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# Adjustments to labour shortages and foreign workers in the Republic of Korea

by

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# Foreword

The two studies that follow have been elaborated under the auspices of the Migration for Employment Programme of the ILO. They arose out of a United Nations Development Programme (UNDP) TSS1 assignment in the Republic of Korea that was co-sponsored by the Ministry of Labour's Korea Labour Institute. Since the late 1980s, the country's phenomenal growth had begun to draw in workers at the low end of the skill level from other Asian countries, whereas the rudimentary foreign labour policy envisaged only the more or less temporary employment of highly skilled foreigners. The reasons and durability of the intake of unskilled workers from abroad were not altogether easy to investigate because the phenomenon was new and practically undocumented. UNDP and the Korea Labour Institute, therefore, agreed to carry out an enterprise-level survey in small- and medium-scale manufacturing firms to generate data, as well as to undertake a broad-based assessment as to whether the apparent shortages of domestic labour were of a structural or passing nature; and they asked ILO to take care of these two tasks. The Korea Labour Institute, under the inspiration of Young-bum Park, handled the practical aspects of what is referred to hereafter as the ILO/KLI survey; and ILO's Manolo Abella visited some of the enterprises and oversaw the processing of the data and the writing up of the results, which constitute the first section (A) in this new series of "International Migration Papers". Roger Böhning, also from the ILO, gathered information on labour market developments in Seoul in April this year and presented his assessment at a public workshop in the Korea Small Business Institute of the Korea Federation of Small Business. The revised version of his presentation constitutes the second section (B) of this paper, the original version of which has been published in Korean by the Korea Small Business Institute.

Both contributions are well worth being made available to a larger public and, indeed, are relevant to policy makers beyond the confines of the Republic of Korea - in countries such as Malaysia, Japan, Taiwan (China), Thailand, etc. The enterprise and labour market structures of the Republic of Korea may not be the same in other fast advancing Asian countries; and the sectoral labour shortages may differ. What one does find in all of these Asian countries are labour shortages in what Böhning refers to as bottom-wage dead-end jobs, or "undesired" jobs as he calls them. These exist in many and perhaps all sectors and enterprises. Developments seem to cluster them in small-scale industrial and service activities where national workers increasingly desert them, largely because they are able to pick up work that is more acceptable to them. The resulting gaps, inevitably, tend to be filled with foreigners, whose lack of knowledge of local labour markets and status conditions as non-residents render it easy for employers to exploit them. That, as both authors affirm, need not be so and should not continue. There are various ways to organize the employment of migrant labour such that employers do not loose the incentive to engage them and foreign workers can enjoy rights and conditions in keeping with internationally established norms.

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# A. LABOUR SHORTAGES AND FOREIGN WORKERS IN SMALL FIRMS OF THE REPUBLIC OF KOREA

by

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# 1. Background

Over the last few years the admission of foreign workers has become an important issue in the Republic of Korea. Although Korea has had a long history of relative isolation, the shortage of labour in certain occupations and jobs has lately drawn foreign workers into the country in increasing numbers. They have grown from a few thousands in the early 1980s to current estimates of anywhere from 60,000 to 100,000. Almost all of these workers are working in the country illegally. Because of their illegal status most receive wages and other terms of employment that are significantly inferior to those of Korean workers in the same occupations.

Up to now the immigration law of the Republic of Korea continues to restrict the admission of foreign workers to a few categories. Legal status is offered only to those who will be engaged in reporting, technology transfer, business, capital investment, education and research, and entertainment, or for employment that is recommended by a government minister. In general, the current immigration law does not allow unskilled foreign labor to enter Korea. They are however allowed to enter as "trainees". Nevertheless, it is believed that a large number of unskilled foreign workers have entered Korea for the purpose of employment in the last few years. Most undocumented workers enter the country on the strength of short term visas which are issued mainly to foreign tourists and to foreign nationals of Korean ancestry. The immigration authorities only get wind of their actual activities in the country after their stay extends beyond the period authorized by the immigration authorities.

There appears to be no consensus on the issue of foreign labour within the Government and among different social sectors because of differences in views on the probable social and economic impact. The Ministry of Trade and Industry and the Ministry of Energy and Resources agree with the business sector's claim that the import of foreign labour is necessary to ease the current labour shortage problem. On the other hand the Ministry of Labour and the Ministry of Justice oppose it. The trade unions have opposed the importation of foreign labour because of fears that foreign workers could bring down working conditions of Korean workers and take jobs away from marginal workers.

This lack of consensus has led to ambivalence shown by the authorities in implementing the current immigration law. When the Korean government offered amnesty to undocumented foreign workers in June 1992, those who reported to the authorities were allowed to stay in the country until December 31, 1992. Some 61,126 foreigners were then registered out of about 68,000 who had overstayed. The Government however later changed its mind and allowed them to stay for another six months. When this deadline approached the 9,145 remaining foreign workers were allowed to stay for another six months.

Of the 61,126 foreign workers who reported to the authorities in June 1992 some 22,035 were of Chinese nationality, 18,903 were Filipinos, 8,950 were Bangladeshis, 5,036 were Nepalese and 6,112 were of several other nationalities. By the end of 1993 the total number of foreigners working illegally in Korea may have reached 85,000 or more. According to the Immigration authorities the number of foreigners who had overstayed their visas at the end of 1993 reached 54,583. There may be, however, another 30,000 who are illegally working in Korea but who have not yet over-stayed their visas. Out of 54,583 over-staying foreigners at the end of 1993 about 41.5 per cent were Chinese-Korean, 16.2 per cent were Filipinos and 10.8 per cent were Bangladeshis.

The legal admission of "trainees" was originally intended for Korean firms with overseas operations or subsidiaries to bring to the Republic of Korea their foreign employees for skills upgrading. As the labour shortage intensified, the Korean Government began to use this opening in the immigration regulations as the avenue for accepting unskilled foreign labour. During the last half of 1993 up to 10,000 foreign trainees were allowed in for a period of one year to work in small establishments in selected industries which the authorities considered essential for Korea's

sustained economic development. By December 1993 their number had swollen to over 20,000 and their allowed period of stay was extended to two years.

The growing presence of foreign workers in Korea is a recent phenomenon which is closely related to the tightening of the labour market and the consequent wage explosion. The presence is still very small, and even insignificant in comparison to other industrialized countries, but the growth has been rapid and is likely to continue to be so if state policy allows it. If the unfilled vacancy estimates of the Ministry of Labour truly reflect the extent of labour shortage then the potential workplaces for foreign workers are already double to triple the present number of foreigners overstaying in the country plus those who have been admitted as trainees. For the small-scale manufacturing alone the labour shortage amounted to 120,220 in September 1993. For the entire economy a mere four per cent shortage rate for production workers already translates to about 250,000 workers.

In this paper we report on the findings of a recent survey undertaken by the Korea Labor Institute to shed light on the dimensions of foreign worker employment in Korea. The survey sought to generate insights into how small and medium sized enterprises in Korean manufacturing are adjusting to labour shortages in the labour market. In October 1993 the Korea Labor Institute fielded a survey team to interview managers of some 240 small and medium sized firms in Seoul and neighbouring industrial centres. The survey was purposely confined to certain sectors of the manufacturing industry where the labour shortage was known to be more acute. It was felt that in the interest of obtaining more information on micro adjustments to these shortages a sharper focus of the study was justified.

The 240 sampled establishments are in 14 industries of the manufacturing sector which qualify for access to foreign trainees by the Ministry of Trade, Industry and Energy (MTI) when the Foreign Trainee System was first introduced in 1992. MTI considered that these industries should stay in Korea for strategic reasons. Compared to the distribution of industries in the manufacturing sector as a whole the notable difference is the absence of firms in certain major sectors of employment such as food products and beverages, chemicals, automotive products, rubber and plastics, and non-metallic mineral products.

The surveyed establishments were located in Seoul (32.5 Percent), Kyounggi-do (47.9 Percent), Busan (16.7 Percent), and others (2.9 Percent).

In 1992, the average turnover of each of the sampled establishments was 6.9 billion won (about $8.7 million). Half of the establishments were engaged in exports which on the average amounted to US$ 3.9 million per firm. Table 1 below shows a profile of the industries where they belonged in more detail. The establishments ranged in size from the very small heat treatment factory with 6 workers to a fairly large electronics factory with 864 workers. The mean size is 105 workers but nearly 64 percent of the sampled establishments had less than 100 workers. Probably on account of the selection criteria many of the establishments (107 or about 45 percent of the sample) were found to be either currently employing foreign workers or had previously employed them.

**Table 1. Profile of respondent firms**

| | Total no. of workers | No. of firms | Smallest no. of workers | Largest no. of workers | No. of firms using foreign workers | Engaged in exports | Average turnover 1992 (million w) |
|---|---|---|---|---|---|---|---|
| Cast-iron | 1 652 | 20 | 12 | 230 | 7 | 10 | 5 473 |
| Forging | 455 | 4 | 52 | 185 | 1 | 1 | 7 197 |
| Heat Treatment | 510 | 13 | 6 | 155 | 8 | 1 | 1 735 |
| Gold Coating | 1 014 | 22 | 9 | 125 | 14 | 6 | 1 864 |
| Dyeing and Finishing | 2 726 | 32 | 20 | 229 | 26 | 18 | 4 056 |
| Machinery | 2 854 | 29 | 13 | 369 | 2 | 15 | 6 534 |
| Electrical Machinery | 4 021 | 39 | 13 | 645 | 4 | 14 | 6 810 |
| Electronics | 4 678 | 27 | 25 | 864 | 5 | 19 | 12 508 |
| Footwear | 2 194 | 21 | 17 | 283 | 5 | 16 | 4 523 |
| Leather Goods | 2 213 | 14 | 78 | 494 | 9 | 12 | 21 878 |
| Glass | 1 652 | 11 | 12 | 319 | 5 | 5 | 5 017 |
| Textile | 821 | 5 | 45 | 454 | 5 | 2 | 11 723 |
| Metal Fabrication | 289 | 2 | 66 | 223 | 2 | 2 | 5 480 |
| Coating with Paint | 12 | 1 | 12 | - | 1 | - | 230 |

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The following section sets out the various hypotheses about the labour market adjustments of Korea's small and medium sized enterprises which the survey aimed to test.

## 2. Adjustments to Labour Shortages by Korean Industry: Some Hypotheses

The emergence of tight labour conditions in Korea since the late 1980s is well documented and is attributed to the rapid growth of demand, on the one hand, and structural changes in the labour supply, on the other: the slow down in the growth of the labour force as a consequence of the early demographic transition, the exhaustion of the rural labour surplus, and the declining participation rate of the young (15 to 19 age group) in the labour force due to longer schooling. The current economic recovery merely accentuates a problem which has been developing for some time. At the same time it is also well recognized that the shortage affects different sectors of the economy differently as illustrated by the fact that large industries frequently have redundant labour because of legal constraints in laying off workers.

The *Monthly Labor Surveys* of the Ministry of Labor show that the labour shortage is primarily a problem for small-scale manufacturing industries. The latest survey shows that the rate of unfilled vacancies reached 7.53 per cent for the smallest-sized firms (10 to 29 workers) but was only 1.59 per cent for the largest-sized ones (500 or more workers). Why is the emerging labour shortage closely associated with size of enterprise?

In order to understand the problems of small industry in competing for labour in the labour market the present survey sought the views of managers and employers of the sampled firms on the reasons for the shortage *as they perceived them.* **Is the shortage seen to be a general problem or one peculiar to the small-scale industry sector? Is the shortage mainly true of skilled workers or of the unskilled as well? Do employers perceive an excess supply of educated workers? Is the supply of labour to small industry likely to be responsive to wage increases?** We examine each of these questions with the help of the survey data.

It is possible that the employers' subjective judgement may not be supported by objective conditions in the industry, but since such perceptions influence decisions on what measures to take to adjust to the labour shortage they constitute important datums for consideration. Where objective data ( e.g. growth of sales, wages) were provided by the respondents, it was possible to assess the objective basis of the reasons given; otherwise these had to stand on their own.

It has been argued (see Böhning in the second section of this paper) that socio-economic changes that come with rising levels of income and education should be expected to lead to shortages of workers in bottom end or what is referred to as **undesired jobs**. In increasingly affluent societies less and less people are willing to take on places at the bottom of job structures which are associated always with lower status and lower pay than other workplaces in the firm or the industry, but also frequently with the well known features of the so-called 3-D (or in Japan 3-K) jobs - dirty, physically demanding, and dangerous.

The problem of "undesirable jobs" is thus in a sense part of growth itself and not one that could easily be resolved through macro economic policies or through conventional labour market interventions by the state. There is however greater scope for reducing the number of undesirable jobs through action at the enterprise or micro level, although even here the matter of social distinctions remains difficult to resolve. In this report we also investigate the reasons given for labour shortage and hypothesize that they support the argument of a non-economic determinant of labour supply.

What measures do firms plan to take to cope with the labour shortage? One possible hypothesis is that firms would attempt to **minimize risk** by avoiding major investment decisions such as **relocating production** to other areas/countries or saving on labour through **automation**. They would be more likely to try tested methods such as asking workers to go on overtime, offering

more incentives for employees to stay, employing temporary workers during peak production seasons, or drawing on less preferred labour such as part-timers (usually housewives), older workers and the handicapped.

The measures that firms claim they are taking to cope with the labour shortage could be used to validate the reasons they have cited for the difficulties. For example, individual firms that plan to **raise wages** presumably see an elastic labour supply or one that responds to wage increments. The alternative hypothesis of course is that the market for labour is highly segmented and that generally the supply of labour is very inelastic. Where **training** is presented as the solution to the problem, one may assume that the firms do not see a general lack of labour but only of those with adequate skills.

The employment of irregular workers and foreign workers poses serious problems of interpretation. Both provide the firms with maximum flexibility since they can be easily laid off. Both entail lower labour costs because their wages are low relative to their productivity and because they do not raise the overall basis of labour compensation as the raising of the basic pay of regular workers would. Employing foreign workers, especially illegally, is attractive in other ways. Since they have few occupations open to them foreign workers are more likely to stay longer on the job than nationals. They are also likely to be more docile and to accept of long work hours and less vacations. **Would they be employed regardless of the labour market conditions simply because they are cheaper than their Korean counterparts ?**

Finally we look at the scope that firms see in saving labour through automation and why they have opted or not opted for such changes in production technology. While the information generated does not allow a more objective basis for assessing the degree to which firms have gone for automation such as would be possible through comparisons of productivity changes with changes in capital intensity over time, the survey does provide some information on what proportion of the firms have actually tried to automate and useful insights into the question why more firms hesitate to automate their operations. **Is lack of capital the main constraint to automation? The scale of operations? Or is it lack of knowledge about the technical possibilities?**

## 3. Dimensions of Labour Shortages

The survey confirms most of the characteristics associated with labour shortages in Korean industry. It is large. The shortage is worsening and is felt primarily by the smaller firms, although unevenly in different industries, and especially for blue collar positions. These are the jobs that tend to go a-begging as opportunities for better, more secure employment multiply in a rapidly growing economy.

While large industry has increased its share contribution to the national output, its share of employment has in fact declined reflecting the growing capital intensity of production. During the ten year period from 1981 to 1991 regular employment in the largest industries rose by 40 per cent to 2.1 million. The medium-sized industries employment rose more rapidly by 71 per cent while that of the smallest sector (5 to 49 workers) increased by 56 per cent. As a consequence the share of the largest industry sector in total employment dropped from 34.7 per cent to 27 per cent while that of the smallest sector rose from 30 to 37.8 per cent during the same period.

In our survey, the firms which were employing 25,091 workers in October 1993 had an overall vacancy rate of 9.2 per cent. This is considerably higher than the national vacancy rate reported by the Ministry of Labour for the boom year of 1991 when the unemployment rate declined to a record low of 2.3 per cent. The worsening of the shortage since 1985 is very evident from the surveys of the Ministry and our recent survey. Table 2 below shows that the shortage of labour of all types has worsened considerably since 1985. Our survey shows a 16.8 per cent vacancy rate for unskilled labour, which is lower than the 1991 rate reported by the Ministry but is nonetheless much higher than the overall average. The problem appears only slightly better for skilled workers

but the vacancy rate still was at a high level of 9.5 per cent, or slightly larger than the 1991 rate reported by the Ministry of Labour.

If these findings are indicative of the general trend in manufacturing as a whole then it raises questions about the validity of the assumption that the shortage is a passing phase which can be corrected by economic re-structuring. It would certainly have been much worse without it. Others have reported that investments by Korean companies in automation have risen at a very high rate of 9 per cent a year over the same period.

The worsening shortage of production labour reported by the Ministry of Labour has apparently continued despite these structural adjustments. The problem is felt generally but is very serious for the smallest enterprises. The ILO/KLI survey shows that the vacancy rate for all types of workers in the smallest size category, namely firms with less than 30 workers, was as high as 21.1 per cent or about five times worse than the shortage felt by those with 200 or more employees. This finding is consistent with the reports of the Ministry of Labour which likewise indicate that problems are greater the smaller the enterprise.

**Table 2. Measures of labour shortage: Surveys of Ministry of Labour (1989-1992) and ILO/KLI Survey (1993)**

| | Min. of Labour Survey | | | | ILO/KLI Survey |
|---|---|---|---|---|---|
| | 1985 | 1990 | 1991 | 1992 | 1993 |
| *By type of workers* | | | | | |
| Total employees | 1.8 | 4.3 | 5.5 | 5.7 | 9.2 |
| Office workers | 0.9 | 1.3 | 1.3 | 1.7 | 2.1 |
| Production | 2.4 | 6.9 | 9.1 | 8.0 | 12.2 |
| Skilled | 2.0 | 5.3 | 7.3 | | 9.5 |
| Unskilled | 4.9 | 16.2 | 20.1 | | 16.8 |
| *By Size of Firm* | | | | | |
| Less than 30 | | | | 9.5 | 21.1 |
| 30 - 99 | | | | 7.3 | 12.1 |
| 100- 199 | | | | 6.5[a] | 7.8 |
| 200 or more | | | | 3.3[b] | 4.7 |

N.B. The ministry of labour surveys conducted twice a year, March and September, cover mining, manufacturing, construction, and transport and storage.
Labour shortage ratio = unfilled vacancies/current employees.
Sources: For 1985 to 1991, see Table 3.8 in Uh, 1993; for 1993, see the ILO/KLI Survey.
[a] for firms with 100 to 299 workers; [b] for firms with 300 to 499 workers.

The shortage is clearly not only related to the size of the enterprise since industry differences in labour shortage are fairly marked. Some industries are inherently unattractive because they involve processes that pose dangers to health and safety of the workers, or are tedious and monotonous. These differences are indicated in our sample of industries in the survey. Industries that are generally considered dirty and unsafe such as chemical dyeing and finishing plants reported greater difficulties in finding workers than the others. Industry differences may also be on account of the higher complement of skilled workers needed in production such as in machinery production or in metal fabrication. From the data on the size of their current workforce and the number of additional workers needed shown in Table 3 below one would note the significance of industry differences which may be due to factors other than size.

Why do small employers have a more difficult time than the large ones in finding workers?

Because of the full employment situation that Korea has been experiencing since the early 1980s it is hardly surprising that firms would point to difficulties in recruiting the workers they need. What is worth looking at is whether the size of establishment affects their competitiveness in bidding for workers in the labour market. The survey sought the views of employers on what they considered to be the chief causes of their difficulties. The employers were grouped according to size of enterprise and their responses ranked according to importance.

**Table 3. Current workforce and additionally needed workers, by industry and skill (ILO/KLI survey)**

| | Non-production | | Skilled production | | Non-skilled | |
|---|---|---|---|---|---|---|
| | Current | Needed | Current | Needed | Current | Needed |
| Cast-iron | 537 | 10 | 713 | 74 | 402 | 58 |
| Forging | 125 | 12 | 282 | 37 | 48 | 2 |
| Heat Treatment | 213 | 36 | 288 | 43 | 9 | 14 |
| Gold Coating | 242 | 11 | 299 | 26 | 473 | 121 |
| Dyeing and Finishing | 648 | 14 | 1 408 | 235 | 670 | 158 |
| Machinery | 913 | 13 | 952 | 118 | 989 | 30 |
| Electrical Machinery | 1 658 | 16 | 1 679 | 118 | 684 | 74 |
| Electronics | 1 725 | 6 | 1 977 | 99 | 976 | 94 |
| Footwear | 421 | 4 | 996 | 44 | 777 | 71 |
| Leather Goods | 545 | 14 | 1 084 | 76 | 584 | 56 |
| Glass | 296 | 5 | 571 | 29 | 785 | 367 |
| Textile | 160 | 30 | 509 | 103 | 152 | 42 |
| Metal Fabrication | 88 | 5 | 67 | 28 | 134 | 38 |
| Coating with Paint | 6 | 0 | 0 | 0 | 6 | 0 |

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The ILO/KLI survey underscores the extent of the "mismatch" problem (see table 4). The predominant view, regardless of the size of firm, is that young people today disdain manual work. As many as 64.8 per cent of the firms interviewed claimed that today Korean workers are "avoiding hard work", meaning physically-demanding jobs. Cited as a poor second are the working and employment conditions in their respective industries which discourage or turn-off job-seekers. These refer to factory environment as well as to wages and financial benefits lower than those offered elsewhere. Both factors remind us of the now familiar avoidance of 3-K jobs in Japan and other industrialized countries.

**Table 4. Causes of labour shortage, by size of firm (per cent of firms)**

| | All reasons | Work too demanding | Wages too low | Few trained workers | Prefer large firms | High turnover | Working conditions | Information |
|---|---|---|---|---|---|---|---|---|
| *By size of firm* | | | | | | | | |
| Less than 30 workers | 100 | 65 | 9 | 6 | 9 | 9 | 3 | 0 |
| 30 to 99 | 100 | 65 | 11 | 10 | 6 | 4 | 4 | 0 |
| 100 to 199 | 100 | 64 | 10 | 13 | 5 | 2 | 6 | 0 |
| 200 and over | 100 | 65 | 20 | 10 | 0 | 0 | 5 | 0 |

What is a little surprising is why not many more firms consider low wages as the factor responsible for the lack of interest. Only 11 per cent of all the sample firms and 8.8 per cent of the smallest-sized firms blamed low wages in their industry as the reason for their difficulties in finding enough workers. The reason for this may simply be due to the fact that employers compare the wages they pay with those of others in the same sub-sector of industry. The firms in the sample are largely small and medium sized, with 64 per cent employing less than 100 workers. While the general pattern of wage structures in the whole economy is similar to other countries in that large firms pay better, our survey shows quite surprisingly that the smallest-sized industries pay their local production workers with high school education much higher wages than those paid by the larger firms (see also table 6 below).

Is it possible that employers recognize these jobs as bottom-end jobs that will not attract Koreans even if wages are raised? From the survey it was gathered that the characteristics of unfilled jobs are generally production jobs requiring hard physical labour. The employers interviewed put a lot of stress on the demanding nature of these jobs which Koreans now shun.

The well-known high mobility of workers in Korea did not feature prominently in the responses to the survey. We expected that many employers, especially the small ones, would complain of high turnover of employees as workers sought to improve their incomes, job security, or job satisfaction. Less than 9 per cent of the smallest firms complained of it and even less of the larger ones mentioned it. This has to be interpreted with caution because the reasons are not always mutually exclusive.

Finally, the survey raises doubts about the notion, shared by many in economic planning circles, that the problem lies in the lack of a well-functioning labour market **information system**. The assumption is that there are still workers who would seek out these jobs if only they were informed of their existence. Jobs will be filled if only more workers can get to know them without much cost or trouble. It is interesting to note from the survey, however, that only a handful of firms considered poor information as a possible cause of difficulties, and even then they considered it only as a minor issue.

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## 4. Coping with the Labour Shortage

How did the firms cope with the labour shortage? In principle the choices open to the firms are:

*Short-run adjustments*:
- more intensive use of the regular workforce through overtime;
- employ part-time workers, labour contractors, or foreign labour;
- cut down operations and reduce output.

*Long-run adjustments*:
- raise wages/offer other incentives for workers to stay;
- improve working environment and conditions;
- adopt labour-saving technology/automate operations;
- shift to less labour-intensive product lines;
- relocate factories to places/countries where labour is more abundant;

These choices are of course not mutually exclusive. The ILO/KLI survey found that a combination of these adjustments was used by many enterprises.

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Most firms are banking on short-run adjustments to ride out their difficulties. Less than 1 per cent of the firms plan on relocation of production to other parts of the Republic of Korea or abroad. Only 16.2 per cent plan on using automation as their key strategy to reduce the need for labour. Table 5 shows the relative importance given by the firms to the various possible options.

### 4.1. Raising wages

We expected that the main adjustment made by the firms would be to raise their wages and improve benefits so as not to lose their existing workers and to attract new ones. This would be consistent with the general "explosion" of wages in the Republic of Korea since 1987. The survey however showed that just slightly over a third of the firms planned or executed such measures. This could have been validated by the survey itself which sought information on actual changes in wage rates over three years following the worker's hiring by the enterprise but, unfortunately, the response was very poor.

**Table 5. Adjustments to labour shortage, by industry**

| | Degree of labour shortage | Modes of adjustment (per cent of firms in industry) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Raise wages[a] | Overtime | Automation | Foreign labour | Irregular workers | Reduce output | Worker incentives[b] | Relocate production |
| Cast-iron | 8.6 | 32 | 32 | 26 | 5 | - | 5 | - | - |
| Forging | 11.2 | 67 | - | - | - | - | - | 33 | - |
| Heat Treatment | 16.3 | 46 | 27 | 9 | - | 9 | - | 9 | - |
| Gold Coating | 15.6 | 17 | - | 22 | 33 | - | 6 | - | - |
| Dyeing and Finishing | 14.9 | 41 | 4 | 22 | 26 | 4 | - | 3 | - |
| Machinery | 5.6 | 42 | 33 | 17 | 4 | - | 4 | - | - |
| Electrical Machinery | 5.2 | 44 | 29 | 9 | 3 | 16 | 3 | - | - |
| Electronics | 4.2 | 25 | 25 | 37 | - | 4 | - | 8 | - |
| Footwear | 5.4 | 47 | 16 | - | - | - | 27 | 10 | - |
| Leather Goods | 6.6 | 27 | 55 | - | 9 | - | 9 | - | - |
| Glass | 10.8 | 29 | 43 | - | 14 | 14 | - | - | - |
| Textile* | 21.3 | - | - | - | - | - | - | - | - |
| Metal Fabrication* | 24.6 | - | - | - | - | - | - | - | - |
| Coating with Paint* | - | - | - | - | - | - | - | - | - |
| ***All industries*** | 9.2 | 36 | 24 | 16 | 9 | 5 | 5 | 4 | - |

[a] includes improvement of working conditions
[b] incentives for workers to stay longer, such as skill upgrading opportunities
* No firms responded to the question

How can this finding be reconciled with the macro situation known to be existing in Korea? One possible interpretation is that while firms have no alternative but to raise wages in line with trends in the industry, not many individual firms see the advantage in raising wages to get more workers. Such a measure is particularly expensive because it would be difficult to get away with raising bottom-level wages without changing all wages proportionately. Wage structures tend to be rigid and resist change because they reflect not only productivity differences but also social hierarchies at the workplace which would be difficult and risky to upset.

Some of the industries where the option of raising wages was mentioned most often were paying higher wages to their production workers than the average for all the firms in the sample. Average wages including allowances and other fringe benefits in forging, footwear, and cast iron industries exceeded 700,000 won a month. One interpretation is that these firms had already

implemented their plans to raise wages. But even these "better" employers were still paying wages lower than the average wage for all manufacturing in 1992, which the Ministry of Labor estimated at 799,000 won. Since average wages in manufacturing were already lower than for all industries it is not very surprising that the firms selected in the survey continue to face great difficulties in attracting workers.

### 4.2. More intensive use of present workforce

A quarter of the firms said they would try to extract more work from their regular employees by asking them to work overtime. Korean workers still put in more hours of work than their counterparts in most other countries, but there has been a long-term decline in hours worked especially in manufacturing. Weekly hours worked declined from a national average of 51.5 in 1980 to 47.5 in 1992 (see Choi,1993). The biggest reduction occurred in the two years 1989 and 1990 following the revision of the labour law which the invigorated trade unions had demanded. There are considerable differences among the different industries reported in the Ministry of Labor's *Monthly Labor Survey* of establishments. This latter series shows that larger firms, especially in continuous process industries like chemicals and petroleum, have shorter hours worked by workers per month compared with other industries, but among the latter the variation occurred within narrow bounds.

The ILO/KLI survey suggests that in the small industry sector hours of work are still long. This is easy enough to understand since unionization levels remain very low in small industries. The employment of foreign labour is also a factor as undocumented foreign workers tend to work much longer hours than the Korean counterparts. Table 8, column 3, shows that average hours worked per week by male foreign undocumented workers were a high 58.1 hours or about 2.8 hours more than the national average reported by the Ministry of Labor.

### 4.3. Sub-contracted labour and part-time workers

Korean firms have also resorted to using the so-called "despatched workers" from labour contractors, employing temporary workers, and also but to a much lesser extent to hiring part-timers. In the ILO/KLI survey only a small proportion of firms cited the use of such non-regular labour as a means to get around their staffing problems. This contrasts with the reported widespread use of such labour to escape the inflexibilities associated with regular employment. It is evidently also motivated by the fact that it is less costly than employing regular workers who must be covered by various benefits. Where the business is characterized by considerable volatility or seasonality, there are obvious advantages in such flexible employment arrangements. Labour contracts can be short-term, and temporary workers can be laid off without the obligation of giving one month's notice.

Part-timers on the other hand are employed much less frequently. In our survey they appear mainly in the electronics, electrical machinery and machinery industries. Other studies indicate that their use is limited because part-timers tend to be less reliable with rather high rates of absenteeism. Those who seek work as part-time workers are usually young mothers who frequently need to change schedules of work because of family responsibilities. It is also more difficult to organize production on the basis of using part-time workers since different stages of production have to be synchronized and balanced.

### 4.4. Hiring more women workers

In the Republic of Korea the employment of women grew by 30 per cent between 1985 and 1992, much faster than the growth of employment of men. If the shortage of labour is more acute for men than for women we would expect the small and medium sized firms to have more problems getting male workers and thus have a bigger proportion of females than males. In our survey women workers comprised only 28 per cent of the workforce of the firms compared to about 41 per cent for the whole of manufacturing in 1992. The survey sought to confirm if a shift to more female workers is indicated in planned additions to the workforce. The findings showed that sex ratio of the needed workers did not differ very much from the sex composition of the current workforce. Almost one out of every four workers needed was supposed to be a female worker, compared with a female component of 28 per cent of the current employment.

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### 4.5. Improving working conditions

It proved more difficult to assess from the survey the importance of **changes in working conditions** to deal with the problem of labour shortage. What are involved are qualitative changes which could not be captured adequately in a survey of this kind. In Table 5 the column showing the percentage of firms raising wages as a mode of adjustment also includes the idea of improvements in general working conditions. It is generally harder for small enterprises to embark on major investments to improve the factory environment. Many such firms are located in cramped industrial areas which, however, offer transport advantages for raw material sourcing as well as reaching markets over relocation to areas where more space is available. But the issue deserves further study since it suggests that industrial location policies have some significance on the labour supply. Some firms that relocated in suburban areas found it difficult to get more women workers because the residential population in neighbouring areas belong to upper middle income families who are not keen to work as production workers.

### 4.6. Use of cheap foreign labour

The employment of foreign workers is still a small-industry phenomenon in the Republic of Korea. The ILO/KLI survey indicates, as shown in the first column of Table 6, that while among the smallest sized firms (less than 30 workers) there was one foreign worker for every 4.4 nationals, the ratio was one to 23.2 among the largest firms. Overall, some 40 per cent of firms of all sizes currently use foreign labour, 5.4 per cent employed them in the past but no longer do so, and 23 per cent said they are not using them now but plan to do so in the near future (see table 7).

The Korean situation is similar to Japan's where, so far, the foreign workers have not made inroads into large industry. For a large modern industry such as the automotive industry there is an excess supply of national workers because of higher wages, employment security, and handsome employee benefits. But probably the more important reason for the foreigners' relative absence in large industry can be traced back to the lack of avenues for the legal

**Table 6. Foreign workers in total workforce (in per cent) and wage differentials between foreign and national workers, by size of firm and industry (wages in won)**

| | Per cent | Wage of foreign workers | Wage of nationals | Ratio foreign/national wages |
|---|---|---|---|---|
| *Size of firm* | | | | |
| less than 30 | 22.6 | 327 800 | 686 170 | 0.48 |
| 30 to 99 | 9.0 | 373 000 | 635 100 | 0.59 |
| 100 to 199 | 7.2 | 390 430 | 606 740 | 0.64 |
| 200 and over | 4.3 | 368 000 | 584 790 | 0.63 |
| *Industry* | | | | |
| Cast-iron | 5.4 | 433 330 | 719 760 | 0.60 |
| Forging | 4.4 | 442 000 | 758 750 | 0.56 |
| Heat Treatment | 10.2 | 298 130 | 695 770 | 0.42 |
| Gold Coating | 11.5 | 345 380 | 607 090 | 0.57 |
| Dyeing and Finishing | 9.4 | 385 000 | 646 630 | 0.60 |
| Machinery | 8.6 | 380 000 | 645 380 | 0.59 |
| Electrical Machinery | 5.2 | 314 330 | 594 870 | 0.53 |
| Electronics | 6.8 | 313 330 | 520 720 | 0.60 |
| Footwear | 6.7 | 360 000 | 740 550 | 0.49 |
| Leather Goods | 7.9 | 443 670 | 601 080 | 0.74 |
| Glass | 5.6 | | | 0.63 |
| Textile | 3.4 | | | |
| Metal Fabrication | 13.5 | 420 000 | 608 220 | 0.93 |
| Coating with Paint | 16.7 | | | |

Wage of foreign workers = wage of male foreign trainees.
Wage of national workers = wage of male high-school graduate for entry-level work in production activities

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**Table 7. Employment of foreign workers: past and future (per cent of firms)**

| | % | Currently | Previously | Future | Never |
|---|---|---|---|---|---|
| All Firms | 100 | 39 | 6 | 23 | 32 |
| *By size* | | | | | |
| Less than 30 workers | 100 | 39 | 3 | 22 | 36 |
| 30 to 99 | 100 | 40 | 4 | 23 | 32 |
| 100 to 199 | 100 | 41 | 7 | 20 | 31 |
| 200 and over | 100 | 30 | 9 | 35 | 26 |

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immigration of unskilled foreign workers. It will be noted that in the Federal Republic of Germany and in France there were officially sponsored programmes to bring in foreign labour for large modern industries through agreements with countries of origin. In contrast both the Governments of the Republic of Korea and Japan have so far resisted pressures from their business sectors to open the legal gates to the entry of most types of workers.

In the ILO/KLI survey there were 94 firms out of 240 that employed foreign workers. Altogether there were some 1,667 foreign workers and trainees in the surveyed establishments which had an aggregate workforce of 25,091 people. All the selected industries had some foreign labour, but in absolute numbers the largest absorbers of foreign workers were electronics, dyeing and finishing, machinery, electrical machinery, leather goods, and footwear.

The low cost of employing foreign workers must have been a big factor in the decision to employ them. Our survey shows that slightly more than two out of every three foreign workers employed by the surveyed firms were said to be "trainees". Table 8 shows that these were paid wages averaging just a little over half of what the Korean workers received. Even if the additional costs of employing foreigners are taken into account, the cost advantage is still substantial. Additional costs for lodging and food have been estimated by the respondents at about 30 to 40 per cent of the wages of the foreign workers. These kinds of estimates are, however, inherently problematic since the respondents were asked to put a value to the facilities provided. This proved difficult because most foreign workers were living inside the small factories which are workplaces during the day.

The survey clearly shows that foreign workers fulfil the function of cheap labour. The undocumented foreign workers are accepting wages that would not be accepted even by first-time entrants to the labour force in Korea. With such margins it is legitimate to ask if foreign workers would be substituted for nationals even if the latter were available. In the context of the current labour market situation this question is perhaps moot and academic, but it has implications on long-term policies on foreign workers. The wage "advantage" of foreign workers is very much the product of policy (or the lack of one) concerning the legal status of the migrants.

**Table 8. Comparative wages, hours worked and length of employment of Korean and foreign workers**

| | Monthly wage (thousand won) | Additional labour cost[a] | Working hours (weekly) | Length of employment (in months) |
|---|---|---|---|---|
| *Korean* | | | | |
| Male | 646 127[b] | | 55.3[c] | |
| Female | 513 556[b] | | 54.1[c] | |
| *Foreign Workers* | | | | |
| Male trainees | 371 520 | 126 550 | 56.6 | 10.0 |
| Female trainees | 336 875 | 148 750 | 55.0 | 9.4 |
| *Undocumented* | | | | |
| Male | 420 470 | 125 940 | 58.1 | 13.8 |
| Female | 406 660 | 74 830 | 56.4 | 25.5 |

[a] usually comprise cost of food and lodging
[b] includes all allowances and bonuses
[c] averages for production and related workers (1992), Ministry of Labour, *Monthly labour surveys.*

The survey did enquire why the firms drew on foreign labour supplies rather than on domestic supplies of older workers or part-time workers such as housewives. Of the responding firms, two-thirds claimed that **older workers and housewives cannot perform the intense**

**physical labour which younger foreign workers are able to perform**. About one out of every six claimed that they did try to hire older workers but they were not willing to work at the wages offered.

Table 8 shows that the trainees are even cheaper than the undocumented or illegal foreign workers. What this suggests is that **legalization through the "trainee system" would not be an attractive prospect for the illegal worker**. For the foreign male worker the survey indicates that he loses 13 per cent in monthly wages by becoming a trainee. The present trainee system is therefore likely to bring in **new** foreign workers rather than be an avenue for regularizing the illegals.

Productivity comparisons unfortunately are not possible with the data from the survey. Value added data were not sought because this would have overburdened the survey which was already difficult to administer. It is noteworthy that more than **a third of the firms cited higher productivity among foreign workers as one of the reasons why they decided to hire them.** A few even justified the use of foreign labour on the grounds that their presence would promote more competition at the workplace. It is not clear if foreign workers were more willing to work at lower wages than old people or housewives (the so-called "unused" labour) but employers commented that since most were young and able-bodied, they were better able to perform physically-demanding jobs in factories.

### 4.7. Saving labour through automation

We noted earlier that firms tend to favour short-run compared to longer-run adjustments to labour shortage. Our survey points to the problems faced by small industries in adopting more automation. It was not considered a major option by five out of every six firms in the survey. It was considered unfeasible in some industries like metal fabrication or forging, and only with some difficulty in the others.

This finding has to be reconciled with the broader picture of substantial increase in the capital intensity of Korean manufacturing during the past two decades. One of the indications of this is the decline in the elasticity of employment to income change. It is quite possible, however, that much of these is taking place in the large-industry sector. Our survey shows that the experience with automation is limited to some 32 firms out of 240 in the sample. Does this suggest the existence of technological dualism in manufacturing?

Two reasons dominate in the apparent difficulties with automation. Most of the small and medium sized firms shy away from it because of the large investments involved and because their production processes do not lend themselves easily to the change. From Table 9 it is seen that both reasons have been cited by firms in most industries. Moreover this is true regardless of the size of the enterprise (see Table 6).

Some enterprises drew attention to two other factors that influence their thinking on the matter. One is the risks involved in investing heavily in automation and the other is their lack of information about the technology choices open to them. Where the business is characterized by significant market volatility, the companies risk going under if they make a mistake on changing over to more automated techniques. The other is the lack of information as a constraint, which was however mentioned by only a few firms.

**Table 9. Constraints to automation in small manufacturing industry**

| Industry | Number of firms* | Constraints (per cent of firms) | | | |
|---|---|---|---|---|---|
| | | Financial | Technical | Risk | Information |
| Cast-iron | 14 | 71 | 7 | 22 | - |
| Forging | 2 | 100 | - | - | - |
| Heat Treatment | 9 | 67 | 11 | 22 | - |
| Gold Coating | 15 | 40 | 33 | 27 | - |
| Dyeing and Finishing | 29 | 51 | 35 | 10 | 4 |
| Machinery | 16 | 50 | 44 | - | 6 |
| Electrical Machinery | 14 | 50 | 21 | 14 | 14 |
| Electronics | 14 | 29 | 43 | 21 | 7 |
| Footwear | 16 | 50 | 25 | 25 | - |
| Leather Goods | 10 | 50 | 50 | - | - |
| Glass | 7 | 43 | 29 | 28 | - |
| Textile | 5 | 80 | 20 | - | - |
| Metal Fabrication | 2 | - | 100 | - | - |
| Coating with Paint | 1 | - | 100 | - | - |

* only 154 firms out of 240 responded to the question. Column shows number of firms that responde

In the event that the employment of foreign workers is prohibited by Government in the future, what would the firms do to cope with the labour shortage? Slightly over half of the firms would invest in automation, according to the survey. Only a few firms claimed that they would move their factory to another location, and only one could think of investing abroad. Thus, in spite of the difficulties and risks involved, automation is still considered a better option compared with relocating factories, especially outside the Republic of Korea.

# 5. Impact of Foreign Labour on Korean Labour Market

## 5.1. Impact on wages

Has the presence of foreign workers pulled down average wages in the industries concerned? This is an important question that has been asked many times in countries where sizeable migrant worker communities are present. The problem is theoretically straightforward since any increase in labour supply will tend to bring down equilibrium wages. But in the case of a country like the Republic of Korea where the number of foreign workers is still marginal it is highly unlikely that they can have an impact on wages. It is more likely that the association between low wages and the employment of foreign workers is not because the latter has caused the former but because only unskilled foreign labour are available to pick up low productivity jobs.

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### 5.2. Impact on the employment of older workers and the handicapped

The small and medium-sized industries in the sample appear to make very little use of older people or the handicapped. Only 1.5 per cent of the current workforce of the sample firms come from these so-called "unused" labour categories. Another 3.7 per cent of their current workforce are those who were exempted from military service.

About three-quarters of the firms claimed that these less-able workers are not suitable for employment in their firms either because of the intense physical work involved or because of the poor working environment in their factories. A very small percentage referred to wage demands as a problem, and an even smaller percentage mentioned productivity differences.

**Table 10. Preference for foreign workers over older workers and housewives**

| Reasons given | Percentage of firms |
|---|---|
| Production involves intensive physical work | 60 |
| Foreign workers accept low wages | 17 |
| Poor working conditions not acceptable to older workers and housewives | 17 |
| Foreign workers are more productive | 6 |

Foreign workers were preferred over housewives and older workers for the very same reasons. Table 10 shows the reasons given by the firms that hired foreign worker for not taking the latter instead. Six out of every ten such firms claimed that foreign workers could do the intense physical work demanded in their factories which women and the elderly workers cannot perform.

## 6. Summary of Major Findings and Conclusions

What this survey sought to achieve is to provide insights into how small and medium sized enterprises in the Republic of Korea are adjusting to tight labour market conditions that are likely to persist for some time. Size of the enterprise is very often a factor facilitating or constraining the direction and speed of adjustment as it determines what technologies would be profitable, how competitive it would be in the product markets as well as in the factor markets - capital and labour, and how it would assess risks and future uncertainties. It has generally been observed in Korea and elsewhere in East Asia that the structure of production is an important source of flexibility allowing industries to organize production in a way that enhances their ability to withstand external shocks and other disturbances, promote growth, and raise the overall return to capital. Viewing the problem of adjustments from the position of the small firms is therefore advantageous and likely to give better leads into how the emerging phenomenon of foreign workers would further develop in the future.

From this brief report on the findings of the survey the following observations and conclusions can be culled:

1. It is clear that "excess demand" for labour is severe, especially for the smallest firms in Korean industry. The excess demand exists in all industries but in varying degrees, and is especially true of unskilled production workers. It is the main factor responsible for the foreign labour phenomenon in the Republic of Korea.

2. The difficulties with finding workers are related to size of the enterprise, wages offered by the firm and the growth of enterprise sales, but the relationship is rather weak. At the micro-

level, economic units see the labour shortage as a problem of "mismatch" which is worsening because of changing attitudes to blue collar occupations among the national workforce.

3. It would be unrealistic to expect small firms to adjust to the labour shortage by changing production technologies or by relocating plants or factories offshore. The firms would opt first to make more intensive use of their present workforce, hire foreign workers or, if necessary, automate their operations before considering relocation. A high proportion of the firms have already employed foreign workers or are planning to hire them in the future.

4. Foreign labour is much cheaper to employ than Korean nationals even if account is taken of non-wage labour costs. The "trainee" system brings down further the cost of labour. In the absence of foreign labour supplies, firms would be pressured into progressively shifting to labour-saving technologies. The shift will not however be automatic. Policy measures would be needed to induce such shifts, including those that reduce product market instabilities and improve the access of firms to capital markets.

5. The expansion of the "trainee system" will evidently create a pool of cheap foreign labour, somewhat ease the labour shortage, especially for the small-industry sector, but delay structural adjustments. The more sensible alternative to a continuation of the trainee system is one that does not create a cost advantage to hiring foreign workers. This would require that the entrant policy be amended to remove the cost advantage by for example equalizing wages with Korean workers.

6. The survey findings are consistent with the hypothesis that the shortage is a manifestation of an excess supply of "undesired jobs" since the shortage is most felt in the case of unskilled, low wage labour, in the smallest size firms. The survey did not go further to examine the other characteristics of such jobs. However, the fact that firms did not see the solution to their problems in just raising wages suggests that the jobs involved are indeed the "bottom-level" jobs that people consider undesirable.

7. Automation is not an easy option for many small and medium sized enterprises because of the nature of their production processes and because of the costs involved. Many firms are not well informed about automation and consider it a risky proposition.

8. The use of secondary labour such as older workers and part-time housewives will not solve the labour shortage problem in small manufacturing industries because firms need younger workers able to do hard manual labour.

9. And finally, there is no evidence that the labour market is not functioning well to allocate labour. Because of the general shortage of labour, job seekers can afford to have high reservation wages. Firms do not attribute their difficulties to lack of information but to their uncompetitive position vis-a-vis big industry in the labour market.

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## B. UNDESIRED JOBS AND WHAT ONE CAN DO TO FILL THEM: THE CASE OF THE REPUBLIC OF KOREA

by

**W.R. Böhning**

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# 1. Introduction

The purpose of this paper is to sift through some basic evidence on the complex question why certain workplaces are viewed as "undesired" by Korean workers, whether their existence is a passing or structural phenomenon, and what policy options the Government has to fill them. [1]

# 2. Characteristics of undesired jobs in the world at large

In a society where everyone (or almost everyone) is poor, all poor people will want to take any employment available because it provides income. The social status associated with it matters little. The more well-off a society becomes, the less people feel compelled to accept jobs; the more alternative opportunities they have; and the more important is, in their eyes, the social status deriving from a particular workplace.

Societies attach a social value or prestige to different kinds of jobs. Industrial and post-industrial societies establish and maintain wage hierarchies that reflect not only the productivity of jobs but also their social ranking. Jobs that pay low wages are lowly valued; and those that both pay low wages and offer no real prospects of giving rise to better-paying jobs, are viewed as undesirable. This paper refers to bottom-wage and dead-end jobs as "undesired jobs".

The notion of undesired jobs trains the light on two facts. First, in many modern enterprises exist not only bottom-wage but also dead-end jobs. Second, few people desire such jobs. Some may have to be content with them because they possess no marketable skills and are without prospects of climbing up the job-cum-wage ladder. Others occupy entry-level jobs for skilled or qualified tasks that are paid little compared with the activities their incumbents expect to perform sooner or later. Workers in entry-level jobs do not rate them as dead-end jobs and they disregard their temporarily low level of wages. Furthermore, target workers — such as students, certain housewives or workers past retirement age — may pick up undesired jobs because they intend to work only for a while in them or because the job's lack of prestige or of career prospects does not worry them as they expect not to be associated with that kind of work for ever.

One will generally find that undesired jobs comprise unskilled activities. This is an empirical regularity rather than an analytically necessary component of the notion of undesired jobs.

The fact that they are bottom-wage jobs is the essential defining feature of undesired jobs. They may also be precarious or what the Japanese call 3-K jobs (from kitanai, kiken, kitsui), referred to in English as 3-D jobs, i.e. jobs that are dirty, dangerous or demanding. While this may actually often be the case, analytically speaking it need not be so. For example, a night-watchman's job is not inherently precarious, whereas a marketing manager's may well be. A server's duties in a restaurant are rarely dangerous compared with those of a commercial pilot. An assembler who is packaging electronic goods may not dirty his hands more than a physician in a hospital does. And

[1] The information used herein was gathered during a short mission to Seoul under UNDP (TSS1) auspices in April 1994. I am most grateful to Dr. Young-bum Park, Senior Research Fellow, Korea Labor Institute, for the help extended.

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a lawn tender in a public garden probably does not perform a demanding job, while a government official may hardly be able to accomplish all the work that he is pressured to carry out. Whereas 3-D is now a popular and accepted notion, it lacks precision. The concept of undesired jobs puts the emphasis on criteria - low wages and unpromising upward mobility in an enterprise - that can be applied throughout industries or occupations. It is clear in principle and easy to envisage analytically, even though the cut-off point to better-earning jobs with career prospects can be somewhat difficult to determine in practice.

Broad industrial or occupational data on high vs. low-wage sectors do not necessarily identify undesired jobs as such. What one has to focus on are individual or groups of enterprises within industries or among occupations. Moreover, entry-level jobs in an industry or occupation may be even less well remunerated than dead-end jobs in the same industry or occupation.

Bottom wages in dead-end jobs make people behave in ways not caught by notions such as "reservation wages" because of the interference of non-economic factors. Social factors make people refuse undesired jobs even if the actual wages offered are higher than other industries', occupations' or enterprises' - simply because they are socially devalued and careerwise dead-end jobs in a particular enterprise. By the same token, people may be quite prepared to work with wages that are lower in absolute terms than the wages in what they view as undesired jobs - because the social depreciation of these bottom-wage jobs is not the key factor of appreciation. Low-wage service activities compared with low-wage industrial work are an example: service work frequently tends to be valued more highly than industrial activities.

In contemporary societies, undesired jobs have become prominent and varied through modernization, which has created increasingly heterogeneous tasks to be performed. In the beginning, it was the peasants who viewed their jobs as undesirable relative to factory, mining or construction jobs — the latter generated more income - so they left the land. Some of their daughters became maids, either because they also wanted to leave the land or because they were target workers, lacked other opportunities or skills. Industry and mining paid quite attractive wages for a long time, but eventually low-level blue-collar and mining jobs were shunned by new labour market entrants, and the same happened in construction — not by any means in a linear fashion, because variations in labour demand could raise an industry's, occupation's or enterprise's wages in absolute terms relative to others. But the long-term trend was ubiquitous.

This development is schematically represented in figure 1 hereunder. Although this figure gives the impression of resembling portrayals of the evolution from agrarian to industrial and then to what is now called transformational societies (see Castells and Aoyama, 1994), this is fortuitous and due to the fact that in any economic sector there is always a certain proportion of bottom-wage and dead-end jobs. The proportion does not constitute a constant share of a sector's workplaces: it varies in relation to the heterogeneity of a sector's enterprises and their wage hierarchies.

Since there are always undesired jobs in any economy, modernization tends increasingly to locate them in the service sector, notably among producer and social services, hotel and catering or occupations such as clerks, retail and other sales personnel.

The problem with undesired jobs is that the going wage will clear the labour market only if people have no choice in accepting them or if they are entry-level or target workers who can neglect the non-pecuniary costs of occupying them. When individuals and households become more and more prosperous, the potential supply of workers for undesired jobs diminishes and undesired jobs increasingly stay unfilled.

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Figures 1 & 2

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## 3. Fundamental causes of the existence of unfilled undesired jobs in the Republic of Korea

The fundamental reasons for the existence of unfilled undesired jobs are the following:

(i) *in relation to the supply of labour*, growing personal or household prosperity, increasing urbanization and education;

(ii) *as regards the workplaces offered by employers*, intensifying bifurcation of the labour market.

As the remarkable development of the Republic of Korea is widely known, this paper can confine itself to a few brief allusions.

Growing prosperity in the Republic of Korea can be portrayed summarily by reference to GNP per capita. Measured in constant US dollars, it amounted to no more than $105 in 1965 but to $6,468 in 1991 — one generation later !

Urbanization extended to only a third of the population in the mid-1960s but was enjoyed by three-quarters by the mid-1990s.

The education of the country's population has advanced in similar big strides (see, for example, Wang, 1990).

What is less well known is the intensifying bifurcation of the labour market in terms of the distinction between *small to medium-scale* and *large enterprises* and the *jobs and wages* that are offered by their employers. Bifurcation will escape one's notice if one operates with neo-classical models of homogeneous labour markets. Moreover, bifurcation is a structural rather than a passing phenomenon in today's advanced economies. Their labour markets become increasingly diverse and heterogeneous in terms of the productivity and wage differentials associated with small as compared with big enterprises. Small enterprises can rarely afford to pay the same level of wages and related benefits as big enterprises can, which tend to operate with the most modern technology and the help of a benign banking system.

In the Republic of Korea, bifurcation derives in part from the development philosophy pursued by the Government, which first promoted big enterprises and subsequently encouraged smaller ones. It derives more fundamentally from factors that are inherent in modern, advancing societies.

Modern economies have an infinitely more varied industrial and service tissue than backward economies; and they are subject to intensifying national and international competition. This competition will become still more acute with the implementation of the Uruguay Round. It will force Korea's big industrial companies to look for improved productivity and lower costs. Key elements in the big company's strategies are the out-sourcing to smaller enterprises of production components, especially of highly cycle-dependent and labour-intensive production lines, as well as the use of labour contracting firms ("dispatch workers" in the parlance of the Republic of Korea) to save overheads on workers who may not be needed by the big company continuously.

Simultaneously, the service sector keeps expanding. It typically does so in modern economies through the creation of enterprises that are both relatively small and labour-intensive. Personal and private services are by nature highly labour intensive as well as less productive than those of advanced services or big industrial enterprises. [1]

[1] Service sector demand is directly fuelled by rising prosperity which changes peoples' consumption habits. The Republic of Korea cannot be exempt from this development. For

Bifurcation has, *ceteris paribus*, two distinct impacts on wages. First, *it widens the wage gap between big and small firms*. Second, *it holds back wages in undesired jobs*.

The combined effect of these fundamental determinants relating to the supply of jobs is that unfilled undesired jobs gain in importance, i.e. labour shortages increasingly affect these kinds of jobs.

## 4. Empirical evidence of bifurcation in the labour market

The number of establishments in the whole of the economy surveyed by the Ministry of Labour rose by about two-thirds between 1981 and 1991 (see Ministry of Labour, 1993, pp. 64-5). The enterprises employing up to four persons, which are mostly run by individual proprietors with the help of family members, declined as a proportion of the total even though they grew greatly in absolute numbers. They did hire a larger share of total regular employees in 1991 (10.6 per cent) than in 1981 (8.9 per cent). These indicators are unclear as regards the bifurcation thesis.

The Ministry of Labour data indicate that the number of small enterprises (5-49 persons) rose strongly, from 11.2 per cent to 14.6 per cent during that ten-year period. Likewise, their share in all employees (not counting proprietors and family members) rose most strongly, from 30.4 per cent to 39.6 per cent. While in 1981 the number of these employees was over a quarter of a million lower than the number of employees in establishments with 300 or more persons, by 1981 the small enterprises employed over a million more employees than establishments having 300 or more workers. Unfortunately, the Ministry of Labour data are insufficiently detailed and comparable over time to pursue the analysis further.

We, therefore, turn to data from the Korea Federation of Small Business (n.d.) which pertain to the manufacturing sector and disregard establishments with less than five persons. Bifurcation is manifest if one looks at these statistics.

At the beginning of the 1980s, *small* enterprises (5-49 persons) made up 79 per cent of all those with five or more persons, while by 1991 their share had gone up to 87 per cent. If one calculates the proportion of their employees in the total workforce, the percentages are 18.3 and 33.7 respectively.

*Medium-scale* enterprises (50-299 persons) decreased from 17.6 per cent in 1980 to 11.6 per cent in 1991 as regards the number of establishments. The share of their workforce dropped also, from 31.3 per cent to 29.8 per cent.

*Big* enterprises (in excess of 300 persons) made up 3.4 per cent of all enterprises with five or more persons in 1980 but no more than 1.5 per cent in 1991, even though their absolute number grew slightly. The number of employees they had under contract was practically the same for the two years (it had peaked in 1988), but their relative proportion came down from 50 to 37 per cent.

example, whereas final household consumption of clothing and footwear grew by 5.7 per cent each year between 1987 and 1992, it grew by 9.7 per cent on recreation and education compared with an average rate of 8.9 per cent (source: EIU). Another indicator is the growth in restaurants in Korea during the 1980s, which grew more than twice as fast as GNP per capita (source: Park, 1991a, p. 26).

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Unionization, which is much freer to happen since 1987, reinforces bifurcation in so far as unions can more easily establish themselves, and be successful, the larger the enterprise. The degree of unionization therefore increases with the size of enterprises. [1]
And unions tend to drive up wages.

Strong evidence of bifurcation can be had from wage data. Manufacturing closed its wage gap towards other industries and services considerably between 1980 and 1992 (see Park, 1993b, table 4.6). Similarly, the occupational wage differentials between blue-collar (production) and white-collar (non-production) workers narrowed during the same period (see ibid., table 4.7). Much of this is due to the liberalization of union activities since 1987 and the high export demand for manufacturing goods in the subsequent years, from which the big enterprises were able to benefit most. Here the market clearly had its effect on wages. The same holds true for wage differentials by degree of schooling and sex (see ibid., table 4.8).

More importantly, however, the wage gap between the big and other firms widened, as the following table demonstrates, thus strongly supporting the notion of bifurcation in the labour market. This phenomenon can be dated to around 1987.

**Table 1. Wage structure by size of firm (biggest firms = 100)**

| Size of enterprise | 1980 | 1985 | 1987 | 1990 | 1992 |
|---|---|---|---|---|---|
| 10-29 | 93 | 90 | 88 | 74 | 73 |
| 30-99 | 99 | 91 | 91 | 77 | 78 |
| 100-299 | 97 | 90 | 90 | 81 | 83 |
| 300-499 | 102 | 99 | 98 | 94 | 90 |
| 500+ | 100 | 100 | 100 | 100 | 100 |

Source: Park,1993b, table 4.10.

Given the previous in-existence of the notion of undesired jobs in the Republic of Korea, no comparative time series are available on the wages employers offer for them compared with other jobs, to test the bifurcation hypothesis of widening disparities. Data cannot even be approximated by reference to unskilled and other wages.

## 5. Empirical evidence of labour shortages with special reference to unfilled undesired jobs

If the social and economic concepts presented so far are correct, there should be evidence of the recent appearance of unfilled undesired jobs in the Republic of Korea, as visualized schematically in figure 2 above (where the two heavy lines are meant to indicate the recent historical trends and the thin lines the variations occasioned by the ups and downs of the economy). Figure 2 is drawn up as it stands for heuristic reasons. The actual trend lines A1-Ax and B1-Bx will both be going up towards the right hand of the figure, i.e. over time. But the subsequent explanations, especially figures 3 and 4, will be easier to visualize if that fact is neglected in this qualitative, schematic explanations of developments in the Republic of Korea.

Many factors influence the point of time where, in such a figure, the employers' supply of undesired jobs exceeds the nationals workers' willingness to fill them. In the case of Korea, it could have occurred earlier or much later. The political liberalization of 1987, which in itself is

[1] See, for example, Park, 1993b, table 8.4; and Lee, 1994.

in large measure the result of economic modernization, is responsible for the cross-over in so far as it accelerated the latent bifurcation of the labour market.

The impression one gains by looking at figure 2 is one of the two trend variables constituting blades of scissors that are opening ever wider.

Some shortage of labour is natural in any expanding economy, and high demand or overheating will cause this shortage to rise. Increasing bifurcation should be visible in vacancies being disproportionate among *low-wage* (or *unskilled*) categories as well as among *small* enterprises. Table 2 documents this by reference to skill levels. Unskilled production workers' posts remained unfilled more often than skilled production workers' posts. The ratio of the two suggests that the economy's overall demand conditions impact more on the shortages of unskilled workers than on the shortages of skilled workers.

**Table 2. Unfilled vacancies as per cent of all production workers**

| | Overall rate (A) | Skilled workers | Unskilled workers (B) | Ratio of (B)/(A) |
|---|---|---|---|---|
| 1985 | 2.4 | 2.0 | 4.9 | 2.1 |
| 1987 | 4.8 | 3.6 | 11.1 | 2.3 |
| 1989 | 4.9 | 3.6 | 11.8 | 2.4 |
| 1991 | 9.1 | 7.3 | 20.1 | 2.2 |
| 1992 | 6.8 | 7.0 | 10.9 | 1.6 |

Source: Koo, 1994, table 3.

The UNDP-funded ILO/KLI survey of 240 small and medium-scale establishments in the manufacturing sector carried out in September 1993 confirms these differential shortages. They amounted to 10 per cent in the case of skilled production (blue-collar) workers and 17 per cent for unskilled ones. The rate for non-production (white-collar) workers was 2 per cent. The apparent re-acceleration of the economy's growth in late 1993 seems to have increased the labour shortages more dramatically for unskilled than for skilled workers if one compares the survey's figures with those shown for 1992 in table 2. [1]

Table 3 strongly underpins the expectation that the labour shortages would be bigger the smaller the enterprise. Whereas in 1985 the smaller and the bigger enterprises were less acutely affected by labour shortages than the medium-sized ones, since 1988 the intensity of labour shortages for production workers increased the smaller the enterprise. The same trend has set in for non-production workers. The ratios of shortages between small and big enterprises point to the strong influence of overall demand conditions on the intensity of shortages in small firms. [2]

[1] Unless the ILO/KLI survey picked up a disproportionate number of firms that were short of labour. For the survey, see Abella and Park in the first section of this paper.

[2] The ILO/KLI survey produced the following supporting data on unfilled vacancies as a percentage of the total number of employees: firms with less than 30 employees, 21 per cent; firms with 30-99 employees, 12 per cent; firms with 100-199 employees, 8 per cent; and firms with 200-299 employees, 5 per cent.

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**Table 3. Unfilled vacancies for non-production workers as per cent of all non-production workers and for production workers as per cent of all production workers, by size of firm**

| Size of enterprise | 1985 | | 1988 | | 1990 | | 1991 | |
|---|---|---|---|---|---|---|---|---|
| | Non-prod. | Prod. | Non-prod. | Prod. | Non-prod. | Prod. | Non-Prod. | Prod. |
| Total | 0.9 | 2.4 | 1.2 | 5.2 | 1.3 | 6.9 | 1.3 | 9.1 |
| 10-29 (A) | 0.8 | 2.4 | 1.2 | 10.2 | 2.2 | 15.2 | 1.5 | 15.3 |
| 30-99 | 0.7 | 2.9 | 1.3 | 7.8 | 1.1 | 8.9 | 1.8 | 12.1 |
| 100-299 | 1.3 | 3.0 | 1.4 | 5.4 | 1.2 | 7.1 | 1.3 | 10.3 |
| 300-499 | 1.1 | 1.9 | 1.1 | 3.6 | 1.0 | 5.2 | 1.2 | 7.9 |
| 500+ (B) | 0.7 | 1.6 | 0.8 | 2.6 | 1.1 | 2.3 | 0.9 | 3.3 |
| Ratio (A)/(B) | 1.1 | 1.5 | 1.5 | 3.9 | 2.0 | 6.6 | 1.7 | 4.6 |

Source: Ministry of Labour, 1985/1988/1991.

Looking at industries, the shortages of production workers exceed the average rate in, for example, apparel and leather.[1] One would expect to see more unfilled undesired jobs or, indeed, 3-d jobs in them than in other industries. The ILO/KLI survey's list of labour-short industries reads as follows: metal production, textiles, glass, dying and finishing, steel pressing and forging, and leather (in decreasing order of intensity of shortages).

Bifurcation is accompanied by a noticeable mismatch between college or university graduates and the labour market (see table 4). Less educated people seem to find jobs more easily than more educated ones. In the circumstances of Korea, this accords with both neo-classical concepts and the undesired jobs thesis put forward in this paper. The more intensive demand for low-level production jobs clears the market quite effectively. However, there simply are not enough workers willing to fill such posts; and the country's unskilled or semi-skilled workers have plenty of alternative opportunities. At the opposite end of the skill range, highly qualified workers can afford to spend much time searching for a suitable job because parents or households are sufficiently prosperous to bridge the period until the right job materializes.

**Table 4. Rate of unemployment by educational attainment**

| | Total | Junior high or lower | College or higher | Ratios | |
|---|---|---|---|---|---|
| | (A) | (B) | (C) | (B)/(A) | (C)/(A) |
| 1986 | 3.8 | 2.2 | 6.9 | 0.6 | 1.8 |
| 1988 | 2.5 | 1.3 | 4.7 | 0.5 | 1.9 |
| 1990 | 2.4 | 0.8 | 4.1 | 0.3 | 1.7 |
| 1992 | 2.4 | 1.1 | 3.5 | 0.5 | 1.5 |

Source: Park, 1993b, table 3.10.

[1] See Park, 1993b, table 3.8, which shows that the labour shortage ratio rose more rapidly in the apparel, leather and rubber industries, for example, than in the economy as a whole.

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# 6. Employers' appreciation of reasons for labour shortages

The ILO/KLI enterprise survey of manufacturing in the autumn of 1993 provides recent employers' responses to a battery of questions designed to shed light on the difficulties they have in attracting nationals. Table 5 presents some of the results. Seven out of ten employers attributed their labour shortages to the existence of 3-d jobs, which are shunned by nationals. Only one in ten singled out wage costs separately when asked to identify the causes, and one in four did so when asked to explain why non-regular employees were used in the firm. Since 3-D jobs tend to be also low-wage jobs, the survey implicitly points to the high incidence of unfilled undesired jobs in contemporary small and medium-scale enterprises in Korea. By contrast, the lack of technical skills (10 per cent) is a relatively minor hurdle in the eyes of employers. None of them referred to another category of a technical nature offered in the questionnaire, the lack of information on employment opportunities, when first-order causes of shortages were explored. This accords with our view that today's unfilled undesired jobs phenomenon is essentially socio-economic in origin.

**Table 5. Causes of labour shortages and motives for using irregular workers in manufacturing (first order reasons, in per cent)**

| Category of employer | Causes | | | | Motives | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevalence of 3-D jobs | Wage pressure | Lack of training | Other | Nationals shun manufacturing | Wage pressure | Seasonal fluctuations | Other |
| Total | 69 | 11 | 10 | 10 | 56 | 25 | 18 | 2 |
| Used foreigners | 83 | 6 | 7 | 5 | 71 | 7 | 21 | 0 |
| Never used foreigners | 58 | 16 | 13 | 14 | 42 | 39 | 15 | 3 |

Source: ILO/KLI survey. Figures do not add up to 100 due to rounding.

A question was addressed to employers who previously had been, or who were currently, making use of foreign workers, be it as trainees or as irregular workers. Two-thirds of them gave as first-order motive that it was difficult to employ nationals, one-third pointed to wage pressure. This confirms the role of foreign trainees or unskilled foreign workers in the Republic of Korea: they are hired to plug labour market gaps constituted by undesired jobs.

# 7. Can the Republic of Korea increase its supply of labour for unfilled undesired jobs?

## 7.1. Can one influence the fundamental factors?

One should distinguish between the long-run fundamental determinants of a country's labour supply, which do not respond easily or quickly to policies, and short-term variables which the Government can theoretically operate on. This is done in figures 3 and 4 hereunder

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by the use of continuous or broken lines. One must bear in mind, however, that the short-run factors are essentially subject to the long-run determinants.

As far as basic long-term factors impinging upon the Republic of Korea's labour supply in figure 4 are concerned, *population growth* is one of them. The country's demographic transition has already taken place, much more rapidly than, for example, in European countries. The reasons responsible for this are the Republic's tremendous economic development and encouragement by the Government. The annual population growth rate came down from 2.5 per cent in the mid-1960s, when the rate of fertility was still well above five, to around 1 per cent in the late 1980s, when Korean women gave birth to no more than 1.8 children. Both indicators are tending to decline further, albeit only slightly. In effect, with fertility below replacement level the Republic of Korea faces a declining population in the long term. A natalist policy by the Government could slow the population decline; but it is doubtful whether it would be able to reverse a trend that is linked fundamentally to modern consumer-oriented service societies. Future population growth, therefore, must be expected to widen the "scissors movement" depicted in figure 2 above. Figure 4 ranges it below the heavy trend line, which means that population growth aggravates the downward trend in the labour supply.

Stopping *urbanization*, which is quite impracticable in democratic countries, would actually have the effect of marginally reducing the supply of labour for undesired jobs that, to this day, trickles in from the countryside. Accelerating Korea's pronounced urbanization would very temporarily add to the pool of labour prepared to pick up undesired jobs but only marginally so because the age composition of the agricultural labour supply (see below) is inappropriate relative to the kinds of jobs that are vacant and which appear to suit younger rather than older workers. Neither stopping nor accelerating urbanization seems a very likely possibility. Both would actually have negligible labour supply effects. Therefore, urbanization is shown in figure 4 as continuing along its historical impact on the overall (heavy) trend line.

Recasting the *educational and vocational training system* presents a dilemma, and it may not be a policy variable at all where higher education is outside of government control. To fill undesired jobs does not require much education or skill. Education undermines workers' willingness to accept such jobs. On the other hand, the country needs to educate both its men and its women to an ever higher level if it wants, as it does, to compete with others in the era of globalization based on productivity growth. Education, like urbanization, in figure 4 is shown as not changing its central impact on the number of Korean workers who may be willing to fill undesired jobs.

A central long-run variable is the rate of *economic growth*. Tables 2 and 3 above suggest that labour shortages in unskilled or production jobs in small enterprises are highly sensitive to business conditions. Shortages were more pronounced when the economy overheated — as one would expect them to be. Now that the Republic of Korea is on the brink of turning into a high-income country with a diversified developed economy, one may anticipate a long-run decline in the rate of growth. It becomes more difficult to advance further and, statistically speaking, it takes a great deal more to advance by 10 per cent at a GNP per capita of US$10,000 than it does at US$1,000. Projections for the rest of the 1990s point to a growth rate of around 6 per cent compared with between 8 and 9 per cent since the time of democratization. It can safely be assumed, however, that rather lower growth rates and sizeable long-term unemployment would have to occur to induce more nationals to accept unfilled undesired jobs. That scenario is not on the horizon but indicated in figure 4 through a horizontal line, which - at a very rough guess - might correspond to a growth rate of 2-3 per cent.

With democratization and continuing prosperity goes the *development of the welfare state*. Public welfare is not responsible for the existence of unfilled undesired jobs — it is a reaction to societal needs that become visible and articulated. Support through welfare schemes does, however, render it somewhat easier for poor individuals and households to refuse undesired jobs. The introduction of unemployment benefits, planned for 1995, may well have a slight effect in that direction. A comprehensive old-age pension system would be without effect on undesired jobs.

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### 7.2. Room for short-run labour market policies?

Agriculture has historically been the main supplier of workers for industrial and other undesired jobs. It has lost about 100,000 workers each year since 1985. In 1992, its total share of employment was down to 16 per cent. By the year 2000, it is expected to have dropped to below 9 per cent. More to the point, the *youngsters have already largely deserted the farms* (see table 6), and it is they who constitute the prime supply for undesired jobs. There are less youngsters on the farm now than there are foreign workers in the country!

**Table 6. Persons employed in agriculture, forestry and fishing, by age group**

| | Total | 15-19 | | 20-24 | | 50+ | |
|---|---|---|---|---|---|---|---|
| | (000s) | (000s) | Percentage of total | (000s) | Percentage of total | (000s) | Percentage of total |
| 1985 | 3733 | 69 | 1.8 | 194 | 5.2 | 1488 | 39.9 |
| 1988 | 3484 | 32 | 0.9 | 103 | 3.0 | 1699 | 48.8 |
| 1991 | 3103 | 13 | 0.4 | 51 | 1.6 | 1847 | 59.5 |
| 1992 | 3025 | 12 | 0.4 | 44 | 1.5 | 1888 | 62.4 |

Source: Ministry of Labour, 1993.

Government measures designed to boost *labour force participation* generally and those of youngsters particularly through, for example, the encouragement of part-time work for women and the provision of creches for children, may be looked at as a relevant incentive to augment the labour supply for unfilled undesired jobs. Table 7 puts a damper on such hopes for the rest of this decade. And the long-term trends can be assumed to stabilize rates, except perhaps in the case of young women (where longer education would tend to decrease them) or possibly in the 25-49 years bracket for women (where the low number of births per woman may give more housewives time for work). The net effect will for simplicity' sake be assumed to be nil in overall terms as far as women are concerned. Given the greater weight of men than women in the labour force, the combined labour force participation rate in figure 4 pulls down the recent trend line of unfilled undesired jobs.

Since undesired jobs are frequently also 3-D jobs that employers tend to fill with young unskilled labourers, one ought to be wary of seeing the age bracket of *housewives* as an important source of labour for them. Employers are certainly less sanguine about housewives than government officials. A survey of 300 small and medium-scale employers by the Korea Institute for Industrial Economics and Trade (KIET) in October 1993 ranks this solution to the labour shortage problem even lower than training in both the short run and the long run, [1] and this in a situation where the lack of training was identified both in this survey and in the ILO/KLI survey as being a rather minor cause of labour shortages (see table 5 above). Unquantified employers' responses in the ILO/KLI survey suggest that housewives are often absent or leave work at frequent intervals; that they perform only a limited range of work; and that they do not accept night work. They also have a pronounced preference for service activities relative to industrial workplaces in small or medium-sized enterprises. In our opinion, housewives would represent a — numerically relatively limited — supply for unfilled undesired jobs in the *service* sector rather than in *manufacturing* (and certainly not in mining or construction) under two very different growth scenarios:

(i) a low growth situation, when their husbands are affected by unemployment; and

[1] KIET, 1993, table VII-9. This survey, too, covered only industries, not services.

(ii) in circumstances of overheating, when it might become irresistible to pass up the opportunity of gaining income quickly.

**Table 7. Projected labour force participation rates, by age and sex (in per cent)**

| | 15-19 | | 20-24 | | 25-49 | | 50-59 | | 60+ | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| 1991 | 10 | 17 | 57 | 65 | 95 | 47 | 88 | 60 | 50 | 27 |
| 1995 | 8 | 13 | 51 | 68 | 96 | 49 | 88 | 62 | 51 | 28 |
| 1996 | 8 | 12 | 49 | 69 | 96 | 49 | 88 | 63 | 52 | 28 |
| 1997 | 8 | 12 | 49 | 69 | 96 | 50 | 88 | 63 | 52 | 29 |
| 1998 | 7 | 12 | 49 | 69 | 96 | 50 | 88 | 63 | 52 | 29 |
| 1999 | 7 | 12 | 48 | 70 | 96 | 50 | 88 | 63 | 52 | 29 |
| 2000 | 7 | 12 | 48 | 70 | 96 | 50 | 88 | 63 | 52 | 29 |

Source: Ministry of Labour, n.d.

*Older workers* are frequently referred to by government officials as an unexploited source of labour, i.e. beyond those who were encouraged into firms with more than 300 employees by the 1991 Aged Employment Promotion Law. Table 6 above actually has their numbers increasing in agriculture where most of them are self-employed or family workers. In industry and some services, production workers are retired at the age of 55 or earlier. Not a few are said to be wanting to work longer. Employers, however, do not appear to view them as suited for unfilled undesired jobs, either because, due to seniority, they are relatively expensive compared with youngsters, or because they are less able to cope with modern technology and the concomitant working conditions. Whatever the truth of these allegations, if the Government were to raise the retirement age of production workers by several years, this would at best have only a small positive effect on the supply of workers for unfilled undesired jobs, namely to the extent that it would make it a little more difficult for youngsters to fill normal jobs not yet vacated by older workers and make it more urgent for young workers to pick up unfilled undesired jobs. As such a policy measure does not appear to be in the offing, figure 4 simplistically but realistically leaves out the category of older workers.

There is conceivably a more promising policy variable that one could consider: the number of *working hours*. Here, too, the secular trend is downwards for regular weekly hours (from 44.6 in 1982 to 41.6 in 1992) as well as for weekly overtime (from 7.4 in 1982 to 6 hours in 1992), which together have resulted in about 100 hours less work per person on an annual basis. The Government's room for manoeuvre would appear to be rather limited in the short run and non-existent in the long run. An appeal to the nation's disciplined workforce, if coupled with an exposition of labour import as the only alternative, might have a positive effect and reverse, albeit briefly, the decline of working hours; but the trend would continue unabated afterwards (as represented by the "hump" in figure 4 imagining a working hours "appeal" scenario). The secular trend is associated with growing prosperity, education and consumer societies throughout the world.

Employers set much store by increased working hours. The KIET survey just referred to puts it at the top of the list of possible solutions. In the ILO/KLI survey it occupied second place for past measures adopted to cope with labour shortages and third place for future measures if employers had no access to foreign workers. It is, of course, easier to ensure continued high production by calling on incumbents in undesired jobs to work longer than it is to find additional workers to fill these workplaces !

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Outside a contentious and not very probable one-off appeal, the hours-of-work variable will tend to reduce the supply of nationals for unfilled undesired jobs rather than to increase it, as indicated by its placement below the trend line in figure 4.

## 8. Which variables can be operated upon to have employers reduce the supply of unfilled undesired jobs?

If the domestic labour supply is an unpromising variable to act upon, can one close the growing gap between unwilling nationals and existing unfilled undesired jobs by reducing the supply of the latter? On the workplace supply side, one can make the same distinction between fundamental and short-run determinants as on the labour supply side, but there is only one long-term factor that need be considered — the rate of growth of the economy (see figure 3 above).

*Economic growth* impacts as much on the supply side of unfilled undesired jobs as it does on the supply of relevant workers. The arguments concerning the latter have already been set out in chapter 7. They apply mirror-like to the supply of undesired jobs. This is represented in figure 3 by a horizontal line as regards growth that is slower than the expected rate and by a slight inflection of the trend as regards anticipated growth of the order of 6 per cent. Overheating of the economy would inflate the stock of unfilled undesired jobs.

As regards factors that can be influenced by the Government in the short-run (broken lines in figure 3), many observers fervently hope that factory *automation* will wipe out the country's debilitating labour shortages. Employers appear to rank automation rather lower than government officials among their plans for coping with shortages. One in six employers gave this option first importance in the ILO/KLI survey (with no marked differences between those who had/were using foreign workers and those who never did). The proportion was similar in the KIET survey in respect of short-term solutions but climbed to nearly one in four in respect of possible long-term solutions. When the ILO/KLI survey asked how employers would rank their options in the event that they had no access to foreign trainees or foreign unskilled workers, more than half mentioned automation as a first-order response.

Care should be taken to draw overly optimistic conclusions from such proportions, for several reasons. Firstly, none of the surveys comprises data on automation by size of firms. Small enterprises, where undesired jobs abound, find it rather more difficult to automate than medium-scale firms (see table 8), while large enterprises have already moved on to robotization. Secondly, factory automation would, by definition, touch only on a part of the economy's labour shortages - those in services are another problem. Services constitute not only an increasing share of all vacancies in undesired jobs, but they are also a great deal less amenable to the installation of new technology or automation. Thirdly, for a great many enterprises automation is also a costly and risky matter. Three-quarters of the manufacturing employers surveyed by the ILO/KLI pronounced themselves on this subject, half in the KIET survey, as summarized in table 8. Unquantified information from the ILO/KLI survey suggests that automation may increase rather than decrease the number of undesired jobs, or the number of 3-D jobs, and that it sometimes calls for night shifts to ensure profitability. This was very much the experience in western Europe when the expansion of Taylorism necessitated the import of foreign labour. The difference between western Europe in the 1960s and the Republic of Korea today lies less in the character of Taylorism and the tedious,

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**Table 8. Employers' difficulties in automating for the purpose of reducing labour shortages, by size of firms (first-order reasons, in per cent)**

| | Too expensive | Difficulties in production process | Business conditions | Lack of information |
|---|---|---|---|---|
| ILO/KLI survey totals | 51 | 31 | 15 | 3 |
| - less than 30 | 33 | 43 | 24 | 0 |
| - 30 to 99 | 59 | 25 | 12 | 4 |
| - 100 to 199 | 43 | 33 | 19 | 5 |
| - 200 to 299 | 56 | 38 | 6 | 0 |
| KIET survey totals | 44 | 30 | 27 | 2 |

repetitive jobs that it entails than in the wages of these jobs. The workplaces filled by, for example, Italians or Turks were generally un- or semi-skilled, demanding and often dirty, but they were located in the medium-scale or big enterprises that paid attractive wages. The undesired jobs in Korea, by contrast, are at the bottom of the wage hierarchy in small or medium-scale enterprises.

In view of the uncertainties and possible contradictory effects surrounding automation generally and even factory automation, figure 3 assumes simplistically that the global net impact will not affect the historical trend line of the supply of unfilled undesired jobs.

A related idea that the Government could encourage, if it wished, is *relocation abroad*. This would involve undesired jobs to the extent that direct investment in capacity in another country searches out cheap labour and transfers the least skilled jobs. Employers, if one goes by the ILO/KLI and KIET surveys referred to, seem rather more reticent than the Government. Only 1 per cent or so mentioned it as a first-order solution. The reasons for this hesitation may be assumed to resemble those put forward in relation to automation; but they are possibly more constraining, especially the financial reasons, for firms situated in the middle or so of the size distribution of firms. These enterprises are important but not the main suppliers of undesired jobs — small ones are — and the relocation variable can, therefore, have but a limited impact on the historical trend line.

Still, employers' current perceptions may be insufficiently imaginative and the Government could inspire their imagination through financial incentives, information, etc. Wage push at home compared with beckoning labour supplies abroad could conceivably entice more employers in the manufacturing sector to relocate in, say, China or Indonesia. This could involve firms situated fairly far down the size distribution of enterprises — in the same way in which they are apparently more and more involved in exports of goods from the Republic of Korea. Western European and Japanese companies of a relatively limited size can be seen to invest abroad to a growing extent. If that were to come true also in the Republic of Korea, one might anticipate that foreign direct investment by such companies would slightly diminish the supply of unfilled undesired jobs, as indicated by the broken line in figure 3 that pulls down the historical overall trend.

Theoretically, the supply of undesired jobs can most easily be reduced by *raising wages* for them. Both the ILO/KLI and the KIET surveys record many employers opting for a category denoted as “raise wages/improve working conditions”. Guided as these surveys were by 3-D notions, the questions are unhelpful because they lump together an undesired jobs notion (bottom-wage dead-end workplaces) with a 3-D notion (dirty, dangerous, demanding jobs).

More importantly, bottom-level wages being the very essence of unfilled undesired jobs and wage hierarchies being quite rigid in the short and medium term in contemporary advanced societies, the raising of wages is not a realistic option for employers, least of all for small employers operating at the margin of profitability. Small firms, which constitute the bulk of the country's secondary labour market and main producer of undesired jobs, would have to raise wages

throughout the workforce because the next wage category up, and the next one, and so on, would request proportionate or even disproportionate increases so as to maintain the socially acceptable wage hierarchy. Formal and informal mechanisms in our societies ensure that wages are determined not only by supply-demand factors but also by socially and politically defined relationships between the remuneration of different skills and positions, on the one hand, and the social status or prestige attached to them (see chapter 2 above). Raising bottom-level wages in unfilled undesired jobs may in itself be difficult for an enterprise; as it would inevitably push up other wages, it might be impracticable and threaten the enterprise's very existence if competing employers did not follow suit. For these reasons, figure 3 does not include a wage variable.

By contrast, it includes a factor called *working conditions*. This variable could theoretically be improved by employers to the extent that it does not have the same cost implications as the wage variable; and the Government could financially promote such improvements. The concept of working conditions focuses on 3-D jobs. Such jobs are scattered throughout an industry, occupation or enterprise, but they cluster among undesired jobs. While 3-D jobs and undesired jobs are analytically distinct, they overlap empirically to a considerable extent. Improving working conditions does not remove unfilled undesired jobs; the stigma attached to the latter as low-status positions is unaffected; but they are a little more attractive when they are rendered less dirty, dangerous, demanding or less precarious or tedious. Empirically, therefore, the improvement of working conditions in small and medium-scale enterprises would have — as the employers indicate in both the ILO/KLI and the KIET surveys — some impact on the supply of undesired jobs. In our opinion, it would only marginally reduce them, as indicated by the broken line in figure 3 that is placed below the historical trend line.

## 9. Conclusions and recommendations

The evidence examined demonstrates a clear “scissors movement” between the volume of national workers willing to fill undesired jobs and the volume of such jobs put on the market by employers. The scissors have been opening ever wider since 1987. An increasing number of unfilled undesired jobs now form part of the economy of the Republic of Korea. The factors that impact on the future labour supply, when taken together, tend to *thin out* the country's workforce willing to fill undesired jobs. In the future, the bottom blade of the scissors will point even more downwards than suggested by the heavy trend line of the recent past in figures 2 and 4. The factors that impact on the future supply by employers of undesired workplaces, when taken together and under the assumption that the Government will encourage better working conditions and more relocation abroad, tend to *inflect slightly* the recent historical trend line in figures 2 and 3. But the volume of such jobs would appear to continue growing rather than to stabilize or contract if one considers the country and the economy as a whole rather than merely manufacturing. In the future, then, while the top blade of the scissors points upwards, its angle may be a little less steep.

If one takes account of these two parallel developments relative to both historical trend lines, it would seem to be incontestable that their *combined effect* goes in the direction of *enlarging* the pool of unfilled undesired jobs rather than of diminishing it. The only variable that, singlehandedly, would arrest the widening of the “scissors” is a much reduced growth rate by the economy — and that is apparently not a scenario that would be welcomed by the Government, the country's employers or the people as a whole.

Of course, this qualitative reasoning warrants detailed quantitative investigation in the framework of a comprehensive systems approach, and buttressing by a tailor-made survey of employers and national workers with open-ended questions, to test the weight of the various factors and their sensitivities to changing conditions. But one would expect such research to refine the trends, not to call in question their overall impact.

In these circumstances, what other options does the Government have? Only one: to import foreign target workers for bottom-wage dead-end jobs. Such a policy would complement the

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existing policy of admitting foreign professionals, highly qualified manpower, etc., which is indeed an indispensable instrument in the era of globalization.

The Republic of Korea actually already pursues a labour import policy relating to undesired jobs in so far as, firstly, it has fixed an annual quota of admissions of foreign trainees for enterprises with less than 300 employees and, secondly, by way of tolerating the overstaying and employment of foreigners entering as tourists. The 1993 quota of 20,000 trainees was double the previous year's; and the total number of overstayers is not negligible (between 50,000 and 100,000 at present) and sensitive to business conditions.

The problem with the *trainee system* are its false pretensions. It is employment in undesired jobs, not training, that is the real purpose. The industries declaring themselves in need of foreign trainees (according to unpublished information by the KFSB) are the same as those identified earlier that are the prime producers of unfilled undesired jobs. The monthly wages paid are institutionally set below the average monthly wages of nationals in comparable workplaces (see Abella and Park in the first section of this paper). They correspond to training allowances but the functions of foreign trainees do not - they are ordinary workers. Even with the inclusion of non-wage costs, such as food and housing, foreign trainees' wages do not come up to the level of Korean workers engaged for the same kind of work in the same enterprises. In fact, they are lower than the wages of irregular foreign workers.

By the same token, *foreigners who are irregularly employed in undesired jobs* are exploited. They are paid less than nationals in comparable posts, sometimes they are not paid at all; they are forced to work longer hours, to pay protection money, to pay a fine to the immigration authorities for overstaying when they depart, etc. [1] They are, as one would expect, disproportionately employed by small enterprises. [2]

Policies of this kind are incompatible with the idea of equal moral worth of all human beings that is at the heart of democracy. Of course, they are also incomparable with existing international labour standards. They are not even appropriate for the purpose of getting the reputedly homogeneous and unprepared Korean population to accept the presence of foreign workers. For how can one accept somebody cast in the role of a human being of lesser moral worth? Disdain, disregard, distance and segregation will result.

It is recommended, therefore, that:

(a) the trainee system be discontinued in its present form. If there is to be a trainee system, it should fulfil that function;

(b) the illegal employment of foreigners be combated effectively by fining employers rather than workers who engage in such practices; and

[1] For documentary evidence on some of these, and other matters, see Kim, 1993; Park 1993a; and the ILO/KLI survey.

[2] The ILO/KLI survey yielded the following percentages of foreign in total employment: firms with less than 30 employees, 23 per cent; firms with 30-99 employees, 9 per cent; firms with 100-199 employees, 7 per cent; and firms with 200-299 employees, 4 per cent.

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(c) a legal system for the admission of foreign workers into unfilled undesired jobs be set up following a broad discussion involving workers and employers in the first instance and all sections of society intensively.

The ILO's labour standards provide ample guidance for a labour import policy, including for a policy aiming at the temporary presence of foreigners (see W.R. Böhning, 1994). The ILO also stands ready to provide such technical advisory services as the Government, employers' or workers' organizations may wish to benefit from.

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