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# China: Reforming the Urban Employment and Wage System

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### CURRENCY EQUIVALENTS

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Metric system

### ABBREVIATIONS AND ACRONYMS USED

CASS	-	Chinese Academy of Social Sciences
COE	-	Collectively-owned enterprise
GVIO	-	Gross Value of Industrial Output
ILO	-	International Labor Organization (United Nations)
JETRO	-	Japan External Trade and Research Organization
LMIS	-	Labor Management Information System
LSCs	-	Labor Service Companies
MOA	-	Ministry of Agriculture
MOF	-	Ministry of Finance
MOL	-	Ministry of Labor
OLR	-	Optimal Labor Reorganization
PRC	-	People's Republic of China
SOE	-	State-owned Enterprise
SPC	-	State Planning Commission
SSB	-	State Statistical Bureau
SYC	-	Statistical Yearbook of China
TFP	-	Total Factor Productivity
TVEs	-	Township and Village Enterprises

CHINA: REFORMING THE URBAN EMPLOYMENT AND WAGE SYSTEM

Preface

This report has been prepared by a World Bank mission which visited China from January 18 to February 14, 1991. It was led by Mete Durdag and included Elaine Chan (EA2CO), Hua Xiaofeng (EA2CH), Franklyn Lisk (ILO) and Benjamin King (Consultant). The mission was accompanied in the field by three MOL officials, Ms. Lu Xiaopeng and Messrs. Dong Ping and Wang Aiwen, who provided invaluable guidance and support to the mission. Messrs. Dong and Wang also made helpful comments on an earlier draft while visiting the World Bank headquarters from May 18-29, 1991. The mission also wishes to acknowledge the cooperation and generous background material provided by several central and local government agencies as well as enterprises of various ownership.

Prior to the main mission, a Bank team consisting of Anthony Pellechio and Elaine Chan had preparatory discussions in December 1989 and May 1990 with the MOL and several other agencies in Beijing, Shanghai, and Changzhou. The main mission greatly benefited from the minutes of these preparatory discussions as well as from the two background papers commissioned to Professors Gary Jefferson and Tom Rawski on labor reform and Professor Tehwei Hu on wage reform. Professor Jefferson also contributed to the drafting of the report. Finally, an extended version of the executive summary was based on the main report and was drafted by Hua Xiaofeng and Peter Harrold. It was presented at the international workshop on China's labor reform held in Beijing on March 27-30, 1992.

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CHINA: REFORMING THE URBAN EMPLOYMENT AND WAGE SYSTEM IN CHINA 1/

Executive Summary

i. China's labor and wage system, adopted in the 1950s following the Soviet model, was characterized until recently by overstaffing, underemployment, labor immobility, and a lack of incentives. However, it ensured low levels of open unemployment, and helped China avoid the serious urbanization problems experienced by many other developing countries. Recognizing this rigid system's inability to cope with growing employment pressures and its adverse effects on the efficiency and productivity of labor, the government initiated a series of reforms designed to enhance the mobility and flexibility of the labor force, and to strengthen the link between productivity and wages. Significant changes have occurred over the past decade. This report reviews recent government policies in this area, and makes recommendations designed to generate further gains in efficiency and employment generation.

Urban Labor System Reform

ii. Reform of the urban labor system began in 1980, when a State Council directive replaced the state monopoly of labor allocation with a multichannel system, specifically, the so-called "three channels-in-one" (san jie he) system. Under this new approach, central and local labor authorities continued to plan the overall labor requirements of state enterprises and urban collectives, and remained responsible for placement of specialized high school and college graduates and demobilized soldiers. For urban collectives, labor recruitment was guided by less strict indicative planning.

iii. As a second channel, labor service companies (LSCs) were established by local labor authorities, line bureaus and state enterprises, and developed into an important institutional component of the labor market in China. They are responsible for job vacancy registration, periodic exercises in job assignment (such as placement of high school graduates), and job training. LSCs also set up and operated enterprises in order to create employment for surplus workers.

iv. The third new channel for absorbing labor was the promotion of individual and private businesses, which flourished after the beginning of reforms. There was no centrally (or provincially) planned labor placement in small collectives and individual and private enterprises.

v. Although this new system permitted more flexible and efficient use of labor, its impact was limited because the changes introduced consisted mainly of multiplying the number of agencies involved rather than substantially increasing market forces.

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1/ In this report, unless specified otherwise, the word "wage" refers to an individual's total earnings from labor.

vi. The government's long-standing policy of restricting rural-urban migration also contributed to the avoidance of excessive open unemployment, and prevented an increase in the already heavy burden on the central and provincial governments for providing subsidized food, housing, and public services to a growing urban population. However, it led to the establishment of a privileged and protected urban workforce. In order to increase competition and labor productivity in the urban economy, and to reduce shortages of unskilled labor in some fast growing cities, as well as to expand sources of skilled labor for rural enterprises, measures were adopted over the past decade to allow a degree of labor mobility between cities, towns and countryside. For example, rural migrants have been permitted to work in cities and towns without changing their residence status. More recently, the government has also authorized university graduates to take jobs in TVEs without losing their urban residence permits and access to urban subsidies.

vii. Other labor reforms were designed to grant more autonomy to enterprises in managing their workforce and to break "the iron rice bowl." Key among these were the labor contract system and the "optimal labor reorganization" (OLR) scheme. Although the labor contract system covered only new hires, it was a significant step away from the provision of lifetime job security. By challenging the privileged status of permanent workers and compelling workers to compete for jobs, it offered more flexibility in managing the workforce. The government's objective is to extend the labor contract system to all permanent workers over time, and some experiments are being conducted in this regard. The total number of workers and staff covered by labor contracts reached 17.0 million (about 12 percent of the urban labor force) by the end of 1990, accounting for 13.3 percent, 8.1 percent and 26.3 percent of the total labor force of state enterprises, urban collectives, and other ownership units respectively.

viii. The OLR scheme was designed to reduce underemployment in state enterprises. In enterprises selected for OLR, there was a comprehensive reorganization of the work unit, including retraining and redeployment of labor, designed to raise labor productivity by improving the efficiency of permanent workers and by encouraging them to become contract workers. The OLR program introduced a limited form of collective bargaining: each work group within the enterprise negotiated production contracts, signed by trade union officials and management. The overall wage bill could not be negotiated, as it was set by the government, but wage allocation, bonus criteria and the use of retained earnings could be included in the contract. By February 1992, the OLR program covered about 35,000 enterprises with a total workforce of 10.5 million.

#### Wage Reform and Workers' Compensation

ix. Before 1978, China's wage system, characterized by the term "big iron rice bowl," embodied the principles of egalitarian pay and job security. Wage reforms began with substantial pay increases, based on seniority, in order to raise living standards and gain support for the reform program in urban areas. To reward improved productivity, the bonus system and piece rates were reintroduced in 1977/78. In addition, the government granted more authority to enterprises to determine overall wages and bonuses in accordance with their performance and schemes linking wages to efficiency were adopted.

x. The introduction in 1983 of the corporate tax system subsequently facilitated government initiatives linking wages to efficiency. This allowed enterprises, subject to stipulated percentages, to distribute after-tax profits for a variety of purposes, including product development, reinvestment, emergencies and employee welfare, as well as bonuses.

xi. The wage plan, which established guidelines for average wages and total payrolls for different categories of occupation, sectors and regions, was an integral element of central planning in China, and it remained relatively unchanged from the prereform period. However, its coverage became much narrower because TVEs and private enterprises were not covered, and they grew much faster than the state sector and urban collectives. Some flexibility and decentralization was also introduced: the central government would set the key parameters of the wage plan, and within these parameters, each region and sector could prescribe different wage distribution methods for different categories of enterprise. Thus, state control over enterprise wages shifted from direct to indirect control, and centralized wage policies gave way to decentralized policies with local governments acquiring some wage distribution authority.

xii. With the increase in wages and the new bonus system, the average monetary wage for enterprise workers increased nearly 60 percent between 1978 and 1984. Bonuses increased from 2.3 percent of the total wage bill in 1978 to 14.4 percent in 1984. These increases were reflected in a rising share of total labor compensation in the gross value of industrial output. However, wage data in China tend to understate the actual level of compensation received because urban enterprises offer a wide range of services to their workers at zero or reduced cost.

xiii. The government introduced a wage adjustment tax and a bonus tax in 1985, with a view to strengthening further the link between wages and efficiency and to constraining excessive wage increases. Thus, in state enterprises, labor's share of income began to decline from 1987. The share of wages in collectives, on the other hand, showed continuous decline throughout the 1980s. Nevertheless, the government regarded weakened control over wages as one of the main causes of inflation during the latter part of the 1980s. Remedies were sought to "perfect" the wage plan in order to increase the effectiveness of macroeconomic regulation and control of incomes, including the improvement of linkages between wages and performance. This required the identification of appropriate indicators, such as labor's contribution to output and the value of the marginal product of each worker. It was also to ensure that the state's share in profits and enterprises' investment needs were taken into account.

xiv. The main indicators used--profit per worker, amount of tax per worker and gross value of output per worker--have serious shortcomings as measures of an enterprise's efficiency, particularly in the Chinese economy in which relative prices remain distorted and an enterprise's profitability depends heavily on its ability to negotiate favorable treatment with regard to tax payment, credit, inputs, and production quotas. Differences in profit and output per worker between capital-intensive and labor-intensive enterprises, as well as the effect of external factors, also created problems with these indicators. Given the government's overall economic reform objectives,

strengthening labor markets and increasing the use of indicative planning would have been more effective than attempts to strengthen the mandatory planning features of the wage plan.

xv. Although the extent to which egalitarian distribution of wages and bonuses within enterprises has been reduced is unclear, wage reforms have clearly enhanced labor productivity and the linkage between wages and efficiency. Wage reform has turned a passive labor force into a contentious and calculating one. It is this newly emerging sense of acquisitiveness and self-interest among workers that should perhaps be considered the most significant achievement of the wage reform.

#### Labor Mobility and Flexibility

xvi. At the beginning of the reform period, labor mobility was negligible and rural-urban migration as well as intersectoral and interenterprise movement of labor was restricted by administrative and economic means. However, the government's hesitation to relax restrictions on labor movement from rural to urban areas was partly overtaken by changing realities. Successful agricultural reform, resulting in rapid increases in farm production and productivity, gave rise to a great "push" to move people out of farming. This was accompanied by several "pull" factors common to most developing countries, including the rapid growth of secondary and tertiary employment and the growing attraction of cities as centers of culture, education and upward mobility. Towards the end of the 1980s, a huge influx of rural migrants was reported in major metropolitan centers.

xvii. This so-called floating population, estimated at between 60 and 80 million in early 1990 (equivalent to about a half the registered urban labor force), has been a growing source of low cost labor to both enterprises and the state. Such workers have to find their own housing and demand fewer social services than permanent urban residents. Floating labor thus contributes to reforming the urban economic system by offering competition, challenging the official work style, and enabling enterprises to have more flexibility in labor management.

xviii. Available data indicate a modest increase in labor mobility over the past decade among permanent workers in both the state and the urban collective sectors. A much higher degree of mobility prevailed among temporary workers and those employed in the nonstate sectors. In particular, the rate of involuntary separation was much larger in the collective sector (including TVEs) than in state establishments.

xix. The effect of labor mobility on labor efficiency can be measured by the convergence of factor returns. Returns to labor in the collective sector rose from 48.5 percent of returns in the state sector in 1980, and to 55.4 percent in 1988. This convergence was principally the result of a higher rate of total factor productivity growth in the collective sector than the state sector. Furthermore, returns to labor, capital and intermediate inputs each converged during 1980-89 in most industrial branches. These results suggest that even at the core of China's state industry in the medium and large state-owned enterprises, there was evidence of gains in allocative efficiency.

### Unemployment and Underemployment

xx. Until recently, open urban unemployment was not a serious problem in China. It was restricted primarily to school-leavers and young persons waiting to be allocated to jobs, accounting for less than 5 percent of the total labor force in 1978 and 2 percent in 1988. With the spread of the labor contract system in 1986 and with the economic slowdown which accompanied the stabilization program launched in late 1988, some experienced workers began to lose their jobs. Job loss rates were generally higher in the less developed and slower growing regions than in the more developed coastal areas. Job losses were also higher within the urban economy, where the private sector was more restricted.

xxi. Young people make up an estimated 83 percent of the unemployed. This indicates that there is an imbalance of supply and demand at the entry point of the labor market, due to mismatches in skills and experience as well as the rigidity of employment protection for the existing labor force. It also reflects voluntary unemployment due to the hierarchy of preferences for employment by type of enterprise ownership. Employment in the state sector provides a much higher level of benefits and greater job security than do firms under other types of ownership.

xxii. Women account for about two-thirds of total youth unemployment, which is higher than their 45 percent share in the total labor force. Gender-based differences in unemployment rates underscore the need for specific policies and programs aimed at strengthening education, employment and occupational diversification among women in China.

xxiii. Increasing levels of unemployment now coexist with shortages of critical technical and managerial staff. This situation clearly implies labor-market imbalances linked to problems of human resource development and labor mobility. Since the Cultural Revolution, skill shortages have persisted in the face of technological change and industrialization. In addition to shortages of skilled labor, excessive segmentation of the labor market and administrative control over labor allocation continue to hinder the efficient deployment of skilled labor.

xxiv. Incomplete utilization of China's human resources consists primarily of underemployment rather than unemployment. According to Chinese observers, as much as 20-30 percent of the labor force in urban enterprises may be in excess of technical requirements. The main factors are administrative pressures to limit the growth of open unemployment, and the social structure of the Chinese enterprise which does not permit managers to lay off inefficient and lazy workers. In addition, transitory underemployment was much in evidence when there was a sharp reduction in aggregate demand caused by the stabilization policy of 1988/89, with an estimated 4 percent of the urban labor force temporarily laid off on basic wages at the end of 1989.

xxv. Chronic underemployment has had serious effects in terms of short-run efficiency losses and also created impediments to long-term structural change. High levels of job security have seriously retarded innovation and productivity growth, particularly in state industry. Estimates of the growth of total factor productivity (TFP) in state and collective industry, for exam-

ple, show a higher level of TFP in the collective sector despite the privileged access of state firms to skilled workers, advanced technology, and superior equipment. These considerations indicate the possibility of substantial economic benefit from permitting an increase in the rate of open unemployment among urban residents.

#### Obstacles to Labor-Market Reform

xxvi. In China's formal urban sector, virtually all housing, pensions, social services and income security are provided by work units. Thus, a worker who leaves his job also forfeits access to all these social benefits. Therefore, employers are reluctant to dismiss workers, thereby contributing to low turnover rates and a poorly disciplined labor force. Outside the state sector, benefits are less generous (in the collective sector), or nonexistent (in the private sector). This represents a further discouragement to labor mobility across sectors. Housing and social security reforms should therefore be accelerated to eliminate these institutional obstacles to a successful labor reform.

xxvii. A second set of obstacles is a wide range of policies and pricing conventions that discriminate against labor-intensive activities, including the following:

- (a) The High Relative Price of Labor. The price of industrial labor, relative to capital or energy, is much higher in China than in, for example, India. In some subsectors, capital intensity even matches the level found in the same industry in the US. Chinese urban wages seem to be considerably higher in relation to the prices of capital, energy and raw materials than would be expected given the large pool of labor and the government's long-standing concern for full employment. This said, the solution to this relative price problem lies primarily in the pricing of raw materials and capital goods, rather than in labor reforms.
- (b) Preferential Treatment for SOEs. The Chinese government maintains a comprehensive set of preferential policies towards state-owned enterprises, which include subsidized supplies of capital, raw materials and energy, tax breaks, and more recently, guaranteed purchase of excess inventories of output. Enterprises outside the state sector, particularly private firms and TVEs, are thus subject to unfair competition by state enterprises.
- (c) Antiservice Sector Bias. Notwithstanding its rapid growth, the share of output and employment represented by China's service sector remains below the average reported for other large developing countries in Asia, such as India, Indonesia and the Philippines, reflecting a bias towards the material goods-producing sectors.

xxviii. By limiting the demand for labor, the policies described above have had the unintentional consequence of creating a more serious unemployment and underemployment problem than would otherwise have emerged with a more serious labor-market reform program. Coupled with the absence of a social insurance program that operates above the level of the enterprise, the persistence of

policies that, albeit unintentionally, discriminate against employment undermines the social and political feasibility of broad-based labor-market reforms.

### Recommendations

xxix. This report's review of China's urban labor reforms suggests that initiatives designed to inject more flexibility and higher efficiency into what used to be a highly centralized and rigid system could generate major productivity gains. Although in a number of areas labor-market arrangements acted as a drag on the development of the economy, gradual but vigorous pursuit of reforms holds the potential for very substantial medium- and long-term gains. The proposed changes are not painless, but they lie well within the Chinese reform program and the transitional costs can be contained within tolerable limits.

xxx. China's labor and wage reforms are intimately related to other elements of the reform program. Enterprise reform, technology reform and fiscal reform all depend, in substantial measure, upon the success of labor reforms. Likewise, successful reform of the labor system also hinges on progress in other areas including ownership and bankruptcy reform, housing reform, social security system reform, and price reform. It is not therefore possible to draw up a detailed timetable for further labor and wage reform in isolation. The following, therefore, should be regarded as illustrative of the most important reforms in the near to medium term.

xxxi. The primary issues to be addressed appear to be the rigidity introduced into the system as a result of the excessive degree to which urban labor income is provided in nonmonetary form, which severely reduces the mobility of labor, and the need to continue to provide a supportive framework for the development of labor-intensive industries, especially through the Township and Village enterprises. If policies which discriminate against employment creation can be removed, and nonmonetary income converted to wages, including provision of basic services by the state, then measures to generate labor mobility and to improve labor-market institutions could have major impact.

### Alleviating Antiemployment Policies

xxxii. In an environment in which profitability gains increasing importance in determining investment decisions, the benefits available from changing the antiemployment policies mentioned above become larger each year. The alleviation of these policies, among others, call for action in the following areas:

- (a) The relaxation of controls and restrictions that currently impede the development of collective and private enterprises, especially with respect to access to credit, energy and raw materials. This is especially the case in the relatively underdeveloped service sector, which could be a major source of employment creation.
- (b) A reduction in the price of labor relative to the costs of capital, energy, and materials, primarily by appropriate adjustment of the latter.

### Increasing Labor Mobility

xxxiii. This report is primarily concerned with issues related to the improvement of the labor market in China. In terms of labor mobility, therefore, it is concerned primarily with movements of labor between areas and between enterprises. However, it is recognized that many workers are likely to continue to have de facto permanent status. But, if such workers are flexibly deployed through retraining and redeployment within an enterprise or enterprise group, they are not an impediment to efficiency. While a full discussion of this is beyond the scope of this report, it merits further attention in China. The more direct reforms fall into two areas.

xxxiv. Interenterprise Movement of Labor. Within urban areas, the movement of labor among enterprises can be enhanced by putting workers on an equal footing regardless of ownership of their enterprises and by subjecting all enterprises to the same rules and regulations regarding the allocation of labor and setting of wages and bonuses. Specifically, the following issues should be addressed in coordination with housing and social security reforms, preferably within the next two to three years:

- (a) The preferential treatment of workers in the state and the urban collective sectors (e.g., the provision of low-cost housing, social services, and guaranteed employment) should be eliminated over time. This could be most effectively achieved by the wage reform, delinking access to housing facilities, medical insurance and old-age pension from the workplace, so that workers would not be inhibited to move to another firm for fear of losing such benefits.
- (b) The requirement of having resident status in a particular city in order to be able to work in a state enterprise or collective in that city should be removed, as this would increase pressure on those enterprises to reduce differentials with nonstate enterprises.

xxxv. Rural-Urban Migration. While the wage, employment and institutional reforms are being put in place, it will be appropriate to relax steadily restrictions on the movement of labor from rural to urban areas, so as to provide a pool of available labor for industry and the urban service sector, and avoid ever-growing differentials between urban and rural residents. This said, it would be dangerous to move in this area in the absence of a continuation and extension of incentives for rural development, especially of TVEs, so as to avoid exacerbating the "push" effect contributing to rural-urban migration. In addition, to reduce the "pull" effect, this should be timed to coincide with the ongoing elimination of urban food, electricity and other subsidies. A useful first step in relaxing migration restrictions could be to extend "urban resident" status to everyone residing within the boundaries of towns and cities, which would help reduce the segmentation of the labor market without creating additional burden on urban facilities.

### Institutional Development Issues in the Labor Market

xxxvi. Labor Service Companies. The retraining and redeployment functions of LSCs should be developed and strengthened, instead of their present concern with labor absorption. This seems to call for two major reforms:

- (a) The LSCs should change the nature of their activities in creating and managing enterprises. At present, they not only organize and set up enterprises, but also maintain an organized relationship with them vis-à-vis their ownership and management. These practices contribute to excessive labor-market segmentation and inefficient use of resources. Therefore, LSCs should either cease their enterprise-running activities or confine their function to only organizing and preparing the venture projects for financing by a bank or DFI essentially on their economic merits. Once an enterprise starts functioning, LSC's role should then be confined to labor related matters only.
- (b) The LSCs should develop and strengthen employment exchange centers and the information network about job vacancies and employee qualifications that will facilitate interenterprise movement of labor.

xxxvii. Labor Contract System. The labor contract system was perhaps the most significant institutional reform introduced in China in the 1980s. However, attention to two particular areas is recommended:

- (a) Contract procedures should be made clearer, more standardized, and tightly binding, so that they do not become a substitute for permanent status.
- (b) The government should continue to extend the contract system to permanent workers, gradually eliminating the "tenured" status of the present workforce. This said, it is recognized that for a variety of political and cultural reasons, it is likely that there will continue to be a large number of "permanent" workers, but complementary reforms should be designed to minimize the privileges that this status offers.

xxxviii. Optimum Labor Reorganization. This scheme has positive features, and it has the potential to become an effective means of improving labor efficiency. The OLR at present takes the existing labor force of an enterprise as given, and seeks ways to reorganize it. Rather, OLR should start from an assessment of the enterprise's labor needs, and deal with the issue of how to rid the enterprise of redundant labor. This could involve the provision of "restructuring credits" and technical assistance to enterprises. Finally, all urban enterprises should be encouraged to undertake an OLR program at regular intervals, say every three years, to signal the labor force that their performance will be evaluated continually.

#### Further Wage Reforms

xxxix. China has gradually been moving towards a system which combines planning and market regulation with increasingly effective use of fiscal and monetary policies as indirect tools of economic management. The government should expand the use of indirect instruments to regulate wages including allowing the prices of capital, energy and materials, substitutes for labor which artificially drive up wages and restrict employment, to be more subject to market pressures. In addition, reforms should be pursued on two levels.

xI. Macro Wage Plan. It would be desirable that the existing semimandatory wage plan be replaced by a flexible incomes policy. Together with appropriate fiscal, monetary, pricing and incentives policies, this would motivate enterprises to adopt wage and profit distribution practices that would be in line with productivity variations.

xli. Enterprise Wage System. At the enterprise level, the following four areas need to be addressed if the wage system is to contribute to improving productivity and employment prospects:

- (a) In-kind services, such as housing and other subsidies should be monetized on the basis of their cost or market value. This should help workers feel less constrained in seeking alternative employment opportunities, and assist employers in increasing wage differentials.
- (b) Responsibility for income security and welfare support should be shifted from enterprises to the government. This requires continued growth in the use of contributory retirement pension pools outside enterprises, as well as unemployment insurance programs. These changes would have the critical effect of releasing workers from their "bond" to their work units.
- (c) The wage system is excessively egalitarian, and therefore needs reforming to reflect differences in productivity, qualification, training and skills among employees. In particular, differentials should be widened between high and low skilled workers, and between skilled workers and management professionals.
- (d) It is not recommended that increasingly detailed measures of enterprise performance are used to determine the "appropriate" level of wages in enterprises. Rather, this calls for speeding up reforms in the other areas, especially price and enterprise reform. In the meantime, if standards are to be used, wage adjustments should be driven primarily by changes in labor productivity, and bonuses should be determined on the basis of an enterprise's profit performance, adjusted for price distortions. The amount of tax remitted is not a useful measure of labor's performance.

xlii. The above recommendations are feasible extensions of the existing labor and wage system. While these measures carry substantial benefits, they might bring severe short term costs in terms of converting disguised underemployment into open unemployment. This said, such measures are also designed to generate a much higher level of productive employment opportunities over time, which can only be to the benefit of both the economy and labor. It is, however, worth reemphasizing that efforts to reduce barriers between rural and urban labor markets and to give more autonomy to enterprises to manage their workforce and set wages and bonuses will need to be accompanied by policies conducive to steady employment creation and by a set of social insurance programs supporting those adversely affected during the transition.

## I. RECENT DEVELOPMENTS IN CHINA'S LABOR SYSTEM

### Introduction

1.1 China has made significant progress in employment creation over the past decade. Employment growth, at an average annual rate above 3 percent between 1979 and 1988, more than offset the increase in urban labor supply, thus reducing measured urban unemployment from over 5 percent in 1979 to around 2 percent between 1984 and 1988. This achievement looks even more impressive when labor productivity is considered. Real labor productivity, calculated as gross value of output per worker, grew at an average annual rate of 7.6 percent from 1979 to 1989, suggesting that jobs have not been created at the expense of productivity gains. However, extensive underutilization of labor in both urban and rural areas, lack of mobility and flexibility within the labor system, and a tendency to overrate real growth require these gains to be put in the right perspective.

1.2 Official rates of urban unemployment disguise much higher rates of underutilized labor. First, restrictions on rural-urban migration impose artificial limitations on the supply of urban labor. The result is a substantial labor surplus in agriculture, currently exceeding 100 million and projected to reach 200 million by the end of the 1990s.<sup>1/</sup> Second, official unemployment figures disguise extensive underemployment in state- and collective-owned enterprises in the urban sector. Within the state sector, an estimated 15-20 percent of the workforce is underemployed.<sup>2/</sup> The extent of open urban unemployment is limited by government policies that restrict migration into urban areas and that require state enterprises, irrespective of their needs, to absorb officially allocated workers. In addition to the official unemployment rate which understates the extent of labor's underutilization, the productivity growth rate overstates the rate of improvement in labor productivity. High labor productivity growth reflects exceedingly high rates of growth of capital per worker. In addition, the tendency to overstate the growth of real output leads to the overestimation of labor productivity growth.<sup>3/</sup>

1.3 This macroeconomic overview of the growth of employment and labor productivity also fails to reveal problems in the efficient allocation of labor across sectors and enterprises and the efficient deployment of labor within enterprises. These inefficiencies, largely reflecting administrative restrictions and interference, also weaken the creation of a clear linkage between labor's performance and its wage. The practice of lifetime employment and provision of a generous range of services by urban enterprises to their

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<sup>1/</sup> "Experts Propose New Ways to Transfer Rural Surplus Labor," Xinhua News Agency, Beijing, February 21, 1991.

<sup>2/</sup> MOL puts the urban underemployment rate at about 15 percent, but see paras. 2.3 and 5.10 below.

<sup>3/</sup> World Bank, China: Statistical System in Transition, Report No. 9557-CHA (draft), June 1991.

employees also severely restrict the mobility of labor and the capacity of managers to maintain labor force discipline and wage restraint.

1.4 Despite these problems, the Chinese government has undertaken important initiatives in the area of labor reform. These include reforms designed to enhance the mobility and flexibility of the labor force as well as the link between labor's performance and its wage. Among the first category of reforms are greater rural-urban mobility, the contract labor system, the optimal labor reorganization program, and reform of the enterprise-based social insurance program. Reform for strengthening the wage-efficiency linkage includes the provision of bonuses out of profits and a substantially decentralized system for setting wages.

1.5 Reform of the labor system is a critical element of China's overall economic reform effort. Labor-market reform is a prerequisite to improved incentives, efficiency, and productivity growth, all key objectives of the Chinese government's economic reform program. At the same time, China's labor reforms are intimately related to other elements of the reform program. Enterprise reform, technology reform, and fiscal reform all depend, in substantial measure, upon the success of labor reform. Likewise, successful reform of the labor system also hinges on progress in other areas including ownership and bankruptcy reform, housing reform, reform of the social insurance system, and price reform. That reform of the labor system is closely linked to China's overall economic reform program is consistently affirmed through interviews with managers who emphasize the central importance of labor reform in their efforts to raise the efficiency, adaptability, and profitability of their enterprises.

1.6 The Chinese authorities recognize the above problems and the key role of labor reform, but they remain concerned that further labor-market reforms may lead to significant increases in open unemployment and, hence, social instability. This concern has become an important impediment to labor-market reform. For example, elements of enterprise reform and the enterprise bankruptcy law have not been implemented partly because of fears about their unemployment consequences. Yet, various policies of the central government complicate the process of labor reform by limiting the employment-generating potential of the Chinese economy. Against this background, the Chinese government and the Bank have agreed to undertake a joint study of urban employment and wage reform issues, with particular emphasis on their relationship to economic reform in other areas. The present report is the outcome of this cooperation.

1.7 This report is thus designed to help guide the Ministry of Labor (MOL) and other central government authorities in adopting and/or enhancing right (i.e., efficiency-oriented) reform measures in urban employment and wage policies and practices. However, given staff and time constraints, the report had to be selective in its coverage, and some important issues were not examined in sufficient detail or at all. In particular, the omission or inadequate coverage of three issues need to be recognized at the outset.

- (a) The report emphasizes the importance of linkages between labor/wage reforms and economic reforms in other areas, but it does not discuss the mechanisms and implications of these linkages (e.g., how urban

employment/wage reforms are related to fiscal, monetary, and exchange-rate reforms and, hence, to demand management and the control of inflation).

- (b) The report focuses on the reform of dominant features of the existing employment and wage system, omitting regional differences in the implementation of such reforms even though they are substantial when some developed coastal provinces (e.g., Guangdong and Jiangsu) are compared with relatively less developed ones (e.g., Gansu, Yunnan and Guizou).
- (c) Despite recognizing the significance of reforms in social security and housing in removing some major obstacles to labor and wage reforms, only some general comments are made about how social security and housing should be reformed; this is because the Bank has recently undertaken extensive study of both sectors.<sup>4/</sup>

#### A. Trends in Employment, Wages and Productivity

##### Sectoral Distribution of Employment

1.8 In spite of its considerable industrial growth, the most of China's population continues to depend on agriculture for its livelihood.<sup>5/</sup> The share of agriculture in the labor force continually declined from about 85 percent in the early 1950s to 60 percent in 1990 (Table 1.1). Nevertheless, agricultural employment more than trebled to 341.8 million over this period and is growing by about 10 million per annum.

1.9 Labor's absorption by the secondary (industry, mining/energy, construction) and tertiary sectors increased rapidly during the 1980s. The former's share in total labor force increased steadily from 18.3 percent in 1980 to 21.5 percent in 1989, while the services sector's share rose by half to 18 percent over the same period. Despite this rapid growth, the service sector is still relatively small, reflecting a bias in the government's allocation of resources to agriculture and industry, i.e., the goods-producing sec-

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<sup>4/</sup> World Bank, China: Reforming Social Security in a Socialist Economy, Report No. 8074-CHA, June 1990; and China--Urban Housing Reforms: Issues and Implementation Options, Report No. 9222-CHA, June 1991.

<sup>5/</sup> Agriculture is defined as including farming, forestry, animal husbandry, fisheries and water conservation activities.

Table 1.1: SECTORAL COMPOSITION OF LABOR FORCE, 1952-90

Year	Labor force (million)	Employment by sector			Unemployment <u>/a</u>
		Primary	Secondary	Tertiary	
		----- (% of labor force) -----			
1952	207.3	83.5	7.4	9.1	13.2
1965	286.7	81.6	8.4	10.0	n.a.
1972	358.5	78.9	11.9	9.2	n.a.
1980	429.0	68.0	18.3	12.4	1.3
1984	485.8	63.7	20.0	15.5	0.8
1987	530.6	59.8	22.4	17.3	0.5
1988	546.3	59.1	22.5	17.8	0.6
1989	557.1	59.7	21.8	17.8	0.7
1990	571.2	59.8	21.5	18.0	0.7

/a Includes only the registered unemployed in the "urban" labor force (147.7 million in 1989). The Chinese authorities do not recognize any unemployment among the rest of the labor force (409.4 million in 1989).

Source: China Labor and Wage Statistics Yearbook, 1949-85, and Statistical Yearbook of China, 1991.

tors. As a result of this bias, the share of output and employment represented by China's service sector remains considerably below the average reported for other large developing countries.6/

1.10 In the secondary sector, the major source of employment growth was the small-scale informal sector, i.e., small rural COEs, which consist mainly of TVEs,7/ and individually and privately owned enterprises.8/ This shift

6/ In 1988, the share of services in GDP was 34 percent in India, 47 percent in Kenya, 31 percent in Indonesia, and 46 percent in the Philippines, as compared with 17 percent in China (World Development Report, 1990, pp. 182-83 and 178-79). China's industrial sector includes an unusually large proportion of service activities. Many teachers, barbers, chefs, nurses, and other service personnel employed in factory units are included in industrial employment. Although the transfer of these workers might add two or three percentage points to the tertiary total, it would not alter the appearance that, relative to market-oriented LDCs, China's service sector employs relatively small numbers of workers.

7/ The small-large COEs distinction is frequently referred to in the official Chinese sources, but there is no formal definition of them.

is reflected in the rapidly rising share of the secondary sector in rural employment and that of TVEs and the individual/private sector in urban employment. The rising share of service-sector employment, on the other hand, is the consequence of two related developments: (i) with growing emphasis on the market economy, the government has been relaxing restrictions on the development of service industries in trade, finance, transportation, and personal services; and (ii) recognizing the limitations of state enterprises in effectively operating service industries, the government has increasingly tolerated the establishment of cooperatives and individually and privately owned enterprises, which can operate with less capital and more labor than state-owned enterprises.

**Table 1.2: EMPLOYMENT BY TYPE OF ENTERPRISE OWNERSHIP, 1978-90**  
(percent of total employment)

Year	State enterprises	Collectives in cities and towns	Joint ownership	Individual laborers in cities & towns	Nonagricultural laborers in rural areas /a	Other /b
1978	18.6	5.1	-	0.04	5.4	70.9
1980	18.9	5.7	-	0.19	8.3	66.9
1984	17.9	6.7	0.08	0.70	12.2	62.4
1987	18.3	6.6	0.14	1.07	15.4	58.5
1988	18.4	6.5	0.18	1.21	15.8	57.9
1989	18.3	6.3	0.24	1.17	15.4	58.6
1990	18.2	6.5	0.30	1.18	15.9	58.0

/a Including TVEs and individual laborers.

/b Mostly agricultural workforce.

Source: Statistical Annex, Table 5.

8/ China has three types of enterprise ownership: state-owned, collective-owned, and privately owned. State-owned enterprises are owned by either the central, provincial, or county/city government. Collective-owned enterprises are, in principle, owned by the workers but, in practice, administered by townships, villages, or "cities, counties and towns and neighborhood committees." The difference between state and collective enterprises used to be that the former remitted their profits directly to the state, while the latter paid taxes instead. This difference has now disappeared because state enterprises also pay taxes. The only remaining differences are that state enterprises span a wider set of activities, are usually larger and more capital-intensive, and provide somewhat higher wages and social benefits than the collectives. Within the category of privately owned enterprises, small firms owned by one individual and employing up to eight people (including the owner) are distinguished as "individual-owned" enterprises.

1.11 Significant changes took place in employment by ownership type during the reform decade of the 1980s (Table 1.2). Most of these changes have occurred as a result of a steady decline in agriculture's employment share from 70.9 percent in 1978 to 58.0 percent in 1990. Although urban state enterprises have maintained their overall employment share, an increase in the share of urban employment from 23.7 percent in 1978 to 26.2 percent in 1990 resulted in the creation of millions of new jobs outside the formal state sector. Employment in joint ownership enterprises, nonexistent prior to 1984, reached 1.64 million by 1990, while the number of persons employed in private firms in urban areas, reached 6.7 million in 1990 compared with only 150,000 in 1978.

1.12 The greatest change, however, has been taking place in rural areas where approximately 87 million people (about 21 percent of the rural labor force) were engaged in nonagricultural pursuits in 1990 compared to only 21.5 million (7 percent) in 1978. Township and village enterprises were the main source of this new form of employment; they employed nearly 49 million workers in 1988 9/ compared with 30 million in 1980.

1.13 This transformation in the structure of employment is partly reflected in the changing composition of the newly employed in cities and towns. Each year, about 8-9 million additional people are employed in urban areas. In 1990, about 43 percent of new recruits came from urban areas and over 21 percent were new graduates of colleges and secondary and technical schools (Table 1.3). By comparison, in 1980, the share of urban residents in new recruits was much higher (nearly 70 percent) and that of new graduates much lower (about 9 percent). These data provide two important observations: (a) the level of education and skill of the new recruits with urban origins has been rising, and (b) the share of urban residents in total new employment has been declining. Corresponding to a declining share of urban resident recruits is a rise in rural recruits and "others." Restrictions on peasant movement have been eased somewhat since 1983, allowing them to work in market towns and even transfer their registration. An increasing number of rural workers, mostly in groups, have been finding work, either as "planned" recruits or as unplanned temporary workers in construction, transport, or other heavy work, and they are allowed to stay in urban areas as long as they have work. However, in times of recession, they are "repatriated" in large groups to rural areas as was done recently throughout the country.10/

### Productivity

1.14 In 1989, according to official statistics, the average output per Chinese worker, including agricultural workers, was Y 4,000, a figure that

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9/ The "rectification program" caused some decline in TVEs' employment in 1989 (1.7 million) and 1990 (almost 1 million). See: World Bank, China: Rural Enterprise, Rural Industry, 1986-90, paras. 4.31-4.36, January 1991 (White Cover draft).

10/ For instance, the mission has been told that in Xi'an municipality 270,000 rural workers were on temporary stay permits when the "rectification program" started in 1988. Forty-three thousand rural workers were sent back to rural areas in 1989, in accordance with State Council regulation no. 42, and 20,000 more were to have been repatriated in 1990.

Table 1.3: NEWLY EMPLOYED PERSONS IN CITIES AND TOWNS /a

	1980	1984	1987	1988	1989	1990
<u>Total newly employed ('000)</u>	9,000	7,215	7,991	8,443	6,198	7,850
<u>Main sources (%)</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Urban labor force	69.2	62.3	51.5	50.0	44.6	43.3
Rural labor force	14.2	17.0	20.9	18.9	19.4	15.0
College, secondary & technical schools	8.9	11.3	14.7	15.5	23.4	21.4
Others	7.8	9.3	13.0	15.5	12.6	20.3
<u>Work/assignment place (%)</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
State-owned units	63.6	57.6	62.5	58.3	59.3	60.5
Collective units (urban)	30.9	27.3	26.8	31.2	30.9	29.9
Self-employment	5.5	15.1	10.7	10.5	6.0	5.1

/a Refers only to those registered as urban residents.

Source: Statistical Yearbook of China, 1990 and 1991.

disguises large disparities in the productivity of labor across key sectors (Table 1.4). Output per industrial worker in 1989 was Y 16,568, over four times the average for the total workforce. Within the industrial labor force, the productivity of state workers stood at Y 18,320, nearly 40 percent higher than the collective figure of Y 13,170. Industrial productivity stood much higher than the Y 2,523 output produced per worker in the nonmaterial goods sector ("other"), which exceeded, by a considerable margin, the average level of Y 997 produced by the agricultural workforce.

1.15 During 1980-89 the productivity of China's total workforce grew at an average annual rate of 7.6 percent, a substantial rise over the 5 percent rate reported for 1957-78 (Table 1.4). For the important state industry sector, during 1980-89 labor productivity rose at an annual rate of 4.6 percent, well above the 2 percent rate of the prereform period. For collective industry, the comparable figure is 12.0 percent. While there is no prereform figure available for the collective sector, the growth of labor productivity in the state sector has accelerated rapidly compared with its prereform performance.<sup>11/</sup> Perhaps a re important, the growth of the nonstate sector's share in employment and output has caused this vibrant sector to figure with increasing prominence in overall industry, where labor productivity was estimated to have increased at an annual rate of 7.62 percent during 1980-89. The

<sup>11/</sup> Due to systematic tendencies for the growth of China's industrial output to be overstated, these calculations somewhat overestimate the true rates of labor-productivity growth in the industrial sector (see Chapter IV).

Table 1.4: LABOR PRODUCTIVITY

	<u>Industry</u>		Agriculture	Other	Total
	<u>SOE</u>	<u>COE</u>			
<u>GVO (1980 prices in Y billion)</u>					
1980	422.8	92.6	192.3	145.7	853.4
1984	588.1	161.2	273.9	210.2	1,233.4
1989	1,323.6	243.0	332.0	314.8	2,213.4
<u>Labor force (million)</u>					
1980	46.3	20.8	291.8	64.7	423.6
1984	54.4	24.9	309.3	93.4	482.0
1989	77.7	18.5	332.3	124.8	553.3
<u>Labor productivity (Y/person)</u>					
1980	9,124	4,452	659	2,253	2,015
1984	10,819	6,464	886	2,774	2,656
1989	17,035	13,171	997	2,523	4,000
<u>Growth of labor productivity (%)</u>					
1980-84	3.81	9.32	7.39	5.20	6.91
1984-89	5.28	14.24	2.38	-1.90	8.19
1980-89	4.63	12.05	4.61	1.26	7.62

Sources: Statistical Yearbook of China (1990), pp. 49-50, 114 and 445; and China Industrial Statistics Yearbook (1989), p. 53.

relatively poor showing of the "other" sector partly reflects its extremely rapid pell-mell growth (see Chapter V).

### Compensation

1.16 Workers in the state sector are somewhat better compensated than in the collective sector (Table 1.5). Including the cash value of services generously provided by the state sector relative to the collective sector, would make these differences in compensation more pronounced. Workers in the newly expanded category of "other ownership forms," which includes private firms and joint Sino-foreign enterprises, receive relatively high wages which may, especially in the case of private enterprises, reflect two conditions: substantial risk premia and the relative absence of housing, education, and the other in-kind employee services provided by the state and, to a lesser extent, the collective sectors.

1.17 Labor's income share in state industry from 7.0 percent in 1980 to 8.0 percent in 1986, followed by a modest decline thereafter (Table 1.6). In collective industry and the state and collective construction sectors, over 1980-89, labor's share in all three sectors registered a notable decline. Labor's income share in the state and collective construction industries also

**Table 1.5: EMPLOYEE COMPENSATION**  
(Yuan per annum)

	1978	1980	1985	1987	1988	1989	1990
<u>State sector</u>	<u>644</u>	<u>803</u>	<u>1,213</u>	<u>1,546</u>	<u>1,853</u>	<u>2,055</u>	<u>2,284</u>
Industry	681	852	1,239	1,601	1,931	2,177	2,409
Construction	756	920	1,532	1,882	2,193	2,413	2,659
Trade & commerce	588	721	1,095	1,407	1,733	1,858	2,039
<u>Urban collective sector</u>	<u>506</u>	<u>623</u>	<u>967</u>	<u>1,207</u>	<u>1,426</u>	<u>1,557</u>	<u>1,681</u>
Industry	499	622	969	1,195	1,419	1,556	1,670
Construction	594	716	1,101	1,380	1,597	1,763	1,935
Trade & commerce	467	570	907	1,141	1,354	1,439	1,566
<u>Other ownership forms</u>	<u>n.a.</u>	<u>n.a.</u>	<u>1,436</u>	<u>1,879</u>	<u>2,382</u>	<u>2,707</u>	<u>2,987</u>
Industry	n.a.	n.a.	1,342	1,789	2,292	2,635	2,908
Construction	n.a.	n.a.	2,250	2,503	3,381	3,583	3,742
Trade & commerce	n.a.	n.a.	1,971	2,142	2,586	2,885	3,251

Sources: China Labor and Wage Statistical Book, 1978-87, pp. 133, 201-05, 231; and China Statistical Yearbook, 1991, pp. 116-18.

declined consistently over the 1980s. This is an important ratio, since increases (decreases) in its share represent a tendency for wages to grow faster (slower) than labor productivity growth. Moreover, the size of this share should approximate labor's contribution to output, i.e., labor's output elasticity (Chapter IV).

1.18 Wage data understate the actual level of compensation received by workers in China's state and collective sectors. This is because Chinese urban enterprises offer an unusual range of services to their workers at zero or reduced cost. Although no official data exist on the value of these services, various estimates of their value range from 50 percent for collective industry to 100 percent for the state sector.<sup>12/</sup> Since the growth of these services appears to have outpaced the output growth of state industry during the reform period, a proper valuation of these services would imply not only substantially higher and faster growing levels of compensation than those shown in Table 1.5, but also larger income shares than those shown in Table 1.6.

<sup>12/</sup> See, for example, G.H. Jefferson and Wenyi Xu, "The Impact of Reform on Socialist Enterprises in Transition: Structure, Conduct and Performance in Chinese Industry," Journal of Comparative Economics, vol. 15, 1991, pp. 45-64.

**Table 1.6: RATIO OF LABOR COMPENSATION TO GVIO IN PERCENTAGE TERMS**

	1980	1984	1986	1987	1988	1989
Cash compensation (wage and bonus payments) as a percentage of GVIO						
SOE industry	7.0	7.3	8.0	7.7	7.7	7.4
COE industry	7.0	5.7	5.0	4.4	3.8	3.6
SOE construction	21.0	18.9	17.8	17.0	17.0	16.1
COE construction	24.4	20.7	18.1	18.5	16.8	15.4
Estimated total labor cost to the enterprise as a percentage of GVIO						
SOE industry	12.9	13.1	17.7	14.2	14.2	13.6
COE industry	10.1	8.3	7.2	6.1	5.5	5.2

Note: Collective data refer to urban (chengzhen) collectives only.

Sources: Wage and bonus data from China Labor and Wage Statistical Book, 1978-87, pp. 28-29; gross output data (current prices) from Statistical Yearbook of China, 1990, pp. 414, 573.

Population, Employment and Participation Rates

1.19 China's population doubled between 1950 and end-1991 and now exceeds 1.1 billion (Table 1.7). Recognizing the difficulties in providing such a large population with employment and basic public services at satisfactory levels, the government implemented several family planning programs in the 1970s and followed up in 1982 with a policy designed to persuade families to have no more than one child. As a result, the natural growth rate of population by the end of the 1980s was half the rate in the mid-1960s. The immediate positive effect of this demographic development comes through a reduction in the dependency ratio, with the effect of lower "family burden" on each worker and of smaller government social spending. The positive effect of the family planning program on employment will start to appear in the mid-1990s when it is reflected in a slowdown in the growth rate of the working-age population. In the 1980s, the working-age population as a proportion of the total was growing under the influence of the "baby booms" in the 1960s and early 1970s. This was reflected in faster growth of the "labor force resource" <sup>13/</sup> than total population.

<sup>13/</sup> Refers to all persons who are able-bodied and within the working-age range (16-59 for men and 16-54 for women), excluding military personnel, prisoners, and the disabled.

**Table 1.7: GROWTH OF CHINA'S TOTAL AND URBAN POPULATION**

	<u>Total population</u>		<u>Urban population</u>	
	Total (year-end) (million)	Natural growth rate (year-end) (%)	Total (million)	As percent of total population (%)
1953 <u>/a</u>	587.9	2.30	78.3	13.3
1964 <u>/a</u>	705.0	2.76	129.5	18.4
1982 <u>/a</u>	1,016.5	1.57	214.8	21.1
1989	1,127.0	1.50	295.4/ <u>b</u>	26.2
1990 <u>/a</u>	1,143.3	1.44	301.9/ <u>b</u>	26.4
1991	1,158.0	1.29	305.4	26.4

/a Census years.

/b As a result of the increase in the number of towns in recent years, the population living in areas under the administration of cities and towns increased to 543.7 million in 1989. However, to avoid giving a wrong indication of urbanization in China, the authorities have redefined urban population to exclude agricultural population living within the administrative boundaries of urban areas. This revised data are given here.

Source: Statistical Yearbook of China, 1991, p. 61.

1.20 The proportion of people in the labor force resource who are either working or actively seeking work (i.e., the labor force participation rate) has also been rising--82.8 percent in 1991 versus 79.0 percent in 1952 (Table 1.8). This trend came about despite the rising share of university and college students in the labor force resource 14/ and probably reflects the positive effect of economic and social development on the female population's participation in economic activities. The rise in the labor force participation rate was particularly marked in the 1980s. With such rapid labor force growth and rising participation rates during the 1980s, the decline in reported unemployment and rapid rise in labor productivity are all the more remarkable.

1.21 However, the significance of unemployment and, for that matter, urban employment data in China is greatly circumscribed by the peculiar definition of urban resident and urban labor force in official statistics. Urban residents, who are also referred to as "nonagricultural population, are defined as persons who are so registered and who are entitled to state-subsidi-

14/ In 1989, it was 3.1 per thousand against 0.7 per thousand in 1952 (SYC, 1990, pp. 107 and 674).

**Table 1.8: SOME CRITICAL LABOR FORCE PARAMETERS**

	Popula- tion (million) (1)	Labor force resource (million) (2)	Labor force <u>/a</u> (million) (3)	Urban labor <u>/b</u> force (4)	2/1 (%) (5)	3/1 (%) (6)	3/2 (%) (7)	4/3 (%) (8)
1952	574.8	267.1	211.1	28.7	46.5	36.7	79.0	13.6
1962	673.0	305.3	243.6	29.9	45.4	n.a.	n.a.	12.3
1982	1,015.4	566.8	456.7	118.0	55.8	45.0	80.6	25.8
1987	1,080.7	656.1	530.6	140.6	60.7	49.1	80.9	26.5
1988	1,096.1	669.6	546.3	145.6	61.1	49.8	81.6	26.7
1989	1,111.9	683.6	557.1	147.7	61.5	50.1	81.5	26.5
1990	1,143.3	697.3	571.3	151.3	61.0	50.0	81.9	26.5
1991	1,158.0	710.0	588.0	157.0	61.3	50.8	82.8	26.7

/a Obtained by adding the urban unemployed to the social labor force, which refers to all individuals employed or self-employed in urban and rural areas.

/b Also referred to as "nonagricultural" labor force, it includes only staff and workers (including the unemployed) eligible for state-subsidized grain rations.

Source: Statistical Yearbook of China, 1991.

dized grain rations.<sup>15/</sup> Official government policy has been to limit the size of "registered urban residents" even though the urban area and population on administrative definition have recently expanded significantly.<sup>16/</sup> As a result, urban labor force and urban unemployment in China's official statistics are components of this "limited" urban population, excluding all persons living within the administrative boundaries of urban areas but not registered as urban residents. Urban labor statistics in China will not, therefore, provide a satisfactory basis for analyzing the employment (and unemployment) profile, and changes in it, of population in the urban areas.

## B. Policy and Challenges

1.22 Separate sections of this report address problems of rural-urban migration, intra-urban labor movement, the deployment of labor within enterprises, wages and incentives, and underemployment into separate sections. However, changes in any of these parts of the system have both theoretical and

<sup>15/</sup> On this, see paras. 2.7 and 2.11.

<sup>16/</sup> See World Bank, China: Urban Housing Reform, op. cit., Box 1.2: Defining the Urban Population.

practical implications for other parts of the system. These systemic relationships must be appreciated in the formulation of any labor reform policy, since as elements of the policy are implemented they will significantly affect the performance of other economic reforms as well as other aspects of the employment and wage system.

1.23 The high growth rate of productive capacity in China has tempered, but not solved, the extensive underutilization of China's vast labor force. The success of the agricultural reforms in boosting farm productivity has contributed to a more visible labor surplus in rural areas, estimated to be in the range of 100-120 million. The rapid growth of urban employment, especially urban industry, continues to rely upon the allocation of surplus labor to urban enterprises. This enormous reservoir of underemployed labor is a source of considerable official concern regarding the unemployment consequences of a full-scale labor-market reform, including granting workers the freedom to migrate and enterprises to shed excess labor.

1.24 Regarding concern about the destabilizing effects of labor-market reform, two conditions create obstacles to the government's capacity to implement broad-gauged and effective labor reform. The first of these is extreme dependence of urban workers on their enterprises for the provision of housing, pensions, health care, and other services. Far less visible and appreciated as an obstacle to labor-market reform but equally important are various explicit and implicit policies that inhibit employment creation. Among these are distorted factor prices that motivate the substitution of cheap capital and energy for labor; policies that are biased against the (labor-intensive) service sector; and subsidies to the (capital-intensive) state sector. As impressive as employment growth has been during the reform period, it could be improved so as to reduce the surplus of labor in both rural and urban areas and fears of the unemployment consequences of meaningful labor-market reform.

## II. LABOR MARKET: INSTITUTIONAL SETUP AND REFORM

### Introduction

2.1 The major objective of China's reformers is to improve the efficiency and productivity of the Chinese economy. Avenues to achieving this objective include improving the efficient allocation and use of the labor force by increasing both labor mobility and work effort. The authorities have so far pursued such avenues as reducing the administrative stranglehold of the state over labor movement, granting managers greater autonomy to manage labor, and allowing workers greater flexibility in choosing their own workplace. Improvement of labor productivity through increased mobility and effort was also a major goal of the wage reforms introduced in the 1980s (Chapter III).

### The Prereform Urban Labor System

2.2 The labor system before the economic reform was rigid and relied heavily on direct administration.<sup>1/</sup> The labor market was excessively segmented because of restrictions on labor mobility from rural to urban areas, from one province/city to the other, and between enterprises. Thus, changes in the geographic distribution of the labor force due to migration were insignificant except occasionally when massive movements of labor, such as during and after the Cultural Revolution, were directed by the central government. In other words, the authorities were able to regulate urban labor supply and urban unemployment. A main mechanism of control over urban labor supply was the urban household registration system, the "hukou" system. Not only did this system designate who was an urban resident and who was not, but it also provided a wide range of subsidies and benefits to urban residents.

2.3 Urban labor demand was also directly administered by the government. Each year, an overall production plan was prepared by the central authorities, and the labor requirements of enterprises were based on this plan. The employment policy in China has always emphasized the principle of "low wage, more employment" to minimize unemployment. If the growth in labor supply were larger than the incremental demand derived from the production plan, then growing enterprises would be asked to hire more workers than they needed. The urban labor authorities throughout the country would take a census of expected university and secondary school graduates in their areas, review the labor requirements of enterprises, and assign the graduates to enterprises. Once assigned a job, a worker was expected to stay with the enterprise for life, the "iron rice bowl" employment practice. Voluntary job transfers were rare and usually not permitted; similarly, enterprises were not allowed to discharge workers without government permission. Compared to other segments of the urban workforce (mainly in collective units), "permanent" workers in state

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<sup>1/</sup> The use of "past tense" in this section with respect to the prereform labor system does not mean that the system described has been replaced. In fact, today most of its prereform features survive; labor reform, as will be seen in the next section, has mainly introduced some flexibility to them instead of replacing them with new features.

enterprises had a privileged position, not only with respect to security, but also in terms of wages and welfare benefits.

2.4 Underlying this rigid labor system were four major factors:<sup>2/</sup>

- (a) The Chinese state has historically been under severe chronic threat of open urban unemployment because of large rural surplus population and limited labor absorption capacity of the urban sector. This, and the socialist party-state's ideological commitment to full employment, has led to a policy combination of insulating the urban sector from large-scale rural immigration and forcing surplus urban labor onto state enterprises beyond their requirements.
- (b) Chinese state enterprises resemble a "mini welfare state" in that they provide workers not only with a wage but also with medical benefits, education, training, recreation, housing, social insurance, and pension. They also appear to operate on an implicit "social contract" between management and workforce, turning the enterprise to a kind of "extended family."
- (c) Operating under a traditional central planning system, with emphasis on meeting physical output targets, Chinese enterprises "hoarded" labor to enhance their ability to meet plan targets.
- (d) Pressures for creating employment in the cities became increasingly intense toward the late 1970s because of (i) an earlier baby boom; (ii) the return of jobless young urbanites from the countryside where they had been sent to during the Cultural Revolution (1966-76); and (iii) earlier policy mistakes, including the failure to take population control measures until the late 1960s, a capital-intensive industrialization strategy, and ownership strategy that discouraged collective and private enterprises.

2.5 These factors and the employment practices mentioned helped to keep urban unemployment at a relatively low level, in the range of less than 5 percent <sup>3/</sup> during the 1970s. They also contributed to China's success in avoiding serious urbanization problems experienced by other developing countries. On the other hand, the resulting labor system was marred by (a) overstaffing

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<sup>2/</sup> Gordon White; "Labor Market Reform in Chinese Industry," in Management Reforms in China, by Malcolm Warner (ed.) (New York, New York, 1987), St. Martin's Press, pp. 116-118.

<sup>3/</sup> Unemployment is defined as the percentage share of the job seekers in the total active labor force, which includes registered job seekers aged 16-50 for men and 16 to 45 for women plus the unemployed labor force. Note that unemployed men over age 50 and women over 45 are not registered as job seekers, even though they may engage in job search activities on their own. However, the number of unemployed in this age group is very small.

and underemployment;<sup>4/</sup> (b) excessive segmentation that kept workers "bonded" to enterprises, reinforcing the "iron rice bowl" practice and reducing labor mobility; and (c) low average labor productivity, particularly in SOEs, despite the high rate of overall investment.

#### Reforms in the Urban Labor System

2.6 Key labor-market reforms undertaken by the Chinese government during the 1980s (Table 2.1) concerned changes in the system of labor planning and allocation and the authority available to enterprise managers to manage their workforce. In particular, the State Council's three-in-one combination ("san jie he") directive in 1980 introduced an important degree of flexibility into ways in which labor is recruited to satisfy the allocation plans. The directive replaced the unified allocation (chengbao zhengce) of labor by the state with a system of multichannel allocation through: (i) job placement and referral services through the MOL labor bureaus; (ii) labor service companies; and (iii) individual job search. The MOL and local labor bureaus still deal with planning the overall labor requirements of state enterprises and urban collectives, but their role in the detailed allocation of labor has been taken over mainly by labor service companies and enterprises themselves. The result is a more flexible system in which enterprise managers with additional tools have been provided to improve discipline, incentives, and efficient deployment of the workforce. Still, the reforms have been piecemeal; as with other elements of the reform process, the decentralization of the planning and allocation system has led to the proliferation of bureaucratic channels and conflict which have somewhat offset the intended benefits of the reform.

2.7 Reform of the urban labor system cannot be examined in isolation from the relationship between the rural labor force and the urban workforce. Prereform restrictions on rural-urban migration allowed for the establishment of a privileged and protected urban workforce which benefited from job secur-

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<sup>4/</sup> Underemployment occurs when "a person's employment is inadequate in quantitative or qualitative terms, in relation to specific norms. Visible underemployment occurs when a person is in employment of less than normal duration and is seeking or would accept additional work. Invisible underemployment occurs when a person's earning from employment are abnormally low, when his job does not permit full use of his highest existing capacity or skill, or when a person is employed in an establishment or economic unit whose productivity is abnormally low"--"Draft Resolution Concerning Measurement and Analysis of Underemployment," in Measurement of Underemployment Concepts and Methods, International Labor Office, 11th International Conference of Labor Statisticians, Report IV, Geneva, 1966.

Table 2.1: MAJOR LABOR REFORMS IN CHINA IN THE 1980s

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Date	Reforms	
August	1980	State Council announced the "san jie he" directives.
	1980	Contract labor system first tried out in a few cities.
October	1981	State Council and Central Party Committee issued statement on "Several Resolutions Regarding Expansion of Opportunities and Stimulation of the Economy to Solve the Urban Employment Problem." They urge all authorities to abandon the discriminatory restrictions on IOEs and POEs.
December	1981	State Council issued statement on "strict control of rural migrant workers and rural-urban household transfer."
	1982	State Council of Science promulgated the "Temporary regulations on hiring science specialist on second jobs."
February	1983	Ministry of Labor and Personnel announced the "implementation of contract worker system."
April	1983	State Council and Ministry of Labor and Personnel announced the "Reorganization of Labor Management" plan which set off the Optimal Labor Reorganization in enterprises.
April	1983	State Council approved permanent migration from villages to townships with self-reliance on food grain supply.
	1984	State Council announced more relaxed rules on allowing rural workers to register as urban households in townships.
	1986	State Council and Ministry of Labor and Personnel issued "Regulations on Contract Labor System."
	1986	State Council announced the rules on "Utilizing retired special technicians."
September	1987	State Council stipulated "Temporary Management Rules and Regulations on Individual Commercial Enterprises in Cities and Villages."

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Sources: Questions and Answers to Labor Policies (Xin Bian Lao Dong Zheng Ce Wenti Jie Da), Ministry of Labor, 1989.

ity and a generous set of subsidies.<sup>5/</sup> During the 1980s, the Chinese government began to allow for some labor mobility between cities, towns, and countryside which has increased competition and work effort in parts of the urban economy while also reducing shortages of unskilled labor in urban areas and expanding sources of skilled labor to rural enterprise. At the same time, the introduction of the contract labor system, the optimal labor combination program, and labor service companies has increased the mobility of labor across urban enterprises. It has also given enterprise managers greater flexibility in managing their individual workforces.

### Rural-to-Urban Migration

2.8 The Chinese government's long-standing policy of restricting rural-to-urban migration has worthwhile objectives. It aims at preventing surplus rural labor from flocking into urban areas; this in turn helps to avoid (a) excessive open unemployment and (b) a heavy burden on the central and provincial governments for providing subsidized food, housing, and public services to a growing urban population. The government basically maintained this policy in the 1980s, except for two minor relaxations in the regulations and somewhat less strict enforcement of the restrictions during "good" times.

2.9 To improve labor mobility, the authorities adopted measures relaxing the control of rural-to-urban migration and facilitating the movement of urban labor, particularly skilled workers. Initially as a response to labor shortages in some fast-growing cities, the State Council issued a series of regulations over the first half of the 1980s to allow rural migrants to work in townships without changing their residence status. This arrangement has become the main source of labor supply to urban areas for low-paying, menial, risky, dirty, hardship jobs that few urban workers want. In 1984, the State Council stipulated that all peasants and their family members who have a fixed place of residence in a town and who have worked for a long period <sup>6/</sup> in some township enterprises should be permitted to register as permanent urban households. In addition, to expand the supply of skilled labor to rural enterprises, the Chinese government has recently authorized university graduates to take jobs in TVE enterprises without the risk of losing their urban residence permits and access to urban subsidies.

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<sup>5/</sup> The urban economic system offers registered urban residents: (i) supplies of rice, oil, meat, eggs, and milk at subsidized prices; (ii) exclusive access to public facilities such as water, electricity, coal, gas, and education; (iii) guaranteed employment in state-owned and urban collective enterprises--nonresidents can only do temporary work; and (iv) assigned housing (in short supply in the cities and towns) by state and urban collective enterprises only to their employees who are registered urban residents.

<sup>6/</sup> There is no standard definition of "long period," but in most cases it is between five and ten years. Each city determines independently how long "temporary" workers should live and work there before they can change residence status.

2.10 The government's hesitance about doing more to relax restrictions separating rural and urban labor markets has been partly overtaken by the changing realities resulting from reforms in other areas and rapid economic development. Successful agricultural reform, resulting in a rapid increase in farm production and productivity, gave rise to a great "push" of population out of the farm sector. This push has been accompanied by several "pull" factors common to most developing countries. These include the rapid growth of secondary and tertiary employment and the growing attraction of cities as centers of culture, education, and upward mobility.

2.11 The resulting strong tendency for surplus labor to move away from rural areas has found three major outlets. First, the extraordinary growth of TVE enterprises, mostly labor intensive and located in small towns, has absorbed 90 million rural workers. Second, rural labor can be hired with the authorities' approval to work in urban areas where labor shortages are experienced.<sup>7/</sup> Such employment is often arranged for groups/teams of laborers to work in construction, removal/transportation, and domestic services and requires the approval of the relevant department of the city administration.<sup>8/</sup> The third outlet for rural surplus labor is "unplanned" jobs or unemployment in the informal urban sector. Most rural surplus labor "floating" in urban areas is in this category, either working as individual peddlers, stall-owners, porters, and so on, or filling the pool of "unregistered" unemployed.<sup>9/</sup>

2.12 The floating population, in addition to benefiting rural areas by alleviating rural unemployment and underemployment and by sending remittances back home, also serves innumerable useful functions in the urban

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<sup>7/</sup> State Council (PRC), Development Research Center, Document No. 42, 1990, p. 8.

<sup>8/</sup> These procedures include the following: (i) a state enterprise willing to hire a rural worker must first obtain a "temporary resident permit" which allows a rural worker to reside in the designated township or city; (ii) the enterprise should also obtain a "nonurban household worker employment permit" which authorizes the firm to hire from the rural labor force; (iii) together with these two permits, the rural worker should apply to the township/city labor bureau for a "working permit."

<sup>9/</sup> An official definition of the "floating population" characterizes it as people engaged in partial temporary relocation whose legal residence registration remains in their original place of habitation. Floaters thus differ from "migrants" who move to another administrative district usually to take up a governmentally assigned job and have the right to change their permanent residence address. From Dorothy S. Solinger, "The Floating Population as a Form of Civil Society," paper prepared for the 43rd Annual Meeting of the Association for Asian Studies, New Orleans, April 11-14, 1991.

sector.<sup>10/11/</sup> In addition to the jobs unwanted by urban workers, floaters produce and market most agricultural products sold in urban free markets. Also, through their purchasing power, they stimulate commerce in urban areas. Perhaps their most important contribution to reforming the urban economic system is offering competition to the state sector, eroding state monopolies, challenging the official workstyle, and making it possible for enterprises to have more flexibility in labor management.

2.13 The floating population provides its services at lower costs to both enterprises and the state than do regular workers. This is mainly because they solve their own housing problems and demand fewer social services (since their families stay on the farm) than urban residents. Taking advantage of a general relaxation in administrative regulation, many more than the officially registered number of floating population have flocked to the cities.<sup>12/</sup> This implies that a large proportion--probably close to half--of the floating population is either unemployed, or underemployed in jobs that can be concealed from the authorities, or employed without a permit in collusion with the supervisory staff.<sup>13/</sup> Therefore, the exact size of this population is not known, but Chinese sources put their number at 60-80 million in early 1990.

2.14 Keeping surplus labor out of cities is not a cure but a palliative for the unemployment problem. It displaces the problem to rural areas where it becomes more of a problem of underemployment than open employment. Since the rural population is less concentrated and less organized than the urban population, this helps postpone the potential threat to political and social stability that excessive unemployment might cause. Because of this policy, China has not experienced the many negative consequences of rapid urbanization that afflict most other developing countries (e.g., emergence of squatter towns). But the main issue of not utilizing available labor resources more efficiently where they can contribute more than they do remains essentially unaddressed by the policy of limited relaxation of restrictions on rural labor

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<sup>10/</sup> This and the next paragraph benefit greatly from the work of Prof. Solinger (op. cit.) who backs her analysis with detailed references to the Chinese sources.

<sup>11/</sup> Just to give an idea about the magnitude of their contribution, in Shanghai in late 1988, 300,000 floaters were engaged in the building sector alone, while another 240,000 were working in the textile and sanitation trades. D.S. Solinger, op. cit., p. 43.

<sup>12/</sup> According to Prof. Solinger, who refers to the Chinese sources including Chinese Academy of Social Science's (CASS) Sociology Institute, the family planning office in Wuhan, and some individual scholars, less than half the floaters apply for temporary residence permits, which a person must have to obtain a license to work or to engage in commerce.

<sup>13/</sup> In 1988 the Wuhan Labor Bureau found out that 18 percent of the floaters employed in its jurisdiction did not register for work and that about a quarter of the floaters working in the textile sector did not have a work permit (D.S. Solinger, op. cit., p. 26).

mobility. The issue here is to strike a balance between the economic advantages and social costs of an integrated, mobile labor force in which open unemployment is more pronounced.

2.15 Regarding the limiting of budgetary costs of subsidies to urban residents by restricting rural migration, the objective itself is questionable if scrutinized from efficiency point of view. China had perceived development as being synonymous with industrialization, which it pursued by making agriculture pay for it through heavy implicit and explicit taxation of farm products. The benefits went to the urban population in the form of subsidized foodstuff and public services. The policy not only discouraged agriculture production but also distorted the whole price structure, leading to inefficient and wasteful uses of resources throughout the economy. The government has recognized that this was not a viable strategy for development and has tried to partly correct it through the agricultural reform program. The other side of the problem (i.e., urban subsidies) remained, and at increased budgetary cost because in the late 1980s the state paid more to procure farm products. This situation, however, has been changing rapidly following a 60 percent increase in 1991 and another 45 percent increase in 1992 in urban ration prices for grains.<sup>14/</sup>

#### Labor Planning and Allocation

2.16 Reform in the labor planning system has been in line with the underlying principle of the overall reform program which has been "to control the big things and decentralize the small." In labor planning, the big things include the following objectives: (a) maintain a rational distribution between the urban and rural labor force; (b) meet the labor requirements of key sectors and projects; (c) achieve a rational allocation of labor to different sectors and ownership forms; and (d) control overall wage increases vis-à-vis the rate of economic growth so as to regulate rates of national savings and consumption as deemed appropriate.<sup>15/</sup> However, as is typical of Chinese planning generally, "rational" and "appropriate" in these contexts cannot be defined. When probed on this, the authorities usually respond with another vague statement: "whatever is necessary for maintaining social stability." The lack of transparency and objectivity is probably meant to give the planners flexibility.

2.17 Planning Instruments. Political and ideological commitment to full employment and the provision of a job to every new labor force entrant has

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<sup>14/</sup> By mid-1992, urban ration sales prices and farm quota procurement prices had been essentially equalized for the major grains still subject to government control (wheat, maize, Indica and Japonica rice). Thus, remaining urban consumer subsidies cover the costs of the storage, handling, and distribution system for official rations (see: World Bank, Price Reform in China, Report No. 10414-CHA, May 1992, p. 20.

<sup>15/</sup> Gordon White, "The Changing Role of the Chinese State in Labour Allocation: Towards the Market?" in Journal of Communist Studies, vol. 3, no. 4 (December 1987), p. 133.

come into conflict with the goal of improving labor efficiency. The outcome has been the development of a mongrel system of labor allocation, with:

- (a) directive planning used for (i) "strategic groups" of technical and professional school and college graduates and demobilized soldiers, and (ii) the labor force in state enterprises under central and local governments management;
- (b) guidance planning applied to urban labor in collective-owned enterprises; and
- (c) no planning (except forecasting and projections) labor in small collectives and individually and privately owned enterprises which have flourished since the beginning of reforms in the late 1970s.

2.18 Labor planning is implemented through the following three plans plus a fourth plan, the Wage Plan (Chapter III):

- (a) the Social Labor Force Plan establishes balance between labor supply and demand by region and functional department;
- (b) the Number of Staff and Workers Plan assigns labor quotas to enterprises based on their projected output and labor coefficients. This plan is iterated from bottom to top, with state and collective enterprises reporting their labor requirements to the relevant level of government. Once the plan is finalized, specific values for the number of workers, the wage bill and the rate of labor productivity increase become mandatory for state-owned enterprises and indicative targets for collectives.
- (c) The Labor Recruitment Plan handles the supply side, although compared with the first two plans its coverage is somewhat broader, since it applies guidance planning to both collectives and state enterprises below provincial level. The specific labor-assignment function of the recruitment plan has now greatly lost its role since even state enterprises under the central government evaluate and choose their own individual workers.

2.19 Changes in labor planning over the past decade have been in the direction of multiplying channels of employment for workers and staff and increasing enterprises' power to plan their own labor requirements. Compared to the pre-reform system of unified labor allocation, the current system should thus allow more efficient use of resources. However, any improvement would be limited because most changes merely transferred authority from the MOL and the State Planning Commission (SPC) to local governments or their affiliates like labor service companies and functional bureaus instead of increasing market involvement. These agencies have their own priorities and constituencies to protect under a more complex and ambiguous decentralized system with greater potential for conflict than before. Conflict would most probably be settled at the expense of enterprise profitability. Therefore, it is not clear whether an adequate improvement in efficiency of resource use has resulted from decentralization of labor management, as it is practiced in China, to offset the additional administrative cost of decentralization.

2.20 Labor Service Companies. In line with the MOL "san jie he" directive, the ministry and its local bureaus, as well as various functional agencies and state-owned enterprises, have set up labor service companies (LSCs) and "talent exchange agencies." LSCs, though under state supervision, enjoy some autonomy as labor exchanges and as centers for job training and creation by setting up their independent enterprises. They were mainly involved in arranging jobs in the collective sector in their own localities. However, the matching of supply and demand for professional and technical staff within the same locality is more difficult. For this task, "talent exchange agencies" have been set up and linked to each other through information exchanges to facilitate a countrywide movement of specialized cadres.

2.21 Labor service companies have developed into an important labor-market institution in China. They perform three distinct functions. First, the LSCs set up by the MOL and its local bureaus participate in the preparation and implementation of the labor plan. Second, they perform labor-market functions, including: (i) registering job vacancies, (ii) providing guidance about labor legislation and recruitment procedures, (iii) organizing training courses, (iv) arranging periodic labor markets, and (v) exporting labor to other parts of China as well as to other countries. These are typical labor-exchange functions which are usually performed in market economies by a mixture of government, trade unions, employers, and private agencies. Third, LSCs sponsored by functional agencies (other than labor bureaus) and enterprises establish and operate commercial or industrial enterprises to create employment for surplus workers and for the job-waiting children of the sponsoring agencies or enterprises.

2.22 The labor-market functions of labor service companies are a remarkable reform in the Chinese labor system. In this respect, however, a distinction should be made between labor bureau-based and enterprise-based companies: while the former's labor-market functions undoubtedly contribute to more efficient employment, latter's functions fall far short of basic efficiency criteria. This is because enterprise-based labor service companies are geared to satisfying employment requirements of the surplus labor and the job-waiting children of the employees of the sponsoring enterprise by creating jobs within the enterprise.<sup>16/</sup> As a result, such labor service companies do not contribute much to interenterprise labor mobility; on the contrary, by developing an internal labor market within the enterprise, they reinforce labor-market segmentation and, hence, limit the efficiency-enhancing effect of this particular reform measure. Most important, such labor service companies, probably

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<sup>16/</sup> The mission was told that this is against the spirit of the labor reform and that local labor bureaus would intervene to stop such practices. But the system has built-in features working for the subversion of the "reform spirit" as the mission has noted during visits to several labor-service-company run enterprises. For instance, the workers and staff of the sponsoring enterprise would not like to see their own job-waiting youths being sent away for employment while outsiders are recruited for jobs in their own enterprise. This is not only a question of family ties; but it involves integrating socially with strangers, sometimes from different cultural backgrounds, within close living quarters of the enterprise housing complex.

under pressure from their sponsoring institutions, tend to maintain slack in their subsidiaries so as to guarantee employment for its own employees future graduates. This causes the economy a loss of both production and employment.

2.23 Our major concern over this particular reform, however, relates to the enterprise-running function of labor service companies. With this feature, the plan acquires built-in forces for inefficient resource use. Enterprise managers, concerned with employment prospects for offspring of their workers and interested in creating "loopholes" and tax havens, will have every incentive to start labor service companies and, through them, "make-work" collectives. The efficiency of these collectives can hardly be established because of a maze of concealed subsidies involved in their relationship with sponsoring enterprises (Box 2.1). They use the space, equipment, expert staff, and social facilities made available at no or nominal cost by their sponsors. They benefit from their sponsors' "connections" to obtain scarce supplies at good prices. In this way, they exercise a formidable unfair competition over actual and potential competitors who are mostly in small collectives and the private economy, and hinder the development of a free market. Their production and employment should not therefore be deemed all "additional" if allowance is made for their displacement effect. Allowance should also be made for production and employment forgone because of idle capacity "hoarding" by the collectives run by enterprise-based labor service companies. It is therefore highly advisable that the authorities do a proper economic evaluation of the enterprise-running function of labor service companies.

#### Labor Management

2.24 Labor Contract System. To increase the authority of enterprise managers to manage their workforces and break "the iron rice bowl," the government introduced two key reforms--the labor contract system 17/ and the "Optimal Labor Organization" scheme. The labor contract system was first introduced in 1983 as an experiment in selected units in 13 of China's 29 provinces and regions. Its implementation was gradually extended and, in 1986, all state enterprises and urban collectives were asked to adopt it. Under this system, new workers hired by enterprises signed a contract whose terms were determined between the employee and the employer with some guidance from the government.18/ Although the system covered only new hires, it was a significant step away from the provision of lifetime job security. More important, it allowed enterprises (i) to reject potential recruits whom they did not want and (ii) not to renew the contracts of workers who were either unsatisfactory or redundant because of market fluctuations or technological changes.

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17/ However, the State Council's "Temporary Regulations on the Implementation of the Labor Contract System in state-owned enterprises" was not issued until 1986.

18/ A typical labor contract, signed between worker and enterprise and approved by the local labor bureau, specified the duration of the agreement; the responsibilities and benefits of the respective parties including wages, welfare benefits, labor insurance, nature of the work required and performance standards, and terms for renewal or cancellation.

Box 2.1: THE LABOR SERVICE COMPANY OF THE PHOTOELECTRIC TECHNOLOGY  
RESEARCH INSTITUTE, CHINESE ACADEMY OF SCIENCES

The LSC was formally set up in 1981 within the institute, located in rural Chengdu. It now employs over 300 workers in two workshops (one an optical parts maker, the other, a printing house), and a grocery shop. The optical parts workshop produces lenses for the famous "Pearl River" camera plant in Guangdong, jewelers magnifiers, and several other optical parts. Part of its products are exported to the Southeast Asia and the United States. The printing house serves various science journals published in the Chengdu area. The LSC has fixed assets of Y 1.2 million, and working capital of Y 0.92 million, both at current prices. In 1990, sales amounted to Y 2.3 million; and realized income tax and profits, Y 0.23 million. Its business turnover tax was Y 0.10 million in 1990. As a collectively owned enterprise (COE), it was subject to income tax at the rate of 45 percent. But it actually paid much less, taking advantage of a statement last year by the Premier that the tax on labor service companies (LSCs) was too high. The local labor bureau also helped the company on this matter.

The LSC has close relations with the institute, which has over 2,000 employees under the Chinese Academy of Sciences. It received the first group of experienced workers, technicians and managerial people from the institute, and was still receiving technical, operational and managerial support from the institute. Initially, the LSC rented floor space and equipment from the institute, for which it paid only depreciation fees. Workshop and grocery assets now belonged to the LSC. LSC accounts were audited by the institute, which was audited by the State Auditing Administration.

The LSC tries to place institute employees' job-waiting children. In 1990, the job-waiting rate of the institute was 1.28 percent, fewer than 30 people, as compared with 1.9 percent in Chengdu. Most of these people were high school graduates who had failed the university entrance exam but were waiting to try again. Only one or two of them had been previously employed. In years to come, each year 70-80 high school graduates of institute children will be waiting for jobs. In 1990, the LSC employment plan allowed for 38 new recruits, but only 4 job-waiting children wanted them. The LSC was not allowed to recruit farmers, as they did not have urban residency permits. Neither did it recruit any urban residents but institute children, although there was no policy restrictions on it. A main reason was that the LSC could not provide housing to these people, but institute children lived either with their parents, or if married, in their own houses provided by the institute. Nor did it need outside recruits as the institute had enough labor and technology resources.

Some of the current 300 employees had been job-waiting youth who received training in the workshops. Most of them found jobs in the institute, but a few went to other state enterprises. Now there are over 50 trainees and more than 100 contractual workers; the rest are permanent workers and staff, 30 of which transferred from the institute. The LSC likes to keep its workers because it takes 2-3 years to train each worker. The managerial staff numbers 15, plus a senior engineer and 10 engineers and technicians. The LSC manager was elected by the Workers Assembly and approved by the Institute.

Most workers in the LSC are paid piece rate. However, on the books, all workers are under the structural wage system, with a monthly basic wage of about Y 100. This is composed of the basic wage of Y 90 (in 1990), and Y 20 as the state-allocated subsidies. In reality, the average monthly income of workers was Y 160-180 in 1988, and Y 200 in 1989. The managers are paid according to their positions: the monthly salary of the manager/director is Y 270. The LSC does not pay a bonus tax, because of the piece-rate wage system, even though the annual bonus payment (5.5 months average wage) exceeds the ceiling.

The LSC allocates 20 percent of its total payroll as the social security fund (introduced in 1986) workers must also contribute 3 percent of their wages. Only five young workers live in rented houses outside the institute compound. They receive a rental subsidy of Y 10-20 per month. The LSC does not encourage this practice, because the cost of rental subsidy is borne by the company whereas that of housing facility would be met by the institute and the state.

2.25 From its inception, the contract system has applied to new recruits of workers and ordinary staff while existing "permanent" (i.e., tenured) workers and staff and the new hires of technical and managerial staff being excluded from its coverage. The government's objective, however, has always been to extend the system to permanent workers as well, aiming at creating a universal labor contract system in the state sector.<sup>19/</sup> In fact, the system is being extended to all workers as an experiment.<sup>20/</sup> Moreover, for highly trained and professional recruits, an "invitational system," using the same contractual principles as the labor contract system, has been adopted. Under this system, if a staff member is not reinvited at the end of his invitation period (usually three years), he/she will continue to receive a salary but will not receive a bonus or responsible work assignment so as to motivate the individual to leave.

2.26 The number of workers and staff covered by the labor contract system (i.e., "contract workers") reached 17.0 million (or 12.1 percent of the total) by the end of 1990. Of these, 13.7 million (13.3 percent of the total) were employed in state-owned enterprises, 2.9 million (8.1 percent) in urban collectives and the rest (26.3 percent) in other ownership units. A considerable proportion <sup>21/</sup> of total contract workers has a "permanent worker" background even though the extension of the system to existing workers is still at the experimental stage.

2.27 Based on interviews with government officials and enterprise managers, the contract labor system appears to have received a mixed reception. Most workers find the system objectionable. By challenging the privileged status of permanent workers and compelling workers to compete for jobs, the contract labor system has the potential for destabilizing the existing system of secure, lifetime employment. From the manager's perspective, contract labor offers more flexibility in managing the workforce. On the other hand, the new system also complicates the manager's task by replacing the passive ("planned") labor management with active management requiring competition with other enterprises to recruit and retain scarce skilled workers. As a result, the contract labor system increasingly requires wage differentiation, including hiring unskilled labor at the lowest cost, so as to be competitive. These objections, however, parallel the means by which the labor contract system is

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<sup>19/</sup> The State Council (PRC), "Interim Provisions on the Implementation of the Labor Contract System in State-Run Enterprises," reported by Wen Wei Po (Hong Kong), in Summary of World Broadcasts: Far East, No. 8342, August 15, 1986.

<sup>20/</sup> The experiments are being carried out in Zhuzhou (Hunan), Yantai, and Qingdao (Shandong) and SEZ in Guangdong, and the countrywide application to both existing and new workers is expected to occur by the year 2000 in sectors and departments with more suitable conditions for labor contracting. From State Planning Commission, op. cit.

<sup>21/</sup> In 1987, when the number of contract workers reached 6 million, permanent-turned-contract-workers constituted 38.5 percent. Pat Howard, "Rice Bowls and Job Security: The Urban Contract Labor System," Australian Journal of Chinese Affairs, no. 25 (January 1991), p. 98.

intended to realize its objective of improving labor allocation, reducing underemployment, and increasing labor productivity. Yet, many report that the good intentions of the reformers seem to have been considerably frustrated by the "accommodating behavior" of both enterprise managers and the authorities for soothing the above complaints.

2.28 A characteristic feature of the Chinese labor system is that management identifies itself closely with labor when the labor's interests conflict with that of enterprise and the state. This can be explained by factors including: (i) managers usually come from among workers; (ii) they continue to live within the same compound and social environment as their workers do; and (iii) both within the enterprise and the party managers standing depends largely on their workers' support. As a result, managers usually try to renew as many labor contracts as they can, particularly if the area where the firm is located suffers from chronic high unemployment or is in an economic downturn. They also try to place workers whose contracts are not renewed in less important, secondary jobs. While enjoying newly gained power to select workers with the right skills and refuse the unqualified ones assigned by the local authorities, managers would hardly resist pressures to fill their planned employment quotas with unskilled labor. To keep skilled worker, managers would offer very long-terms (e.g., 20 or 30 years), even a lifetime contract, and, if necessary, will block a move by administrative means. Permanent workers who are shifted to the contract system are usually given long-term contracts or assured automatic renewals. Less advantageous terms for contract workers than for permanent workers are offset by generous and equal application of bonuses and in-kind benefits. Such compromises have by now found so extensive use that the effectiveness of the labor contract system as a reform measure has been considerably weakened.

2.29 In a market economy, negotiations between workers and management for an agreement (i.e., a compromise) on a contract is the right process by which an efficient allocation of labor is to be attained. "Efficiency" of the process is assured by competition among workers and managers for maximizing their respective "returns," i.e., wage and nonwage benefits for labor and immediate and long-term profits for management. Current employees of an enterprise have an advantage over their competitors because their knowledge and experience in the work involved make them likely to be more productive. Similarly, managers interested in keeping their workforce, have an edge over the competition (managers of other enterprises) because they can offer "continuity" and all the conveniences that go with it. In other words, there is an additional element of "rent" sharing in contract negotiation between an enterprise is employees and management.<sup>22/</sup>

2.30 However, the labor contract system in China differs from the above model in both competition and rent-sharing aspects. First, the Chinese labor system is based on the principle of administrative control by the central

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<sup>22/</sup> In the literature, this is referred to as the "insider-outsider approach," as distinct from the efficiency-wage approach, to explain the functioning of the labor market. For an interesting discussion and reconciliation of them, see Robert M. Solow, The Labor Market as a Social Institution (Oxford, UK: Blackwell, 1990), pp. 31-50.

government, the local authorities, and enterprise; and labor mobility is a "controlled" exception. The regulated nature of the labor system is further reinforced by excessive controls on the use of capital and raw materials and the soft budget constraint on enterprises. Hence, competition, either among workers or among enterprises, has not yet become a driving force for efficiency in the labor contract system, except for a few cases at the margin. Second, although some rent sharing is also involved in labor contracting in China, it is quite different from the one that contributes to efficient labor allocation in a market economy. In the Chinese system, labor and management, despite seeming difference, act together to maximize labor's benefits by using as much of any rent as possible that might either arise from administrative controls or be created fictitiously (Box 3.2). The state, as owner of the enterprise, is a double loser in this exercise: (i) because the new system does not have the features to increase enterprise profitability as originally expected; and, (ii) the overall capital base of state enterprises is eroded because higher benefits are distributed to labor than can be justified on true grounds of enterprise profitability. In sum, the Chinese labor contract system has become so plastic that it can be molded to serve the existing pattern of interests and industrial relations in state enterprises, which it is supposed to change.

2.31 Optimal Labor. Recognizing the severity of underemployment in state enterprises, the government introduced the Optimal Labor Reorganization (OLR) program. Initially implemented during 1985-87 in Qingdao in Shandong Province as an experiment, it was extended nationwide in 1989, covering about 35,000 enterprises with a total workforce of 10.5 million by February 1992. By allowing for a comprehensive reorganization of the work unit and retraining and redeployment of labor, OLR intends to raise labor productivity, particularly by improving the efficiency of permanent workers and encouraging them to become contract workers.

2.32 Optimum labor reorganization is supposed to work by identifying and eliminating surplus labor and by placing the remaining workforce on contract. It is not easy to define who are the surplus workers in an enterprise. However, various sources indicate that state enterprises could reorganize their work so that 15-20 percent of employees could leave without reducing production.<sup>23/</sup> An investigation shows that many state enterprises have a very low rate of effective utilization of working hours--in general only 40-60 percent and in some as low as 20-30 percent--with many idle hands.<sup>24/</sup> Yet many of the same enterprises claim a labor shortage and continuously ask for additional workers. This is because the structure of workers and staff in these enterprises is irrational with a shortage of hands in the first line,

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23/ Lu Heng-jun and Chen Jian, Strategic Issues in Human Resource Planning in the People's Republic of China, UNDP/ILO-ARTEP Working Paper, April 1990, p. 1. Pan Feng and Li Xi-zheng, Development of Human Resources in the People's Republic of China, UNDP/ILO-ARTEP Working Paper, April 1990, p. 5. Gus Edgren, "Comments on Labour Market Reform in China," a background paper for ILO/Ministry of Labor (PRC) workshop in Yantai, April 17-19, 1990, p. 4.

24/ Pan Feng and Li Xi-zhen, op. cit., p. 8.

slackness in the second line and overcrowding in the third. Everywhere, enterprises find it difficult to recruit workers to fill jobs involving hard, dirty, and tedious work, and once filled, the slots soon become vacant again. Similarly, some units are in dire need of experienced and skilled workers while others keep them in "stock," a serious waste of resources. These are the problems optimum labor reorganization hopes to tackle.

2.33 OLR in an enterprise usually incorporates the following aspects:<sup>25/</sup>

- (a) The number of workers an enterprise needs is determined strictly according to the workload, and their qualifications at different production and work stations are determined on the basis of a rational adjustment of production.
- (b) Workers are encouraged to form labor groups voluntarily to contract for production projects, and every worker who joins a group has to sign a labor contract.
- (c) Unqualified workers and staff who have not secured acceptance by any labor group can still select a group but they can be employed only after passing a recruitment examination.
- (d) Such workers who fail the recruitment examination must leave their jobs if new employment opportunities are created for them; alternatively, they may remain on the payroll, but at reduced wages, while being trained for a suitable job in or outside the enterprise.

2.34 To solve the surplus labor and low-productivity problem without causing high open unemployment, the program adopts two approaches: attrition and training. Many enterprises use their new freedom to stop recruiting new workers, thereby gradually reducing overstaffing through natural attrition as workers retire or leave voluntarily for other reasons. This approach may have its merit for middle-aged or older workers with insufficient training who are not thrown out into open unemployment, but it contributes to an already high rate of unemployment among the young (Table 4.1) who are better educated and trained than the surplus workers.<sup>26/</sup> Training can upgrade a redundant worker to a satisfactory skill level for another job, but such transfer opportunities within the same firm can be limited. Some state enterprises have therefore offered surplus workers fully paid retraining programs to encourage them to leave voluntarily, but this offer cannot be made to everyone because of its heavy costs to the enterprise. Such a program carries many strong disincentives in the form obstacles to labor mobility between enterprises, especially across provinces. Besides, surplus workers are usually so much better paid in the old job than a new job in another enterprise that they are

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<sup>25/</sup> Tang Yunqi, "Reform of China's Labour System for Enterprises," in Labour and Society, vol. 15, no. 1, 1990, pp. 34-35; and Pat Howard, op. cit., pp. 109-110.

<sup>26/</sup> Gus Edgren, op. cit., p. 5.

disinclined to move out.<sup>27/</sup> As a result, establishing a labor service company with some satellite enterprises is most widely used approach by state-owned enterprises to address both their surplus labor and job-waiting youth problems.

2.35 The OLR program brings a very important modification to the labor contract system. It involves a limited form of collective bargaining for negotiated production contracts for each work group signed by trade union officials and management. These contracts are known as "mutual guarantee contracts" through which management guarantees to improve employee working and living conditions while union representatives guarantee to fulfill production targets, enterprise development plans, and a labor rationalization plan. The overall wage bill cannot be negotiated, as it is set by government, but wage allocation systems, bonus criteria and the use of retained earnings can be included in the contract.<sup>28/</sup> Although subsequently workers still sign individual contracts, the process described helps "avoid the excessively bureaucratic, alienating, and isolating character of individual contracting."<sup>29/</sup>

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<sup>27/</sup> Gus Edgren, op. cit., p. 4.

<sup>28/</sup> Pat Howard, op. cit., pp. 110-111.

<sup>29/</sup> Pat Howard, op. cit., p. 111.

### III. STRUCTURE AND REFORM OF THE URBAN WAGE SYSTEM

#### Introduction

3.1 The Chinese government uses wage policy to promote four objectives, to:

- (a) maintain effective control over aggregate demand as a means to price stability;
- (b) achieve a "desirable balance" in the distribution of enterprise profits among wages, taxes, and capital formation;
- (c) improve workers' productivity, income, and employment prospects; and
- (d) prevent excessive income inequalities from emerging.

The key instruments used to achieve these objectives are the macro wage plan and provisions regulating the specific structure of wages. Since the reform, and the coverage of the state wage plan has been reduced, its formulation and implementation have become more decentralized. Concurrently, because of increased emphasis on improving incentives and productivity and because of the discretion enterprises have acquired over the allocation of retained earnings, the government has emphasized measures to strengthen the wage-efficiency linkage.

#### Wage Plan

3.2 The wage plan is an integral element of central planning in China. It is closely linked with the labor plans which are directly related to the production plan. Except for the decentralization of authority to ministries and local labor authorities, the formulation of the wage plan remains relatively unchanged from the prereform period. Its coverage, however, is much narrower in terms of the proportion of the total wage bill because TVEs and private enterprises, which are uncovered, have grown much faster than state-owned enterprises (SOEs) and urban COEs.

3.3 Wage planning involves setting average wages and the total payrolls for different occupational groups, sectors and regions.<sup>1/</sup> In determining average wages, the guiding principles are that the overall wage fund should not grow at a faster rate than GDP and that the rate of increase of average wage should be lower than that of labor productivity. Once average wages are determined, they are combined with the employment requirements of the labor plan to obtain the total payroll. Several rounds of iteration, aimed at achieving macro economic balance, take place before fixing state limits on the growth of wage funds by occupational category, sector, and region. These iterations are carried out jointly by the MOL and the SPC, in consultation with concerned agencies.

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<sup>1/</sup> ILO, Labor Administration: Profile on the People's Republic of China, Bangkok, 1989, p. 65.

3.4 Chinese wage planning is a top-down process as distinct from the labor plan which is prepared in hierarchical layers from enterprises up to the SPC. The MOL and SPC first formulate an annual national wage plan by deciding on the appropriate growth rates of the national payroll and the national average wage. The state plan is then distributed by the MOL to various ministries and provinces which allocate wage plan targets all the way down to state enterprises. The specific wage plan target for an enterprise is embodied in a "wage management manual" that serves as a permit for the enterprise to draw money for its payroll from its bank. Enterprises are required to open a wage fund account in a single bank and to draw wage payments (but not bonuses and allowances) only from that fund. Paying wages from other funds or bank loans is an administrative violation and, in serious cases, a criminal offense.<sup>2/</sup>

3.5 The state wage plan is comprehensive with some mandatory components; it covers basic wages as well as bonuses and allowances of government organizations, SOEs, urban COEs, and foreign joint ventures. Employers cannot pay more basic wages than the plan allows, even if they have the resources. Bonuses, however, are controlled rather indirectly through the bonus tax and the profit distribution ratio and, unlike wages, local authorities have leeway to revise the bonus targets of the wage plan during implementation. Thus, the wage plan is an important macro economic policy instrument for regulating the total wage bill and aggregate consumption demand. It is also instrumental in labor management and, indirectly, in the control of investment and enterprise growth. Without an approved increase in the labor force, managers would find it difficult to recruit additional people, since the wage plan is mainly based on the size of the previous year's workforce.

3.6 For urban COEs, the wage plan is, in practice, more indicative than mandatory. Urban COEs have more flexibility in setting wages, since many local labor authorities keep the wage plan to themselves, monitoring general compliance, rather than specifying fixed allocations. Small and rural COEs, including TVEs, are not covered by the wage plan. But their payrolls should still be in conformity with the consumption/savings ratios set for them by county and township governments to guide the distribution of after-tax profits between allocations to labor and investment. In addition, most township and village enterprises (TVEs) <sup>3/</sup> are required to follow the general incomes policy made for them by the MOF and Ministry of Agriculture (MOA).

3.7 In 1985, the State Council announced the establishment of the level-by-level wage control system, bringing some flexibility and decentralization to the implementation of the wage plan. With the level-by-level control, the MOL, MOF and SPC jointly set the key parameters of the wage plan and the wage-efficiency linkage. Within these parameters, each region and sector could prescribe different wage distribution methods for different types of enterprises. Regions/areas and sectors that could not agree upon or implement a

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<sup>2/</sup> Huang Yasheng, "Web of Interests and Patterns of Behavior of Chinese Local Economic Bureaucracies and Enterprises During Reforms," China Quarterly (September 1990), no. 123, pp. 431-58.

<sup>3/</sup> Except those established by families or groups of individuals in villages that are not "collectives."

wage-efficiency linkage would instead contract for their total wage bill. In the case of state organs and agencies, the central government would control wages only in the central and provincial organs and in key public agencies in the areas of higher learning, research, culture, and health. Other public agencies would come under the control of a province, autonomous region, or directly administered city. In sum, during the mid-1980s, state control over wages shifted from direct to indirect control--except for basic wages which are still determined by the center--and centralized wage policies gave way to decentralized policies and local governments acquire some wage distribution authority.

3.8 The decentralized system has had implications for enforcement of the wage plan. Under the decentralized system, local authorities are often reluctant to enforce wage plan guidelines and turn a blind eye to practices that result in the distribution of higher than planned shares of profits to wages at the expense of tax payments to the center.<sup>4/</sup> As a result, the effectiveness of the wage plan in fulfilling its objectives has been substantially reduced.

3.9 The government regards weakened plan control over labor income and rapid expansion of consumption funds <sup>5/</sup> to be main causes of the accelerating inflation during the second half of the 1980s. The remedy is being sought by "perfecting" the wage plan to increase the effectiveness of macroeconomic regulation and income control. According to the SPC, this can be achieved by: (a) improving linkage between wages and performance; (b) strengthening the authorities and the measures available to them for enforcing linkage; and (c) incorporating wage-efficiency linkage into the wage plan. These issues are addressed below in this chapter and in Chapter V; however, within the context of the government's economic reform objectives and the four wage policy objectives specified above, strengthening labor markets and indicative planning can be far more effective than strengthening the command economy features of the wage plan.

#### Wage-Efficiency Linkage

##### The Wage Structure Before 1977

3.10 Prior to reform, the Chinese wage system was neither intended nor designed to promote efficiency, productivity, or mobility. It was best characterized by the Chinese term "big iron rice bowl," which embodied the principles of egalitarian pay and job security. Bonuses, a vestige of the prerevolutionary incentive system, survived during the 1950s but were eliminated during the 1960s.

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<sup>4/</sup> Such practices are facilitated by a new feature of the decentralized system which replaced authority of the central government over the distribution of enterprise profits with negotiations between the enterprise and the Ministry of Finance (MOF) or local finance departments.

<sup>5/</sup> Consumption funds comprise the earnings of enterprises that are earmarked for wages, bonus payments in kind, and expenditure on services for workers.

3.11 China had two wage systems for state enterprises: one for workers and another for managerial and professional staff. For workers, there were, in principle, eight grades of wages.<sup>6/</sup> The ratio between the highest grade (a foreman) and the lowest one (an inexperienced unskilled worker) ranged from 2.8 to 3.2. In general, the difference between grades was about Y 7-8 per month at the lower end of the grade scale and Y 15-20 per month at the upper end, about 17 percent per grade's pay. The wage system for staff had three components: (i) basic wages; (ii) job responsibility wage; and (iii) supplemental wage for years of work. In other words, the wages of staff were determined by the cost of living; the degree of responsibility, technical skill and complexity of the work, and seniority. Staff wages were paid in 10 steps. In addition, the country was divided into 11 "wage regions" to reflect regional differences in the cost of living. The wage regions were reduced to 9 following revisions in 1963 and 1979. Both workers and staff were also paid various allowances differentiated by region, industry, and enterprise-specific conditions, but not by wage grade or step.

3.12 The urban collectives' wage system was more or less a copy of the state enterprise system's. Urban collectives, however, paid generally lower wages and much less allowances than state enterprises; they also had no pension plans.

3.13 Wage adjustments were made in 1957, 1959, 1963, and 1971. They took the form of reducing wages for top-ranking professional staff and increasing those for workers. These adjustments had a twofold effect:

- (a) compressing wage differentials between industries and between occupations, thus enhancing the egalitarian features of the wage system. During the early 1970s, the top steps of administrative staff might have received Y 300 per month while the lowest received Y 30. The top-level technical staff in enterprises might have received Y 150-200, while the lowest step received Y 50, a ratio of about 3.5:1. The ratio of the highest pay for production workers to the highest pay for technical staff was about 1:1.6; and
- (b) reducing the real average wage. In fact, the annual nominal wage for all enterprise workers was, on average (36 percent), lower in 1976 (Y 575) than in 1956 (Y 901), but the real wage declined only by 16 percent over the same period because of falling prices. The low-wage policy was used to promote employment (i.e., avoid unemployment), and depress household consumption to secure resources for capital accumulation.

#### The Reformed Wage Structure

3.14 Wages. To raise living standards and gain support for the reform program in urban areas, during 1977-82 substantial increases were made in the wages of workers, management, and professional staff. However, these increases were based on skill level and years of experience, and were not

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<sup>6/</sup> This principle was generally observed in heavy industries; the wage system of light manufacturing industries usually had a few more grades.

intended to reward improved productivity. Bonuses (para. 3.18) and piece rates were also reintroduced in 1977/78. Piece rates came into use where "simple labor" was involved and where a clear link could be established between measurable output and individual effort. Different piece-rate systems (progressive, indirect, and collective) are now widely used, particularly in rural collective industries. In state enterprises, to limit dissatisfaction over rises in piecework norms, an upper limit is usually set on the percentage of the wage fund paid out on the basis of piece rates.

Table 3.1: SUMMARY OF CHINESE WAGE REFORMS

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Year	Content of reform
1956	Established wage system patterns after the Soviet model (rigid wage system).
1977	Raised wages by upgrading the workers.
1977/78	Restored the bonus system, allowed 5 percent of total wage bill for bonus funds.
1979	Allowed to allocate 10-12 percent of wage funds for bonuses (average bonus two months of wages).
1983/84	Initiated the substitution of tax for profit program.
1985	Initiated floating wage system, structural wage system. Wage/bonus adjustment tax.
1988	"Gongxiaoguagou," link wage fund to economic efficiency (an extended concept of structural wage system).
1989	Raised wages by upgrading the workers.

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3.15 In 1985, recognizing the importance of differences between the wage systems of state enterprises and administrative agencies, the government yielded more autonomy to enterprises in determining overall wages and bonuses according to their economic performance. Based on pilot experiments carried out in various provinces between 1981 and 1984, the government allowed enterprises either to establish a floating wage system or to adopt a structural wage system, where the latter is a revised version of the prereform system. Reflecting the delinking of the wage system of public agencies from enterprises, the former were expected to continue with the (revised) structural system.

3.16 Under the floating wage system, a portion of a worker's total wages and bonuses is to be paid according to certain types of performance indexes, the precise nature of which is discussed later (paras. 3.25-3.28). Among the several types of floating wage systems are the following:

- (a) A fully-floating wage system implies that the total wage bill of the enterprise floats with the enterprise's economic performance. Only a small number of enterprises use this method.
- (b) The semi-floating system links only the bonus component and a small proportion (e.g., 10-20 percent) of the standard wage with economic performance. Eighty-five percent of enterprises using the floating wage system belong to this category.
- (c) The floating wage standards system divides the enterprise's wage standards into various grades depending on its economic performance.
- (d) Finally, within the enterprise, floating promotions are conferred upon workers who show outstanding performance; the wages that go with such promotions are paid out of the bonus fund. A periodic evaluation is made, so that workers who do not maintain their outstanding performance lose their promotions.

3.17 The structural wage is a modification of the traditional wage system. In addition to the basic wage (cost of living), wage grade (position or occupation) and skill or seniority level (years of experience), the revised structural wage system includes a fourth component, the flexible wage. The flexible wage, also called the performance or contribution wage, is based on a measure of the enterprise's economic performance and on the contribution of individual workers. The revised structural wage system has become more popular and extensively adopted than the floating system. An example of the structural wage system, without the flexible wage component, is shown in Table 3.2.

Table 3.2: WAGE STRUCTURE OF ORDINARY WORKERS AT SHANGHAI TEXTILE MACHINERY PARTS CASTING FACTORY (1984)

Ranking	Occupational pay (Y)			-----Category-----	Total of basic, standard, and seniority pay				
	Basic pay (Y)	Standard (Y)	Technical grade		Less than 11 yrs /a (Y 0)	11 yrs (Y 1)	12 yrs (Y 2)	29 yrs (Y 19)	30 yrs (Y 20)
1	40	62	8		102	103	104	121	122
2	40	55	7		95	96	97	114	115
3	40	48	7		88	89	90	107	108
4	40	41	6		81	82	83	100	101
5	40	38	6	Skilled workers	78	79	80	97	98
6	40	32	5		72	73	74	91	92
7	40	29	5	Ordinary workers	69	70	71	88	89
8	40	23	5		63	64	65	82	83
9	40	18	4		58	59	60	77	78
10	40	8	4		48	49	50	67	68
11	40	4	3		44	45	46	63	64

/a Accumulated years of employment, with seniority pay in parentheses.

Source: Yo Guoxing, Shen Fengwen, "Gaige Xianxing Gongzi Zhidude Yici Youyide Tansuo" ("A significant probe into the reform of the present wage system") in Shehui Kexue (Social Sciences), Shanghai Academy of Social Sciences Publishing House, vol. 9, 1984, p. 52.

3.18 Development of the Bonus System. The bonus system, which, along with piece-rates, was first introduced in 1958, has since been suspended and reintroduced several times. When last restored, in 1978, bonuses were held to around 10-12 percent of the wage fund. The government, however, was concerned over the subsequent growth of bonuses which inflated the wage fund. Because the enterprise fund, welfare fund, and labor union fund were calculated as fixed percentages of the wage fund, the growth of bonuses had a snowballing effect on state expenditures. To control these expenditures, in December 1979, bonus payments were separated from the wage fund by government decree. The limit on bonuses was subsequently raised in the early 1980s to the equivalent of two-and-a-half to three months' wages. Bonus distributions were based on the fulfillment of the enterprise's production quota, and not on the individual productivity of managers and workers. Bonuses were distributed within an enterprise either equally among workers or by rotating large bonuses monthly. As such, bonuses effectively became a wage supplement.

3.19 In 1983, the Chinese government introduced the Substitution of Taxes for Profits Program ("ligaishui"). This program allowed enterprises to pay taxes on earnings in lieu of handing over all profits to the government. The enterprise was then allowed to distribute its after-tax profits for a variety of purposes, including product development, reinvestment, emergencies and employee welfare, as well as bonuses. While the bonus limit was lifted, the government introduced an indirect restriction on bonus payments by stipulating that the employees' welfare fund and the bonus fund together should not exceed 40 percent of the after-tax profit. In 1984, this restriction was somewhat eased to allow up to 20 percent of profits to be allocated to the welfare fund, 30 percent to the bonus fund, and the remaining 50 percent to the other funds. In this way, bonuses and enterprise performance became more directly linked.

3.20 These reforms have been reflected in further improvements of workers' living standards and the expansion of performance-related components of total compensation. From 1978 to 1988, real compensation in state and collective enterprises rose by over 70 percent (Table 3.3). Within state enterprises, the share of basic wages in the total wage bill decreased from 85 percent in 1978 to less than 50 percent in 1990, while the bonus share rose from 2.3 percent to 17.0 percent over the same period. Piece-rate wages and subsidies together made up over one third of the total wage bill (Table 3.4).

3.21 Total Compensation and Macrobalance. With the increase in wages and the new bonus system, the average nominal wage (basic wage plus bonus) for enterprise workers increased nearly 60 percent between 1978 and 1984 (Table 3.3). Bonuses increased from 2.3 percent of the total wage bill in 1978 to 14.4 percent in 1984. In 1983 and 1984, the increase in bonuses and subsidies exceeded wage increases.<sup>7/</sup> Given the ambiguities in the measurement of enterprise and worker performance discussed in the following section, coupled with soft budget constraints, serious abuses of the unrestricted amounts of bonuses allocated to workers emerged during the first half of the 1980s.

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<sup>7/</sup> For a more detailed review of the changing composition of total compensation for labor, see Annex 2.

**Table 3.3: AVERAGE ANNUAL WAGE OF STAFF AND WORKERS**

Year	Average nominal wage		Cost-of-living index	Real wage index
	Yuan	Index		
1952	445	72.4	79.8	90.7
1978	615	100.0	100.0	100.0
1983	826	134.3	116.9	114.9
1984	974	158.4	120.0	132.0
1988	1,747	284.1	171.4	165.7
1989	1,935	314.6	199.5	157.7
1990	2,140	348.0	202.0	172.3

Source: Statistical Yearbook of China, 1991, pp. 112 and 223.

**Table 3.4: COMPOSITION OF AGGREGATE WAGE BILL IN STATE ENTERPRISES (Percentage)**

Year	Basic wage	Bonuses	Subsidies	Other
1978	85.0	2.3	6.5	6.2
1983	63.5	11.1	14.1	11.3
1984	58.5	14.4	14.5	12.6
1988	49.0	17.2	21.4	12.6
1989	47.4	17.6	23.1	11.9
1990	48.9	17.0	21.8	12.3

Source: Statistical Yearbook of China, 1991, p. 107.

3.22 These increases were reflected in a rising share of total labor compensation (wage, bonus, subsidy and other cash contributions) in the gross value of industrial output. A rise in labor's income share reflects wage growth in excess of labor productivity growth; conversely, productivity increases in excess of wage growth are reflected in a fall in labor's income share. Within the state industrial sector, labor's share rose rapidly during 1978-81, starting at 6.4 percent and peaking at 7.0 percent after the reintroduction of bonuses in 1981. After declining during 1982 and 1983, the share rose to a new peak in 1986, at 8 percent, a phenomenon that contributed to growing inflation during the early and mid-1980s. Thereafter, during 1987-89, labor's income share in state industry declined. In industrial collectives and in the construction sector (both state- and collective-owned) labor income share declined continuously throughout the 1980s.

3.23 To curb excessive wage hikes and bonus distributions following the decentralization of enterprise management and flexible bonus payments as well

as to strengthen the wage-efficiency linkage, the government introduced in 1985 a wage adjustment tax and a bonus tax. The former subjected wage increases over 7 percent a year to a progressive tax (Table 3.5), while the latter applied at steeply rising rates to industrial state enterprises <sup>8/</sup> bonus payments exceeding four months' standard wages.<sup>9/</sup> Since labor's income share peaked in the following year, these measures appeared to have had no immediate impact. By 1987, however, industry's labor income share began to decline as bonuses were capped by wage growth which, was restricted to 7 percent a year, a rate well below the then prevailing rates of annual growth of about 15 percent industrial output.

Table 3.5: THE WAGE ADJUSTMENT AND BONUS TAXES

Wage Increase	Rate of wage adjustment tax	Bonus increase	Rate of bonus tax
0-7%	Nil	0-4 months' wages	Nil
7-12%	30%	4-5 months' wages	30%
12-20%	100%	5-6 months' wages	100%
20% >	300%	6 months' wages >	300%

3.24 Performance Measures. China's wage reforms aim at linking the wage system to the economic performance of enterprises, so that the system can encourage greater initiative and effort by workers and managers. This linkage requires: (a) the identification of appropriate indicators of enterprise performance, and (b) proper reflection of changes in these indicators in worker remuneration. The reformed wage system also needs to ensure that, when determining wage increases, enterprises take adequate care of the state's due share in profits (i.e., taxes) and of their own future development (i.e., capital accumulation).

3.25 Within a market system, the enterprise's total wage bill is fixed by labor's technical contribution to output. This is measured by the value of the marginal product of labor, i.e., managers hire new workers as long as their contribution to additional output covers the cost of the additional workers. Workers are free to move among firms; if another firm offers a higher wage, any worker can leave his/her existing job. To retain the worker, the existing firm would have to offer a wage increase, conceivable only if the worker's contribution to the firm's revenues covered the wage increase. In equilibrium, each worker's wage is equal to the value of his marginal product

<sup>8/</sup> Subsequently, the government extended the bonus tax to some nonindustrial units like research institutes and publishing houses.

<sup>9/</sup> Hironao Kabayashi, "Reforms in the Chinese Wage System," China Newsletter (JETRO), no. 67, p. 12.

and the firm's total wage bill is equal to the sum of the individual worker's contribution to the firm's total revenue.<sup>10/</sup>

3.26 Within China's planned wage system, the main indicators of enterprise performance used to link wages to a worker's efficiency are (a) profit (or the difference between planned and actual losses); (b) amount of tax remitted to the government; (c) value of gross output, or (d) a composite of these and other indicators. Depending upon the industry, the enterprise can use one or more of these indicators to negotiate with MOF about the size and distribution of its wage fund. More than half the large and medium-sized state enterprises have their payroll linked to economic performance. Some medium- and small-sized enterprises that are not yet ready to adopt the wage-efficiency linkage have introduced the payroll contract system.<sup>11/</sup>

3.27 In practice, all of the above indicators have serious shortcomings as measures of true enterprise efficiency. Assuming identical levels of labor input between two Chinese enterprises, profits, taxes and output should show substantial variations both across enterprises and year-to-year within enterprises for reasons other than the efficiency of workers and managers.<sup>12/</sup> Among these reasons are: (a) a distorted price system and the haphazard incidence of these distortions across sectors, industries and enterprises, and (b) differences in enterprises ability to negotiate with government agencies for favorable terms regarding taxes, credit, inputs, and production quotas affecting enterprise profitability. Identifying the contribution of labor versus other factors to (changes in) profits is also problematic. For example, output and profits per worker in a capital-intensive enterprise are likely to be larger than in a labor-intensive enterprise manufacturing the same product, even if workers and managers in both units show the same amount and quality of work effort. Finally, enterprise productivity and profitability can be affected by factors outside the control of workers and managers, such as bottlenecks and shortages, government pressures for overstaffing, changes in exchange rates, and so forth.

3.28 In practice, the general rule allows the enterprise to raise its wage bill by 0.3-0.7 percent for every one percent improvement in its profits or tax payment if the enterprise chooses one of these as its performance indicator. If the gross value or physical volume of output is chosen as the performance indicator, the wage-efficiency linkage coefficient is 1:1. The selection of performance indicator, the base figures for it and for the wage fund (usually the previous year's values), and the linkage coefficient must be approved by the provincial labor, finance, and planning departments. The range of linkage coefficient has no theoretical basis, and the particular rate

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<sup>10/</sup> This description holds under the assumption of a constant-returns-to-scale production function. Otherwise, the description is an approximation of the equilibrium condition.

<sup>11/</sup> State Planning Commission (PRC), "Background Information on Wages," prepared for the current study, August 1990, p. 25.

<sup>12/</sup> Andrew G. Walder, "Wage Reform and the Web of Factory Interests," in China Quarterly, (March 1987), no. 109.

chosen for a given enterprise will mainly depend on the negotiating ability of the participating parties. Moreover, the approved rate may not hold; it is often waived with the authorities' approval--the enterprise's bank will not otherwise release payments for wages. Thus, the wage-efficiency linkage actually boils down to giving some appearance of objectivity to the arbitrariness of wage planning at the provincial level. The result is great variation in remuneration for a certain level of skill and effort between regions, sectors, industries, and enterprises, not necessarily linked to differences in enterprise and worker performance.

3.29 Wage and Bonus Distribution Within the Enterprise. Once the increase in the enterprise wage fund and the size of the bonus fund have been determined, their distribution to individual workers within the enterprise according to the amount of labor performed is crucial to the effectiveness of the linkage. This is not an easy task for four reasons: (i) the technical nature of work may not allow an easy differentiation of productivity among workers<sup>13/</sup>; (ii) in practice, worker position and seniority are usually a more important factor than productivity in determining bonus fund share; (iii) government restrictions over wages and bonuses have induced managers to adopt a more equitable distribution of bonuses; and (iv) group meetings to assess the performance of individual workers relative to vague measures of quota overfulfillment--the most widely used method for assessing performance--are a source of contention among workers. There is no consensus on what a fair quota is, how quotas should be set, who is to be allocated the "soft" and "hard" jobs, and so on. Managers usually avoid such potential problems by allocating bonuses relatively equally.<sup>14/</sup>

3.30 Many observers have expressed concern over the tendency of bonuses to be evenly distributed within enterprises without due regard to individual performance. One measure intended to provide incentives to outstanding workers was the authority to confer early promotions. In 1989, the government allowed enterprises to create additional steps for outstanding workers and staff or to promote them to higher steps even though such promotions would be premature by other established criteria.

3.31 The Wage Adjustment Tax and Bonus Tax to check inflationary pressures arising from rapid wage growth have had two strongly adverse effects on the wage-efficiency linkage. First, they resulted in the leveling of wage increases and bonus payments across enterprises. All but the most poorly run enterprises were able to pay the upper limits of wage increase (7 percent) and bonuses (up to four months' wage) while not being subject to the two taxes in question. Even enterprises whose profits fell were entitled to increase remuneration at the tax-exempt limits if their losses were due to "objective factors" (e.g., price changes, increases in material costs, changes in exchange

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<sup>13/</sup> This is the case in industries (e.g., garment manufacturing) where differences in work tasks may be small, or in plants using assembly-line technology where every worker's efficiency depends on the others'. In such cases, the bonus system would have to be used to motivate workers as a whole.

<sup>14/</sup> Andrew G. Walder, op. cit., p. 29.

rates or foreign markets, heavy repayment of investment loans). On the other hand, very few enterprises have paid wage increases and bonuses at the taxable ranges. Second, these taxes, by effectively restricting wage and bonus increases, have instead encouraged managers to distribute a growing share of profits through in-kind benefits and welfare payments (Box 3.1). The ability to support such nonwage benefits may be loosely tied to profitability, but within the enterprise they tend to be distributed rather equally as they are not suitable for differentiation according to individual worker performance.

### Assessment of Current Wage Policy

3.32 It is difficult to tell from casual observation what effect the wage reforms have had on efficiency, but three, largely unintended, results can be identified. The first unintended, but desirable, consequence has been "an upsurge, even open conflict, over wage matters."<sup>15/</sup> The wage reform had the immediate effect of turning a passive labor force into a contentious and calculating one. Some of the major sources of contention have been noted. It is this newly emerging sense of acquisitiveness and self-interest among workers that should perhaps be considered the most significant achievement of the wage reform. Still missing, however, is a similar mechanism inducing managers to "personalize" (i.e., maximize) enterprise interests. When coupled with the fact that most managers are appointed through consultation with employees from the ranks of the factory, it becomes obvious that Chinese managers' dominant objective would be to maximize benefits and job security of their employees <sup>16/</sup> rather than enterprise profit.

3.33 The second unintended and undesirable consequence of the wage reform is the extensive use by both managers and workers of an informal bargaining process as well as a host of legal and illegal means of retaining the largest incentive fund possible while concealing slack resources and plant capacity. This is the rational response by both managers and workers to a set of irrational constraints imposed on them by the government. A vivid account of this exercise in ingenuity for subversion of controls is presented in Box 3.2. As a result, the division of enterprise profits among bonus, welfare, and development funds favors the bonus fund by far and exceeds legally specified ratios by wide margins.<sup>17/</sup> This behavior is accounted for, in part, by underdeveloped labor markets and constraints on laying off excess and unmotivated workers which limit labor force discipline and require managers to rely more on positive cash and in-kind incentives.

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<sup>15/</sup> A. G. Walder, op. cit., pp. 26-30. Walder deems this upsurge of contentions undesirable.

<sup>16/</sup> Huan Yasheng op. cit., p. 445.

<sup>17/</sup> A study by the Chinese Institute for the Reform of the Economic System ("Gaige: Women mialing de wenti yi silu," Beijing: Economic Management Press, 1986, p. 24) showed that Nanchang Diesel Engine Factory, among many, distributed 77 percent and 62 percent of its profits as bonuses in 1983 and 1984, respectively, against the legally specified ratios of 20 and 27 percent (quoted in Huang Yasheng, op. cit., p. 448).

Box 3.1: FRINGE BENEFITS FOR WORKERS IN CHINA

Workers in China are entitled to a wide range of benefits paid out from the welfare fund. These benefits can be categorized into four groups: (1) everyday expenses; (2) medical expenses; (3) workers' welfare; and (4) home leave. The regulations described below apply to all SOEs and serve as a reference for COEs. These, however, do not include state financial assistance in the form of subsidized food, clothing, transportation, cultural life, and, most important, housing, which are altogether estimated to be equivalent, on a national average, to 40 percent of workers' wage income.

(1) Everyday Living Expenses

Cost-of-Living Adjustment. If wages lag behind rising costs of staple and nonstaple food, enterprises may pay food subsidies to workers.

Winter Heating Assistance. Its amount varies from city to city, averaging at 4 percent of annual basic wages.

Transportation. This benefit covers all cities with a population of 500,000 and more. The distance between the worker's duty station and residence must be over 2 km. The cost is to be shared between the enterprise and workers. A bicycle-keeping allowance up to Y 1.5 is paid to workers who bike to work.

(2) Medical Expenses

Medical Expenses. Until 1966, all medical expenses for workers and immediate family were provided by the enterprise. Since 1966, the enterprise would only pay for hospital, clinics fee, and prescribed medicines for nonwork-related illnesses. For work-related illness, all expenses are paid by the enterprise or the supervisory unit including two thirds of meal expenditures while in hospital. Wage subsidies of 60-100 percent are paid to workers who are out of work for less than six months from enterprises' wage funds; if over six months, insurance allowances of 40-60 percent of regular wages are paid from the welfare fund.

Maternity and Family Planning. Since 1988, a mandatory maternity leave of 3-6 months (varying among provinces) absence, including 15 days before childbirth, is granted. If medical difficulties are encountered, an extra 15 days are allowed. All medical expenses pertaining to family planning, except for meals while in hospital, are to be provided by the enterprise.

(3) Welfare Provision

Funeral Cost. Various costs related to the death of a worker or a member of his immediate family are paid, including living expense subsidies to the family members of the deceased.

Public Activities Fees. Paid by enterprises or agencies to support various public functions, excluding training activities.

Bathing, Barbering, Day Care, Kindergarten, and Cafeteria Services. Enterprises pay the salaries of workers providing such services and subsidize such operations.

(4) Home Leave

Chinese workers do not have leave for holiday, but they are entitled to time off from work to visit their spouses or parents if they live far away. To visit the spouse, a worker is entitled to a paid leave of up to 30 days a year. To visit parents, an unmarried worker is entitled to 20 days off per annum. However, once married, a worker is only entitled to a paid leave for parent-visiting of 20 days every four years. Transportation costs to visit spouses or parents are subsidized by the work unit, depending on the age of the worker and the destination of the visit.

Benefits After Retirement

Some fringe benefits extend beyond retirement. In addition to a pension, retired workers are entitled to the following benefits.

For Cadres. The benefit treatment remains the same as before retirement. They remain entitled to a wide range of allowances such as cost-of-living, cleaning, transportation, food subsidies, other commodity subsidies, winter heating subsidies, medical, housing, vehicle usage, other necessities.

For Workers. Workers who retired before the 1985 wage reform are entitled to a cost-of-living subsidy up to 40 percent of regular wages. For workers who retired after 1985, two provisions apply: enterprises that implemented the wage reform would not provide any more subsidies to retired workers; for enterprises that did not implement the reform, subsidies of Y 12-17 per month were allowed. Retirees are entitled to a winter heating subsidy calibrated to locality.

Moving subsidies are provided to retirees who want to move to a different location. The subsidy is Y 150 to Y 300 for workers, and two months' wages for cadres.

3.34 Finally, an unnoticeable, but deducible, result of the wage reform is its possible contribution to inefficient resource allocation in China. The wage-efficiency linkage is the right basis for efficient wage determination in a market economy whose success is ensured by the unhindered functioning of the labor market. In China, the labor market is characterized by excessive segmentation which constrains the flow of labor to most productive uses. Enterprises would therefore be expected to optimize labor use within their own segment of the labor market. However, the optimal use of labor depends not only on labor mobility but also on the mobility of other factors and inputs and a rational price structure. Given the restrictions on all other inputs and highly distorted prices, the scope for optimization of resource use is increasingly constrained, eventually being confined to within the enterprise. In this setting, the wage-efficiency linkage will help inefficient firms to survive by ensuring that workers, "bonded" to their units, accept lower pay than would their counterparts in more successful firms. This is inimical to efficient resource allocation especially if used as a long-term, instead of countercyclical, policy. Similarly, the wage-efficiency linkage in successful firms will encourage "protectionist" labor practices, enhancing labor-market segmentation and inefficient resource allocation.

Box 3.2: THE SUBVERSION OF FISCAL CONTROLS 1/

Fiscal controls have always been subverted by Chinese industry, yet the new regulations, tying bonus funds to profits, have heightened incentives to circumvent state regulations, legally and illegally.

The legal means involve various forms of bargaining between enterprises and agencies that set their mandatory production plans, decide on tax breaks and terms of credit, and control product prices. Bargaining invariably includes a measure of deception, and sometimes the cultivation of official favor and has several goals. Managers seek to increase their state-priced supplies, or obtain more state investment, if their mandatory plans are raised; if they are required to switch to the production of a new item, they negotiate for more capital investment or tax breaks and subsidies for the first years of production. Managers who have been most successful in building a reserve of slack capacity will be able to show large increases in profit, if need be, by using these reserves.

Illegal strategies often include covert price raises for goods regulated by state plans; deliberate cutting of quality; short-weighting and -measuring; using flawed parts; reducing labor and materials to retain more funds; filing falsified requests for overtime funds; refusing to produce high-cost, low-profit items; and violating state and assortment targets.

The procurement process has long provided a rich source of illicit funds for use as bonuses. One widely used technique is to arrange side payments on procurement deals; another is to demand an illegal premium from the procuring agents of other enterprises. Often, two enterprises have arrangements whereby one procures materials from the other at covertly inflated prices, in effect "laundering" the money that represents the difference between the price paid and the lower official price. Enterprises reportedly hide the resulting cash reserves and use them for bonuses, among other things. Finally, some factories have found ways to work spare funds directly into budgeted costs.

By 1986, new opportunities were presented by horizontal associations with collective enterprises, by the dual price structure for industrial products (inside and outside the state plan), and by speculative deals for imported products, foreign currency, and producers' goods. State enterprises have developed a variety of methods for diverting profits into associated collectives to avoid paying profit taxes: by selling them state-priced materials and buying market-priced materials for their own use, selling products below cost to collectives, paying collectives inflated processing fees, and transferring fixed assets to collectives off the books.

The falsification of accounts is reportedly standard industrial practice. Many firms keep two sets of books: one for the "upper" levels, and the other for internal use. Many Chinese economists writing on these matters recognize that the root causes are systemic: further reform of the industrial system is essential. The unintended effects of wage reform have cast into bold relief the weaknesses of the economic mechanism in other areas.

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1/ Summarized from A. G. Walder, op. cit., pp. 36-38.

#### IV. ASSESSMENT OF LABOR REFORM

##### Introduction

4.1 Major reform issues and recent government policies in China's labor and wage systems were reviewed in the preceding chapters. The objective was to assess the efficiency and employment implications of government reform measures using interview data, economic theory and deductive reasoning. Using quantitative measures of the reform's effectiveness, however scanty they may be, this chapter tries to discern efficiency effects of labor and wage reforms. Statistical analyses of (a) labor productivity, (b) labor mobility and flexibility (including the convergence of factor returns), and (c) wage-setting behavior will be consulted.

##### A. Labor Productivity

4.2 The productivity of China's workforce, measured as gross output per worker, rose at an average annual rate of 7.6 percent during 1980-89 (Table 1.4). This was a substantial rise over the 4.4 percent rate reported for the period 1957-78. Within the industrial sector, the rates were 6.8 percent for 1980-89 and 3.4 percent for 1957-78. By comparison, the transport sector showed little change in labor productivity growth, and construction and commerce reported slower productivity growth. The poor performance of these both sectors reflects their phenomenal (more than double) employment growth during the 1980s. In 1980-85 alone, when labor productivity in construction fell by an annual rate of 2.75 percent, employment nearly doubled. The rapid growth of these industries, both relatively underdeveloped at the outset of the reforms, is likely to have created structural inefficiencies that should gradually shake out as their share of total output evens out.

4.3 Within the industrial sector, the performance of the state and collective sectors can be contrasted. Between 1980 and 1988, labor productivity the state sector advanced at a rate of 5.2 percent, while in the collective sector the comparable rate was 12.1 percent (Table 4.1). For the prereform period, reliable data are not available for the collective sector, but for state industry, during 1957-78, labor productivity, now measured as net output per worker, grew at a rate of just 2.0 percent compared with a rate of 6.1 percent during 1978-88.<sup>1/</sup> Thus, within the key state industry sector, the data show an unambiguous acceleration of productivity growth from the prereform period to the reform period.

4.4 Labor-productivity growth may originate from a number of sources. Key among these are (i) a rise in the capital-labor ratio (capital deepening), (ii) an increase in the ratio of intermediate inputs to labor, and (iii) productivity growth, usually measured as total factor productivity (TFP) growth. Even if TFP remains unchanged, the substitution of capital or other factors for labor can cause labor productivity to rise. Studies of China's industrial

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<sup>1/</sup> K. Chen, G. Jefferson, T. Rawski, H.C. Wang and Y.X. Zheng, "Productivity Change in Chinese Industry: 1953-85," Journal of Comparative Economics, vol. 12 (December 1988), pp. 570-91.

productivity growth show that, while capital deepening continued at a rapid rate during the reform period, the main source of acceleration in labor productivity growth was accelerated TFP growth. The rate of TFP growth during the reform period advanced at a rate of 2.4 to 5.0 percent, depending on the period selected and whether the analysis applies to net or gross output.<sup>2/</sup> These estimates represent a substantial improvement over the 1957-77 when TFP in state industry was essentially stagnant (Table 4.1).

**Table 4.1: SOURCES OF GROWTH FOR LABOR PRODUCTIVITY <sup>/a</sup> IN CHINESE INDUSTRY 1980-88**

Sector	Growth of labor productivity (% per year)	Contributions to increased labor productivity		
		Capital deepening	Materials deepening	Total Factor productivity
State	5.21 (100.0%=)	0.63 (12%)	2.13 (41%)	2.40 (47%)
Collective	12.13 (100.0%=)	1.15 (10%)	6.36 (52%)	4.63 (38%)

Source: Jefferson/Rawski/Zheng, op. cit.

<sup>/a</sup> Gross output value per man-year at 1980 prices.

4.5 These findings must be tempered by the observed tendency of gross value of industrial output at constant prices to be somewhat inflated. These overestimates result from the product innovation process, where enterprises sometimes use the current nominal price of the new product as a proxy for the constant 1980 price. This gives an upward bias to GVIO growth estimates, particularly in the latter half of the 1980s when inflation was accelerating. Other potential sources of upward growth bias lie within the collective sector, including the practice of not reporting constant price-output measures in the fast-growing TVE sector, or newly established, small enterprises using their initial-year's price to represent the 1980 constant price. Even with generous adjustments for these factors (two to three percentage points in the

<sup>2/</sup> See, for example, D.H. Perkins "Reforming China's Economic System," Journal of Economic Literature, vol. 26, no. 2 (June 1988), pp. 601-45. Chen and associates, op. cit., and G.H. Jefferson, T.G. Rawski, and Y. Zheng, "Growth, Efficiency and Convergence in Chinese Industry: A Comparative Evaluation of the State and Collective Sector," Economic Development and Cultural Change, vol. 40, no. 2 (January 1992), pp. 239-66.

collective sector and up to one percentage point of growth in state industry),<sup>3/</sup> these sources of bias do not overturn the result that labor's productivity performance improved substantially during the 1980s.

4.6 Productivity analyses give a strong impression of a substantial improvement in total factor productivity growth, but the role of labor-market reform in this improvement is not clear. In principle, TFP can rise from either gains in allocative efficiency (e.g., a more efficient deployment of labor) or an improvement in labor's efficiency within the firm, say, due to a strengthening of the wage-efficiency linkage or efficacy of the optimal labor reorganization program. The following assessment of the quantitative impact of specific reform measures attempts to determine the extent of their contribution to raising labor and total factor productivity.

#### B. Assessment of Mobility and Flexibility

##### Mobility of Labor Across Enterprises

###### Growth of Labor Mobility

4.7 Low mobility has long been a trademark of China's labor scene. China has restricted, and still restricts, rural-urban migration by administrative and economic means. However, economic reforms have simultaneously increased the attraction of cities and towns to potential rural migrants and the availability of (expensive) unrationed foodstuffs in the cities. The result has been an influx of semilegal and illegal rural migrants to the cities that has begun to create some of the social problems commonly found in developing countries. Low mobility is also an important feature of employment patterns among the urban labor force. Once assigned to an organization, Chinese workers used to stay with this unit for decades unless transferred by administrative decision. Economic reforms of the past decade have brought about some increase in mobility of urban labor as well. Ambitious youths and mid-career professionals have flocked to coastal cities and Special Economic Zones in search of new job opportunities.

4.8 No extended time series data are available to confirm these impressions. However, considering that at the beginning of the reform period labor mobility was negligible, available data (Tables 4.2 and 4.3) indicate a modest increase in labor mobility over the past decade. Interenterprise mobility of permanent workers in the state sector in 1988 amounted to 0.8 percent of previous year-end employment, almost 15 percent of current-year new hires (excluding temporary workers). These ratios fell to 0.6 percent and 12.3 percent, respectively, in 1989 because of the effect of "rectification" policies. For the urban collective sector as a whole, interenterprise transfers of per-

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<sup>3/</sup> The product innovation bias estimates of annual growth is as large as 7-8 percent in the electronic and communications equipment industry, but the overall bias to reported state-sector industrial growth rates in 1980-87 probably did not exceed 1 percent (G.H. Jefferson, "Growth and Productivity Change in Chinese Industry: Problems of Measurement," in M. Dutta (ed.) Adaptive Innovation in Asian Economies, ACAES monograph series.

manent workers in 1989 amounted to 0.8 percent of previous year-end employment, about 11 percent of current-year new hires.

4.9 Based on 1987 data from a sample of 800 state-owned industrial enterprises (Table 4.3), there is much more mobility among all workers (permanent and temporary) in state-owned industrial enterprises than among permanent and contract workers in the state sector as a whole, which includes government, trade, finance and other nonindustrial positions. The 4.8 percent rate of separation for all industrial workers in 1987 was almost double the 1988 and 1989 rates for permanent and contract workers in the entire state sector (Table 4.2). The ratio of new hires to the total workforce was also much higher for the 1987 sample of industrial enterprises (10.3 percent, Table 4.3) than for the state sector as a whole in 1988 or 1989 (4.8-5.7 percent, Table 4.2). Although part of the difference arises from the inclusion in the 1987 sample of temporary workers, who have higher turnover rates than permanent workers, labor mobility, especially in the area of separations, was greater in industry than in other branches of the state sector.

4.10 Of the 5.5 million workers added to the state sector in 1988, 1.26 million, about 23 percent, were assigned to their jobs upon graduation from school and another 0.34 million (i.e., 6 percent) upon discharge from the military. The share of assigned workers within the industrial sample is somewhat less. Within the entire state sector, the largest category of new hires were new recruits, whereas within the industry sample, interunit transfers were the largest category of new hires. In either case, relative to the pre-reform period, when virtually all workers were assigned by the state and the prospect of transfer was negligible, state assignments represent a relatively small share of new hires.

4.11 The austerity policy introduced in 1989 slashed the intake of new permanent workers into the state sector from village, urban residents, and collective enterprises. Moreover, the rate of layoffs of permanent and contract workers from the state sector appears to have risen. Within the sample of 800 state-owned industrial enterprises, 265 enterprises report having reduced the number of permanent workers from 1988 to 1989.

4.12 Still, workers outside the state sector have a much higher degree of mobility and insecurity. In particular, the rate of involuntary separations is much larger in collective than in state establishments (Table 4.2). In the first half of 1990, state enterprises reduced payrolls by 252,000 workers, while collective units, employing a third as many workers as the state sector, dismissed 488,000.<sup>4/</sup> Assuming that the category "other" separations consists mainly of positions lost due to enterprise closures <sup>5/</sup> in 1988/89, collective workers were about seven times more likely to suffer involuntary separation than permanent state-sector workers, making the rate of involuntary separation in collective enterprises nearly 5 percent. However, in view of

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<sup>4/</sup> China Daily, September 3, 1990.

<sup>5/</sup> The number of collective industrial establishments dropped by 106,000 during 1988/89.

**Table 4.2: INDICATORS OF LABOR MOBILITY IN STATE AND URBAN COLLECTIVE INDUSTRY, 1988/89**

A. Inflow of workers	New hires ('000s)		
	State 1988	State 1989	Collective 1989
1. Recruits-rural	689	570	561
2. Recruits-urban	1,547	1,028	892
3. Ex-army - A.	217	258	16
4. Ex-army - B	120	78	3
5. College grads	481	510	21
6. High school grads	469	474	23
7. Technical grads	305	357	18
8. Leave of absence	23 /a	43 /a	0
9. Ex-temporaries	316	438	0
10. Switch from COE/SOE	601 /a	294 /a	238 /a
11. Other	562	494	592
12. Transfer in	195 /a	255 /a	28 /a
13. Total new hires	<u>5,524</u>	<u>4,800</u>	<u>2,394</u>
14. Of which possible interenterprise moves	819	589	266

  

B. Outflow of Workers	Separations ('000s)			Separations per 1000		
	State 1988	State 1989	Collective 1989	State 1988	State 1989	Collective 1989
1. Retirement	1,140	1,030	321	11.81	10.32	9.10
2. Cadre retirement	116	106	9	1.20	1.06	0.26
3. Quit (abandon pension)	29	28	40	0.30	0.28	1.13
4. Leave of absence	109	101	0	1.13	1.01	0.00
5. Join army	4	11	10	0.04	0.11	0.28
6. Transfer to COE/SOE	98	165	282	1.02	1.65	8.00
7. Dismissed	87	94	47	0.90	0.94	1.33
8. Laid off--unqualified	109	125	540	1.13	1.25	15.31
9. Contract expired	175	204	113	1.81	2.04	3.20
10. Deceased	131	135	36	1.36	1.35	1.02
11. Other	231	294	1,048	2.39	2.94	29.71
12. Transfer elsewhere	241	227	22	2.50	2.27	0.62
13. Total separations	<u>2,470</u>	<u>2,520</u>	<u>2,468</u>	<u>25.59</u>	<u>25.24</u>	<u>69.97</u>
14. of which: involuntary						
A. [7 + 8 + 9]	371	423	700	3.84	4.24	19.85
B. [7 + 8 + 9 + 11]	602	717	1748	6.24	7.18	49.56
Number workers at beginning of year (million)	96.54	99.84	35.27			

Note: "Workers" in the urban collective sector include all employees, while that in the state sector refer to permanent and contract employees.

Sources: Ministry of Labor, Statistical Yearbook of Chinese Labor and Wages, 1989, pp. 3, 204-07; and the same for 1990, pp. 3, 219-22, 315-18.

/a Indicates possible interenterprise transfers.

Table 4.3: WORKER MOBILITY IN A LARGE SAMPLE OF SOEs, 1987  
(percent)

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1. Reduction in number of staff and workers/total, of which:	4.8
Transferred	41.7
Resigned	2.5
Dismissed	5.4
Expelled	4.4
Retired	35.9
2. Increase in number of staff and workers/total, of which:	10.3
Transferred	34.5
State assigned	25.6
Advertised by the enterprise	24.0
3. Total employees at year-end, of which:	
Permanent	79.0
Fixed contract	10.2
Temporary	1.5
Extra-plan	8.9

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Source: Based on 643 observations (collectives and missing observations omitted) from the Chinese Economic System Reform Research Institute (CESRRI) data set of 800 enterprises.

the unusual austerity policies in force during 1989, this probably was a peak of job insecurity for collective workers.

#### Convergence of Factor Returns

4.13 A key function of labor markets is to allow workers and managers to reallocate labor to improve returns. Workers are motivated to change jobs to increase their wages and incomes; managers are motivated to hire, fire, and reassign workers to positions where they can be used more productively so as to raise profits. In an economy such as China's, in which intersectoral and interenterprise movement of labor is severely restricted, a large differences in returns to labor use to be expected. As labor mobility increases, however, a convergence of returns to labor might be observed. Therefore, an important measure of rising labor efficiency during the reform period is the extent to which labor's marginal revenue product across enterprises converges.

4.14 In 1980-88, there was a modest tendency toward convergence of factor returns (i.e., marginal revenue product) between the state and collective

sectors.<sup>6/</sup> In 1980, returns to labor in the collective sector amounted to only 48.5 percent of comparable figure for the state sector (Table 4.4). This ratio rose to 58.9 in 1984 before falling back to 55.4 in 1988--still one-seventh above the initial 1980 figure. This convergence resulted principally from the high rate of TFP growth in the collective sector relative to the state sector. Higher rates of capital and material deepening in the collective sector also help to explain the catching up of labor's marginal revenue product in the collective sector with the state sector.<sup>7/</sup> There was also a substantial convergence of returns to capital; even though returns to materials were strikingly similar at the beginning of the reform period, these too reveal a tendency to converge during 1980-88 (Table 4.5).<sup>8/</sup>

4.15 One shortcoming of these findings, based on enterprise analysis, is that the analysis of the enterprise data is based on average instead of marginal revenue products. To relax the implied assumption that labor's output elasticities (i.e., enterprise technologies) are identical across all enterprises, this investigation can be extended to patterns of dispersion for average revenue product by industrial branch (Table 4.6), on the assumption that only within each industrial branch enterprise technologies are similar. In short, the dispersion indexes computed for labor, capital, and intermediate inputs for nine industrial branches and "other" show that all but two of these (industrial equipment and building materials) factor returns converged during

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<sup>6/</sup> Estimated according to the following measure of each factor's marginal revenue product:  $dQ_{ij}/dX_{ij} = \alpha_j(Q/X)_{ij}$ , where  $Q$ ,  $i$ , and  $j$  represent, respectively, the gross value of industrial output, the sector or establishment, and the factor (i.e.,  $j = K, L, M$ ). See Jefferson/Rawski/Zheng, op. cit.

<sup>7/</sup> G.H. Jefferson, "A Framework for Analyzing the Convergence of Factor Returns: The Case of Chinese Industry," Brandeis University, Department of Economics, Working Paper No. 245, 1990.

<sup>8/</sup> This is based on a test at the enterprise level, which computes the coefficient of variation (the ratio of the standard deviation to the mean of the factor returns) for two separate samples of enterprise data--the Wuhan sample for which  $i = 1..20$  and  $t = 1978, 1984, \text{ and } 1987$ , and a sample of state-owned industrial enterprises surveyed by the State Statistical Bureau for which  $i = 1..352$  and  $t = 1980 \text{ and } 1987$ . Coefficients of variation are computed by using average rather than marginal products, where the marginal product is  $\alpha_j(Q/L)$ , i.e., the product of labor's output elasticity and its average product. If it can be assumed that production technology is uniform across enterprises, the results are unaffected by the use of average rather than marginal products. That is,  $\alpha_j$  can be factored out of both the standard deviation in the numerator and the mean in the denominator and canceled. While this assumption of uniform technologies across enterprises is highly restrictive, there is no reason to expect the imposition of the assumption to lead to a systematic bias in the direction of change in the coefficient of variation over time.

**Table 4.4: NOMINAL MARGINAL REVENUE PRODUCTS: CAPITAL, LABOR, MATERIALS**

	State enterprises			Collective enterprises		
	MRP <sub>L</sub>	MRP <sub>K</sub>	MRP <sub>M</sub>	MRP <sub>L</sub>	MRP <sub>K</sub>	MRP <sub>M</sub>
	--- (Index, 1980 = 100) ---			--- (% of corresponding state enterprises) ---		
1980	100.00	100.00	100.00	48.48	168.73	95.41
1981	98.01	94.04	98.85	51.40	166.75	95.19
1982	101.07	95.29	97.54	52.20	161.46	96.30
1983	108.34	91.81	97.70	53.43	164.32	95.89
1984	119.51	92.06	99.34	58.90	183.02	91.25
1985	137.66	94.79	97.13	57.61	181.15	94.94
1986	145.94	88.83	93.69	53.53	164.25	99.30
1987	163.14	89.08	91.64	50.46	149.30	101.43
1988	195.58	97.02	89.92	55.43	153.71	100.73
Growth rate (%)	8.38	-0.37	-1.33	10.06	-1.55	-0.65

Source: Jefferson/Rawski/Zheng, *op. cit.*

1980-89.9/ Since these data are drawn from large and medium-size enterprises within state industry, these results indicate, even at the core of China's state industry, evidence of gains in allocative efficiency.

4.16 These patterns of convergence could reflect a number of conditions, including changes in relative product prices and levels of overall enterprise productivity, but it is hard to imagine that so consistent a pattern of convergence could have occurred without reallocations of labor, investment, and materials, to enterprises that offered the best returns. Thus, despite the presence of market rigidities, bargaining, patronage, soft budget constraints and other phenomena that shield industrial enterprises from external pressure, market forces appear to exert regular and increasing pressure on Chinese industrial managers to economize on factor inputs. In particular, various labor reforms that have relaxed restrictions on mobility between rural and urban areas and among enterprises within urban areas appear contribute to a more efficient allocation of labor. Moreover, improved labor incentives and more autonomy for the redeployment of labor within enterprises appear to be reducing levels of x-inefficiency, as shown by the tendency for levels of both labor and total factor productivity to even out across enterprises.

4.17 Nonetheless, when compared with capital and intermediate goods markets, the data also indicate that a relatively undeveloped labor market. In

9/ Note that the large and medium-size producers of industrial equipment and building materials (principally cement) producers in this sample operate under larger plan quotas than most other enterprises in the sample.

**Table 4.5: CONVERGENCE OF FACTOR RETURNS**  
(coefficient of variation)

Sector	Labor	Capital <u>/a</u>	Intermediate
<b>A. <u>Wuhan sample</u></b>			
Total	(12)	(11)	(10)
1978	1.870	0.968	0.226
1984	1.089	0.689	0.400
1987	0.853	0.524	0.169
Cosmetic firms	(2)	(2)	(2)
1984	0.21	0.44	0.09
1987	0.09	0.09	0.04
<b>B. <u>352 enterprise sample</u> <u>/b</u></b>			
1980	1.166	1.278	0.577
1987	0.970	0.786	0.250

Note: Figures in parentheses show the number of firms from the Wuhan sample used in each calculation.

/a Capital is measured as net value of fixed assets.

/b Within the initial sample of 400 enterprises, 39 observations are missing and nine were discarded because they contain implausible values.

Sources: Jefferson and Xu, op. cit.; SSB, Survey of State Industrial Enterprises.

all three enterprise samples, toward the end of the 1980s, the coefficient of variation for labor substantially exceeds the coefficients for capital and intermediate goods. One interpretation is that after a decade of reform, capital and intermediate goods markets had developed much more than labor markets. The development of financial intermediaries and opportunities for investment out of retained profits has considerably enhanced the prospect for a more efficient allocation of investment resources. At the same time, the dual track pricing system, in which material inputs can be purchased and exchanged on the market, at least at the margin, has served to maintain and enhance a uniform pattern of returns to materials, even as relative prices, technologies, and allocations of other factors (labor and capital) were affecting relative material returns. While, as shown above, labor reforms

**Table 4.6: COEFFICIENTS OF VARIATION FOR PARTIAL FACTOR PRODUCTIVITIES--LARGE AND MEDIUM-SIZE SOEs, 1980, 1985, and 1989**

Group	Year	Q/L	Q/K	Q/M
Full sample (286)	1980	1.33	1.26	0.44
	1985	1.07	1.14	0.38
	1989	0.88	0.74	0.42
Machine building (66)	1980	0.69	0.97	0.22
	1985	0.91	0.86	0.21
	1989	1.10	0.73	0.34
<u>Of which</u> Industrial Equipment (55)	1980	0.56	0.76	0.22
	1985	0.95	0.86	0.21
	1989	1.01	0.75	0.36
Consumer Durables (11)	1980	0.84	0.88	0.26
	1985	0.38	0.53	0.11
	1989	0.78	0.55	0.15
Metallurgy (26)	1980	1.06	1.26	0.15
	1985	0.67	1.06	0.21
	1989	0.64	0.86	0.19
<u>Of which</u> Steel (20)	1980	0.78	1.02	0.12
	1985	0.67	0.76	0.20
	1989	0.56	0.54	0.19
Nonferrous metals (6)	1980	0.76	0.95	0.16
	1985	0.69	0.93	0.17
	1989	0.69	0.84	0.14
Textile (36)	1980	1.14	0.66	0.19
	1985	0.84	0.94	0.18
	1989	0.78	0.37	0.17
Apparel (14)	1980	0.72	0.94	0.25
	1985	0.50	0.66	0.16
	1989	0.45	0.88	0.20
Food (30)	1980	0.90	1.14	0.37
	1985	0.89	1.36	0.38
	1989	0.83	0.88	0.36
Chemical (66)	1980	0.76	0.93	0.17
	1985	0.68	0.57	0.13
	1989	0.48	0.59	0.13
Building materials (17)	1980	0.44	0.45	0.35
	1985	0.53	0.53	0.12
	1989	0.49	0.49	0.22
Other (31)	1980	1.63	1.04	0.83
	1985	1.36	0.89	0.65
	1989	1.12	0.76	0.79

Source: Jefferson and Xu, *op. cit.* Data in parentheses give the number of firms covered in each set of calculations.

'have had an impact, they may not have been as extensive or effective as developments in other factor markets.

4.18 The analysis of factor returns shows considerable progress toward their equalization, but considerable disparities persist among key sectors. One factor affecting the efficiency of labor allocation among sectors and enterprises is comparative levels of education and training. In terms of access to educated workers, enormous disparities persist between the state and collective sectors (Table 4.2). Collective units added about half as many workers to their payrolls as state-sector units, but their intake of graduates from colleges and universities, high schools, and technical schools was only one-twentieth the intake of the state sector. If these differences accurately reflect the disparity between state and collective units with regard to the stock as well as the flow of educated personnel, restrictions on the flow of educated workers into enterprises outside the state sector may well be responsible for substantial inefficiency and productivity loss in China's economy.

#### Flexibility in Deploying Labor Within Enterprises

4.19 Increased managerial authority at enterprise level has emerged as a major objective of China's economic reform program. In the past, Chinese authorities often seemed reluctant to delegate such power when it endangered the employment security of urban workers. Encouraging signs are emerging that managers can control their own labor force. For instance, of the 800 state industrial enterprises sample, 265 enterprises reduced the roles of permanent employees during 1988/89. Including retirees and temporary workers, 403 enterprises reduced their payrolls during this year of austerity. Such large declines most likely resulted partly from reassignment of some workers to other units, partly from the termination of temporary workers, and partly from strict enforcement of retirement guidelines and efforts to "buy out" some workers into early retirement (interview data).

4.20 The growing use of contract and temporary workers is another possible source of flexibility in deploying labor at the enterprises level. In 1988, year-end employment in the state sector was 90.8 million, comprising 76.0 million regular, 10.1 million contract, and 3.4 million temporary workers.<sup>10/</sup> Assuming no contract or temporary workers existed in 1978, when year-end state-sector employment stood at 74.5 million,<sup>11/</sup> it appears that contract and temporary workers together accounted for more than half of the net increase in state sector employment over the past decade.

4.21 "Optimum labor reorganization" (OLR) is another initiative intended to increase managerial flexibility over labor resources. In 1988, 36,573 enterprises with initial employment of 13.35 million workers revealed surplus labor of 850,000 workers, 6.3 percent of the initial workforce. By the end of 1988, 670,000 of these surplus workers had been reassigned to other positions,

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<sup>10/</sup> MOL, Statistical Yearbook of Chinese Labor and Wages, 1989, Beijing, p. 203.

<sup>11/</sup> MOL, Statistical Yearbook of Chinese Labor and Wages, 1978-87, Beijing, p. 43.

87,000 were still idle within their original units, 27,000 were undergoing training, and 66,000 were awaiting placement.<sup>12/</sup> Interviews with enterprise managers who have implemented the OLR program indicate successful results. Many report, however, that the program cannot be expected to achieve universal success. Implementing the program requires considerable managerial skill, since some employee participation and acceptance is necessary to arrange reassignments, both within the enterprise and to other units. In addition, a minimum enterprise scale is required to support a variety of specialized solutions, including early retirement, retraining, and the creation of subsidiaries.

4.22 Investigating sources of differential rates of labor productivity growth during 1984-87, the Wuhan study of 20 industrial enterprises finds a strong statistical association between enterprises implementing OLR and the growth of labor productivity. Enterprises that had implemented OLR compared to enterprises that had not reported significantly higher rates of labor productivity growth. Similarly, enterprises in the process of implementing OLR reported higher rates of productivity improvement than enterprises that had not, but lower rates than the first group.

#### C. Assessment of Wage System

4.23 In 1977-84, the annual rate of growth in real wages (5.1 percent) was comparable to the growth in labor productivity (5.2 percent), but in 1985-88, it fell substantially short of the productivity increase (3.4 percent versus 6.5 percent per annum). The annual rate of growth in the total wage bill in state enterprise was much higher than the growth in labor productivity in 1977-88 (8.1 percent versus 5.7 percent).

4.24 During the 1980s, the wage-efficiency linkage fulfilled the hopes of China's reformers, becoming much stronger. Based on a set of 359 industrial enterprises,<sup>13/</sup> the relationship between labor productivity and the total wage per worker, in both 1980 and 1987, is statistically significant. In 1980, however, changes in labor productivity could explain only 3.8 percent of the variation in wages about its mean. Seven years later, variation in labor productivity explained 37.3 percent of the observed variation in wages. Thus, during the 1980s, a much larger part of the compensation package became variable and dependent on productivity differences while the size of the fixed component declined.

4.25 Using the sample of 800 enterprises (Table 4.5), the relationship between profit, before and after taxes, and bonuses can be investigated. Regressing profits per worker on bonus per worker, including time dummies, since the data cover 1986-89, bonuses and profits are significantly related. Variation in profits per worker explains more than 30 percent of the variation in bonuses per worker. These results receive further support from a study

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<sup>12/</sup> MOL, Statistical Yearbook of Chinese Labor and Wages, 1989, Beijing, pp. 330-31.

<sup>13/</sup> This is a subset of the 400 state-owned industrial enterprises in the State Statistical Bureau's (SSB) Survey of State Industrial Enterprises.

using data from 472 state-owned enterprises spread over six key industrial branches.<sup>14/</sup> These investigators reported that bonuses per worker were significantly associated with the profit retention rate in five out of six of differentiating industries, at the enterprise level.

4.26 The question remains about the extent of wages and bonuses within enterprises by worker performance. The persistence of the egalitarian principle in the distribution of wages and bonuses suggests that within enterprises, wage reform may not have achieved its objective of paying labor according to its contribution. Before the wage reform, the ratio of maximum to minimum basic wage in state enterprises ranged from 3:1 to 3.5:1. After the reform the same ratio was reduced to between 2:1 and 2.5:1 for workers and 2.14:1 to 3.6:1 for professional staff. Similar data for bonuses are not available, but some inferential evidence is relevant. In the six-industry study, in all six industries, the fraction of employee remuneration paid as bonuses and labor productivity were significantly associated. This supports the conclusion that greater worker incentives in the form of greater reliance on bonuses motivates higher levels of productivity. On the issue of an equal distribution of bonuses, the findings suggest that bonuses are differentiated according to merit assessment of the individual workers. The authors of this study admit, however, that the finding also supports the opposite causality--that increased output per worker allowed more to be paid out in bonuses. They cite supporting anecdotal evidence for their interpretation, including (a) a report that bonuses "usually are tied to such criteria as output, cooperation, attitude, seniority, and job responsibility"; (b) a survey in which all 13 managers reported that labor's performance and rewards were either strongly related (9) or somewhat related (4);<sup>15/</sup> and (c) a report, based on interviews in a Shanghai factory, that although before 1985 "all workers in this factory received the same bonus, regardless of their job or performance," now "bonuses are not identical: they are dependent on such factors as attendance record, type of job, and production-group performance."

4.27 These data provide mixed, but generally positive, evidence supporting the argument that China's wage reforms have enhanced labor mobility and flexibility and strengthened the wage-efficiency linkage. Specifically, they support the following conclusions: (a) labor mobility and flexibility, as reflected in higher turnover rates within the state sector, and the OLR program appear to be important managerial tools for rationalizing the enterprise workforce; (b) the distribution of wages within enterprises has become increasingly tied to labor's productivity performance; (c) across enterprises, the distribution of bonuses is significantly tied to gross and retained profits; (d) within enterprises, wage differentiation appears to have been compressed, perhaps reflecting a tendency for wages to be a relatively fixed component of the compensation package; and (e) since it is believed that the effectiveness of bonuses depends upon award according to worker contribution within the enterprise, their distribution has become more differentiated than in the early 1980s.

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<sup>14/</sup> T. Groves, Y. Hong, J. McMillan, and B. Naughton, "Autonomy and Incentives in Chinese State Enterprises" (unpublished manuscript).

<sup>15/</sup> Jefferson and Xu, op. cit.

4.28 All factors discussed have contributed to the rise in labor productivity reported at the beginning of this chapter. Gains in allocative efficiency have resulted from an increase in labor-force mobility and a reduction in prereform disparities in the returns to labor. Gains in static or x-efficiency can be expected to have resulted from a strengthening of the wage-efficiency link and the retraining and redeployment of the workforce under the optimal labor reorganization program. Each change may also have contributed to dynamic technical change, the single most important source of productivity growth over the long run. A sustained robust rate of dynamic technical change and adjustment depends not only on constant supply of well-trained labor but also on sufficient labor-market flexibility to signal where skilled labor is most needed and allow for the workers movement within the system to answer these signals. Gains in wage-setting and labor mobility have reduced allocative and x-inefficiency, but the system does not yet seem sufficiently flexible for the dynamic structural changes needed for the kind of long-run productivity growth that other East Asian economies have recently sustained.

## V. UNEMPLOYMENT, UNDEREMPLOYMENT, AND OBSTACLES TO LABOR-MARKET REFORM

### Introduction

5.1 Chronic underemployment is one consequence of the Chinese government's commitment to minimizing unemployment by allocating labor to enterprises. Chronic underemployment creates its own problems: a reduction in the discipline, incentive, and adaptability of the workforce. These costs, measured in terms of their short-run efficiency loss and the impediment they create for long-term dynamic structural change should be weighed against the economic and social costs of allowing enterprises to shed their excess labor, reducing underemployment but creating more open unemployment.

5.2 A number of obstacles block the sanctioning of labor packing within enterprises and open unemployment in urban areas. The key obstacle is the Chinese government's concern that increasing open unemployment may be socially and politically destabilizing. Under the present set of institutional arrangements and economic policies this threat is real; important elements of China's social insurance system are tied to the work place, and new job creation would not absorb the increased number of unemployed. However, the government has control over both conditions--it can, and has begun to, extend the social insurance program to workers in transition and modify a number of policies that, unintentionally, inhibit job creation to absorb the workers laid off in a vigorous labor-market reform.

#### A. Nature and Magnitude of Urban Employment

### Unemployment

5.3 The decline in unemployment rates during 1978-88 (Table 5.1) corresponds to the expansion in employment opportunities as a result of reform-induced rapid economic growth in 1978. Most new jobs were created between 1978-88 in collectives (including TVEs) and private enterprises. These were also the types of enterprises most seriously affected by the rectification program of 1989/90. The closing down of 2 out of 10 TVEs in 1989 and 1990 resulted in the loss of almost 10 million urban and rural jobs. In addition, the economic slowdown led to the repatriation of 15-20 million "floating" migrant laborers, adding to the excess labor in rural areas.

5.4 Until recently, open unemployment was not a serious problem in China's urban labor markets. Largely limited to school-leavers and young persons awaiting jobs, the unemployed were a small proportion of the total labor force--less than 5 percent in 1978 and 2 percent in 1988. Because of government concern for social stability, every effort was made to allocate new urban labor force entrants to state enterprises with little regard for productivity and efficiency criteria or need for labor. Potential unemployment was thus transformed into actual underemployment. At the same time, underemployment in state enterprises was managed by a long-standing policy of actively discouraging rural-urban migration. This curtailed the supply of new workers to the urban labor market.

**Table 5.1: UNEMPLOYMENT IN URBAN AREAS**

Year	Individuals unemployed ('000)			Unemployment rate (%)
	Total	Youths	Youths/Total (%)	
1978	5,300	2,491	47.0	5.3
1980	5,415	3,825	70.6	4.9
1981	4,395	3,430	78.0	3.8
1982	3,794	2,938	77.4	3.2
1983	2,714	2,220	81.8	2.3
1984	2,357	1,959	83.1	1.9
1985	2,385	1,969	82.6	1.8
1986	2,644	2,093	79.2	2.0
1987	2,766	2,351	85.0	2.0
1988	2,962	2,453	82.8	2.0
1989	3,779	3,090	81.8	2.6
1990	3,832	3,127	81.6	2.5

Source: Statistical Yearbook of China, 1991, p. 97.

5.5 With the spread of the labor contract system in 1986 and economic slowdown accompanying the rectification program in 1988-90, experienced workers have dominated urban unemployment. Growing unemployment among experienced workers can best be assessed in terms of "job loss rate" among the formerly employed. In 1988, 665,700 workers were laid off, mostly collective workers and temporary employees (Table 5.2). Job loss rates have been higher in less developed and slower growing regions (e.g., Qinghai, Linxia, Gansu) than in more developed areas (e.g., Shanghai, Guangdong, Zhejiang). Job losses have also been higher in areas of the urban economy where the private sector has been more restricted (e.g., counties vs. medium and large cities). This condition reflects the traditional restriction on rural-urban migration, but it also underscores the substantially untapped employment--creation potential of the private sector.

5.6 Youth unemployment became more problematic with the return of several millions of rusticated and unskilled youths to the cities after the cultural revolution in 1976. Despite the authorities' efforts to facilitate their integration into the urban labor market by providing incentives (i.e., tax exemptions) to urban collectives to employ them, their employment prospects were marred by generally low educational levels and a lack of skills. Since then, the problem of youth unemployment has persisted. Young workers were estimated to comprise 82.8 percent of total unemployment in 1988 (Table 5.1). This rate reflects two conditions. First, due to mismatches in skills and experience, an imbalance exists between supply and demand in the entry labor market. The second problem concerns voluntary unemployment due to the hierarchy of preferences for employment by type of enterprise ownership, as evidenced by young job seekers' rejection of undesirable placements in the hope of obtaining a better job by waiting. Employment in the state sector

Table 5.2: PREVIOUS WORK PLACE OF WORKERS WHO LOST JOBS, 1988

Work place	Number	Jobless/ employment (%)	Distribu- tion of jobless (%)	Distribu- tion of total employment (%)
State enterprises	108,800	2.4	16.3	31.7
Collectives	256,600	4.1	38.5	43.7
Individual	38,300	2.8	5.7	9.4
Temporary	262,000	12.1	39.4	15.1
Total	<u>665,700</u>	<u>4.7</u>	<u>100.0</u>	<u>100.0</u>

Source: Statistical Yearbook of China, 1990, and MOL.

provides material benefits and prestige surpasses those available in collectives. Work in the private sector is lucrative but risky. Urban household prosperity, the infrequency of job mobility, and the long-term benefits of a favorable initial assignment give families a strong incentive to finance lengthy waiting periods for their offspring. Additional incentives to endure unemployment arise from regulations prohibiting state enterprises from hiring already employed youths. Urban youth unemployment thus seems due in large part to job-search behavior by school-leavers and their families who hope for the best possible results from current labor-market institutions.

5.7 Women account for close to two thirds of total youth unemployment--proportionately higher than their share in the total labor force (approximately 45 percent) or total population. This indicates employment prejudices (mainly by job placement authorities and employers) against employing women in certain occupations. As the labor market becomes more decentralized, women may find it even more difficult to compete with men for jobs on an equal footing. Gender-based differences in unemployment rates underscore the urgent need for specific policies and programs aimed at strengthening employment and occupational diversification among women in China.

5.8 Increasing levels of unemployment coexist with labor shortages of critical skills in technical and managerial fields. This condition implies labor-market imbalances linked to problems of human resource development and labor mobility. Since the suspension of many education and training programs during the Cultural Revolution, skill shortages have persisted in the face of technological change and industrialization. In addition to absolute shortages of skilled labor, excessive segmentation of labor and other input markets and administrative control over labor allocation still prevent skilled labor from responding to supply and demand.

#### Underemployment

5.9 Underemployment rather than unemployment is the key to China's incomplete utilization of human resources. Urban underemployment falls into

three categories: administered, structural, and transitory. "Administered" underemployment can occur when officials anxious to limit the growth of open unemployment exert pressure on enterprises to employ workers whose services are not required. Enterprises may accept unneeded workers because it gives them leverage in negotiating access to investment funds or other bureaucratically controlled resources.<sup>1/</sup> Shifts in demand, emergence of new competition, or other change in market conditions that reduce a company's sales are an important source of "structural" underemployment. "Transitory" underemployment arises from short-term imbalances either in specific markets (e.g., energy shortages) or at the macroeconomic level (e.g., the reduction in aggregate demand caused by an austerity policy, as in 1988/89). Administrative and structural underemployment are related as labor packing (feather bedding) inhibits structural adjustment and prevents enterprises from responding to market conditions by shedding redundant labor.

5.10 Chinese sources confirm the impression of widespread underemployment in the urban sector: "On-the-job unemployment' is one major obstacle to the readjustment of China's industrial structure."<sup>2/</sup> Another author states that "a labor force in excess of available production materials has become a universal phenomenon in state-owned units," and that pursuit of high employment goals has transformed a potential problem of open urban unemployment into one of underemployment within enterprises.<sup>3/</sup> Chinese observers also provide occasional quantitative appraisals of underemployment. One source estimated a redundancy rate of 20-30 percent in urban enterprises.<sup>4/</sup> In the Wuhan survey of 20 enterprises,<sup>5/</sup> factory directors were asked to estimate the number of average hours worked per employee. The responses indicates that the actual average number of hours worked (5.4 hours in state and 5.9 hours in collective enterprises) is much less than the stipulated amount (7 or 8 hours a day depending upon the industry and the season). These estimates reflect every cause of underemployment--from poor work incentives, deficient managerial skills and inadequate autonomy to conditions that are exogenous to the enterprise, including energy and material shortages and slack demand, whether due to a changing market structure or macroeconomic conditions.

5.11 The impact of the OLR program may provide the best guide to feasible opportunities for near-term reduction in structural underemployment within urban industries. In 1988, implementation of this program at 36,573 enterprises with initial employment of 13.35 million workers revealed surplus labor

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<sup>1/</sup> Weide Huang, "Emergence, Operation, and Reform of China's Traditional Pattern of Employment," Jingji Yanjiu (Economic Research), 7 (1986), pp. 55-60.

<sup>2/</sup> Xianxi Lu, "On-the-Job Unemployment and Inflation," Jingji Yu Guanli Yanjiu [Research on Economy and Management], no. 4, 1989.

<sup>3/</sup> W. Huang, op. cit.

<sup>4/</sup> Human Resources, "Population and Employment Problems in Communist China," Zhongyang Yanjiu [Research on Communist China], no. 1 (1986), p. 141.

<sup>5/</sup> G.H. Jefferson and Weinyi Xu (1991), op. cit., pp. 45-64.

of 850,000 or 6.3 percent of the initial staff. Particular examples suggest instances of much higher redundancy: the Beijing Match Works, for example, raised output by 77.5 percent while reducing its staff by one third.<sup>6/</sup>

5.12 A further dimension of administered underemployment arises from the social structure of Chinese enterprises, which allows workers to cut back on the effort with little risk of retaliation from management. This situation is explained well by one author:

the Chinese manager, despite overstaffing, suffers from a serious shortage in labor supply (the quality and quantity of effort supplied by incumbent workers) while dissatisfied workers accumulate in the factory, making the labor supply problem ever more serious. The absence of a labor market gives the current labor force a monopoly on the supply of labor. China's managers are uniquely dependent on their labor force.<sup>7/</sup>

In many factories, a culture develops in which a loser actually worked hard enough to earn wages and a bonus. Even workers who refuse to discharge basic tasks stay on the payroll.<sup>8/</sup>

5.13 Systematic insight into sources of underemployment comes from data on industrial utilization rates for several hundred industrial and construction enterprises in Shanghai, Tianjin, Shenyang, and Wuhan for November and December 1988 (Table 5.3). These figures compare available labor resources with actual utilization. Unused labor time is assigned to specific categories: absenteeism, energy shortages, supply shortages, or insufficient demand. Downtime amounts to about 12 percent, with some intercity variations--the small Wuhan sample shows a much lower utilization rate than the others. The data also point to absenteeism as, by far, the largest source of lost time, although overmanning means that the output consequences of absenteeism may be small.

5.14 Transitory underemployment arising from macroeconomic policy changes has been much in evidence since early 1989. Idle workers and an unusually slow work pace could be seen in factories in a number of sectors. Newspaper reports identify temporary cutbacks in production, caused by reduced aggregate demand, as a national, rather than a local phenomenon. A new type of unemployment or underemployment has also arisen from the practice of furloughing workers when there is no work to do while paying them basic wage. Furloughing can be viewed as transitory underemployment, or as employer-financed unemployment in the form of basic wage payment and benefit maintenance.

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<sup>6/</sup> Liqiang Li and associates "Optimal Labor Reorganization Brings Productive Opportunity to Enterprises," Shoudu Jingji [Economy of the Capital City], no. 2 (1989).

<sup>7/</sup> Andrew G. Walder, "Factory and Manager in an Era of Reform," China Quarterly, no. 118 (1989), pp. 242-64.

<sup>8/</sup> Economist, December 12, 1987, p. 46.

**Table 5.3: INDICATORS OF FRICTIONAL UNDEREMPLOYMENT,  
NOVEMBER AND DECEMBER 1988  
(thousand man-hours)**

Period	No. of firms	Actual work time	Work time lost due to lack of				Absenteeism	Unused work time (%) <u>/a</u>
			Materials	Energy	Demand	Equip-ment		
November 1988	662	124,062	978	919	903	502	8,839	9.8
December 1988	652	126,406	1,615	4,625	1,306	931	7,575	12.7

/a Percent of actual work time.

Source: MOL, Statistical Yearbook of Chinese Labor and Wages, 1989, pp. 400-01.

Underemployment vs. Unemployment

5.15 In a market economy, unemployment performs several beneficial functions. Frictional unemployment lubricates the endless process of adjustment to changes in supply and demand. More significantly, the danger of job loss spurs effort. Insecurity breeds innovation. The threat of enforced idleness may stimulate employed workers to work harder, and generate more output than is lost by laying off underemployed workers. Society benefits from the presence of a "reserve army" of unemployed workers, but the victims of unemployment suffer severe financial and psychological consequences, which may be somewhat mitigated by unemployment insurance, retraining, and other cushioning programs.

5.16 Socialist economies seek to reduce these social costs by protecting workers against the personal and financial risks common to market economies. In China, "staff and workers" (zhigong), particularly in the state sector, enjoy a very high degree of employment security. Subsidies prolong the existence of loss-making enterprises that would otherwise collapse into bankruptcy. In the former Soviet Union, this increased security carries a high cost in terms of a reduced stimulus to innovation.<sup>9/</sup> Enterprises and workers in socialist economies escape the pressure of "the invisible foot," which, in market economies, is "applied vigorously to the backside of enterprises that would otherwise have been quite content to go on producing the same products in the same ways ... if they could only be protected from the intrusion of competition."<sup>10/</sup>

<sup>9/</sup> Joseph S. Berliner, The Innovation Decision in Soviet Industry (Cambridge, Mass.: MIT Press, 1978).

<sup>10/</sup> Ibid., p. 529.

5.17 In China, as in the USSR, excessive security for enterprises and their employees has most probably inhibited innovation and productivity growth, particularly in state industry. Estimates of total factor productivity show a higher level of TFP in the collective than the state sector, despite the privileged access of the state sector to skilled workers, advanced technology, and superior equipment, much of which is not reflected in the valuation of inputs. Although the results of these calculations are subject to many qualifications, the failure of state firms to surpass collective units by a wide margin probably reflects a massive gap between the potential and actual achievements of state industry.

5.18 These considerations indicate the possibility of substantial economic benefit from permitting an increase in the rate of open unemployment among urban residents. The dismissal of redundant workers would allow managers to focus their energies on production and innovation while alerting society to the massive economic cost of the long-standing policy of pressing enterprises to accept unneeded workers. At a deeper level, increased exposure to personal insecurity would intensify the links already created during the economic reform process between enterprise financial performance and material rewards to workers who, though not redundant, rarely contribute their full energies to their work. This would help to resolve the paradoxical combination of labor shortage and labor surplus that now imposes large costs on China's economy.

5.19 The relationship between the pool of unemployed workers and the degree to which current labor-related constraints can be overcome depends crucially on the development of placement agencies, retraining programs, and information resources. Improved labor-market institutions coupled with policies designed to increase the demand for labor (both discussed below) could allow a considerable increase in the rate of employee turnover without a commensurate increase in the number of idle workers. This attractive possibility does not, however, affect the considerable social and political costs associated with a large short-term adjustment problem that will arise even under the best of circumstances if enterprises are allowed to shed excess labor. The political consequences of suddenly injecting a substantial dose of insecurity into the lives of urban populations may be substantial. The urban workforce has long benefited from government-sponsored opportunities, subsidies, and safety nets financed directly or indirectly by relatively disadvantaged rural residents. These urbanites are highly risk-averse and believe that their traditional prerogatives are appropriate and fair. They will, therefore, strongly defend their privileged position.

5.20 It is, hence, important to consider how the social and political consequences of even a temporary increase in urban unemployment (which might look permanent to urban residents) might be mitigated by two changes. First, social services must be delinked from enterprise and provided from a broader geographic and institutional base, thereby providing social security coverage independent of the employee's specific work unit affiliation. Second, policy changes to increase the demand for labor will help to cushion the impact of increasing enterprise autonomy in hiring and firing and generally improving urban labor mobility. In the short term, implementation of such policies may be essential to ensure the political viability of relaxing long-standing barriers to urban labor mobility. In the longer term, a reversal of long-

standing biases against labor-intensive activities (para. 5.30) can reduce the risk of serious imbalances between labor supply and demand.

## B. Obstacles to Labor-Market Reform

### Institutional Obstacles to Labor-Market Reform

5.21 The work unit almost exclusively, provides workers in China's formal urban sector with housing, social security programs, and income security. Thus, workers who leave jobs must give up far more than the job--they usually forfeit access to housing, pension, income security, and other social benefits as well. Similarly, because separating workers from the work unit causes these basic services to be terminated, employers are reluctant to dismiss workers, thereby contributing to low turnover rates and a poorly disciplined labor force. To establish an effective labor market, this link between the enterprise and social services must be broken. Enabling workers to satisfy various basic needs independent of the workplace, is a prerequisite to establishing a true labor market. Foremost among these needs are (i) housing, (ii) social security programs, including pensions, and (iii) an unemployment security program that provides basic income security.

5.22 Housing. Subsidized housing, made available by enterprises only to employees and dependents, is often a critical element of workers' compensation package. Since 1978, enterprises have put a growing share of their capital investment into housing. In 1988, investment in housing was 11 percent and 7.5 percent of total investment by SOEs and COEs, respectively. The 1989 survey of urban enterprises across the country indicated a significant improvement of housing space from 5.5 m<sup>2</sup> per person in 1978 to 7.4 m<sup>2</sup> in 1988. The 3-5 percent of household income spent on housing rental could not cover repair and maintenance costs, let alone the cost of new housing space. The actual housing cost might be closer to 30 percent of a worker's income.<sup>11/</sup>

5.23 Workers' access to housing is, thus, tied to their employment in a specific work unit; the quality of housing depends on seniority. This practice severely inhibits labor mobility in two respects: first, workers are reluctant to leave unsuitable jobs, because alternative housing is difficult to find and second, workers are reluctant to take jobs in the nonstate sector, because housing is unavailable or available only at a much higher cost.

5.24 Government recognizes the need to "cash out" part of the value of housing in-kind benefits, placing the urban housing delivery system on a sound, commercial footing. At the same time, government acknowledges the need to encourage urban business enterprises to allocate revenues in a way that enhances economic efficiency and "productive assets." This means that, "safety net" considerations aside, housing services must become the responsibility of individual households, to be financed out of their own income and savings and that worker compensation decisions will have to be made in a more transparent manner. For this, a housing market must emerge, much different from

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<sup>11/</sup> For instance, according to estimates from the Shandong housing experiment, the value of housing subsidies is equivalent to about 23.5 percent of a worker's income.

today's administrative allocation model. To this end, government is actively considering a comprehensive housing reform strategy, encompassing property rights issue, rent reform, housing production reform, and the development of financial intermediaries to provide improvement and construction loans as well as mortgage finance.<sup>12/</sup>

5.25 Social Security. Like housing, social security programs, including retirement benefits and health insurance, are often linked to the work unit. If workers separate from their units, these essential guaranteed benefits terminate. For the same reason as subsidized, enterprise-owned housing, tying these services to the enterprise inhibits workers from leaving unsuitable employment and also make nonstate jobs, with less generous social security benefits, less attractive. To break the direct link between the enterprise and retirement income and to share the costs of retirement programs among enterprises, the central government is encouraging local governments to experiment in setting up retirement pension pools.<sup>13/</sup>

5.26 While pooling pension obligations spreads the burden of old-age support among urban enterprises, workers who transfer out of their work units may still lose their retirement benefits. Moreover, outside the state sector, benefits are less generous or nonexistent. To facilitate greater labor mobility, retirement benefits should be provided by a unit of government, not the enterprise. To qualify for benefits, eligible participants may have to work for a minimum number of years, but their eligibility should not be affected by their decision to transfer to a new work unit.

5.27 The design of an optimal retirement program involves important choices. Among these, the more important are (i) coverage and eligibility, (ii) system financing, and (iii) measures to affect the age profile of the population. The last issue is critical for urban areas whose demographic profiles are rapidly changing (due to successful implementation of the one-child program). Relative to China's working population, this fraction of pensioners is rapidly expanding. Just 10 percent in 1987, this fraction is expected to rise to 20 percent in 1997, 33 percent in the year 2020, and to 47 percent in 2030. In urban areas, whose natural rate of population growth is a fraction of the nationwide rate, the dependency ratio will be still larger.

5.28 Support of China's rapidly growing elderly population will require a rapid growth in the productive output of future working generations. Because future labor force growth will be negligible due to the effect of the current one-child policy, the impetus for rapid growth of the productive base from which transfers will be made to the retired population must originate principally from productivity growth. Moreover, to the extent that public or private savings are used to complement pay-as-you-go transfers from the working generation to the retired population, China's economy must support efficient

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<sup>12/</sup> See World Bank, China--Urban Housing Reforms: Issues and Implementation Options, Report No. 9222-CHA, June 1991.

<sup>13/</sup> See World Bank, China: Reforming Social Security in a Socialist Economy, Report No. 8074-CHA, June 25, 1990.

patterns of investment to sustain high rates of return to savings. In this way, the long-term success of China's one-child program depends critically upon the success of the economic reform program and its ability to create an efficient, productive economy that will be able to support the bulge of retirees during the first half of the next century.

5.29 Unemployment Insurance. In addition to enterprise-based housing and various social security programs, the other main factor tying workers to their enterprises is China's system of enterprise-specific job security. This system breeds underemployment within enterprises and undermines worker incentive and discipline. Unemployment insurance is a necessary component of labor-market and enterprise reform to protect workers who may experience temporary unemployment. Unemployment insurance pools have been established in certain urban areas, serving a purpose analogous to retirement pension pools which are intended to alleviate enterprises' direct responsibility for pensions. With the establishment of unemployment insurance, the enterprise is no longer the sole source of income security.

#### Policy Impediments to Employment Creation

5.30 A second set of obstacles to labor-market reform is policies that inhibit the growth of jobs. China has adopted a wide range of policies and pricing conventions that have the unintended consequence of discriminating against labor-intensive activities. In an environment in which profitability has become increasingly important in determining investment decisions, the benefits available from changing these policies (and the costs of retaining them) become larger each year. Three areas of antiemployment policy can be identified: (i) relative factor prices that motivate enterprises to substitute capital, energy, and materials for labor; (ii) antiservice sector bias that retards the development of the labor-intensive service sector; and (iii) a policy hierarchy that, in declining order, gives preferential treatment to state-owned, collective-owned and private enterprises. In other words, the lowest priority goes to the more labor-intensive ownership types.

5.31 Relative Factor Prices. Production theory stresses the importance of two critical conditions in determining relative factor intensities: factor substitutability in production technology and relative factor prices. If substitution possibilities exist in production (e.g., capital for labor), relative factor prices (wages relative to the cost of capital) can substantially affect factor proportions (e.g., the capital-labor ratio). China's economic reforms of the past decade have raised the intensity with which enterprise managers pursue profit. With flexible factor proportions, considerations of profitability can influence employment decisions for existing plants and the choice of the labor intensity of techniques embodied in new investment projects. Under these circumstances, factor price ratios, especially the relative prices of labor, investment funds, and energy, may significantly influence demand for labor, particularly within the industrial sector.

5.32 Table 5.4 compares relative factor prices in China with the United States and India. The wage-rental ratio (i.e., relative prices of labor and capital) in China varies widely depending on assumptions about the inflation

**Table 5.4: RELATIVE PRICES OF LABOR, CAPITAL, AND ENERGY IN CHINA, THE UNITED STATES, AND INDIA, 1987 /a**

	China	United States	India
Labor costs (\$/worker-year)	865	20,300	990 <u>/b</u>
Capital cost <u>/c</u> (\$/\$1,000 of capital)	3-46	123	169 <u>/d</u>
Energy (\$/1,000 kWh)	22.4	84.1	75.0 <u>/e</u>
<u>Ratios</u>			
Labor/capital	288.3-18.8	165.0	5.5
Labor/energy	38.6	241.4	13.2
Energy/capital	0.5-7.5	0.7	0.4

/a The relevant exchange rates are: China: Y 3.7 = \$1; India Rs 12.9 = \$1.

/b Computed from monthly manufacturing wage in 1983 = Rs 786.3; an estimate of the 1987 wage is extrapolated by multiplying the 1983 monthly wage by 1.353, the 1987/1983 consumer price index (Statistical Yearbook for Asia and the Pacific, 1990, p. 157).

/c Rates are averages for 1985-89.

/d Estimated by using the real rate of interest (i.e., 0.0894) and an estimated annual rate of depreciation of 0.08.

/e Equivalent to Rs 968/kWh, the 1985/86 price (890) adjusted by the relevant wholesale price index (Energy Pricing in India, 1988).

Sources: US energy and earnings data are from the Statistical Abstract of the United States 1989, p. 559 and p. 397, respectively. Chinese data are from G.H. Jefferson and T.G. Rawski, "Urban Unemployment, Underemployment and Employment Policy in Chinese Industry," paper prepared for the symposium on "Institutional Segmentation, Structural Change and Economic Reform in China," University of California at Los Angeles, November 1990.

rate.<sup>14/</sup> At the upper extreme, China's wage-rental ratio exceeds that of the United States. At the lower end, while significantly less than the wage-rental ratio of the United States, China's ratio remains considerably above

<sup>14/</sup> Chinese statistics provide extensive coverage of changes in consumer prices, but information on price changes for capital and industrial goods is sparse.

that of India. In China, the price of industrial labor relative to capital or energy is much higher than in India. Depending upon the assumptions about Chinese inflation in capital goods, the gap between the wage-rental ratios in China and India ranges from 3.4:1 to as much as 52:1. While these calculations are problematic, they suggest that profit-seeking Chinese managers might sensibly prefer equipment embodying a degree of capital intensity substantially greater than in India. In some circumstances, Chinese managers might choose equipment that would appeal to US managers in the same industry.<sup>15/</sup> Nonetheless, rough calculations do show that Chinese managers face high wage-rental ratios that unnecessarily restrict the demand for labor by undercutting the profitability of labor-intensive production methods. With investment decisions increasingly decentralized and based on profit considerations, the inappropriately high wage-rental ratio significantly attenuates the demand for labor in China's industrial economy. This phenomenon is reported by some observers who have made extensive inspections of recent investments made in Chinese factories.

5.33 The comparison of relative prices for labor and energy again reflects the high relative price of Chinese industrial labor. As a spur to rapid industrialization, the Chinese government has maintained low energy prices relative to international energy prices and most domestic industrial prices. A Chinese manager who considers adding enough labor to replace one million kWh of electricity will pay roughly three times as much as an Indian manager attempting a comparable substitution (assuming identical levels of technical efficiency). Again, in an environment that combines technical flexibility with extensive managerial profit-seeking, labor demand may shrink and energy shortages worsen because of inappropriate relative prices.

5.34 The fact that capital and energy prices are most subsidized in the state sector, less so in the urban collective sector, and least in the TVE sector is reflected in patterns of factor intensity across these sectors. Within state industry, both the output-capital and output-energy ratios are somewhat higher than in the collective sector and dramatically higher than in the TVE sector (Table 5.5). As a result, output per worker in the state sector is considerably higher than in either of the other two sectors. Some of this difference is reflected in differences in the intrinsic capital intensity of different industrial branches, such as iron and steel and industrial chemicals which are concentrated in the state sector. The differences shown in Table 5.5, however, are likely to reflect systematic differences in the relative factor prices in each sector. Moreover, differences in industrial branch composition are themselves likely to reflect differences in relevant factor prices.

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<sup>15/</sup> These extreme conclusions arise in part from the choice of 1987, a year in which Chinese interest rates had barely begun to rise in the wake of accelerating inflation. The wage-rental ratio is expected to be volatile; it is certainly linked to the macroeconomic policy cycle. Calculations for 1990, when nominal interest rates were higher and anticipated inflation lower than in 1987, would produce different results. This is not surprising, as studies of other economies have also had difficulty obtaining unambiguous measures of factor price ratios.

**Table 5.5: COMPARATIVE DATA FOR STATE, COLLECTIVE, AND TVE INDUSTRY, 1987**

Basic data	Firms ( '000)	Gross output (Y billion) <u>/a</u>	Labor (million)	Fixed assets (Y billion) <u>/b</u>	Electricity use (BkWh)
State <u>/c</u>	63	799	40	768	n.a.
Collective <u>/d</u>	321	314	30	137	n.a.
TVE	7,083	324	53	12	48

  

Key ratios	Workers per firm	Output per worker	Capital per worker	Output- capital ratio	Output- per kWh
State	629	20,075	19,291	1.0	1.80 <u>/d</u>
Collective	93	10,485	4,573	2.3	2.57 <u>/d</u>
TVE	7	6,159	222	27.8	6.71

/a Gross output at current prices.

/b Original value of fixed assets.

/c Independent accounting units at or above the village (xiang) level.

/d 1985 data for independent accounting units from Outline 1989, pp. 49, 179.

Sources: Jefferson/Rawski/Zheng, op. cit., Tables 3,4,5; China Energy Statistical Yearbook 1989, pp. 183, 253; Ministry of Agriculture, Quanguo Xiangzhen Qiye Tonji Ziliao, 1988 (National TVE Statistics, 1988), pp. 23, 41.

5.35 A similar problem of factor price distortions occurs in the case of material inputs to the state sector. Under the policy of "dijin-dichou" (low output price if input price is low), a state enterprise receiving subsidized material inputs also faces controlled product prices. This tends to equalize profit margins of enterprises with large shares of within-plan production and those enterprises whose within-plan production is negligible or nil. While such a policy may equalize the overall cost structure, it distorts relative prices by keeping material input prices low relative to labor, thereby motivating the substitution of material inputs for labor. To conclude, Chinese urban wages seem much higher in relation to capital costs, domestic energy prices, and material input prices than what might be expected on the basis of relative factor abundance and the long-standing concern of China's government for maintaining full or near-full employment in urban areas. Successful transition to more flexible and competitive labor markets will require factor price distortions to be addressed.

5.36 Bias Against the Service Sector. A long-standing policy tilt in China favors commodity production at the expense of services. The consequences of this approach are visible in the relatively small share of China's

labor force that works in the tertiary sector (see para. 1.9), the small share of services in national product, and the surprisingly high capital intensity in China's service sector. The inadequacy of service facilities is aggravated by the relative absence of informal service employment, so abundant in most other developing countries. The antiemployment consequences of this orientation in China is best illustrated by its housing policies, which virtually prohibit small-scale residential construction activity in the urban areas.

5.37 Bias Against Labor-Intensive Forms of Enterprise Ownership. The Chinese government maintains a comprehensive set of preferential policies for state-owned enterprises. These include subsidized capital, material and energy input allocations, soft budget constraints in the forms of tax breaks or direct subsidies in the event of losses, guaranteed purchases for most state-owned enterprises that produce within the state plan, and, more recently, the purchase of excess inventories that enterprises cannot sell in depressed markets. By administratively allocating resources to the state sector, the government discriminates against enterprises outside the state sector, particularly private and township-village enterprises. Moreover, the latter ownership types are often subjected to tight credit and tax policies and to forced plant closings, e.g., in 1989, when the economy is deemed to be "overheated." Despite these discriminatory measures and its relatively small size, the private sector has emerged as an important source of employment growth. This is confirmed in the Table 1.3, which shows that in 1988 the private sector (self-employed) accounted for more than 10 percent of all placements. Similarly, rural industry which in 1985 accounted for less than one third of total industrial employment, generated more than half of the new industrial jobs created during 1985-88. These rates of employment growth may seem impressive. However, they may be less robust than possible or desirable in the context of a growing rate of unemployment arising from labor-market reforms.

## VI. CONCLUSIONS AND RECOMMENDATIONS: NEXT STEPS IN LABOR AND WAGE REFORMS

### Introduction

6.1 China's urban reforms have brought about substantial and significant change despite limitations on the growth of open labor markets. In the past decade, market pressures and greater managerial autonomy have emerged to reshape the ways urban enterprise managers handle their workforces. This new reality is reflected in quantitative indicators, showing improved links between labor productivity and worker compensation during the 1980s. Changes in labor-market institutions have also contributed to improving the efficiency and responsiveness of China's urban economy. Some areas--e.g., Guangdong and Jiangsu--have already achieved significant progress toward reducing the backlog of redundancy and a more dynamic industrial economy may already be a reward. These gains suggest that, although in a number of areas Chinese labor-market arrangements act as a drag on the continued development of China's economy, gradual but vigorous pursuit of a set of clearly defined reforms holds the potential for substantial medium- and long-term gains. The proposed changes are not painless, but they lie well within the range of recent Chinese policy reforms (Chapter I). With careful preparation, the sociopolitical transition costs associated with the planned reduction of labor-market rigidities can be contained.

#### A. The Reform Environment

##### Interrelationships Between Labor/Wage Reforms and Other Economic Reforms

6.2 Urban employment and wage reform issues should be viewed in an economywide context that recognizes their important links with developments and reform policies elsewhere in the economy. Present and future demand for urban labor, for example, will be influenced by policies that determine the prices of investment funds, energy resources, and foreign exchange as well as policies related to credit, enterprise development outside the state sector, and export promotion. Similarly, the consequences of events in urban labor markets extend far beyond the labor scene. For instance, labor policies to cut open unemployment bear a substantial share of the responsibility for the relatively weak innovative performance of China's state industries.

6.3 Labor-market policy, therefore, is one segment of an overall policy structure; it should not be structured only with regard to its immediate impact on the current rate of unemployment. Unfortunately, Chinese officials have often taken this narrow view of labor policy. Their efforts to reduce visible urban underemployment have contributed to the development of inappropriately large wage gaps between urban and rural workers and to the emergence of big administrative and structural underemployment problems in China's urban sector. Labor policy should be viewed in a general equilibrium context that includes all major costs and benefits of proposed policy changes, not just those that affect the rate of open unemployment or other aspects for which the Ministry of Labor is held responsible. The pragmatic rule of thumb would probably be to see which policies are both feasible and capable of relaxing these constraints enough to improve the outcome. Also to be seen is whether the negative aspects of these policies are small enough (or can be offset

sufficiently) to warrant their adoption by a government that can only implement a small number of reform policies at one time.

6.4 In considering the feasibility of labor-market reform, possible threshold effects deserve careful consideration. If an economy is burdened with a continuously growing weight of rent-seeking behavior, the price system may cease to perform its efficiency-generating functions.<sup>1/</sup> The injection of successive doses of market forces into such an economy can initiate sudden bursts of efficiency gains as competitive market forces begin to take hold. Evidence abounds that many such changes have occurred in China during the past decade. Despite incoherent policies, spotty implementation, backsliding, internal opposition, and a host of other difficulties, careful selection among policies that appear economically and politically feasible at this juncture seem to hold the promise of more large gains during the 1990s.

6.5 Though basically an exercise in microeconomic planning, successful labor-market reform requires a supportive macroeconomic environment. These include a set of macroeconomic policies that are consistent with price stability and sustained growth and employment creation, rather than the stop-go policies that marked much of the 1980s. An important step in this direction is the maintenance of positive real rates of interest to avoid excessive investment demand while also encouraging an efficient pattern of investment and discouraging excessive labor-substituting automation. A more flexible interest policy would serve to curtail excess demand in a more neutral fashion, imposing higher borrowing costs on all agents, instead of relying on arbitrary administrative intervention as in the recent rectification period when financial pressure fell disproportionately on collectives, TVEs, and private enterprises that have high employment potential.

#### Alleviating Antiemployment Policies

6.6 China has adopted a variety of policies and pricing conventions that have the unintended consequence of discriminating against labor-intensive activities. In an environment where profitability is an increasingly important determinant in investment decisions, the benefits of changing these policies, and hence the costs of retaining them, grow larger each year. Antiemployment policies in China appear mainly as overpricing urban labor, favoring the state sector, and neglecting the services sector.

6.7 There is a systematic tendency in China to overprice urban labor relative to investment funds and energy, particularly if nonwage labor costs are included in the calculations. As a result, managers and planners find they can get better financial results by using technologies and business arrangements that replace labor with equipment or raw materials. The practice of granting tax concessions to enterprises faced with large interest payments and offering low energy prices to firms and industries that adopt capital- and energy-intensive technologies reinforces the general antiemployment policy bias. A reduction in the price of labor relative to the costs of capital, energy, and materials would systematically increase the demand for labor.

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<sup>1/</sup> Anne O. Krueger, "The Political Economy of the Rent-Seeking Society," American Economic Review, vol. LXIV, no. 3, (June 1974), pp. 291-303.

6.8 Micro- and macroeconomic policies in China favor the state sector and curtail development of both the collective sector and private enterprise. For example, most new college graduates are assigned to positions in the state sector. This disproportioned allocation of high-quality resources to the state sector is not reflected in productivity calculations, which show higher total factor productivity in the collective sector than in state industry. Another distinct example of policies favoring the state sector is preferential access to funds given large state enterprises. The decision to channel the impact of austerity policies in 1989 and 1990 into the collective and private sectors reflects the continued importance of this policy stance. Such policies lower the efficiency of China's economy by directing resources away from sectors where the relative costs of labor, capital, and materials are close to domestic opportunity costs. In particular, systematic discrimination against collective and private enterprises limits the growth of labor demand.

6.9 In addition to pricing conventions that curtail the profitability of labor-using activities, the Chinese government has implemented a number of policies that restrict their feasibility. A blatant example is China's long-standing policy tilt favoring commodity production over services. The consequences of this approach are visible in the relatively small share of China's labor force that works in the tertiary sector, the small share of services in national product, and the surprisingly high capital intensity in China's service sector. In urban housing services (repair, renovation, and construction) institutional rigidities conceal enormous latent demand for urban employment.

6.10 The impact of many policy changes, however, is felt only gradually. Raising the cost of capital and energy relative to labor, working to reduce the policy tilt toward state enterprises and against services, collectives, and private firms cannot be done overnight. Therefore, moves in these desirable directions will not head off the danger of severe sociopolitical consequences of a temporary bulge in layoffs and unemployment accompanying the dismissal of redundant workers and enforcement of bankruptcy regulations. Short-term costs associated with such moves, however, can be reduced by policy sequencing to increase the demand for labor before an expected surge in involuntary separations. Reversal of the numerous and costly antiemployment policies and pricing conventions is highly desirable in any case. The possibility that policy changes in these areas can limit the pain and dislocation that will accompany an effort to reduce structural underemployment is another reason for prompt action. Since the principal danger associated with moving against underemployment appears to come in the short term, a policy package should emphasize countervailing measures to boost labor demand quickly instead of gradually. Here, relaxation of controls and restrictions on the development of collective and private enterprises producing both commodities and services seems particularly effective.

#### Increasing Labor Mobility

6.11 Historic restrictions on labor mobility have left a legacy of structural underemployment. Cumbersome methods of labor allocation and lack of labor mobility make it difficult for enterprises to obtain the skills needed to expand or upgrade their operations. The labor system contributes to the rigidity, and hence low efficiency, of China's urban economy, especially in the industrial sector. This wastes resources and reduces the economy's dynam-

ic potential by dampening the incentive to innovate and encouraging a culture of low labor effort. China's increased access to new technology and the acceleration of structural change will raise the costs of structural underemployment, perhaps exponentially. In addition, managers' ability to redeploy redundant workers is limited by policies that are not directly related to labor policy. These include restrictions in changing product mix, penetrating new markets, and in mergers and acquisitions. If enterprises could easily enter new markets, explore new lines of business, etc., they could resolve issues of redundancy by emphasizing redeployment over dismissals.

6.12 Rigidities associated with China's traditional methods of labor allocation remain prominent, but the recent reforms have increased interenterprise mobility and intra-enterprise flexibility in deploying labor. Modest, but distinct, increases in labor mobility between town and countryside and among urban enterprises have enhanced the managers' ability to match workforce and tasks. The enlarged power of managers in the selection of new workers, the expanded use of contract and temporary workers, the expansion of subcontracting, and the growing commercial availability of specialized services, including technical consulting, have contributed to a growing emphasis on efficiency and productivity enhancement within the constellation of managerial objectives. As a result, the costs and inefficiencies associated with the allocative function of China's labor system have been somewhat reduced, as evidenced by more equal returns to labor among enterprises and the rapid growth of labor and total factor productivity.

6.13 The sketchy data available for this study indicate that the rate of interenterprise labor mobility, though not large, in some respects already parallels developments in the Japanese economy. The Japanese experience suggests that great efficiency and dynamism are possible with a dual labor-market structure. In Japan, a core sector is staffed with privileged workers who are tenured and immobile across enterprises, but flexibly deployed within enterprises. Enterprises in the core employ many untenured temporary workers. Core firms also interact extensively with many smaller firms staffed by untenured workers whose wages, fringe benefits, working conditions, and prestige are far below those of regular workers in core enterprises. This system shows signs of stress and disintegration in Japan, this seems related to Japan's efforts in closing the long-standing gap that separated domestic industries from international best practice. China's status as a follower nation, and one that has established a pattern of rapid industrial growth, may permit a Japanese-type dual employment system to provide sufficient flexibility to support decades of dynamic growth in China, as it did initially for Japan. China's present labor system shares important similarities with the Japanese model, although the degree of enterprise autonomy in wage and bonus setting and the deployment of labor is far more constrained than in Japan.

#### Enhancing Wage-Efficiency Linkages

6.14 Profit-sharing arrangements that strengthen links between higher profits and retained earnings, access to credit, higher wages, and improved nonwage benefits (especially housing) have increased the intensity of economizing behavior throughout China's urban economy. The increased importance of profits as sources of wage and benefit gains has turned the attention of

Chinese managers and workers to factors that affect profitability, including profit-motivated approaches to hiring, deploying, and retaining workers.

6.15 Problems of the wage system illustrate the interrelationships of all aspects of economic reform in China. Enterprise reform (including bankruptcy reform), pricing policies (i.e., administered prices) regarding raw inputs and final outputs, housing policy (i.e., in-kind subsidies), labor policy (i.e., labor mobility), and fiscal policy (i.e., profit tax and tax subsidies) all affect the total wage payment to enterprise workers. Change in one policy may influence not only the wage bill, but also enterprise costs and profits as well as government revenues and subsidies. Therefore, wage reform cannot be successful unless synchronized with other reforms, including reforms to create a more competitive and disciplined labor force. Otherwise, additional distortions will occur in the wage system with reverberations throughout the economy. Perhaps because of this--the interconnection between wages and all other aspects of economic reform--the Chinese government has been slower and less aggressive in wage reform than in other reforms during the past decade.

6.16 The success or failure of wage reform in China is likely to have a far-reaching effect on the economy. In principle, the Chinese wage reform of the past decade has its merit and appears headed toward promoting labor productivity and employment. In practice, however, many problems and obstacles exist, including the strongly egalitarian nature of the wage system, the large share of in-kind benefits in total remuneration, the enterprise-based joint security and welfare system, and unsatisfactory criteria for the wage-efficiency linkage. Without some major changes in these areas, the current wage system cannot fully succeed in promoting labor productivity and efficient employment growth.

#### Trade-offs Between Underemployment and Open Unemployment

6.17 An appropriate response to the risk of increases in open unemployment would be to reconsider the role of labor policy in meeting China's broader economic objectives. Chinese labor policies have focused on narrow objectives such as minimizing open unemployment without explicit consideration of the possibility that the same policies might create significant costs elsewhere. The most significant such cost is caused by the persistence of large-scale structural underemployment in urban enterprises, which is largely a consequence of past efforts to avoid open unemployment in cities. These costs are not limited to the loss of the potential contribution of currently underemployed workers. Persistent structural underemployment, coupled with longstanding restrictions on urban labor turnover, has helped to create a culture of low work effort that systematically depresses the productivity and innovative capability of Chinese enterprises. The level of x-efficiency appears to be especially low in state enterprises that are well endowed with the necessary resources for innovation and productivity growth.

6.18 The main risks of a direct attack on structural underemployment are short term in nature. A dynamic economy may not require an unemployment pool or dismissal rate much higher in the long run than currently. The main problem may be coping with a temporary bulge of dismissals when enterprises are allowed or forced to shed excess labor. Once the backlog of redundant workers is reabsorbed, the continuing flow of dismissals and pool of unemployed

required to enforce new modes of worker behavior may create surprisingly few difficulties. Nevertheless, China's government is unlikely to implement major changes without a clear-cut strategy for reducing short-term costs. One approach would be to stimulate the development of small-scale private-sector and TVE activity. Both have the necessary dynamism, even with currently limited access to funds, unfavorable tax treatment, etc. Reversal of discrimination against these activities, backed by institutional change (e.g., arrangement of lending facilities and ombudsmen) could serve as a prelude to policies expected to cause a short-term rise in layoffs.

6.19 The social cost of urban unemployment is magnified because in China, a worker separated from the work unit loses not just income and status but also housing, pension rights, and access to medical care and other social services. These risks are real, but the government should also consider the risks associated with failure to confront the underemployment. The medium- and long-term benefit of a further substantial increase in the mobility and flexibility of urban labor appears to be very high. Therefore, the cost of rejecting change in this area is correspondingly great. In particular, failure to address the underemployment issue will severely restrict the potential for industrial innovation and technical development, particularly in the state sector.

6.20 The steady removal of barriers that prevent villagers from migrating to cities and gradual expansion of managerial prerogatives in employment matters create a growing potential for open urban unemployment. In addition, the experience of East European countries shows that economic reform measures adopted or seriously considered by Chinese, such as reduced subsidies, the stringent application of bankruptcy provisions, and increased competition, could lead to a rapid transformation of underemployment to open unemployment. These changes could have a favorable impact on productivity, efficiency, and worker effort, all of which carry substantial economic benefits. At the same time, however, even a temporary surge in open unemployment could represent a reversal of long-standing policies that might bring severe, and perhaps dangerous political and social repercussions. Again, it is worth emphasizing that employment and wage reforms will need to be accompanied by policies that are conducive to steady employment creation and a set of social safety-net programs to provide basic guarantees to those adversely affected during the transition.

#### B. Recommendations: A Suggested Program for Labor and Wage Reform

6.21 The interdependence between labor/wage reforms and other economic reforms would be a major consideration in setting the pace and content of future labor and wage reforms. A labor and wage reform program with a timetable cannot therefore be drawn up, unless incorporates proposals for reform in other areas. For instance, the relaxation of restriction on rural workers' migration to urban areas would depend on reforms in the urban residence registration system, the food subsidy policy, agricultural procurement prices, the wage policy, etc. However, a time-phased program of such comprehensiveness, based on assessment of both economic factors and political, social and administrative conditions lies outside the scope of this report. The following recommendations should therefore be regarded as illustrative of what the government should and could do on labor and wage reforms over the medium term

(3-5 years), except where a longer term is specified. This assumes that the government is also geared to move on other economic reforms identified in this report.

### Labor Mobility

6.22 Rural-to-Urban Migration. Prepare a program for complete elimination, perhaps over the next 10 to 15 years, of all restrictions on the movement of labor from rural to urban areas, taking into account all reform requirements in related areas. Begin implementing this program immediately from the countryside to small towns and extend it gradually to larger cities. This program will require the following:

- (a) Extend the "urban resident" status to everyone currently residing within the administrative boundaries of towns and cities; this measure will help reduce labor-market segmentation without putting additional burdens on urban facilities.
- (b) Eliminate the privileges enjoyed by current urban residents (e.g., subsidized food, priority claim on employment, preferential access to housing) by converting them to cash equivalent in the form of wage increases. This measure will remove social and economic segmentation among the urban population, foster competition among urban workers, and reduce the overall "pull" effect for rural migration to urban areas.
- (c) Create incentives for "rural development," including small-scale industrialization programs in regions near urban areas to dampen the "push" effect that contributes to rural-to-urban migration.

6.23 Interenterprise Movement of Labor. Within urban areas, the movement of labor among enterprises can be enhanced by putting workers on an equal footing regardless of their enterprise-ownership affiliation and by subjecting enterprises to similar rules and regulations regarding the allocation of labor and setting of wages and bonuses. Specifically, the following reforms should be implemented within the next three to five years:

- (a) Reduce, then eliminate, preferential treatment to state-sector workers with respect to low-cost housing and social services and guaranteed employment. Besides providing more incentive to state workers, important consequences of these changes include: (i) reducing the volume of unemployed youth who refuse to work in collectives or private enterprises in anticipation of employment in state enterprises, and (ii) improve the quality of labor, especially university graduates and technical personnel, in collectives and private firms.
- (b) Delink access to housing facilities, medical insurance, and old-age pension from the workplace, so that workers will not be inhibited from moving to another firm for fear of losing housing and welfare benefits.
- (c) Remove the requirement for resident status in a particular city for work in a state enterprise or collective in that city.

- (d) Develop and strengthen employment-exchange centers, other labor-market institutions, and the information network about job vacancies and employee qualifications that will facilitate interenterprise movement of labor.

#### Labor Service Companies

6.24 Develop and strengthen the training and employment function of labor service companies to make them a core labor-market institution. To this end, the LSCs should stop confining their services to their immediate constituency, a practice that contributes to excessive labor-market segmentation. Labor service companies must instead become an instrument for integrating currently segmented labor markets. An effective Labor Management Information System (LMIS) of the sort China is developing with International Labor Organization support <sup>2/</sup> can help to draw workers and employers outside the state sector into the labor market.

6.25 The enterprise-running function of labor service companies is an unnecessary aberration of this reform innovation in two respects. First, these companies should function as labor-market institutions, matching workers to jobs. Second, in setting up employment enterprises, LSCs not only create inefficient uses of resources, they also further labor-market segmentation. If sponsoring enterprises want to use their surplus resources (usually in the form of idle equipment and redundant skilled labor), they should allocate them to productive, profitable use either as a subsidiary or through the expansion of existing profitable enterprises. To ensure proper feasibility evaluations, supplementary financing for these ventures should come from internally generated funds and bank loans. Labor service companies can be involved in establishing such subsidiaries or expanding existing enterprises, or launching an independent new business, but once the new firm is functional, LSC's involvement should end.

#### Labor Contract System

6.26 The labor contract system was adopted in the expectation of alleviating adverse effects of the permanent employment system (the iron rice bowl). It was to impart greater dynamism to the urban workforce, thereby increasing overall labor productivity. Specific reforms in the labor contract system and the reforms to increase labor mobility will also contribute to the effectiveness of the labor contract system. The following specific reforms in the labor contract system are recommended:

- (a) Make contract procedures clearer, more standardized, and tightly binding.
- (b) Continue to extend the contract system to permanent workers while also allowing enterprises to keep a "core" workforce on permanent (tenured) status. The core workforce should be subject to the

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<sup>2/</sup> Franklyn Lisk, "Economic and Labor Reforms in China: Implications for Adapting an LMI System to Employment Planning," paper presented at Erasmus University/ILO workshop, Rotterdam, November 21-23, 1990.

strict procedures for performance evaluation, which should be the basis for continuing their permanent status.

- (c) Make the wage structure and social insurance provisions more attractive in labor-short industries with dangerous or unpleasant (e.g., mining, construction, some public utilities). These incentives should be accompanied by price and enterprise reforms and efforts to upgrade safety and health conditions, streamline the labor force so that these industries can afford preferential wages and benefits and safety improvements.

#### Optimum Labor Reorganization

6.27 OLR has many positive features and the potential to become an effective means of improving the efficiency of China's urban labor force. OLR is particularly useful for creating peer pressure on workers to improve productivity and for identifying redundant labor. However, the program needs strengthening in three respects:

- (a) The present program, in principle, weeds out inefficient workers, but it does not evaluate enterprise labor requirements. Its effectiveness could be increased if it incorporated a streamlining of the workforce and an evaluation of the fit of individual workers with their tasks.
- (b) The program contains desirable features for dealing with redundant laborers through training and redeployment. But its excessive timidity in severing the firm's links with "nonredeployable" workers limits its effectiveness.
- (c) The program envisages that enterprises would carry out the required reorganization with their own resources. However, the enterprises that most need reorganization usually have the poorest financial performance, the least capacity to endure disruption, and the least ability to bear the costs of an OLR program. To encourage the implementation of effective OLR programs, enterprises that agree to implement an OLR could be offered "restructuring credit" and technical assistance.

6.28 An OLR program should not be viewed as a one-time event. The optimal size and structure of enterprises constantly changes in response to changing markets and technologies and external administrative regulation. If enterprise autonomy and labor markets are sufficiently well developed, enterprises can continuously adapt their labor force to new requirements. Existing arrangements do not, however, allow for such flexibility. Thus, the Chinese government should consider encouraging all urban enterprises to undertake an OLR program at regular intervals, say every three years. Regular and recurrent implementation of an OLR program would impel a formal reassessment of enterprise labor needs. This would signal the labor force that their performance will be periodically evaluated, and their status possibly altered accordingly, as the enterprise sheds any redundant labor.

### Further Wage Reform Measures

6.29 China has gradually been moving away from a centrally planned command economy toward a planned, market-oriented economy, with increasingly effective fiscal and monetary policies as indirect tools of economic management. The Chinese government should expand its use of indirect instruments to regulate wages. It should allow the prices of capital, energy and materials-- substitutes for labor which artificially drive up wages and restrict employment--to be influenced by market pressures. The government should consider abolishing the semimandatory wage plan in favor of an incomes policy. This would motivate enterprises to adopt desired wage and profit distribution practices from the standpoint of overall demand management through appropriate fiscal, monetary, pricing and incentives policies.

6.30 At the enterprise level, the following changes in the wage system are needed to improve labor productivity and employment prospects:

- (a) Widen wage differentials to reflect the various contributions to production by different categories of labor. China's urban wage structure remains excessively egalitarian. Wage differentials between high- and low-level skilled workers or between managers and workers are still narrow. The structural wage system is rigid. The Chinese wage system need to be made more flexible to reflect differences in workers' productivity, which can be monitored and evaluated best by enterprises.
- (b) Establish meaningful enterprise and labor performance measures. Because the Chinese price system is distorted by enterprise manipulation of pricing and by fiscal regulations, value of output, profit, or amount of tax remitted do not reflect the enterprise's true performance. However, dealing with this problem by resorting to increasingly detailed measurement of enterprise performance would be a move backward to a more regulated economy. The right approach would, instead, be to speed up price and enterprise reforms. In the meantime, if standards are to be used, wage adjustments should be driven primarily by changes in labor productivity, and bonuses should be based on enterprise profits. The amount of tax remitted is not a useful measure of labor performance.
- (c) Monetize in-kind services. Housing and other in-kind subsidies are a major share of total compensation. These in-kind payments render total compensation more egalitarian and restrict labor mobility. Enterprises should convert nonwage income and housing subsidies to cash wages and charge a price for services reflecting their cost or market value. By increasing cash wages and reducing capital expenditures on housing, enterprises could widen the wage differentials and reward more productive workers with higher cash wages. Also, with most of the compensation in cash form, the workers could freely seek out better employment opportunities.
- (d) Shift income security and welfare support from enterprises to local government. Chinese enterprises have incurred an increasingly heavy burden of retirement benefits and unemployment compensation at the

individual enterprise level. This financial burden has increased production costs and squeezed profits. A pool of retirement funds is needed beyond the enterprise level that would begin to include workers' contributions to retirement funds as they receive wages from enterprise. A separate and nationwide (or provincial) retirement program and unemployment compensation program should relieve the financial burden on individual enterprises, which could then devote their resources and attention to rewarding workers for their productivity. These changes would also have a crucial effect of releasing workers from the "bond" to their work units, enabling them to seek alternative employment without fear for loss of necessary life-supporting benefits.

6.31 These recommended policy changes are feasible extensions of the existing labor and wage system. Some of these recommendations are already being successfully implemented in certain locations or in foreign-invested enterprises or joint-venture enterprises. The Chinese labor and wage system has become tightly interlocked with a wide range of social, economic, and government institutions and policies. To some degree, a successful labor reform effort needs to delink workers and managers from these complicated interconnections and to deemphasize the word "system." In the existing system, housing, welfare benefits, wage and bonus regulations, differential employment statuses, etc., predominate worker-employer relations. A streamlined system, enabling workers to evaluate an employment opportunity by work content and a unified cash reward and allowing managers to evaluate and reward workers solely by job performance, would greatly simplify the measurement of job performance and reward and would bring greater efficiency to the overall labor market.

6.32 The premises of this report assume that an egalitarian wage system and a lack of labor mobility are barriers to improving labor productivity. These premises are based on the labor-market experience of Western industrial economies. The labor-market systems of Japan and Singapore, provide some interesting contrasts with the labor markets of Western economies. Both have achieved productive and efficient economies with relatively egalitarian wage structures and high job security. Their work incentives rely on promoting workers' career paths and promotion within the enterprises, with frequent in-service training, and noncash and cash bonuses for productive workers. A further understanding of such international experiences of labor management would be useful to refining these recommendations for reform of the Chinese system.

CHINA: REFORMING THE URBAN EMPLOYMENT AND WAGE SYSTEM

Labor Service Companies

1. Labor service companies have developed since 1979 into a main labor-market institution in China. They serve as labor exchanges as well as a source of training and employment for surplus labor and job-waiting youth in the urban economy. They are sponsored and supported by three types of institutions: (i) labor departments/bureaus at different government levels; (ii) functional bureaus (e.g., industrial bureaus) and other government departments and agencies; and (iii) state and urban collective enterprises. Labor service companies set up by the first group are the administrative (shiyexingde) type and assume a part of the functions of labor administration and planning. Those sponsored by the other two categories are the business (giyexingde) type, responsible mainly for organizing and running productive enterprises. The distinction between the two types of labor service companies, however, is not definite, since the first types also run their own enterprises and the second types are involved in labor allocation, registration and training.<sup>1/</sup>

2. Labor service companies, irrespective of their sponsors, receive support and guidance from the Ministry of Labor and its bureaus at different administrative levels. The labor service companies division of the MOL formulates development programs for labor service companies, elaborates policies and measures to consolidate such programs, and organizes and promotes pre-employment training and retraining before relocating workers. Labor bureaus support the labor service companies under their jurisdiction by (a) providing guidance and supervision in implementing relevant state policies, laws, and regulations; (b) providing guidance in management, supervision, and training of their staff; and (c) assisting them with the organization of training programs, technical consultations, and information exchanges.<sup>2/</sup> The labor service companies established by other government agencies and state and collective enterprises turn to local labor bureaus for help in the above matters. The companies operate under dual leadership: horizontally, they are under the labor bureau at their own administrative level, but vertically, under the functional bureau one step higher in the administration.

3. Labor service companies perform three distinct functions: first, they participate in preparing and implementing the labor plan. Second, they perform a number of labor-market functions, including: (i) register job vacancies; (ii) give guidance about recruitment procedures; (iii) provide information on employment conditions, particularly in its own area of jurisdiction; (iv) export labor to other parts of China as well as to other coun-

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<sup>1/</sup> ILO, Labour Administration: Profile on the People's Republic of China, Bangkok, 1989, p. 16; and Gordon White, "The Changing Role of the Chinese State in Labor Allocation: Towards the Market?" The Journal of Communist Studies, vol. 3, no. 4 (December 1987), p. 137.

<sup>2/</sup> Xinhua News Agency, "Provisions for Management of Employment Agencies," Beijing, Domestic Service in Chinese, 0603 gmt, December 10, 1990.

tries; (v) organize training courses; (vi) provide employers and job seekers with information and interpretation on labor-related legislation; and (vii) arrange periodic job fairs.<sup>3/</sup> These typical labor-exchange functions are usually performed in market economies by a mixture of government, trade union, and employers' and private organizations. Third, labor service companies establish and operate commercial or industrial enterprises. Enterprise running function has great importance for the labor service companies sponsored by state and urban collective enterprises and government agencies other than labor bureaus. These companies are established solely to create employment for the surplus workers and job-waiting children of the employees of the sponsoring enterprises or agencies. In the case of labor-bureau-sponsored companies, enterprise running function is usually confined to the grassroots level, i.e., the county and district labor bureaus.

4. Labor service companies also receive from their sponsoring agencies start-up capital (cash and/or in-kind), operating funds, and technical and managerial staff. Funds are given either as grants to labor service companies or subsidies to unprofitable enterprises run by the companies. The cost of seconded staff is shared on the basis of a tripartite labor contract. Labor service companies also enjoy preferential tax treatment: A newly established company is exempt from income tax for two to three years. If at the end of the exemption period job placement by the company reaches a certain rate, it can continue enjoying preferential tax treatment, though at a reduced rate.

5. Enterprises established by labor service companies have the status of a collective-owned enterprise and receive start-up capital from their initial workers, who are gradually reimbursed as the enterprise earns profits. The sponsoring labor service company could also contribute both capital and operating funds either as loans or in return for a share of profits. Enterprises can also draw on the surplus staff of the original sponsoring state or collective enterprise with only a limited contribution toward the total cost of such personnel. Most important, the mother enterprise's social facilities, including housing, are accessible to the employees of the labor-service-company-run enterprise. Finally, the preferential tax treatment given to labor service companies is also extended to enterprises they run.

6. Labor service companies have flourished. They are now more than 50,000 of them and they have started 200,000-300,000 enterprises. Labor service companies and their enterprises employ more than 8 million workers and staff, 7 percent of all urban employment. They have established 4,000 technical schools where over 1.5 million people are trained and 1,600 centers for pre-employment training or retraining.

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<sup>3/</sup> For instance, the Liaoning provincial labor bureau arranges at least twice a year temporary open-air job fairs in a central location of the major cities, and often around 10,000 people a day visit each market.

CHINA: REFORMING THE URBAN EMPLOYMENT AND WAGE SYSTEM

The Changing Composition of Labor Compensation

Components of Wages by Sector and Industry

1. In 1977-88, the average annual wage of employees in state enterprises almost trebled in nominal terms, or increased 1.7 times in real terms. Most of this increase occurred in 1984-88 and can be attributed to the rapid growth of bonuses and subsidies. As a result, the share of the basic wage in the enterprise wage bill decreased from 85 percent to 49 percent over this period, while that of bonuses and subsidies together went up from about 9 percent to over 38 percent. In collective enterprises, average wages were consistently lower by 20-25 percent than in state enterprises. However, wages in both types of ownership increased more or less at the same rate (Table 1).

Table 1: AVERAGE ANNUAL NOMINAL WAGE FOR EMPLOYEES  
IN STATE AND COLLECTIVE ENTERPRISES

Year	SOE		COE		SOE + COE	
	Yuan	Index	Yuan	Index	Yuan	Index
1978	644	100.0	506	100.0	615	100.0
1983	865	134.3	698	137.9	826	134.3
1984	1,034	160.6	811	160.3	974	158.4
1988	1,853	287.7	1,426	281.8	1,747	284.1
1989	2,055	319.1	1,557	307.7	1,935	314.6
1990	2,284	354.7	1,681	332.2	2,140	348.0

Source: Statistical Yearbook of China, 1991.

2. Taking total staff and workers across industries, workers in the agricultural and education sectors had the lowest wages in 1978: about 20 percent and 10 percent below the national average, respectively (Table 2). The highest paid workers (32 percent above the national average) were in the geological sector (i.e., oil and mining explorations). The wage ratio between the lowest and the highest paid industry was 1:1.66 in 1978. The situation has since changed only marginally. The agricultural and services sectors had the smallest increase--about 230 percent--in nominal wages by 1990. As a result, agriculture remained the lowest-paying sector (Y 1,577), and services replaced education as the second lowest paying sector. The geological sector still pays the highest wage (Y 2,902). However, the differences between industries somewhat widened, with the wage ratio between the lowest and highest paid sectors rising to 1:1.84 in 1988.

3. Taking again state, collective, and other ownership units together across sectors, the average real wage increased by about two thirds between

Table 2: CHANGE IN AVERAGE WAGES BY SECTOR, 1978-90

	1978		1990		1990 wage 1978 wage
	Yuan	Sector Index /a	Yuan	Sector Index /a	
1st highest paying	809	Geological 1.32	2,902	Geological 1.36	3.59
2nd highest paying	713	Construction 1.16	2,520	Transport/communication 1.18	3.53
1st lowest paying	486	Agriculture 0.79	1,577	Agriculture 0.74	3.25
2nd lowest paying	545	Education 0.89	1,833	Services 0.86	3.36
Highest/lowest pay ratio		1.66		1.84	n.a.

/a Vis-à-vis the national average wage, which was Y 615 in 1978 and Y 1,747 in 1988.

Source: Statistical Yearbook of China, 1991, p. 113.

1978 and 1988, ranging from a 38 percent increase for government workers to a 70 percent increase in the educational and cultural sectors. This reflects government's special effort to correct the past inequity in the wages of teachers and professors. In general, workers in agriculture and service industries gained less than average workers. Over the ten-year period, the largest real gain was attained during 1984-86, probably due to the wage reform over this period. Inflation fully eroded the sizable nominal gain in 1987 (9.8 percent) and nearly halved the gain in 1988 (19.7 percent).

4. Differences in the growth pattern of wages across sectors/industries might well be explained by sectoral differences in the importance of bonuses and subsidies, which were the fastest-growing component of wages. Indeed, from July 1978 to July 1988, total wages increased about 180 percent, while bonuses increased 11.84 times, and allowances and subsidies 10 times. As a result, while in 1978 the bonuses and allowances together accounted for less than 10 percent of an individual's total wage, this share increased to nearly 40 percent in 1988 (Table 3). The most suitable sectors for linking wages to workers' performance through bonuses and allowances are industry, construction, and finance; they have also secured the highest increase in the total wage bill. Agriculture is the least suitable for using bonuses to reward performance and, hence, the lowest wage increase was recorded there. Service enterprises in the state sector have not yet fully acquired a commercial

nature, and the linkage of wages to worker performance still needs to be developed.

**Table 3: COMPARISON OF AVERAGE MONTHLY WAGE INCOME  
HOUSEHOLDS SURVEY, 1978 AND 1988  
(in nominal Yuan)**

	Basic wages	Bonuses	Allowances, subsidies	Other wages	Total
<b>1978, July</b>					
Average	46.00	2.50	2.60	1.30	52.40
<b>Occupation</b>					
Worker	42.00	2.70	2.80	1.20	49.10
Professional	62.10	2.40	2.20	1.60	68.20
Management	51.60	2.50	2.40	1.30	57.80
<b>Ownership</b>					
State	46.90	2.70	2.70	1.40	53.70
Collective	38.10	1.20	1.80	0.30	41.40
<b>Industry</b>					
Industry	46.70	2.40	2.30	1.30	52.70
Construction	50.50	3.20	3.40	2.10	59.20
Commerce	40.40	2.50	1.80	0.50	45.20
<b>1988, July</b>					
Average	85.00	32.10	26.20	3.50	146.80
<b>Occupation</b>					
Worker	76.80	31.40	26.70	3.80	138.70
Professional	117.80	33.50	24.50	3.30	179.40
Management	105.50	37.90	27.00	4.10	174.50
<b>Ownership</b>					
State	85.10	33.00	26.10	3.50	147.70
Collective	84.00	24.90	26.40	3.50	138.80
<b>Industry</b>					
Industry	87.60	31.60	25.70	2.30	147.20
Construction	89.80	36.90	27.50	10.70	164.90
Commerce	75.70	31.90	24.20	3.40	135.20

Source: State Statistical Bureau, Zhongguo Laodong Gongzi Tongji Nianjian (1989), Beijing: Chinese Statistical Press, 1989, pp. 346-349.

Nonwage Compensation

5. Monetary wages in China do not reflect true wages. In China, a work unit is responsible for its workers' household life from birth to death, providing housing, social and cultural activities, and often utilities and food (Table 4). A worker pays only 3 to 5 percent of his monetary wage for house rental. Medical insurance is also covered by the work unit. Additional bonuses may be paid in kind, e.g., uniforms, food items, travel, and other commodities or services. Welfare benefits include medical care; funeral expenses; retirement payment; and subsidies on enterprise bath houses, barber shops, restaurants, housing repairs, and cultural expenses. In 1988, these expenses and subsidies in state enterprises amounted to Y 53.34 billion compared to the total money wage bill of Y 180.71 billion, or about 30 percent of the total money wage bill (compared to 14 percent in 1978). In 1988, about 40 percent of the nonwage compensation went to retirement benefits, 30 percent to medical and funeral expenses, and 10 percent to collective social welfare services and housing repairs.

Table 4: COMPOSITION OF WORKERS' WELFARE FUND  
STATE-OWNED ENTERPRISES  
(in billion yuan)

Year	Total	Leaves & retirement & layoff	Medical fund	Funeral & death	Collective welfare services & facility	Other <sup>/a</sup>
1978	6.69	1.41	2.73	0.26	0.87	1.41
1979	9.21	2.61	3.17	0.37	1.18	1.88
1980	11.60	4.01	3.64	0.38	1.44	2.13
1981	13.24	5.05	3.90	0.39	1.64	2.26
1982	15.38	5.89	4.44	0.40	1.88	2.77
1983	17.95	7.08	5.00	0.44	2.15	3.28
1984	21.04	8.16	5.54	0.58	2.93	3.83
1985	26.68	11.24	6.46	0.53	3.29	5.16
1986	33.55	13.42	8.49	0.64	3.61	7.39
1987	40.67	16.42	10.75	0.73	4.26	8.51
1988	53.34	20.90	15.12	0.92	5.26	11.14

<sup>/a</sup> Other includes poverty subsidies, cultural expenses, transportation subsidies, and birth control expenses.

Source: State Statistical Bureau, Zhongguo Laodong Gongzi Tongji Nianjian (1989), Beijing: Chinese Statistical Press, 1989, p. 373.

6. Housing subsidies are the major nonwage compensation for enterprise workers. Since 1978, enterprises have invested a growing share of their capital investment in housing. In 1988, investment in housing represented 11 percent and 7.5 percent of total fixed investment by SOEs and COEs, respectively. The 1989 survey of urban enterprises across the country indicated a signifi-

cant improvement of housing space from 5.5 m<sup>2</sup> per person in 1978 to 7.4 m<sup>2</sup> in 1988. The 3-5 percent of household income spent on housing rental payments could not cover repair and maintenance costs, let alone the cost of new housing space. Actual housing cost could be as much as 30 percent of a worker's income.<sup>1/</sup>

7. Retirement benefits have also been increasing rapidly during the past ten years. For instance, between 1985 and 1987, retirement-related expenditures in state enterprises increased 75 percent. The share of such expenses in the worker welfare fund almost doubled to 40 percent over the period 1978-88. These increases squeeze enterprise profits, with negative effects on cash wage payment.

8. Combining all fringe benefits and housing subsidies, nonwage compensation could add at least another 50 percent to money wages. In general, nonwage benefits are based largely on the size and health status of households and the worker's position. Thus, increasing the role of nonwage subsidies has reduced the role of money wages in promoting labor productivity. Furthermore, since such benefits are administered within an enterprise and are not transferrable, they become a serious barrier to labor mobility.

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<sup>1/</sup> Estimates obtained from Shandong housing experiments show the value of housing subsidies as equivalent to about 23.5 percent of a worker's income.

CHINA: REFORMING THE URBAN EMPLOYMENT AND WAGE SYSTEM

STATISTICAL APPENDIX

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Table 1: CHINA: LABOR FORCE BY SECTOR

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
(million)													
<b>Total</b>	<u>401.53</u>	<u>410.24</u>	<u>423.61</u>	<u>437.25</u>	<u>452.15</u>	<u>464.36</u>	<u>481.97</u>	<u>498.73</u>	<u>512.82</u>	<u>527.83</u>	<u>543.34</u>	<u>553.29</u>	<u>567.40</u>
Primary	283.73	286.92	291.81	298.36	309.17	312.09	309.27	311.87	313.11	317.20	323.08	332.84	340.49
Secondary	70.67	73.40	78.36	81.32	84.79	88.14	97.28	105.24	113.56	118.69	122.95	121.16	121.58
Tertiary	47.12	49.92	53.44	57.57	58.99	64.13	75.42	81.62	86.15	91.94	97.31	99.29	105.33
<b>Urban</b>	95.14	99.99	105.25	110.53	114.28	117.46	122.29	128.09	132.92	137.83	142.67	143.90	147.30
Primary	8.85	8.57	8.47	8.56	8.55	8.59	8.47	8.36	8.43	8.50	8.52	8.43	7.13
Secondary	51.04	53.52	56.12	58.56	60.29	61.67	63.80	66.75	69.32	71.71	73.96	73.58	74.06
Tertiary	35.25	37.90	40.66	43.41	45.44	47.20	50.02	52.97	55.17	57.62	60.19	61.89	66.11
<b>Rural</b>	306.38	310.25	318.36	326.72	338.67	346.90	359.68	370.65	379.90	390.00	400.67	409.39	420.10
Primary	274.88	278.35	283.34	289.80	300.62	303.50	300.80	303.51	304.68	308.70	314.56	324.41	333.36
Secondary	19.64	19.89	22.25	22.78	24.52	26.51	33.60	38.71	44.48	47.28	49.39	47.58	47.52
Tertiary	11.86	12.07	12.77	14.14	13.53	16.89	25.28	28.43	30.74	34.02	36.72	37.40	39.22
(percentage)													
<b>Total</b>	<u>100.0</u>												
Primary	70.7	69.9	68.9	68.2	68.3	67.2	64.2	62.5	61.1	60.1	59.5	60.0	60.0
Secondary	17.6	17.9	18.5	18.6	18.7	19.0	20.2	21.1	22.1	22.5	22.6	21.7	21.4
Tertiary	11.7	12.2	12.6	13.2	13.0	13.8	15.6	16.4	16.8	17.4	17.9	18.3	18.6
<b>Urban</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary	9.3	8.6	8.0	7.7	7.5	7.3	6.9	6.5	6.3	6.2	6.0	5.9	4.8
Secondary	53.6	53.5	53.3	53.0	52.8	52.5	52.2	52.1	52.2	52.0	51.8	51.1	50.3
Tertiary	37.1	37.9	38.6	39.3	39.8	40.2	40.9	41.4	41.5	41.8	42.2	43.8	44.9
<b>Rural</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary	89.7	89.7	89.0	88.7	88.8	87.5	83.6	81.9	80.2	79.2	78.5	79.2	79.4
Secondary	6.4	6.4	7.0	7.0	7.2	7.6	9.3	10.4	11.7	12.1	12.3	11.6	11.3
Tertiary	3.9	3.9	4.0	4.3	4.0	4.9	7.0	7.7	8.1	8.7	9.2	9.2	9.3

Source: China Statistical Yearbook 1991.

**Table 2: CHINA: GROWTH OF LABOR FORCE BY SECTOR**  
(percentage)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
<b>Total</b>	=	<u>2.2</u>	<u>3.3</u>	<u>3.2</u>	<u>3.6</u>	<u>2.5</u>	<u>3.8</u>	<u>3.5</u>	<u>2.8</u>	<u>2.9</u>	<u>2.9</u>	<u>1.8</u>	<u>2.6</u>
<b>Primary</b>	-	1.1	1.7	2.2	3.6	0.9	-0.9	0.8	0.4	1.3	1.9	3.0	2.3
<b>Secondary</b>	-	3.9	6.8	3.8	4.3	4.0	10.4	8.2	7.9	4.5	3.6	-1.5	0.3
<b>Tertiary</b>	-	5.9	7.1	7.7	2.5	8.7	17.6	8.2	5.6	6.7	5.8	2.0	6.1
<b>Urban</b>	-	5.1	5.3	5.0	3.4	2.8	4.1	4.7	3.8	3.7	3.5	0.9	2.4
<b>Primary</b>	-	-3.2	-1.2	1.1	-0.1	0.5	-1.4	-1.3	0.8	0.8	0.2	-1.1	-15.4
<b>Secondary</b>	-	4.9	4.9	7.3	3.0	2.3	3.5	4.6	3.9	3.4	3.1	-0.5	0.7
<b>Tertiary</b>	-	7.5	7.3	6.8	4.7	3.9	6.0	5.9	4.2	4.0	4.5	2.8	6.8
<b>Rural</b>	-	1.3	2.6	2.6	3.7	2.4	3.7	3.0	2.5	2.7	2.7	2.2	2.6
<b>Primary</b>	-	1.3	1.8	2.3	3.7	1.0	-0.9	0.9	0.4	1.3	1.9	3.1	2.8
<b>Secondary</b>	-	1.3	11.9	2.4	7.6	8.1	26.7	15.2	14.9	6.3	4.5	-3.7	-0.1
<b>Tertiary</b>	-	1.3	6.3	10.7	-4.3	24.8	49.7	12.5	8.1	10.7	7.9	1.9	4.9

Note: Farming, etc., is primary, industry and geological, and construction is secondary and the rest is tertiary.

Source: China Statistical Yearbook, 1991.

Table 3: CHINA: LABOR ABSORPTION BY AREA AND BY SECTOR

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Contribution of sub items to their respective totals Percentage share of previous year times growth rate of current year												
<u>Total</u>	<u>2.2</u>	<u>3.3</u>	<u>3.2</u>	<u>3.6</u>	<u>2.5</u>	<u>3.8</u>	<u>3.5</u>	<u>2.8</u>	<u>2.9</u>	<u>2.9</u>	<u>1.8</u>	<u>2.6</u>
Primary	0.8	1.2	1.5	2.5	0.6	-0.6	0.5	0.2	0.8	1.1	1.8	1.4
Secondary	0.7	1.2	0.7	0.8	0.7	2.0	1.7	1.7	1.0	0.8	-0.4	0.1
Tertiary	0.7	0.9	1.0	0.3	1.1	2.4	1.3	0.9	1.1	1.0	0.4	1.1
Urban	5.1	5.3	5.0	3.4	2.8	4.1	4.7	3.8	3.7	3.5	0.9	2.4
Primary	-0.3	-0.1	0.1	-0.0	0.0	-0.1	-0.1	0.1	0.1	0.0	-0.1	-0.9
Secondary	2.6	2.6	2.3	1.6	1.2	1.8	2.4	2.0	1.8	1.6	-0.3	0.3
Tertiary	2.8	2.8	2.6	1.8	1.5	2.4	2.4	1.7	1.8	1.9	1.3	3.0
Rural	1.3	2.6	2.6	3.7	2.4	3.7	3.0	2.5	4.7	2.7	2.2	2.6
Primary	1.1	1.6	2.0	3.3	0.9	-0.8	0.8	0.3	1.1	1.5	2.4	2.2
Secondary	0.1	0.8	0.2	0.5	0.6	2.0	1.4	1.6	0.7	0.5	-0.5	0.1
Tertiary	0.0	0.2	0.4	-0.2	1.0	2.4	0.9	0.6	0.9	0.7	0.3	0.3
<u>Total</u>	<u>100.0</u>											
Primary	36.6	36.6	48.0	68.9	25.6	-16.0	15.5	8.8	27.2	37.9	100.0	53.8
Secondary	31.3	37.1	21.7	22.1	29.4	51.9	47.5	59.0	34.2	27.5	-22.2	3.8
Tertiary	32.1	26.3	30.3	9.0	45.0	64.1	37.0	32.2	38.6	34.6	22.2	42.3
Urban	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary	-5.8	-1.9	1.7	-0.3	1.3	-2.5	-1.9	1.4	1.4	0.4	-11.1	-37.5
Secondary	51.1	49.4	46.2	46.1	43.4	44.1	50.9	53.1	48.7	46.5	-33.3	12.5
Tertiary	54.6	52.5	52.1	54.1	55.3	58.4	50.9	45.3	49.9	53.1	-144.4	125.0
Rural	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary	89.7	61.5	77.3	90.5	35.0	-21.1	24.7	12.6	39.8	54.9	109.1	84.6
Secondary	6.5	29.1	6.3	14.6	24.2	55.5	46.6	62.4	27.7	19.8	-22.7	-3.8
Tertiary	3.9	9.4	16.4	-5.1	40.8	65.6	28.7	25.0	32.5	25.3	13.6	19.2

Source: Tables 1 and 2.



Table 3: CHINA: LABOR FORCE BY ENTERPRISE OWNERSHIP

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
	(million)												
<b>Total</b>	<b>401.52</b>	<b>410.24</b>	<b>423.61</b>	<b>437.25</b>	<b>452.95</b>	<b>464.36</b>	<b>481.97</b>	<b>498.73</b>	<b>512.82</b>	<b>527.83</b>	<b>543.34</b>	<b>553.29</b>	<b>567.40</b>
<b>Staff &amp; workers</b>	<b>94.99</b>	<b>99.67</b>	<b>104.44</b>	<b>109.4</b>	<b>112.81</b>	<b>115.15</b>	<b>118.9</b>	<b>123.58</b>	<b>128.09</b>	<b>132.14</b>	<b>136.08</b>	<b>137.42</b>	<b>140.59</b>
State-owned units	74.51	76.93	80.19	83.72	86.30	87.71	86.37	89.90	93.33	96.54	99.84	101.08	103.46
Urban collective-owned	20.48	22.74	24.25	25.68	26.51	27.44	32.16	33.24	34.21	34.88	35.27	35.02	35.49
Other	-	-	-	-	-	-	0.37	0.44	0.55	0.72	0.97	1.32	1.64
<b>Urban individual</b>	<b>0.15</b>	<b>0.32</b>	<b>0.81</b>	<b>1.13</b>	<b>1.47</b>	<b>2.31</b>	<b>3.39</b>	<b>4.50</b>	<b>4.83</b>	<b>5.69</b>	<b>6.59</b>	<b>6.48</b>	<b>6.71</b>
<b>Rural labor force</b>	<b>306.98</b>	<b>310.25</b>	<b>318.36</b>	<b>326.72</b>	<b>336.67</b>	<b>346.90</b>	<b>359.68</b>	<b>370.65</b>	<b>379.90</b>	<b>390.00</b>	<b>400.67</b>	<b>409.39</b>	<b>420.10</b>
	(growth rates in percentages)												
<b>Total</b>	-	<b>2.17</b>	<b>3.26</b>	<b>3.22</b>	<b>3.59</b>	<b>2.52</b>	<b>3.79</b>	<b>3.48</b>	<b>2.83</b>	<b>2.93</b>	<b>2.94</b>	<b>1.83</b>	<b>2.55</b>
<b>Staff &amp; workers</b>	-	<b>4.93</b>	<b>4.79</b>	<b>4.75</b>	<b>3.12</b>	<b>2.07</b>	<b>3.26</b>	<b>3.94</b>	<b>3.65</b>	<b>3.16</b>	<b>2.98</b>	<b>0.98</b>	<b>2.31</b>
State-owned units	-	3.25	4.24	4.40	3.08	1.63	-1.53	4.09	3.82	3.44	3.42	1.24	2.35
Urban collective-owned	-	11.04	6.64	5.90	3.23	3.51	17.20	3.36	2.92	1.96	1.12	-0.70	1.34
Other	-	-	-	-	-	-	-	18.92	25.00	30.91	34.72	36.10	24.24
<b>Urban individual</b>	-	<b>113.33</b>	<b>153.13</b>	<b>39.51</b>	<b>30.09</b>	<b>57.14</b>	<b>46.75</b>	<b>32.74</b>	<b>7.33</b>	<b>17.81</b>	<b>15.82</b>	<b>-1.67</b>	<b>3.55</b>
<b>Rural labor force</b>	-	<b>1.26</b>	<b>2.61</b>	<b>2.63</b>	<b>3.66</b>	<b>2.43</b>	<b>3.68</b>	<b>3.05</b>	<b>2.50</b>	<b>2.66</b>	<b>2.74</b>	<b>2.18</b>	<b>2.62</b>

**Table 6: CHINA: LABOR FORCE BY ENTERPRISE OWNERSHIP**  
(percentage shares)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
<b>Total</b>	<u>100.00</u>	<u>100.0</u>											
<b>Staff &amp; workers</b>	23.66	24.30	24.65	25.02	24.91	24.80	24.67	24.78	24.98	25.03	25.05	24.84	24.78
State-owned units	18.56	18.75	18.93	19.15	19.05	18.89	17.92	18.03	18.20	18.29	18.38	18.27	18.23
Urban collective-owned	5.10	5.54	5.72	5.87	5.85	5.91	6.67	6.66	6.67	6.61	6.49	6.33	6.25
Other	-	-	-	-	-	-	0.08	0.09	0.11	0.14	0.18	0.24	0.29
<b>Urban individual</b>	0.04	0.08	0.19	0.26	0.32	0.50	0.70	0.90	0.94	1.08	1.21	1.17	1.18
<b>Rural labor force</b>	76.31	75.63	75.15	74.72	74.33	74.70	74.63	74.32	74.08	73.89	73.74	73.99	74.04

Source: China Statistical Yearbook, 1991.

**Table 7: CHINA: URBAN EMPLOYMENT BY ENTERPRISE OWNERSHIP  
(percentages)**

Year	State units	Collective units	Joint state & collective units	Semi-private & private units	Individual economy
1978	78.32	21.53			0.16
1979	49.94	22.74			0.32
1980	76.19	23.04			0.77
1981	75.74	23.23			1.02
1982	75.52	23.20			1.29
1983	74.67	23.36			1.97
1984	70.63	26.30	0.25	0.06	2.77
1985	70.19	25.95	0.24	0.10	3.51
1986	70.22	25.74	0.25	0.17	3.63
1987	70.04	25.31	0.25	0.27	4.13
1988	69.98	24.72	0.27	0.41	4.62
1989	70.24	24.34	-----	0.92 -----	4.50
1990	70.24	24.09	-----	1.11 -----	4.56

Note: Semi-private units refer to joint ownership by private units with state units and/or collective units.

Source: Statistical Yearbook of China, 1991.

Table 8: CHINA: URBAN UNEMPLOYMENT AND CHANGES IN EMPLOYMENT

Year	Unemployment		Employment (m) total (endyear)	Total (m)	Urban new employment			
	Number (m)	Rate (%)			Sources of new assignments (m)			
					Urban	Rural	Graduates	Other
1978	5.30	5.3	95.14	5.44	2.75	1.48	0.38	0.83
1979	5.68	6.0	99.99	9.03	6.89	0.71	0.33	1.10
1980	5.42	4.9	105.25	9.00	6.23	1.27	0.80	0.70
1981	4.40	3.8	110.53	8.20	5.34	0.92	4.08	0.86
1982	3.79	3.2	114.28	6.65	4.08	0.66	1.17	0.74
1983	2.71	2.3	117.46	6.28	4.07	0.68	0.93	0.60
1984	2.36	1.9	122.29	4.22	4.50	1.23	0.82	0.67
1985	2.39	1.8	128.08	8.14	5.02	1.50	0.89	0.73
1986	2.64	2.0	132.92	7.93	4.32	1.67	0.99	0.96
1987	2.77	2.0	137.83	8.00	4.12	1.67	1.18	1.04
1988	2.96	2.0	142.67	8.44	4.23	1.60	1.31	1.31
1989	3.78	2.6	143.90	6.20	2.77	1.20	1.45	0.78
1990	3.83	2.5	147.30	7.85	3.40	1.18	1.68	1.59

SHIFTS IN EMPLOYMENT DURING THE YEAR  
(million)

	New assignments			Losses			Net increment during the year			
	State	UC	UI	State	UC	UI	State	OUU	UC	UI
1978	3.92	1.52	0.00	1.37	0.20	0.00	2.55		1.32	
1979	5.68	3.18	0.17	3.26	0.92	0.00	2.42		2.26	0.17
1980	5.72	2.78	0.50	2.46	1.27	0.01	3.29		1.51	0.47
1981	5.21	2.67	0.32	1.68	1.24	0.00	3.53		1.43	0.32
1982	4.09	2.22	0.33	1.51	1.39	-0.01	2.58		0.83	0.34
1983	3.74	1.71	0.84	2.33	0.78	0.00	1.41		0.93	0.84
1984	4.16	1.97	1.09	5.13	-2.75	0.01	-1.34	0.37	4.72	1.08
1985	4.99	2.04	1.11	1.39	0.96	0.00	3.53	0.07	1.08	1.11
1986	5.36	2.34	0.23	1.82	1.37	-0.10	3.43	0.11	0.97	0.33
1987	4.99	2.14	0.86	1.61	1.47	0.00	3.21	0.17	0.67	0.86
1988	4.92	2.63	0.89	1.37	2.24	-0.01	3.30	0.25	0.39	0.90
1989	3.67	1.92	0.61	2.08	2.17	0.72	1.24	0.35	-0.25	-0.11

Source: China Labor and Wage Statistical Yearbooks.

Table 9: CHINA: CONTRACT WORKERS, 1989  
(million)

	Contract workers			All workers			Percentage		
	SO	UC	Total	SO	UC	Total	SO	UC	Total
China (sum)	11.90	2.45	14.35	101.12	35.03	136.15	11.8	7.0	10.5
Coast	5.05	1.97	7.03	36.46	14.60	51.06	13.9	13.6	13.8
Rest	6.85	0.47	7.32	64.66	20.43	85.09	10.6	2.3	8.6
Beijing	0.24	0.03	0.26	3.44	0.69	4.13	6.9	3.8	6.3
Tianjin	0.17	0.01	0.18	2.17	0.65	2.82	7.7	1.6	6.3
Hebei	0.69	0.15	0.84	4.88	1.57	6.45	14.2	9.5	13.0
Shanxi	0.39	0.05	0.44	3.34	0.93	4.27	11.7	5.4	10.3
Inner Mongolia	0.21	0.03	0.23	2.71	0.87	3.58	7.6	3.2	6.5
Liaoning	0.89	0.04	0.93	6.56	3.21	9.78	13.6	1.1	9.5
Jilin	0.35	0.04	0.39	3.53	1.58	5.11	9.9	2.4	7.6
Heilongjiang	0.78	0.04	0.82	6.00	2.38	8.37	13.1	1.6	9.8
Shanghai	0.31	0.03	0.34	3.94	1.06	5.00	7.8	2.9	6.8
Jiangsu	0.80	0.54	1.34	5.25	3.25	8.50	15.2	16.7	15.8
Zhejiang	0.44	0.23	0.67	2.75	1.89	4.64	15.9	12.1	14.3
Anhui	0.31	0.03	0.34	3.26	1.50	4.76	9.5	2.2	7.2
Fujian	0.17	0.04	0.21	2.12	0.79	2.91	8.2	4.8	7.3
Jiangxi	0.32	0.03	0.34	2.98	0.81	3.79	10.6	3.2	9.0
Shandong	1.04	0.47	1.51	5.33	2.03	7.36	19.5	22.9	20.5
Henan	0.76	0.10	0.87	5.13	1.68	6.81	14.8	6.2	12.7
Hubei	0.60	0.07	0.67	5.11	1.72	6.83	11.7	4.2	9.8
Hunan	0.65	0.08	0.74	4.06	1.25	5.31	16.2	6.4	13.9
Guangdong	0.66	0.16	0.83	5.19	2.12	7.31	12.8	7.7	11.4
Guangxi	0.24	0.04	0.28	2.51	0.54	3.04	9.7	6.5	9.2
Hainan	0.19	0.01	0.19	0.94	0.09	1.03	19.7	10.0	18.9
Sichuan	0.53	0.07	0.60	6.97	2.23	9.20	7.6	3.1	6.5
Guizhou	0.15	0.02	0.18	1.80	0.36	2.17	8.2	5.5	7.8
Yunnan	0.19	0.04	0.23	2.43	0.43	2.86	7.7	10.1	8.1
Tibet	0.01	-	0.01	0.15	0.01	0.16	6.2	-	5.7
Shaanxi	0.36	0.05	0.40	3.05	0.68	3.72	11.7	7.1	10.8
Gansu	0.22	0.03	0.25	1.90	0.33	2.23	11.5	9.6	11.2
Qinghai	0.05	0.00	0.05	0.55	0.10	0.65	8.9	2.1	7.8
Ningxia	0.06	0.01	0.06	0.55	0.10	0.65	10.0	8.0	9.7
Xinjiang	0.14	0.03	0.16	2.52	0.37	2.89	5.4	6.8	5.6

Source: State Planning Commission.

Table 10: CHINA: AVERAGE ANNUAL WAGE OF STAFF AND WORKERS BY SECTOR

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<u>Yuen in Constant 1980 Prices</u>											
Farming, forestry, animal husbandry, fishery	533	582	626	630	639	657	718	736	820	815	762
Industry	692	745	784	771	767	768	903	946	1,018	1,037	1,035
Geological survey & prospecting	887	954	1,029	1,033	1,041	1,046	1,221	1,299	1,372	1,388	1,335
Construction	781	831	857	853	874	901	1,060	1,119	1,176	1,186	1,143
Transportation, postal & telecommunications	755	817	842	827	845	851	1,000	1,056	1,147	1,166	1,167
Commerce, food services, supply, storage	624	664	694	688	683	682	793	824	889	902	909
Real estate management, public residential	631	682	712	697	711	742	839	922	1,006	1,022	1,003
Health care, sports & social welfare	628	644	718	733	797	813	866	918	1,024	1,014	1,018
Education, culture, art, radio, TV	597	629	700	699	776	784	840	953	1,014	988	1,015
Scientific research, polytechnic services	733	773	851	830	820	928	979	1,039	1,157	1,136	1,122
Banking & insurance	669	703	720	733	735	730	889	943	1,031	1,022	1,010
Government agencies, parties, social organisations	718	737	800	796	785	865	903	921	1,034	1,029	992
<u>Total</u>	<u>674</u>	<u>720</u>	<u>762</u>	<u>754</u>	<u>763</u>	<u>774</u>	<u>890</u>	<u>938</u>	<u>1,013</u>	<u>1,023</u>	<u>1,015</u>
<u>Percentage Growth Rates</u>											
Farming, forestry, animal husbandry, fishery	9	8	1	1	3	9	3	11	-1	-7	
Industry	8	5	-2	-0	0	18	5	8	2	-0	
Geological survey & prospecting	8	8	0	1	1	17	6	6	1	-4	
Construction	6	3	-1	3	3	18	6	6	1	-4	
Transportation, postal & telecommunications	8	3	-2	2	1	18	6	9	2	0	
Commerce, food services, supply, storage	6	5	-1	-1	-0	16	4	8	2	1	
Real estate management, public residential	8	4	-2	2	4	13	10	9	2	0	
Health care, sports & social welfare	3	11	2	9	2	7	6	11	-1	0	
Education, culture, art, radio, TV	5	11	-0	11	1	7	13	6	-3	3	
Scientific research, polytechnic services	5	10	-2	-1	13	6	6	9	-0	-1	
Banking & insurance	5	2	2	0	-1	22	6	9	-1	-1	
Government agencies, parties, social organization	3	9	-0	-1	10	4	2	12	-0	-4	
<u>Total</u>	<u>7</u>	<u>6</u>	<u>-1</u>	<u>1</u>	<u>1</u>	<u>13</u>	<u>5</u>	<u>8</u>	<u>1</u>	<u>-1</u>	

Table 11: CHINA: AVERAGE ANNUAL WAGE OF STAFF AND WORKERS IN STATE-OWNED UNITS BY SECTOR

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<u>Yuan in Constant 1980 Prices</u>											
Farming, forestry, animal husbandry, fishery	539	590	635	637	647	668	727	745	827	821	726
Industry	746	813	852	830	826	822	977	1,011	1,104	1,122	1,064
Geological survey & prospecting	888	955	1,031	1,035	1,044	1,049	1,224	1,305	1,376	1,390	1,267
Construction	828	882	920	917	936	959	1,165	1,250	1,319	1,320	1,208
Transportation, postal and telecommunications	804	870	907	888	895	899	1,076	1,134	1,241	1,262	1,202
Commerce, food services, supply, storage	644	689	721	717	714	713	874	893	976	986	955
Real estate management, public residential	685	741	777	763	771	803	918	968	1,068	1,079	1,003
Health care, sports & social welfare	662	673	751	762	824	839	896	950	1,049	1,038	988
Education, culture, art, radio, TV	620	652	722	720	791	796	853	966	1,025	997	972
Scientific research, polytechnic services	734	774	853	831	823	930	981	1,035	1,139	1,139	1,066
Banking & insurance	712	742	754	769	771	762	948	1,007	1,088	1,080	1,015
Government agencies, parties, social organizations	724	744	807	800	790	870	907	924	1,038	1,032	941
<u>Average</u>	<u>705</u>	<u>759</u>	<u>803</u>	<u>792</u>	<u>800</u>	<u>811</u>	<u>944</u>	<u>990</u>	<u>1,078</u>	<u>1,084</u>	<u>1,021</u>
<u>Percentage Growth Rates</u>											
Farming, forestry, animal husbandry, fishery	10	8	0	2	3	9	2	11	-1	-12	
Industry	9	5	-3	-1	-0	19	3	9	2	-5	
Geological survey & prospecting	8	8	0	1	0	17	7	5	1	-9	
Construction	7	4	-0	2	2	22	7	6	0	-8	
Transportation, postal and telecommunications	8	4	-2	1	0	20	5	9	2	-5	
Commerce, food services, supply, storage	7	5	-1	-0	-0	23	2	9	1	-3	
Real estate management, public residential	8	5	-2	1	4	14	6	10	1	-7	
Health care, sports & social welfare	2	12	1	4	2	7	6	11	-1	-5	
Education, culture, art, radio, TV	5	11	-0	10	1	7	13	6	-3	-3	
Scientific research, polytechnic services	6	10	-3	-1	13	5	5	10	-0	-6	
Banking & insurance	4	2	2	0	-1	24	6	8	-1	-6	
Government agencies, parties, social organizations	3	8	-1	-1	10	4	2	12	-1	-9	
<u>Average</u>	<u>8</u>	<u>6</u>	<u>-1</u>	<u>1</u>	<u>1</u>	<u>16</u>	<u>5</u>	<u>9</u>	<u>1</u>	<u>-6</u>	

Table 12: CHINA: AVERAGE ANNUAL WAGE OF STAFF AND WORKERS IN URBAN COLLECTIVE-OWNED UNITS BY SECTOR

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<u>Yuan in Constant 1980 Prices</u>											
Farming, forestry, animal husbandry, fishery	414	438	478	507	523	524	586	607	688	706	679
Industry	546	571	622	628	631	641	734	790	823	837	823
Geological survey & prospecting	657	688	709	702	743	784	854	830	907	869	845
Construction	650	701	716	718	760	794	875	897	939	966	927
Transportation, postal and telecommunications	653	603	697	684	730	734	804	840	888	890	859
Commerce, food services, supply, storage	511	535	570	565	566	568	696	739	788	799	786
Real estate management, public residential	511	568	593	581	608	642	701	776	827	839	799
Health care, sports & social welfare	530	561	618	631	703	720	758	795	924	907	911
Education, culture, art, radio, TV	347	365	433	422	500	501	578	635	720	723	697
Scientific research, polytechnic services	547	538	571	650	574	703	821	857	900	923	949
Banking & insurance	576	614	640	638	638	647	730	770	877	865	841
Government agencies, parties, social organizations	498	502	538	600	589	669	807	853	936	958	956
<u>Average</u>	<u>554</u>	<u>583</u>	<u>623</u>	<u>626</u>	<u>642</u>	<u>654</u>	<u>740</u>	<u>788</u>	<u>833</u>	<u>845</u>	<u>827</u>
<u>Percentage Growth Rates</u>											
Farming, forestry, animal husbandry, fishery		6	9	6	3	0	12	4	13	2	-4
Industry		5	9	1	0	2	14	8	4	2	-2
Geological survey & prospecting		5	3	-1	6	6	9	-3	9	-4	-3
Construction		8	2	0	6	4	10	3	5	3	-4
Transportation, postal and telecommunications		-8	16	-2	7	0	10	4	6	0	-4
Commerce, food services, supply, storage		5	7	-1	0	0	23	6	7	1	-2
Real estate management, public residential		11	4	-2	5	6	9	11	7	1	-5
Health care, sports & social welfare		6	10	2	12	2	5	5	16	-2	0
Education, culture, art, radio, TV		5	19	-3	19	0	15	10	13	0	-4
Scientific research, polytechnic services		-2	6	14	-12	22	17	4	14	-6	3
Banking & insurance		7	4	-0	0	1	13	6	14	-1	-3
Government agencies, parties, social organizations		1	7	11	-2	14	21	6	10	2	-0
<u>Average</u>		<u>5</u>	<u>7</u>	<u>0</u>	<u>3</u>	<u>2</u>	<u>13</u>	<u>7</u>	<u>6</u>	<u>1</u>	<u>-2</u>

**Table 13: CHINA: COMPOSITION OF WORKER WELFARE FUND, STATE-OWNED ENTERPRISES**  
(in billion yuan)

Year	Total	Leaves & retirement & layoff	Medical fund	Funeral & death	Collective welfare services & facility	Other/a
1978	6.69	1.41	2.73	0.26	0.87	1.41
1979	9.21	2.61	3.17	0.37	1.18	1.88
1980	11.60	4.01	3.64	0.38	1.44	2.13
1981	13.24	5.05	3.90	0.39	1.64	2.26
1982	15.38	5.89	4.44	0.40	1.88	2.77
1983	17.95	7.08	5.00	0.44	2.15	3.28
1984	21.04	8.16	5.54	0.58	2.93	3.83
1985	26.68	11.24	6.46	0.53	3.29	5.16
1986	33.55	13.42	8.49	0.64	3.61	7.39
1987	40.67	16.42	10.75	0.73	4.26	8.51
1988	53.34	20.90	15.12	0.92	5.26	11.14
1989	62.81	24.52	18.60	1.15	5.80	0.86

/a Other includes poverty subsidies, cultural expenses, transportation subsidies, and birth control planning expenses.

Source: State Statistical Bureau, Zhongguo Laodong Gongzi Tongji Nianjian (1990), Beijing: Chinese Statistical Press, 1989, p. 402.

Table 14: CHINA: INVESTMENT IN HOUSING

	1982	1983	1984	1985	1986	1987	1988	1989	1990
<u>Investment in Construction (Y billion)</u>									
State-owned	16.99	16.71	16.89	24.85	24.29	25.70	29.23	25.35	37.02
Urban collectives	0.90	1.10	1.22	1.69	1.88	2.13	2.62	2.11	17.81
Rural collectives	0.90	0.78	1.80	1.37	1.37	1.66	2.74	2.16	1.64
Urban individuals	1.20	1.56	2.71	4.94	6.54	9.00	14.01	12.60	11.03
Rural individuals	15.70	21.45	23.94	31.32	38.86	48.72	58.10	64.17	64.98
<u>Total</u>	<u>35.71</u>	<u>41.61</u>	<u>46.56</u>	<u>64.16</u>	<u>72.94</u>	<u>87.21</u>	<u>106.70</u>	<u>106.38</u>	<u>132.48</u>
Urban individuals as % of state-owned, urban collectives and urban individuals	6	8	13	16	20	23	31	31	16

Table 15: CHINA: CAPITAL AND WAGE COMPARISON

	1979	1980	1983	1988
<u>Industry</u>				
<u>Assets (Y billion)</u>				
State-owned	346.67	373.01	476.78	879.52
Urban collectives	20.91	NA	37.18	93.69
Township enterprises	12.80	NA	23.94	73.87
<u>Employment (million)</u>				
State-owned	32.08	33.34	36.32	42.29
Urban collectives	13.28	14.28	15.73	18.50
Township enterprises	8.42	9.13	10.21	14.95
<u>Assets per Worker (Y)</u>				
State-owned	10,806	11,188	13,127	20,797
Urban collectives	1,575	NA	2,364	5,064
Township enterprises	1,520	NA	2,345	4,941
<u>Ratio as % of State-Owned</u>				
Urban collectives	15	NA	18	24
Township enterprises	14	NA	18	24
<u>All Sectors</u>				
<u>Average Wage (Y)</u>				
State-owned		803	865	1,853
Urban collectives	642	623	698	1,426
Town & village enterprises	NA	397	543	1,106
<u>Wage as % of State-Owned</u>				
Urban collectives	77	78	81	77
Town & village enterprises	NA	49	63	60

Sources: China Statistical Yearbooks, 1981, p. 195; 1984, pp. 185, 1987, 262, 269; 1989, Tables 4.10 p. 84, 4.12 p. 87, 4.35 p. 110, 5.64 p. 207, 6.14 p. 252, 6.23 p. 273; Almanac of China's Economy 1982, p. 229 (FBIS); Socialist Economic Development, 1981, Table 7.5 p. 381; and Yearbook of China's Agriculture 1990, p. 364 (Chinese).