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POLICY RESEARCH WORKING PAPER

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The Benefits of Growth for Indonesian Workers

Nisha Agrawal

Does improving the
conditions of workers in
Indonesia require
government interventions?

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Summary findings

Indonesia's rapid, broadly based pattern of growth has led to a spectacular reduction in poverty in the past 25 years. The model of development Indonesia adopted — market-led growth combined with investments in physical and social infrastructure — has proved to be the one most successful in alleviating poverty and benefiting workers in developing countries. The government's development efforts focused on agriculture (especially rice), education, and transport infrastructure. It emphasized providing opportunities for productive employment and gradually improving the quality of labor through education and training. The rates at which wages, employment, and incomes grew were left largely to market forces.

Indonesian workers have been major beneficiaries of growth, but although the rapid growth of labor-intensive manufacturing has led to more jobs and higher wages, workers employed in these industries have expressed growing dissatisfaction. They complain about problems of child labor, the denial of centrally mandated wages and benefits to workers, poor working conditions, and the abuse of young female workers, who make up the bulk of the workforce.

The government has tried to improve workers' wages and working conditions by centrally mandating higher labor standards, relying principally on minimum wages

as a tool for doing so. Since 1989, minimum wages have tripled nominally and doubled in real terms. Enforcement has improved and, despite low compliance, at those higher levels minimum wages are beginning to bite.

Indonesians are debating whether they need these labor-intensive industries and whether it is a mistake to base Indonesia's growth on cheap labor, because industries that exploit cheap labor could move to other countries. They argue that if labor is more expensive, manufacturers have no choice but to substitute some capital for labor, and to develop more sophisticated industries. However, Indonesia still has an abundant supply of labor and if labor-intensive industries are rejected, the capacity of the economy to absorb plentiful workers will be reduced.

The main alternatives are to push up wages now (and risk the premature death of labor-intensive industries) or to let wages be determined by market forces (in which case wages will rise slowly for the time being but industry's capacity to absorb labor will be higher) but strengthen institutions that could improve working conditions, such as labor unions.

Agrawal recommends maintaining flexible labor markets and allowing market forces to set the pace of change, while strengthening labor unions.

This paper — a product of the Indonesia Policy and Operations Division, East Asia and Pacific, Country Department III — is part of a larger effort in the department to develop a comprehensive labor market strategy for Indonesia. It was presented at a joint Ministry of Manpower–World Bank workshop, “Indonesian Workers in the 21st Century,” in Jakarta, April 2–4, 1996. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Joseph Israel, room MC9-378, telephone 202-458-5117, fax 202-522-1675, Internet address jisrael@worldbank.org. August 1996. (43 pages)

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**Country Department III
East Asia and Pacific Region
The World Bank**

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The Benefits of Growth for Indonesian Workers*

Introduction

There is growing concern amongst policymakers in Indonesia that somehow labor has not shared in the growth that the Indonesian economy has experienced during the last decade. Part of this concern is fueled by the perception of an increased concentration of wealth in a few monopolies and oligopolies, resulting in a widening of Indonesia's social gap. Part of the concern is also fueled by expressions of dissatisfaction from workers themselves, in the form of strikes and other forms of industrial action. The Government has responded by taking a much more interventionist stance in the labor market, in terms of setting wages and benefits, than it has in the past. In recent years, it has increased minimum wages sharply, passed an all-encompassing social security law that provides health insurance, life insurance, accident insurance, and pension benefits to all workers, and it has passed a ruling that compels companies to pay their workers a 13th month of salary each year.

This paper looks at recent outcomes in the labor market to examine the basis for the Government's concern about Indonesian workers. It shows that workers in Indonesia have made steady progress and have indeed shared in the country's growth. The market-based pattern of growth adopted by Indonesia has led to a sustained increase in employment, wages, and earnings. Since 1986, wage employment has grown by about six percent per annum. Female workers especially have benefited from the increase in their employment opportunities in labor-intensive manufacturing, such as textiles, garments and footwear. The paper also shows that growth in the productivity of labor, through more capital and an increase in education, has been the cornerstone of the improvements in workers' welfare. The benefits of productivity growth have been shared with workers and have led to an increase in the real earnings of workers at six percent per annum since 1989. The paper also looks at the challenges facing Indonesian workers. It finds that with the rapid industrialization, urbanization and formalization of the workforce, new problems have emerged for Indonesian workers that now need to be tackled.

The rest of the paper is structured as follows. Section A provides a brief overview of growth and structural change in the Indonesian economy since 1980. It shows how the package of deregulation policies that Indonesia adopted in the mid-1980s has led to a boom in labor-intensive manufacturing which has changed the sources of output and employment growth in Indonesia. Section B examines recent trends in labor supply and demand to see how growth has affected outcomes in the labor market since the mid-

* This paper was written as part of a broader labor market study on Indonesia undertaken by Country Department III, East Asia and Pacific Region. It was presented at a joint Ministry of Manpower-World Bank workshop entitled "Indonesian Workers in the 21st Century: Workshop for Economic Reforms and Labor Market Restructuring for Indonesia", Jakarta, Indonesia, April 2-4, 1996. It has benefited from comments and suggestions from many people including Jacqueline Baptist, Alejandra Cox Edwards, Indermit Gill, Andrew Mason, and Martin Rama.

1980s. It finds that the manufacturing boom has led to rapid growth in the wage employment of Indonesian workers, especially of female workers. The paper also looks, briefly, at the nature of unemployment and underemployment in Indonesia. Section C looks at the impact of growth on wages and earnings. It finds that the incomes of Indonesian workers have grown rapidly in recent years, and that these gains are fairly widespread amongst various groups of workers. Section D looks at the relationship between educational attainment and earnings growth in Indonesia. It finds that during the last two decades, the educational attainment of Indonesian workers has increased dramatically, contributing to rapid growth in productivity. It also finds that labor markets have played an important role in the expansion of education by rewarding investments in education handsomely. Section E looks at emerging issues of appropriate labor standards, such as child labor, the working conditions of women in the formal sector, and the role of unions in the Indonesian labor market. Finally, Section F concludes with a summary of the main findings and policy recommendations for a labor market strategy for Indonesia.

A. Growth and Structural Change in Indonesia Since 1980

During the mid-1980s, Indonesia was hit by a severe decline in oil prices. In response to this shock, it initiated a wide-ranging program of economic reforms aimed at stabilization and structural adjustment of the economy. This program had three dimensions: an increasingly strict fiscal policy; changes in factor prices towards their market levels; and deregulation and institutional reform. The economy responded handsomely to this package of reforms: since the mid-1980s, real GDP growth picked up, and the inflation rate, the current account deficit and the debt-service ratio all declined. Non-oil exports grew particularly fast and went from being a quarter of all exports in 1983 to three-quarters a decade later. Within non-oil exports, the fastest growing component was manufactured exports, which increased its share of non-oil exports from one-quarter to a half. The value of manufactured exports increased almost tenfold from US\$1.5 billion in 1984/85 to US\$14 billion by 1993/94. During the 1970s, Indonesia's manufactured exports were negligible, never exceeding US\$500 million, and always less than three percent of total merchandise exports. It was only after the mid-1980s that Indonesia started to exploit its strong comparative advantage in labor-intensive manufactures. In this, Indonesia was aided by a dramatic increase in foreign direct investment inflows that occurred in response to the changes in its investment climate.

The policy measures adopted in 1986, especially the devaluation and the trade liberalization measures, put Indonesia on the path to rapid export-oriented, labor-intensive growth that its neighbors has adopted earlier. This pattern of growth, characterized as the "East Asian model", had been adopted at least two decades earlier by the NIEs, and at least a decade earlier by Indonesia's ASEAN neighbors.¹ Prior to the oil-shock, Indonesia had adopted a somewhat different development strategy, based on its much stronger natural resource endowment as compared with its neighbors. It had focused on rural development, and had invested its oil revenues heavily in agriculture, education, and transport infrastructure. This strategy was successful in generating broad-based growth and rapid poverty alleviation in Indonesia from the 1970s onwards.

In response to the policy changes adopted in the mid-1980s, the momentum of growth picked up. The economy grew at an average rate of five per cent per annum during the first half of the 1980s, which accelerated to over six per cent per annum during the second half of the 1980s, and further to seven percent per annum in the 1990s (Table 1). Economic growth remained fairly broad-based during the entire period, 1980-93, with all sectors growing rapidly. However, in response to the deregulation policies implemented in the mid-eighties, there was a change in the pattern of output and employment growth in Indonesia.

¹ The four NIEs or the Newly Industrializing Economies consist of Hong Kong, Singapore, Korea and Taiwan, China. The six countries in the ASEAN or Association of South East Asian Nations are: Thailand, Philippines, Malaysia, Indonesia, Brunei, and Singapore.

Indonesian Workers are Shifting Out of Agriculture and in to Industry and Services

Table 1: Growth of Sectoral Output and Employment in Indonesia, 1980-93

	Agriculture	All Industry	(Manufacturing only)	Services	All Sectors
Growth of value added (% per annum)^a					
1980-85	3.4	4.2	13.0	6.9	5.0
1985-90	3.0	7.0	10.7	7.3	6.3
1990-93	3.2	7.7	9.6	7.0	6.6
Growth of employment (% per annum)^b					
1980-85	4.0	5.3	5.7	3.8	4.1
1985-90	0.8	7.0	7.2	3.2	2.5
1990-93	-1.8	6.3	4.5	4.9	1.5
Distribution of incremental employment (%)					
1980-85	53.5	16.7	12.3	29.8	100.0
1985-90	17.1	41.5	29.3	41.5	100.0
1990-93	-67.6	61.8	32.4	105.9	100.0

a Constant 1983 prices.

b Employment data are unavailable from a common source for the entire period, 1980-93. Employment estimates for 1980-85 and 1985-90 are based on Census data, while those for 1990-93 are based on Labor Force Survey data.

The pattern of growth that emerged since the mid-1980s has led to changes in the sources of growth and employment creation in Indonesia. The most dramatic change has come from the change in the relative role of the agricultural sector vis a vis the industrial sector. While agricultural output continued to grow at about three percent per annum during the entire period, the rate of growth of industrial output picked up from four percent during the first half of the 1980s to seven percent during the second half, and further to eight percent in the early 1990s. The services sector continued to grow at about seven percent per annum over the entire period.

The change in the role of the agricultural sector versus the other sectors in employment creation is even more dramatic. As labor demand grew in the industrial and services sector, labor was reallocated from agriculture to these sectors. As a result, the rate of growth of employment in agriculture fell from four percent per annum during 1980-85 to less than one percent by 1985-90, and by 1990-93, agriculture was shedding labor at the rate of two percent per annum. In contrast, employment growth in the industrial sector, led by the manufacturing sector, picked up from five percent in the first half of the 1980s to seven percent during the second half, though it has slowed down somewhat in the early 1990s. Employment in services, which had grown rapidly during the oil-boom years due to increased government spending, slowed down somewhat during the second half of the 1980s, but then picked up again (to about five percent per annum) during the early 1990s, caused partly by the boom in the financial sector. Recently, there has been a noticeable change in the relative rates of employment growth in manufacturing

as compared with services. During the late 1990s, employment in manufacturing was growing twice as fast as in services, but with the slowdown of manufacturing in the 1990s, and the pickup in services, employment in services is growing faster than in manufacturing for the first time since 1980.

If we look at the contribution of the different sectors to employment creation, we find that during the first half of the 1980s, agriculture had accounted for 54 percent of all jobs created, the industrial sector for 17 percent, and the services sector for the remaining 30 percent. By the second half of the 1980s, agriculture's share in employment creation had fallen to only 17 percent, with the remaining 83 percent shared equally between industry and services. During the period 1990-93, this has changed again, with agriculture now shedding jobs, and with the services sector creating a third more jobs than the industrial sector, and three times as many jobs as the manufacturing sector.

These changes in the sources of output and employment growth in the Indonesia economy have led to significant changes in the structure of its output and employment between 1980 and 1993 (Table 2). Agriculture's share of GDP has fallen from 25 percent to 18 percent. While the share of industry in GDP has remained more or less unchanged at around 41 percent, the composition of industrial output has changed dramatically, with the share of mining falling ten percentage points (from 24 to 14 percent), and the share of manufacturing rising by ten percentage points (from 11 to 21 percent). The share of services in GDP has also risen, from 34 to 40 percent.

Indonesia is Transforming into a Semi-Industrialized Economy

Table 2: Structural Change in Output and Employment in Indonesia, 1980-1993

Sector	% Share in Real GDP				% Share in Employment			
	1980	1985	1990	1993	1980	1985	1990	1993
Agriculture	25	23	19	18	55	55	50	50
Industry	41	40	41	42	12	13	17	16
--of which								
Mining	(24)	(18)	(15)	(14)	(1)	(1)	(1)	(1)
Manufacturing	(11)	(16)	(19)	(21)	(9)	(9)	(12)	(11)
Services	34	37	40	40	33	32	33	34
Total	100	100	100	100	100	100	100	100

Source: GDP data are from the National Accounts. Employment data are unavailable from a common source for the entire period, 1980-93. Employment estimates for 1980, 1985, and 1990 are from Census data; those for 1993 are from Labor Force Survey data.

Corresponding to the structural changes in the shares of various sectors in GDP are changes in the sectoral distribution of employment. Agriculture now accounts for just half of total employment, its share having fallen from 55 to 50 percent. The decline of agriculture's share in employment has been matched by an increase in the share of industry in total employment, from 12 to 16 percent, caused mainly by an increase in the share of manufacturing. The services sector continues to account for roughly a third of all

employment. These changes in the pattern of output and employment in Indonesia mirror the changes that have taken place the world over during the process of development.

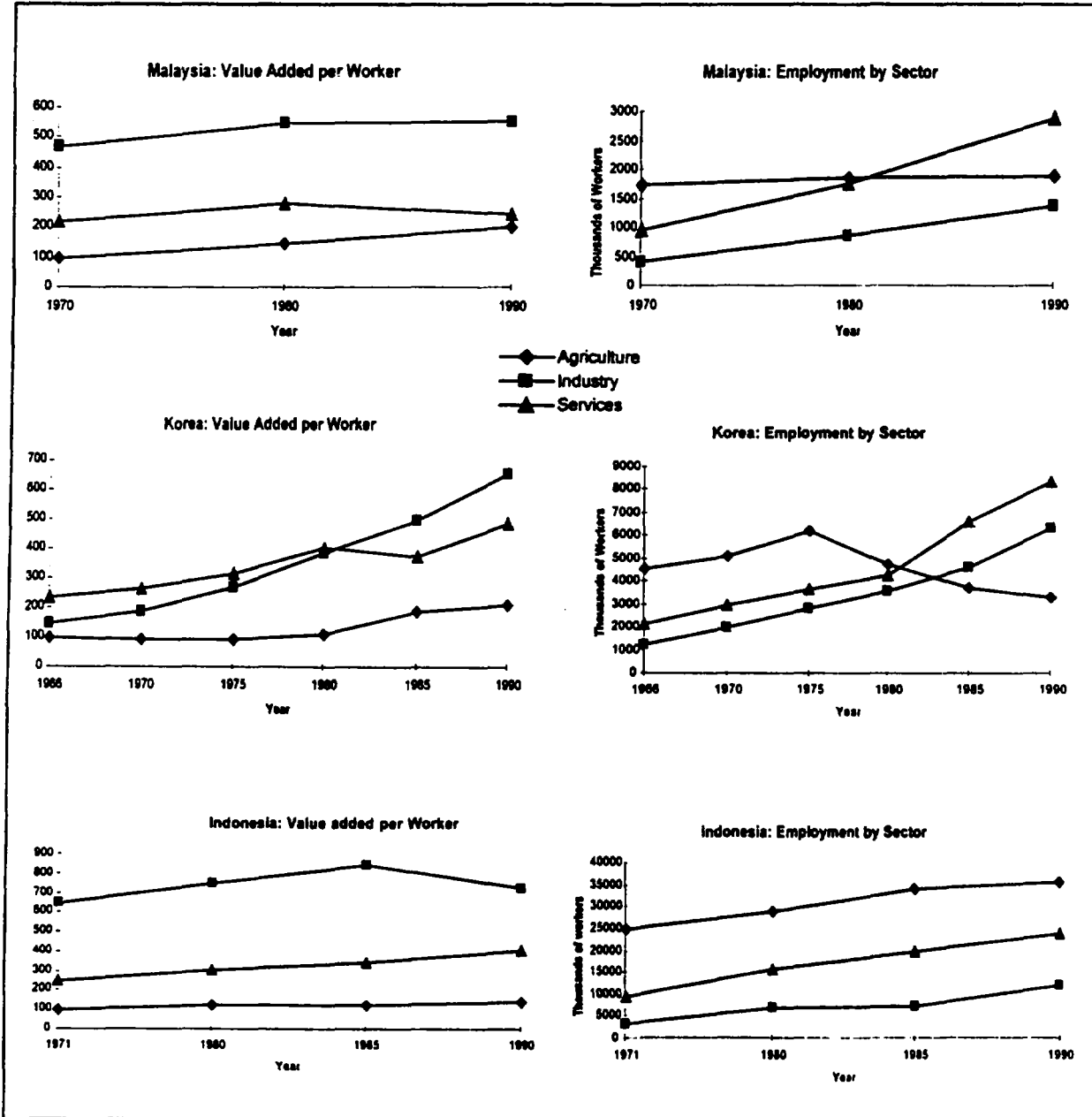
Transformation from Low- to High-Productivity Activities

A growing economy, such as Indonesia's, provides new employment opportunities for its workers that compete with existing ones. With rising demand elsewhere, workers move out of low-productivity activity into higher productivity ones. This pattern has been observed in many East Asian economies, including Malaysia, Korea, and Indonesia. Figure 1 outlines labor productivity trends within and between sectors in these three economies over the past three decades. Malaysia's impressive productivity performance partly reflects an expansion of employment in the high-productivity services and industrial sectors, but also the fact that agriculture substantially boosted its productivity while keeping the number of workers nearly constant. Korea's record was even more dramatic, although agricultural productivity began to improve only after the sector started to shed workers in the mid-1970s.

Indonesia too has experienced both, a within sector increase in productivity, as well as a movement of labor to higher productivity sectors. While agricultural productivity only grew gradually till 1990, it should now start to increase rapidly, given that the sector has recently started to shed labor. Productivity growth has been rapid in the manufacturing and services sectors in Indonesia: between 1980 and 1990, output per person in manufacturing grew by 65 percent and in services it grew by 42 percent. There has also been a reallocation of workers from low-productivity jobs to higher-productivity ones: the slowest growth in employment over the last two decades has been in agriculture, the sector with the lowest productivity per worker, and the fastest growth has been in industry, the sector with the highest productivity per worker (output per person in industry is more than five times that of agriculture). Employment growth has also been rapid in the services sector, which also has considerably higher productivity (three times) than the agricultural sector.

Workers in Malaysia, Korea, and Indonesia have Increasingly Found Jobs in Sectors with High and Rising Productivity

Figure 1: Value Added per Worker and Sectoral Distribution of Employment in East Asia



Source: WDR (1995) for Malaysia and Korea; staff estimates for Indonesia.

B. Impact of Growth on Labor Supply and Demand

This section looks at the impact of growth and structural change on workers. It starts by examining how the supply of labor, especially of females, has changed due to the increased employment opportunities in manufacturing. It then looks at the patterns of employment, unemployment, and underemployment in Indonesia. The next section will look at the impact of growth on the wages and earnings of workers.

Labor Supply

In Indonesia, there are almost a 150 million people of working age (defined as 10 years of age and older), of which 58 percent (86 million) are economically active, i.e., either working or looking for work (Table 3). The remaining 42 percent of the population is not in the labor force; amongst other things, it is attending school, engaged in household work, or retired. The distribution of the population between those in and out of the workforce varies considerably by gender. On average, in Indonesia, 72 percent of men but only 45 percent of women of working age are in the workforce. As work is conventionally measured, men work more than women. But the conventional definition of "work" mischaracterizes relative effort, because time allocated to household activities other than agriculture is rarely counted. In Indonesia, as in almost all societies, most households assign to women the bulk of child rearing and home management. This is reflected in the fact that about 30 percent of Indonesian women are engaged in housekeeping, as compared with less than half of one percent of men who are similarly engaged. If those engaged in housekeeping are also included, then there would be no difference between the proportion of men and women who would be classified as "working".

Indonesia has a Large Workforce

Table 3: Indonesian Population 10 Years of Age and Over by Type of Activity, 1994

Type of Activity	Numbers ('000s)			Percentage		
	Male	Female	Total	Male	Female	Total
Economically Active	52,328	33,447	85,775	72.0	44.5	58.0
--Working	50,308	31,730	82,038	69.2	42.2	55.5
--Looking for Work	2,020	1,717	3,737	2.8	2.3	2.5
Not Economically Active	20,341	41,690	62,031	28.0	55.5	42.0
--Attending School	14,865	14,124	28,989	20.5	18.8	19.6
--Housekeeping	293	22,119	22,412	0.4	29.4	15.2
--Other	5,183	5,447	10,630	7.1	7.2	7.2
Total	72,669	75,137	147,806	100.0	100.0	100.0

Source: Labor Force Survey, 1994.

Between 1965-95, the Indonesian labor force grew at an average rate of 2.5 percent per annum (WDR, 1995). During the next 30 years, this is expected to slow down to only 1.5 percent per annum. There are several reasons for this. The total fertility rate

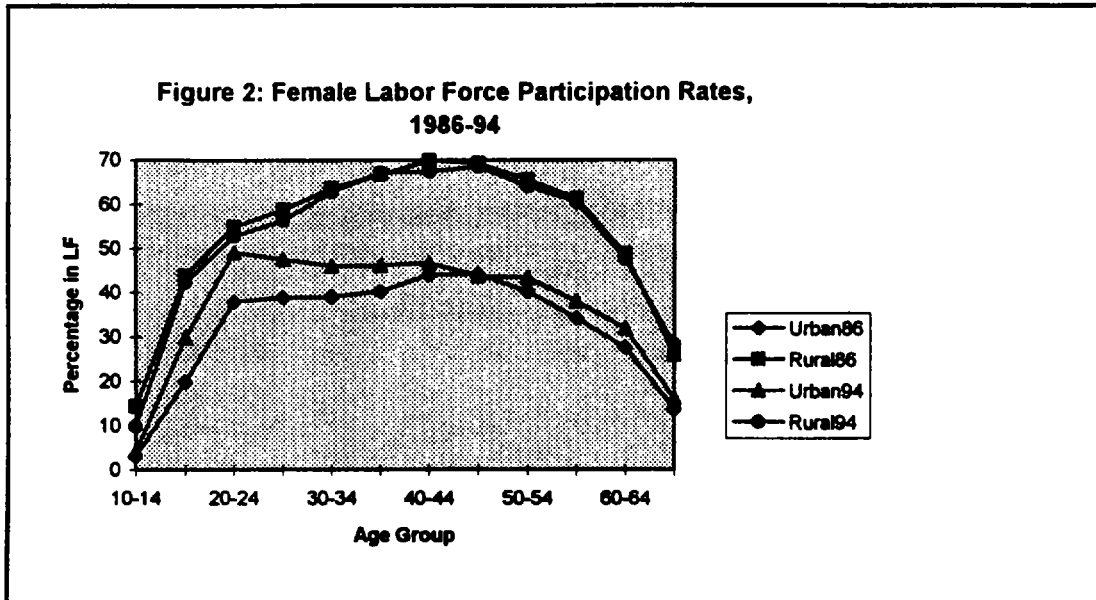
in Indonesia has declined rapidly from 5.3 in 1970 to 2.8 in 1993, and is expected to continue to decline. Secondly, as Indonesia urbanizes, the labor force participation rates (LFPRs) for both men and women are likely to decline. For both sexes, the LFPR is higher in rural areas. In 1994, the LFPR for males was 76 percent in rural areas and only 65 percent in urban ones; for females, the comparative figures were 49 percent and 36 percent, respectively. This effect of urbanization on lowering the LFPRs will be offset to some extent by the increased participation of urban women as their job opportunities increase, as discussed below.

As is common in most countries, the LFPRs for Indonesian men and women tend to follow a life-cycle pattern and vary by age. In a wide range of countries, almost all men between twenty-five and fifty-four are directly engaged in income-generating activities, whether in the home, on the family farm or enterprise, or in the labor market (WDR, 1995). Differences between countries in the LFPRs of men are confined to the young and the old. The Indonesian male labor supply pattern is typical of that in most countries. At least 95 percent of Indonesian men aged between twenty-five and fifty-four are economically active, with participation tapering off gradually after the age of fifty-five.

While male labor supply patterns tend to be similar across countries, those of females tend to differ dramatically. The Indonesian pattern can be described as a "plateau", whereby women continue their labor force participation with little interruption for childbearing (this pattern is typical for men almost everywhere). The big four ASEAN countries -- Philippines, Thailand, Malaysia and Indonesia -- have been described as following a "high plateau" pattern, which is attributed to the less age-selective nature of female employment in agriculture or in domestic services, petty trade, or handicrafts, where the combination of childcare and work is possible (Lim, 1993). By contrast, the South Asian countries (Nepal, Bangladesh, Sri Lanka, India and Pakistan) follow a "low plateau" pattern, which is ascribed to the cultural sanctions against married women participating in the workforce.

With the opening up of new employment opportunities in the manufacturing sectors, the labor force participation of urban Indonesian women has increased rapidly since the mid-1980s, from 30 percent in 1986 to 36 percent in 1994. Though urban women of almost all ages increased their participation in the workforce, as Figure 2 shows, the participation of young women in the age group 20-24 years increased most sharply, with the result that for urban workers, this age group now has the highest participation rate amongst all age groups (49 percent). The participation behavior of rural women, and of rural or urban men, did not change much over this period.

Increased Employment Opportunities in the Formal Sector have Encouraged Young, Urban Women to Enter the Workforce



Source: Labor Force Surveys.

Employment

For Indonesia, the usual labor force measures of employment and unemployment are not good indicators of the state of the labor market. Since most people are engaged in some form of activity, total employment usually grows at roughly the same annual rate as the working age population (Table 4). The unemployment rate is also not a good indicator of the labor market situation: it has remained more or less constant since the mid-1980s, averaging about 2.7 per cent per annum, and never rising above 3 percent over the period.² What is more indicative of changes in the demand for labor in the Indonesian economy is a change in wage employment. As Table 4 indicates, wage employment grew at an annual average rate of 5.5 percent per annum over the 1986-94 period--a sure sign of an improvement in the economy's demand for labor. Furthermore, formal sector employment, defined simply as wage employment in the non-agricultural sector, grew even faster (5.9 percent) than total wage employment.

² The 1994 rate of 4.4 percent is not comparable to earlier rates because there was a change in the definition of unemployment in the 1994 SAKERNAS Survey.

Wage Employment in Indonesia has Grown Rapidly During the Last Decade, Especially of Women

Table 4: Population and Employment Growth Rates in Indonesia, 1986-94
(percent per annum)

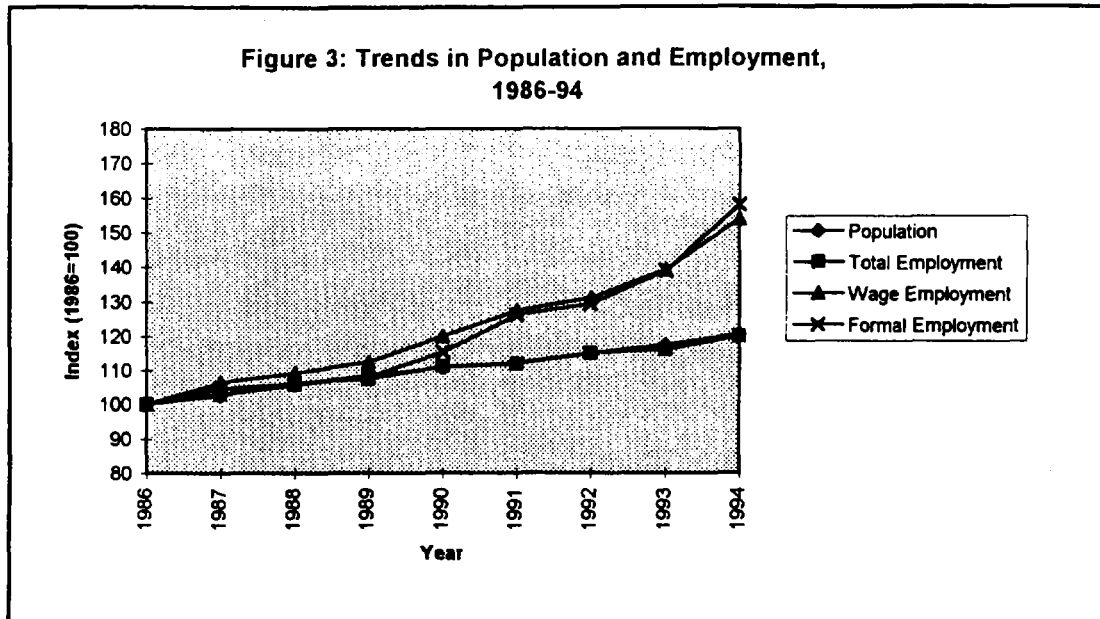
	1986-90			1990-94			1986-94		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Working Age Population	2.7	2.5	2.6	2.0	2.3	2.2	2.3	2.4	2.4
Total Employment	2.9	2.3	2.6	2.0	1.9	2.0	2.5	2.1	2.3
Wage Employment	4.2	5.7	4.6	6.6	6.0	6.5	5.4	5.9	5.5
Formal Sector Employment	2.9	5.6	3.6	7.9	9.0	8.2	5.3	7.3	5.9

Source: Labor Force Surveys, 1986-94.

Both male and female workers have benefited from the employment opportunities created by the growth process in Indonesia. However, the kinds of labor-intensive industries that have grown in Indonesia since the mid-1980s, such as garments, footwear and, more recently, electronics, use female labor more intensively than male labor. During the early 1990s, female employment in the manufacturing sector grew by 13 percent per annum, while male employment grew at about 10 percent. One result has been that formal sector employment has grown much more rapidly for females than for males, with female employment growing at a rate of 7.3 percent per annum since the mid-1980s, as compared with a rate of 5.3 percent for males.

Figure 3 highlights the trends in population growth, employment growth, and the formalization of the workforce in Indonesia during 1986-94. It shows clearly how total employment has grown at the same pace as the working age population during the entire period. It also shows the rapid growth in wage employment and formal sector employment, and the acceleration in the formalization of the Indonesian economy during the 1990s. The rate of growth of formal sector employment more than doubled, from 3.6 percent per annum in the late 1980s to 8.2 percent in the early 1990s. Due to this acceleration, the share of formal sector workers in total employment, which had remained more or less unchanged between 1986-90, grew rapidly from 21 percent in 1990 to 27 percent in 1994.

A Growing Number of Indonesians are Finding Jobs in the Formal Labor Market



This pattern of increased formalization of the workforce with economic growth is typical of what has been observed in most developing economies (Table 5). As economies grow, more workers work for wages, and employment relationships become increasingly formal, varied, and complex. In Malaysia, for example, which has a per capita income three times that of Indonesia, 62 percent of the workforce works for wages, as compared with only 31 percent in Indonesia.

Economic Growth Has Led to an Increased Formalization of the Workforce in East Asia

Table 5: Wage and Non-Wage Employment in the East Asian Workforce (percent)

Country	Agriculture		Industry		Services		Total Wage Employment
	Wage	Nonwage	Wage	Nonwage	Wage	Nonwage	
China	1.0	60.0	4.0	14.0	11.0	10.0	16.0
Indonesia	6.5	43.9	10.0	5.8	14.3	19.5	30.8
Philippines	9.6	35.7	12.3	3.7	23.6	15.1	45.5
Thailand	6.6	59.7	8.7	3.2	11.6	10.2	26.9
Malaysia	8.8	21.8	19.0	3.6	34.0	12.7	61.8
South Korea	1.2	15.5	30.5	5.1	29.0	18.7	60.7

Source: WDR, 1995.

Unemployment

Indonesian policymakers are concerned about the level and nature of unemployment in Indonesia. This perception is also shared by the others, caused in part by newspaper headlines ranging from "Unemployment Rate Remains Greatest Challenge for RI" (Indonesian Observer, July 12, 1994) to "Indonesia's Jobless Rate Serious" (Jakarta Post, August 29, 1995). To deal with the problem of unemployment, especially amongst university graduates, the Government has introduced various types of training programs for jobless youths.

Unemployment in Indonesia is still a relatively minor phenomenon, with 4.4 percent of the laborforce being openly unemployed (Table 6). The unemployed in Indonesia are predominantly young people. The unemployment rate is highest in the age groups 15-19 years (13 percent), when secondary school leavers join the workforce, and in the age group 20-24 years (14 percent), when the tertiary education graduates enter the workforce. Together these two age groups account for almost 70 percent of total unemployment, while accounting for only a fifth of total employment. Unemployment in those aged 30 years or more is relatively insignificant in Indonesia. The unemployment rate also varies by gender, and is higher for females (5.1 percent) than for males (3.9 percent).

The Unemployed in Indonesia are Predominantly Young People

Table 6: Unemployment Rate in Indonesia by Age Group, 1994 (percent)

Age Group	Male	Female	Total
10-14	3.2	5.1	4.0
15-19	11.9	14.3	12.9
20-24	13.6	14.9	14.1
25-29	5.0	6.8	5.7
30-39	1.2	1.5	1.3
40-49	0.4	0.4	0.4
50-59	0.2	0.4	0.3
60-69	0.2	0.2	0.2
70+	0.2	0.0	0.2
Total	3.9	5.1	4.4

Source: Labor Force Survey, 1994.

The unemployed in Indonesia also consist of the better educated (Table 7). Those with only primary school education or less usually come from poorer families and cannot afford to be without work, and are therefore relatively less represented amongst the unemployed. Thus, while this group makes up 73 percent of those employed, it only accounts for 27 percent of those unemployed. The unemployment rates are highest for those with a general senior high school education (17 percent) and for those with a university education (15 percent). By and large, those with higher education can afford to

wait to find better jobs, because they come from richer families. Data indicate that university graduates in Indonesia come primarily from the top income deciles (World Bank, 1993).

Unemployment in Indonesia is Largely a Phenomenon of Educated Entrants to the Workforce Waiting for a Suitable Job

Table 7: Unemployment Rate in Indonesia by Level of Education, 1994 (percent)

Schooling Level	Male	Female	Total
No Schooling	0.4	0.4	0.4
Incomplete Primary	0.8	1.1	0.9
Complete Primary	2.0	3.2	2.4
Junior High School (General)	5.5	8.2	6.3
Junior High School (Vocational)	4.5	10.5	6.2
Senior High School (General)	13.6	24.9	16.9
Senior High School (Vocational)	8.9	14.8	11.0
Diploma	7.2	14.9	10.1
University	10.3	24.9	14.8
Total	3.9	5.1	4.4

Source: Labor Force Survey, 1994.

Another feature of unemployment in Indonesia, as in many developing countries, is that it is a relatively urban phenomenon: in 1994, 8.2 percent of the urban laborforce was unemployed, as compared with only 2.6 percent of the rural laborforce. Thus, while urban areas account for only 30 percent of total employment, they account for almost 60 percent of total unemployment. There are also large regional variations in the unemployment rates in Indonesia, which vary from only 1.5 percent in the Eastern Islands of East Nusa Tenggara and West Nusa Tenggara to 8.2 percent in North Sulawesi and an even higher 9.2 percent in the Greater Jakarta area. These variations between provinces are related to a number of factors, including the level of urbanization, the level of education, and the level of income, of the population.

Most of the unemployed in Indonesia are young school leavers with no work experience: data indicate that 72 percent of the unemployed have never worked before. Furthermore, the time that these students spend in waiting for a job is of relatively short duration. In urban areas, almost 70 percent of unemployed males and females find a job within 10 days of searching, and 95 percent find it within a month of searching. In rural areas, the search period is even shorter: about 80 percent of the unemployed find a job within the first 10 days, and almost all of them are employed within the first month. These unemployment spells in Indonesia are extremely low by international standards. Both the low level of unemployment, as well as the short duration of its spells, indicates a high degree of flexibility in the Indonesian labor markets.

These data all indicate that unemployment in Indonesia is largely frictional in nature and results from the normal operation of markets. It is typically of short duration and is part of the normal process of workers looking for the right jobs and employers looking for the right workers. As such, it need not be an area of concern for policymakers. There is no evidence in Indonesia of the types of unemployment which require corrective policy action, such as cyclical unemployment, which is associated with fluctuations in aggregate demand, or structural unemployment, which is associated with economic stagnation, malfunctioning labor markets, or various policy failures.

Underemployment

In Indonesia, as in other low income countries, there is underutilization of human resources--people who want to work cannot find as much work as they would like. In poorer rural areas, this takes the form of seasonal and chronic underemployment. Over the course of development, and reflecting the structural transformation of the economy, underemployment gives way to more open unemployment. This transition is partly due to rising incomes and urbanization. As countries grow and household incomes rise, individuals can begin to afford periods without work while waiting for a job. Also, more modern economies organize work in ways that do not lend themselves as easily to work sharing or adjustment of hours as agricultural arrangements do.

Indonesian policymakers often express concern over this phenomenon of "underemployment". In this section, we use the definitions that are commonly adopted in Indonesia to examine the nature of this problem. We define **underemployment** simply as working less than 35 hours per week, and **severe underemployment** as working less than 15 hours a week. Using these definitions, we find from the Labor Force Survey of 1994, that about 38 percent of workers were underemployed, and eight percent were severely underemployed (Table 8). Underemployment and severe underemployment were both largely a rural phenomenon: 45 percent of rural workers were underemployed as compared with 21 percent of urban workers, and nine percent of rural workers were severely underemployed as compared with four percent of urban workers.

Underemployment in Indonesia is Predominantly a Rural Phenomenon

Table 8: Hours of Work by Rural/Urban Location in Indonesia, 1994
(percent)

Hours of Work	Share of Employed, 1994		
	Rural	Urban	Total
1-14	9.4	3.8	7.7
15-34	35.3	17.3	29.9
35-44	24.9	26.6	25.4
45-59	26.1	41.7	30.8
60+	4.3	10.5	6.1
All	100.0	100.0	100.0

Source: Labor Force Surveys.

Recently, in treating the problem of the unemployed, the Government of Indonesia has begun to use three definitions of the unemployed.³ The first is the standard definition employed in the previous section--people out of work and looking for work--and according to which in 1994, the number of unemployed was 3.7 million and the unemployment rate was 4.4 percent of the workforce. The second definition includes all the severely underemployed (those working less than 15 hours a week). By this definition, the number of unemployed rises to 11.2 million and the unemployment rate rises to 13.3 percent of the workforce. The third definition includes all the underemployed, and this makes the number of unemployed rise to a staggering 33.4 million, and the unemployment rate rise to 39.9 percent of the workforce.

This methodology of including all underemployed people in the count of unemployed is creating a sense that unemployment in Indonesia is a gigantic problem and that it needs to be tackled by, amongst other things, improved training of the unemployed. However, if we try and get a measure of underutilization of labor resources by narrowing down the definition of underemployment to only those that are looking for additional work--in the same way that the standard definition of unemployment takes into account only those people not working and looking for work-- then we get a very different story. According to the Labor Force Survey (Sakernas), of the 40 percent or so that are underemployed, only about 12 percent were looking for additional work. From the 1993 Household Expenditure Survey (Susenas), we get an even smaller measure of underutilization of labor. According to the 1993 Susenas, 42 percent of rural workers and 20 percent of urban workers work less than 35 hours per week, which are roughly similar to the estimates from the Sakernas data. However, according to the 1993 Susenas, only three percent of rural workers and two percent of urban workers indicated that they would like to work more. These numbers do not seem to suggest that there is a problem of massive underemployment of labor in Indonesia, which needs corrective action.

The low number of hours worked in rural areas arise from the nature of agricultural work, which tends to be seasonal in nature and which does not keep workers occupied full time all year round. As Table 9 indicates, most of the underemployment is concentrated in the agricultural sector, with almost two-thirds of the workers in this sector working less than 35 hours per week. By comparison, only 24 percent of the laborforce in industry and 29 percent in services work less than 35 hours per week. When workers shift from agriculture to industry and services, they tend to work longer hours, and the "problem" of underemployment tends to automatically lessen. In fact, as we see in the next section on earnings, a large part of the increase in earnings of workers over time occurs because they move out of agriculture and in to industry and services where they are now able to find work for more hours.

³ See article entitled "Indonesia's Jobless Rate is Serious" in The Jakarta Post, August 29, 1995

Movement Out of Agriculture and in to Industry and Services Leads to Longer Working Hours

Table 9: Hours of Work by Industrial Sector in Indonesia, 1994
(percent)

Hours of Work	Share of Employed, 1994		
	Agriculture	Industry	Services
1-14	14.8	4.1	4.8
15--34	48.7	19.5	23.7
35-44	22.0	25.9	26.3
45-59	13.5	46.8	33.1
60+	1.1	3.7	12.1
Total	100.0	100.0	100.0

Source: Labor Force Survey, 1994.

C: Growth of Wages and Earnings

The rapid and sustained growth in Indonesia since 1970 has led to substantial increases in wages and incomes for Indonesian workers. Since the mid-1970s, agricultural wages have grown at about 3.7 percent per annum in real terms (Table 10).

Manufacturing wages have grown even faster, at about 5.5 percent per annum, and have surpassed the rate of growth of GDP per capita (4.2 percent) over the period 1970-91.

The Indonesian Miracle: Indonesian Workers Have Benefited More than Most Workers in the World

Table 10: International Growth Rates in Output per Capita and Real Wages (percentage per year)

	Period	GDP per Capita	Agricultural Wages	Period	GDP per capita	Manufacturing Wages
Indonesia	1976-88	4.0	3.7	1970-91	4.2	5.5
Bangladesh	1960-91	0.8	-0.7	1967-89	0.7	-1.1
Colombia	1960-88	2.3	2.2	1968-92	2.5	0.4
Egypt	1970-88	4.5	5.2	1970-87	4.6	0.9
Ghana	1969-88	-1.2	-4.0	1964-87	-1.3	-3.6
India	1960-90	1.9	1.8	1963-90	1.9	1.7
Kenya	1964-92	2.1	-0.9	1063-91	2.1	-1.0
Korea	1960-78	6.9	7.1	1966-91	7.4	9.1
Malawi	1968-89	1.0	-3.7	1968-86	1.2	0.2
Malaysia	1971-92	4.4	4.0	1968-92	4.1	2.2
Mexico	1962-85	2.9	1.3	1970-91	1.6	-1.2
Pakistan	1970-92	2.3	2.9	1963-88	3.0	4.9
Peru	1960-86	1.0	-2.0	1963-86	0.7	-1.0
Philippines	1960-77	2.4	-1.1	1963-91	1.2	0.9
Sri Lanka	1980-90	2.8	-1.1	1966-90	2.9	1.0

Source: WDR, 1995.

Indonesian wage earners have done relatively better than workers in most other countries in terms of wage growth during the last two decades. Table 10 presents data on agricultural and manufacturing wage growth in 15 countries in different parts of the world. Wages of agricultural workers rose faster than those of Indonesian agricultural workers in only three countries--Egypt, Korea, and Malaysia. In the manufacturing sector, only Korea surpasses the rate of growth of wages experienced by Indonesia. In countries in other parts of the world--South Asia, Latin America or Africa--either growth has not been as rapid as in Indonesia, or workers have not shared in the growth as they have done in Indonesia.

Average real earnings of Indonesian workers have grown even faster than wages, as workers have moved to better paying jobs, and have found steady employment for longer hours. As Table 11 shows, between 1989-94, real earnings of workers have grown by 33 percent, or at an average rate of 5.9 percent per annum. Both males and females

have seen their earnings increase over this period, though the earnings increases for female workers (7.8 percent per annum) have been significantly higher than for male workers (5.2 percent).

Earnings of Indonesian Workers Have Grown Substantially in the Last Five Years, Especially of Women

Table 11: Average Monthly Earnings of Wage Employees in Indonesia, 1989-94

Earnings Variable	1989	1994	Annual Rate of Growth, 1989-94 (percent)
Nominal Monthly Earnings (Rp)			
--Male	89,361	176,834	14.6
--Female	50,933	113,497	17.4
--Total	77,164	157,343	15.3
Real Earnings Index, 1989=100			
--Male	100	129	5.2
--Female	100	145	7.8
--Total	100	133	5.9

Source: Labor Force Surveys.

As discussed earlier, the growth of jobs in labor-intensive manufacturing has been particularly rapid for female workers, and this has led to a significant increase in their incomes. Most women in industry are unskilled or semi-skilled, with primary school education or less. The main alternative for these women is farm employment, and in fact many of them come directly from farming, work for a few years in industry to save some money, and then go back to their villages to farm again. By moving to industry, they earn higher wages and, most importantly, they gain access to steady full-time employment. This point is demonstrated in Table 12, which shows average weekly hours worked, weekly earnings, and the hourly wage rate for women in farming compared with those of women employed in the labor-intensive manufacturing sector (i.e., in textiles, garments, leather, and footwear). As can be seen, the hourly manufacturing wage is only slightly higher than the hourly farm wage, but weekly hours worked are much longer in manufacturing. Consequently, weekly earnings for females employed in labor-intensive manufacturing are double weekly earnings for women employed in farming. An important point to note from the table is that it indicates that labor markets in Indonesia appear to be fairly well integrated, since the differential between hourly wages for agriculture and manufacturing for women with similar qualifications is quite small.

Indonesian Workers Have Become Better-Off by Gaining Access to Steady Full-Time Employment in the Formal Sector

Table 12: Earnings of Female Primary School Graduates in Agriculture and Labor-Intensive Manufacturing in Java, 1989-94 a/

Year	Average Hours per Week		Average Weekly Earnings (Rp)		Average Hourly wage (Rp)	
	Agriculture	L-I Manufac.	Agriculture	L-I Manufac.	Agriculture	L-I Manufac.
1989	29	44	5,685	9,607	199	218
1990	27	44	6,123	10,237	228	232
1991	29	41	8,373	13,251	285	320
1992	25	44	8,704	15,268	344	346
1993	29	44	9,711	17,284	352	411
1994	28	44	11,284	22,283	421	507

a/ Earnings and hours in the main job only for female primary school graduates in Java. Labor-intensive manufacturing refers to the following industries: textiles, garments, leather products and footwear.

Source: Labor Force Surveys.

To sum up, the growth of labor-intensive manufacturing in Indonesia since the mid-1980s created significant new employment opportunities for Indonesian workers. During the second half of the 1980s, formal sector employment grew rapidly. As labor markets began to tighten, wages also started to increase rapidly in the late 1980s/early 1990s. However, even though rapid wage growth lagged the rapid employment growth by about five years, and the 1980s were by-and-large a period of moderate wage growth, the share of labor income in national income rose during the 1980s because of the substantial growth in employment. The share of wages and salaries in GDP rose from 24.1 percent in 1980 to 27.7 percent in 1985 and further to 28.6 percent by 1990 (Government of Indonesia, 1995). These numbers indicate that Indonesian workers were clearly sharing in and benefiting from the growth of the Indonesian economy.

Distribution of Benefits

Indonesian policymakers are concerned about the distribution of the benefits of growth amongst different groups in society. In this section, we look at how the gains from growth have been distributed amongst workers with different levels of education and amongst workers living in different regions of Indonesia.

Data on earnings by skill levels or by occupations are unavailable in Indonesia, so we use education levels as a proxy for skill levels to see whether the gains from growth have been shared widely by skilled and unskilled labor. Table 13 shows that the benefits of growth in Indonesia have indeed been widely distributed between workers with different levels of education. Between 1987 and 1994, the earnings of all workers grew at an average rate of 12 percent per annum, with the rates ranging from nine percent for those with university education to 15 percent for those with a Diploma I & II (which includes diplomas for teacher training and from various polytechnics). The earnings of

those with lower levels of education (primary and junior secondary), grew at about 11 percent per annum, only slightly below the average for all workers.

Table 13 also shows that growth has narrowed the earnings differential between those with no education and those with university education. In 1987, workers with a university education earned over six times as much as those with no education. But as the supply of university educated people increased relative to the others, the premium associated with university education declined, so that by 1994 the differential between the earnings of university educated workers and workers with no education had narrowed to 5.5 times.

In Indonesia, Growth has Benefited Workers of All Different Education Levels

Table 13: Earnings of Wage Employees by Education Levels in Indonesia, 1987-94

Schooling Level	Annual Rate of Growth of Nominal Earnings (percent)	Index of Average Earnings (No Schooling=100)	
		1987	1994
No Schooling	11.0	100	100
Incomplete Primary	11.5	125	129
Complete Primary	10.8	158	156
Junior High School (General)	9.7	222	204
Junior High School (Vocational)	11.1	234	236
Senior High School (General)	10.8	285	282
Senior High School (Vocational)	11.5	281	290
Diploma I/II	15.2	296	384
Diploma III	12.7	455	507
University	9.2	613	546
All	12.0	204	217

Source: Labor Force Surveys.

Next we examine whether the benefits of growth have been shared widely by workers in different regions of Indonesia. Table 14 shows that between 1987 and 1994, workers in all provinces have gained from growth: earnings growth ranged from nine percent per annum in West Sumatra and East Nusa Tenggara to 15 percent per annum in Yogyakarta and Central Kalimantan.⁴ There does not appear to be a trend towards increased inequality in the earnings of workers amongst provinces. For example, in the four provinces that had the lowest average levels of earnings in 1987--Central Java, Yogyakarta, East Java, and West Nusa Tenggara--earnings grew at the rates of 12-15 percent per annum between 1987 and 1994. In other words, the rates of growth of earnings in these four provinces were at least as high as the national average (12 percent). However, because earnings in all other provinces also grew at about the same rates, these

⁴ A detailed analysis of the outcomes in regional labor markets is beyond the scope of this paper and is forthcoming in a World Bank study (Manning, 1996)

four provinces continued to rank amongst the bottom four for average earnings in 1994. For a host of reasons, workers in these provinces earn less than workers in other provinces. The three provinces on Java that have low average earnings are all densely populated provinces that are still predominantly agricultural but are undergoing structural transformation like the rest of Indonesia. The fourth low income province--West Nusa Tenggara in Eastern Indonesia--is one of the poorest, most isolated, and least developed of all provinces in Indonesia and is characterized by inadequate infrastructure and limited natural resources. However, it still experienced average earnings growth of 13 percent per annum between 1987 and 1994. Thus, these data indicate that workers in provinces that have low levels of earnings are nevertheless keeping pace with workers in other provinces instead of being left further behind.

If we turn to the four provinces that had the highest average wage earnings in 1987--Riau, Greater Jakarta, East Kalimantan, and Irian Jaya-- we find that earnings grew at the rates of 11-14 percent per annum, not much higher than the national average. In 1994, these four provinces continued to be at the top of the ranking of high-earning provinces. Workers in these four provinces earned at least twice as much as their counterparts in Central Java, the province with the lowest average earnings in 1994. Again, there are structural reasons for the high earnings of workers in these provinces. The first three of the four provinces are rich in natural resources, with abundant supplies of oil and timber. Riau, in addition, includes the island of Batam, which is part of the growth triangle between Indonesia, Malaysia and Singapore. Batam has experienced a tremendous manufacturing boom since the deregulation of the mid-1980s. Furthermore, because of the close integration of the economy of Batam to those of Malaysia and Singapore, the salaries of workers in Batam are significantly above the Indonesian average. The fourth high income province--Greater Jakarta--has also experienced a manufacturing boom since the mid-1980s, fueled partly by the large inflows of FDI that it has received. But the data do not indicate that the earnings of workers in these high income provinces are surging ahead of those of their counterparts in other provinces.

Earnings Growth has been Widespread Amongst Workers in Different Provinces of Indonesia

Table 14: Earnings of Wage Employees by Provinces in Indonesia, 1987-94

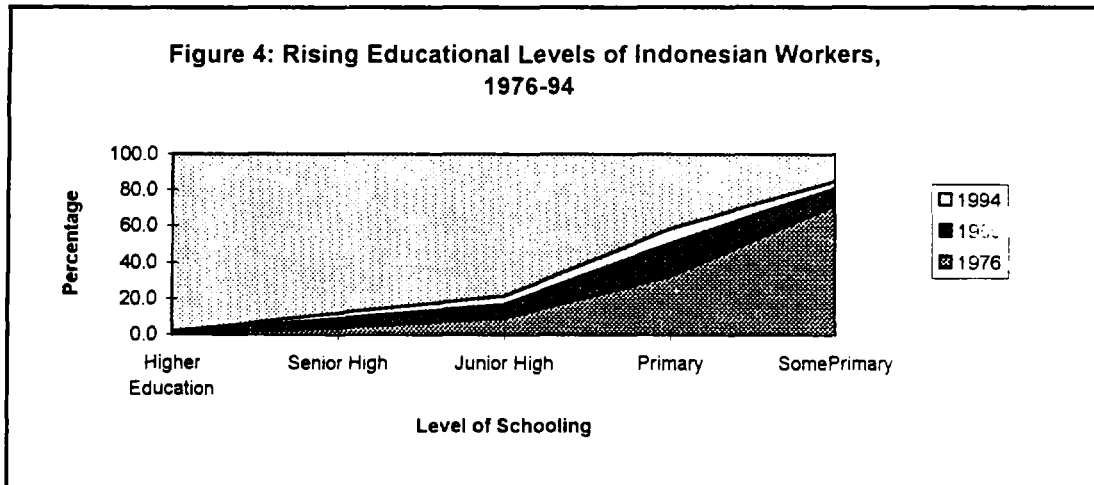
Province	Annual Rate of Growth of Nominal Earnings (percent)	Index of Average Earnings (Central Java=100)	
		1987	1994
	1987-94		
Sumatra			
Aceh	11.0	172	163
North Sumatra	12.7	130	137
West Sumatra	9.3	172	147
Riau	14.4	192	225
Jambi	12.5	144	151
South Sumatra	11.8	158	157
Bengkulu	10.9	152	143
Lampung	9.6	134	117
Java			
DKI Jakarta	11.6	225	222
West Java	13.2	126	137
Central Java	11.8	100	100
Yogyakarta	14.6	109	130
East Java	12.1	106	109
Kalimantan			
West Kalimantan	10.1	166	149
Central Kalimantan	14.7	167	199
South Kalimantan	10.7	160	150
East Kalimantan	10.5	223	206
Sulawesi			
North Sulawesi	10.3	148	135
Central Sulawesi	10.3	151	138
South Sulawesi	11.2	167	161
Southeast Sulawesi	11.6	172	170
Other Islands			
Bali	10.6	137	128
West Nusa Tenggara	13.2	97	106
East Nusa Tenggara	8.5	177	144
East Timor	11.6	190	188
Maluku	9.7	177	155
Irian Jaya	12.5	255	267
All Indonesia	12.0	133	135

Source: Labor Force Surveys.

D: Education Policies and Earnings Growth

In this section, we see how investments in human capital have contributed to the rapid productivity growth in Indonesia, which in turn underlies the rapid earnings growth. One of the most dramatic changes in Indonesia in recent decades has been in the increasing educational attainment of its labor force. As recently as 1971, 70 percent of the workforce had no education at all or only incomplete primary education. During Indonesia's first 25 Year Long-Term Development Plan (1970-95), educational policy focused on increasing access to schooling opportunities, centered on an extensive school building program. This led to an expansion in enrollment rates at all levels of education, as illustrated in Figure 4. As a result of the massive investment in basic education, by 1986, the proportion of the workforce with less than a primary school education had fallen to under half, and by 1994, it has come down further to one-third.

Educational Levels of Indonesian Workers Have Risen Rapidly During the Last Two Decades



Between 1986 and 1994, the proportion of the workforce with no schooling or incomplete primary schooling has declined at an average rate of 4 percent and 1 percent per annum, respectively, while the proportion with complete basic and higher education has increased rapidly. Most impressive are the rates of increase of workers with tertiary education (12 percent) and senior high school (9 percent). Both boys and girls have benefited from the investment in education, and in fact, the educational attainment of female workers has been growing even more rapidly than that of male workers.

The labor market in Indonesia has played a critical role in providing incentives to workers to invest in their education by rewarding these investments handsomely. The higher levels of education have contributed to the increase in productivity of Indonesian workers and have led to a rise in their earnings. As Table 15 indicates, average earnings

of male and female wage employees increase with higher levels of schooling, with the earnings of university graduates being four-six times as high, on average, as of workers with no schooling. The table also indicates that there are differences in the way that the Indonesian labor market rewards the education of male and female workers. It shows that at each level of education, women workers are paid less than male workers, with the result that the average female earnings are only two-thirds of average male earnings. This gender gap in earnings ranges from women with no education earning only 50 percent as much as similarly uneducated men, to women with a Diploma (I or II) being paid 86 percent of the pay of men with similar education. The gender gap in earnings narrows significantly with higher levels of education, especially through the Diploma I and II levels, though it widens again somewhat after that.

Higher Levels of Schooling Lead to Higher Levels of Earnings and to a Narrowing of the Gender Gap in Earnings

Table 15: Wage Earnings and Levels of Schooling in Indonesia by Gender, 1994

Schooling Level	Index of Average Earnings (No Schooling =100)		Ratio of Female/Male Earnings (percent)
	Male	Female	
No Schooling	100*	100	50
Incomplete Primary	112	123	55
Complete Primary	133	141	53
Junior High School (General)	166	201	60
Junior High School (Vocational)	183	257	70
Senior High School (General)	222	335	75
Senior High School (Vocational)	230	367	79
Diploma I/II	302	521	86
Diploma III	406	613	75
University	444	586	66
All	179	232	64

* In 1994, the earnings of males with no schooling was Rp. 98,609 per month.
Source: Labor Force Survey, 1994.

Clearly, higher education is an equalizing force on the earnings of men and women. Two questions arise. Firstly, are male and female workers in Indonesia getting equal investments in education? And secondly, do the disparities in earnings reflect discrimination against women in schooling investments, or do they reflect differences in the rewards to schooling for males and females? If there are higher investments being made in the education of males, there might be an economic reason for it. For example, if males have higher private rates of return to schooling than females for a given level of schooling, the greater schooling attainment among males may reflect an efficient--although inequitable--household allocative response of scarce resources. On the other hand, if the reverse is true, the greater schooling of males relative to females may represent a serious misallocation of resources and loss of efficiency.

Behrman and Deolalikar (1995) have examined this issue of whether there are differential investments and differential returns to schooling by gender in Indonesia. Their study was based on data from the 1986 Indonesian Labor Force Survey (Sakernas)--a stratified national sample of about 250,000 individuals over the age of ten. Their paper focused on the 30,227 individuals who received wages as paid employees, of whom about 30 percent are female. We have updated their estimates using data from the 1993 Sakernas, to see whether their findings have changed since the manufacturing boom of the mid-1980s.

Table 16 presents data on the average levels of education, average wages, and average ages, of male and female wage employees in 1986 and 1993. It shows that between 1986 and 1993, the level of schooling has increased for both male and female employees. However, schooling levels have grown considerably faster for females and, as a result, gender differences in schooling levels that were prevalent in 1986 have narrowed significantly in 1993. The table indicates that in 1993, 49 percent of females had no more than a primary education, as compared with 44 percent of males. In 1986, this gap was significantly larger, with a difference of nine percentage points between these proportions for males and females instead of five. Similarly, by 1993 the proportion of females with secondary education (43 percent) was only slightly lower than the proportion of males (47 percent). Again, this gap was significantly larger in 1986, with a difference of eight percentage points in these proportions, instead of four. Finally, in 1993 we find minimal gender differences in education even at the tertiary level: 8.8 percent of males and 8.3 percent of females have tertiary education. Instead of a half a percentage point difference in tertiary education levels, in 1986 there was a difference of 2.5 percentage points.

Indonesian Males are Better Educated and Better Paid but Females are Catching Up

Table 16: Schooling, Wage Rates, and Age of Wage Employees in Indonesia, 1986 and 1993

Variables	1986		1993	
	Males	Females	Males	Females
Percent of Individuals having:				
No schooling	6.1	18.2	3.9	8.8
Incomplete Primary	17.8	22.3	11.9	14.1
Complete Primary	29.8	22.2	28.5	25.8
General Junior High	11.6	5.6	13.5	8.9
Vocational Junior High	2.8	1.3	2.1	0.9
General Senior High	12.2	7.7	17.3	14.2
Vocational Senior High	13.7	18.1	14.2	19.1
Diploma 1,2	1.0	1.3	1.3	1.9
Diploma 3	2.6	2.2	2.9	2.8
University	2.4	1.1	4.6	3.6
Average Hourly Wage Rate (Rp)	741	400	996	711
Age in Years	33.8	31.0	34.6	30.8

Source: Behrman and Deolalikar (1995) for 1986 and staff estimates for 1993, based on Sakernas.

Table 16 also reports data on average wage rates in 1986 and 1993. It shows that the nominal average hourly wage rate increased for both males and females between 1986 and 1993, but that the increase for females (78 percent) was more than twice that for males (34 percent). This indicates that the male-female wage gap is narrowing over time. What is the relationship between the narrowing of gender differentials in education and the narrowing of gender differentials in earnings? Below, we investigate this relationship between additional levels of education and additional levels of earnings in Indonesia.

Table 17 presents estimates of the impact of additional years of schooling on the earnings for male and female wage employees in Indonesia in 1986 and 1993.⁵ These estimates imply that in 1986, on average, an additional year of schooling led to an increase in earnings in the range of 2.8 to 9.7 percent. The percentage increases in earnings per additional year of schooling were significantly smaller for subprimary and primary schooling than for the higher schooling categories. Also, there were no significant differences between the estimated impacts of vocational and general schooling. At subprimary and primary levels of education, the returns to an additional year of schooling were about the same for both men and women. However, at post-primary levels, the marginal increases in earnings with schooling were *greater* in percentage terms for females than for males.

Labor Markets in Indonesia have Handsomely Rewarded Investments in Education

Table 17: Impact of Additional Schooling on Earnings in Indonesia, 1986 and 1993

Level of Schooling	Impact of Additional School Year on Earnings in 1986 (percent)		Impact of Additional School Year on Earnings in 1993 (percent)	
	Males	Females	Males	Females
Incomplete Primary	2.8	2.8	3.9	2.8
Complete Primary	3.6	3.6	3.7	3.9
General Junior High	4.1	6.3	4.9	7.1
Vocational Junior High	4.6	5.7	4.9	9.4
General Senior High	4.7	9.1	4.3	10.1
Vocational Senior High	4.7	9.3	5.2	11.7
Diploma 1,2	4.7	8.9	5.8	9.7
Diploma 3	6.1	8.9	6.3	10.7
University	6.9	9.7	6.5	10.8

Source: Behrman and Deolalikar (1995) for 1986 and staff estimates for 1993 based on Labor Force Surveys.

⁵ The data in Table 15 are obtained by econometrically estimating the relationship between earnings and different levels of education. These estimates use the age of workers to control for differences in years of work experience. The estimates also take into account the dropout and repetition rates for each level of schooling and are based on the expected number of years that it takes to complete each year of schooling, rather than the standard years of schooling. It is assumed that the expected years to complete each schooling level have remained unchanged since 1986.

How has this relationship between additional years of schooling and additional earnings changed in the last seven years? The Table shows that in 1993, on average, an additional year of schooling leads to an increase in earnings in the range of 2.8 to 11.7 percent, indicating a slight increase in the returns to higher education since 1986. Otherwise, there have not been any significant changes in the pattern. For example, at lower levels of education, the additional earnings due to an additional year of schooling are still about the same for both men and women. And it is still true that at post-primary levels, the marginal increases in earnings with schooling are considerably *greater* in percentage terms for females than for males.

Behrman and Deolalikar point out that these estimates of the relationship between additional years of schooling and additional earnings do *not* suggest that females face strong discrimination in the labor market in the form of lower rates of return to post-primary schooling investments, as is sometimes claimed. However, they also found that in 1986, "on average, there is a large wedge between male and female wage rates and a larger one between male and female earnings". As Tables 15 and 16 have shown, this gap persists in 1994, and while it has narrowed since 1986, it is still quite large today. What underlies this difference between male and female wages and earnings? Unfortunately, it is difficult to answer this question. The authors are unable to identify the extent to which the gender earnings gap reflects labor market gender discrimination, differential skills inherently associated with gender that are rewarded differently in the Indonesian labor market, or the returns to differential gender work experiences. Their estimates suggest that differences in previous labor force experience probably accounts for some of the wage difference. On the other hand, that the wage difference is substantial even for younger workers suggests that other factors also are quite important.

E: Labor Policies and Standards

While the lives of Indonesian workers have improved dramatically in recent years, many problems remain, both in the formal and informal labor markets, that require government interventions. These include: exploitative child labor and poor working conditions, especially of women. These problems are common, in varying degrees, to all the low- and middle-income countries of East Asia.

Appropriate labor market policies and regulations are needed to deal with the kinds of problems listed above: i.e., to ensure the smooth functioning of labor markets, to avoid injustices, and to protect vulnerable workers. In designing appropriate labor market policies for Indonesia, it needs to be kept in mind that despite rapid industrialization, urbanization, and formalization of the workforce, the bulk of Indonesian workers (about 70 percent) continue to operate in rural and informal labor markets, outside the reach of government regulations. For such workers, the greatest impact on their welfare will be felt through the pace and pattern of development, rather than through any labor market regulations. However, despite the fact that regulations only affect the 30 percent of the workforce that is in the formal sector, appropriate labor market regulations are needed because formalization is important for development and growth, and therefore labor market policies that discourage against the expansion of the formal sector should be avoided.

There are two basic approaches that governments can adopt to achieve these goals of improved economic efficiency and social equity through labor market interventions. One is to empower workers or their freely elected representatives (unions or other organizations) to bargain with employers. Governments are important because labor legislation provides the framework for the representation of workers in collective bargaining, wage determination, and dispute settlement. The second is to intervene through direct government legislation that sets wages and working conditions. Most countries adopt a mixture of the two. For example, in addition to legislation establishing workers' basic rights (freedom of association and organization), many countries also have legislation to achieve particular social goals. The most common interventions include minimum wages, bans on child labor, and protection of women and minorities.

Until the industrial boom in Indonesia, the Government had adopted a *laissez-faire* approach to the labor market. Indonesian labor markets had been characterized by flexibility and responsiveness to market forces. Wages for urban industrial workers were typically not much higher than for agricultural workers with similar qualifications. Although there was legislation governing minimum wages for formal sector workers, the level of the minimum wage was set too low to be binding, and wage determination was left to the labor market. Similarly, even though there was a generous umbrella of legislation governing working conditions, such as hours of work, rest period, overtime, annual leave with pay, minimum age of employment, and maternity and menstrual leave

for women, these regulations were seldom enforced.⁶ Prior to the mid-1980s, most of these labor market regulations were irrelevant to the large majority of Indonesians who worked in the rural and informal sector.

This has changed since with the rapid growth in the number of workers employed in labor-intensive manufacturing since the late 1980s. Although these industries have made an important contribution to the Indonesian economy in the last ten years, there seems to be a growing level of dissatisfaction expressed by workers who are employed in these industries. When these workers were previously employed in the informal sector, their working conditions were affected by the communal and social links between them and their employers. In traditional societies, employers usually respect certain norms of justice and avoid exploitative behavior, or face social sanctions. However, with industrialization and modernization, these informal arrangements break down and need to be replaced by other measures.

As we saw earlier, during the 1990s, the proportion of formal sector workers has grown rapidly, increasing from 21 percent to 27 percent just within a four year period. The welfare of these workers is affected directly by labor regulations. The sudden growth in manufacturing has exposed the weaknesses in the Government's capacity to enforce labor regulations. The newspapers are full of stories about the abuses of labor, including exploitative child labor, discrimination against women, denial of centrally-mandated wages and benefits to workers, forced overtime, and so on. Weak administrative capacity, combined with restrictions on trade union freedom, has meant that labor regulations are not enforced even in large urban firms. Labor-intensive manufactures have earned billions of dollars in foreign exchange and yet the living standards of workers in these factories remain noticeably low. What makes it worse in the minds of many is that a high proportion of these factories are owned by foreigners. All of these factors have combined to lead to a widespread perception that these export earnings have come at the cost of the exploitation and degradation of factory workers, and all this for jobs that do not even pay "subsistence" wages.

The Government has become increasingly concerned about this belief that Indonesian workers are not sharing the fruits of their success and is worried about the growing social disorder that could result from it. One of the main tools that they have adopted to increase "the share of workers in the pie" is minimum wage policy. Starting in 1989, minimum wages have been pushed up very rapidly in Indonesia. A detailed analysis of the impact of Indonesia's minimum wage policy on employment, competitiveness, growth and poverty is forthcoming in Rama (1996). This paper focuses on the emerging challenges of appropriate labor standards for child labor, working conditions for women, and the role of unions in the Indonesian labor markets.

⁶ For details of labor market legislation in Indonesia see World Bank (1994).

Child Labor

The term child labor covers a wide range of situations to which ethical, economic and legal responses could be very different (Grootaert and Kanbur, 1995). Children could be helping out on the family farm, as they traditionally did in Indonesia, or they could be engaged in prostitution or factory work (Box 1). For the purpose of defining a policy towards child labor, both the nature of the work and the nature of the relationship between the child and the employer must be considered. A key element is whether the arrangement is "exploitative".

With Industrialization, Child Labor is Beginning to Emerge as a Problem in Indonesia

Box 1: Working up to Sixteen Hours a Day in Indonesia

In a textile works in Glugur, a town district in the city of Medan (North Sumatra), dozens of children between nine and fourteen years of age work from seven o'clock in the morning until eleven o'clock at night. They earn about US\$ 7.50 a month. Twice a day, the children get a bowl of rice with some fish. They have a day off only on Sundays.

Source: Goderbauer and Trienes, 1995.

Until recently, child labor was not much of a problem in Indonesia. Traditionally, children were expected to help their parents, for example, by working in the *sawah*, at the plantation, or in a small family-run business. It is only with the growth of child labor in the industrial sector, and with the reports in the Indonesian press about the abuse of child labor in factories, that this issue has gained prominence.

According to the Labor Force Survey of Indonesia, there were about two million child workers between the ages of 10-14 years in 1994. No data are available on the number of working children below the age of 10 years. Other estimates indicate that official data severely underestimate the number of working children and that even excluding the agricultural sector, there are between 2.3 to 2.9 million children in the industrial and informal sectors alone, i.e., in factories and on the streets (Goderbauer and Trienes, 1995). These estimates indicate that one out of every ten children in this age group is working, even excluding children working on farms.

The prevalence of child labor is linked to poverty and to poor quality or availability of education. As Indonesian incomes have risen and as education has spread, with the achievement of nine years of universal primary education becoming the new norm, child labor has declined (Table 18). While the total number of working children has declined by about 26 percent during 1986-94, the number of children working in urban areas has doubled. This trend is true for both boys and girls. This rapid urbanization of child labor is disturbing, since it is more likely to be associated with exploitative forms of child labor, such as those described in Box 1. For example, data indicate that child workers in urban

areas are subject to much longer working hours than those in rural areas. Even according to official statistics, a quarter of all urban working children work more than 45 hours per week, and a third of these report working more than 60 hours a week. In contrast, only nine percent of rural working children report working more than 45 hours per week, and only one percent work more than 60 hours a week.

Indonesian Children are Increasingly Working in Urban Areas

Table 18: Changing Nature of Child Labor in Indonesia, 1986-94

Location	Total Change during 1986-94 (percent)		
	Male	Female	Total
Rural	-28.4	-36.2	-31.7
Urban	101.8	95.8	98.4
Total	-23.8	-28.0	-25.6

Source: Labor Force Surveys.

Legal Framework for Child Labor

Like most other countries, Indonesia has also enacted legislation to prohibit the employment of children below a certain age and to specify the conditions under which minors may work when they are legally permitted to do so. Indonesian Labor Act Number 1 of 1951 specifies that children 14 years of age or less are not permitted to work. This Act is roughly in line with the ILO Minimum Age Convention, 1973 (No. 138) which sets the minimum age for admission to employment or work at "the age of completion of compulsory schooling and, in any case, ...not less than 15 years" (ILO, 1994). However, in Indonesia, as in other developing countries, the administrative capacity to enforce this law is lacking. In 1987, the Department of Manpower issued new regulations on child labor acknowledging a class of children under the age of 14 who, for socio-economic reasons, must work. This Decree is an explicit acknowledgment of the fact that child labor is a problem in Indonesia. It seeks to afford working children the protection of the law by legalizing their employment and by setting some minimum working standards for "children compelled to work". However, according to legal experts, the Decree contradicts the provisions of the Act of 1951, and therefore fails to afford this protection.

Other Measures to Reduce Child Labor

While child labor is a consequence of poverty, and therefore hard to abolish, it is also an important cause of poverty, and therefore requires some action. Some forms of child labor affect children's health and prevent them from attending school. Hence, they seriously restrict the children's capacity to earn a decent living in the future, and make them prime candidates for a lifetime of poverty.

National legislation and conventions banning child labor have symbolic value as an expression of society's desire to eradicate this practice. But they cannot deliver results unless accompanied by measures to shift the balance of incentives away from child labor and toward education. The most important ways in which governments can shift this balance are by providing a safety net to protect the poor, expanding opportunities for quality education, and gradually increasing institutional capacity to enforce legislated bans. Programs that provide income security for poor households, such as food-for-work or other public works programs, will have beneficial effects on child labor. Measures to reduce the cost of school attendance (subsidies, construction of schools closer to children's homes) and improve the quality of education (changes in curricula, more and better teachers) could also help. As the incidence of poverty falls and education improves, child labor will decline. That in turn will make enforcement of legislated bans easier, starting with such universally abhorred forms of child labor as prostitution and hazardous work (WDR, 1995).

Standards Affecting the Working Conditions of Women

Although women have benefited from the formalization of employment in Indonesia, the poor working conditions of women in the formal sector, especially in the labor-intensive manufacturing sector, is beginning to emerge as a problem. The Indonesian Government has enacted a number of standards to improve the lot of women workers. These standards can be divided into two groups. The first provide women with special rights and **protections in the workplace** because of their role in bearing and raising children. An example is maternity leave. The second seek to end **discrimination in the labor market** by establishing equal pay for work of equal value or prohibiting the exclusion of women from certain jobs.

Indonesia, like nearly all countries in the region, has legislation establishing standard periods of maternity leave and other special benefits for women workers (Agrawal, 1995). In addition, there are usually other protective standards, such as limitations on night work, and on working in certain hazardous places, such as mines and pits. Typically, such legislation requires employers to provide these benefits to female workers, effectively increasing the cost of hiring them. So there is a risk that legislation aimed at protecting women will end up depressing their wages or discouraging their employment. However, in many countries of the region, including Indonesia, employers often fail to meet government-legislated standards. Very often, women workers, who are overrepresented in the informal sector, are so eager for jobs in the modern sector that they willingly ignore this failure. Many are not even aware that standards exist.

A survey of female workers in non-unionized factories in Java found that of those who applied for maternity leave, only 47 percent received it, and of that only 12 percent were paid for that leave. There are also ample documented cases of women being fired because of marriage, pregnancy or birth. Thus, while the special leaves legislated for women provide benefit to some female employees, they also leave others open to abuse and discrimination by employers. Policies to ensure equal pay for work of equal value or

to ensure equal employment opportunities also appear to be largely ineffective. As we saw earlier, there are large differences in the wages and earnings of male and female employees, which cannot be explained due to differences in education or work experience. Furthermore, although detailed data on an occupational breakdown of the workforce is unavailable, even casual observation indicates that there is widespread occupational segregation of the workforce by gender, and that females are concentrated in the lower-paying jobs.

Legislative Framework for the Protection of Women

Indonesian labor laws provide a wide range of workplace protection and anti-discrimination measures for women. Indonesia ratified the 1979 United Nations Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, subsequently shortened to the Convention on Women) through Law No. 7 of 1984. The Convention is an international agreement containing stipulations that the countries which have ratified it have a legal obligation to take steps to eliminate all forms of discrimination against women, including discrimination in education, access to health and family planning services, opportunities to obtain work, legal status in family law, and in participation in political life. Article 11 of the Convention on Women relates to women in the workforce and provides for elimination of discrimination in the field of work including equality in wages, opportunity, choice of career and work, health protection and work safety, prohibition on dismissal due to marriage or pregnancy, provision of day care centers, etc.

While most elements of Article 11 of the Convention on Women are in line with Indonesian labor laws, some important aspects are not in line with the State Ideology and Marital Law of Indonesia. For example, Articles 31 and 34 of the Marital Law describe the division of roles between the sexes and state that "a man is obliged to give a livelihood to his wife and a wife is obliged to take care of her husband's household to the best of her ability" (Katjasungkana, 1995). It is assumed, thus, that the man is the main breadwinner of the family, which is not the reality in the labor market today. This ideology leads to a difference in the way that men and women are treated in the labor market and is one reason for the discrepancy between their earnings. There are certain family allowances that married workers are entitled to. However, with regard to these allowances, women workers are always treated as having a single status, because it is assumed that their wages are complementary to those of their husbands. Moreover, it is feared that a family may receive double family allowances if the wife is not given a single status. Thus, family allowances and medical allowances are not received by women labor, so that for the same work, the financial remuneration given to women workers is lower than that received by men (Ihromi, 1995). This practice clearly violates the provision of Indonesian labor law.

There is ample evidence in Indonesia of a wide gulf between the provisions of the law and its implementation--resulting in widespread discrimination against women in the labor force. Standards designed to protect women from job discrimination are often difficult to enforce in any country, but in Indonesia this problem is compounded by the lack of effective labor unions to represent workers.

Other Measures to Improve the Status of Women in the Workforce

Evidence from many countries indicates that despite the frequent failure of employers to provide female workers with centrally-mandated benefits, women workers are usually better off with jobs in the modern sector than without them--their wages, although low by formal sector standards, are more than double what they could earn in the informal sector or in rural areas. Perhaps, more important, having a stable source of income can change their status within the household and provide them with greater say in the allocation of household expenditures. It appears, therefore, that women as a group gain much more from better access to modern sector jobs than from special standards to protect those who already have good employment. In many countries, a key distinguishing feature between formal and informal sector workers is that the former have had some secondary education. This implies that improving women's access to secondary education is likely to improve their probability of getting a job in the modern sector and, therefore, more likely to improve their lives than high centrally-mandated benefits.

There are also certain, more direct, measures that could be taken to improve women's access to more and better modern sector jobs. One example could be through merit-based hiring and promotion of more women in the public sector, since the public sector is an important source of employment for educated women. In 1992, Indonesia had almost 4 million civil servants, of which 35 percent were women (Table 19). Data indicate that on average, female civil servants have higher educational qualifications than their male counterparts--more than 90 percent of female civil servants had at least completed secondary school as compared with only 74 percent of males. Yet, as Table 25 indicates, women are clearly underrepresented in the higher ranks of the civil service. An affirmative action program, that would seek to ensure equality in the promotion of equally-qualified men and women in the civil service, would help to improve the position of women in the civil service and--by setting an example for the private sector-- perhaps more broadly.

Indonesian Women are Underrepresented in the Higher Ranks of the Civil Service

Table 19: Civil Servants in Indonesia by Rank and Sex, 1992

Rank (in ascending order)	No. of Females	Total No. of Civil Servants	Females /Total in Rank (percentage)	Percentage of Female Civil Servants in Rank
I (Juru)	66,989	519,372	12.9	4.9
II (Pengatur)	1,024,269	2,578,322	39.7	74.9
III (Penata)	271,245	826,686	32.8	19.8
IV (Pembina)	5,091	40,220	12.7	0.4
Non PGPS/Non State Salary Scale	224	1,178	19.0	0.0
Total	1,367,818	3,965,778	34.5	100.0

Source: Statistik Indonesia, 1994.

Role of Unions

Since the mid-1980s, there has been very rapid urbanization, industrialization, and formalization of the workforce. In addition, the levels of education of the younger generation of workers have increased, reaching secondary school levels. Employment opportunities have grown rapidly and there are signs of tightening labor markets in certain pockets of the country, such as in the areas surrounding Jakarta, West Java, and North Sumatra. With this tightening has come increased opportunity for workers to demand and negotiate over better wages and working conditions. For example, an increasing number of strikes in 1995 were for higher wages as opposed to enforcement of existing minimum wages.

All of these factors are leading to a growing demand amongst workers for free and effective trade unions that could act as their agents and could help them to negotiate for higher wages and better working conditions with their employers. In the areas of the country where labor markets are slack and workers have less bargaining power than employers, effective labor unions could play an important role in preventing labor abuses by helping to enforce existing labor regulations governing wages and working conditions. As we discussed above, in the absence of effective unions, compliance with labor regulations in Indonesia is low, leading to poor working conditions and also to industrial relations problems. In areas where labor markets are beginning to tighten, unions could provide an important channel for collective bargaining and negotiations between employees and employers. In the absence of these channels, the industrial relations system will also become increasingly strained.

How have other East Asian economies handled this issue of the appropriate role of unions? This is one of the most controversial issues in the lessons from East Asia's success (World Bank, 1996). Based on East Asia's example, many observers ask why developing countries need to concern themselves with trade unions, collective bargaining, and labor relations legislation. South Korea and Taiwan achieved almost unbelievable rates of economic growth by letting entrepreneurs manage their work forces as they saw fit. They obviously paid wages that were sufficient to acquire and retain the workers they needed. Would not unions have raised wages above true market levels, reduced profits, and eventually impaired the process of growth and development? Was not the repression of unions a necessary condition for the success of East Asia? And should not their experience provide a labor market model for other developing countries?

A careful analysis of the East Asian experience shows, however, that the economies of this region followed a diversity of industrial relations policies and that the caricature depicted above, of unfettered labor markets combined with repression of unions, was neither typical nor necessary for their economic success (Freeman, 1993). Even though some East Asian economies were able to repress unions for some periods of time, most are under pressure now to put in place a more modern system of labor relations. Several factors have contributed to this pressure. One of the main forces at work is the tightening of labor markets, especially in the NIEs and more recently in

Malaysia and Thailand. Tight labor markets make it more difficult for an employer to replace dissident employees, and higher wages enable workers to sustain themselves on their savings for at least short periods of time and to support unions by dues payments. Secondly, the rapidly changing comparative advantage of some countries in the region, from labor-intensive goods to skill-intensive goods, requires more sophisticated production techniques, which also require more sophisticated worker-management relations. And finally, as workers become more educated and more vocal, resentment over working conditions that were stifled in the past can now be expressed openly. In the absence of an industrial relations system that allows grievances to be aired and disputes to be resolved, strikes and other forms of job action, sometimes violent, multiply.

Thus, the lesson from East Asia for industrial relations seems to be that while there are undoubtedly benefits from untrammelled labor markets in the early stages of economic development, after a certain level of development is reached, countries will inevitably feel the need for putting in place a modern industrial relations system. Failure to do so may entail serious costs later. South Korea provides the best example of this scenario. After years of almost complete labor peace, beginning in 1987 the number of strikes increased enormously. This was costly to the economy. The disappointingly low growth of the economy in 1989 was attributed to two major factors: appreciation of the South Korean currency, and "large wage increases, workplace stoppages, and labor productivity decline owing to labor strife during the last two years" (World Bank, 1990b). Similar political and economic developments in Taiwan also led to an upsurge of labor activity there, though not as explosive as in Korea.

Indonesia is under pressure, both internally and externally, to ease restrictions on unions. The Government has recently brought out new regulations in an attempt to address some of these criticisms.⁷ In considering future policy, it would be important to consider that effective, democratic, plant level worker organizations, by providing "voice" at the workplace, may be able to play a positive role and reduce some of the costs associated with worker unrest. Legislation encouraging collective bargaining at the enterprise level could enable workers and managers to negotiate outcomes that might be able to enhance workers' productivity. Improving the dispute resolution mechanism and the ability of the workers to be heard can reduce the incidence of illegal or wildcat strikes. What would be needed, however, would be more than legislative changes. In order to move to a mutually beneficial industrial relations system, appropriate and responsible changes in behavior from employers and workers would also be required. Careful changes in legislation, industrial relations practices, and increased deregulation and competition in product markets could improve the positive role that unions can play while controlling their "negative" role.

⁷ A full discussion of these changes, and their potential impact on the industrial relations system, is outside the scope of this study and is forthcoming in another World Bank study (Cox Edwards, 1996).

F: Summary and Policy Conclusions

Indonesia's rapid and broad-based pattern of growth has had a spectacular effect on poverty reduction. Only 25 years ago, at the beginning of the First Twenty-Five Year Long-Term Development Plan (PJP I, 1969/70-1993/94), Indonesia was one of the poorest countries in the world (World Bank, 1990a). In 1967, Indonesia's GNP per capita was US\$50, roughly half that of India, Bangladesh, or Nigeria. Poverty was widespread throughout the country. The earliest estimates of poverty, in 1970, indicated that 60 percent of the population or about 70 million Indonesians were living in absolute poverty. By 1990, the proportion of poor had declined to 20 percent, or about 35 million people (World Bank, 1993). Recent estimates by Mason and Baptist (1996) indicate that this trend has continued and that the proportion of people living in poverty has declined further between 1990 and 1993.

The model of development that Indonesia has adopted--market-led growth combined with investments in physical and social infrastructure--has proven to be the most beneficial one for workers in developing countries, and also the one that has been most successful in alleviating poverty. Beginning in the late 1960s, the Government adopted a development strategy, which has been pursued through successive Five Year Development Plans, with a commitment to broad-based economic growth, particularly rural development. The Government's development efforts were focused primarily on agriculture (especially rice), education, and transport infrastructure. The emphasis of Government policy was on providing opportunities to workers to find productive employment for their labor, and on gradually enhancing the quality of that labor through education and training. Beyond that, the determination of the rate at which wages, employment, and incomes would grow, was left largely to market forces.

Dissatisfaction with this model is being expressed for the first time in the 1990s. Recent labor market policy initiatives have tended to be justified publicly in terms of their impact on workers' welfare, poverty alleviation and income distribution. For example, recent increases in minimum wages have been explained in terms of ensuring low-income workers the ability to afford a minimum basket of goods.

This paper has shown that workers in Indonesia have been major beneficiaries of the country's growth, and that this growth has been fairly widespread amongst different groups of workers. Workers have experienced sustained increases in employment and earnings. Since 1986, wage employment has grown by 5.5 percent per annum, and formal sector employment has grown even faster, at about six percent per annum. Female workers have benefited from the increase in their employment opportunities in labor-intensive manufacturing, such as textiles, garments and footwear, and their employment in the formal sector has grown at seven percent per annum, significantly faster than for males.

Growth in the productivity of labor, through more capital and an increase in education, has been shared with labor, and is the cornerstone of improvements in workers'

welfare. During the five years since 1989, real earnings of workers have grown at six percent per annum. Again, the gains for female workers have been higher than for males. During this period, the earnings of female workers grew at about eight per annum in real terms, which is considerably higher than the five percent increase in earnings of male workers.

The increase in earnings have been caused by increases in productivity within each sector, as well as by the movement of workers to higher productivity jobs. Since the industrial boom of the mid-eighties, millions of Indonesian workers have moved from low-productivity jobs in agriculture to higher productivity jobs in industry and services. On average, labor productivity in industry is five times as high as in agriculture, and in services it is three times as high as in agriculture. As a result of this migration of workers to better paying jobs, during the 1990s, for the first time the agricultural sector has stopped being a source of employment growth and has in fact begun to shed labor.

One of the most important factors underlying the productivity growth in the Indonesian economy is the impressive increase in the educational attainment of its workforce. As recently as 1971, 70 percent of the workforce had at the most an incomplete primary education. As a result of massive investments in basic education, by 1986, the proportion of the workforce with less than a primary school education had fallen to a half, and by 1994, it had come down further to one-third. Both supply and demand side factors played an important part in leading to this successful outcome. Government policy stressed the increased supply of basic education, while at the same time, the labor market played an important role in increasing the demand for education, by rewarding educational investments handsomely. Both boys and girls have benefited from the educational investments but, starting from a lower base, the education of girls has increased faster, so that they have almost caught up with the education of boys at each level of education. The reduction in the gender gap in education has led to a reduction in the gender gap in earnings, though the latter remains significant because of other factors at play.

Labor market policies also played a critical role in fostering the impressive growth in employment and earnings of Indonesian workers, at least until the 1990s. Prior to the 1990s, Indonesian labor markets had been characterized by flexibility and responsiveness to market forces. Government regulations did not interfere with the market-determined outcome for wages and employment. This is beginning to change somewhat since the rapid growth of labor-intensive manufacturing. Although these industries have led to more jobs and higher wages for Indonesian workers, there seems to be a growing level of dissatisfaction expressed by workers who are employed in these industries. The dissatisfaction stems from several sources, including growing problems of child labor, denial of centrally-mandated wages and benefits to workers, poor working conditions, and various types of abuses of the young, female workers who typically make up the bulk of the workforce in these industries.

The Government's response has been to try and improve the wages and working conditions for workers by centrally mandating higher and higher labor standards. In particular, the Government has relied on minimum wages as a tool for improving workers' welfare. Since 1989, on average, minimum wages have tripled in nominal terms and have doubled in real terms. As a result of these sharp increases, minimum wages are now *higher* than the average wages of female workers in manufacturing in a number of provinces. Enforcement efforts have also been stepped up, and despite low compliance, at these high levels minimum wages are beginning to bite. Rama (1996) shows that higher minimum wages have begun to lead to a loss in wage employment, especially for women and young workers, for whom they are more binding.

The emerging problems associated with working in the modern industrial sector, especially in the absence of effective unions that could help in either enforcing existing protective labor regulations, or in bargaining with employers for better wages and working conditions, are beginning to lead to a debate within Indonesia about whether Indonesia really needs these labor-intensive industries any more. Some observers argue that it is dangerous to base Indonesia's growth and export strategy on cheap labor because there are many other nations in East and South Asia that have even larger supplies of cheap labor than Indonesia. Sooner or later, they argue, these footloose industries that have been attracted to Indonesia because of its cheap and abundant labor will move on to these other nations.

In the long term, it is undoubtedly true that Indonesia will not be able to base its comparative advantage on cheap labor. As Indonesia grows and as incomes rise, Indonesian labor will also no longer be cheap. However, there are different views about how to get from the current state, in which labor is both cheap and plentiful, to the desired state, in which labor is expensive and scarce. One possible strategy is to reject low wage industries and begin immediately developing industries based on skilled labor and technology. Minimum wage legislation is believed to promote this transition by forcing manufacturers to move up the "value added" ladder. If labor is made more expensive, manufacturers will have no choice but to substitute some capital for labor, and to develop more sophisticated industries.

The problem with this line of reasoning is timing. It is by no means obvious that Indonesia has reached a level of economic development at which it can safely reject low wage industries. As was pointed out above, half of Indonesia's labor force is still employed in farming, and another quarter in the informal sector. Labor productivity in farming is one-fifth that in labor-intensive manufacturing. The concept of "low wage" is therefore relative. Although a wage of Rp 4,600 (\$2) per day may seem like exploitation to some, to a majority of Indonesia's population a steady income of Rp 4,600 a day would represent a major improvement. For self-employed farmers and workers in the informal sector, one of their main hopes for improving their living standards is to be absorbed into industry or into the modern services sector which supports industry. If labor-intensive industries are rejected, the capacity of the economy to absorb these plentiful workers working in low-productivity activities will be reduced.

This suggest that there are two broad alternatives. One choice is to push up wages now, which helps the existing industrial labor force but runs the risk of causing a premature death of labor-intensive industries. The other choice is to let wages be determined by market forces. This will mean that wages will rise slowly for the time being, but the capacity of industry to absorb labor will be higher. Labor-intensive industries will thrive and the transfer of labor from low-productivity sectors to high productivity sectors will be rapid. Market forces have already begun to drive average real wages sharply up, as is evident in a few booming areas, such as Greater Jakarta and North Sumatra. As labor moves to more productive jobs, the proportion of the labor force dependent on farming will shrink from the current one-half to one-third or less, and increases in agricultural productivity will raise farming incomes as well. This is the economic development strategy pursued by countries such as Korea and Taiwan that maintained flexible labor markets in the early- to mid stages of industrialization.

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