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**Indicators and measures of youth unemployment:
Major limitations and alternatives**

by

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I. Introduction

The purpose of this paper is to highlight the need for better measures of disadvantage for young people than the unemployment rate of 15 to 24 year olds, used in Goal 8 of the Millennium Development Goals. It is worth noting that the focus of Goal 8 is not young people. It is concerned with global partnerships leading to employment generation.

Millennium Development Goal 8: Develop a Global Partnership for Development	Target 16: In co-operation with developing countries, develop and implement strategies for decent and productive work for youth	Indicator 45: Unemployment rate of 15-24 year olds
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A report just published by the Netherlands Government on the progress towards Millennium Development Goal 8: Develop a Global Partnership for Development notes that ‘only a few developing countries have reliable data on youth unemployment rates.’¹ The report only offers three paragraphs on assessing progress on achieving more productive work for youth because of the lack of a suitable measure.

The youth unemployment rate is increasingly being challenged as an adequate measure of the situation facing most young people in both high income and developing countries. It is being supplanted in OECD countries by other, more reliable measures. In developing countries, use of the unemployment rate to measure disadvantage is even more open to dispute. Moreover, it is not easy to obtain reliable data on unemployment for young people. The absence of regular data collections on employment and unemployment in many developing countries makes it impossible to estimate unemployment rates reliably.

The fundamental questions of what is being measured and for what purpose need to be answered as the first step in looking at more appropriate indicators related to young people and the labour market. If the purpose of the indicator for Goal 8 is to show, for example, progress in job creation through global partnerships between international companies and developing countries, then the appropriate indicator is one based on employment, not unemployment. Alternative measures focused on the demand side of the labour market are proposed and discussed in the paper. Before doing this, however, I discuss in some detail the limitations of the unemployment rate as a measure of disadvantage in the labour market, with particular focus on its inadequacy in relation to young people.

The opinions expressed by the author in this paper are personal and do not imply any opinion whatsoever on the part of their employers and organisations, or on the part of the United Nations Secretariat.

II. Unemployment as an issue in PRSPs

Thirty Poverty Reduction Strategy Papers or more than half mention unemployment as an issue of concern. Youth unemployment is highlighted as a major problem in Cameroon:

Unemployment is still high among young people, moreover, and is exacerbated by the mismatch between vocational training and the employment needs of the economy.²

The Ethiopian PRSP notes:

Unemployment manifests itself mainly in the form of underemployment. Open unemployment is concentrated in the urban areas. Youth unemployment is a major social problem.³

The Zambian PRSP points to the surge in unemployment in recent years leading to increased urban poverty, especially for workers from the mining and manufacturing sectors.⁴ However, reference is made to the unemployment rate in only 15 Poverty Reduction Strategy Papers. Moreover, only 3 African PRSPs (Djibouti, Mozambique and Rwanda) mention an unemployment rate.

(a) Why the limited use of unemployment data in PRSPs?

One reason for this is the absence of readily available statistics on unemployment for African countries. The following figure from the ILO database *Key Indicators of the Labour Market* (September 2003) shows that virtually no African countries have unemployment statistics which show changes over time (see Figure 1).

Only 8 African countries can derive their unemployment rate from a nationally representative labour force survey (Botswana, Egypt, Morocco, Namibia, South Africa, Tanzania, Tunisia and Zimbabwe). Twelve other countries use employment office records to report the number of registered job applicants, Gabon uses its population census, and Rwanda relies on a household survey. Two countries, Algeria and Mauritius, report official estimates only.⁵ Only two countries, Mauritius and Morocco, have supplied data on the number of unemployed persons aged 15 to 24 years, with the former country relying on employment office records and the latter on a labour force survey. The data for Mauritius are for the year 1995 only but for Morocco are for 1996 to 2002.

(b) Expensive surveys required to measure unemployment rates

The labour force concept used by the ILO and all OECD countries requires the use of a nationally representative survey. This is necessary because unemployment is an activity based measure in which those not in paid work are asked what activities they have undertaken to find work. This means that employment office records of registered job seekers are not acceptable for the purposes of the ILO definition of unemployment.

Figure 1: Percentage change in total unemployment rates, latest five years (after 1994)



Source: ILM 3rd Edition - Charts by indicator, Figure 8b.

<http://www.ilo.org/public/english/employment/strat/kilm/trends.htm#figure 8b>

Similarly, population censuses or household surveys that simply ask whether those without paid work want a job or are looking for paid work are not consistent with the ILO definition.

Considerable resources are needed to collect data on unemployment in African countries using the labour force concept. The cost of carrying out a nationally representative survey on a regular basis with a sample of sufficient size to report reliably on gender and age subgroups on a regular basis is high. Is the effort in terms of the resulting information worth it?

III. General limitations of the labour force approach to measuring unemployment

There are, I believe, a number of reasons the Labour Force concept is flawed. The claim applies particularly to the use of the unemployment rate in relation to the teenage and young adult population.

First, let me explain what the Labour Force concept refers to. There are three mutually exclusive categories: employment, unemployment and not-in-the-labour force. The categories are defined in such a way that unemployment is narrowed as much as possible by broadening the other two categories. In other words, there is a hierarchical ordering with priority given to assigning people to the first category of employment. Thus in OECD countries, anyone who is undertaking paid work for an hour or more is included in the employed category even if he or she is actively looking for work.⁶

According to the Labour Force concept, the employed population covers all persons engaged in the production of goods and services for one hour or more during a specified short reference period such as a day or a week. It is an extensive concept which encompasses all types of employment situations, including casual labour, short-time work and all forms of irregular employment.⁷ However, outside the OECD, the definition of what constitutes paid employment and what constitutes a reference period can differ greatly between countries.

Attachment 1 presents a summary of how five countries in Africa (Egypt, Morocco (urban), Nigeria, South Africa and Tunisia) define what constitutes paid employment, what is the reference period and how employment is defined. The important findings from the table are:

- Most countries use the broadest definition of employment possible – that of paid work for only one hour in a reference period. However, South Africa uses 5 hours of paid work to define whether someone is employed or not.
- The reference period is usually one week but Morocco has one month
- Two countries, Egypt and Tunisia, exclude young people in paid work who are apprentices, trainees or also students
- The starting age group for identifying who is unemployed can vary from 6 to 18 years.
- The definition of unemployment is activity-based but in some cases the activities which demonstrate active job searching are not specified.

The Sri Lankan PRSP notes that the official definition of ‘employment’ used internationally for comparability purposes, is too narrow:

Among the so-called ‘employed’ are people that have worked for as little as one hour per week in paid employment. This definition hides many who are significantly under-employed and who are in need of full time productive jobs. (It has been estimated that the number of “under-employed” amount to as many as 20 percent of the total workforce ...).⁸

The Sri Lankan PRSP also notes that the ‘employed’, as officially defined, also includes a large number of people who are classified as ‘unpaid family workers’, ‘many of who would no doubt welcome full-time, paid work if it were available’.⁹ The labour force framework also omits from consideration measures of decent work. One example in Sri Lanka’s case is the million migrant workers working in low paid, menial jobs mostly in the Middle East who would prefer to work at equal or better paying jobs at home.¹⁰

IV. Limitations of LF approach applied to youth unemployment

The activity-based definition of unemployment requires that the job seeker undertake active steps to find work. This includes in Australia the following activities:

writing, telephoning or applying in person to an employer for work; answering an advertisement for a job; checking factory noticeboards or the touchscreens at Centrelink offices; being registered with Centrelink as

a jobseeker; checking or registering with any other employment agency; advertising or tendering for work; and contacting friends or relatives.

However, it does not include activities such as looking at newspaper advertisements or looking at jobs available on internet databases. Only including active job seekers who have undertaken certain job search activities in the unemployed count means that the category is a minimalist one.

The third category of 'not-in-the-labour force', like the employment category, is defined broadly. The category 'persons not-in-the-labour force' includes those who can 'satisfy some, but not all, of the criteria required to be classified as unemployed' (the so called marginally attached) as well as those who do not. Persons not-in-the-labour force are considered to be marginally attached to the labour force if they want to work and are actively looking for work but are not available to start work in the reference week, or want to work and are not actively looking for work but are available to start work within four weeks.¹¹

(a) From where did these definitions originate?

The Great Depression of the 1930s and Government responses in the USA in the form of the New Deal help to explain the origins of the minimalist definition of unemployment. Until the 1930s no systematic effort was made by governments to collect statistics on the unemployed. This stemmed from orthodox economic theory which held that involuntary unemployment could not exist for any length of time.¹²

The regular measurement of job seekers also became possible with the acceptance in the mid 1930s that sample surveys could accurately estimate the characteristics of large populations. In 1937, a national postcard registration of the unemployed was made and checked by a probability sample enumeration. The validation of the sample survey method combined with the experience of the Works Projects Administration in refining their survey instruments through local labour market surveys. These two advances in social science lead to the initiation in late 1939 of a monthly sample survey using the 'labour force' framework.¹³

The Works Projects Administration (WPA) from the mid to the late 1930s was trying to respond to massive unemployment with limited funds for job creation.¹⁴ In this situation, a minimalist definition of the numbers needing work helped justify their efforts:

The question confronting the agency [the WPA] and all of government was to determine how many jobs were necessary to create. Consequently there was little interest in a labour supply concept which would reveal extremely large numbers of unemployed for whom a sufficient number of jobs could never be created. This anxiety was especially intensified by the realization that even as the WPA was creating more jobs for the unemployed, the numbers of the unemployed were rising ... Hence the stimulus for devising a concept that would understate the dimensions of both labour supply and unemployment.¹⁵

The result was official acceptance of a definition of unemployment based on subjective and ultimately arbitrary criteria. This means that the unemployment rate as a measure is liable to wide variation, fluctuating with the small ups and downs of a depressed economy.

The post war period in OECD countries with its high levels of economic growth and labour shortages submerged the limitations of the concept. However, with the onset of higher levels of unemployment from the 1970s, the unemployment rate started to fluctuate again with small changes in the economy. The difficulties in the reliability of a single definition of unemployment, based as it is on a hazy boundary line between being in and out of the labour force become all too evident. These difficulties have prompted agencies responsible for producing official statistics to produce supplementary measures to capture the complexity of the situation. These are usually referred to as measures of labour utilisation.

However, these supplementary measures have been focused on the supply side. The measures in most cases provide little information about the demand side – the nature of the new jobs created, who in terms of gender, age and education levels is getting these jobs and what earnings do they provide.

(b) Deficiencies of the unemployment rate measure in relation to young people

What is the purpose behind getting a more adequate set of measures of young people in the labour market? One policy goal is to work out ways to improve young people's transition from education to work. In this regard, the limitations of relying on the UE rate as a single measure of unemployment are most evident in relation to teenagers and young adults aged 20 to 24 years in OECD countries. A 2000 report by the OECD offers several fundamental criticisms of the failure of a single measure of unemployment to reflect the difficulties young people face in their transition from initial education to working life.¹⁶ These limitations applied particularly to the lack of recognition of the impact of higher level of education participation and part time working by students.

(c) Effect of increase in teenage education participation

Reporting the teenage unemployment rate made sense when most young people left school in their mid teenage years and went straight into the labour force. This meant that labour force participation rates were high among 15-19 year-olds and conversely education participation rates were low. In other words, the teenage unemployment rate is an adequate indicator of the transition from education to the labour force in most OECD countries when the transition is fairly sharp, with little overlap occurring between education and working life.¹⁷

This situation applied in OECD countries up to the mid-1970s, when full-time educational enrolments rates among 17 year-olds averaged 45 per cent among 20 OECD Member countries in 1974. However, by the mid-1990s the total enrolment rates for 17 year-olds in the same group of countries averaged 86 per cent.¹⁸ When the proportion of young people in the labour force falls, due to the rising participation in full-time education, the teenage unemployment rate is only applicable to a small proportion of 15 to 19 year olds. This means that quite similar unemployment rates can mask large differences in the proportion of the teenage population affected by unemployment; and widely differing teenage unemployment rates can mask close similarities in the proportion of the teenage population who are seeking work.

While a key indicator in the mid-1970s, the unemployment rate among teenagers has become of less value as a measure of transition difficulties as education participation rates have risen, and as the boundaries between education and the labour market have become more blurred.¹⁹

The use of the teenage unemployment to population ratio rather than the unemployment rate overcomes the distorting impact of widely varying national labour force participation rates. However, this measure still does not take in account the difficulties that result from the growing overlap between educational participation and labour force participation among young people. In other words, the overlap between being a full-time student and working part-time.

(d) Impact of full-time students working part time

The inclusion of both student and non-students in the labour force creates a distorted picture of the difficulties facing young people seeking their first full-time job. The situation where large numbers of full-time students have part-time jobs, or are seeking part-time work produces two distorting effects on official statistics. The first is that it suggests that the employment prospects for school leavers seeking full-time work are better than they are because it includes students in part-time jobs in the number who are employed. Second, the unemployment rate is likely to be higher with the inclusion of students looking for part-time work. Where significant numbers of students are in the labour force, unemployment to population ratios will be substantially affected by the inclusion or non-inclusion of unemployed students.²⁰ According to the OECD, the ratio of unemployed non-students to the total age cohort is, therefore, a more appropriate way to reflect the likelihood of youth unemployment. This is because young people who are looking for a job while still in education are usually seeking part-time or temporary work while studying, unlike those entering the labour market after leaving school.²¹

The OECD's leading publication reporting indicators of education and work, *Education at a Glance*, summaries the limitations of relying on the youth unemployment rate:

The youth unemployment rate by age group is the most common measure available for describing the labour market status of young people. However, unemployment rates do not take educational circumstances into account. Consequently, an unemployed young person counted in the numerator may, in some OECD countries, be enrolled in education. The denominator may include young people in vocational training, provided they are apprenticed, but not those in school-based vocational courses. Hence, if almost all young people in a particular age group are still in education, the unemployment rate will reflect only the few in the labour market and may therefore appear very high, particularly among the youngest cohort who have usually left the education system with very low qualifications.²²

(e) Identifying young people at risk of an unsuccessful transition from school to work

Another measure offers a more comprehensive picture of the whole cohort of young people. This measure, termed 'youth inactivity rates' focuses in on the proportion of a specific age cohort (15 to 19 or 20 to 24 years) who are not in full-time education and not in full-time work. In other words, the sum of non-students who are unemployed and non-students who are not in the labour market, expressed as a proportion of the age group.²³

This category includes those who are not studying full-time and who are in part-time work, or who are actively looking for work (the unemployed), or those not in work and not

considered as actively seeking work (ie not in the labour force). The assumption is that young people in this situation are more vulnerable, or more ‘at risk’ in the statistical sense, than others in the same age group of encountering prolonged difficulties in finding and sustaining stable employment. Part-time study or part-time work may be stepping stones to a successful transition or they may leave the young person ‘churning’ through a cycle of temporary work and joblessness.

The advantage of this measure is that it can be derived from official statistics based on the labour force concept. By focusing on non full-time students, the measure overcomes the problems associated with the education labour force overlap. The OECD’s leading publication on education and employment indicators for young people *Education at a Glance* reports on the ‘Percentage of the youth population in education and not in education, by age group and work status’ for the 15 to 19, 20 to 24 and 25 to 29 age groups.²⁴

Another measure that provides information about the effectiveness of a country’s mechanisms for facilitating the transition from education to work is the employment-to-population ratio of young adults (20 to 24 years) who are not in education.²⁵

V. Limitations of LF approach in a developing country context

The limitations of using the labour force concept of unemployment apply especially in developing countries. Many young people cannot afford the luxury of an extensive job search as the research finding in relation to Kenya makes clear:

... the East African Standard (Kenya) reports that over one-third of young people in Kenya do not get adequate food at home, which has forced them to work for pay, a recent survey revealed. Out of this figure, ten percent said they had to work because there was totally no food at home while 28 percent said they did so to buy food for themselves and their families.²⁶

These limitations have been discussed at length elsewhere.²⁷ While the ILO estimates that there at the end of 2003, the number of working poor living on US\$ 1 or less a day is around 550 million.²⁸ This compares with a global estimate for 2003 of 186 million who are unemployed.

An ILO report entitled: *Kenya: Meeting the Employment Challenges of the 21st Century* (1999) noted that

Information on underemployment has always been elusive since most of the activities are disguised underemployment in either rural or urban informal sectors where visible and invisible underemployment is rampant.²⁹

In importance of the informal sector to youth employment is highlighted in a study by Ziss et al; (2003) *The Relevance of the Informal Sector to Youth Employment and Social Integration*.³⁰ Measures that show how young people are faring in the informal sector are also needed.

VI. Key considerations in developing appropriate indicators and measures

Alternative measures

If the purpose of the indicator for Millennium Development Goal 8 is to assess progress in creating jobs for young people in developing countries, then I suggest that the indicator focus on employment. Many countries carry out surveys of employment and earnings (establishment surveys). Several indicators focused on youth employment can be suggested. In relation to the formal sector or registered employers:

- Young people (aged 15 to 24 years) in full-time jobs as a proportion of all employees by sector at a given date (eg six months after the end of the school year).
- Young people (males aged 15 to 24 years) in full-time jobs as a proportion of all employees by sector at a given date (eg six months after the end of the school year).
- Young people (females aged 15 to 24 years) in full-time jobs as a proportion of all employees by sector at a given date (eg six months after the end of the school year).
- Normal hourly earnings of young people (aged 15 to 24 years) as a proportion of the hourly earnings of all employees by sector at a given date (eg six months after the end of the school year).
- Normal hourly earnings of young people (males aged 15 to 24 years) as a proportion of the hourly earnings of all employees by sector at a given date (eg six months after the end of the school year).
- Normal hourly earnings of young people (females aged 15 to 24 years) as a proportion of the hourly earnings of all employees by sector at a given date (eg six months after the end of the school year).

In relation to the informal sector or unregistered businesses:

- Hourly earnings of young people (aged 15 to 24 years) over the set reference period of a week
- Hourly earnings of young people (males aged 15 to 24 years) over the set reference period of a week
- Hourly earnings of young people (females aged 15 to 24 years) over the set reference period of a week.

VII. Conclusion

Clarity about the purpose of an indicator is an essential starting point for assessing its usefulness. The political context, noted in the paper, that originally shaped the widespread adoption of the unemployment rate as a prime indicator illustrates this well. If the indicator is selected to provide information about the performance of specific institutions such as education and training arrangements, more appropriate measures than the youth unemployment rate are needed. On the other hand, if the focus is on employment creation and the extent to which young people are benefiting, then measures that refer to the demand side are more appropriate than supply side measures.

Annex I

Differences in how employment and unemployment are defined in labour force surveys in Africa

Country	Period of paid work	Reference period	Exclusions	Definition of unemployed
Egypt	At least one hour	One week	paid apprentices and trainees;	all civilian persons aged 6 to 64 years who had no employment during the reference week, but were available for work, willing to work and looking for work (job search activities not specified)
Morocco (urban)	The marginal employed population, i.e. all persons of working age (7 years and over) who consider themselves as inactive but state, at an advanced stage of the interview, that they had an economic activity during the reference period	the 30 days preceding the date of the survey		
Nigeria	work for at least one hour	One week		Job search is assessed on the basis of the respondent's declaration that he/she wants a job and looked for work; no methods of job search are specified.
South Africa	Employed are persons 15 years and older who worked for five or more hours for a wage or salary or for profit or family gain, in cash or in kind	One week		Strict and broader activity based definitions of unemployment used
Tunisia	Worked for one hour or more	One week	Excluded from the economically active population are full-time and part-time students working full or part time	unemployed are persons aged 18 to 59 years who did not work during the reference week for reasons other than sickness, leave, bad weather, etc. and who are available for work and actively looking for work. 'Looking for work' includes making contacts with the administrative authorities (either direct or by correspondence), registration with an employment agency, and other methods which must be stated (such as the jobseeker's own efforts).

Source: ILO, 1990, Sources and Methods: Labour Statistics, Volume 3, Economically active population, employment, unemployment and hours of work (Household Surveys) <http://laborsta.ilo.org/>

Notes

- ¹ Millennium Development Goal 8: Develop a Global Partnership for Development: Progress Report by the Netherlands, May 2004 http://www.undg.org/documents/4532-MDG_8_Develop_a_Global_Partnership_for_Development_-_Report.pdf.
- ² Cameroon: Poverty Reduction Strategy. August 2003, Paper IMF Country Report No. 03/249, ¶ 92, p 3.
- ³ The Federal Democratic Republic of Ethiopia: Poverty Reduction Strategy Paper Annual Progress Report, February 2004, p 11.
- ⁴ Government of Zambia, 2002, Poverty Reduction Strategy Paper. March, p 12.
- ⁵ ILO Labour Statistics Database, 1993-2002, Table 3A
- ⁶ ILO Labour Statistics 'Employment' - For operational purposes, the notion 'some work' may be interpreted as work for at least one hour. <http://laborsta.ilo.org/>
- ⁷ See the ILO adopted Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians (October 1982) <http://www.ilo.org/public/english/bureau/stat/res/ecacpop.htm>
- ⁸ Government of Sri Lanka, 2002, *Regaining Sri Lanka: Vision and Strategy for Accelerated Development*. December, p 4.
- ⁹ Ibid, p 4. "Also included as 'employed' are approximately 673,000 people that are classified as 'unpaid family workers', many of who would no doubt welcome full-time, paid work if it were available".
- ¹⁰ Ibid, p 4.
- ¹¹ Australian Bureau of Statistics, 2004, *Persons Not in the Labour Force, Australia*. Catalogue 6220.0
- ¹² Werneke, D; and Broadfield, R; 1979. 'A needs-based approach to manpower' in DH Freedman (ed) *Employment Outlook and Insights*. International Labour Office, Geneva, p 138.
- ¹³ Hauser, P; 1949, 'The labour force and gainful workers – concept, measurement and comparability' *American Journal of Sociology*, Vol 55: p 354, Garraty, J; 1978, *Unemployment in History: Economic Thought and Public Policy*. Harper and Row, New York, p 234
- ¹⁴ The Works Projects Administration, established in 1935, ran 'make work' programs to provide jobs to the unemployed. WPA projects primarily employed blue-collar workers in construction projects, but also employed white-collar workers and artists on smaller-scale projects.
<http://encyclopedia.thefreedictionary.com/Works%20Projects%20Administration>
- ¹⁵ Moses, S; 1975, 'Labor supply concepts: the political economy of conceptual change', *Annals, American Academy of Political and Social Science*, Issue on Planning for Full Employment Vol 418 (March), p 24.
- ¹⁶ OECD, 1999, Transition from Initial Education to Working Life: Making Transitions Work. Appendix 4: Using Labour Market Indicators of Transition Outcomes in Comparative Studies. The Thematic Review involved 14 OECD Member countries: Australia; Austria; Canada; the Czech Republic; Denmark; Finland; Hungary; Japan; Norway; Portugal; Sweden; Switzerland; the United Kingdom; and the United States.
- ¹⁷ Ibid, Appendix 4, ¶ 3
- ¹⁸ Ibid, Appendix 4, ¶ 3
- ¹⁹ Ibid Appendix 4, ¶ 3
- ²⁰ Ibid Appendix 4, ¶ 4.
- ²¹ OECD, 2003, *Education at a Glance 2003*. p 291.
- ²² OECD, 2003, *Education at a Glance 2003*. p 290.
- ²³ Ibid Appendix 4, ¶ 14.
- ²⁴ OECD, 2003, *Education at a Glance 2003*. Indicator C4, pp 287-297.
- ²⁵ OECD, 2003, p 290
- ²⁶ World Bank Press Review for August 12, 2003
- ²⁷ Higgins, N; 2001, *Youth Unemployment and Employment Policy: a Global Perspective*. International Labour Office, Geneva, pp 25-36; Manning, C; 1998, *Indonesian Labour in Transition: An East Asian Success Story?* Cambridge University Press, London.
- ²⁸ ILO, 2004, *Global Employment Trends 2004*, p 1
- ²⁹ ILO, 1999, *Kenya: Meeting the Employment Challenges of the 21st Century*. p 232.
- ³⁰ Ziss, R; and Dick, E; 2003, World Bank and GTZ Development Cooperation