

September 9, 2021

## Making Sense of India's Measures of Unemployment

By: Rahul Menon

*The co-existence of seasonal and regular employment has posed a challenge over the decades for accurately measuring unemployment in India. An explainer and a discussion in the light of the puzzling results of the 2019-20 Periodic Labour Force Survey.*

The Periodic Labour Force Survey (PLFS) of 2019–20 has revealed a significant fall in the unemployment rate, to 4.8% from 6.1% in 2017–18, according to what is called the Usual Status. This is puzzling for two reasons. First, economic growth had been falling steadily even before the pandemic. Second, the survey covered the period corresponding to the first lockdown in March 2020. That unemployment declined when the Indian economy effectively seized up is difficult to accept, especially when data from other sources — such as the Centre for Monitoring the Indian Economy (CMIE) — indicates otherwise.

The measure of unemployment that showed a decline between 2017–18 and 2019–20, the Usual Status including Principal and Subsidiary Status (UPSS), classifies an individual as employed or unemployed depending on which activity they found themselves in a relatively longer period of the previous year. In developing economies with a large informal sector, an individual would be more likely to find some form of work over the year. Thus, unemployment could be systematically under-counted by the use of such a broad measure. When unemployment is measured by the Current Weekly Status (CWS), which classified individuals based on their economic activity over the previous week, the PLFS reveals that the unemployment rate had remained roughly constant from 2017 to 2020, at around 8.8%.

The statistical measures currently in use have been the uneasy outcome of a long process of debate on how the concepts of employment, unemployment and the labour force are to be properly understood in a developing economy.

The discrepancy between these estimates of unemployment can be explained by the differences in reference periods. Consider an individual who had been employed from June 2019 to March 2020, and then lost her job during the lockdown. If interviewed in April 2020, she would be classified as unemployed according to the CWS — since she would have been unemployed in the week before the survey — but as employed according to the UPSS — since she was employed for the larger part of the previous year.

One might argue that the CWS is a better measure, since it shows higher unemployment and it is better to overstate the extent of unemployment so one can move quickly to minimize its burden. However, if we were to do so, we might underestimate the extent of work done in informal economies. Consider an agricultural worker, unemployed for a week when interviewed during the slack season but employed for at least six months or more over the year as agricultural labour. Is she employed or unemployed?

This reveals a particular dilemma for statistical measurement in India: devise too narrow a framework of employment and we risk losing out on a significant portion of the workforce. However, if we broaden the concept of employment, we run the risk of underestimating the prevalence of unemployment. The statistical measures currently in use have been the uneasy outcome of a long process of debate on how the concepts of employment, unemployment and the labour force are to be properly understood in a developing economy.

### Concept of unemployment

The International Labour Organization defines the employed as “those of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit” (emphasis added). An unemployed individual is under this definition therefore not someone without work, but without employment. The difference between work and employment is circumscribed by the boundary of what is considered economically productive, the boundary determined by the UN System of National Accounts. An unfortunate consequence of such a definition has been the devaluing of women’s work within households, since it is not considered “economically” productive (Ghosh 2016).

The unemployment rate is measured as a ratio of the unemployed to the labour force, where the latter concept is defined as the sum of the employed — not necessarily those undertaking work — and unemployed. Unemployment, however, does not simply indicate the absence of employment, but must indicate an *active search for employment*. In the 1870s, the US economy was struck by a severe economic depression. The chief of the Massachusetts Bureau of Statistics, Carrol D. Wright, convinced that the problem was overblown and many of the jobless were simply idle, set out to count the unemployed (Keyssar 1986). By instructing his surveyors to only count those who actively expressed a desire for employment, Wright established the modern statistical practice of defining the unemployed.

|| Patriarchy keeps women constrained within the household and denies them the ability to search for employment in labour markets.

The effect of this is to exclude all those who may not be searching for work, but who would yet be willing to work on better terms or for higher wages. Thus, if a large number of job seekers who are frustrated at being unable to secure employment are to cease looking for work, the numbers of the unemployed would fall even though no new jobs have been created. This effect, known as the “discouraged worker effect” was seen in the aftermath of the Great Recession in the US. The US unemployment rate rose to 10% in 2009 from 4.7% in 2007, before falling to 5.4% in 2015. However, the employment-to-population ratio (commonly referred to in India as the worker-population ratio), a measure of what percentage of the total population is employed, fell to 59.3% in 2015 from 63% in 2007. Even though the share of population that was employed came down, the unemployment rate fell because of a significant number of people giving up on searching for jobs altogether.

There is a deeper problem in the Indian context. If the definition centres the notion of active search, is such a choice meaningfully available to a large number of women in India? Patriarchy keeps women constrained within the household and denies them the ability to search for employment in labour markets. Definitions that focus on active search exclude from their ambit a large number of those who may be willing yet unable—for structural and social reasons—to search for work, thus providing a possible underestimate of unemployment’s true extent.

### **Evolution of unemployment measures in India**

One of the earliest estimates of unemployment in India came from the Agricultural Labour Enquiry, a survey of roughly 800 villages and 100,000 families undertaken by the labour ministry in 1950–51. The survey, however, suffered from significant problems. For one, it only surveyed male labourers who reported being engaged in wage employment for at least one day in the reference period of a month. By excluding the self-employed — who formed the largest share of the workers in an agrarian economy — the unemployment rate was bound to be overstated owing to a reduced size of the labour force. The Agricultural Labour Enquiry estimated an unemployment rate of almost 16%.

But there was a larger problem, highlighted by Daniel Thorner (1956). The enquiry divided wage workers into two kinds, casual and attached. The former were defined as those who were employed only when there arose a demand for their labour, while the latter were defined as those engaged in continuous employment, often in some form of “contract” with their employer. Thorner, however, pointed out that these forms of attachment more often resembled forms of semi-feudal bondage than wage employment. The enquiry itself reported that certain employers advanced interest-free loans to workers expecting them to repay the advance through work. The concept of unemployment here loses meaning, for these workers would never be able to leave and search for alternatives.

The Second Five Year Plan applied the unemployment rate as estimated by the Agricultural Labour Enquiry to the 1951 Census estimates of wage labourers to determine the numbers of rural unemployed in 1951. The Second Five Year Plan, by adding to this the numbers of new entrants to the labour force and adopting an extremely strong assumption that unemployment did not rise appreciably during the First Five Year Plan due to its focus on rural development, arrived at an estimate of the total number of jobs needed. The problematic assumptions of the enquiry had found their way into the determination of investment and growth patterns. It was clear that a more robust system was needed.

Early systematic surveys were undertaken by the National Sample Survey Office (NSSO) from 1952 onwards. However, [successive surveys differed from each other](#) in terms of the reference period used to determine the individual’s labour force status. For example, the 9th round of the survey, carried out in 1955, established the labour force status of the individual using a reference period of a year. It estimated a rural unemployment rate of 0.67%. The 10th round, undertaken a year later, used a shorter reference period of a day, and estimated a rural unemployment rate of 2.16%.

In order to arrive at robust measures of unemployment for the Fourth Five Year Plan, the Planning Commission instituted the Dantwala Committee in 1968 to discuss and recommend a suitable system of unemployment measures. The committee's recommendations have largely formed the foundation of today's unemployment measures.

### How do we conceptualise the labour force?

The choice of the reference period in Indian unemployment measures — a year in the UPSS and a week in the CWS — was not an arbitrary decision but reflects two very different ways in which employment in a developing economy is conceptualized<sup>1</sup>.

The use of the UPSS was implied to measure the “gainful” status of the worker, a concept first used in the early US censuses of the late 19th century. In the 1870 US census, this was used to indicate the economically productive occupation in which the individual was largely occupied over an entire year.

The difficulties with such a definition are easy to see. It works well where employment conditions are stable year-round, as is the case largely for prime age working males. For women, students and the unemployed, i.e., all those whose engagement with the labour market is more tenuous, this measure proves inadequate. Moreover, in times of significant economic depression, the gainful worker status is unable to capture the dynamic changes occurring in distressed labour markets.

Thus evolved the concept of the 'labour force', which adopts a shorter reference period and classifies unemployment based on whether the individual is actively searching for work. In 1982, the ILO defined the unemployed as all those aged above 15 who (i) had not worked for at least one hour during the previous week, (ii) were available to take up employment within two weeks, and (iii) had actively looked for employment in the previous month.

It is difficult to refute the criticism that these measures are arbitrary. If an individual ceases her job search a month and a day ago, for instance, she is classified as being out of the labour force rather than unemployed. But the charge of arbitrariness loses power when one considers large differences in the reference period, for they correspond to two very different conceptions of the labour force. The Dantwala Committee adopted different measures — the Usual Status and the CWS — in order to answer two distinct questions regarding employment in a developing economy. One, are individuals in a (largely) rural, agrarian economy gainfully employed over the year, and, two, what are the dynamic processes occurring in labour markets? The definitive choice of one measure over the other would imply the negation of one question and the prioritising of the other.

What unemployment the Usual Principal and Subsidiary Status did capture was largely that of the chronic kind, where individuals remained unemployed for a relatively longer period of the year...

The Usual Status concept corresponded closely to the gainful worker approach. The 27th round of the NSS — conducted in 1972–73 — defined it as a “usual attachment of the population of working age to some gainful activity which provides them their means of livelihood” (NSSO 1972-73, 2). The division into Principal and Subsidiary Worker—and the introduction of the UPSS status— was made explicit by the 38th round (1983) of the NSS.

The design of the UPSS prioritised the status of being employed, by classifying an individual as such if they performed any economic activity for “a relatively long time” over the past year, not necessarily continuously. This was the individual's “principal” status. Those who did not work for the better part of the year but were still engaged in some economic activity for a period no less than a month were assigned a “subsidiary” status of being a worker. In rural economies, a significant amount of economically productive work was performed by women for short periods of time. The subsidiary status was designed to capture these forms of work.

What unemployment the UPSS did capture was largely that of the chronic kind, where individuals remained unemployed for a relatively longer period of the year, a kind that largely — it was assumed — was urban in character. Not using such a broad measure might provide better measures of unemployment but would gloss over informal forms of employment engaged in by women, whose working status was already devalued by the distinction between employment and work. In times of economic hardship, women—otherwise confined to domestic work—would seek out subsidiary forms of employment to support household incomes. This phenomenon—known as “distress employment”— explains why labour force participation rises even though economic growth falters.

The count of the unemployed, therefore, would tend to be higher for the CWS as compared to the UPSS.

One problem with the UPSS was the demands it placed on the enumerator to ascertain the true nature of employment from respondents engaged in irregular, multiple forms of work. Moreover, it increased the chances of “recall errors”, or the inability of individuals to remember what activities they engaged in over the previous year.

The shorter reference period of the CWS — one week — would, theoretically, minimise recall error. An individual would be considered unemployed if she had not worked for even one hour over the preceding week. Statisticians recognized that the absence of formal labour markets and the presence of widespread seasonal unemployment meant that unemployment could not be restricted to merely those “searching for work.” Over short periods across agricultural seasons, some workers might not venture out into labour markets — if they even existed — and might wait until labour demand increased as agricultural activity picked up. Thus, the definition of unemployment in the CWS was expanded to include those who, while not actively seeking work, would be available for employment if suitable opportunities arose. Such a classification was considered suitable only for the shorter reference period.

The count of the unemployed, therefore, would tend to be higher for the CWS as compared to the UPSS. Yet there are other problems that rendered the CWS inappropriate as a count of the numbers of the unemployed.

### **Only a matter of timing**

In rural India, labour demand fluctuates according to the agricultural seasons. To take seasonality into account, NSSO surveys from the 14th round (1958–59) onwards were spread out over the entire year, from July of the first year to June the next, a procedure that continues till today. Previous surveys were concentrated in a few months and would thus bias estimates depending on when they were conducted. The 4th round was conducted between April and September 1952, while the 13th round was conducted between September 1957 and March 1958.

Consider the following example, taken from Visaria (1970). Assume a labour force of 52 people, where labour demand is such that all 52 are employed for 48 weeks — what we may call the busy season — and the entire labour force is unemployed for four weeks of the year, the slack season. Now, assume that one individual is interviewed every week. The 48 individuals interviewed in the busy season would be counted as employed, while the four interviewed in the slack season would be assumed unemployed; and the unemployment rate would be calculated as 7.7% (4/52).

It is difficult to say whether the Current Weekly Status over-states unemployment or the Usual Principal and Subsidiary Status under-estimates it, simply because these two measures capture two very different realities.

It would be a mistake to interpret this as an estimate of the number of unemployed persons, for the entire labour force is unemployed for 7.7% of the year (4 weeks out of 52), rather than 7.7% of individuals unemployed over the entire year.

When weekly or quarterly data is aggregated over the year, the CWS essentially measures the aggregate labour time spent in unemployment rather than the number of unemployed individuals. This was recognized in the 27th round, which explicitly stated that “the straightway [sic] equating of the data on person-weeks under each activity category into the number of persons under each of such categories and projecting that as valid for the entire population will be rather an unrealistic portrayal of the exact situation” (NSSO 1977, 7). Later rounds of the NSSO surveys and the current PLFS do not make this distinction explicit.

The Dantwala Committee clearly stated that the CWS was meant to be an indicator of the underutilisation of the labour force rather than as a count of the unemployed. It would better approximate a measure of unemployed individuals if it could be assumed that the demand for labour was (roughly) uniform year-round. Given the sizeable share of the labour force still in agriculture, we cannot say with certainty that such an assumption is justified and hence cannot compare it directly with the UPSS.

### **Conclusions**

It is difficult to say whether the CWS over-states unemployment or the UPSS under-estimates it, simply because these two measures capture two very different realities. The interpretation of economic reality becomes difficult with an increase in the number of measures of employment and unemployment, a problem all the more acute given the stresses the Indian economy has currently been subjected to. This problem has arisen not due to the short-sightedness of statisticians, but because of the empirical realities of a developing economy.

The recent release of the PLFS has led to [debate and confusion over the integrity of these measures](#). But even if we were to accept that the unemployment rate has fallen, it cannot be concluded that this represents an ambiguous improvement in the condition of the working classes. Much of the increase in employment has [come from women undertaking irregular, ill-paid and marginal activities](#), and is not sustainable in any sense of the word.

The UPSS unemployment rate may have fallen since 2017–18 but is still damagingly high. In an economy with limited social security, where a substantial informal economy exists as a patchwork safety net, the fact that nearly 5% of the labour force is still unemployed and unable to find any form of work for a greater part of the year represents suffering of an unimaginable magnitude. No matter which way it is measured, mass open unemployment in this developing economy has become an empirical reality. This should terrify and worry us more than it already does.

*(A detailed analysis of the labour market as revealed in the PLFS between 2017-18 and 2019-20, authored by Ishan Anand and Anjana Thampi, will be published on 17 September – Ed.)*

#### **Footnotes:**

**1** The Dantwala Committee also recommended the use of the Current Daily Status, which adopted a reference period of a day. This measure was used till 2011–12.

#### **References:**

Ghosh, Jayati. 2016. “Capturing "Work" - The Journey of the NSSO.” *Sarvekshana - Journal of National Sample Survey Office* 100: 12–21.

Keyssar, Alexander. 1986. *Out of Work: The First Century of Unemployment in Massachusetts*. Cambridge University Press.

National Sample Survey Office. 1977. *Some Summary Information on the Survey of Employment and Unemployment - 27th Round*. New Delhi: Department of Statistics.

Thorner, Daniel. 1956. “The Agricultural Labour Enquiry: Reflections on Concepts and Methods.” *The Economic Weekly* 25, no. 5: 759–766.

Visaria, Pravin. 1970. “Unemployment in India in Perspective.” *Economic and Political Weekly* 5, no. 29/31: 1251–1258.