

Layoffs and the State Unemployment Rate

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At 2.9 percent, the current Colorado seasonally adjusted unemployment rate is only slightly higher than the record low of 2.5 percent reached in January. Yet job layoffs have emerged upon the Colorado economic scene with a virulence not seen in more than a decade. Each week seems to bring with it a new wave of job cutbacks. According to the outplacement firm Challenger, Gray and Christmas, job layoffs in the State stand at around 15,000 year-to-date, the highest in the eight years the firm has been tracking such activity. Other estimates place the number of layoffs this year in the 10-12,000 range.

While much of the focus has deservedly centered on the telecommunications industry, firms in other sectors including trade, manufacturing, transportation, and services have also announced significant cutbacks. With the national economy either in or on the verge of a recession and so much gloom and doom seemingly making their way through Colorado labor markets, how is it that the official State jobless rate has budged very little this year? Doesn't the low rate contradict what we know to be really happening in the local job markets? Isn't the fact that more people are filing for unemployment benefits indisputable evidence that unemployment is increasing?

Before we can address these questions we need to consider what the official unemployment rate means and how it is measured. Many people understand that the unemployment rate simply refers to the share of the labor force unemployed expressed as a percentage. But what does it mean to be employed or unemployed? And who makes up the labor force?

Employment, unemployment, and labor force. These concepts have precise meanings to labor economists and analysts. Employment and unemployment are measured through a monthly sample of households known as the Current Population Survey (CPS). The CPS is the primary source of current labor force and demographic information in the U.S. Although special surveys designed to measure special characteristics of the nation's labor force are performed periodically during the year, the survey used to estimate employment and unemployment refers to a specific one week period each month. That week, known as the survey week, is generally the week that includes the 12th of the month. In the CPS, survey respondents are asked a series of questions relating to their labor force status relative to the survey week.

According to the CPS definition, an individual is counted as unemployed if, during the survey week, they were at least 16 years or older and looking for, but unable to find, work during the 4 week period prior to the survey week. A person is also unemployed if they are awaiting recall from a previous layoff or are expecting to begin a new job within 30 days.

To be employed in the CPS an individual must have worked at least one hour for pay or profit or at least 15 hours without pay in a family farm or enterprise during the survey week. Persons not working but had jobs from which they were temporarily absent because of illness, bad weather, vacation, a labor dispute, or personal reasons would also

be counted as employed, regardless of whether or not they were paid (such persons are considered employed but not at work). Employment takes precedence over unemployment in the CPS so that someone who works for part of a week and is then laid off during the same week is considered to be employed during the survey week.

The labor force is simply the combined pool of employed and unemployed persons. Individuals neither working nor looking for work are, by definition, not part of the labor force, and therefore have no direct impact upon the unemployment rate. Thus, retired persons not working or looking for a job, non-working students, and those too ill to either work or look for work are excluded from the labor force count. Additionally, persons unable to work due to childcare or transportation related difficulties, or individuals who haven't looked for work because they don't think they can land a job are not counted as part of the labor force. However, some of these persons might be drawn into the labor force should the obstacles to their participation be removed. Military personnel and persons confined to institutions such as prisons or hospitals are also not part of the labor force used in the calculation of the unemployment rate.

Measuring Unemployment. We noted earlier that the CPS is a sample survey of Colorado households. Like other sample-based surveys, the results are subject to both sampling and non-sampling error. Non-sampling errors refer to mistakes related to the recording, measurement, or analysis of sample data. A simple example of non-sampling error would be the incorrect counting of sample responses.

Because the survey results are taken from only part of the population being measured rather than the entire population, some difference between the sample-based result and the population-based result is expected. This difference between the sample result and the true value of the characteristic being measured is called sampling error. Time series data, of which the CPS data are a type, also contain something called noise or random movements. These random movements can be very difficult to remove from the data and interpret. The CPS is generally thought to embody a considerable amount of this sort of random movement.

Nationally, the number of households used to estimate the U.S. unemployment rate is around 56,000. In Colorado, about 700 households are surveyed each month (this number will increase to about 1,300 beginning in July). In part because of the relatively small number of households included in the survey, the estimated size of error in the monthly CPS is fairly large. Because of this, the actual sample-based results are not used as the official employment and unemployment estimates. Instead, a regression type model that controls for sampling error and noise in the labor force estimate is used.

Despite the use of these models, there is still a considerable amount of error contained in the estimate. For example, the Colorado unemployment rate in 2000 was 2.7 percent, the lowest since the series began in 1978. However, the error associated with the annual average unemployment rate estimate is approximately plus or minus 0.5 percentage points. Therefore, the true jobless rate in 2000 probably was between 2.2 percent and 3.2 percent.

On a monthly basis, the amount of error contained in the unemployment rate estimate is even greater than that in the annual average estimate. This makes it difficult to determine whether monthly changes in the rate are truly meaningful or not. Thus, a jump in the unemployment rate from 3.0 to 4.0 percent may represent a real worsening in labor market conditions while an increase from 3.0 to 3.5 percent might not.

The large degree of sampling error in the monthly estimate is one reason why the jobless rate may, at times, fluctuate erratically. Economists therefore tend to look at the movements in the jobless rate over several months in order to try to discern what the data are saying about local job markets. In Colorado, the models used to measure unemployment have generally performed well over time in describing the State's labor market conditions. The unemployment rate has tended to parallel movements in other important economic indicators such as job growth, income gains, and unemployment insurance activity.

It is important to note that unemployment measures generally lag other economic barometers used in assessing overall economic conditions. Because of costs related to the recruitment and training of new workers, employers are often reluctant to let workers go at the first sign of slowing business conditions. Instead, they postpone such staffing decisions as long as possible until payroll cutbacks can no longer be avoided. This behavior has probably been heightened in the recent atmosphere of tight job markets. With unemployment rates at very low levels, an employer who makes a significant reduction in employment may find it exceedingly difficult to refill jobs when demand reaccelerates. For this reason the unemployment rate might remain stable at relatively low levels even though economic conditions have already displayed other signs of weakness.

Unemployment Insurance and the Measurement of Unemployment. The unemployment insurance system is designed as an income maintenance program for those persons laid-off from work through no fault of their own. As such, it acts as a counter-cyclical economic stabilizer, injecting money into the economy when business activity slows and thereby mitigating the effect of job loss upon consumption. The system thus mainly impacts those individuals losing a job through layoff or some other type of company restructuring. However, these persons, referred to as job losers, make up only a portion of the overall unemployed. Persons entering the labor force (i.e., looking for work) for the first time or re-entering the labor force after a prolonged absence would not appear in measures of unemployment insurance activity. Similarly, most individuals who voluntarily quit their jobs to look for other work are excluded from unemployment insurance measures.

Persons either receiving or eligible to receive unemployment are referred to as the insured unemployed. For a variety of complex reasons, the portion of total unemployment made up by the insured unemployed (the reciprocity ratio) has been dropping for the past 30 years. For example, the national share of unemployed persons receiving unemployment benefits exceeded 50 percent in the late 1970s; the ratio is

currently somewhere around 35 percent. However, the trend in Colorado over the same period has not mirrored the national experience. For much of the past 20 years the reciprocity rate has remained within a relatively narrow band of 20 to 25 percent, although the ratio has risen recently and has exceeded 30 percent for most of this year, reflecting an increase in the number of job losers.

In general, issues relating to unemployment insurance are immaterial to the official CPS measurement of unemployment. Recall that according to the CPS definition, the state of being unemployed depends only upon whether one is available for and has actively sought work during the four-week period prior to the survey week. Whether or not one applies for, is eligible for, or actually receives unemployment insurance benefits does not matter in the CPS definition of unemployment (in contrast, some countries record unemployment totals by counting the number of persons receiving unemployment benefits). Because rules regarding unemployment eligibility vary widely from state to state, using counts of persons receiving or filing for unemployment would result in inconsistent and misleading comparisons of joblessness among states.

Additionally, depending upon the circumstances, it is possible for an individual to receive a reduced unemployment insurance benefit while working part-time and having some earnings during a given week. In this instance, the person would be counted as employed in the CPS despite their receiving an unemployment benefit payment.

Layoff Announcements and Unemployment. But what about the roughly 12,000-15,000 persons who have reportedly been laid off this year? Surely they are unemployed? Shouldn't the unemployment estimate be about 12,000 higher than it was at the beginning of the year to reflect the layoffs?

Let us consider the layoff announcements more fully. One reason companies make these announcements is to comply with reporting requirements of the Worker Adjustment and Retraining Notification (WARN) Act. Briefly, the Act requires employers of a certain size to provide advance notice of pending plant closings or mass layoffs. Firms may also announce restructuring plans in order to impress equity analysts and shareholders with the zeal they intend to pursue cost-cutting measures, or simply to make public information that will inevitably leak out anyway.

Often the timing of when the layoffs are to take place is uncertain. In some cases they may never materialize as business conditions change and make them unnecessary. In still other instances it's not clear how many of the job cuts will result from not filling existing vacant positions, or will occur by failing to fill positions which become vacant over time. A company that states it will cut 500 jobs through attrition may really be commenting on its future hiring plans—job reductions satisfied by not filling future openings have no direct effect on the unemployment rate since no workers currently employed will lose their jobs as a result of the firm's actions. Other reductions might be met by offering retirement inducements to those nearing retirement anyway. For these reasons, layoff announcements can overstate, sometimes significantly, the actual number of jobs lost or persons who become unemployed.

Many of the persons affected by job cuts in the State this year received some type of severance payment. In the official definition of unemployment such individuals are not counted as unemployed since they are receiving compensation for work performed (even though the work was performed at an earlier date).

The main point is that persons laid off from work do not move automatically from being employed to being unemployed. Some will continue to be classified as employed for the period they receive severance compensation, others will drop out of the labor force, and still others will find other employment.

Revisiting the Question. We can now return to the question posed initially—why has the State unemployment rate remained so stable in the face of all the job cutbacks that have been announced over the past six months?

Given the ambiguity in many layoff announcements, it is not clear that the stated number of job cutbacks really refers to jobs currently filled-- some cutbacks really relate to future hiring activities, while others may never actually occur or may take place over a long period of time.

We stated earlier that job losers make up the category of the unemployed most affected by layoffs and that job losers also have the primary impact upon the unemployment insurance system. Therefore, we would expect to see any increase in layoffs reflected in the State's unemployment insurance system. This has indeed been the case. For the first half of this year, first-time claims for unemployment insurance are up about 50 percent compared with the same period last year. The number of weeks claimed for persons receiving benefits shows a similar order of increase.

But, it was also noted that unemployment insurance claimants make up only part of the total number of unemployed persons in Colorado. Changes in the number of persons looking for their first job or looking for work after having been out of the labor force will also affect the number of unemployed. It is possible that as layoff announcements appear with greater frequency, persons who might otherwise have entered the labor force decide to postpone their decision to seek work until labor market conditions become more propitious.

Moreover, the number of persons who quit work to look for another job will also impact the total number of unemployed persons. Quitting to look for another job becomes more risky as hiring slows, thus reducing the number of unemployed job leavers. Other persons who had been looking for work might decide to stop looking for a job and simply drop out of the labor force, also holding down the overall unemployment total. The increase in job losers may therefore be offset by a decline in the number of first-time job seekers or persons quitting work to look for another job. If so, the total number of unemployed may change only slightly while being composed of distinctly different groups of unemployed persons.

We suggested earlier that the unemployment rate might lag other measures of economic activity. This is not the case, however, for counts of first-time unemployment insurance filers. Although we saw earlier that eligibility for unemployment insurance is irrelevant to the definition of unemployment, initial claims activity tends to foreshadow changes in unemployment levels simply because some share of those filing for benefits will indeed meet the official definition of unemployed. For instance, persons filing for unemployment insurance but receiving some type of severance payment may receive some type of unemployment benefit payment but are not counted as unemployed in the CPS definition. Over time, however, as these types of severance payments are used up or exhausted, some individuals will continue to look for work and become officially unemployed. Thus, we would expect to see some increase in the level of unemployment, albeit from very low current levels.

Finally, we saw that unemployment estimates tend to lag other economic indicators, particularly at the top and bottom of economic cycles. Moreover, the monthly unemployment estimate is known to contain a certain amount of error, so that it is possible that the estimates thus far this year have simply understated total joblessness. However, both these factors imply that a trend of rising unemployment would likely manifest itself in the official unemployment numbers within a reasonably short period of time. In fact, this appears to already be occurring. The seasonally adjusted number of unemployed persons in the State has grown from 57,800 in January to 66,700 in June while the jobless rate has edged up from 2.5 percent to 2.9 percent during the same period.