Thailand Labour Market Indicators 1990–2004







International Labour Organization

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Contents

Preface		
Introduct	ion	
Labour fo TLM	o <mark>rce p</mark> I 1: Lal	participation rate
Employm TLM TLM TLM TLM	ent i I 2: Em I 3: Sta I 4: Em I 5: Pai	ndicators ployment-to-population ratio atus in employment ployment by sector rt-time workers
Underem TLM TLM TLM TLM	ployr I 6: Tin I 7: Un I 8: You I 9: Lou	ment and unemployment indicators ne-related underemployment employment rate uth unemployment ng-term unemployment
Wage ind TLM Cond	icato I 10: M clusior	r lanufacturing wage index ns
Reference	25	
Annexes		
Anno Anno Anno Anno Anno Anno	ex I: ex II: ex III: ex IV: ex V: ex VI: ex VII:	Concepts and definitions used in the Thailand labour force survey Economically active population, employment, unemployment and underemployment International classification of status in employment International standard industrial classification (ISIC Revision 2 1968) International standard industrial classification (ISIC Revision 3 1990) Measurement of underemployment and inadequate employment situations Integrated system of wages statistics
Tables		
Table 1:ITable 2:ITable 3:ITable 4:ITable 5:ITable 5:ITable 6:STable 7:I	Labou Regior Age-sp Emplo Regior Status Regior	r force participation rates, 1990–2004 nal estimates of labour force participation rates, 1994–2004 pecific labour force participation rates, 2004 yment-to-population ratios, 1990–2004 nal estimates of employment-to-population ratios, 1994–2004 in employment, 1990–2004 nal estimates for employment by sector, 2004
Table 8:	Percer	ntage of women in employment by sector, 2004

Page

		Page
Table 9:	Employment by sector, 1990–2004	23
Table 10:	Major sectors by ISIC classifications	25
Table 11:	Percentage female for ISIC-3 tabulation categories, 2004	25
Table 12:	Employment by 1-digit sector level (ISIC-2), 1990-2004	26
Table 13:	Employment by 1-digit sector level (ISIC-3), 1990–2004	27
Table 14:	Part-time workers, 1990–2004	30
Table 15:	Number and percentage of employed persons by hours worked per week, 2004	34
Table 16:	Time-related underemployment, 1990–2004	36
Table 17:	Unemployment, 1990–2004	41
Table 18:	Youth unemployment, 1990–2004	47
Table 19:	Long-term unemployment, 1990–2004	49
Table 20:	Number of private employees and average wages by industrial classification,	
	2004	55
Table 21:	Real manufacturing wage indices, 1990–2004	57

Figures

Figure 1:	Population aged 15+ years by labour force status, 2004
Figure 2:	Classification of the labour force
Figure 3:	Gross domestic product and growth rate at 1988 Prices, 1990–2004
Figure 4:	Labour force participation rates, 1990–2004
Figure 5:	Total employment and labour force participation rates by quarter, 2004
Figure 6:	Age-specific labour force participation rates, 2004 1
Figure 7:	Employment-to-population ratios, 1990–2004 1
Figure 8:	Employment by sex, 2004 1
Figure 9:	Employed population by status in employment and sex, 2004 1
Figure 10:	Status in employment, 1990–2004 1
Figure 11:	Employment by sector, 2004
Figure 12:	Number and share of employment in the agricultural sector, 1990–2004
Figure 13:	Total employment in the agricultural sector by sex, 1990–2004 2
Figure 14:	Employment by sector, 1990–2004 2
Figure 15:	Part-time workers as a percentage of total employment by sex, 1990–2004 3
Figure 16:	Female share of part-time workers, 1990–2004 3
Figure 17:	Time-related underemployment, 1990–2004 3
Figure 18:	Time-related underemployment as a percentage of total employment by sex,1990–20043
Figure 19:	Time-related underemployment as a percentage of total employment and GDP growth, 1990–2004
Figure 20:	Unemployment rates by region, 2004
Figure 21:	Unemployment rates by educational attainment, 2004 4
Figure 22:	Growth rate of output and unemployment rate, 1990–2004 4
Figure 23:	Unemployment rates by sex, 1990–2004 4
Figure 24:	Unemployment rates and time-related underemployment, 1990–2004 4
Figure 25:	Youth unemployment rates by sex, 1990–2004 4
Figure 26:	Youth unemployment by sex, 2004 4
Figure 27:	Unemployment rates for youth, adults and total, 1990–2004
Figure 28:	Ratio of youth unemployment rate to adult unemployment rate and youth unemployment rate, 1990–2004

Page

Figure 29:	Share of youth unemployment in total unemployment and youth unemployment rates, 1990–2004	46
Figure 30:	Long-term unemployed as a percentage of total unemployed by sex, 1990–2004	49
Figure 31:	Long-term unemployed as a percentage of total unemployed and growth of output, 1990–2000	50
Figure 32:	Nominal average manufacturing wage indices, real average manufacturing	57
Figure 33.	Real manufacturing wage indices 1990–2004	58
Figure 34:	Real manufacturing wage indices by sex, 1990–2004	58
Figure 35:	Female as a percentage of male real manufacturing wages, 1990–2004	59
Figure 36:	Real wages and labour productivity in manufacturing, 1990–2004	59
Boxes		
Box 1:	ILO Key Indicators of the Labour Market (KILM)	3
Box 2:	Thailand Labour Market Indicators (TLMI)	4
Box 3:	Some categories of inadequate employment	34

		• •
Box 4:	Why is the criterion for employment only one hour in the reference period	
	of one week?	38
Box 5:	Calculating wage indices	54



Preface

This report on Thailand Labour Market Indicators presents data and analysis for trends over the period 1990–2004 and provides an introduction to the definitions, uses and limitations of the statistics that have been selected to highlight outcomes in the employment of women and men during a dynamic period of rapid change in the Thai economy. It aims to show progress related to several aspects of productive employment and decent work.

This report was prepared under the Labour Market Indicators Library (LMIL) Network project in the ILO Subregional Office for East Asia with support from the Trust Fund on Statistical Capacity Building that is managed by the World Bank. Under the project ten labour market indicators for Thailand were calculated using data from the third quarter or round three of the labour force survey in Thailand. This involved preparing new tables for comparable data over a period in which some changes were made in the questions relating to economic activity. The Thailand Labour Market Indicators (TLMI) are based on the ILO's Key Indicators of the Labour Market (KILM).

Anon Juntavich in the National Statistical Office of Thailand computed new statistics from the labour force survey and Chamnong Paungpook of the National Economic and Social Development Board prepared the analytical report. The final draft was edited by ILO consultant Alex Korns. Elizabeth Morris then extended the presentation and analysis.

Technical support for the Thailand indicators and analytical report was provided by Isabelle Guillet, Elizabeth Morris, Bijoy Rahchaudhuri and Tina Rampino. The project was managed by Elizabeth Morris in the ILO Subregional Office for East Asia in Bangkok and Lawrence Jeffrey Johnson who heads the Employment Trends team in what is now the Economic and Labour Market Analysis Department of the ILO in Geneva. Elizabeth Morris took most of the photos in Nonthaburi Province. Thanks go to Teerasak Siriratanothai for his help with formatting the report and arranging for publication.

It is the hope of the ILO that the data and analysis will be useful for understanding future trends in the Thai labour market. The report may also serve as a reference for concepts and definitions that have been developed over the years by the ILO International Conferences of Labour Statisticians. Using a variety of indicators based on international standards it is possible for policy makers to formulate, implement, monitor and evaluate labour market policies in Thailand and to make informed comparisons with neighbouring countries about trends and outcomes. This initial set of indicators may be expanded to include a broader range of measures for the concept of decent work in order to learn not just whether women and men have any job but also if employment is productive and provides an adequate income to keep workers and their families out of poverty, offers security in times of adversity, includes good working conditions and encourages a voice in decisions that affect their lives and livelihoods.

> Bill Salter Director ILO Subregional Office for East Asia Bangkok June 2007



Introduction

The National Statistical Office of Thailand has been conducting national labour force surveys since 1963. In 1971 two rounds of the survey were used to provide statistics for employment that fluctuated with the agricultural cycle – the first in the off-season during February and the second in the peak season during August. Beginning in 1984 a third round was introduced and in 1997 a fourth enumeration was added. A monthly survey was launched in 2001 with combined data presented on a quarterly basis. At that time a number of changes were made including raising the age cut-off for questions on economic activity from 13 years to 15 years and older to reflect the child labour law. Standard classifications for employment by occupation, status and industry were used as well and changes were made in the division of administrative units into municipal areas and non-municipal areas.

The labour force survey in Thailand uses international standards in collecting data on the labour force. These are based on definitions of economic activity outlined by the International Labour Organization together with resolutions and guidelines developed by the International Conferences of Labour Statisticians.

The economically active population comprises all persons of either sex who furnish, during a specified time period, the supply of labour for the production of goods and services as defined by the United Nations System of National Accounts (SNA)¹ Examples of activities considered to be economic in the SNA are: working for wages, operating a business of ones own and working from home producing goods and services for sale or barter and producing goods for home consumption such as weaving textiles, making furniture, collecting water and gathering firewood. The currently economically active population or labour force is made up of persons who were either employed or unemployed during a short reference period.

There are three basic categories under the labour force framework: employed, unemployed and not in the labour force. These categories are exhaustive and mutually exclusive. The measurement of the labour force is calculated by adding the employed and the unemployed. In the third quarter of 2004 the population of Thailand aged 15 years and over was 49,447,400 of whom 35,711,400 were employed, 548,900 were unemployed and 13,187,100 were not in the labour force. The labour force consists of the employed plus the unemployed or 36,260,300.

The unemployed are defined as those without work, meaning without paid employment or self-employment, during the reference period such as the last week. The unemployed are currently available for work during the reference period and are seeking work through active steps taken during a specified period, such as the last four weeks, to find paid employment or self-employment.

Examples of steps taken to find work are registration at a public employment service or private employment agency for the purpose of obtaining a job offer, direct application to employers, checking at factories, farms, markets, work sites and assembly places for job opportunities, placing and answering newspaper advertisements, seeking assistance of relatives and friends, looking for land, buildings and machinery or equipment to establish a business, arranging for financial resources, applying for permits and licenses and other measures necessary for self-employment.

The ILO uses both a strict definition and a "relaxed" definition of unemployment. The former includes all three of the above – not employed, available for work and actively looking for paid employment or self-employment. The "relaxed" definition of unemployment includes the first two – without employment and available for work during the reference period such as the last week – but not necessarily actively seeking work during the specified period such as four weeks prior to

¹ For more about the System of National Accounts see the United Nations Statistical Division website at: http://unstats.un.org/ unsd/sna1993/introduction.asp.

Figure 1: Population aged 15+ years by labour force status, 2004



Source: National Statistical Office: The labour force survey, Whole kingdom, Quarter 3 (July–September 2004), Bangkok. 2004.

the survey. This includes unemployed persons referred to as "discouraged workers" who have "given up" looking for a job because they are not hopeful of finding employment.

The employed population is defined as persons above a specified age who performed some work for wage, salary, profit or family gain in cash or in kind during the reference period. Employed persons are engaged in economic activity to produce goods and services as defined by the United Nations System of National Accounts (SNA). Unpaid family workers, who are occupied in economic activity for at least one hour during the reference period, are included as employed. Persons on leave or absent during the reference period but were with a job attachment and an assurance of return to work are also counted as employed. This includes workers who are not at the job for reason of illness, maternity or parental leave, holiday or industrial dispute.²

The National Statistical Office of Thailand, in its reports on the labour force survey, uses the total labour force (current labour force plus seasonally inactive labour force) to calculate labour force participation rates, unemployment rates and so forth. In this study, the current labour force has been used, instead, in conformity with international standards. The agricultural sector remains an important part of the Thai economy. A significant number of employed persons are farmers who are seasonally inactive during the dry season in the first and second quarters and are therefore not in the current labour force but counted in the total labour force at that time. During the harvest season in the third and fourth quarters, there is only a small difference between measures for the current labour force and the total labour force.

In this study on Thailand Labour Market Indicators (TLMI), the data are adjusted to include only persons 15 years and older in the current labour force for the period 1990–2004. The classification of the population by labour force status is shown in the Figure 2.

² Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the 13th International Conference of Labour Statisticians, Geneva, 1982 at: http://www.ilo.org/public/english/bureau/stat/download/res/ecacpop.pdf. See Annex II for excerpts.

Figure 2: Classification of the labour force



The ILO has identified twenty Key Indicators of the Labour Market (KILM), only ten of which were considered feasible in Thailand under the Labour Market Indicators Library (LMIL) Network project due to data constraints. Nevertheless, the ten indicators give a good picture of the Thai labour market and its trends.

	Box 1: ILO Key Indicators of the Labour Market (KILM)
KILM 1:	Labour force participation rate
KILM 2:	Employment-to-population ratio
KILM 3:	Status in employment
KILM 4:	Employment by sector
KILM 5:	Part-time workers
KILM 6:	Hours of work
KILM 7:	Employment in the informal economy
KILM 8:	Unemployment
KILM 9:	Youth unemployment
KILM 10:	Long-term unemployment
KILM 11:	Unemployment by educational attainment
KILM 12:	Time-related underemployment
KILM 13:	Inactivity rate
KILM 14:	Educational attainment and illiteracy
KILM 15:	Manufacturing wage indices
KILM 16:	Occupational wage and earnings indices
KILM 17:	Hourly compensation costs
KILM 18:	Labour productivity and unit labour costs
KILM 19:	Labour market flows
KILM 20:	Poverty and income distribution

The Thailand Labour Market Indicators (TLMI) reveal a strong linkage between the labour market and the Thai economy that experienced high growth in the early 1990s, in some years nearly 10 per cent. However, the economic crisis of 1997–1998 was a big shock, with impacts on employment and society. During those two years, economic output actually contracted at unprecedented rates, by 1.4 per cent and 10.5 per cent, respectively. However, the recovery started in 1999 with 4.4 per cent growth.

	Box 2: Thailand Labour Market Indicators (TLMI)
TLMI 1:	Labour force participation rate
TLMI 2:	Employment-to-population ratio
TLMI 3:	Status in employment
TLMI 4:	Employment by sector
TLMI 5:	Part-time workers
TLMI 6:	Time-related underemployment
TLMI 7:	Unemployment rate
TLMI 8:	Youth unemployment
TLMI 9:	Long-term unemployment
TLMI 10:	Manufacturing wage indices





Source: Asian Development Bank: Key Indicators 2005 at http://www.adb.org/Documents/Books/Key_Indicators/2005/xls/THA.xls

Persons 25–54 years of age form the main part of the current labour force, or about 90 per cent. The indicators reveal that the economic crisis of 1997–1998 had a significant impact on the overall structure of labour force participation. Between 1997 and 1999 the participation rate for the 15–24 age group dropped significantly, by 5.3 percentage points for males (from 62.8 to 57.5) and 6.9 percentage points for females (from 55.1 to 48.2), compared to a downward trend of around 1 per cent per annum on average before the crisis (1995–1997). For the employment-to-population ratio, there was a marked drop of 3 per cent in one year from 1997 to 1998, presumably due to the crisis.

As for status in employment, the share of employees increased throughout 1990–2004 in Thailand in line with the process of development. An exception took place in 1998 when the percentage

share of employers increased instead. The share of employees for men was rather stable throughout the period 1990–2004, while that for women gradually increased. Employment by sector also evolved in line with the global pattern of economic development, whereby employment decreases in agriculture while increasing in industry and services. A special case was again in 1998 when employment in agriculture rose slightly, while there was a decrease for industry. Females account for a large proportion of employment in the service sector.

If the cut-off point between full-time employment and part-time work is at 35 hours per week, the analysis shows that more men than women worked part-time during the fourteen year period. However, females and males have equal shares in the part-time employment. From 1995 to 2004, the time-related underemployment rates measured as percentages of both the labour force and of total employment were relatively stable except for an increase from 1997 to 2000. There was no significant difference between males and females for time-related underemployment.

In the Thai labour market measured unemployment is very low and the unemployment rate varies counter cyclically with economic growth. The unemployment rate jumped during the crisis from 0.9 per cent in 1997 to 3.4 per cent in 1998 and has been slow to come back down during the recovery. Furthermore, the impacts on male and female unemployment are alike. Similar trends and impacts are also observable for youth unemployment and long-term unemployment. However, to delineate clearly the linkage between the Thai economy and the labour market, in-depth studies are strongly recommended.



Labour force participation rate

TLMI 1: Labour force participation rate

1.1 Definition

The labour force participation rate (LFPR) is the total number of persons in the labour force – both employed and unemployed – as a percentage of the working age population. For Thailand the working age population is now defined as persons aged 15 and older. This indicator is based on the ILO Key Indicators of the Labour Market (KILM 1).³

1.2 Uses

The labour force participation rate shows the relative size of the labour supply available for production of goods and services. The breakdown by age and sex provides a profile of the economically active population. Data for participation rates are used to understand the composition of human resources, formulate employment policies and suggest training needs. Participation rates also are used to project the expected working lives of men and women that are used for planning social security systems.

The labour force participation rate measures the share of the current labour force in the working age population. It also serves as a rough indicator of employment opportunities and labour demand that fluctuate with business cycles. The labour force participation rate varies with economic development and structural change. Comparisons of participation rates in countries at different levels of development reveal a U-shaped relationship with higher levels for less-developed countries followed by lower rates as countries expand access to education and production moves from labour-intensive agriculture to other activities in industry and services. With greater opportunities for household heads to earn family income, there is less need for additional members to enter the labour market. With economic development labour force participation rates tend to rise resulting in greater employment opportunities for both women and men at higher incomes.

Participation is often lower for urban centres than in rural areas. According to international standards, people are counted as employed if they work one hour or more during the reference week. Rural residents are likely to be economically active for at least one hour while engaged in crop production, animal husbandry or informal activities. City dwellers generally have greater access to education leading to longer years in school resulting in later entry into the labour force. Rural residents, on the other hand, are more likely to leave the education system and join the working population at an earlier age. Moreover, rural residents can work on their farms as contributing family workers while at the same time studying. It is useful to examine participation rates by educational attainment as well as to look at the gender differences. Participation rates for women tend to depend on marital status. There is a link between female participation and fertility rates with women in employment less likely to have additional children.

The profile of participation also depends on socio-economic status with those at the lower end of the income distribution more likely to drop out of school in order to contribute to family income. Malnutrition, disability and illness also affect the capacity to work. This is often the case among low-income groups.

³ For more information on the ILO Key Indicators of the Labour Market see http://www.ilo.org/public/english/employment/ strat/kilm/index.htm.

1.3 Limitations

Measures for labour force participation can vary according to the method with which data are collected. The participation of some groups may be underestimated unless probes are introduced into the data collection instrument. In some cases, employed persons are not counted as working if: (i) they work only for a few hours during the reference period, (ii) are in unpaid employment and (iii) work near or in their home on a combination of market activities and household duties. These situations are more likely to apply to women than to men, leading in some countries to an underestimation of women in employment and thus to lower labour force participation rates.

There are some limitations to using participation rates as a key indicators of the labour market due to the various explanations for an increase or decrease due to a change in either the current labour force or the working age population or both. An increase in the LFPR can result when students leave school to look for work at an early age due to economic circumstances. This means that an increase in the LFPR is not always a good sign. Therefore, it is useful to have additional information about the economic situation and social conditions.

1.4 Trends

Analysis of the labour force participation rate in Thailand reveals that during the period 1990–2004, men participated in the labour force at higher rates than women in every age group. Lower rates for women may reflect biases in data collection that do not count own-account workers and contributing family members as economically active. Participation rates were on a decline until the economic crisis in 1997–1998 after which rates were very stable. However, the crisis was followed by a sharper decline in the participation rate of women than of men in the 15–24 age group. One explanation is that many people in rural areas consider that higher education is not necessary for women, since after marriage their main responsibility is household work rather than economic



Note: The labour force participation rate (LFPR) is the total number of persons in the current labour force as a percentage of the working age population.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July-September 2001–2004).

activities. However, this belief has been changing gradually as the country has developed and more women work after marriage. Thus, young women aged 15–24 are now more apt to seek higher education leading to a delay in labour force entry and a decline in the female participation rate. Furthermore, as the country becomes more developed, its labour force normally moves from agriculture to industry and services. More education is becoming a prerequisite for those who want to work, with the result that labour force entry is unavoidably delayed. In the Thai case, many new factories have been established in rural areas and most of them rely on educated female labour. Teenage girls and young women then need to spend more time in school and this is another reason for the decline in the participation of females aged 15–24.

In contrast, the participation rate of older persons, especially women, has increased. This was true for both the 55–64 age group and those aged 65+ after 2000. This might be in response to many government projects implemented at the local level including the well-known "One Tambon⁴ One Product" (OTOP) project that have created job opportunities for local people no matter how old they are. Or perhaps participation of older people in these projects is more likely to be counted as "real work." In addition, there have been many types of soft loans to establish small business at home where homemakers and older people can work, for example in producing handicrafts.

								Age g	roup									
Year		15+			15–24			25–34			35-54			55 -6 4			65+	
	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F
1990	81.5	87.4	75.6	76.9	78.9	74.9	90.7	97.1	84.2	91.0	97.8	84.4	74.4	86.0	63.7	28.4	38.4	20.4
1991	80.7	87.5	74.0	76.6	80.0	73.1	90.6	97.6	83.5	90.8	97.5	84.3	70.3	83.4	58.4	24.4	35.3	15.5
1992	80.8	87.6	74.0	75.3	79.0	71.5	91.1	98.0	84.0	91.4	98.0	84.9	71.9	83.6	61.1	24.3	35.3	15.8
1993	78.9	85.8	72.0	71.3	74.4	68.2	90.1	97.4	82.6	90.8	97.9	83.9	69.4	83.3	56.9	22.8	33.0	14.5
1994	77.1	84.4	69.9	66.7	70.1	63.3	89.8	97.0	82.5	89.5	97.3	82.1	67.6	82.7	53.6	24.1	34.7	15.9
1995	76.1	83.4	68.8	63.9	67.2	60.5	89.7	97.1	82.0	90.0	97.6	82.6	68.0	80.8	56.0	24.0	34.7	15.1
1996	74.3	82.3	66.4	60.2	64.1	56.2	88.5	96.9	79.9	88.8	97.1	80.7	67.6	81.3	54.7	22.6	33.6	13.4
1997	74.5	82.1	67.1	59.0	62.8	55.1	89.4	96.4	82.1	89.5	97.3	81.8	66.9	81.1	53.7	24.6	33.6	17.0
1998	73.4	81.4	65.6	56.5	61.6	51.3	89.0	96.0	81.9	88.9	97.0	81.1	67.0	81.3	54.0	22.0	31.0	14.6
1999	71.9	80.1	63.8	52.9	57.5	48.2	87.7	95.3	79.9	88.5	96.9	80.4	64.7	78.6	51.9	21.0	31.7	12.3
2000	72.3	80.3	64.4	53.0	57.4	48.5	87.8	94.8	80.6	88.6	97.0	80.5	66.9	81.2	53.5	22.7	32.6	14.6
2001	72.9	81.3	64.8	53.9	60.1	47.5	88.9	96.0	81.7	88.4	96.5	80.5	66.6	79.8	54.0	24.4	33.9	16.9
2002	73.0	81.3	64.9	52.6	58.8	46.2	89.0	96.0	81.8	88.8	96.5	81.3	68.4	82.3	55.7	25.4	35.9	16.9
2003	72.8	80.9	64.8	51.2	57.6	44.6	89.2	95.5	82.7	88.7	96.4	81.1	69.4	82.1	57.7	26.2	36.8	17.7
2004	73.3	81.7	65.1	52.2	58.9	45.2	89.1	96.0	82.0	88.7	96.2	81.3	70.3	82.8	58.6	29.1	41.1	19.5

Table 1: Labour force participation rates, 1990–2004 (percentages)

M = Male; F = Female.

Note: The labour force participation rate (LFPR) is the total number of persons in the current labour force as a percentage of the working age population.

Source: National Statistical Office: Thailand labour force surveys Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

The Key Indicators of the Labour Market indicate that worldwide the labour participation rate was 65.7 per cent in 2004 – 79.0 per cent for men compared with 52.5 per cent for women. There are some problems that result from the use of different sources of data without comparability regarding scope and coverage. There are also differences in concepts and definitions. One particular source of non-comparability is different treatment of contributing family members. Large

⁴ A *tambon* is an administrative unit.

differences can result from age cut-offs. In some countries there is considerable variation over a year due to seasonal fluctuations. Thus, participation rates vary according to the date of the survey. This is true for Thailand where participation rates are higher during planting and harvesting than at other times during the agricultural cycle. Figure 5 shows total employment and participation rates by quarter for 2004. The peak period of the agricultural cycle is in the third quarter.



Figure 5: Total employment and labour force participation rates by quarter, 2004

Source: National Statistical Office: Labour force survey at http://web.nso.go.th/eng/stat/lfs_e/lfse-tab2.xls and http://web.nso.go.th/eng/stat/lfs_e/lfse-tab1.xls

Bearing these issues of comparability in mind, it is interesting that the labour force participation rate for Thailand during 2004 was higher than the worldwide average at 73.3 per cent – 81.7 per cent for males and 65.1 per cent for females. Comparative data for the Asian region are given in Table 2. These figures show that participation rates have not changed substantially over the past decade. However, there were considerable differences across the region in 2004 with higher rates for East Asia (75.0 per cent) than for South-East Asia and the Pacific (70.2 per cent) and South Asia (60.0 per cent). This is primarily due to differences in the labour force participation rates of women.

Table 2: Regional estimates of labour force participation rates, 1994–2004

(percentages)

	1994	2000	2001	2002	2003	2004
East Asia						
Total	78.1	76.9	76.4	76.0	75.5	75.0
Male	84.7	83.7	83.3	82.9	82.5	82.0
Female	71.2	69.8	69.3	68.8	68.3	67.7
South-East Asia and the Pacific						
Total	69.5	70.1	70.5	70.4	70.3	70.2
Male	82.1	82.8	83.2	83.0	82.9	82.7
Female	57.0	57.7	58.1	58.0	57.9	57.8
South Asia						
Total	61.6	60.2	60.2	60.2	60.1	60.0
Male	84.4	83.3	83.1	82.8	82.5	82.2
Female	37.3	35.9	36.1	36.3	36.6	36.8

Source: ILO: Key Indicators of the Labour Market (KILM), Fourth Edition (Geneva, 2005).

While around 82 per cent of men in the three sub-regions were in the labour force in 2004, the proportion of women was substantially lower in South Asia (36.8 per cent) than in East Asia (67.7 per cent) and South-East Asia and the Pacific (57.8 per cent).

Table 3 and Figure 6 show the age-specific labour force participation rates for Thailand in 2004. The LFPR for men is higher than for women in every age group. While participation at an earlier age often depends on access to education, the labour force participation rate of older groups can reflect legislation, traditions and attitudes about retirement. It also depends upon alternative sources of income from pension schemes, family savings and social assistance. Female labour force participation rates in Thailand are not M-shaped as they are in some countries with women dropping out of economic activity to give birth and raise children and then re-entering the labour force.

	Total	Male	Female
15-19	31.3	37.1	25.4
20-24	72.1	79.7	64.3
25-29	87.9	95.5	79.9
30-34	90.5	96.5	84.2
35-39	91.2	97.2	85.1
40-44	90.1	96.9	83.3
45-49	88.4	96.3	80.8
50-54	83.6	93.6	74.0
55-59	76.5	88.6	65.1
60-64	61.8	74.8	49.6
65+	29.1	41.1	19.5

Table 3: Age-specific labour force participation rates, 2004 (percentages)

Note: The labour force participation rate (LFPR) is the total number of persons in the current labour force as a percentage of the working age population in each age group.

Source: National Statistical Office: Thailand labour force survey Quarter 3 (July–September 2004).



Figure 6: Age-specific labour force participation rates, 2004 (percentages)

Note: The labour force participation rate (LFPR) is the total number of persons in the current labour force as a percentage of the working age population in each age group.

Source: National Statistical Office: Thailand labour force survey Quarter 3 (July-September 2004).



Employment indicators

The employment indicators in this report consist of the employment-to-population ratio, status in employment, employment by sector and part-time employment. Each is analysed separately but all are useful to provide a better understanding of employment patterns.

TLMI 2: Employment-to-population ratio

2.1 Definition

The employment-to-population ratio measures the share of employed persons in the total population of working age defined in Thailand to be 15+ years. A high ratio means that a large proportion of the working-age population is employed, while a low ratio indicates a smaller share in market-related activities because people are either unemployed or out of the labour force. This ratio is often used in analysing the employment situation together with the unemployment rate. The employment-to-population ratio has an advantage that its denominator (the working age population) is more stable than the denominator for the unemployment rate (the current labour force). The current labour force is unstable due to the fact that workers can easily enter and leave the labour force depending on economic prospects. This indicator is based on the ILO Key Indicators of the Labour Market (KILM 2).

2.2 Uses

The employment-to-population ratio shows the ability of an economy to create jobs. It is useful for analysing the response of employment to changes in the economy. An increase in the ratio is generally associated with a rise in production or GDP. There are some similarities between the employment-to-population ratio and the labour force participation rate. Yet the movement of the two indicators is not always in the same direction. Employment-to-population indicators can provide additional insights when broken down by sex and age.

2.3 Limitations

While the employment-to-population ratio is useful for viewing the broad picture of employment patterns, analysts also need to look at the place of residence comparing, for example, urban areas and rural areas. Furthermore, different regions can have different ratios. Another point to be considered is that the definition of an employed person is very inclusive, covering those working for just one hour during the reference week. Analysts should look at other indicators as well such as unemployment and underemployment.

Employment-to-population ratios provide a limited measure for decent work that encompasses the quality as well as the quantity of jobs including aspects of employment related to rights, protection and dialogue. For that reason, it is useful to supplement this indicator with other measures such as earnings, hours of work, unemployment and underemployment, formal and informal employment and conditions of work.

2.4 Trends

Before the economic crisis of 1997–1998, the employment-to-population ratio in Thailand was on a gradual decline from 79.7 in 1990 to 75.2 per cent in 1995 or by an average of 1 per cent per annum. This was largely a result of the decline in the participation rate for the 15–24 age group, especially for females, as seen in the previous indicator. But the ratio dropped by 3 per cent in 1998

Year	Total	Male	Female
1990	79.7	85.6	73.8
1991	78.6	85.7	71.4
1992	79.7	86.5	72.9
1993	77.7	84.8	70.7
1994	76.1	83.5	68.9
1995	75.2	82.7	67.8
1996	73.5	81.5	65.6
1997	73.9	81.4	66.5
1998	70.9	78.6	63.4
1999	69.7	77.7	61.9
2000	70.6	78.4	62.9
2001	71.0	79.1	63.1
2002	71.7	79.8	63.9
2003	71.7	79.6	63.9
2004	72.2	80.4	64.2

Table 4: Employment-to-population ratios, 1990–2004 (percentages)

Note: The employment-to-population ratio is the employed population as a percentage of the working age population (15+ years).

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



Figure 7: Employment-to-population ratios, 1990–2004

Note: The employment-to-population ratio is the employed population as a percentage of the working age population (15+ years).

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–Septemberb 2001–2004).

from 1997. There was a small further decrease in the ratio in 1999 despite the increase in participation for the older age group. The employment-to-population ratio for Thailand has been increasing again since 2000.

The long-run decline in the employment-to-population ratio throughout the period was greater for women (from 73.8 to 64.2) than for men (from 85.6 to 80.4). However, the year-to-year variations in the movements were broadly similar for both sexes. The most recent data for 2004 show a substantially higher employment-to-population ratio for men (80.4 per cent) than for women (64.2 per cent). Altogether, there were 19,698,800 men and 16,012,600 women at work during the third guarter of 2004.



There are issues relating to comparability of data across countries. Different age cut-offs - both the lower limit and upper bound – can lead to substantial measurement differences. In some cases the employed population includes all persons engaged in economic activity – paid employment and self-employment - while in others the data relate to wage and salaried workers. Although the 13th International Conference of Labour Statisticians states that unpaid family members who perform work for at least one hour during the reference week should be counted as employed, some countries use a higher threshold for working time. In some cases, the employed population includes the armed forces or institutional population while in others it is limited to the civilian labour force and excludes individuals living in other units such as penal institutions, military barracks or student dormitories. Another issue of comparability relates to the frequency and timing of data collection that may reflect seasonal variation.

Keeping these issues in mind, the global estimate for the proportion of the working age population that is employed was 61.5 per cent in 2004 or 74.1 per cent for men and 49.0 per cent for women. The employment-to-population ratio for East Asia was 72.3 per cent or higher than for South-East Asia and the Pacific (65.8 per cent) and South Asia (57.2 per cent). The proportion of women counted as employed in South Asia was only 34.8 per cent for that year. The employmentto-population ratio for women in Thailand (64.2 per cent) was higher than for Malaysia (43.2 per cent) but lower than for Viet Nam (70.0 per cent).

Source: National Statistical Office: Thailand labour force survey, Quarter 3 (July–September 2004).

	1994	2000	2001	2002	2003	2004
East Asia						
Total	75.5	73.9	73.4	73.1	72.7	72.3
Male	81.4	80.0	79.5	79.3	79.0	78.6
Female	69.3	67.6	67.1	66.7	66.2	65.7
South-East Asia and the Pacific						
Total	66.9	66.7	66.4	65.8	65.9	65.8
Male	79.3	78.7	78.5	77.7	77.8	77.7
Female	54.7	54.8	54.6	54.1	54.2	54.2
South Asia						
Total	59.2	57.5	57.5	57.4	57.2	57.2
Male	81.3	79.8	79.5	79.2	78.7	78.5
Female	35.7	34.1	34.3	34.5	34.6	34.8

Table 5: Regional estimates of employment-to-population ratios, 1994–2004 (percentages)

Source: ILO: Key Indicators of the Labour Market (KILM), Fourth Edition (Geneva, 2005).

TLMI 3: Status in employment

3.1 Definition

The International Classification of Status in Employment (ICSE 1958 and 1993) places persons in categories defined by their relationship to jobs according to the strength of institutional attachment between a worker and a job and the authority over other workers based on the type of explicit or implicit contract.⁵ The criteria used to define status in employment are based on the types of economic risk that workers face. The categories are employees, employers, own-account workers, members of producers' cooperatives, contributing family members and workers not classified by status.

Employed persons can be grouped into several categories according to their status in employment. For Thailand Labour Market Indicator (TLMI 3) these are grouped in three categories: (i) employees or wage and salaried workers, including both government and private employees, (ii) self-employed workers including employers, own-account workers and members of producer's cooperatives and (iii) contributing family workers. The classification for members of a producer's cooperative was added to the labour force survey in 2001, for consistency with the International Classification of Status in Employment 1993 of the ILO. The small number of workers in the category for Thailand is believed to be due to the fact that most members work in cooperatives as a second job, whereas they are classified on the basis of status in their primary job. This indicator follows the ILO Key Indicators of the Labour Market (KILM 3).

3.2 Uses

The indicator for status in employment groups the employed population according to whether they work for wages and salaries, whether they run their own businesses with or without hired employees and whether they work without pay in family production. Shares for status in employment portray adjustments in the labour market structure that generally accompany changes in the pattern and level of development. Normally, as production in industry and services increases and the share of agriculture declines, the proportion of the workers classified as self-employed workers and contributing family members falls and the share of employees rises. The employment status indicator can tell us how fast this change is taking place.

Status in employment can also indicate the degree to which the economy is becoming more formal or informal. "Informalization" is generally accompanied by a decrease in the number of employees with formal working agreements. Together with information about whether jobs are temporary or permanent, this indicator can be used to track "flexible employment."

A high proportion of wage employment can sometimes signify economic development. On the other hand, a large share in self-employment often accompanies employment in the agricultural sector or informal economy. Contributing family members are common among women in households in which other members are self-employed, especially farm production and family businesses. Unpaid family workers are often associated with agriculture and poverty in the face of sluggish economic development and little job growth. There is an obvious link between status in employment (TLMI 3) and sector of employment (TLMI 4).

3.3 Limitations

One drawback to the use of this indicator in Thailand is a break in series in 2001 when the system of classification was changed to include members of producer's cooperatives. Another limitation is

⁵ Resolution concerning the international classification of status in employment, adopted by the 15th International Conference of Labour Statisticians, Geneva, 1993 at http://www.ilo.org/public/english/bureau/stat/class/icse.htm. See Annex III for excerpts.

caused by the aggregate nature of the status categories. For example, in Thailand there is a clear difference between government and private employees with regard to payments both in cash and in kind and in terms of labour management, yet they are grouped together as employees in this measure.

Another shortcoming of this indicator is the procedures used to collect information on ownaccount workers and unpaid family workers. There is a tendency for enumerators to classify men as the former and women as the latter. In part, the difference in the percentage of workers classified as contributing family workers – 15 per cent for men and 31 per cent for women in 2004 – may be due to the perceptions of the enumerators and respondents rather than in real differences in status between the two categories, but there is no evidence to support this conjecture.



Figure 9: Employed population by status in employment and sex, 2004 (percentages)

Note: Employed persons are classified in three groups: (i) employees or wage and salaried workers, (ii) self-employed workers and (iii) contributing family members based on status in employment. Self-employed are both employers and own-account workers.

Source: National Statistical Office: Thailand labour force survey, Quarter 3 (July–September 2004).

3.4 Trends

During the period 1990–2004, the percentage changes for employment status in Thailand were similar to those for other developing countries. The share of employees increased while that of contributing family workers decreased. This trend was particularly pronounced in 2004.

In Thailand, as in other countries, the share of employment in industry and services has risen together with growth of the economy. These sectors have attracted workers with higher earnings than can generally come from working on a family farm. In addition, paid employment is often perceived to provide greater income security. Another factor contributing to the decline in farm labour is new technology that helps farmers operate with less labour input on the same land holdings. Many of the new jobs outside the agricultural sector are in paid employment.

The trend toward an increase in the percentage of employees was interrupted in 1998 as a result of the economic crisis, when workers laid off from the formal sector and paid employment found opportunities for work in the informal economy and self-employment. At the same time, the proportion of women employed as contributing family members increased. After the economic crisis, the share of paid employment continued to increase, while that of contributing family members resumed its long-term downward trend. The amount of self-employment remained fairly stable after the economic crisis.

Table 6: Status in employment, 1990–2004 (percentages)

	Wage and salaried workers					0		с н							
Year					Total			nployei	rs	Ow V	n-acco vorkers	unt S	members		
	Total	М	F	Total	М	F	Total	Μ	F	Total	М	F	Total	М	F
1990	28.8	31.4	25.8	31.8	43.1	18.8	1.3	1.8	0.6	30.6	41.3	18.2	39.4	25.4	55.4
1991	31.1	33.4	28.2	32.3	43.1	19.4	2.2	3.2	0.9	30.1	39.9	18.5	36.7	23.5	52.4
1992	31.5	34.2	28.4	31.0	41.5	18.7	2.4	3.6	1.0	28.6	37.9	17.6	37.4	24.3	52.9
1993	34.6	37.1	31.6	31.8	42.3	19.3	2.0	3.0	0.8	29.8	39.4	18.4	33.6	20.6	49.2
1994	35.0	37.6	31.8	31.6	41.5	20.0	1.9	2.8	0.8	29.8	38.7	19.2	33.4	20.9	48.2
1995	35.8	38.5	32.6	33.4	43.6	21.2	2.9	4.3	1.3	30.5	39.3	19.9	30.8	18.0	46.2
1996	37.8	40.6	34.2	33.6	43.4	21.5	2.5	3.7	1.1	31.0	39.7	20.4	28.7	15.9	44.3
1997	37.8	39.8	35.3	32.2	42.4	19.9	2.3	3.4	0.9	29.9	39.0	19.0	30.0	17.7	44.8
1998	36.6	37.6	35.4	33.9	44.4	21.2	2.6	3.7	1.2	31.4	40.6	20.0	29.4	18.0	43.4
1999	38.4	39.0	37.6	34.8	44.9	22.4	2.9	4.3	1.2	31.9	40.6	21.2	26.8	16.1	40.1
2000	39.7	40.4	38.9	33.6	43.5	21.5	3.4	4.7	1.7	30.3	38.9	19.7	26.7	16.1	39.6
2001	40.4	40.8	39.9	34.9	43.6	24.2	2.9	4.1	1.3	32.0	39.5	22.7	24.7	15.6	35.9
2002	40.0	40.6	39.3	34.4	43.5	23.3	3.2	4.6	1.4	31.2	38.8	21.8	25.6	15.9	37.4
2003	40.5	40.9	40.2	34.9	43.2	24.7	3.3	4.8	1.4	31.5	38.4	23.1	24.6	16.0	35.2
2004	43.8	44.5	42.9	33.9	40.7	25.5	3.1	4.3	1.5	30.8	36.4	24.0	22.2	14.7	31.4

M = Male; F = Female.

Note: Employed persons are classified in three groups: (i) employees or wage and salaried workers, (ii) self-employed workers and (iii) contributing family members based on status in employment. Self-employed are both employers and own-account workers.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



Figure 10: Status in employment, 1990–2004

Note: Employed persons are classified in three groups: (i) employees or wage and salaried workers, (ii) self-employed workers and (iii) contributing family members based on status in employment.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

TLMI 4: Employment by sector

4.1 Definition

The International Standard Industrial Classification – ISIC Revision 2 (1968) and Revision 3 (1990) – classifies establishments or places of work according to the goods and services produced. Employment by sector shows the proportion of workers in the three broad groupings of economic activity – agriculture, industry and services. These sectors are sometimes called primary, secondary and tertiary industry.⁶ This indicator based on the ILO Key Indicators of the Labour Market (KILM 4) presents the structure of employment classified in these three sectors.

4.2 Uses

The indicator for employment by sector describes the movement of jobs in the economy in accordance with the stages of development. According to the typical pattern, a country starts developing as an agriculture-based economy. The more it develops, the more it becomes industrialized. The service sector also grows as the country further develops. The structure of the labour market adjusts accordingly. In other words, the proportion of persons engaged in agriculture, high at the beginning, shrinks as a country develops, while the proportion employed in industry and services grows. Data for Thailand over the period 1990–2004 reveal typical trends in the industrial classifications for the labour market. The absolute numbers as well as the relative share of employed persons in the agricultural sector declined over the period between 1990 and 2004.



Note: These data are calculated using ISIC–3.

Source: National Statistical Office: Thailand labour force survey, Quarter 3 (July–September 2004).

According to data produced for the ILO Key Indicators of the Labour Market, the global distribution of employment by sector for 2004 was 42.8 per cent in agriculture, 20.3 per cent in industry and 36.9 per cent in services. The TLMI data for Thailand are 42.3 per cent, 20.5 per cent and 37.1 per cent. Regional estimates for 2004 shown in Table 7 reveal some differences across Asia and the Pacific with South Asia having the largest share of employment in agriculture, East Asia the largest share in industry and South-East Asia and the Pacific with the largest share in services.

⁶ See United Nations: International Standard Industrial Classification of All Economic Activities, Series M, No. r, Rev. 3 (New York, 1989; Sales No. E.90XVII.11) and http://unstats.un.org/unsd/cr/registry/.

	Agriculture	Industry	Services
East Asia			
Total	57.7	23.6	18.7
Male	54.7	25.8	19.5
Female	61.4	20.9	17.7
South-East Asia and the Pacific			
Total	44.3	20.3	35.4
Male	46.0	22.1	31.9
Female	41.9	17.7	40.4
South Asia			
Total	62.2	13.7	24.2
Male	59.4	14.5	26.1
Female	68.7	11.8	19.5

Table 7: Regional estimates for employment by sector, 2004 (percentages)

Source: ILO: Key Indicators of the Labour Market (KILM), Fourth Edition (Geneva, 2005).

The indicator for sectoral employment trends, together with other information about the labour market, can be used to formulate employment policies and plan training programmes. These data are also used to determine productivity growth in sectors and sub-sectors. The distribution by sex is part of a gender analysis of employment trends. Table 8 shows the percentage female for total employment within each major sector in 2004 for Thailand together with global and regional estimates from the ILO Key Indicators of the Labour Market. In Thailand women represent a larger proportion of employment in services (48.9 per cent) than in either agriculture (42.7 per cent) or industry (41.9 per cent). This is the case for South-East Asia and the Pacific as a whole. In East Asia and South Asia the share of women is highest in agriculture.

Table 8: Percentage of women in employment by sector, 2004 (percentages)

	Agriculture	Industry	Services
Thailand	42.7	41.9	48.9
World	40.3	30.4	44.7
East Asia	47.5	39.4	42.2
South-East Asia and the Pacific	39.4	36.3	47.5
South Asia	32.8	25.6	24.1

Note: These data are calculated using ISIC–3.

Sources: National Statistical Office: Thailand labour force survey, Quarter 3 (July–September 2004) and ILO: Key Indicators of the Labour Market (KILM), Fourth Edition (Geneva, 2005).





Note: These data are calculated using ISIC–3.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



Figure 13: Total employment in the agricultural sector by sex, 1990–2004

Note: These data are calculated using ISIC–3.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

These TLMI measures of employment by sector provide only a broad picture of employment patterns distinguishing just three sectors, whereas there are many economic activities. For example, industry includes mining, quarrying, manufacturing, construction, electricity, gas and water, while manufacturing covers a wide range of production including food, beverages, tobacco, textiles, garments, leather, wood products, paper products, printing and publishing, chemical products, petroleum, coal, rubber and plastic products, non-metallic products, basic metals, metal products, machinery and equipment. And the service sector includes wholesale trade, retail trade, restaurants, hotels, transport, storage, communications, financing, insurance, real estate, business services, community services and personal services.⁷ Part of this shortcoming has been overcome by constructing additional indicators with more details up to 1-digit level for ISIC–2 and ISIC–3 presented in Tables 12 and 13. In addition, it would be useful to have separate categories for employed persons in the public and private sectors.

4.4 Trends

As in other developing countries, the proportion of employed persons in the primary sector or agriculture in Thailand has declined, whereas there has been an increase in shares of the secondary and tertiary sectors or industry and services, respectively. There has been a faster shift of women than men from the agricultural sector to the service sector. However, movements to industry by both males and females were similar.

Voar	Aç	gricultu	re	l	ndustry	/	9	Services	6	Not defined				
icai	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female		
1990	63.4	62.4	64.5	13.5	14.7	' 12.3	23.0	22.9	23.2	0.1	0.1	0.1		
1991	59.7	59.1	60.3	14.9	16.1	13.8	25.3	24.8	3 25.9	0.1	0.1	0.0		
1992	60.4	59.2	61.6	15.0	16.6	5 13.3	24.5	24.1	25.0	0.1	0.1	0.1		
1993	56.3	55.4	57.2	16.7	18.3	15.1	27.0	26.3	27.6	0.1	0.0	0.1		
1994	55.6	54.6	56.7	17.2	19.1	15.3	27.1	26.3	8 28.0	0.0	0.0	0.0		
1995	51.7	50.3	53.2	18.8	20.6	5 17.0	29.5	29.2	29.8	0.0	0.0	0.0		
1996	50.0	48.5	51.4	19.6	21.8	3 17.4	30.4	29.7	' 31.1	0.1	0.0	0.1		
1997	50.2	49.1	51.3	18.5	20.4	16.7	31.2	30.5	32.0	0.0	0.0	0.0		
1998	50.9	51.9	49.8	16.7	17.6	5 15.8	32.4	30.5	34.3	0.0	0.0	0.0		
1999	48.0	49.4	46.7	17.3	17.8	8 16.8	34.6	32.8	36.4	0.0	0.0	0.1		
2000	48.4	49.5	47.3	17.8	18.5	5 17.1	33.7	32.0	35.5	0.0	0.0	0.0		
2001	45.8	48.0	43.6	18.8	19.1	18.4	35.4	32.8	37.9	0.1	0.1	0.1		
2002	45.9	47.8	44.0	19.7	20.5	5 18.9	34.3	31.6	5 37.0	0.0	0.0	0.1		
2003	44.7	46.8	42.5	19.7	20.5	5 18.8	35.6	32.6	5 38.7	0.1	0.1	0.1		
2004	42.3	43.9	40.3	20.5	21.6	5 19.2	37.1	34.4	40.4	0.1	0.1	0.1		

Table 9: Employment by sector, 1990–2004 (percentages)

Note: These data are calculated using ISIC–3.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

⁷ See Annexes IV and V for divisions and categories of ISIC–2 and ISIC–3.



Figure 14: Employment by sector, 1990–2004

Note: These data are calculated using ISIC–3.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

Notes on employment by sector

The indicator for employment by sector measures the proportion of persons employed in the three economic sectors:

- Agriculture agriculture, hunting, forestry and fishing
- Industry mining and quarrying, manufacturing, electricity, gas and water and construction
- Services wholesale and retail trade and restaurants and hotels, transport, storage and communications, financing, insurance, real estate and business services, community, social and personal services

Since 1996 the proportion of employment in industry has hovered around 20 per cent, while the share of services has increased. The annual percentage changes indicate a contraction of employment in industry during the economic crisis in 1997 and 1998. During those years, the share of employment in agriculture actually increased. While the long-term trend for services is upward, the data indicate that the numbers employed in the tertiary sector actually fell in 2000 and 2002.

Employment data by aggregate sector are calculated by combining statistics compiled for the International Standard Industrial Classification (ISIC) System (ISIC–2 or Revision 2 and ISIC–3 or Revision 3) as indicated in Table 10.

Major Sector	ISIC-2 major divisions	ISIC-3 tabulation categories
Agriculture	1	A+B
Industry	2+3+4+5	C+D+E+F
Services	6+7+8+9	G+H+I+J+K+L+M+N+O+P
Not adequately defined	0	Q+X

Table 10: Major sectors by ISIC classifications

Source: ILO: Key Indicators of the Labour Market (KILM), Fourth Edition (Geneva, 2005).

Data obtained at the 1-digit sector level (ISIC–2 in Table 12 and ISIC–3 in Table 13) indicate that a large proportion of the labour force moved to construction and wholesale trade, retail trade and repair services. It is also worth noting that even though the percentage increase in construction was the highest, the absolute increase was greatest in trade, hotels and restaurants.

The disaggregated data show the percentages female for 2004 according to ISIC–3. Women represent more than half of the workforce in manufacturing, hotels and restaurants, financial intermediation, education, health and social work and community, social and personal services. The shares are highest in areas typically associated with "women's work."

Table 11: Percentage female for ISIC–3 tabulation categories, 2004 (percentages)

	Tabulation categories	Percentage female
А	Agriculture, hunting and forestry	43.3
В	Fishing	20.7
С	Mining and quarrying	25.9
D	Manufacturing	52.0
Е	Electricity, gas and water	11.7
F	Construction	15.1
G	Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods	47.4
Н	Hotels and restaurants	64.6
I	Transport, storage and communications	14.3
J	Financial intermediation	52.0
Κ	Real estate, renting and business activities	39.1
L	Public administration and defence, compulsory social security	33.1
Μ	Education	56.7
Ν	Health and social work	70.1
0	Other community, social and personal services activities	53.0
Р	Private households with employed persons	87.0

Note: These data are calculated using ISIC-3.

Source: National Statistical Office: Thailand labour force survey, Quarter 3 (July-September 2004).

Year	Sex	1	2	3	4	5	6	7	8	9	0
1990	Total	63.4	0.2	9.8	0.3	3.2	12.3	2.3	1.1	7.3	0.1
	Male	62.4	0.3	8.7	0.4	5.3	10.3	4.1	1.3	7.2	0.1
1001	Female	64.5	0.1	10.0	0.1	1.2	14.2	0.5	0.9	7.5	0.1
1991	Male	59.7 59.1	0.2	9.3	0.3	3.0 6.0	13.9	2.0 4.5	1.3 1.6	7.0 6.9	0.1
	Female	60.3	0.1	12.3	0.1	1.2	16.1	0.7	1.0	8.2	0.0
1992	Total	60.4	0.2	10.6	0.3	3.9	13.3	2.3	1.4	7.5	0.1
	Male Female	59.2	0.3	9.6 11.6	0.5	6.3 15	11.3 15.2	3.9 0.7	1.7	7.2	0.1
1993	Total	56.3	0.2	11.7	0.4	4.4	14.6	2.6	1.7	8.0	0.1
1995	Male	55.4	0.3	10.4	0.6	7.0	12.4	4.5	2.1	7.3	0.0
	Female	57.2	0.1	13.1	0.1	1.8	16.9	0.8	1.3	8.6	0.1
1994	Total	55.6	0.2	11.5	0.5	5.1	14.3	2.5	1.8	8.5	0.0
	Female	54.0 56.7	0.2	12.9	0.7	2.1	16.8	4.5 0.6	2.0	8.9	0.0
1995	Total	51.7	0.1	12.8	0.4	5.4	16.1	2.9	1.7	8.8	0.0
	Male	50.3	0.2	11.0	0.7	8.7	13.5	5.0	2.0	8.7	0.0
1000	Female	53.2	0.0	14.6	0.2	2.2	18.6	0.7	1.5	9.0	0.0
1996	lotal Male	50.0 48 5	0.1	12.7	0.3	6.4 9.8	16.9 14.6	2.8 4.8	1.9	8.8 7 9	0.1
	Female	51.4	0.0	14.2	0.1	3.0	19.2	0.7	1.6	9.6	0.1
1997	Total	50.2	0.1	12.2	0.4	5.8	17.4	2.8	2.5	8.6	0.0
	Male	49.1	0.2	10.7	0.6	8.8	14.9	4.8	2.8	8.0	0.0
1998	Total	50.9	0.0	12.3	0.2	3.8	17.7	27	2.1	9.5	0.0
1990	Male	51.9	0.2	10.5	0.8	6.2	14.6	4.5	2.6	8.7	0.0
	Female	49.8	0.1	14.2	0.2	1.4	20.9	0.9	1.8	10.8	0.0
1999	Total	48.0	0.2	13.0	0.4	3.8	19.0	2.8	2.3	10.5	0.0
	Female	49.4	0.2	15.0	0.0	1.5	22.1	4.9 0.8	2.7	9.4 11.6	0.0
2000	Total	48.4	0.1	13.7	0.3	3.7	18.7	2.7	2.3	10.0	0.0
	Male	49.5	0.2	11.9	0.5	6.0	15.9	4.6	2.5	8.9	0.0
2001	Female	47.3	0.0	15.6	0.2	1.3	21.5	0.8	2.1	10.2	0.0
2001	Male	43.8	0.1	14.4	0.5	5.9 6.6	17.1	2.7 4.6	2.4	8.6	0.1
	Female	43.6	0.1	17.0	0.1	1.3	22.9	0.9	2.2	12.0	0.1
2002	Total	45.9	0.1	14.9	0.3	4.4	19.9	2.6	2.2	9.5	0.0
	Male Female	47.8 44.0	0.1	12.6 17.3	0.4	7.3	17.0 22.9	4.4 0.8	2.3	7.9	0.0
2003	Total	44.7	0.1	14.9	0.3	4.4	22.9	2.7	2.2	9.6	0.1
2000	Male	46.8	0.2	12.7	0.5	7.2	17.9	4.4	2.5	7.8	0.1
	Female	42.5	0.1	17.1	0.1	1.5	24.0	0.9	2.4	11.4	0.1
2004	Total Male	42.3	0.1	14.9	0.3	5.3 8 1	21.4 18 5	3.0	2.6	10.0	0.1
	Female	40.3	0.1	17.3	0.1	1.8	25.0	1.0	2.5	11.9	0.1

Table 12: Employment by 1-digit sector level (ISIC-2), 1990–2004 (percentages)

Note: See box below.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

Notes on employment by 1-digit sector level (ISIC-2)

The ISIC-2 codes are:

- 1 Agriculture, hunting, forestry and fishing
- 2 Mining and quarrying
- 3 Manufacturing
- 4 Electricity, gas and water
- 5 Construction
- 6 Wholesale and retail trade and restaurants and hotels

- 7 Transport, storage and communication
- 8 Financing, insurance, real estate and business services
- 9 Community, social and personal services
- 0 Activities not adequately defined

Table 13: Employment by 1-digit sector level (ISIC–3), 1990–2004 (percentages)

Year	Sex	Α	В	С	D	Ε	F	G	Н	I	J	К	L	М	Ν	0	Р	Q	Х
1990	Total	62.1	1.2	0.2	9.7	0.3	3.4	8.8	3.3	2.4	0.6	0.5	2.3	2.3	0.8	1.3	0.6	0.0	0.1
	Male	60.5	1.9	0.3	8.7	0.4	5.3	8.1	2.2	4.1	0.7	0.6	3.3	2.1	0.5	1.1	0.1	0.0	0.1
	Female	64.0	0.5	0.1	11.0	0.1	1.2	9.6	4.6	0.5	0.5	0.4	1.2	2.5	1.0	1.5	1.2	0.0	0.1
1991	Total	58.6	1.0	0.2	10.7	0.3	3.8	10.2	3.5	2.7	0.7	0.6	2.3	2.3	0.9	1.3	0.7	0.0	0.1
	Male	57.6	1.5	0.3	9.3	0.5	6.0	9.5	2.2	4.5	0.8	0.8	3.2	2.2	0.5	0.9	0.1	0.0	0.1
	Female	59.9	0.4	0.1	12.3	0.1	1.2	11.1	5.0	0.7	0.6	0.4	1.2	2.4	1.4	1./	1.4	0.0	0.0
1992	Total	59.2	1.1	0.2	10.5	0.3	4.1	9.6	3.5	2.4	0.7	0.8	2.3	2.5	0.8	1.2	0.6	0.0	0.1
	Male	57.5	1.6	0.3	9.6	0.5	6.3 1 5	9.0	2.3	3.9	0./	1.0	3.3 1 1	2.3	0.5	1.0	0.1	0.0	0.1
1002	Tatal	55.0	1.2	0.1	11.0	0.1	1.5	10.2	5.0	0.7	0.0	0.5	1.1	2.0	1.2	1.5	1.2	0.0	0.1
1993	Iotai Male	55.0 53.7	1.2	0.2	11.0	0.4	4.6	10.4 0.7	4.0 2.7	2.8 1.5	0.8	0.9	2.6	2.4 2.1	1.0	1.4 1.1	0.6	0.0	0.1
	Female	56.7	0.5	0.5	13.1	0.0	1.8	9.7 11 2	2.7 5.7	0.8	0.9	0.6	5.5 1 5	2.1	1.5	1.1	1.2	0.0	0.0
100/	Total	54.2	1 3	0.7	11 /	0.5	53	10.1	10	2.2	0.8	1.0	2.8	2.7	1.0	1 5	0.5	0.0	0.0
1997	Male	52.7	1.9	0.2	10.0	0.7	8.1	9.1	2.6	4.5	0.9	1.0	3.7	2.7	0.6	1.1	0.1	0.0	0.0
	Female	56.0	0.6	0.1	12.9	0.2	2.1	11.1	5.7	0.6	0.7	0.9	1.7	2.9	1.4	1.9	1.0	0.0	0.0
1995	Total	50.5	1.1	0.1	12.6	0.5	5.7	11.6	4.2	3.1	0.7	1.0	3.0	2.7	0.9	1.5	0.6	0.0	0.0
	Male	48.8	1.5	0.2	11.0	0.7	8.7	10.5	2.9	5.0	0.8	1.2	4.2	2.6	0.6	1.2	0.1	0.0	0.0
	Female	52.6	0.6	0.0	14.6	0.2	2.2	12.8	5.8	0.7	0.7	0.8	1.6	2.9	1.4	1.8	1.3	0.0	0.0
1996	Total	48.3	1.5	0.1	12.5	0.4	6.7	12.6	4.1	3.0	0.8	1.2	3.0	2.6	0.9	1.6	0.7	0.0	0.1
	Male	46.4	2.1	0.2	11.2	0.5	9.8	12.0	2.6	4.8	0.8	1.5	4.0	2.1	0.5	1.1	0.1	0.0	0.0
	Female	50.6	0.8	0.0	14.2	0.1	3.0	13.4	5.9	0.7	0.8	0.8	1.8	3.1	1.4	2.1	1.3	0.0	0.1
1997	Total	48.8	1.3	0.1	12.0	0.4	6.1	12.4	4.7	3.0	1.1	1.5	2.9	2.7	1.1	1.4	0.5	0.0	0.0
	Male	47.3	1.7	0.2	10.7	0.6	8.8	11.7	3.2	4.8	1.0	1.8	3.8	2.3	0.6	1.1	0.1	0.0	0.0
	Female	50.6	0.7	0.0	13.7	0.2	2.8	13.3	6.5	0.7	1.1	1.0	1.7	3.2	1.6	1.8	0.9	0.0	0.0
1998	Total	49.7	1.3	0.1	12.2	0.5	4.0	12.7	4.8	2.9	0.9	1.3	3.3	3.0	1.2	1.5	0.7	0.0	0.0
	Male	50.2	1.7	0.2	10.5	0.8	6.2	11.5	3.1	4.5	0.9	1.7	4.5	2.3	0.6	1.1	0.2	0.0	0.0
4000	Female	49.1	0.7	0.1	14.2	0.2	1.4	14.0	0.8	0.9	0.9	0.9	2.0	3.8	1.8	2.0	1.5	0.0	0.0
1999	lotal	46.6	1.5	0.2	12.8	0.4	4.0	13.0	5.6	3.1	1.0	1.4	3.5	3.0	1.3	1.8	0.7	0.0	0.0
	Female	47.5	2.1	0.2	15.0	0.0	0.0	14.1	3.7 8.0	4.9	1.0	1.0	4.5 2 3	2.5	2.0	1.5 2.1	0.2 1 3	0.0	0.0
2000	Total	17.2	1.0	0.1	13.6	0.2	3.0	12.0	5.0	2.0	0.8	1.0	2.5	20	1 /	1.6	0.7	0.0	0.1
2000	Male	47.8	1.6	0.1	11.9	0.5	5.9 6.0	12.3	3.6	2.9 4.6	0.8	1.0	4.4	2.9	0.7	1.0	0.7	0.0	0.0
	Female	46.7	0.7	0.0	15.6	0.2	1.3	14.0	7.5	0.8	0.9	1.2	2.1	3.5	2.2	1.9	1.3	0.0	0.0
2001	Total	44.6	1.4	0.1	14.2	0.3	4.2	13.8	5.9	2.9	0.9	1.5	3.1	3.0	1.5	1.7	0.7	0.0	0.1
	Male	45.9	2.0	0.2	11.9	0.5	6.6	13.2	3.9	4.6	0.8	1.7	3.9	2.4	0.7	1.5	0.1	0.0	0.1
	Female	42.9	0.7	0.1	17.0	0.1	1.3	14.6	8.3	0.9	0.9	1.2	2.1	3.8	2.5	2.1	1.5	0.0	0.1
2002	Total	44.7	1.4	0.1	14.7	0.3	4.7	13.8	5.8	2.8	0.8	1.5	2.8	2.8	1.4	1.8	0.6	0.0	0.0
	Male	45.8	2.1	0.1	12.6	0.4	7.3	13.2	3.8	4.4	0.7	1.6	3.3	2.2	0.7	1.5	0.1	0.0	0.0
	Female	43.3	0.7	0.1	17.3	0.1	1.5	14.6	8.3	0.8	0.9	1.3	2.1	3.4	2.2	2.1	1.3	0.0	0.1
2003	Total	43.7	1.2	0.1	14.7	0.3	4.7	14.6	6.1	2.8	0.8	1.6	2.6	2.8	1.5	1.8	0.7	0.0	0.1
	Male	45.1	1.8	0.2	12.7	0.5	7.2	13.9	4.0	4.4	0.7	1.7	3.2	2.2	0.8	1.4	0.2	0.0	0.1
	Female	42.0	0.5	0.1	17.1	0.1	1.5	15.4	8.6	0.9	0.9	1.5	1.9	3.4	2.4	2.3	1.4	0.0	0.1
2004	Total	41.2	1.1	0.1	14.9	0.3	5.3	15.3	6.2	3.0	0.8	1.8	2.8	3.0	1.5	2.0	0.7	0.0	0.1
	Male	42.3	1.6	0.1	12.9	0.4	8.1	14.6	4.0	4.6	0.7	2.0	3.4	2.4	0.8	1.7 2.4	0.2	0.0	0.1
	rendle	27.0	0.5	0.1	17.5	0.1	1.0	10.1	0.9	1.0	1.0	1.5	∠.1	5.0	۲.۵	∠.4	1.5	0.0	0.1

Notes: See box below.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).
Notes on employment by 1-digit sector level (ISIC-3)

The ISIC-3 codes are:

- A Agriculture, hunting and forestry
- B Fishing
- C Mining and quarrying
- D Manufacturing
- E Electricity, gas and water supply
- F Construction
- G Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods
- H Hotels and restaurants
- I Transport, storage and communications
- J Financial intermediation
- K Real estate, renting and business activities
- L Public administration and defence, compulsory social security
- M Education
- N Health and social work
- O Other community, social and personal service activities
- P Private households with employed persons
- Q Extra-territorial organizations and bodies
- X Not classifiable by economic activity

TLMI 5: Part-time workers

5.1 Definition

There is no official ILO definition of full-time work since this varies by country. However, the 81stSession of the International Labour Conference adopted the Part-Time Work Convention, 1994 (No. 175) and the Part-Time Work Recommendation, 1994 (No. 182) that defined a "part-time worker" as "an employed person whose normal hours of work are less than those of comparable full-time workers."⁸

As there is no international standard for the cut-off point separating full-time and part-time workers, a threshold of 35 hours a week is used for this indicator that is consistent with the number of hours for separating underemployment from employment introduced by the National Statistical Office of Thailand in its analysis of the economic crisis.⁹ Another reason to use this cut-off is that the work week for government employees is 35 hours. This indicator is based on the ILO Key Indicators of the Labour Market (KILM 5).

The Thailand Labour Market Indicator (TLMI 5) focuses on employed persons whose working hours are less than "full-time" as a proportion of total employment. There are two measures for part-time workers: (i) the proportion of part-time workers in total employed persons; and (ii) the share of female part-time workers in total part-time employment.

5.2 Uses

In many countries there has been rapid growth of part-time work. This is associated with changing work patterns and labour market flexibility. Part-time employment may be related to the number of women in the labour force. Part-time work can allow for a balance between working life and family responsibilities. Some workers prefer shorter working hours to provide more personal time. Part-time employment is also used as a means to spread employment or redistribute work in response to high unemployment. These are all sensitive issues requiring additional research and thorough analysis.

Part-time employment is not always a choice made by employees since many prefer to be employed full-time. Working part-time often involves lower hourly wages and fewer social benefits. It can also result in fewer opportunities for training programmes and career development related to employment.

Thai workers generally prefer to work full-time as there are limited social benefits for unemployed workers or part-time employees. Of course, there are cases where working less than full-time is the usual practice. For example, workers in agriculture and tourism may work part-time during the off-season.

5.3 Limitations

The main limitation of this indicator is that it does not tell us the causes of part-time employment. There are many reasons that workers are not employed "full-time." For example, the worker may be waiting for repair of broken machinery, delivery of raw materials or resumption of seasonal employment. During the economic crisis some employers reduced working hours rather than lay off employees in hopes that they could avoid severance pay and retain their work force for

⁸ The 81st Session of the International Labour Conference in June 1994 adopted the Part-Time Work Convention, 1994 (No. 175) at http://www.ilo.org/ilolex/english/convdisp2.htm and the Part-Time Work Recommendation, 1994 (No. 182) at http://www.ilo.org/ilolex/english/recdisp2.htm.

⁹ NSO: "The Impacts of economic crisis on employment: The labour force survey, November 1998," Bangkok, 1999, p. 9.

anticipated recovery. While the aggregate data for this indicator reveal some differences by sex, the indicator does not show patterns by industry, occupation or region in Thailand. Nor does it tell us about the distribution of part-time work by age group.

A break in series results from changing the "usual hours" to the "actual hours" in the labour force survey starting from 2001. This accounts for a "jump" in the part-time employment rates.

Voor		Sex		Female share of
real	Total	Male	Female	part-time employment
1990	7.7	5.7	10.1	60.5
1991	4.6	4.0	5.4	53.1
1992	4.9	4.0	6.0	56.2
1993	5.2	4.4	6.0	53.4
1994	5.2	4.4	6.1	54.1
1995	5.0	4.2	5.9	53.8
1996	5.3	4.6	6.2	52.4
1997	9.0	8.2	10.1	50.5
1998	6.6	6.0	7.2	49.5
1999	7.4	6.8	8.2	49.4
2000	6.9	6.5	7.5	48.6
2001	9.8	9.3	10.4	47.7
2002	9.3	8.5	10.2	49.5
2003	9.9	9.1	10.9	49.5
2004	10.3	9.4	11.5	50.0

Table 14: Part-time workers, 1990–2004 (percentages)

Note: The cut-off point for defining part-time workers is 35 hours per week. There are two sub-indicators: (i) part-time employment as a proportion of total employment and (ii) the female share of part-time employment. There is a break in series in 2001.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

5.4 Trends

In most countries there is a larger proportion of women than men in part-time work and women generally account for over half of part-time employment. In Thailand the measure for share of women in part-time employment has remained greater than for men with fluctuation over time and a break in series. The high proportion of part-time employment at around 10 per cent in recent years suggests that further analysis of part-time employment is clearly needed. In 2004 around 3.7 million women and men worked part-time. Assuming some are willing and able to work full-time, Thailand could benefit from the increase in hours, earnings and GDP.

While women generally account for most of the part-time work, the long-term trend has declined in Thailand from 60.5 per cent in 1990 to just 50.0 per cent in 2004. For some years following the economic crisis, the female share dropped below one-half as a result of work-sharing arrangements and fewer employment opportunities.



Figure 15: Part-time workers as a percentage of total employment by sex, 1990–2004 (percentages)





Figure 16: Female share of part-time workers, 1990–2004 (percentages)

Note: The cut-off point for defining part-time workers is 35 hours per week. There is a break in series in 2001. There are two sub-indicators: (i) part-time workers as a percentage of total workers and (ii) the female share of part-time employment.



Underemployment and unemployment indicators

The indicators in this chapter measure the utilization of labour. They cover time-related underemployment, the unemployment rate, youth unemployment and long-term unemployment.

TLMI 6: Time-related underemployment

6.1 Definition

Underemployment reflects underutilization of the productive capacity of the labour force. One measure is time-related underemployment that refers to the number of employed persons whose hours of work in the reference period are insufficient in relation to a more desirable employment situation in which the person is willing and available to be engaged. Time-related underemployment was previously referred to as "visible underemployment." Following the Key Indicators of the Labour Market (KILM 12), Thailand Labour Market Indicator (TLMI 6) includes two underemployment rates: (i) the number of employed persons in time-related underemployment as a percentage of the labour force and (ii) the number as a percentage of total employment.

Unemployment alone is not an adequate indicator of labour utilization in many countries including developing countries and transition economies where most people cannot afford to be without a job and income. Low unemployment rates do not fully reflect an adequate labour market, since the indicator may not capture the inadequacy of employment in terms of insufficient hours, mismatched skills, low earnings and working conditions. In rural communities of developing countries there is often work sharing. Other workers are employed for fewer hours with lower income than they would like. Measures of underemployment and inadequate employment are used to assess progress under the ILO Employment Policy Convention, 1964 (No. 122) in achieving full, productive and freely-chosen employment.

The International Conference of Labour Statisticians first defined underemployment to include all persons in employment "involuntarily working less than the normal duration of work determined for the activity, who were seeking or available for additional work during the reference period."¹⁰ This was later refined to include three criteria for people in employment who, during a short reference period, were: "willing to work additional hours," "available to work additional hours" and "worked less than a threshold relating to working time."¹¹ The threshold or cut-off varies by country with most ranging between 30–40 hours per week.

Inadequate employment refers to situations that affect the capacity and well-being of workers. These vary according to national circumstances relating to such factors as use of skills, degree of risk, travel to work, schedule of employment, occupational safety and health and general working conditions. For the most part, the statistical concepts have not been sufficiently developed for these additional categories of inadequate employment. The resolution of the 16th ICLS notes that some countries may wish to find measures for various types of inadequate employment including the following related to skills, income and excessive hours of work outlined in Box 3.

¹⁰ Resolution concerning statistics of the economically active population, unemployment and underemployment adopted by the 13th International Conference of Labour Statisticians, Geneva, 1982 para 18(1) at http://www.ilo.org/public/english/bureau/stat/res/ecacpop.htm.

¹¹ Resolution concerning the measurement of underemployment and inadequate employment situations adopted by the 16th International Conference of Labour Statisticians, October 1998, at http://www.ilo.org/public/english/bureau/stat/download/ res/underemp.pdf. See Annex VI.

Box 3: Some categories of inadequate employment

Countries may in particular wish to consider, among the various types of inadequate employment situations, whether it is important to produce separate indicators for:

(i) *skill-related inadequate employment*, characterized by inadequate utilization and mismatch of occupational skills, thus signifying poor utilization of human capital. Persons in this form of inadequate employment may be understood to include all persons in employment who during the reference period wanted or sought to change their current work situation in order to use their current occupational skills more fully, and were available to do so;

(ii) *income-related inadequate employment*, resulting from low levels of organization of work or productivity, insufficient tools and equipment and training or deficient infrastructure. Persons in this form of inadequate employment may be understood to include all persons in employment who during the reference period wanted or sought to change their current work situation in order to increase income limited by factors such as those mentioned above, and were available to do so. Countries may wish to apply a threshold, chosen according to national circumstances, above which persons do not qualify for inclusion;

(iii) *inadequate employment related to excessive hours*, may be understood to refer to a situation where persons in employment wanted or sought to work less hours than they did during the reference period, either in the same job or in another job, with a corresponding reduction of income. Countries may wish to apply a threshold of hours below which persons do not qualify for inclusion.

Source: Resolution concerning the measurement of underemployment and inadequate employment situations adopted by the 16th International Conference of Labour Statisticians, October 1998, at http://www.ilo.org/public/english/bureau/stat/res/underemp/htm.

Statistics on hours worked and additional hours available are obtained for employed persons through the Thailand labour force survey. Data refer to hours worked per week at all jobs including the principal occupation. The distribution of hours worked in 2004 is presented in Table 15. A total of 5 million people worked fewer than 35 hours per week or 14 per cent of those employed. Only 602,300 or 1.7 per cent worked fewer than 35 hours and were available for additional work.

Hours of work	Employ	ed persons	Perso additio	Persons available for additional hours of work		
per week	(′000)	(%)	(′000)	(%)		
1–9 hours	288.3	0.8	62.1	21.5		
10–19 hours	1 055.4	3.0	160.5	15.2		
20–29 hours	2 345.7	6.6	273.1	11.6		
30-34 hours	1 305.6	3.7	106.6	8.2		
35–39 hours	3 389.8	9.5	89.8	2.7		
40–49 hours	12 846.8	36.0	186.4	1.5		
50+ hours	14 139.3	39.6	83.6	0.6		
Total	35 370.9	100.0	962.1	2.9		

Table 15: Number and percentage of employed persons by hours worked per week, 2004

Note: These data do not include those who worked zero hours during the reference week but held a regular job. *Source:* National Statistical Office: Thailand labour force survey Quarter 3 (July–September 2004).

6.2 Uses

The time-related underemployment indicator is useful as a supplement to measures for employment and unemployment, especially since according to international standards, a person is counted as employed if he or she works at least one hour during the reference week. TLMI 6 adds to analysis on the efficiency of the labour market in providing full employment. It is not always easy to classify workers as "employed" or "unemployed" in many developing countries. Instead, workers often eke out a living in informal activities and the agricultural sector without regular working hours. While some put in long hours for low incomes, others work sporadically or seasonally. Thus, it is useful to know to what degree less than full-time work is involuntary. This indicator for time-related underemployment can provide insights useful for the formulation, implementation, monitoring and evaluation of policies and programmes to promote employment and generate income.

6.3 Limitations

A limitation in using this indicator for analysing the labour market is that there can be many causes of underemployment. While some relate to economic growth and employment policies, others are out of human control such as natural disasters. Of course, an assessment of labour market policies to determine the causes of time-related underemployment requires additional indicators and other information about the employment situation in a given country.

6.4 Trends

The two sub-indicators for time-related underemployment involve alternative denominators: the current labour force and total employment. These sub-indicators move together as shown in Table 16 and Figure 17. Trends for male and female underemployment in Figure 18 are also similar. However, it is interesting to note that underemployment was greater for women than men before the economic crisis. While it increased with a lag for both sexes in 1998 and 1999, male rates exceeded female rates during the economic recovery following the 1997 crisis. This may reflect fewer chances for men or greater opportunities for women to find full-time work. Or it may be due to a change in measurement in the labour force survey from "usual" to "actual" hours of work. The time-related underemployment rates were equal for men and women in 2004 when economic growth rates again fell.

For both sub-indicators, underemployment tends to move in the opposite direction from the movement of the economy. That is, the indicators decline when the economy expands and vice versa. The impact of the economic crisis on time-related underemployment occurred with a lag, increasing in 1998 and 1999. The trend was downward beginning in 2000 with an upturn in 2004 that accompanied a fall in the rate of GDP growth.

Year	Time-rela as a	ited underer percentage labour forc	mployment of the e	Time-related underemployment as a percentage of total employment			
	Total	Male	Female	Total	Male	Female	
1990	2.3	2.1	2.5	2.4	2.1	2.6	
1991	2.1	2.0	2.3	2.2	2.0	2.4	
1992	2.1	1.7	2.6	2.2	1.8	2.6	
1993	2.8	2.6	3.0	2.8	2.6	3.0	
1994	1.7	1.7	1.8	1.8	1.7	1.9	
1995	1.6	1.5	1.8	1.6	1.5	1.8	
1996	1.8	1.8	1.8	1.8	1.8	1.9	
1997	1.7	1.6	1.9	1.7	1.6	1.9	
1998	2.8	2.6	3.0	2.9	2.7	3.1	
1999	3.5	3.6	3.5	3.6	3.7	3.6	
2000	2.8	2.9	2.8	2.9	3.0	2.8	
2001	1.8	2.1	1.6	1.9	2.1	1.6	
2002	1.5	1.6	1.3	1.5	1.7	1.3	
2003	1.3	1.4	1.1	1.3	1.4	1.1	
2004	1.7	1.7	1.6	1.7	1.7	1.7	

Table 16: Time-related underemployment, 1990–2004 (percentages)

Note: Time-related underemployment is defined as the number of persons working fewer than 35 hours per week and still looking for work or still available for additional work. The indicator is presented here as a percentage of the labour force and total employment. There is a break in series in 2001 resulting from the fact that the survey collected data on "actual" hours rather than "usual" hours. These data do not include those working zero hours per week but having a regular job.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



Figure 17: Time-related underemployment, 1990–2004 (percentages)

Note: Time-related underemployment is defined as the number of persons working fewer than 35 hours per week and still looking for work or still available for additional work. The indicator is presented here as a percentage of the labour force and total employment. There is a break in series in 2001 resulting from the fact that the survey collected data on "actual" hours rather than "usual" hours. These data do not include those working zero hours per week but having a regular job.



Figure 18: Time-related underemployment as a percentage of total employment

- *Note:* Time-related underemployment is defined as the number of persons working fewer than 35 hours per week and still looking for work or still available for additional work. The indicator is presented here as a percentage of total employment. There is a break in series in 2001 resulting from the fact that the survey collected data on "actual" hours rather than "usual" hours. These data do not include those working zero hours per week but having a regular job. See Table 16.
- Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



- *Note:* Time-related underemployment is defined as the number of persons working fewer than 35 hours per week and still looking for work or still available for additional work. The indicator is presented here as a percentage of total employment. The break in series results from the fact that the survey collected data on "actual" hours rather than "usual" hours. These data do not include those working zero hours per week but having a regular job.
- Sources: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004) and Asian Development Bank: Key Indicators 2005 at http://www.adb.org/ Documents/Books/Key_Indicators/2005/xls/THA.xls

TLMI 7: Unemployment rate

7.1 Definition

The unemployment rate is one of the core indicators for international comparisons of the labour market. Unemployment rates show the percentage of unemployed persons in the current labour force. The unemployed measured in this indicator are those who do not work and are available for work no matter whether they are looking for work or not. In other words, they are unemployed by the ILO's "relaxed" definition. The current labour force covers both employed and unemployed persons. This indicator is based on the ILO Key Indicators of the Labour Market (KILM 8).

7.2 Uses

Unemployment rates are used worldwide to monitor the labour market. Some differences can be observed in the unemployment concept from country to country. High unemployment rates do not have the same implications for social problems in all countries. For example, in developed countries where there is unemployment insurance, the social impact of unemployment is less severe than in countries that lack such insurance. Despite low levels in many developing countries, the unemployment rate can serve as a fairly sensitive indicator for labour market trends.

7.3 Limitations

The labour force is measured by the unemployed plus the employed. The latter are those who worked for at least one hour during the reference week. Thus, a person who worked only two hours is counted as employed rather than unemployed. This definition is often called into question. Some of reasons for adopting this one-hour criterion are presented in Box 4.

Box 4: Why is the criterion for employment only one hour in the reference period of one week?

- Inclusion of all employment is in accordance with priority rules of the labour force framework with a person counted as employed if he or she works at least one hour followed by unemployed if he or she meets that criterion and then students, homemakers and others.
- The criterion maintains coherence between production data and employment statistics measurement of total output and labour inputs allowing for measures of labour productivity such as output per worker.
- Unemployment is defined as the total lack of work or zero hours of work during the reference period.
- The definition of time-related underemployment partial lack of work is a sub-category of employment.

Source: Adapted from Ralf Hussmanns, "Measurement of employment and unemployment: International standards and issues in their application," International Workshop on Employment and Unemployment in China, Renmin University of China, 3–4 December 2005.

If the one-hour criterion is used as is the case in Thailand, there is a need to collect information on hours of work, working-time arrangements and time-related underemployment as well. It may also be useful to compile data on the volume of employment measured as employed persons multiplied by the hours of work, in addition to the number of employed persons. Finally, it should be noted that while the unemployment rate calculated on the basis of this definition is not always a good measure for the level of labour utilization, it is nevertheless a sensitive indicator for changes in the labour market. This is the case for Thailand as shown in Figure 22.

The unemployment rate is probably the best-known labour market measure and certainly one of the most widely quoted by the media in many countries. However, the unemployment rate measured by the number of unemployed persons as a percentage of the labour force does not say anything about the income or well-being of workers and families. Paradoxically, low unemployment rates may be associated with high poverty incidence in which case people cannot afford to be without work. Low rates of unemployment may be related to the absence of unemployment insurance and welfare benefits that push people into any job that can add to household income, often in the informal economy. According to international standards, a person is counted as employed if he or she worked just one hour during the reference week. Thus, an unemployed person could spend most of the time outside of employment. Other limitations relate to sources and methods of data collection. These differences can hinder comparisons.

Thailand Labour Market Indicator (TLMI 7) is useful for highlighting trends but does not show variation across urban and rural areas or by region of Thailand. In 2004 the unemployment rate was 1.5 per cent for the country as a whole. Survey data show that rates are higher in urban areas (1.8 per cent) than rural areas (1.4 per cent). The differences across regions are presented in Figure 20.



Figure 20: Unemployment rates by region, 2004

Source: National Statistical Office: Thailand labour force survey Quarter 3 (July–September 2004).

Another limitation is that the indicator does not provide a breakdown of unemployment rates by educational attainment. These data can be added to the trend analysis below to provide additional information. Labour force statistics for 2004 point to problems related to the "educated unemployed" and "skills mismatch."



Figure 21: Unemployment rates by educational attainment, 2004

Source: National Statistical Office: Thailand labour force survey Quarter 3 (July-September 2004).

7.4 Trends

For Thailand, there is obviously a strong relationship between the unemployment rate and economic growth. Before the crisis, economic growth rates of nearly 10 per cent in some years were accompanied by declining unemployment rates. Following the crisis in 1997, the unemployment rate rose sharply. However, unemployment started to decline when the economy began to recover. The impact on unemployment rates, both positive and negative, resulting from the changes in the economy were similar for males and females. Up until 1997, however, unemployment rates were higher for women than men. During the crisis and first years of recovery the unemployment rates were equal. However, beginning in 2001 male rates exceeded female rates. This may reflect the changes in measurement with the break in series rather than changes in unemployment.

Figure 24 presents rates for both unemployment and underemployment. Looking at the impact of the 1997 economic crisis, the patterns suggest that rates for unemployment are more sensitive to economic activity than for time-related underemployment. It is not surprising that annual data show that unemployment rates rose more quickly with the downturn and responded sooner to the recovery. The increase in measured unemployment during 2001 may be due to the break in series moving to the "relaxed" definition of unemployment. Another explanation is that firms retained employees with reduced hours for awhile following the crisis, after which some were dismissed.

Voar	Une	mployment	(′000)	Unem	Unemployment rate (%)				
icai	Total	Male	Female	Total	Male	Female			
1990	681.6	333.4	348.2	2.2	2.0	2.4			
1991	841.8	337.9	503.8	2.7	2.0	3.5			
1992	445.4	220.5	225.0	1.4	1.3	1.5			
1993	487.5	214.8	272.7	1.5	1.2	1.9			
1994	414.6	192.8	221.8	1.3	1.1	1.5			
1995	362.4	161.6	200.8	1.1	0.9	1.4			
1996	349.2	185.0	164.2	1.1	1.0	1.1			
1997	291.9	154.4	137.4	0.9	0.9	0.9			
1998	1 128.9	621.5	507.5	3.4	3.4	3.4			
1999	979.6	544.2	435.4	3.0	3.0	3.0			
2000	808.3	452.6	355.7	2.4	2.4	2.4			
2001	896.3	511.2	385.1	2.6	2.7	2.5			
2002	616.1	372.0	244.1	1.8	1.9	1.6			
2003	543.7	314.7	229.0	1.5	1.6	1.4			
2004	548.9	324.2	224.7	1.5	1.6	1.4			

Table 17: Unemployment, 1990–2004

Note: Unemployment is measured using the "relaxed" definition after 2001 counting as unemployed those not working for at least one hour a day and available for work.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).





Sources: International Labour Office: Thailand Labour Market Indicators (TLMI) 1990–2004 and Asian Development Bank: Key Indicators 2005 at http://www.adb.org/Documents/Books/Key_Indicators/2005/xls/THA.xls



Figure 23: Unemployment rates by sex, 1990–2004 (percentages)

- *Note:* Unemployment is measured using the "relaxed" definition after 2001 counting as unemployed those not working for at least one hour a day and available for work.
- Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



Figure 24: Unemployment rates and time-related underemployment, 1990–2004

Sources: International Labour Office: Thailand Labour Market Indicators (TLMI) 1990–2004 and Asian Development Bank: Key Indicators 2005 at http://www.adb.org/Documents/Books/Key_Indicators/2005/xls/THA.xls

TLMI 8: Youth unemployment

8.1 Definition

According to definitions used by the United Nations and the ILO, youth are defined as persons 15–24 years of age. This indicator is based on the ILO Key Indicators of the Labour Market (KILM 9). Four measures are calculated as follows: (i) youth unemployment rate, or the unemployment rate for the 15–24 age group; (ii) ratio of youth (15–24 years) unemployment rate to the adult (25+ years) unemployment rate; (iii) share of youth unemployed in total unemployment; and (iv) share of youth unemployed in the youth population.

8.2 Uses

Youth employment is an important policy issue in many countries. Youth unemployment is one dimension of a wider concern about limited opportunities for decent work available to young women and men raised at the ILO International Labour Conference in 2005: "A significant number of youth are underemployed, unemployed, seeking employment or between jobs, or working unacceptably long hours under informal, intermittent and insecure work arrangements, without the possibility of personal and professional development; working below their potential in low-paid, low-skilled jobs without prospects for career advancement; trapped in involuntary part-time, temporary, casual or seasonal employment; and frequently under poor and precarious conditions in the informal economy, both in rural and urban areas."¹²

In order to address this problem, youth unemployment is included as part of Goal 8, Target 16 of the United Nations Millennium Development Goals designed to measure progress under global partnership: "In cooperation with developing countries, develop and implement strategies for decent and productive work for youth."¹³ The ILO has worked to expand its knowledge about employment, unemployment and underemployment of youth and has released a report on *Global employment trends for youth.*¹⁴ Data from the Key Indicators of the Labour Market (KILM 9) are used to analyse some of the issues related to inadequate numbers of jobs for young people.

The four indices present different dimensions of youth unemployment. These can be used to determine both levels and trends and then identify and monitor policies and programmes to address the problem. For example, if the unemployment rate for youth is close to that for adults, steps must be taken to promote growth and create employment for the economy as a whole, but when the ratio of youth unemployment rate to adult unemployment rate is high, policy makers must look at specific barriers faced by young people and new entrants to the labour market.

8.3 Limitations

While the four indices allow analysts to look at youth employment from several angles, the use of different sub-indicators may cause confusion. The definition and use of each measure should be explained to those who are using the indicators to understand the situation of young people in the labour market. It should be made clear, for example, that youth who stop looking for employment because they are discouraged about finding a job are counted as "inactive" rather than "unemployed."

¹² ILO: "Conclusions on promoting pathways for decent work for youth", Paragraph 5, International Labour Conference, 93rd Session (Geneva, 2005) at http://www.ilo.org/public/english/standards/relm/ilc93/pdf/resolutions.pdf.

¹³ See http://www.un.org/millenniumgoals. Data are available at http://millenniumindiators,un.org/unsd/mi/mi_goals.asp.

¹⁴ ILO: *Global employment trends for youth* (Geneva, 2005).

8.4 Trends

Youth unemployment in Thailand was relatively high in the early 1990s but declined in the mid-1990s when there was high economic growth. During the 1997 crisis, the youth unemployment rate jumped from 2.2 per cent in 1997 to 7.5 per cent in 1998, a gain of more than threefold, before declining during the recovery as shown in Figure 25. This indicates an indirect relationship between the GDP growth rate, on the one hand, and the youth unemployment rate, on the other. In this sense the youth unemployment rate is like the overall unemployment rate and the adult unemployment rate. However, the rates for youth in Thailand are much higher than for adults and the swings that accompany upturns and downturns are more pronounced as shown in Figure 27.



Note: Youth are defined as persons in the 15–24 year age group. After 2001 the "relaxed" definition of unemployment is used to include young people who are without at least one hour of work and available for work.





Source: National Statistical Office: Thailand labour force survey, Quarter 3 (July-September 2004).

TLMI 8

For most of the period unemployment rates were higher for young men than young women in Thailand. In 2004 the rates were the same at 4.6 per cent. In terms of numbers there were 264,800 unemployed youth that year of whom 156,300 were young men and 108,500 were young women.



Figure 27: Unemployment rates for youth, adults and total, 1990–2004 (percentages)

The ratio of the youth unemployment rate to the adult unemployment rate fluctuated and did not consistently follow the pattern of youth unemployment rate as shown in Figure 28. Youth unemployment rates are very sensitive to the economic situation with large increases during economic downturns. This also corresponds to periods when the demand for labour falls with the result that adults and well as youth find themselves unemployed. For example, between 2002 and 2003 the ratio increased with the youth rate rising to 5.9 times the adult rate. Over the same period, the youth unemployment rate fell from 5.7 per cent to 5.0 per cent. By 2004 the youth unemployment rate was 5 times that for adults in Thailand. This statistic is high by international standards. The corresponding estimate was 3.1 worldwide in 2004 with 2.7 for East Asia, 5.6 for South-East Asia and the Pacific and 3.7 for South Asia.¹⁵

This is consistent with the sub-indicator showing the share of unemployed youth in total unemployment represented in Figure 29. The share of youth unemployment was lowest in 1998 at 43.2 per cent when the economic downturn affected labour markets. It rose to 55.0 per cent in 2002 before reaching 48.2 per cent in 2004.

Note: Youth are defined as persons in the 15–24 year age group. After 2001 the "relaxed" definition of unemployment is used to include young people who are without at least one hour of work and available for work.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

¹⁵ ILO: *Key Indicators of the Labour Market (KILM)*, Fourth Edition (Geneva, 2005).



Figure 28: Ratio of youth unemployment rate to adult unemployment rate and youth unemployment rate, 1990–2004



Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).



Figure 29: Share of youth unemployment in total unemployment and youth unemployment rates, 1990–2004

Note: Youth are defined as persons in the 15–24 year age group. After 2001 the "relaxed" definition of unemployment is used to include young people who are without at least one hour of work and available for work.

Year	Youth unemployed as a percentage of the youth labour forceRatio of youth unemploymentYouth unemployed as a percentage of total unemployedYouth unemployed of the youth unemployment rate						Youth unemployed as a percentage of the youth labour forceRatio of youth unemploymentYouth unemploye as a percentage of total unemploye unemployment rate		unemplo a percer of the yo populat	oyment ntage uth ion		
	Total	М	F	Total	М	F	Total	М	F	Total	М	F
1990	4.3	4.4	4.3	3.3	4.1	2.7	59.3	63.8	54.9	3.3	3.4	3.2
1991	4.3	4.0	4.7	2.2	3.3	1.6	48.0	58.3	41.1	3.3	3.2	3.5
1992	2.4	2.6	2.2	2.4	3.4	1.8	49.7	57.3	42.2	1.8	2.0	1.6
1993	2.9	2.8	2.9	2.8	4.3	2.0	51.5	60.9	44.1	2.0	2.1	2.0
1994	2.5	2.5	2.5	2.8	3.9	2.1	49.3	56.4	43.0	1.7	1.8	1.6
1995	2.3	2.3	2.3	3.0	4.3	2.2	46.6	55.3	39.7	1.5	1.5	1.4
1996	2.5	2.6	2.3	3.6	4.2	3.0	49.5	52.9	45.6	1.5	1.7	1.3
1997	2.2	2.5	1.8	4.0	6.0	2.5	50.6	60.3	39.8	1.3	1.6	1.0
1998	7.5	8.3	6.5	3.1	3.7	2.4	43.2	48.2	37.2	4.2	5.1	3.3
1999	7.8	8.3	7.2	4.2	4.7	3.6	48.6	51.5	45.0	4.1	4.8	3.5
2000	6.6	7.1	6.0	4.5	5.0	3.9	49.7	52.3	46.4	3.5	4.1	2.9
2001	7.6	7.9	7.3	5.0	5.2	4.8	52.3	53.8	50.3	4.1	4.8	3.4
2002	5.7	6.4	4.7	3.9	6.6	2.3	55.0	58.4	49.8	3.0	3.8	2.2
2003	5.0	5.0	5.2	5.9	5.3	6.8	53.4	51.8	55.7	2.6	2.9	2.3
2004	4.6	4.6	4.6	5.0	4.6	5.5	48.2	48.2	48.3	2.3	2.7	2.0

Table 18: Youth unemployment, 1990–2004

M = Male; F = Female.

Note: Youth are defined as persons in the 15–24 year age group. After 2001 the "relaxed" definition of unemployment is used to include young people who are without at least one hour of work and available for work.

TLMI 9: Long-term unemployment

9.1 Definition

This indicator for long-term unemployment measures the duration of unemployment or the length of time that an unemployed person is without work and available for a job. The indicator refers to persons who are unemployed continuously for one year or more. Following the ILO Key Indicators of the Labour Market (KILM 10), long-term unemployment includes two sub-indicators: (i) long-term unemployed as a percentage of the current labour force and (ii) long-term unemployed as a percentage of total unemployment.

9.2 Uses

The long-term unemployment indicator is an important supporting indicator for the unemployment rate. Whereas short-term unemployment is a normal part of labour mobility, job creation, labour turnover and business activity, high long-term unemployment rates indicate there are serious problems in the labour market. Generally speaking, the longer a person is out of a job, the smaller the chance of finding employment. Unemployment is particularly difficult without unemployment insurance, social benefits and family support.

Thus, if there is emerging long-term unemployment the government must review its labour market policies. Otherwise, prolonged periods of unemployment can lead to income losses and diminished employability that may result in exclusion from the labour market. The measure for the Thailand Labour Market Indicator (TLMI 9) uses the "relaxed" definition of unemployment, so it is less likely to exclude "discouraged workers" – unemployed persons who want to work but do not take steps to find a job because they believe that employment is unavailable.

9.3 Limitations

One limitation is that this indicator covers all long-term unemployment of one year or more and does not break this down, for example, to more than one year, more than two years or more than three years. This would be useful if different durations of unemployment are associated with different causes that are of interest to policy makers. It would also be valuable to have data for long-term unemployment broken down by age and residence – urban and rural. For these reasons, the analysis of levels and trends for long-term unemployment should draw on other information.

Another limitation concerns the accuracy of data in the case that respondents must recall how long they have been unemployed. "When unemployed persons are interviewed, their ability to recall with any degree of precision the length of time that they have been jobless diminishes significantly as the period of joblessness extends."¹⁶ Respondents may be prone to forget the length of time they have been unemployed or the fact that they have found odd jobs or temporary work from time to time. For these reasons data for this statistic may not be as reliable as for others. Nevertheless, it remains an important indicator of the labour market.

9.4 Trends

Long-term unemployment as a percentage of the labour force is so low that it does not really show up until the break in series occurring in 2001 when the relaxed definition of unemployment replaced the strict one of available for additional work and taking active measures to find employment. However, the percentages are too small to observe a trend with data rounded off to one-tenth of a percentage point.

¹⁶ ILO: *Key Indicators of the Labour Market (KILM)*, Fourth Edition (Geneva, 2005).

Year	Long- as a j	term unemp percentage c labour force	oloyed of the e	Long-term unemployed as a percentage of total unemployed				
	Total	Male	Female	Total	Male	Female		
1990	0.1	0.1	0.1	3.8	4.2	3.5		
1991	0.0	0.0	0.0	1.1	1.6	0.7		
1992	0.0	0.0	0.0	2.2	2.9	1.5		
1993	0.0	0.1	0.0	2.2	4.8	0.2		
1994	0.0	0.0	0.0	1.7	2.6	0.9		
1995	0.0	0.0	0.0	0.7	1.2	0.3		
1996	0.0	0.0	_	0.4	0.7	-		
1997	0.0	0.0	0.0	0.9	1.1	0.7		
1998	0.1	0.1	0.0	1.6	2.1	1.0		
1999	0.1	0.1	0.1	2.2	2.6	1.7		
2000	0.0	0.0	0.0	1.3	1.5	1.1		
2001	0.3	0.3	0.2	9.9	10.8	8.9		
2002	0.2	0.2	0.2	11.7	10.9	12.9		
2003	0.1	0.1	0.1	7.1	7.6	6.4		
2004	0.1	0.1	0.1	6.2	7.1	5.0		

Table 19: Long-term unemployment, 1990–2004 (percentages)

Note: The long-term unemployed are defined as those unemployed continuously for one year or more. There is a break in series in 2001 after which the relaxed definition of unemployment replaces the strict definition.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

Figure 30: Long-term unemployed as a percentage of total unemployed by sex, 1990–2004

(percentages)





The pattern for males and females is similar for long-term unemployment as a percentage of total unemployment shown in Figure 30. An exceptional change took place in 2002, when the female long-term unemployed jumped from 8.9 to 12.9 per cent, despite economic growth, and surpassed the male percentage. This suggests that greater attention be paid to the data and indicator. After the break in series, the number long-term unemployed has been on a decline falling from 89,200 in 2001 to 34,100 in 2004.

The measure for long-term unemployment as a percentage of total unemployment also reflects the change in concept from the "strict" to "relaxed" definition. This resulted in a jump in the long-term unemployment rate in 2001. However, the general trend in long-term unemployment throughout the period was counter cyclical, decreasing as the economy expanded and vice versa. This is evident by looking at the long-term unemployment rate and the economic growth rate for the period before the break in series as shown in Figure 31.



Figure 31: Long-term unemployed as a percentage of total unemployed and growth of output, 1990–2000

Note:The long-term unemployed are defined as those unemployed continuously for one year or more.Source:National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000).





Wage indicator

The ILO Key Indicators of the Labour Market has three sub-indicators for wages and labour cost. These are KILM 15: Manufacturing wage indices, KILM 16: Occupational wage and earnings indices and KILM 17: Hourly compensation costs. Due to the data limitations for Thailand only KILM 15: Manufacturing wage indices is included in the Thailand Labour Market Indicators. This is comprised of three sub-indicators for private employees in manufacturing: (i) an index for real average wage, (ii) an index for real average total remuneration in cash and in kind and (iii) an index for real average total payment in cash including fringe benefits.

TLMI 10: Manufacturing wage index

10.1 Definition

"Real wages" are defined in an ILO resolution adopted by the 8th International Conference of Labour Statisticians in 1954 as "the goods and services which can be purchased with wages or are provided as wages."¹⁷ Using indices for real wages allows for comparisons across regions or countries and over time. In order to calculate real wages, it is necessary to have: (i) a wage measure expressed in monetary terms, (ii) a series of prices for goods and services commonly purchased by employees and (iii) information about the consumption patterns of employees. By combining (ii) and (iii) it is possible to measure wages in terms of what they can purchase. By turning real wages into an index number it is possible to look at trends without reference to different monetary units.

As noted in the ILO Key Indicators of the Labour Market, different types of wage data correspond to different concepts of wages. The ILO resolution concerning an integrated system of wages statistics outlined by the 12th International Conference of Labour Statisticians in 1973 contains definitions of "wage rates" and "earnings." ¹⁸ The 11th ICLS in 1966 adopted the concepts and definitions for labour costs.¹⁹ Yet another measure is "compensation of employees" used for national accounts. Other guidelines have been adopted for measuring full income for both paid employment and self-employment.²⁰ All these measures cover income from employment. Thailand Labour Market Indicator (TLMI 10) uses earnings.

As noted above, the price element of real wages consists of two sets of data – one for prices of goods and services purchased and the other for the consumption patterns of the population – how much of what is purchased at a particular point in time. Together, the prices of a representative set of goods and services are combined in a consumer price index (CPI).

The manufacturing wage indices calculated for TLMI 10 provide information on average wages and salaries for private employees in the manufacturing sector as a whole. In addition, information has been compiled from the labour force survey for supplementary payments in cash and in kind. Benefits in cash include bonuses, overtime and other payments. Payments in kind are available only after 2001. These refer to supplementary benefits in the form of food, clothing, housing and others and are used to calculate total payments in cash and in kind. The three sub-indicators are

¹⁷ Resolution concerning the international comparison of real wages, adopted by the 8th International Conference of Labour Statisticians, Geneva, 1954.

¹⁸ Resolution concerning an integrated system of wages statistics, adopted by the 12th International Conference of Labour Statisticians, Geneva, 1973 at http://www.ilo.org/public/english/bureau/stat/download/res/wages.pdf. See Annex VII

¹⁹ Resolution concerning statistics of labour cost, adopted by the 11th International Conference of Labour Statisticians, Geneva, 1966 at http://www.ilo.org/public/english/bureau/stat/download/res/labcos.pdf.

²⁰ Resolution concerning the measurement of employment-related income, adopted by the 16th International Conference of Labour Statisticians, Geneva, 1998 at http://www.ilo.org/public/english/bureau/stat/download/res/empinc.pdf

Box 5: Calculating wage indices

The computation of real wage indices involves two steps:

(i) A nominal wage index *(NRi)* is first calculated for year *i* by expressing the value for year *i* as a percentage of the value for the base year (1990), by means of the following formula:

NRi = (Wi / W0) * 100

where W0 is the nominal wage for the base year (1990) and Wi the nominal wage for year i.

(ii) The real wage index (*Ri*) is then computed by dividing, for each year *i*, the nominal wage index (*NRi*) by the corresponding CPI (*Pi*):

Ri = (NRi / Pi) * 100

All data are unadjusted for seasonal variations, and index numbers are shown with 1990 = 100, in conformity with international recommendations for a standard reference year.

Source: ILO: Key Indicators of the Labour Market, Fourth Edition (Geneva, 2005), KILM 15.

estimated separately and presented in real terms. The average nominal wages and salaries for private employees in manufacturing are deflated by the consumer price index (CPI) to obtain an average real wage index that measures earnings in "constant *baht*" adjusted for purchasing power.

Table 20 shows the total private employees and average monthly wages and salaries by industrial classification in 2004. Average manufacturing wages (6,152 *baht*) were greater than the total combined average (5,748 *baht*). The survey shows that on the whole government employees received higher monthly wages than private employees. Part of the explanation is that the data for the private sector include daily wage workers whose earnings are generally low. Data for 2004 show that 72 per cent of government employees compared to 30 per cent of private employees earned more than 5,500 *baht* per month. Within the private sector the proportion of employees receiving benefits were as follows: bonus (38 per cent), overtime (26 per cent) other cash (29 per cent), food (32 per cent), clothing (16 per cent), housing (14 per cent) and others (10 per cent). Smaller percentages of government employees received supplementary benefits in kind with the exception of housing that was provided to 19 per cent.

The consumer price index (CPI) is based on data from the Thailand socio-economic survey published by the Bank of Thailand. It uses a representative sample of goods and services chosen for the compilation of the CPI as components of a "consumer reference basket" covering 373 items in 7 major categories, namely: (i) food and beverages, (ii) clothing and footwear, (iii) housing, (iv) personal and medical care, (v) transportation, (vi) recreation, publication and education and (vii) tobacco and alcoholic beverages. Imported items are not counted in the CPI.

Total private employees ('000)	Average wage (baht per month)
2 324.9	2 510
97.0	4 808
33.2	6 911
4 219.4	6 152
7.1	12 170
1 548.1	5 127
2 020.0	6 405
601.9	5 419
350.6	9 230
229.2	15 302
403.4	9 525
2.2	28 410
197.5	8 320
106.1	10 872
283.4	5 674
236.8	3 838
0.8	5 911
14.5	12 773
12 676.0	5 748
	Total private employees ('000) 2 324.9 97.0 33.2 4 219.4 7.1 1 548.1 2 020.0 601.9 350.6 229.2 403.4 2.2 197.5 106.1 283.4 236.8 0.8 14.5 12 676.0

Table 20: Number of private employees and average wagesby industrial classification, 2004

Source: National Statistical Office: The labour force survey, Whole kingdom, Quarter 3 (July–September 2004), Bangkok. 2004.

10.2 Uses

Generally speaking, wages statistics are very important in analysing the labour market. Wage indicators show the response of labour markets to economic activity in product markets and the resulting shifts in the supply of and demand for labour. As a major source of household income, wages are a key indicator for living standards. Wages statistics are used for planning macroeconomic policy and poverty programmes. They are used for setting minimum wages as well as fixing contributions and benefits for social security. Wage indices are also used in collective bargaining.

While a large proportion of employment and income derives from self-employment rather than paid employment and from the informal economy and other branches in the formal sector, wages statistics for manufacturing employees are generally more widely available than for other activities. In some countries wage data are compiled for the industrial sector as a whole – for mining, quarrying, construction and utilities in addition to manufacturing.

The manufacturing wage index measured in real terms shows the movements of real wages paid in cash and total payments in cash together with the monetary value of in-kind payments for the manufacturing sector. The real average wage, or nominal average wage deflated by the CPI, reflects employees' purchasing power. This measure may be considered indicative of changes in standards of living for employees in manufacturing as wages are the main source of income. To a certain extent, real manufacturing wage indices can be used as a proxy for wage trends in the formal sector. Although labour cost is a different measure including additional expenses incurred by employers when they employ workers, the manufacturing wage index can be used as an indicator for costs of production faced by manufacturing firms in hiring employees. International comparisons for the trends in the index can be made to assess comparative costs. However, the indicator must be used with caution as there are differences between countries in the technique of data compilation for wages, costs and CPIs.

10.3 Limitations

Even though the manufacturing wage index is useful there are shortcomings. The manufacturing sector is a small part of the Thai economy. In 2004 it represented only 14.9 per cent of total employment – 12.9 per cent for men and 17.3 per cent for women. There are also differences within the manufacturing sector across sub-sectors and regions. This indicator is based on data for the private sector and does not include state-owned enterprises. Altogether wage and salaried workers accounted for 43.8 per cent of employment in 2004 as shown in Table 6 – 44.5 per cent for males and 42.9 per cent for females. The trends for manufacturing might be "representative" for trends in the economy as a whole.

Comparisons across countries are limited by differences in the concepts and definitions as well a sources and methods used to collect the data. Finally, and very importantly, labour force surveys are not the preferred source of wages statistics. Data from establishment-based surveys are generally considered to be more accurate since employers can refer to the payroll data in responding to questions about wages paid to employees.

Despite these limitations, the indicator is useful in providing "second best" estimates for manufacturing wage trends based on the labour force survey that allows comparability from one year to the next.

10.4 Trends

The basic indices for average nominal wages and average real wages are presented in Figure 32. These indicators show that while nominal wages increased over the period 1990–2004, real wages have fallen since reaching a peak in 1997 due to stagnant nominal wages and rising consumer prices.

The trends for average wages and cash payments are very similar as shown in Table 21 and Figure 33. Despite the increase in the wage indices during 1990–1997 and the decline during 1997–2004, the general trend was rising. During 1990–2004 the overall trend for the real average wage index excluding fringe benefits was upward as it increased by 36 per cent (136 from 100), reflecting a nominal increase in average wages for the 14 years of 126 per cent, while the CPI increased 67 per cent. Similarly, the real cash payment index was up 40 per cent, based on a nominal increase of 133 per cent over the same period. The indicator for total remuneration including fringe benefits in cash and in kind fell from 100 in 2001 to 97 in 2004.

There are considerable differences by sex. Figure 34 shows real average wage indices for males and females. The indices indicate that males had higher wages than females for the whole period. In addition, they show that during 1990–2004, the real average wage for males increased by 41 per cent, more than for females which increased by 33 per cent. Similarly, for real average total remuneration, the index for males rose 44 per cent whereas that for females increased 39 per cent. In short, all three indices reveal that female manufacturing wages have been falling further behind those of males.



Figure 32: Nominal average manufacturing wage indices, real average manufacturing wage indices and consumer price indices, 1990–2004

Note: Wages are for private employees in manufacturing.

Source: National Statistical Office: Thailand labour force survey, Round 3 (August 1990–2000) and Quarter 3 (July–September 2001–2004).

Year	Index for real average wage			l average	ndex for re total cash	al payments	average in c	Index for real average total remuneration in cash and in kind		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	
1990	100	113	85	100	114	84	_	_	_	
1991	111	124	97	112	125	96	_	_	_	
1992	120	133	103	122	135	105	-	-	-	
1993	134	152	113	136	155	113	-	-	-	
1994	138	157	117	141	160	119	_	_	_	
1995	151	167	132	154	171	134	_	_	_	
1996	141	156	124	147	162	128	-	-	-	
1997	153	171	131	157	176	135	-	_	-	
1998	146	169	123	144	165	122	_	_	_	
1999	148	169	124	145	165	124	-	-	-	
2000	142	158	125	143	159	127	_	_	_	
2001	141	165	119	143	167	121	100	117	85	
2002	140	163	120	142	165	121	99	115	84	
2003	142	164	122	145	167	124	100	116	86	
2004	136	159	114	140	164	117	97	114	82	

Table 21: Real manufacturing wage indices, 1990–2004

Note: Wages are for private employees in manufacturing.











Figure 34: Real manufacturing wage indices by sex, 1990–2004

Note: Wages are for private employees in manufacturing. The CPI has been rebased by using the CPI value divided by the CPI for 1990 multiplied by 100.





Figure 35: Female as a percentage of male real manufacturing wages, 1990–2004





The following figure shows that real wages rose ahead of labour productivity in manufacturing until 2004. Output per worker fell during the crisis as the drop in production was greater than the reduction in the workforce for manufacturing.



Figure 36: Real wages and labour productivity in manufacturing, 1990–2004

Note: Wages are for private employees in manufacturing while labour productivity is measured by manufacturing GDP at constant 1988 prices divided by total manufacturing employment.

Conclusions

The Thailand Labour Market Indicators for 1990–2004 cannot provide a comprehensive picture of labour markets and employment issues. However, the indicators do point out the way in which labour markets respond to structural change and economic cycles.

The indicators show a gradual decline in participation rates as young people spend more time in education and fewer workers are employed in the agricultural sector. Labour force participation rates are generally higher for men than women in all age groups except for teenagers. The employment-to-population ratio declined over the period with a larger proportion of men than women in employment.

Economic development has been accompanied by a move to wage employment with a corresponding decline in contributing family members who generally play an important role in agricultural production. The share in self-employment has not changed dramatically and accounts for about one-third of total employment. The proportion of people employed in agriculture declined from about three-fifths to two-fifths, while industrial employment increased from 14 per cent to 21 per cent over the period. The share of service jobs increased from 23 per cent to 37 per cent. About one-tenth of workers in Thailand were employed part-time in 2004, with female workers accounting for one-half. Only 1.7 per cent of the labour force was in time-related underemployment.

While measured unemployment is remarkably low in Thailand, the unemployment rate is very sensitive to growth rates. Low measured unemployment results from the fact that few people can afford to be completely without work. According to international standards a person is counted as employed if working for at least one hour during the reference week. The Asian financial crisis witnessed a significant increase in the unemployment rate from 0.9 per cent in 1997 to 3.4 per cent in 1998. Prior to the crisis the unemployment rates were higher for women than for men. During the years in which labour markets were most affected by the economic crisis, unemployment rates were about equal for women and men. However, after 2000 the male rates were greater than female rates. The rates for young men have been higher than for young women since 1995. Unemployment rates for youth (15–24 years) are much higher than for adults (25+ years). The ratio of youth-to-adult unemployment rates increased from 2.2 in 1991 to a peak of 5.9 in 2003. Youth unemployment accounted for around one-half of all unemployment in Thailand ranging from 43 per cent in 1998 to 55 per cent in 2002. Long-term unemployment of more than one year represented 6 per cent of total unemployment in 2004.

Labour force surveys are not the best source of wages statistics. However, the survey in Thailand does provide an indicator of trends. Manufacturing wage indices show a decline in real wages after the economic crisis since nominal wages have not increased enough to offset price increases. Women received lower real manufacturing wages than men throughout the period with the lowest percentage in 2004 at 72 per cent.

If employment is to be central to economic planning Thailand should continue to include labour market indicators alongside key macroeconomic variables in looking at trends. For some of the selected indicators, it is difficult to interpret the trends due to breaks in data series resulting from changes in definitions. However, together these ten Thailand Labour Market Indicators should continue to be useful for policy makers. It is hoped that this report with its explanations for definitions, uses and limitations of the indicators will encourage the government to produce these statistics on a regular basis and enable analysts to use them more effectively.

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Concepts and definitions used in the Thailand labour force survey

The National Statistical Office (NSO) has published a series of reports on the results from the labour force survey. The concepts and definitions used in this study are in line with the ones used by the National Statistical Office in the Labour Force Survey Project and for the most part have been used since 1983. However, to improve the completeness of the data with respect to the real socio-economic situation and to meet user needs, some definitions have been changed. The age cut-off for the questions on economic activity for the survey was raised to 15 years in 2001 in order to agree with the child labour law. Before 2001, the age cut-off for the survey was 13 years; in this report, however, a minimum age of 15 is used throughout the period 1990–2004.

Employed Persons

Employed persons are persons except members of the armed forces, 15 years of age and older who during the survey week:

- Worked for at least one hour for wages, salary, profits, dividends or any other kind of payment, in cash or in kind;
- Did not work at all or worked less than one hour but either received wages, salary or profits from a business enterprise or a farm during the period of absence; or did not receive wages, salary or profits from business enterprise or farm during the period of absence but had regular jobs or business to which they would return to work;
- Worked for at least one hour without pay in a business enterprise or on farms owned or operated by household heads or members.

Unemployed persons

Unemployed persons are persons, 15 years of age and over, who during the survey week did not work even for one hour and had no jobs, business enterprise or farms of their own. Persons in this category include:

- Those who had been looking for work, applying for a job or waiting to be called to work during the last 30 days before the interview's date; and
- Those who had not been looking for work during the last 30 days before the interview date but were available for work during the last 7 days before the interview date.

Current labour force

All persons 15 years of age and older who, during the survey week, were either employed or unemployed as defined above.

Seasonally inactive labour force

Persons 15 years of age and over, who during the survey week, were neither employed nor unemployed as defined above but were waiting for the appropriate season. These are persons who usually work without pay on farms or in business enterprises engaged in seasonal activities owned or operated by the head or another member of the household.
Total labour force

All persons 15 years of age and older, who during the survey week, are in the current labour force together with those who were classified as in the seasonally inactive labour force.

Persons not in the labour force

Persons classified in this category are those who were neither employed nor unemployed during the survey week, nor classified in the seasonally inactive labour force. They include:

Persons who during the survey week were under 15 years of age and persons who, during the survey week were 15 years of age and over, but were neither employed nor available for employment because they were:

- Engaged in household work
- Engaged in studies
- Too young (below 18 years of age) or too old (above 60 years of age)
- Incapable of work because of physical or mental disability or chronic illness
- Voluntarily idle
- Working without pay, profits, dividends or other payment for persons who were not members of the same household
- Working without pay, profits, dividends or any other payments for charitable organizations and institutions
- Not available for work for other reasons

Occupation

Occupation refers to the kind of work performed on the job. Most persons generally hold only one job. For a person with more than one job, data were collected for the job at which he or she worked for the greatest number of hours during the survey week. If the number of working hours for each job were exactly the same, the job which gave the highest income was recorded. If the number of working hours and the income earned from each job was the same, the job for which he or she had preference was recorded. If the respondent could not give his or her preference, the job at which he or she had been working for the longest time was the one recorded.

Before 2001, the occupational classification used in Thailand was based on International Standard Classification of Occupation, 1958 (ISCO–58). Since January 2001 the 1988 version (ISCO–88) has been used instead. Both versions were approved by an International Conference of Labour Statisticians convened by the International Labour Organization (ILO).

Industry

The term "industry" in this report refers to the nature of economic activity undertaken in the establishment in which a person worked or the nature of business in which he or she was engaged during the survey week. If a person has more than one job, questions were asked about the industry corresponding to the occupation.

In the past, the survey used the Thailand Standard Industrial Classification (TSIC) which was based on the International Standard Industrial Classification (ISIC) 1958. In January 2001, the TSIC was replaced by the International Standard Industrial Classification (ISIC–Rev. 3) 1989 of the United Nations (UN).

Status in employment

Status in employment refers to the status of person's main job in the survey week. The status has been classified into five categories as follows:

- An employer is defined as a person who operates his or her own enterprise for profit or dividends and hires one or more employees in his or her enterprise.
- An own-account worker is a person who operates an enterprise on his or her own account or jointly with others in a form of partnership, either for profit or dividends, but without employing any employees.
- A contributing family worker is anyone who works not for wages but for a share of the profit on a farm or in a business enterprise owned or operated by a family member.
- An employee: (i) A government employee is defined as a person who works for pay in a government agency or enterprise. This category, therefore, includes civil servants, police, municipal officers and employees of government enterprises; (ii) A private employee is a person who works for pay in a non-governmental enterprise owned and operated by an employer.
- A member of a producers' cooperative is a person who holds a "self-employment" job in a cooperative producing goods and services in which each member takes part on an equal footing. The members together determine the organization of production, sales and/or other work of the establishment, the investments and the distribution of proceeds among members.

Since January 2001, the survey has started using the International Classification of Status in Employment, 1993 (ICSE–93) of the International Labour Organization (ILO) adding an additional status to those used in the previous surveys, that is, members of a producers' cooperatives.

Types of households included in the survey

Households included in the scope of the survey can be divided into two types:

- Private households which include one person households, i.e. single persons who make provision for their own food or other essentials of living without combining with any other persons, or multi-person households, i.e. groups of two or more persons making common provision for food or other essentials for living, residing in any of the following types of housing: wooden dwellings, cement dwellings, row houses, apartments, boats, rafts and others.
- Special households which include persons living in group living quarters within the compound of a factory, or in a dormitory, or boarding house that is not exclusively for students.

Other types of households, such as penal institutions, residences for clergy, military barracks, dormitories for students and the like, were classified as institutional households and are not covered in the survey.

Economically active population, employment, unemployment and underemployment

Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians (October 1982)

The Thirteenth International Conference of Labour Statisticians.

Recalling the existing international standards concerning statistics of the labour force employment and unemployment contained in Resolution I adopted by the Eighth Conference (1954) and concerning measurement and analysis of underemployment and underutilisation of manpower contained in Resolution III adopted by the Eleventh Conference (1966),

Recognizing the need to revise and broaden the existing standards in order to enhance their usefulness in the provision of technical guidelines to all countries and particularly those with less developed statistics and recognising the usefulness of such standards in enhancing the international comparability of the statistics,

Adopts this twenty-ninth day of October 1982 the following resolution in substitution for Resolution I of the Eighth Conference and paragraphs 4 to 9 and 13 of Resolution III of the Eleventh Conference:

Objectives and scope

1. Each country should aim at developing a comprehensive system of statistics on the economic activity of the population in order to provide an adequate statistical base for the various users of the statistics taking account of the specific national needs and circumstances. In particular the system should provide for needs in connection with the measurement of the extent of available and unused labour time and human resources for purposes of macroeconomic monitoring and human resources development planning and the measurement of the relationships between employment income and other social and economic characteristics for purposes of formulating and monitoring employment policies and programmes, income-generating and maintenance schemes, vocational training and other similar programmes.

2. In order to fulfil the above objectives the programme of statistics of the economically active population should in principle cover all branches of economic activity, all sectors of the economy and all status groups (employees, own-account workers, etc.) and should be developed to the fullest extent possible in harmony with other economic and social statistics. The programme should specifically provide for both short-term and longer-term needs, i.e. statistics for current purposes compiled frequently on a recurrent basis and statistics compiled at longer intervals for structural in-depth analysis and as benchmark data:

(a) the current statistics programme should encompass statistics of the currently active population and its components in such a way that trends and seasonal variations can be adequately monitored. As a minimum programme, countries should collect and compile statistics on the currently active population twice a year, if possible coinciding with the agricultural peak and slack seasons wherever considered appropriate;

Annex II

(b) the non-current statistics programme which may include censuses and surveys should provide (i) comprehensive data on the economically active population, (ii) in-depth statistics on the activity pattern of the economically active population over the year and the relationships between employment, income and other social and economic characteristics, and (iii) data on other particular topics (e.g. children and youth, women, households) as determined by the long-term and continuing needs.

3. Population censuses and sample surveys of households or individuals generally constitute a comprehensive means of collection of data on the economically active population which can be linked with data on other related topics. Establishment surveys and administrative records may also serve as sources for obtaining in some cases more precise, more frequent and more detailed statistics on particular components of the economically active population. The different sources of information should be regarded as complementary and may be used in combination for deriving where necessary integrated sets of statistics. In designing population censuses, surveys of households or individuals or other means of data collection on the economically active population, efforts should be made in so far as possible to incorporate the international standards.

4. In order to promote comparability of the statistics among countries where national concepts and definitions do not conform closely to the international standards, explanations should be given and the main aggregates should if possible be computed on the basis of both the national and the international standards. Alternatively, the necessary components should be identified and provided separately in order to permit conversion from the national to the international standards.

Concepts and definitions

The economically active population

5. The economically active population comprises all persons of either sex who furnish the supply of labour for the production of economic goods and services as defined by the United Nations systems of national accounts and balances during a specified time-reference period. According to these systems the production of economic goods and services includes all production and processing of primary products whether for the market for barter or for own consumption, the production of all other goods and services for the market and, in the case of households which produce such goods and services for the market, the corresponding production for own consumption.

6. Two useful measures of the economically active population are the usually active population measured in relation to a long reference period such as a year and the currently active population or equivalently the "labour force" measured in relation to a short reference period such as one week or one day.

The usually active population

7. (1) The usually active population comprises all persons above a specified age whose main activity status as determined in terms of number of weeks or days during a long specified period (such as the preceding 12 months or the preceding calendar year) was employed or unemployed as defined in paragraphs 9 and 10. (2) Where this concept is considered useful and feasible the usually active population may be subdivided as employed and unemployed in accordance with the main activity.

The labour force (the currently active population)

8. The labour force or "currently active population" comprises all persons who fulfill the requirements for inclusion among the employed or the unemployed as defined in paragraphs 9 and 10 below.

Employment

9. (1) The "employed" comprise all persons above a specified age who during a specified brief period, either one week or one day, were in the following categories:

- (a) "paid employment": (a1) "at work": persons who during the reference period performed some work for wage or salary, in cash or in kind; (a2) "with a job but not at work": persons who, having already worked in their present job, were temporarily not at work during the reference period and had a formal attachment to their job. This formal job attachment should be determined in the light of national circumstances, according to one or more of the following criteria:
 - (i) the continued receipt of wage or salary;
 - (ii) an assurance of return to work following the end of the contingency, or an agreement as to the date of return;
 - (iii) the elapsed duration of absence from the job which, wherever relevant, may be that duration for which workers can receive compensation benefits without obligations to accept other jobs;
- (b) "self-employment": (b1) "at work": persons who during the reference period performed some work for profit or family gain, in cash or in kind; (b2) "with an enterprise but not at work": persons with an enterprise, which may be a business enterprise, a farm or a service undertaking, who were temporarily not at work during the reference period for any specific reason.

9. (2) For operational purposes, the notion of "some work" may be interpreted as work for at least one hour.

9. (3) Persons temporarily not at work because of illness or injury, holiday or vacation, strike or lockout, educational or training leave, maternity or parental leave, reduction in economic activity, temporary disorganization or suspension of work due to such reasons as bad weather, mechanical or electrical breakdown, or shortage of raw materials or fuels, or other temporary absence with or without leave should be considered as in paid employment provided they had a formal job attachment.

9. (4) Employers, own-account workers and members of producers' co-operatives should be considered as in self-employment and classified as "at work" or "not at work", as the case may be.

9. (5) Unpaid family workers at work should be considered as in self-employment irrespective of the number of hours worked during the reference period. Countries which prefer for special reasons to set a minimum time criterion for the inclusion of unpaid family workers among the employed should identify and separately classify those who worked less than the prescribed time.

9. (6) Persons engaged in the production of economic goods and services for own and household consumption should be considered as in self-employment if such production comprises an important contribution to the total consumption of the household.

9. (7) Apprentices who received pay in cash or in kind should be considered in paid employment and classified as "at work" or "not at work" on the same basis as other persons in paid employment.

9. (8) Students, homemakers and others mainly engaged in non-economic activities during the reference period, who at the same time were in paid employment or self-employment as defined in subparagraph (1) above should be considered as employed on the same basis as other categories of employed persons and be identified separately, where possible.

9. (9) Members of the armed forces should be included among persons in paid employment. The armed forces should include both the regular and the temporary members as specified in the most recent revision of the International Standard Classification of Occupations (ISCO).

Unemployment

10. (1) The "unemployed" comprise all persons above a specified age who during the reference period were:

- (a) "without work," i.e. were not in paid employment or self-employment as defined in paragraph 9;
- (b) "currently available for work", i.e. were available for paid employment or self-employment during the reference period; and
- (c) "seeking work", i.e. had taken specific steps in a specified recent period to seek paid employment or self-employment.

The specific steps may include registration at a public or private employment exchange; application to employers; checking at worksites, farms, factory gates, market or other assembly places; placing or answering newspaper advertisements; seeking assistance of friends or relatives; looking for land, building, machinery or equipment to establish own enterprise; arranging for financial resources; applying for permits and licences, etc.

10. (2) In situations where the conventional means of seeking work are of limited relevance, where the labour market is largely unorganized or of limited scope, where labour absorption is, at the time, inadequate or where the labour force is largely self-employed, the standard definition of unemployment given in subparagraph (1) above may be applied by relaxing the criterion of seeking work.

10. (3) In the application of the criterion of current availability for work, especially in situations covered by subparagraph (2) above, appropriate tests should be developed to suit national circumstances. Such tests may be based on notions such as present desire for work and previous work experience, willingness to take up work for wage or salary on locally prevailing terms, or readiness to undertake self-employment activity given the necessary resources and facilities.

10. (4) Notwithstanding the criterion of seeking work embodied in the standard definition of unemployment, persons without work and currently available for work who had made arrangements to take up paid employment or undertake self-employment activity at a date subsequent to the reference period should be considered as unemployed.

10. (5) Persons temporarily absent from their jobs with no formal job attachment who were currently available for work and seeking work should be regarded as unemployed in accordance with the standard definition of unemployment. Countries may, however, depending on national circumstances and policies, prefer to relax the seeking work criterion in the case of persons temporarily laid off. In such cases, persons temporarily laid off who were not seeking work but classified as unemployed should be identified as a separate sub-category.

10. (6) Students, homemakers and others mainly engaged in non-economic activities during the reference period who satisfy the criteria laid down in subparagraphs (1) and (2) above should be regarded as unemployed on the same basis as other categories of unemployed persons and be identified separately, where possible.

Population not economically active

11. The "population not economically active" comprises all persons, irrespective of age, including those below the age specified for measuring the economically active population who were not "economically active," as defined in paragraph 5.

The population not currently active

12. (1) The "population not currently active," or, equivalently, persons not in the labour force, comprises all persons who were not employed or unemployed during the brief reference period and hence not currently active because of: (a) attendance at educational institutions, (b) engagement in household duties, (c) retirement or old age, or (d) other reasons such as infirmity or disablement, which may be specified.

12. (2) Countries adopting the standard definition of unemployment may identify persons not classified as unemployed who were available for work but not seeking work during the reference period and classify them separately under the population not currently active.

The population not usually active

13. (1) The "population not usually active" comprises all persons whose main activity status during the longer specified period was neither employed nor unemployed. It comprises the following functional categories: (a) students; (b) homemakers; (c) income recipients (pensioners, rentiers, etc.); and (d) others (recipients of public aid or private support, children not attending school, etc.) as defined by the United Nations *Principles and recommendations for population and housing censuses* (1980).

13. (2) Where necessary, separate functional sub-categories may be introduced to identify:(i) persons engaged in unpaid community and volunteer services and (ii) other persons engaged in marginal activities which fall outside the boundary of economic activities.

Analytical concepts

14. (1) Based on the concepts and definitions given in paragraphs 5 to 20 above, a variety of analytical concepts and measures can be derived. For instance:

14. (2) The economically active population may be divided into two broad segments: the armed forces and the economically active civilian population.

14. (3) The economically active population may be related to the total population for the derivation of a crude participation rate, or, more appropriately, to the population above the age prescribed for the measurement of the economically active population.

14. (4) The employed population may be related to the population above the specified age for the derivation of an employment-population ratio.

14. (5) The unemployed population may be related to the economically active population for the derivation of a general unemployment rate. Unemployment rates, relevant to paid employment on the one hand and self-employment on the other, may be derived, wherever considered useful and feasible.

14. (6) A composite rate of unemployment and visible underemployment compiled as the ratio of unemployed labour time available for employment to the total labour time employed or available for employment. The rates, ratios and proportions suggested above may be compiled separately by sex in respect of specified age groups.

15. The technique of labour time disposition suggested in paragraph 20, if carried out through a series of current surveys covering a representative sample of reference periods spread over a year, can be used for the estimation of labour time employed or unemployed over the year. The estimates may be expressed in terms of person-days or person-hours or, if so desired, converted into standard full-time person-years.

Employment and income relationships

16. In order to realise the objectives of analysis of the relationships between employment and income mentioned in paragraph 1, countries should develop programmes of data collection on employment and income that reveal related economic and social aspects. In particular, data should be compiled on employment, income from employment and household income for the purpose of: (a) analysing the income-generating capacity of different economic activities and (b) identifying the number and characteristics of persons who are unable to maintain their economic well-being on the basis of the employment opportunities available to them.

17. (1) In order to obtain comprehensive measures of the relationships between employment and income, the measurements of employment, income from employment and household income should refer to the work experience of the population over a long reference period, preferably a year, taking into account not only the principal occupation but also any secondary occupations and other sources of income.

17. (2) Income from employment includes wages, salaries and other earnings in cash and kind of persons in paid employment and net entrepreneurial income of persons in self-employment.

17. (3) The concepts and definitions of income and its components are given in the resolutions concerning an integrated system of wages statistics and concerning household income and expenditure surveys adopted by the Twelfth Conference (1973) and in the United Nations Provisional guidelines on statistics of the distribution of income, consumption and accumulation of households (1977).

17. (4) The statistics on employment and income should be analysed to the extent possible, in conjunction with duration of work, household size, number of earners, assets and other demographic, social and economic characteristics of the individual and the household.

17. (5) The statistics on employment and income should be consistent with and, in so far as possible, be integrated into the framework of the statistics of the economically active population set forth in paragraphs 5 to 22 above.

Data collection, analysis and classifications

18. The International Labour Office should prepare a manual on statistics of the economically active population, employment, unemployment and underemployment detailing such aspects as methodology of data collection, tabulation and analysis.

19. (1) The analysis of the economically active population and the population not economically active should include classifications by significant demographic, social and economic characteristics as well as appropriate cross-classifications by two or more related characteristics.

19. (2) In particular, the population above the age specified for the measurement of the economically active population should be cross-classified by usual activity status (employed, unemployed, students, homemakers, etc.) and current activity status (employed, unemployed and not currently active).

20. For the purpose of international comparisons, the classifications of the statistics of the economically active population should adhere to or be convertible into the standard international classifications most recently adopted such as:

- (a) International Standard Classification of Occupations (ISCO) ILO;
- (b) International Standard Industrial Classification of All Economic Activities (ISIC) United Nations;
- (c) International classification according to status (as employer, employee, etc.) definitions of status by the United Nations – except that for the classification of unpaid family workers the minimum time criterion (at least one-third of the normal working hours) no longer need be applied;
- (d) Provisional Guidelines on Standard International Age Classifications United Nations.

21. For classifications according to other characteristics such as duration of work, duration of unemployment, the International Labour Office should develop appropriate international standard classifications taking into account the current national practices and needs.

Data on particular topics

22. In order to adequately study the transition phases from learning to earning activities and to develop appropriate policy measures where necessary, specific statistics should be obtained periodically on children and youth in relation to school attendance and their participation in economic activity. For this purpose, it may be necessary to collect additional data on children and youth below the specified minimum age limit adopted for measuring the economically active population.

23. (1) For the purpose of developing and monitoring programmes concerned with the participation of women in development and the promotion of equality between the sexes, an adequate statistical base on women's participation in economic activities is essential. In this respect, therefore, the statistics of the economically active population, employment, unemployment, underemployment and related topics should be compiled separately for males and for females.

23. (2) Further, in order to obtain more accurate statistics on women's participation in economic activities, measurement methods should be carefully reviewed to ensure unbiased coverage of men and women. Sex biases in the form of underestimation of women's participation in economic activity may result, for example, from incomplete coverage of unpaid economic activities, failure of respondents and enumerators to take account of women's multiple activities and use of proxy respondents. Where necessary, research should be carried out in order to identify the extent, nature and sources of the possible biases, if any, and to develop appropriate methods of reducing them.

24. Since the participation in economic activity of individuals often depends on the circumstances of other members of the family or household and in many countries, particularly in rural areas of developing countries, economic activity is largely organized on a family or household basis, statistics on economically active population, employment, unemployment, underemployment

and related topics should be supplemented periodically by statistics on families and households: for example, identifying the unemployed in terms of their relationship to other members of the household or family, presence of other working members of the household or family, number of children in the household or family, as well as identifying households and families in terms of number of members unemployed, sex and other characteristics of the primary earner in the household or family, etc.

25. In order to provide improved and more detailed information on employment, unemployment and underemployment and for other purposes such as identifying multiple activities and marginal activities, attempts should be made to collect periodically statistics on time-use.

26. In order to account for the informal sector activities both in developed and developing countries and the rural non-agricultural activities generally carried out by households in conjunction with agricultural activities in developing countries, and given the scarcity of statistics on these topics, it is desirable that countries develop appropriate methodologies and data collection programmes on the urban informal sector and the rural non-agricultural activities. In particular, suitable definitions and classifications should be developed in order to identify and classify the economically active population in the urban informal sector and those engaged in the rural non-agricultural activities.

27. In order to provide adequate employment opportunities and means of livelihood for the disabled and other handicapped persons, statistics should be collected and compiled using appropriate methodologies on the size of this population and its distribution according to relevant social and economic characteristics distinguishing in particular those employed, those unemployed and those inactive.

28. (1) It is recommended that in countries with a planned economy, extensive use should be made of the balance sheet of labour resources so as to identify the size and structure of the labour force and its geographical distribution by type of employment and sector of the national economy.

28. (2) The population of working age, with the exception of the disabled who do not work, and also the population not of working age, are included as labour resources. The balance sheet of labour resources may be broken down separately according to sex, identifying persons employed in subsidiary farming and in housework, disabled persons of working age but who do not work and persons not of working age.

28. (3) The data in the balance sheets make it possible to identify the proportion of labour resources which may be utilized in the future to work in national production.

29. It is suggested that countries consider collecting information on the population not economically active, taking account of national needs and circumstances, to assist governments in designing their human resources and development policies. Countries should develop classifications designed to permit cross-tabulation reflecting the relative strength of attachment to the labour market of the groups identified in paragraphs 12(1) and 13(1) above.

Evaluation and dissemination

30. Like any other set of data, statistics of the economically active population, employment, unemployment, underemployment and related topics are subject to errors. While the data collection programme should be carefully designed to minimize possible errors, some are bound to occur. A careful interpretation of the results, therefore, requires some knowledge about the quality of the data. An evaluation of data quality is also necessary to improve upon data collection, processing and estimation procedures in subsequent rounds of the programme. The evaluation procedure should as far as possible form part of the data collection programme itself.

31. Statistics of the economically active population, employment, unemployment, underemployment and related topics should be issued promptly and made widely available. The statistics may be issued in stages by means of preliminary reports as soon as the main aggregates are available, followed by one or more final reports giving the revised and detailed statistics, in tabular form and, to the extent possible and permissible, in machine readable form.

32. Every release of statistics of the economically active population, employment, unemployment, underemployment and related topics, whether recurring or single-time, should clearly indicate the nature of the data and make reference to any detailed technical descriptions. In particular, descriptions should be given of the scope and coverage, the concepts and definitions, the method of data collection, the sample size and design where sampling is used, the methods of estimation and adjustments, including seasonal adjustments where applied, measures of data quality, including sampling and non-sampling errors where possible, as well as descriptions of changes in historical series, deviations from international standards and relationships with other sources of similar data and related bodies of statistics.

International classification of status in employment

The United National Statistical Commission approved in 1958 the following classification: ¹

(a) *Employer:* a person who operates his or her own economic enterprise, or engages independently in a profession or trade, and hires one or more employees. Some countries may wish to distinguish among employers according to the number of persons they employ.

(b) *Own-account worker:* a person who operates his or her own economic enterprise, or engages independently in a profession or trade, and hires no employees.

(c) *Employee:* a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece-rates or pay in kind.

(d) Unpaid family worker: usually a person who works without pay in an economic enterprise operated by a related person living in the same household. Where it is customary for young persons, in particular, to work without pay in an economic enterprise operated by a related person who does not live in the same household, the requirement of "living in the same household" may be eliminated. If there are a significant number of unpaid family workers in enterprises of which the operators are members of a producers' cooperative who are classified in category (e), these unpaid family workers should be classified in a separate sub-group.

(e) *Member of producers' cooperative:* a person who is an active member of a producers' cooperative, regardless of the industry in which it is established. Where this group is not numerically important, it may be excluded from the classification, and members of producers' cooperatives should be classified under other headings, as appropriate.

(f) *Persons not classifiable by status:* experienced workers whose status is unknown or inadequately described and unemployed persons not previously employed (i.e. new entrants). A separate group for new entrants may be included if information for this group is not already available elsewhere.

The 15th International Conference of Labour Statisticians adopted, in January 1993, a resolution concerning the ICSE which states *[extract]*:²

II. The ICSE–93 groups³

- 4. The ICSE–93 consists of the following groups, which are defined in section III:
- (1) employees; among whom countries may need and be able to distinguish "employees with stable contracts" (including "regular employees");
- (2) employers;
- (3) own-account workers;
- (4) members of producers' cooperatives;
- (5) contributing family workers;
- (6) workers not classifiable by status.

III. Group definitions

5. The groups in the ICSE–93 are defined with reference to the distinction between "paid employment" jobs on the one side and "self-employment" jobs on the other. Group are defined with reference to one or more aspects of the economic risk and/or the type of authority which the explicit or implicit employment contract gives the incumbents or to which it subjects them.

6. Paid employment jobs are those jobs where the incumbents hold explicit (written or oral) or implicit employment contracts which give them a basic remuneration which is not directly dependent upon the revenue of the unit for which they work (this unit can be a corporation, a non-profit institution, a government unit or a household). Some or all of the tools, capital equipment, information systems and/or premises used by the incumbents may be owned by others, and the incumbents may work under direct supervision of, or according to strict guidelines set by the owner(s) or persons in the owners' employment. (Persons in "paid employment jobs" are typically remunerated by wages and salaries, but may be paid by commission from sales, by piece-rates, bonuses or in-kind payments such as food, housing or training.)

7. Self-employment jobs are those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). The incumbents make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise. (In this context "enterprise" includes one-person operations.)

8. (1) Employees are all those workers who hold the type of job defined as "paid employment jobs" (cf. paragraph 6). Employees with stable contracts are those "employees" who have had, and continue to have, an explicit (written or oral) or implicit contract of employment, or a succession of such contracts, with the same employer on a continuous basis. "On a continuous basis" implies a period of employment which is longer than a specified minimum determined according to national circumstances. (If interruptions are allowed in this minimum period, their maximum duration should also be determined according to national circumstances.) Regular employees are those "employees with stable contracts" for whom the employing organization is responsible for payment of relevant taxes and social security contributions and/or where the contractual relationship is subject to national labour legislation.

9. (2) Employers are those workers who, working on their own account or with one or a few partners, hold the type of job defined as a "self-employment job" (cf. paragraph 7) and, in this capacity, on a continuous basis (including the reference period) have engaged one or more persons to work for them in their business as "employee(s)" (cf. paragraph 8). The meaning of "engage on continuous basis" is to be determined by national circumstances, in a way which is consistent with the definition of "employees with stable contracts" (cf. paragraph 8). (The partners may or may not be members of the same family or household.)

10. (3) Own-account workers are those workers who, working on their own account or with one or more partners, hold the type of job defined as a "self-employment job" (cf. paragraph 7), and have not engaged on a continuous basis any "employees" (cf. paragraph 8) to work for them during the reference period. It should be noted that during the reference period the members of this group may have engaged "employees," provided that this is on a non-continuous basis. (The partners may or may not be members of the same family or household.)

11. (4) Members of producers' cooperatives are workers who hold a "self-employment" job (cf. paragraph 7) in a cooperative producing goods and services, in which each member takes part on an equal footing with other members in determining the organization of production, sales and/or other work of the establishment, the investments and the distribution of the proceeds of the establishment amongst their members. (It should be noted that "employees" (cf. paragraph 8) of producers' cooperatives are not to be classified to this group.)

12. (5) Contributing family workers are those workers who hold a "self-employment" job (cf. paragraph 7) in a market-oriented establishment operated by a related person living in the same household, who cannot be regarded as a partner, because their degree of commitment to the operation of the establishment, in terms of working time or other factors to be determined by national circumstances, is not at a level comparable to that of the head of the establishment. (Where it is customary for young persons, in particular, to work without pay in an economic enterprise operated by a related person who does not live in the same household, the requirement of "living in the same household" may be eliminated.)

13. (6) Workers not classifiable by status include those for whom insufficient relevant information is available, and/or who cannot be included in any of the preceding categories.

IV. Statistical treatment of particular groups

14. This section outlines a possible statistical treatment of particular groups of workers. Some of the groups represent sub-categories or disaggregations of one of the specific ICSE–93 categories. Others may cut across two or more of these categories. Countries may need and be able to distinguish one or more of the groups, in particular group (a), and may also create other groups according to national requirements:

- (a) Owner-managers of incorporated enterprises are workers who hold a job in an incorporated enterprise, in which they: (a) alone, or together with other members of their families or one or a few partners, hold controlling ownership of the enterprise; and (b) have the authority to act on its behalf as regards contracts with other organizations and the hiring and dismissal of persons in "paid employment" with the same organization, subject only to national legislation regulating such matters and the rules established by the elected or appointed board of the organization. Different users of labour market, economic and social statistics may have different views on whether these workers are best classified as in "paid employment" (cf. paragraph 6) or as in "self-employment" (cf. paragraph 7), because these workers receive part of their remuneration in a way similar to person in "paid employment" while their authority in and responsibility for the enterprise corresponds more to persons in "self-employment," and in particular to "employers." (Note, for example, that to classify them as "employees" will be consistent with their classification in the "System of National Accounts," while they may be best classified as "employers" or "own-account workers" for labour market analysis.) Countries should, therefore, according to the needs of users of their statistics and their data collection possibilities, endeavour to identify this group separately. This will also facilitate international comparisons.
- (b) Regular employees with fixed-term contracts are "regular employees" (cf. paragraph 8) whose contract of employment specifies a particular date of termination.
- (c) Regular employees with contracts without limits of time are "regular employees" (cf. paragraph 8) who have contracts which only can be terminated for specified causes such as incompetence, serious misconduct, or for economic reasons according to national legislation or custom.
- (d) Workers in precarious employment can either: (a) be workers whose contract of employment leads to the classification of the incumbent as belonging to the groups of "casual workers" (cf. item (e)), "short-term workers" (cf. item (f)) or "seasonal workers" (cf. item (g)); or (b) workers whose contract of employment will allow the employing enterprise or person to terminate the contract at short notice and/or at will, the specific circumstances to be determined by national legislation and custom.

- (e) Casual workers are workers who have an explicit or implicit contract of employment which is not expected to continue for more than a short period, whose duration is to be determined by national circumstances. These workers may be classified as being "employees" (cf. paragraph 8) or "own-account workers" (cf. paragraph 10) according to the specific characteristics of the employment contract.
- (f) Workers in short-term employment are workers who hold explicit or implicit contracts of employment (cf. paragraph 6) which are expected to last longer than the period used to define "casual workers" (cf. item (e)), but shorter than the one used to define "regular employees" (cf. paragraph 8). These workers may be classified as "employees" (cf. paragraph 8) or "own-account workers" (cf. paragraph 10) according to the specific characteristics of the employment contract.
- (g) Workers in seasonal employment are workers who hold explicit or implicit contracts of employment where the timing and duration of the contract is significantly influenced by seasonal factors such as the climatic cycle, public holidays and/or agricultural harvests. These workers may be classified as "employees" (cf. paragraph 8) or "own-account workers" (cf. paragraph 10) according to the specific characteristics of the employment contract.
- (h) Outworkers are workers who: (a) hold explicit or implicit contracts of employment under which they agree to work for a particular enterprise, or to supply a certain quantity of goods or services to a particular enterprise, by prior arrangement or contract with that enterprise; but (b) whose place of work is not within any of the establishments which make up that enterprise. These workers may be classified as being in "paid employment" (cf. paragraph 6) or in "self-employment" (cf. paragraph 7) according to the specific terms of their contract. They may be classified as "employers" if they engage other workers on terms as described in paragraph 10.
- (i) Contractors are workers who: (a) have registered with the tax authorities (and/or other relevant bodies) as a separate business unit responsible for the relevant forms of taxes, and/or who have made arrangements so that their employing organization is not responsible for relevant social security payments, and/or the contractual relationship is not subject to national labour legislation applicable to e.g. "regular employees" (cf. paragraph 9); but who (b) hold explicit or implicit contracts which correspond to those of "paid employment," These workers may be classified as in a "self-employment" job (cf. paragraph 7) or as in a "paid employment" job (cf. paragraph 6) according to national circumstances.
- (j) Workers who hold explicit or implicit contracts of "paid employment" (cf. paragraph 6) from one organization, but who work at the site of and/or under instructions from a second organization which pays the first organization a fee for their services, may be classified separately from other "employees," and according to whether the primary organization is a temporary work agency or another type of enterprise.
- (k) Work gang (crew) members are workers who are members of a group of workers who have been engaged as a group on terms corresponding to those of "paid employment" and where the employing organization has entered into a contract only with the crew leader or with an organizing agent for the crew, and not with the individual worker.
- (I) Countries may need and be able to classify separately workers participating in public or private employment promotion or job training schemes on terms of employment which correspond to "paid employment" jobs. This group of workers may be designated employment promotion employees. Workers who receive support from such schemes to establish their own business should be classified as being in a "self-employment" job (cf. paragraph 7) as "employer" (cf. paragraph 9) or "own-account worker" (cf. paragraph 10) as appropriate.

- (m) According to national circumstances countries may decide to classify as apprentices or trainees, workers who hold explicit or implicit contracts of "paid employment" which specify that all or part of their remuneration should be in the form of training for a trade or profession. When identifying apprentice and trainee employees separately, countries may also need and be able to distinguish between those who hold a formal training contract and follow a formal programme combining work experience with practical and theoretical instruction, and those who do not.
- (n) Employers of regular employees are those "employers" who during the reference period have engaged at least one person to work for them in their business on explicit or implicit terms such that this person will be classified as having a job as a "regular employee" as defined under paragraph 8.
- (o) Core own-account workers are those "own-account workers" (cf. paragraph 10) who work predominantly for the market independently of specific conditions imposed by the suppliers of credit, raw materials, etc., or of one main customer, and who rent or own their own equipment and other means of production.
- (p) Franchisees are workers who have explicit or implicit contracts with the owners of certain means of production (land, buildings, machinery, trade marks, etc.), holders of operational licences or suppliers of credit, which to a significant extent determine how the business is operated and require the payment of a specific part of total sales. "Franchisees" who engage "employees" (cf. paragraph 8) on a continuous basis should be classified as "employers" (cf. paragraph 9).
- (q) Sharecroppers are workers who hold a "self-employment" job (cf. paragraph 7) and in this capacity have explicit or implicit contracts with the owners of certain means of production (land, buildings, machinery, etc.) or suppliers of credit or raw materials, which to a significant extent determine how the business is operated and require the payment of a part of total production.
- (r) Communal resource exploiters are workers who hold a "self-employment" job (cf. paragraph 7) and in this capacity use a natural resource (e.g. land, fishing grounds, hunting and gathering areas) to which there are no individual property rights, but for which their community or the State may have certain management responsibilities.
- (s) Subsistence workers are workers who hold a "self-employment" job (cf. paragraph 7) and in this capacity produce goods or services which are predominantly consumed by their own household and constitute an important basis for its livelihood.
- (t) Countries may need and be able to supplement a national classification by status in employment with the type of organization with which they are employed, in particular whether "employees" are employed in the private or the public sector, or whether the employing organization is partly owned by foreign individuals or organizations (a "joint venture") or fully owned by foreigners.

V. Classification of persons

- 15. Employed persons can be classified by status in employment according to the following rules:
- (a) a person with only one classifiable job during the reference period should be classified to the status in employment group of that job;
- (b) a person with two or more jobs during the reference period should be classified to the status in employment group of that set of equally classified jobs at which he/she has worked the

longest hours, or which has provided the highest income from employment during that period (or which can be expected to provide the highest income from work carried out in that period, if payment can only be expected in the future).

16. The ICSE–93 may be applicable, according to national practices and circumstances, to persons who have held a job, or who are seeking a job, regardless of their labour force status in the reference period. For the employed, it should apply to the job (or jobs) held in the reference period. For the unemployed, it may apply to either a job previously held, if any, or, according to national practices and circumstances, to the type of job which they are seeking.

VI. Data collection and international reporting

17. The data necessary to classify jobs or persons according to nationally significant status in employment groups should be collected in ways corresponding to the descriptive and analytical needs which the individual statistical programme serves, both with respect to precision of measurement and with respect to the number and type of groups separately identified. Using questionnaires with one question and a small set of pre-coded groups to be selected by the respondents, or by interviewers on the basis of the information provided by the respondents, may be less expensive but will normally result in less precise measurement of distribution of jobs or persons over relevant status in employment groups than the use of several questions with response alternatives designed to allow classification to the relevant groups at the processing stage. The Conference notes that the ILO Bureau of Statistics will provide guidelines on how to collect and process information about status in employment in statistical surveys and censuses.

18. It is recommended that countries, as far as possible, designed their data collection and processing procedures so that they will be able to give estimates for those of the following categories which are nationally significant:

- (1) employees;
- (2) employers;
- (3) own-account workers;
- (4) members of producers' cooperatives;
- (5) contributing family workers;
- (6) workers not classifiable by status.

19. The ICSE–93 group into which "owner-managers of incorporated enterprises" (cf. paragraph 14, item (a)) are classified should be indicated and separate information should be provided about them, whenever possible, to facilitate both labour market analysis and international comparisons. The countries are also asked to identify, for the users of their statistics, which of the separate groups reported contain the data for persons in any of the groups not separately reported.

Notes:

Source:

¹ United Nations Statistical Office: *Supplementary principles and recommendations for population and housing censuses.* Statistical Papers (doc. ST/ESA/STAT/SER./M/67/Add.1), New York, 1990.

² ILO: Fifteenth International Conference of Labour Statisticians, Report of the Conference, ICLS/15/D.6 (Rev. 1), Geneva, 1993.

³ For linguistic convenience the group titles and definitions have been formulated in a way which corresponds to the situation where each person holds only one job during the reference period.

ILO Bureau of Statistics at http://www.ilo.org/public/english/bureau/stat/class/icse.htm, Last update: 23 July 2001.

Annex IV

International standard industrial classification (ISIC Revision 2 1968)

Major Division 1: Agriculture, hunting, forestry and fishing

- 11 Agriculture and hunting
- 12 Forestry and logging
- 13 Fishing

Major Division 2: Mining and quarrying

- 21 Coal mining
- 22 Crude petroleum and natural gas production
- 23 Metal ore mining
- 29 Other mining

Major Division 3: Manufacturing

- 31 Manufacture of food, beverages and tobacco
- 32 Textile, wearing apparel and leather industries
- 33 Manufacture of wood and wood products, including furniture
- 34 Manufacture of paper and paper products, printing and publishing
- 35 Manufacture of chemicals and chemical products, petroleum, coal, rubber and plastic products
- 36 Manufacture of non-metallic mineral products, except products of petroleum and coal
- 37 Basic metal Industries
- 38 Manufacture of fabricated metal products, machinery and equipment
- 39 Other manufacturing industries

Major Division 4: Electricity, Gas and Water

- 41 Electricity, gas and steam
- 42 Water works and supply

Major Division 5: Construction

50 Construction

Major Division 6: Wholesale and retail trade and restaurants and hotels

- 61 Wholesale trade
- 62 Retail trade
- 63 Restaurants and hotels

Major Division 7: Transport, storage and communication

- 71 Transport and storage
- 72 Communication

Major Division 8: Financing, insurance, real estate and business services

- 81 Financial Institutions
- 82 Insurance
- 83 Real estate and business services

Major Division 9: Community, social and personal services

- 91 Public administration and defence
- 92 Sanitary and similar Services
- 93 Social and related community services
- 94 Recreational and cultural services
- 95 Personal and household services
- 96 International and other extra-territorial bodies

Major Division 0: Activities not adequately defined

00 Activities not adequately defined

Note:

¹ This Classification consists of Major Divisions (one-digit codes), Divisions (two-digit codes), Major Groups (three-digit codes) and Groups (four-digit codes); the last are not shown separately in this Annex.

For full details see United Nations: Statistical Papers, Series M, No. 4, Rev. 2, New York, 1968.

Annex V

International standard industrial classification (ISIC Revision 3 1990)

Tabulation category A: Agriculture, hunting and forestry

- 01 Agriculture, hunting and related service activities
- 02 Forestry, logging and related service activities

Tabulation category B: Fishing

05 Fishing, operation of fish hatcheries and fish farms; service activities incidental to Fishing

Tabulation category C: Mining and quarrying

- 10 Mining of coal and lignite; extraction of peat
- 11 Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying
- 12 Mining of uranium and thorium ores
- 13 Mining of metal ores
- 14 Other mining and quarrying

Tabulation category D: Manufacturing

- 15 Manufacture of food products and beverages
- 16 Manufacture of tobacco products
- 17 Manufacture of textiles
- 18 Manufacture of wearing apparel; dressing and dyeing of fur
- 19 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
- 20 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
- 21 Manufacture of paper and paper products
- 22 Publishing, printing and reproduction of recorded media
- 23 Manufacture of coke, refined petroleum products and nuclear fuel
- 24 Manufacture of chemicals and chemical products
- 25 Manufacture of rubber and plastics products
- 26 Manufacture of other non-metallic mineral products
- 27 Manufacture of basic metals
- 28 Manufacture of fabricated metal products, except machinery and equipment
- 29 Manufacture of machinery and equipment not elsewhere classifiable
- 30 Manufacture of office, accounting and computing machinery
- 31 Manufacture of electrical machinery and apparatus not elsewhere classifiable
- 32 Manufacture of radio, television and communication equipment and apparatus
- 33 Manufacture of medical, precision and optical instruments, watches and clocks
- 34 Manufacture of motor vehicles, trailers and semi-trailers
- 35 Manufacture of other transport equipment
- 36 Manufacture of furniture; manufacturing not elsewhere classifiable
- 37 Recycling

Tabulation category E: Electricity, gas and water supply

- 40 Electricity, gas, steam and hot water supply
- 41 Collection. purification and distribution of water

Tabulation category F: Construction

45 Construction

Tabulation category G: Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods

- 50 Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
- 51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
- 52 Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods

Tabulation category H: Hotels and restaurants

55 Hotels and restaurants

Tabulation category I: Transport, storage and communications

- 60 Land transport; transport via pipelines
- 61 Water transport
- 62 Air transport
- 63 Supporting and auxiliary transport activities; activities of travel agencies
- 64 Post and telecommunications

Tabulation category J: Financial intermediation

- 65 Financial intermediation, except insurance and pension funding
- 66 Insurance and pension funding, except compulsory social security
- 67 Activities auxiliary to financial intermediation

Tabulation category K: Real estate, renting and business activities

- 70 Real estate activities
- 71 Renting of machinery and equipment without operator and of personal and household goods
- 72 Computer and related activities
- 73 Research and development
- 74 Other business activities

Tabulation category L: Public administration and defence; compulsory social security

75 Public administration and defence; compulsory social security

Tabulation category M: Education

80 Education

Tabulation category N: Health and social work

85 Health and social work

Tabulation category O: Other community, social and personal service activities

- 90 Sewage and refuse disposal, sanitation and similar activities
- 91 Activities of membership organizations not elsewhere classifiable
- 92 Recreational, cultural and sporting activities
- 93 Other service activities

Tabulation category P: Private households with employed persons

95 Private households with employed persons

Tabulation category Q: Extra-territorial organizations and bodies

99 Extra-territorial organizations and bodies

Additional category X: Not classifiable by economic activity

Measurement of underemployment and inadequate employment situations

Resolution concerning the measurement of underemployment and inadequate employment situations, adopted by the Sixteenth International Conference of Labour Statisticians (October 1998)

Having reviewed the relevant texts of Resolution III adopted by the Eleventh International Conference of Labour Statisticians concerning measurement and analysis of underemployment and underutilization of manpower (1966), and of Resolution I adopted by the Thirteenth International Conference of Labour Statisticians concerning statistics of the economically active population, employment, unemployment and underemployment (1982),

Having acknowledged that Resolution I adopted by the Thirteenth International Conference of Labour Statisticians provides the framework within which the present resolution is formulated,

Recognizing the need to revise the existing standards on the measurement of underemployment and to broaden the scope to cover also inadequate employment situations, in order to enhance the standards' usefulness as technical guidelines to countries and improving the international comparability of the statistics,

Acknowledging that the relevance of underemployment and inadequate employment situations in a given country depends on the nature of its labour markets and that the decision to measure one or both of these is therefore determined by national circumstances;

Adopts this fifteenth day of October 1998 the following resolution in substitution for Resolution III of the Eleventh International Conference of Labour Statisticians and paragraphs 14 to 20 and 21(5) of Resolution I of the Thirteenth International Conference of Labour Statisticians:

Objectives

1. The primary objective of measuring underemployment and inadequate employment situations is to improve the analysis of employment problems and contribute towards formulating and evaluating short-term and long-term policies and measures designed to promote full, productive and freely chosen employment as specified in the Employment Policy Convention (No. 122) and Recommendations (Nos. 122 and 169) adopted by the International Labour Conference in 1964 and 1984. In this context, statistics on underemployment and indicators of inadequate employment situations should be used to complement statistics on employment, unemployment and inactivity and the circumstances of the economically active population in a country.

2. The measurement of underemployment is an integral part of the framework for measuring the labour force established in current international guidelines regarding statistics of the economically active population; and the indicators of inadequate employment situations should as far as possible be consistent with this framework.

Scope and concepts

3. In line with the framework for measuring the labour force, the measurement of underemployment and indicators of inadequate employment should be based primarily on the current capacities and work situations as described by those employed. Outside the scope of this resolution is the concept of underemployment based upon theoretical models about the potential capacities and desires for work of the working age population.

4. Underemployment reflects underutilization of the productive capacity of the employed population, including those which arise from a deficient national or local economic system. It relates to an alternative employment situation in which persons are willing and available to engage. In this resolution, recommendations concerning the measurement of underemployment are limited to time-related underemployment, as defined in subparagraph 8(1) below.

5. Indicators of inadequate employment situations that affect the capacities and well-being of workers and which may differ according to national conditions, relate to aspects of the work situation such as use of occupational skills, degree and type of economic risks, schedule of and travel to work, occupational safety and health and general working conditions. To a large extent, the statistical concepts to describe such situations have not been sufficiently developed.

6. Employed persons may be simultaneously in underemployment and inadequate employment situations.

Measures of time-related underemployment

7. Time-related underemployment exists when the hours of work of an employed person are insufficient in relation to an alternative employment situation in which the person is willing and available to engage.

8. (1) Persons in time-related underemployment comprise all persons in employment, as defined in current international guidelines regarding employment statistics, who satisfy the following three criteria during the reference period used to define employment:

- (a) "willing to work additional hours," i.e. wanted another job (or jobs) in addition to their current job (or jobs) to increase their total hours of work; to replace any of their current jobs with another job (or jobs) with increased hours of work; to increase the hours of work in any of their current jobs; or a combination of the above. In order to show how "willingness to work additional hours" is expressed in terms of action which is meaningful under national circumstances, those who have actively sought to work additional hours is to be defined according to the criteria used in the definition of job search used for the measurement of the economically active population, also taking into account activities needed to increase the hours of work in the current job;
- (b) "available to work additional hours," i.e. are ready, within a specified subsequent period, to work additional hours, given opportunities for additional work. The subsequent period to be specified when determining workers' availability to work additional hours should be chosen in light of national circumstances and comprise the period generally required for workers to leave one job in order to start another;
- (c) "worked less than a threshold relating to working time," i.e. persons whose "hours actually worked" in all jobs during the reference period, as defined in current international guidelines regarding working time statistics, were below a threshold, to be chosen according to national circumstances. This threshold may be determined by e.g. the boundary between full-time and part-time employment, median values, averages, or norms for hours of work as specified in relevant legislation, collective agreements, agreements on working time arrangements or labour practices in countries.

8. (2) To provide analytical flexibility for policy formulation and evaluation, as well as for international comparability, countries should endeavour to identify all workers who during the reference period were willing and available to work additional hours, regardless of the hours they actually worked during the reference period.

Analytical groups within time-related underemployment

9. (1) Among time-related underemployed persons, countries may want to identify separately the following two groups:

- (a) persons who usually work part-time schedules and want to work additional hours;
- (b) persons who during the reference period worked less than their normal hours of work.

9. (2) Countries may want to study the relationship between the size and composition of these groups of workers and the economically active population at different points in time.

Volume of time-related underemployment

10. The volume of time-related underemployment relates to the additional time that persons in time-related underemployment were willing and available to work during the reference period up to the chosen threshold, as described in paragraph 8(1)(c) above. It may be computed in units of working days, half-days or hours as may be convenient in national circumstances. In addition, countries may want to estimate the volume of time-related underemployment by aggregating the number of days, half-days or hours that each person in time-related underemployment is willing and available to work in addition to the hours actually worked during the reference period without reference to a threshold.

Analytical indicators on time-related underemployment

11. Based on the concepts and definitions given in paragraphs 7 to 10 above, a variety of analytical measures can be derived. For instance:

- (a) a rate of time-related underemployment may be calculated as the ratio between the population in time-related underemployment and in employment. Wherever considered useful, the ratio between the population in time-related underemployment and the economically active population may also be calculated;
- (b) a rate of the volume of time-related underemployment may be obtained as the ratio between the volume of time-related underemployment and the potential time for work of persons in employment, calculated as the sum of the "hours actually worked" by the employed population and the volume of time-related underemployment.

Topics related to time-related underemployment

12. Statistics may be collected on the "duration of time-related underemployment," understood as the number of days, weeks, months or years that time-related underemployed persons have been continuously in this situation, i.e. willing and available to work additional hours and working less than the chosen threshold. Information about the number of days or weeks of employment, unemployment and time-related underemployment experienced by a worker throughout the year may also be instructive.

13. In countries where multiple jobholding is common, it may be useful to produce statistics on the reasons for having more than one job, covering all multiple jobholders.

Classifications for time-related underemployment

14. (a) The time-related underemployed population should be classified by significant demographic, social and economic characteristics. Appropriate cross-classifications should be used with due regard to the need for confidentiality and statistical significance.

14. (b) The number of persons in time-related underemployment, and the rates suggested in paragraph 11 above, should be classified by sex in respect of specified age groups and levels of education, and for each branch of economic activity, occupational group, institutional sector (including a category on the informal sector, where relevant) and status in employment categories. The classification by presence of young children and of adults requiring care would also be useful.

14. (c) For the purpose of classification by branch of economic activity, occupation, institutional sector and status in employment, reference should be made to the main job. The main job should be understood as the job at which the worker has worked the longest hours or which has provided the highest income from employment during the period, or which can be expected to provide the highest income from work carried out in that period, if payment can only be expected in the future.

14. (d) In order to provide flexibility for analysis, it is important to classify persons, where possible, by the component groups covered in the definition of time-related underemployment, i.e. by whether they wanted to work additional hours, by whether they had actively sought to work additional hours, were available to work additional hours, and by the hours they actually worked during the reference period.

Inadequate employment situations

15. Indicators of inadequate employment situations describe situations in the workplace which reduce the capacities and well-being of workers as compared to an alternative employment situation. To a large extent, the statistical definitions and methods necessary to describe such situations still have to be developed further.

16. Countries may want to consider as persons in inadequate employment situations, all those in employment who during the reference period, wanted to change their current work situation, or (particularly for the self-employed) to make changes to their work activities and/or environment, for any of a set of reasons, chosen according to national circumstances. Such reasons might include, for example: inadequate use and mismatch of occupational skills; inadequate income in current job(s); excessive hours of work; precarious job(s); inadequate tools, equipment or training for the assigned tasks; inadequate social services; travel to work difficulties; variable, arbitrary or inconvenient work schedules; recurring work stoppages because of delivery failures of raw material or energy; prolonged non-payment of wages; long overdue payments from customers. It should be noted that these reasons will not be mutually exclusive nor exhaustive of inadequate employment situations. Workers' availability to change their current work situation, as well as their active job search, as understood in the definition of time-related underemployment, may also be applied.

Particular types of inadequate employment situations

17. Countries may in particular wish to consider, among the various types of inadequate employment situations, whether it is important to produce separate indicators for:

(a) *skill-related inadequate employment*, characterized by inadequate utilization and mismatch of occupational skills, thus signifying poor utilization of human capital. Persons in this form of inadequate employment may be understood to include all persons in employment who during the reference period wanted or sought to change their current work situation in order to use their current occupational skills more fully, and were available to do so;

- (b) income-related inadequate employment, resulting from low levels of organization of work or productivity, insufficient tools and equipment and training or deficient infrastructure. Persons in this form of inadequate employment may be understood to include all persons in employment who during the reference period wanted or sought to change their current work situation in order to increase income limited by factors such as those mentioned above, and were available to do so. Countries may wish to apply a threshold, chosen according to national circumstances, above which persons do not qualify for inclusion;
- (c) *inadequate employment related to excessive hours,* may be understood to refer to a situation where persons in employment wanted or sought to work less hours than they did during the reference period, either in the same job or in another job, with a corresponding reduction of income. Countries may wish to apply a threshold of hours below which persons do not qualify for inclusion.

Analytical indicators associated with inadequate employment situations

18. For persons in the various inadequate employment situations separately identified according to national circumstances, countries may want to derive analytical indicators such as the following:

- (a) persons in each chosen type of inadequate employment situation, expressed as a percentage of the employed;
- (b) persons simultaneously in two or more inadequate employment situations, expressed as a percentage of the employed.

Classifications for inadequate employment situations

19. The analysis of the various inadequate employment situations may include their classification by significant demographic, social and economic characteristics, as well as appropriate cross-classifications with due regard to the need for confidentiality and statistical significance.

Data collection and international reporting

20. The use of household surveys, and in particular specialized labour force sample surveys, has advantages when producing statistics on time-related underemployment and indicators of inadequate employment situations. Other sources, such as those based on administrative records, may also provide an adequate basis for such statistics. When a household-based survey exists in a country, its results may be used to calibrate the results from other sources.

21. In order to enhance international comparability, it is recommended that countries, as far as possible, design their data collection and processing procedures so that they will be able to report:

- (a) estimates on the time-related underemployed population, as defined in subparagraph 8(1) above, who wanted to work additional hours, regardless of whether or not they sought to do so;
- (b) estimates on the sub-group of the time-related underemployed population, as defined in subparagraph 8(1) above, who sought to work additional hours;
- (c) information on the manner in which the threshold, mentioned in subparagraph 8(1)(c) above, has been determined;
- (d) where feasible, information on workers who during the reference period satisfy the criteria mentioned in subparagraphs 8(1)(a) and (b), without reference to a threshold, i.e. criterion 8(1)(c).

Further action

22. Subject to the availability of funds, a programme of work should be sponsored by the ILO to refine the measurement of time-related underemployment and to further develop concepts and definitions for the indicators of inadequate employment situations. The ILO should also sponsor work relating to the measurement and presentation of these statistics in a number of developing, transition and industrialized countries and evaluate and document the results.

23. As far as possible, the ILO should cooperate with countries in the implementation of the definition of time-related underemployment and in the development and application of methods to describe indicators of inadequate employment situations as recommended in this resolution, and disseminate the information about the experiences gained.

Integrated system of wages statistics

Resolution concerning an integrated system of wages statistics, adopted by the Twelfth International Conference of Labour Statisticians (October 1973)

Recalling the existing international standards of statistics of wages and hours of work contained in the resolutions of the First, Seventh, Tenth and Eleventh International Conferences of Labour Statisticians and in Convention No. 63 concerning statistics of wages and hours of work (1938).

Recognising that the need for reliable information on wages and other forms of employee income has increased in recent years both in developed and in developing countries, particularly for purposes of measuring social and economic progress among the various groups in the population,

Recognising further the need to revise, broaden and integrate the existing standards in order to provide guidelines for the production of comprehensive and mutually consistent statistics of wages (including salaries) and the need to coordinate these statistics with other economic and social statistics,

Believing that, while there are differences among the needs of the various countries, international guidelines for an integrated system of wages statistics will promote development of these statistics along sound lines and contribute to improvement of their international comparability,

Adopts this twenty-fifth day of October 1973 the following resolution:

General objectives and scope

1. Each country should aim to develop its statistical programme in the field of wages, hours of work and related matters to provide information for the various users of the statistics, taking into account particular national needs and circumstances. The programme should provide for the needs of users in connection with the measurement of levels of living of employees, wage determination, collective bargaining, social, economic and manpower planning, analysis of economic conditions and market conditions, formulating and implementing wage policies and income policies and studies of income distribution.

2. (i) In order to realise the above objectives, national programmes of wages and related statistics should, in principle, cover all sections of the economy, should be developed within the general framework of an integrated system and should comprise two parts: (a) current statistics programme to meet short-term needs and (b) non-current statistics programme to provide benchmark data as well as other detailed data to meet long-term and continuing needs. (ii) In establishing any national programme of wages and related statistics, the collaboration of organizations of employers and workers should be sought.

3. The different items and series of wages and related statistics included in the national programme should be compiled in such a way as to be mutually consistent and reveal the relationships between them. Consistency with other economic and social statistics should also be ensured to the fullest extent possible.

4. (i) The current statistics programme should cover: (a) statistics of average earnings and hours of work (including, if possible, hours actually worked) and (b) statistics of time rates of wages and normal hours of work. (ii) The non-current statistics programme should include: (a) statistics of wage structure and distribution and (b) statistics of labour cost.

5. Statistics of hours of work relevant to wages statistics should be compiled, so far as possible, in accordance with comprehensive guidelines given in the resolution of the Tenth International Conference of Labour Statisticians (1962) concerning statistics of hours of work.

6. Labour cost statistics should be compiled, so far as possible, in accordance with the resolution of the Eleventh International Conference of Labour Statisticians (1966) concerning statistics of labour cost.

7. In view of the special problems of collection of the data, a separate programme of wages statistics should be drawn up for the agricultural sector, within the scope of the general framework of an integrated system of wages statistics, in accordance with the general recommendations below, so far as they are applicable and, so far as it is practicable to do so, also in accordance with the special recommendations on agricultural wages statistics which follow.

Concepts and earnings

Earnings

8. The concept of earnings, as applied in wages statistics, relates to remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked, such as for annual vacation, other paid leave or holidays. Earnings exclude employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay.

9. Statistics of earnings should relate to employees gross remuneration, i.e. the total before any deductions are made by the employer in respect of taxes, contributions of employees to social security and pension schemes, life insurance premiums, union dues and other obligations of employees.

10. (i) Earnings should include: direct wages and salaries, remuneration for time not worked (excluding severance and termination pay), bonuses and gratuities and housing and family allowances paid by the employer directly to his employee; (a) Direct wages and salaries for time worked, or work done, cover: (i) straight-time pay of timerated workers; (ii) incentive pay of time-rated workers; (iii) earnings of pieceworkers (excluding overtime premiums); (iv) premium pay for overtime, shift, night and holiday work; (v) commissions paid to sales and other personnel. Included are: premiums for seniority and special skills, geographical zone differentials, responsibility premiums, dirt, danger and discomfort allowances, payments under guaranteed wage systems, cost-of-living allowances and other regular allowances; (b) Remuneration for time not worked comprises direct payments to employees in respect of public holidays, annual vacations and other time off with pay granted by the employer; (c) Bonuses and gratuities cover seasonal and end-of-year bonuses, additional payments in respect of vacation period (supplementary to normal pay) and profit-sharing bonuses; (ii) Statistics of earnings should distinguish cash earnings from payments in kind.

Wage rates

11. The data on time rates of wages should relate to an appropriate time period such as the hour, day, week, month or other customary period used for purposes of determining the wage rates concerned.

12. Wage rates should include basic wages, cost-of-living allowances and other guaranteed and regularly paid allowances, but exclude overtime payments, bonuses and gratuities, family allowances and other social security payments made by employers. *Ex gratia* payments in kind, supplementary to normal wage rates, are also excluded.

13. Statistics of wage rates fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards (which are generally minimum or standard rates) should be clearly distinguished from statistics referring to wage rates actually paid to individual workers. Each of these types of wage rates is useful for particular purposes.

14. Time rates of wages for normal periods of work should be distinguished from special and other rates such as piece rates, overtime rates, premium rates for work on holidays and shift rates.

Wage payments in kind

15. In view of the dual nature of wages as cost to the employer and earnings of the employee, it may be necessary to evaluate wage payments in kind according to both of these concepts.

16. In principle, for earnings statistics, payment in kind should be measured on the basis of the value accrued to the employee, since earnings refer to the remuneration or income of a specified group of employed persons, whereas for statistics of wage rates and labour cost the evaluation should be done on the basis of cost to the employer since these data refer to the cost of units of work time.

17. Evaluation of remuneration received in kind on the basis of retail market prices generally provides a reasonable estimate of the value accrued to the employee. This method is frequently followed when income data, including wages, are collected through household surveys.

18. When earnings data are furnished by the employer, it is generally easier for him to express the money value of any payments in kind which are included as equal to the cost to him of the goods or services concerned but, if the employer is unable to report the actual cost incurred, it is convenient to use producers' selling prices, or wholesale prices. However, to evaluate the level of earnings of employees, and adjustment should be made for the difference between cost to the employer and retail prices wherever payments in kind are significant.

Current wages statistics programme

19. The current programme should be designed to provide essential data at frequent intervals in order to measure trends and short-term changes in average earnings, hours of work, time rates of wages and normal hours of work.

20. In determining the scope and content of the current programme, the need for speed in the collection and in the processing of data at reasonable cost should be a major consideration.

21. In determining the scope of particular wages statistics series, the need to permit the computation of a satisfactory index of real wages should be borne in mind. In principle, consumer price data and wages data relating to the same group of the wage-earning population should be obtained for this purpose.

Statistics of average earnings and hours of work

22. The current programme of statistics of average earnings and hours of work should cover all important categories of wage earners and salaried employees in all major economic activities in the country.

23. Statistical inquiries on earnings and hours of work may often be advantageously combined with a current survey of establishments carried out for purposes of employment, using the whole of the sample of establishments or a sub-sample. Some other current surveys may lend themselves to the collection of data on earnings and hours of work.

24. While compilation of statistics of average earnings and hours of work on a monthly basis is desirable, this imposes a heavy burden on establishments and on statistical offices. On the other hand, half-yearly or annual collection of data does not provide adequate indicators of short-term seasonal variations or trends. As a minimum, the current programme should include the compilation of quarterly statistics of average earnings and hours of work.

25. The time reference periods for data and the arrangements for collection of data should reflect the typical conditions of disbursement of earnings by establishments and the usual payroll periods used in the different industries covered by the inquiry.

26. In a quarterly survey, data could be collected for a typical payroll in respect of only one month, or of each month, thus providing in the latter case a monthly series and permitting calculation of quarterly averages.

27. Wherever possible, monthly or quarterly statistics of average earnings should be published excluding irregular or infrequent payments such as year-end, half-yearly and similar bonuses in order that the short-term trend in regular earnings will be reflected.

28. If the national monthly or quarterly statistics of average earnings exclude certain important components, such as the annual or other infrequent payments mentioned above, the current programme of earnings statistics should include the compilation once a year, wherever possible, of statistics of average earnings including these particular components.

29. For issuing data in national publications, the time unit in which average earnings are expressed, e.g. hour, day, week, or month, should depend mainly on how meaningful the figures would be in the country concerned and also on the feasibility of collection of the required data.

30. For purposes of international comparisons, it is desirable to present statistics of average earnings and hours of work on a per week basis. Data on earnings and hours for periods other than a week should be converted to a per week basis by applying the ratio between the number of working days in the period covered and the number in a normal week (including fractions of a day in each case).

31. For certain types of comparisons, statistics of average earnings per hour are preferable since hours of work per day, week or month vary over time and between industries and regions and also from one country to another.

32. In countries which compile statistics of average earnings per hour paid for, information on hours actually worked not being available regularly, additional information should be collected, wherever possible, to determine the ratio between the number of hours actually worked and the number of hours paid for.

33. Wherever the available data permit, the statistics of average earnings and hours of work should be compiled for males and for females for all employees and for wage earners and salaried employees separately, by industry and by region.

Statistics of time rates of wages and normal hours of work

34. National current statistics programmes should make provision, wherever appropriate, for the compilation of statistics of time rates of wages and normal hours of work covering wage earners in each of the important industries. The statistics may take the form of time rates of wages and "normal" hours of work actually in force in representative establishments or, alternatively, of the rates and normal hours of work fixed by, or in pursuance of, laws or regulations, collective agreements or arbitral awards. The statistics should be compiled in respect of adult males and adult females in important occupations, or groups of closely related occupations, in each of the

principal industries. Wherever appropriate, corresponding statistics should be compiled for the principal occupations among salaried employees.

35. For compilation of time rates of wages actually paid by establishments and the corresponding hours of work, sample surveys of establishments normally should be undertaken at yearly intervals in respect of important occupations in the principal industries in the country, wherever the facilities and resources available permit. It is possible to cover the same ground by undertaking an annual cycle of monthly surveys each covering a certain selection of occupational groups. The data thus obtained provide valuable up-to-date information to supplement the results of wage structure and distribution surveys undertaken at longer intervals.

36. Where the statistics of time rates of wages do not give the rates per hour but refer to a day, week or other customary period, the statistics of normal hours of work should relate to an identical period. However, if the data collected refer to days of work, in place of hours, information also should be obtained on the average duration of the working day, for purposes of calculating rates per hour.

Statistics of wage structure and distribution

37. Wage structure and distribution surveys, including wage censuses, large-scale ad hoc occupational wage surveys and similar inquiries, provide comprehensive benchmark data for use in the compilation of current statistics of average earnings, hours of work, time rates of wages and normal hours of work and detailed data permitting the compilation of: (a) statistics of wage rates, earnings and hours of work of wage earners and salaried employees to indicate wage differentials between branches of industry, geographic regions, occupations, males and females, establishments of different sizes and possibly also age groups, educational levels and types of vocational training or qualifications of employees; (b) detailed data on the composition and components of earnings and wage rates; (c) statistics showing the distribution of wage earners and salaried employees according to levels of wage rates, earnings and hours of work respectively, classified by various important characteristics of employees.

38. Sample surveys of establishments generally constitute the most suitable means for collection of data on wage structure and distribution. It is particularly important that the design and size of the sample of establishments be adequate and in particular that all sizes of establishments within the scope of the survey, all industries and regions should be correctly represented.

39. In principle, all categories of wage earners and salaried employees, including full time and part time, permanent and temporary, should be covered in the survey. Information may be obtained in respect of all eligible employees in the selected establishments, or a representative sample of these employees. The information collected concerning each employee should include wage rates, earnings, hours of work, age, sex, occupation and, if possible, education, vocational training or qualification, period of service and, where desired, other relevant particulars. Managerial staff remunerated predominantly by a share of profits should be excluded.

40. In view of the breadth and complexity of wage structure and distribution surveys, countries which undertake them should normally do so only at three- to five-year intervals.

41. Although a time reference period of one year is ideal for certain data collected in wage structure and distribution surveys, in practice it is usually necessary to select a shorter reference period considered to be sufficiently representative for the purpose of obtaining data on earnings as well as other items.

42. Data on the composition of earnings and wage rates should be consistent with the classification of components of earnings mentioned in paragraph 10. Supplementary information

may be collected on the scales for piece rates, overtime rates, premium rates for work on holidays, shift differentials and similar payments.

43. Statistics of wage rates, earnings and hours of work by occupation should be compiled in as much detail as possible.

Agricultural wages statistics

44. The concepts and definitions given above would be generally applicable to the agricultural sector. Such adaptations as may be necessary in particular countries to meet special conditions in agriculture would normally not be of a fundamental character. Although the international definition of labour cost is also applicable to the whole agricultural sector, statistics of labour cost in the traditional sub-sector of agriculture would not be very meaningful since hired labour constitutes only a minor part of total labour input.

45. For purposes of wage statistics, the agricultural sector should comprise major groups 111 (Agricultural and Livestock Production) and 112 (Agricultural Services) of the International Standard Industrial Classification of All Economic Activities. In certain circumstances, it may be desirable to compile data separately for each of these major groups.

46. As the factors affecting wages, hours of work and other conditions of employment in hunting, trapping and game propagation (major group 113 of the ISIC), forestry and logging (division 12) and fishing (division 13) are generally different from those concerning agriculture, these activities should normally be excluded from the scope of agricultural wages statistics.

47. The definition of "agricultural work" established for the 1970 World Census of Agriculture should be adopted for the purposes of wages statistics, so far as possible. By agricultural work or agricultural activities is meant any farm work or planning necessary to the operation of the holding.

48. Wherever possible, separate data should be compiled for permanent or regular employees and others, such as temporary and casual workers.

49. In developed countries and for the modern agricultural sector in developing countries, statistics of earnings based on payrolls and other records of employers should be collected, using the agricultural holding as the reporting unit. However, agricultural employees, apart from permanent employees, are not necessarily attached to one particular agricultural holding. Notably in developing countries, more especially in the traditional sector of agriculture, prolonged continuous employment with the same employer is relatively rare and, in addition, some workers alternate between working for wages and self-employment, or between agricultural and non-agricultural employment. In such situations, the agricultural holding is not the most suitable reporting unit for collection of certain types of data, especially for comprehensive statistics of average earnings during the year from agricultural employment and for statistics of the corresponding hours worked.

50. Statistics of agricultural wages in the traditional sub-sector may be obtained through household sample surveys. The principal activity criterion should be used for defining agricultural employees. A person would thus be considered to be an agricultural employee if the principal source of the income accrued to him during a specified reference period was agricultural wages.

Programme of agricultural wages statistics

51. National programmes of current and non-current agricultural wages statistics should be developed within the framework of an integrated system covering statistics of earnings, wage rates,

hours of work and labour cost, so far as possible. Since the resources required for the production of agricultural wages statistics are substantial, particularly in developing countries, priorities should be carefully determined to ensure smooth and satisfactory progress of the national programme of wages statistics.

52. In the developing countries, in order to take account of the problems specific to them, separate subprogrammes of wages statistics should be developed for traditional and organized agriculture, where different methods and data collection techniques are needed. So far as possible, the data collected in the two sub-sectors should be suitable for combination to produce statistics for the agricultural sector as a whole.

53. Selected statistics should be compiled separately for agricultural employees who are paid wholly in cash, those paid wholly in kind and those paid partly in each medium. In addition, information should be given on the amounts for major components of payments in kind, such as food and housing, which are included in published statistics of average earnings of agricultural employees.

54. Wherever possible, the data should be classified according to occupation and according to broad types of agricultural holdings (dairy, poultry, livestock, field crops, mixed farms, etc.).

Current agricultural wages statistics

55. Since there is seasonal variation in agricultural activity, and since the relative importance of agriculture differs from country to country, the interval for collection of current data on earnings and time worked in agriculture should be determined in the light of the needs of each country. The data should cover all categories of agricultural employees, including those paid wholly in kind. However, those employees whose remuneration is not paid regularly at daily, weekly or monthly intervals (but might consist, for example, of a share of the crop, with or without some cash wages) would have to be excluded from the current statistics of earnings.

56. Where a country has a continuing and frequent household sample survey for obtaining labour force data, additional information might be collected, at a reasonable cost, on earnings of agricultural employees and hours or man-days worked. However, attempts to obtain reliable data from this source, in respect of earnings in agriculture, might encounter sampling and other practical problems.

57. Each country which does not regularly compile current statistics of earnings and hours of man-days in agriculture should undertake surveys of time rates of wages actually paid and hours worked in agricultural establishments, preferably at intervals of not more than six months. These surveys should cover the principal occupations in agriculture.

58. Where labour contract rates quoted include both a wage rate and hire charges for the worker's own equipment, implements or working animals, adjustments should be made to exclude the hire charges.

Non-current agricultural wages statistics

59. Statistics of wage structure and distribution and of labour cost should be compiled for the organized sub-sector of agriculture at five-yearly intervals, based on results of surveys of agricultural establishments.

60. Since agricultural holdings commonly employ temporary and casual workers and the total earnings of these persons from agricultural work for the data reference period of a wage structure and distribution survey may not be fully reflected in the payroll records of the establishment, data could be collected from the employees currently working on the holding on any additional

earnings they had received in respect of paid work on other agricultural holdings during the reference period.

61. Information on the structure and distribution of earnings and hours of work in the traditional sector of agriculture in developing countries could be obtained through household surveys covering agricultural households, especially large-scale surveys of agricultural labour incomes where data are obtained on earnings throughout the year. It is desirable in large-scale sample surveys of agricultural households to design the sample in such a way as to permit monthly or quarterly estimates to be made of average earnings and hours or man-days worked.