the Chinese Economists' Society's International Conference on Urbanization in China, Xiamen, June 2001 (John Knight and Lina Song); the Ministry of Labour/Ministry of Agriculture's International Forum on Rural Labour Mobility, held in Beijing in July 2001 (John Knight and Lina Song); the Chinese Academy of Social Sciences, Institute of Population and Labour Studies' International Seminar on Economic Reform and the Labour Market in China, Beijing, December 2001 (John Knight and Lina Song); and the seminar on Labour Market Reform in China, Hitotsubashi University, Tokyo, June 2002 (John Knight and Lina Song). John Knight will present project papers at the China Centre for Economic Research's International Symposium on Equity and Social Justice in Beijing in July 2002, and at the American Economic Association's Annual Meeting in Washington DC in December 2002.

Project team members have excellent connections with top policy-makers in China. For instance, John Knight and Lina Song became research advisors to the Chinese Ministry of Labour and Social Security as a result of their British Council Academic Link with the Ministry in the mid-1990s. Lina Song spent a day in the Ministry in June 2002, briefing officials on the findings of the project. She had an opportunity to train Ministry of Labour officials at an ILO-sponsored training course in Turin in June 2002.

John Knight plans further dissemination of the research results and conclusions in China over the summer and autumn. He and Lina Song would be very willing to make a presentation to DFID officials if there were interest. Li Shi attends many policy-related meetings in China: he has used every opportunity to disseminate our findings.

The project has contributed to the training of young research staff. In Britain, Linda Yueh and Qingjie Xia fall into this category. Moreover, a number of young researchers in the Institute of Economics, Chinese Academy of Social Sciences, were brought into the project and received

informal training. The links between British researchers and researchers in one of China's top economic research institutes were strengthened.

It is expected that the nine papers listed above will be published in academic journals. In addition, Li Shi is preparing and editing the nine papers for publication in a Chinese-language book (along with other papers emerging from the broader research project, giving a total of some sixteen chapters in all).

## HIGHLIGHTS SUMMARY

### FOR THE GREATER GOOD? THE NEW URBAN POVERTY IN CHINA

**Since the mid-1990s increasing competition forced China's failing and bloated state enterprise sector to reform. Over 25 million urban workers were made redundant. What were the implications for unemployment, inequality and poverty? DFID has funded a British (Oxford and Nottingham) contribution to an international research project based in the Chinese Academy of Social Sciences. A representative household survey was conducted to explore these issues. It shows that the efficiency gains have been achieved only at considerable social cost: high and prolonged unemployment, rising income inequality and the emergence of urban poverty. More effort is required to alleviate the problems of this acute structural adjustment.**

Previously, poverty in China had been a rural phenomenon: urban-dwellers had enjoyed 'iron rice bowls' - secure jobs and relatively high incomes - protected against competition from rural migrants. The recent urban policies - permitting more rural-urban migration, allowing an urban labour market to emerge, and creating widespread redundancies - greatly increased the insecurity of urban-dwellers. The strategy also carried the risk of social instability. Only a new, representative and purpose-designed urban household survey - analysable at the household and individual levels - could address these emerging issues.

Among the many findings of the survey were the following:

- By 1999 over 10 per cent of China's urban workers had been retrenched, and over half of these remained unemployed. The risk of retrenchment was higher for women, the less educated, and the middle-aged.
- Laid-off workers are re-employed at lower wages, and there is a negative relationship between unemployment duration and their re-employment earnings: they face a tough labour market.
- Between 1995 and 1999 urban unemployment shot up, the Gini coefficient of urban household income per capita increased sharply, some dimensions of poverty also rose and poverty became closely associated with unemployment.

- Combining income and consumption criteria, three types of poverty can be distinguished: ‘chronic’, ‘transient’ and ‘voluntary’. A large proportion of the urban poor are in voluntary poverty, i.e. reduce their consumption for reasons of insecurity and precaution. Those in transient poverty smooth their consumption or have special needs related to education or health.
- There is very little mobility of urban workers from one employer to another: some three-quarters have never changed jobs. This immobility has retarded the development of a competitive labour market. By contrast, high job mobility among rural-urban migrants has discouraged their training.
- Three groups of labour can be distinguished according to their likely openness to the forces of market competition: non-retrenched urban workers, urban workers recently retrenched, and rural-urban migrants. Non-retrenched urban workers are the best-paid, *ceteris paribus*, and the returns to productive characteristics are different for the three groups. The urban labour market remains incomplete.
- Enterprise profitability has a huge effect on the earnings of workers: wage differences across firms are not ironed out by labour market competition.
- Social capital, as measured by the size of individual social networks and Communist Party membership, contributes to economic success in the Chinese urban labour market. Men have more social capital, and higher returns to it, than women.
- Retrenched workers and migrants do not compete closely for jobs, partly because government gives priority to the re-employment of the former and partly because those retrenched do not have the flexibility or the appropriate skills to move into the more profitable sectors.

The research findings have three main policy implications:

- The efficiency gains in the enterprise sector have been achieved at the cost of hardship for a minority of workers. The various forms of unemployment support have often proved inadequate. An effective and affordable social security system which covers all urban workers and vulnerable households is needed.
- Government training policies for unemployed workers should be strengthened and improved.
- The transition from an administered labour system to a competitive labour market - with

its incentive and allocative benefits - is incomplete. Policies to ensure steady progress towards a labour market are required.

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*Sources*

S. Appleton, J. Knight, L. Song and Q. Xia, 'Labour retrenchment in China: determinants and consequences', *China Economic Review*, July 2002.

John Knight and Li Shi, 'The three poverties in urban China', processed, 2001.

S. Appleton, J. Knight, L. Song and Q. Xia, 'Towards a competitive labour market in urban China?', processed, 2002.

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