Unemployment Rates – How are these Calculated?

How is unemployment measured at the national level?

Total employment, unemployment, the unemployment rate, and the civilian labor force are derived directly from a monthly national survey called the Current Population Survey (CPS). The CPS is conducted by the Census Bureau for the U.S. Department of Labor, Bureau of Labor Statistics (BLS). The survey collects labor force information on approximately 60,000 households nationwide per month. Around 1,700 households are sampled throughout Michigan on a monthly basis.

Each household member 16 years and older is asked a series of questions to determine their employment status. Based on their responses to these questions, persons in the survey are classified as employed, unemployed, or out of the labor force. The CPS survey is large enough nationally to produce direct monthly estimates of employment, unemployment, and the unemployment rate for the U.S.

How is unemployment calculated at the state level?

The Michigan CPS survey is designed to be representative of the Michigan labor force, as it is stratified by geography and worker demographics. However, the number of surveyed households is not large enough in Michigan (and in all other states) to be used solely to produce statistically reliable monthly estimates.

Therefore, BLS has developed statistical models for all states that primarily utilize the monthly CPS survey results, but are also supplemented with additional employment and unemployment variables. These models significantly reduce the impact of sampling error on the monthly data. Labor force data are produced for all states using the same methodology, ensuring that data for Michigan is fully comparable with data available for other states.

Along with the CPS data, the additional variables used in the modeling process include:
- Payroll job estimates for the state from the Current Employment Statistics (CES) program
- Unemployment insurance claims information

Michigan's Department of Technology, Management, & Budget (DTMB) compiles these inputs and runs the regression models monthly to produce the Michigan labor force statistics.

Employment and unemployment estimates are added together to calculate total labor force. The unemployment rate is derived by dividing the number of unemployed by total labor force.

The above methods are used to derive monthly estimates for Michigan and the Detroit metropolitan area.

Who is counted as unemployed in the official statistics?

To be counted as unemployed, a person must meet all 3 of the criteria below:

- Must have had no earnings due to employment during the reference period or survey period (the week of the month that includes the 12th) **AND**
- Must have made specific efforts to find employment some time during the four weeks prior to the survey period. **AND**
- Must have been available to accept a job if it had been offered

Is it true that only persons receiving unemployment benefits are counted as unemployed?

No, this is not true. None of the CPS survey questions deal with the receipt of unemployment benefits. If a person meets the above three criteria, they are counted as unemployed regardless of whether they receive unemployment benefits. Many of the unemployed are persons seeking their first job or reentering the workforce after a period of absence. They are counted as unemployed even though they have no prior employer and are not eligible for unemployment benefits.

What about "discouraged workers", persons who want a job but have stopped looking for work because they feel no employer will hire them? Are they counted as unemployed?

No, "discouraged workers" are not counted as unemployed, because they are no longer actively seeking a job. Instead they are counted as "out of the labor force".

A larger group of workers, called the "marginally attached", are individuals who have searched for work in the past year, but did not seek employment in the four weeks prior to the reference period. They are also not counted in the official labor force estimates.

BLS estimates that the Michigan 2013 CPS jobless rate of 8.6 percent would be 9.2 percent if "discouraged workers" were counted as unemployed. The state jobless rate would be 10.1 percent if all "marginally attached" workers were counted as unemployed.

If all of the unemployed, all "marginally attached" workers, and those working part-time but wanting full-time work were considered unemployed or "underutilized", the Michigan "labor underutilization" rate would be 15.3 percent.

Who is counted as employed in the official statistics?

All persons (during the reference period) are counted as employed if:

- They did any work as paid employees, worked in their own business or on a farm, or worked 15 hours or more as an unpaid worker in a family business.
- Also included as employed are those temporarily absent from work due to illness, vacation, bad weather, personal reasons or labor disputes.

How is unemployment calculated for local labor markets and counties?

Labor force estimates produced at the local level (metropolitan areas, counties) are derived by what is called the Handbook or building block method. This method is used consistently in all states in the country, so that unemployment rates for Michigan counties are fully comparable with those developed in other states.

With this methodology, estimates are made of the various components of the employed and unemployed for each labor market in the state. The component estimates are summed for each labor market area to calculate an initial estimate of employment and unemployment. These preliminary estimates of employment and unemployment for all 83 counties in Michigan are then adjusted so that they sum to the independent estimates of employment and unemployment for Michigan.

What are the data sources used in this building block method for local area estimation? Do you directly survey local employers as part of this process?

To produce **employment estimates** at the local level, employers are surveyed by BLS/DTMB monthly to determine their employment levels. This employer survey is part of the *Current Employment Statistics* program. Estimates of jobs by industry for metro areas are developed from this survey, and the total job count is translated to an estimate of employees by place of residence using Census commuting patterns.

Job information from the *Quarterly Census of Employment and Wages* program is also utilized for metro and nonmetro areas. This program extracts actual employment data from more than 95 percent of all firms statewide using Unemployment Insurance tax records. This nearly universal count of jobs ensures that even the smallest geographic area using the Handbook method is represented.

Adding to the employment building block, census and CPS data are used to estimate farm employment and self employment for all Handbook areas.

On the **unemployment side**, Unemployment Insurance claims data at the local level are coded by place of residency. However, only about 40 percent of the total unemployment estimate is derived directly from current claimants. To supplement claims data, information on the number of persons who have received their final UI payment is combined with survival rates to estimate the number of individuals who have exhausted their benefits, but are still actively seeking employment. A third source of unemployment data is based on CPS information about the number of unemployed individuals in an area who have entered the labor force for the first time or who have reentered the job market after a period of absence.

Jobless rates are published monthly by DTMB for all Michigan metro areas, labor market areas, and counties. Estimates are also generated for cities with a population of 25,000 or more.