

**MIGRANTS AS *HOMO ECONOMICUS*: EXPLAINING THE
EMERGING PHENOMENON OF A SHORTAGE OF MIGRANT
LABOUR IN CHINA'S COASTAL PROVINCES**

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Abstract

The problem of a shortage of migrant labour is a new development in China's coastal provinces. We discuss the reasons for this emerging phenomenon using a conceptual framework which extends the traditional Lewis dualistic labour market model to incorporate a migrant labour market. We emphasise that migrant labour shortage in China not only reflects a declining wage gap between what peasants receive and what migrants can earn in the cities, but also the institutional legacies of the planning era such as the *hukou* (registration) system which discriminates against migrants vis-à-vis urban residents in terms of access to social insurance and other social services. We proceed to draw on a unique survey of migrants and urban residents collected in Jiangsu to show that migrants receive both lower incomes and poorer access to social insurance than those with an urban registration in China's cities. Our findings have important implications for how to alleviate the migrant labour shortage problem.

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INTRODUCTION

Since the 1980s, large numbers of peasant workers have migrated to China's cities along the coastal seaboard in search of higher incomes and a better life. While there are no precise figures on the number of internal migrants in China, a conservative estimate is that 120-150 million peasant workers have relocated to China's cities (Pan, 2002). Internal migration has been a consequence of both pull and push factors. On the push side, the introduction of the household responsibility system increased agricultural productivity, creating a huge pool of excess agricultural workers. On the pull side, market reforms created job opportunities for migrants in the booming coastal cities; and the government, seeing migrant workers as a source of cheap labour to fuel manufacturing growth, relaxed strict controls on rural-urban migration. However, in mid-2004, to the surprise of most observers, a spate of reports surfaced in the Chinese media indicating that there was a severe shortage of migrant workers in the coastal industrial regions, particularly in the Pearl River Delta region, for the first time in a quarter of a century of market reforms. The shortage was first noticed when fewer migrants from the countryside arrived to look for jobs after Chinese New Year in February 2004 and made headlines around June 2004 when migrant workers normally work large amounts of overtime, but Chinese newspaper photos showed factories setting up roadside stalls attempting to recruit workers (Chan, 2005).

The emergence of a 'shortage of migrant workers' in some industrial cities in the coastal areas has sparked nationwide speculation in China on the causes and implications of this unprecedented phenomenon. Central to this discussion have been the questions of what the economic and social characteristics are that have led to China's supposed shortage of migrant labour, and what policies are needed to manage this issue effectively. Our argument in this paper is that in withholding their labour, migrants are behaving as *homo economicus* (economic man). In making the decision to withhold their labour, migrants, similar to the broader population, are showing that they are self-interested and respond to incentives.

We begin by outlining the causes of the shortage of migrant labour in China and the implications for enterprises in China's coastal provinces and government at different levels. We then proceed to discuss the application of the Lewis (1954) dualistic labour market model to the problem and suggest modifications through incorporating a third (migrant) labour market which makes the Lewis (1954) model more suitable for understanding China's case. Incorporating a migrant labour market into the traditional Lewis dualistic structure is consistent with the argument that the shortage of migrant labour in China reflects not only the falling rural-urban wage gap, but also more general widespread discrimination against migrants associated with the lingering effects of the *hukou* (registration) system, which has effectively made migrants second class citizens in China's cities. Using the modified Lewis model, we suggest reform to existing arrangements which would make it easier for migrants to obtain permanent residence and improve the flow of rural-urban migration. To illustrate the pervasive discrimination against migrants relative to local urbanites, we conclude with an analysis of a survey of 685 migrant workers and 860 urban workers across six cities in Jiangsu, collected in December 2003 and January 2004. Our analysis of the survey suggests that migrants not only face wage discrimination vis-à-vis urban workers, but also suffer discrimination in access to social insurance.

THE EMERGING PROBLEM OF A SHORTAGE OF MIGRANT WORKERS IN CHINA

"China has encountered a 'shortage of peasant migrant workers' for the first time in more than two decades" (Southern Weekend, 2004). This phenomenon has been unexpected as most people

believed the supply of labour in China was 'unlimited' due to the large numbers of surplus labourers in rural areas. The ensuing debate has involved three main issues. First, is there really a shortage of labour supply in China? Second, what are the reasons behind the phenomenon? Third, what implications does this have for the various actors, i.e., migrants, employers and governments at different levels?

Is There a Shortage of Migrant Labour in China?

Some commentators argue that there is no 'shortage of migrant labour' while others insist that a labour shortage problem has emerged in China. The labour officials in Guangdong province where the problem of a labour shortage is supposedly most severe are very reluctant to acknowledge the problem. The Director of the Labour Bureau of Guangzhou is reported as stating that there is no shortage of unskilled migrant workers in Guangzhou (Guangzhou Daily, 2004). Officials were upset by the reports of migrant labour shortage in the mass media and feared that the 'exaggerated' reports would mislead migrant workers to migrate to Guangdong (China Financial and Economic News, 2004b). Cai Fang, Director of the Institute of Population and Labour Economics at the Chinese Academy of Social Sciences, has argued that migrant labour shortage reflects imperfect labour markets and that, as there are still one to two hundred million surplus peasant workers in China's countryside, the overall supply of unskilled labour in China is still far in excess of the demand. And if imperfections in the labour market were addressed, the problem of shortage of workers would be solved (Tian, 2004).

Nevertheless, reports in the Chinese media all point to the fact that many enterprises, especially labour intensive small and medium sized factories in the export processing industry, have been hit hard by a labour shortage (China Newsweek, 2004; Zhang, 2004; Southern Daily, 2004). A Ministry of Labour and Social Security (MOLSS) report published in September, 2004 (MOLSS, 2004) acknowledged that a shortage of migrant workers does exist in some coastal provinces such as Guangdong, Fujian and Zhejiang. Contrary to the views of the Director of the Labour Bureau in Guangzhou, a Guangdong government investigative team found, based on a study of 306 enterprises in four cities, that a labour shortage has in fact emerged in Guangdong. The study concluded that the migrant shortfall in Guangdong in 2004 was approximately one million workers (Southern Daily, 2004). The MOLSS has stated that factories in the Pearl River Delta, as well as some parts of Fujian and Zhejiang, are short of two million workers, particularly females aged 18 to 25 (Xinhua News Agency, 2004). Throughout the debate, the majority of commentators agree that the enterprises most affected are small and medium-sized firms relying heavily on cheap labour, which have reputations for labour exploitation and poor working conditions. In this context, the area which has been most severely affected by a shortage of migrant workers is Dongguan city in Guangdong province, where a number of Taiwanese factories are located (Chan, 2005). According to Chan (2005), in December 2004 80 to 90 percent of the factories in Dongguan could not hire enough workers and so had to scale down production capacity. One government survey, which was released just prior to Chinese New Year in 2005, suggested Dongguan will be one million workers short in 2005 (Reuters, 2005). The fact that Dongguan is the most severely affected can be explained by a survey of labour standards in five cities in different parts of China, which was conducted in 1996. The survey found that of the five cities, wages were the lowest and working conditions were the most exploitative in Dongguan (Chan and Zhu, 2002).

What is the Cause of the Migrant Shortage Problem?

Various reasons have been offered for the shortage of migrant workers. The most common explanations which have been proposed include low and falling real wages, wages in arrears, poor working conditions, high labour demand in urban areas due to rapid industrialization and improved economic conditions in rural areas due to higher prices for agricultural produce and lower agricultural taxes. One survey of migrant wages concluded that on average, migrants earn only a third of the local urban workers' wages (He and Cheng, 2004). The average monthly income of

migrant workers is 667 RMB.¹ After deducting funds for food, housing, telecommunications and other living expenses, little is left (Xinhua News Agency, 2004b). The MOLSS (2004) found that in Guangzhou, in the middle of the Pearl River Delta, the lowest wage migrants were receiving was 510 RMB per month – which is less than the average monthly wage in the impoverished inland provinces of Jiangxi and Shanxi. In Dongguan the lowest wage in 2004 was reported to be 450 RMB per month (Xinhua News Agency, 2004). There is also a growing problem of wage arrears in regions such as the Pearl River Delta. According to the All China Federation of Trade Unions, at the end of 2003 migrant workers' unpaid wages totalled as much as 100 billion RMB (Bechtel, 2004). In the construction sector alone, at the end of 2003 outstanding wages owed to migrants totalled 48 billion RMB, of which 16 billion RMB were accumulated in 2003 (Shanghai Daily, 2004). One survey conducted in 2003 found that 72.5 percent of migrant workers have had outstanding wages owing at some stage (Beijing Review, 2003).

In addition to low and unpaid wages, there is a more general problem of lack of protection of migrant rights (Ma, 2004). The incidence of workplace injuries among migrants is problematic. A survey of migrant workers (75 per cent of whom were female) in the Pearl River Delta in the mid-1990s found that most were working 12 hours a day (cited in ILO, 1998). There are reports of cases in Shenzhen where workers have not been instructed on how to operate machines safely, resulting in disablement and loss of limbs (Ash, 2002; Chan, 2001). While they are illegal, 'life or death contracts' - where migrants agree to work without occupational health and safety safeguards - are prevalent in small collective township and village enterprises and private firms. Where migrant workers are injured, under-the-table payments where the injury is not even recorded are common.² In these circumstances, it is common for factories to give injured migrant workers a lump-sum compensation payment, which is usually less than the legal minimum, and to force the workers to leave (Lam, 2000, p. 4).

Male migrants often find employment in the construction or mining sectors. In the major coal-mining province of Shanxi, it is estimated that 50 per cent of coal mine workers are migrants from other provinces such as Anhui and Sichuan (ILO, 1998, p. 14). The official number of fatalities in mining accidents in China has hovered around 10,000 per annum since 1990 (SSB, 2004). According to the International Labor Organization, fatalities due to mining accidents in China constitute 60 per cent of the fatalities due to mining accidents worldwide.³ Coal mines are the major cause of pneumoconiosis (a lung disease associated with dust) in China. Silicosis and coal miners' pneumoconiosis account for about 85 per cent of recorded cases of pneumoconiosis in China (He, 2002). The construction industry also employs many migrants and likewise has a very high number of industrial accidents (ILO, 2001).

Female migrants work in labour intensive production lines or in domestic service jobs (Cao, 2002; Wang, 2002; Wu and Zhou, 1996). It has been reported in the Hong Kong media that owners of private companies employing migrant workers for production line work frequently change their employees before they start to show the symptoms of occupational diseases.⁴ Firms in industries which work with toxic materials hire migrants on short term contracts and do not renew the contracts to ensure the workers are forced to leave before showing signs of poor health. This is common in Shanghai in the lighting industry and in Guangdong in the footwear industry. Anecdotal evidence suggests that this practice is not restricted to private companies, but also occurs in prominent foreign joint ventures.⁵

A lack of adequate social insurance protection is another major problem for migrants. The problem is that there are no national guidelines protecting the rights of migrant workers including provision that employers must pay social insurance to migrant workers. The closest piece of legislation is China's Labour Law which came into operation in 1995.⁶ According to Article 72 of the Labour Law, all workers in cities are expected to join a social insurance scheme. However, this is not always interpreted as extending to migrant workers. In practice, the decision on whether to extend social insurance coverage to migrants has been left to government at the municipal level. There

are only a few large cities such as Beijing, Shanghai and Shenzhen which have passed regulations extending social insurance coverage to migrant workers and even in these cities, enforcement is haphazard.

Institutional arrangements such as the household registration system (*hukou*) represent barriers for migrants to obtain social insurance coverage (Zhang, 2004b; China Financial and Economic News, 2004c). The *hukou* system was introduced in the early 1950s and became firmly established by the early 1960s following the failure of the Great Leap Forward and the associated famine (Chan and Zhang, 1999; Zhao, 2000). While different reasons have been offered for the establishment of the *hukou* system, the dominant explanation is that the *hukou* system was designed to serve the socialist state's heavy industry oriented development strategy through tying the farmers to the land to provide cheap agricultural products to the industrial sector (see Chan and Zhang, 1999; Lin, Cai and Li, 1996; Zhao, 2002). Despite similarities with the pre-1949 *baojia* system and the Soviet *propiska* or internal passport system, the *hukou* system remains unique in that it classified the whole population into those with an agricultural *hukou* who were confined in the rural areas and those with a non-agricultural or urban *hukou* who normally resided in cities and towns (Chan and Zhang, 1999). The *hukou* system curtailed the free mobility of rural residents to urban areas in the pre-reform era. Without government allocated housing, jobs, food rationing and other necessities, it was almost impossible for those without a local urban *hukou* to survive in the cities (Cai, 2001; Zhao, 1999; 2002). The only channel for rural-to-urban migration was the *nong-zhuan-fei* program which entailed converting one's *hukou* status from agricultural to non-agricultural and was strictly controlled by quotas (Chan and Zhang, 1999).

The 'card system' (*zhengka zhidu*) introduced by governments at both central and local levels with a rapidly growing level of migration in the 1980s became another impediment to intra-China migration as the system regulated where individual migrants could move, what fees needed to be paid to obtain residential and work permits, and what benefits migrants could access. The system discriminated against migrant workers in relation to fees and access to social services. Since 2001 China has started to introduce reform to the *hukou* system in specific provinces. The reforms enable qualified migrants to register as urban residents and obtain the benefits of urban registration including social insurance entitlements. The reforms have been implemented at the provincial level in Anhui, Guangdong, Hebei, Jiangsu, Shandong and Zhejiang as well as several large cities including Beijing, Chongqing and Shanghai (United States Embassy in China, 2005). In March 2005, the Beijing Municipal Government annulled a 1995 regulation which imposed many discriminatory constraints on migrant workers covering employment, epidemic prevention, fees, health, housing and public security. However, the temporary residence permit remains in place (<www.chinanews.com.cn>, March 28, 2005).

For most migrants, obtaining an urban registration together with the entitlements that come with having an urban registration is a remote possibility. The reason is that in order to obtain an urban *hukou*, a migrant first has to typically meet certain conditions such as having a stable job, owning property worth a specified amount or having investments to a certain value. The value of the property and/or investments varies from city to city depending on its perceived desirability as a place to live, but in most cases is outside the reach of the average migrant. Municipal governments have used the reforms to the registration system as a means to attract investment to their cities. For example, in order to obtain an urban *hukou* in Nanjing, Jiangsu, a migrant with three family members must purchase a 60-square meter apartment, while a migrant with four family members must purchase an 80-square meter apartment (Nanjing Municipal Government, 2003). In Wuxi, Jiangsu, in order to obtain an urban registration, a migrant must purchase a 100 square meter apartment or invest 1 million RMB and have paid 100,000 RMB in taxes for two consecutive years (Wuxi Municipal Government, 2003). These considerations mean that social insurance coverage for migrant workers in Chinese cities is at best patchy with most migrants having no social insurance coverage at all. Thus the progress made has been in terms of

improving mobility from the rural to migrant sector, but has not made substantial changes to assist migrant workers to reside in the city permanently.

What are the Implications of the 'Labour Shortage' Problem?

The shortage of migrant workers has had different effects on enterprises, local governments and the central government. Many of the enterprises which have pursued a strategy of making profits by keeping wages low have either been forced to shut down production or have been unable to meet orders (China Financial and Economic News, 2004b). In contrast, enterprises offering higher wages have been able to attract migrant workers. Enterprises which have offered low wages to migrants in the past are now confronting the need to raise wages and improve working conditions or shift operations to central and western China where wages are still comparatively low (Bai, 2004; Sun, 2004). If enterprises which are employing unskilled low wage labour are forced to relocate to the inland provinces, it assists the central government's goal for the development of the less developed interior and western part of China (People's Daily, 2004; Mo, 2004; MOLSS, 2004). Another alternative for enterprises offering low wages to survive without moving to western China is to change the nature of their production process; that is, to upgrade their business from low-skilled labour-intensive manufacturing to capital or knowledge intensive industries, which either require less low-skilled workers or render low-skilled workers more productive (Yao & Peng, 2005).

Local governments in the affected regions are now faced with the challenge of not only how to attract investment, but also how to attract migrant workers to the region. Media reports suggest there has been a domino effect where successive municipal governments in the affected provinces have undertaken to raise minimum wage standards for migrant workers and promised to discontinue policies which discriminate against migrant workers (Liu, Zhang & Li, 2004; Zhang, 2004b). For example, in 2004 Huang Huahua, Governor of the worst affected province, Guangdong, announced legislation to ensure migrants were paid in full and on time (Xinhua News Agency, 2004a). The Guangzhou municipal government considered raising its minimum wage standard from 510 RMB per month to 684 RMB per month (Guangzhou Daily, 2004). The central government has also promised to take action to improve migrants' rights. At the Tenth National Peoples Congress in 2004, Premier Wen Jiabao vowed to solve the problem of wage arrears for migrant workers in the construction industry within a period of three years. The ACFTU has called on the National Peoples Congress (NPC) to enact a specific law to protect the rights and interests of migrant workers (Liu, 2004). These calls have support from individual legislators. Liu Huailian and Jiang Deming of the NPC and Ren Zhenglong of the NPC Agriculture and Rural Affairs Committee have called for national policies to guarantee that migrant workers receive the same social insurance entitlements as urban workers. Wang Yuancheng, who is a former migrant worker and now a member of the NPC, proposed motions institutionalizing the protection of migrants' rights at the Ninth and Tenth NPCs in 2003 and 2004 (Xinhua News Agency, 2004a).

The State Commission for Development and Reforms issued a policy paper in July 2004 jointly with various government departments including MOLSS, advocating the prohibition of various fees imposed on migrant workers (<www.cfen.cn>, 13 September 2004). MOLSS and the ACFTU undertook a nationwide inspection of wages paid to migrant workers for two months from the first day of the implementation of *Regulations of Labour and Social Security Inspection* on 1 December 2004 (<www.chinanews.com.cn>, 23 November and 1 December 2004). The Ministry of Justice has issued a document prescribing free legal services for migrant workers to take legal action for the recovery of deferred wages (<www.chinanews.com.cn>, 10 December 2004). There is much scepticism, however, about how effective such actions will be in practice. As far as policies designed to reduce wage arrears are concerned, for several years, prior to Chinese New Year, municipal governments have conducted "chasing after wage-arrears campaigns" (*zhuihui qianxin yundong*), after which it is announced that several million RMB had been "chased back" for workers. In Guangdong province alone the amounts "chased back" in 1995, 1997 and 1998 have been reported to be, 21 million RMB, 1.5 billion RMB and 5.6 billion RMB respectively (Chan,

2005). These amounts, though, are only a small proportion of the total amount of wages owing to migrant workers. Enforcing compliance with regulations designed to protect migrants is also a problem. When the Labour Inspection Departments take action demanding that factories pay unpaid wages, the most common response is for the firm to close down the factory and open up a new factory elsewhere (Workers' Daily, 2004; Chan, 2005).

THE LEWIS MODEL OF 'UNLIMITED SUPPLIES OF LABOUR' AND ITS APPLICATION TO CHINA

Lewis (1954) developed a simple model based on labour market dualism between capitalist and subsistence sectors. The capitalist sector refers to "that part of the economy which uses reproducible capital and pays capitalists for the use thereof" (Lewis, 1954, p. 146). The subsistence sector consists of the agricultural sector plus other 'informal activities' such as casual jobs, domestic services and petty retail (Lewis, 1954, p. 147). In the Lewis model the subsistence sector is characterized by the classical assumption of unlimited supplies of unskilled labour at subsistence wages. Output per capita is lower in the subsistence sector than capitalist sector and, as more capital becomes available, workers migrate from the subsistence to capitalist sectors, increasing output per capita (Lewis, 1954, p. 147). The key to economic progress in the Lewis model is the use which is made of the capitalist surplus. Rapid capital accumulation is possible in the Lewis model because capital formation results from the profit of the capitalists who are favoured by the distribution of incomes in the process of capitalist sector expansion since real wages are constant. And real wages remain constant because they depend upon earnings in the subsistence sector which sets a floor on wages in the capitalist sector (Lewis, 1954, p. 158).

There will only be an unlimited supply of labour in the subsistence sector at subsistence wages for a finite period. Lewis (1958, p. 20) stated that there is a turning point when the supply of labour becomes inelastic, because capital accumulation catches up with the labour supply. Some Chinese scholars such as Cai Fang reject the view that the shortage of migrant labour in China means that China has reached the Lewis turning point on the basis that there is still an estimated 150-200 million surplus rural labourers in China (Tian, 2004). While estimates of surplus rural labour in the Chinese countryside vary widely, this seems reasonable. Wakabayashi (1990) estimated that there were 220 million surplus labourers in Chinese agriculture in 1990. A more recent estimate, which was reported in the Chinese media, is that there are 150 million surplus labourers in the Chinese countryside (China Daily, 2004). Given that there is still a substantial surplus labour force, plausible explanations for the shortage of migrant labour are either that real wages in the rural sector have risen while real wages in the urban sector have not adjusted accordingly, or real wages in the urban sector have fallen, or both.

The available evidence indicates that both situations exist. Earnings in rural areas have increased since 2003 reflecting the central government's relief policy which has had the effect of increasing the price of agricultural products and reducing agricultural taxes. In the first half of 2004 the income of rural workers in China increased 16.1 per cent year-on-year. The wage income of farmers turned workers increased 13.9 per cent while income earned from selling agricultural products increased 18.9 per cent. At the same time, the average agricultural tax was reduced to 11.5 RMB, which was 27.2 per cent lower year-on-year (Xinhua News Agency, 2004b). The central government signalled further measures to improve the living standards of farmers, including measures to improve agricultural prices in the latest Report on the Work of the Government presented to the People's Congress in March 2005. The wages of migrant workers have not increased commensurately. According to the MOLSS (2004): "Studies show the salary of a migrant worker in the Pearl River delta area has grown by a mere RMB 68 over the last 12 years, far behind the increase in living expenses, and in real terms, wages are declining."

In the Lewis model, the gap between capitalist and subsistence wage must be sufficient to induce agricultural workers to migrate. As Fields (2004) put it, “the essence of labour market dualism is the fact that workers earn different wages depending on the sector in which they are able to find work”. Lewis (1954, p. 150) initially considered that the gap should be 30 per cent or more to induce migration and later (Lewis, 1958, p. 20) adjusted this figure upward to 50 per cent or more. While these precise figures need not be applicable to the Chinese case, they indicate that if enterprises in urban areas offer wages which are high enough, they will be able to attract migrant labour. Media reports suggest that enterprises offering monthly wages below 700 RMB are having the most difficulty attracting migrant workers, those offering 700 RMB to 1000 RMB per month are able to attract sufficient numbers, while those offering over 1000 RMB per month have no problem attracting migrant workers (Mo, 2004).

The Lewis model is intended to be dynamic. The assumption of an unlimited labour supply at constant subsistence wages is based on a broad historical view and Lewis never said that subsistence wages would be unchanged until the turning point was reached. In fact, Lewis repeatedly pointed out the possibility that the subsistence sector could become more productive for various reasons such as new crops, improved seeds, new markets, roads and water supplies (Gersovitz, 1983). Later, Lewis attached importance to trade between the two sectors by which he saw possible “an additional turning point, since the capitalist sector may be choked by adverse terms of trade, even if the labour reservoir is still teeming with people” (Lewis, 1972, p. 83). Seen together, it can be reasonably concluded that the recent migrant labour shortage is not a reflection of what Lewis meant when he stated that a turning point would be reached where the supply of migrant workers is no longer unlimited; neither has China reached the additional turning point due to trade between the rural and urban sectors.

A complication with applying the Lewis model to China is that China has a legacy of a planned economy with distorted labour markets, whereas the Lewis model is based on competitive labour markets. Several studies using datasets for the mid-1990s found that the Chinese labour market is segmented between urban residents and rural migrants (Knight and Song, 1999; Knight *et al.*, 1999; Meng and Zhang, 2001). Appleton *et al.* (2004) and Maurer-Fazio and Dinh (2004) examined labour market segmentation between continuously employed urban workers, urban workers who had been laid-off and reemployed and rural migrants. Both studies found evidence of labour market segmentation into these three categories with non-retrenched urban workers receiving a wage premium. As discussed above, the causes of migrant labour shortages in China’s coastal provinces reflect not only the rural-urban wage gap, but institutional barriers, such as the household registration system and, related to that, discrimination against migrants in access to social insurance and other social services. These issues are associated with China’s path dependent political institutions and, as such, must be addressed from not only from economic, but also humanitarian and political perspectives.

Solinger (1999) has provided a systematic analysis of the interactions between rural and urban labour markets and the institutional legacy of the planned economy, and how these interactions impact on Chinese migrant workers. Solinger (1999) focused on China’s refusal to cede full social and economic rights to migrants. She emphasised the political paradox that she argues resides at the core of China’s approach to globalization. Solinger (2001, p. 173) stated: “State-level efforts to become accepted within the dominant, one might say hegemonic, global economic society have at the same time worked to exclude large numbers of immigrants and would-be citizens from genuine membership in the national community”. Solinger (1999) and others have documented clear evidence of occupational discrimination. According to 1990 census data, nationally only 3 per cent of all migrants were in professional/cadre/clerical positions compared with 24 per cent for urban residents (Yang and Guo, 1996). It is common for the floating population to undertake jobs that the urban populace do not want at the wages offered (Yang and Guo, 1996). These jobs are often so-called ‘Three-D’ jobs – jobs which are dirty, dangerous and demeaning - which are common in industries such as construction and mining for males and sanitation and textiles for females. There

is a wealth of anecdotal evidence documented in Solinger (1999), Roberts (2001) and elsewhere which supports this claim.

In some cases occupational stratification has been institutionalized. While actual reports of migrants taking the jobs of urban residents are scant, perceptions that migrants are taking jobs from the urban populace and pushing wages down are fuelling labour market tensions between the urban and migrant populations. This fear has influenced government policies with local officials viewing migrants as a burden on their cities (Solinger, 1999; Guo & Iredale, 2003). At one level, this manifests itself in subtle forms of discrimination. For example, prior to 2004 Shanghai employers using migrant labour were required to contribute 50 RMB to an unemployment fund for each migrant labourer they employed. The proceeds from this fund were used exclusively to assist unemployed permanent urban workers (Feng *et al.*, 2002). Some municipal governments have implemented regulations to protect urban labourers through reserving specific job categories for urban workers and making explicit suggestions that urban residents not be underpaid compared to outsiders. In the late 1990s, according to a report in the *Beijing Daily* (April 10, 1997), the Labour Bureau of one of Beijing's districts stipulated that at least 35 types of jobs should be closed to the floating population (cited in Wang & Zuo, 1999). In other cases, municipal governments have adopted more direct action against migrant communities. Guo and Iredale (2003) reported that a number of 'migrant villages' in Beijing have been 'cleaned up' or 'demolished' since the late 1990s as migrant communities have been repatriated to the countryside.

The research on migrant labour markets suggests that there essentially exists in China a third labour market created by the migrant workers from outside the reach of the state which sits between the two Lewis classical labour markets. The migrant workers market has its own characteristics stemming from its relationship and interaction with both the urban sector and the agriculture sector. The distorted nature of China's labour markets and planning legacy suggest that the features of the Lewis model need to be adapted to fit the Chinese situation. This is spelt out in more depth in the following four sections.

The emergence of the separate migrant market

Unlike migration in other developing countries where a migrant becomes a regular urban resident, in China a migrant without an urban *hukou* cannot become an urban resident even if he or she is employed in the urban industrial sector. Therefore, a peasant working in Chinese cities is a "peasant migrant worker", meaning that (a) migrants perform industrial jobs for industrial wages, but still maintain their status as a peasant with ties to the land; (b) migrants normally have to find jobs through their own networks with little support from official agencies (see Mallee, 2000); (c) available jobs for migrants are confined to 'three D' occupations at the low end of the wage scale; (d) migrants are not permitted to remain in urban areas on a permanent basis; (e) migrant welfare entitlements (if any) are related to their peasant status, not their place of residence nor occupation, and thus migrants are excluded from the welfare benefits and public goods, which are provided by the state to urban citizens.

The Relationship between the Rural and Migrant Sectors

There exists a gap between the wages of migrant workers and rural earnings and this gap is sufficient to attract peasants to leave their land to take jobs in the migrant sector or otherwise less mobility between the two sectors will occur as has happened recently – the so-called 'shortage of migrant workers'. In all other respects migrant workers and peasants are treated the same as determined by their agricultural *hukou*. Migrant workers retain peasant status, maintain ties to their land in their villages and the vast majority return to the place where they started on their migration journey (see Du Ying, 2000).

The Relationship between the Urban and Migrant Sectors

The difference between the urban and migrant sectors are multifaceted: (a) migrant workers are often confined to low-wage occupations; (b) the urban sector is heavily protected and preserved for urban residents with official reemployment and training programs as well as employment services usually reserved for urban residents including *xiagang* workers, laid-off from state-owned enterprises; (c) even if a migrant and an urban resident are paid the same wage for the same work, which would be rare, a gap still exists between migrants and urban workers because urban workers can partake of welfare services such as housing benefits, social insurance and other public goods which migrants cannot (Zhao, 1999; Yang and Zhou, 1999); (d) urban residents who are laid-off or unemployed are entitled to remain in the cities and continue to be covered by the minimum safety net, whereas migrant workers have to return to their home village if they lose their jobs or are otherwise unable to find work.

Implication of the Interaction between Migrant, Rural and Urban Sectors

If the rural and urban sectors were purposely divided and maintained by the state, the migrant sector was spontaneously created by the market and the migrant workers themselves, though it has also resulted from the prior institutions associated with the *hukou*. Because of its nature, the state has taken few responsibilities for the migrant sector except for occasional restraints imposed on it. The state has made much effort to reform the urban sector, including restructuring state-owned enterprises and overhauling the social security system. Recently, the state has also implemented a relief policy for the rural sector. But so far, the state has done very little to improve conditions for migrant workers and when it has acted, it has done so in an isolated piecemeal manner without coordinated and comprehensive planning. The interaction between the three labour markets is compared with the classic dual labour market in Figure 1. The main features of Figure 1 can be summarized as follows. First, labour transfer from the rural to the urban sector in the triple labour markets requires two (instead of one as in the dual labour markets) phases to complete the process. The wage differential induces mobility from the rural to the migrant sector but the *hukou* constrains final migration to the urban sector. Second, in the first phase, labour mobility is two-way, meaning that the vast majority of migrants return to their home villages because of the *hukou*. Third, the interaction within the triple labour markets implies a push and pull effect of two conflicting forces. Market forces pull the rural surplus labour to the industrial sector while the extant institutions from the socialist planning era such as the *hukou* system push migrants back to the rural sector. In this sense, the migrant sector may be seen as a sector or a process which separates labour from its owners. Worker's labour passes to the capitalist sector and the worker is forced back to the rural sector when no longer required by the capitalist sector.

Figure 1 about here

While China's market reforms have made much progress, the fact remains that marketization in China has grown out of the planning process and that institutional remnants of the planning era, including the *hukou* system, continue to exist. Moreover, while the government has taken steps to improve mobility between the rural and migrant sectors, it is unlikely that the *hukou* system will be completely abolished in the foreseeable future. Consequently the co-existence of the three labour markets can be expected to be a long time phenomenon. Given the reality that the *hukou* system will not be eliminated and that the three labour markets will continue to coexist, in Figure 2 we propose a revised version of the tripartite labour market model from Figure 1 which can improve the flow of rural-urban migration.

Figure 2 about here

As illustrated in Figure 2, the emphasis in our proposal is on the gradual removal of the institutional barriers related to the *hukou* system, especially between the migrant and urban sector, by replacing them with other qualifying criteria, such as employability or required period of residence in the cities. While final rural-urban migration will still require two phases to complete, the difference from the existing arrangements (in Figure 1) is that a substantial proportion of migrant workers will be able to complete the second phase from the migrant to the urban sector through meeting employability criteria and residential requirements. Hence, our proposed reforms would substantially reduce the return of migrants to their home village and facilitate positive urbanization. This arrangement is both desirable and feasible for the following reasons. First, it is compatible with a gradualist approach and the goal of sustainable development, as well as the inevitable task of transferring in an orderly manner large numbers of surplus workers from the countryside. Second, relaxing residency criteria will enable a large number of migrants to be included in the current urban social insurance scheme. This can have positive implications for the extant urban social insurance system because the contributions of migrant workers who are mostly young will considerably mitigate the enormous deficit in existing funding arrangements. Third, permanent migration of the surplus rural labour to the cities can help to alleviate tensions between population numbers and the quantity of arable land in rural areas (Tao and Xu, 2005).

EMPIRICAL EVIDENCE OF LABOUR MARKET AND SOCIAL INSURANCE DISCRIMINATION AGAINST MIGRANTS

In order to examine the extent to which migrants face discrimination vis-à-vis local urban workers, we administered a survey to 862 migrant workers and 885 urban workers in 23 enterprises in six cities (Nanjing, Yizheng, Suzhou, Kunshan, Chuzhou and Changzhou) in Jiangsu in December 2003 and January 2004. We received completed valid questionnaires from 685 migrant workers and 860 urban workers. The survey was administered in these enterprises for two reasons. First, the enterprises contained a representative range of ownership forms consistent with Jiangsu's mixed ownership economy. There were five state-owned enterprises, five privately-owned enterprises, four joint ventures, four shareholding firms and five wholly foreign-owned enterprises. Second, the enterprises were spread across cities representing different economic regions of Jiangsu. For our purposes, an urban worker is defined as someone who lives in the city proper as opposed to the surrounding suburbs or counties and who has always had an urban registration. Since January 1 2003, it has been possible for migrants to Jiangsu to purchase an urban registration if certain conditions are met such as owning a house, having a stable job and investing a minimum amount in the city. There is, though, no-one in the urban worker sample who was a migrant who purchased an urban registration.

Jiangsu is a thriving coastal province and a major destination for migrants from China's interior provinces. While it is impossible to give a precise figure, a conservative estimate is that there are at least six million peasant migrants working in the cities of Jiangsu province, which has a population of seventy-four million, and that there are 2.5 million residents without a Jiangsu *hukou* working in the province, of whom at least 70 per cent are peasants (Bureau of Jiangsu Rural Economy Survey, 2004). The six cities in which the survey was administered are all in the Sunan region of Jiangsu, which, in addition to migrants from the inland provinces, also attracts intra-provincial migrants from the less developed northern part of Jiangsu. Of the cities in the survey, in 2003, Nanjing had 6.4 million permanent residents, of which about 700,000 did not have a Nanjing registration (SSB, 2003). In 2003 Kunshan had 620,000 registered permanent residents with a Kunshan registration, living in the city and surrounding counties, among which 320,000 lived in the city proper. There were a further 480,000 people living in Kunshan without a Kunshan registration,

so migrants outnumbered those in the city with a registration (SSB, 2003a). Yizheng is a county city with a permanent population of 600,000. In 2003, it had about 13,000 migrant workers, of which 80 percent were from other parts of Jiangsu.⁷

Table 1 about here

In the survey, we asked migrants and urban workers about their annual income and access to social insurance as well as collecting basic demographic data (gender, age, education). Table 1 provides a description of each of the variables used in the study. Interviews with enterprise managers and local officials in the six cities at the time the data were collected suggested that migrants from outside Jiangsu suffered workplace discrimination relative to intra-provincial migrants. Hence, in Table 1 we distinguish between migrants with and without a Jiangsu *hukou*. Migrants without a Jiangsu *hukou* are from provinces outside Jiangsu, while migrants with a Jiangsu *hukou* are intra-provincial migrants, predominantly from the less developed northern part of Jiangsu. Casual inspection of Table 1 suggests that both income and social insurance coverage is lower for migrants than urban workers.

Overall, 88.5 per cent of migrants without a Jiangsu *hukou* and 78.9 per cent of migrants with a Jiangsu *hukou* were earning less than 10,000 RMB per annum while just 46.9 urban workers were earning less than 10,000 RMB. Meanwhile, 68.1 per cent of migrant workers without a Jiangsu *hukou* participated in at least one of the five social insurance schemes (industrial injury, maternity, medical, pension and unemployment), compared to 87.6 per cent for migrant workers with a Jiangsu *hukou* and 95.5 per cent of urban workers. Across each of the five social insurance schemes, there is a clear hierarchy of participation with migrants without a Jiangsu *hukou* having the lowest participation rate, followed by migrants with a Jiangsu *hukou* while urban workers have the highest participation rate.

The distribution of workers within each income category by worker classification type is shown in Table 2. Analysis of a 3 (worker classification: local workers, migrants with Jiangsu *hukou*, migrants without Jiangsu *hukou*) x 4 (income group: < 5,000RMB, 5,000-10,000RMB, 10,001-15,000RMB, >15,000RMB) contingency table indicated a significant relationship between worker classification and income group (χ^2 (df=6) = 272.03, $p < .001$), holding age, education and gender constant. A symmetric measure indicated a moderate degree of association (contingency coefficient=.388, $p < .001$). Within-income group percentages showed that the income disparity was most pronounced for the two high income groups, such that local urban workers accounted respectively for 93.1 percent of respondents in the >15,000RMB group and 68.6 percent on respondents in the 10,001-15,000RMB group.

Table 2 about here

Logistic regression analysis was used to predict whether workers received at least one type of social insurance as a function of worker classification, gender, age, education level and income. A test of the full model against a constant-only model was statistically significant ($\chi^2_{12} = 176.76$, $p < .001$), indicating that the proposed model reliably distinguished between those who do and do not receive insurance. Nagelkerke's R^2 was 0.26 and the model correctly classified 88.6 per cent of cases.

Table 3 about here

Table 3 highlights the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. Both worker classification and income were significant predictors of the receipt of social insurance. Odds ratios for the included worker classification groups indicated that, as expected, migrant workers with a Jiangsu registration were approximately three times more likely to receive some form of social insurance as migrant workers with a non-Jiangsu registration. However, local urban workers were also nearly two-and-a-half times more likely to receive some form of social insurance than were migrant workers with a Jiangsu registration. The odds ratios for average annual income indicated that relative to respondents in the high income group (>15,000RMB), and when holding all other variables constant, respondents in the two low income groups (<5,000RMB and 5,001-10,000RMB) were nearly five-and a-half and two times less likely, respectively, to receive some form of social insurance.

CONCLUSIONS AND IMPLICATIONS FOR PUBLIC POLICY

This paper has examined the emerging phenomenon of a shortage of migrant labour in China's coastal provinces. The evidence suggests that migrants are behaving as *homo economicus* in withholding their labour. The Lewis model suggests that one reason for the shortage of migrant labour is the fall in the gap between what peasants can receive in their home villages compared to being migrant workers in China's cities. However, *homo economicus* does not only respond to monetary incentives and as such the wage differential is not sufficient to explain the problem. We extended the Lewis model to incorporate a third (migrant) labour market. One reason for incorporating a third market is that it emphasises that in weighing up whether to migrate, peasants are not comparing rural wages with urban wages, but rural wages with migrant wages which are lower than urban wages. The other reason for incorporating the migrant labour market is that it highlights that the *hukou* system separates migrants from urban workers at a broader level than just wages. We have emphasised that an important reason for the shortage of migrant labour is that migrants receive less than urban workers in their total wage package (including real wage and social insurance benefits) and face other forms of discrimination reflected in long hours and poor working conditions. We have drawn on a unique data set from China's Jiangsu province to demonstrate that holding human capital and personal characteristics constant migrants receive lower income and lower social insurance coverage than urban workers.

If in fact, as we have argued, migrants are behaving as *homo economicus*, the policy implications are clear. Because *homo economicus* responds to incentives, the migrant shortage will ease if real wages and working conditions for migrants in the worst affected regions improve. The central government and provincial governments in Guangdong and Fujian have issued statements to the effect that minimum wages for migrants should be increased and that legislation should be introduced to outlaw poor working conditions in small private enterprises and foreign-invested firms in cities such as Dongguan. Social insurance coverage for migrants also needs to be improved. Some senior legislators have called for national laws prescribing social insurance coverage for all migrants, but as yet there are no national guidelines and the piecemeal regulations providing social insurance for migrants at the municipal level are haphazard. We have suggested that further reform of the *hukou* system through easing the residency criteria for migrants to become urban residents would also improve the financial position of migrants, making migration more attractive, as well as strengthening the urban social insurance scheme.

An important point is that regulations prescribing improved working conditions and social insurance entitlements for migrants must be enacted at the national level. For the most part, there is no incentive for individual provinces or municipal governments to introduce such regulations because it creates a 'race to the bottom' with firms not willing to obey the guidelines moving to the next city or province where such regulations do not exist. There will be some labour intensive manufacturing firms with low profit margins which rely on unskilled labour which would be unable to comply with minimum wage standards. Some cities, such as Shanghai, may have reached a point

where they can accept the loss of such firms as part of a strategy of moving to a 'higher road'. The national government may encourage this trend as part of regional policy. These labour intensive low wage firms will not necessarily be lost offshore to emerging lower wage countries elsewhere in Asia, but attractive packages could be designed to get these firms to relocate to western China where wages are lower. The central government announced that the development of western China would be a priority in 1999 during the currency of the Ninth Five Year Plan (1996-2000). Thus, getting firms to relocate to western China would be consistent with the objectives of the special administrative office of the State Council.

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Table 1: Descriptive statistics by worker classification

	Migrant Worker with non- Jiangsu <i>hukou</i> (%) N=348	Migrant Worker with Jiangsu <i>hukou</i> (%) N=337	Local Worker (%) N=860
Age			
Below 20	7.8	2.1	2.3
20-40	82.2	79.0	78.7
Above 40	10.1	18.9	19.0
Gender			
Male	71.5	71.3	59.0
Female	28.5	28.7	41.0
Education			
Primary school and below	6.1	2.4	1.9
Junior middle school	54.4	56.3	23.1
Senior middle school	25.9	32.9	30.6
Polytechnic, 3 or 4-year tertiary	13.6	8.4	44.4
Average annual income			
5000 RMB and below	25.3	18.7	13.9
5001 – 10000 RMB	63.2	60.2	33.0
10001- 15000 RMB	7.9	18.7	22.0
15000 RMB and above	3.6	2.4	31.1
Insurance participation			
Any form	68.1	87.6	95.5
Pension	42.0	62.1	90.5
Medical	32.7	56.4	70.7
Unemployment	10.5	31.9	62.1
Industrial injury	12.8	42.6	52.8
Maternity	5.4	25.9	42.7

Table 2: Distribution of workers with each income category by worker classification type

	Migrant Worker with non- Jiangsu <i>hukou</i>	Migrant Worker with Jiangsu <i>hukou</i>	Local Worker
	N=348	N=337	N=860
% within income category			
Less than 5000RMB	32.1	22.8	45.1
5001 – 10000RMB	30.7	28.1	41.1
10001- 15000RMB	9.6	21.8	68.6
Over 15000RMB	2.7	4.1	93.2

Table 3: Model of receipt of social insurance

Predictor	<i>B</i>	Wald χ^2	P	Odds Ratio
Worker classification ^a				
- Non Jiangsu migrant	-1.161	21.585	.000	.313
- Local worker	.836	8.962	.003	2.308
Income group ^b				
- <5,000RMB	-1.740	15.285	.000	.175
- 5,001-10,000RMB	-.795	3.247	.072	.451
- 10,001-15,000RMB	.295	.293	.588	1.343
Gender	-.086	.161	.688	.918
Age	-.003	.051	.817	.997
Education level ^c				
- Junior middle	.649	1.821	.177	1.913
- Senior middle	.429	.752	.386	1.535
- Polytechnic	.351	.393	.531	1.420
- 3 year higher education	.387	.429	.512	1.472
- 4 year higher education	18.149	.001	.997	.000
Constant	2.574	7.590	.006	13.118

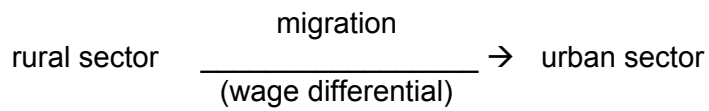
a: reference category is migrants with Jiangsu registration

b: reference category is >15,000RMB

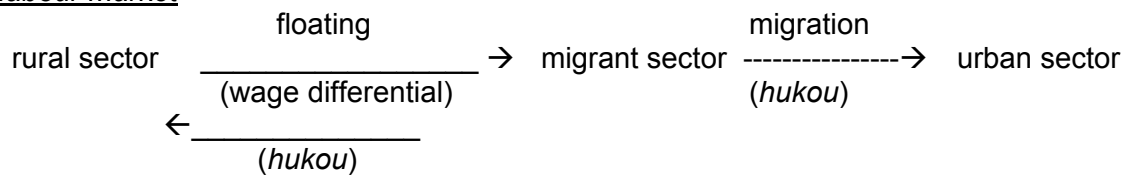
c: reference category is primary school or below

Figure 1: Interrelationships between the three labour markets, in comparison with the classical dual labour markets

Dual labour market



Triple labour market



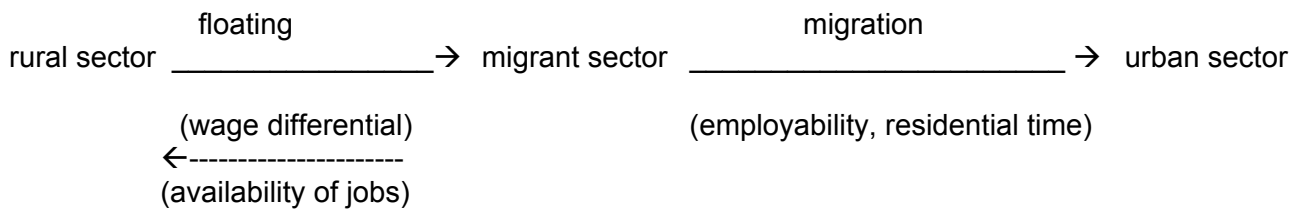
Notes: → or ← refers to the direction of labour mobility

_____ means strong

----- means weak

() refers to the factors explaining labour mobility

Figure 2: Revised process of labour mobility resulting from proposed integrated government policy



Notes: See notes to Figure 1.

ENDNOTES

- ¹ The renminbi (RMB) is the Chinese currency. In May 2005 US\$1= 8.28 RMB.
- ² Interview with the Director of the State Administration of Work Safety, Ministry of Labour and Social Security, Beijing, July 2002; interview at the ILO office, Beijing, July 2002.
- ³ Interview at the ILO office, Beijing, July 2002.
- ⁴ Hong Kong Commercial Daily, 15 September 2002, p. B1.
- ⁵ Interview at a large Chinese listed company, Shanghai, November 2003.
- ⁶ The Labour Law of The People's Republic of China, issued and translated by the Legislative Affairs Commission of the Standing Committee of the National People's Congress of the People's Republic of China, and published by the Ministry of Labour. The Labour Law of the People's Republic of China was adopted at the Eighth Meeting of the Standing Committee of the Eighth National People's Congress of the People's Republic of China on 5 July, 1994 and came into force on 1 January 1995.
- ⁷ Interview at the Yizheng Municipal Bureau of Labour and Social Security, Jiangsu, December, 2003.