REDESIGN PLANNED FOR LOCAL AREA UNEMPLOYMENT STATISTICS (LAUS) PROGRAM IN 2015

Why Measure Unemployment?

The unemployment rate is widely regarded as one of the most important indicators used to measure the overall health of the economy. When the national employment and unemployment figures are released every month, they often result in some of the largest one-day movements in both the bond and stock markets. The release of the national unemployment rate also influences other important indicators, such as consumer confidence, consumer sentiment and even business investment. The unemployment rate is closely tracked by decision makers in both the private and public sectors, and the Federal Reserve when setting monetary policy.

Iowa Workforce Development produces monthly labor force estimates through a federal/state cooperative program with the Bureau of Labor Statistics (BLS), the statistical branch of the U.S. Department of Labor. The program is known as *Local Area Unemployment Statistics*, or *LAUS*. All of the states use the methodologies and procedures outlined in the LAUS program to produce the monthly estimates of employment and unemployment. A consistent methodology is necessary to produce the estimates since they are used in the distribution of federal dollars to states. In operating the LAUS program, BLS is responsible for the concepts and definitions, technical procedures, review of the data, analysis and the publication of the estimates. The State agencies are responsible for the production of the estimates, and analysis and dissemination of the data to customers.

2015 LAUS Redesign

The Bureau of Labor Statistics typically conducts major redesigns to its methodology every ten years. The 2015 redesign is being implemented with the publication of the January 2015 estimates that will occur in March 2015. At the same time, new and revised labor area definitions will take effect for the states. Since the last program improvements were made in 2005, some issues have been identified that affect the accuracy and analysis of the estimates. Because BLS is committed to producing high-quality data, it continually conducts research to improve its methods and procedures. Moreover, when sources cease to exist, new sources must be found to replace them. For example, the LAUS methodology has incorporated data from the long form (decennial census) for years. Since census information is no longer being collected on the long form, BLS will be using the American Community Survey (ACS) as an alternate source.

The Current Population Survey (CPS) is a monthly survey of households conducted by the Bureau of Census for the Bureau of Labor Statistics. The survey collects detailed data on the labor force, employment, unemployment and other demographic and labor force characteristics.

The CPS is the source of numerous high-profile economic statistics, including the national unemployment rate.

The CPS or "household survey" classifies each person's labor force status according to the activities they engaged in during the week including the 12th of the month. This is always the reference week.

Fourth-Generation Model Introduced for State Estimates

Data for the national unemployment rate are obtained directly from the Current Population Survey (CPS), a monthly survey conducted by the U.S. Census Bureau. The CPS sample consists of approximately 60,000 households, of which over 700 households are in Iowa. State CPS samples are not large enough to directly produce statistically significant monthly estimates. Instead, BLS has developed statistical models for all states that primarily use the monthly CPS survey results along with nonfarm employment estimates for the state developed from the Current Employment Statistics (CES) program, and Iowa Workforce Development records on Unemployment Insurance (UI) claims. The use of time series models dates back to 1989, when estimates for 39 states (Iowa included) and the District of Columbia became based on models developed by BLS and tested by state employment security agencies.

The most recent LAUS redesign for State models occurred in 2005 with the introduction of the third generation of LAUS models. In 2015, a fourth-generation model will be implemented that will add further improvements to the monthly employment and unemployment estimates. There are four main differences between the 2005 and 2015 models: (1) structural differences, (2) real-time benchmarking, (3) smoothed seasonal adjustment, and (4) treatment of outliers.

Both the 2005 and 2015 state models are signal-plus-noise models. The 2015 models, or fourth-generation models, move from the bivariate structure to a regressor format. Nonfarm employment from the Current Employment Statistics (CES) program and the unemployment insurance claims are used as regressor variables, rather than separate input variables. This feature allows greater flexibility for the treatment of outliers and for long-term model development.

In the 2005 generation of the models, real-time benchmarking was an external process applied after the completion of model estimation. With the fourth-generation model, real-time benchmarking is now a model-based component of the estimation procedure, distributing the benchmark discrepancy to the states where it is most appropriate. The states that contributed more to the discrepancy will receive a larger adjustment.

The new, fourth-generation models will utilize an improved smoothed seasonal-adjustment filter. In addition to the trend filter, weights have been added to create a seasonal filter.

In the 2005 or third-generation models, state outliers were added to the model prior to real-time benchmarking. With the 2015 models, outliers will be added subsequent to real-time benchmarking. This approach allows the preservation of the impact of the outlier in the originating state and prevents the distortion of estimates in other states. *An outlier is an extreme value in a particular month*.

The fourth-generation model will offer an historical series back to 1976 for the State.

Updates Planned for Handbook Method

The "Handbook method" is a building block approach that is used to estimate employment and unemployment for Iowa's counties, metropolitan statistical areas, micropolitan statistical areas and combined statistical areas. This method allows for accurate estimates for smaller labor market areas without conducting an expensive survey like the Current Population Survey.

The employment component of the methodology is comprised of nonagricultural wage and salary employment (payroll jobs), all other employment, and agricultural employment. The unemployment component is derived by summing the estimates of non-covered agricultural unemployment, total unemployment insurance (UI) continued claims without earnings, and unemployed exhaustees and unemployed entrants into the labor force.

The 2015 LAUS changes will have no effect on the overall structure of the Handbook method, and there will be no changes to the unemployment component of the methodology. The upcoming redesign will include the following:

- Updated Dynamic Residency Ratios (DRR)

- Change in estimation inputs for "all other employment," agricultural employment, and non-covered agricultural employment.

The Dynamic Residency Ratio is used to adjust the "place-of-work" nonagricultural wage and salary figure to a "place-of-residence" figure. Resident employment includes workers living and working in the same area and also those who work in other areas within commuting distance. In the past, journey-to-work data from the decennial Census were incorporated into these ratios. However, journey-to-work data were not available from the 2010 Census due to the discontinuation of the long form. For the 2015 redesign, the Dynamic Residency Ratios will be computed using journey-to-work data from the American Community Survey (ACS).

The LAUS program had been reliant on the long form census data as the basis for developing substate estimates for self-employed, unpaid family workers, private household workers and agricultural workers. These data elements represent employment that is either not covered by the unemployment insurance compensation program, or not included in the Current Employment Statistics (CES) Survey. The CES data are used to estimate the number of payroll jobs in a labor market, which account for the major share of nonfarm employment. Beginning in 2015, the Handbook method will utilize the strengths of the Current Population Survey and the American Community Survey to develop monthly estimates of self-employed, unpaid family, and private household workers (collectively known as "all other" employment) and agricultural workers.

What is the American Community Survey?

The American Community Survey (ACS) is an ongoing monthly survey conducted by the U.S. Census Bureau. The ACS gathers socioeconomic information that was previously obtained by the long form of the decennial census. With the 2010 Census, the long form questionnaire was eliminated.

Who is counted as employed?

- All persons who did any work for pay or profit during the reference week (the week that includes the 12th of the month).

- All persons who worked in a family-operated business for at least 15 hours of unpaid work.

- All persons who were temporarily absent from their regular jobs because of illness, vacation, bad weather, labor dispute or for various personal reasons, whether or not they were paid for the time off.

Who is counted as unemployed?

- All persons who did not have a job during the reference week; who made specific efforts to find a job during the prior four weeks; and who were available for work (unless temporarily ill).

- All person who were not working and who were waiting to be called back to a job from which they had been laid off. These workers do not have to be making an active job search to be classified as unemployed.

How the Unemployment Rate is Calculated:

The unemployment rate is expressed as a percentage, and is calculated by dividing the number of unemployed individuals by all individuals in the labor force.

> Civilian Labor Force = Employed + Unemployed
>
> Unemployment Rate = (Unemployed/Civilian Labor Force) x 100

The Labor Force is the sum of employed and unemployed persons.

The labor force is the sum of employed and unemployed persons, age 16 and over. Individuals who do not have a job and are not looking for one are classified as "not in the labor force." Many of these individuals are homemakers, retirees and students.

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