

Questions and Answers on the Local Area Unemployment Statistics (LAUS) Program Redesign for 2015

1. What does the LAUS 2015 Redesign entail?

The 2015 LAUS Redesign includes improved time-series models for the census divisions, states, select substate areas, and the balances of those states; an improved real-time benchmarking procedure to the national Current Population Survey (CPS) estimates; an improved smoothed seasonal adjustment procedure; and improved treatment of outliers.

Non-modeled area estimation improvements include: updated Dynamic Residency Ratios (DRR); more accurate estimates for all-other employment; more accurate estimation of agricultural employment; and improved estimation of non-covered agricultural unemployment. Handbook estimation is now done at the county level instead of at the Labor Market Area (LMA) level, which better reflects local conditions. The Redesign also introduces estimation inputs from the American Community Survey (ACS) to replace inputs that were previously obtained from the decennial census long-form survey.

In addition, [2010 Office of Management and Budget \(OMB\) delineations](#) for metropolitan areas, metropolitan divisions, and micropolitan areas and new LAUS small labor market areas will be implemented with the 2015 LAUS Redesign.

2. How often does LAUS conduct major redesigns to its methodology?

Typically every 10 years.

3. When will the LAUS 2015 Redesign changes be implemented?

The 2015 Redesign is being implemented with the publication of January 2015 estimates.

4. What levels of geography will the LAUS Redesign affect?

The 2015 Redesign will affect all LAUS areas. Census divisions, states, the District of Columbia, New York City, the Los Angeles-Long Beach-Glendale metropolitan division and the balances of New York and California will have their model-based series re-estimated from 1976 forward.

Other modeled areas directly affected include the following: the Chicago-Naperville-Arlington Heights, IL metropolitan division; the Cleveland-Elyria, OH metropolitan area; the Detroit-Warren-Dearborn, MI metropolitan area; the Miami-Miami Beach-Kendall, FL metropolitan division; and the Seattle-Bellevue-Everett, WA metropolitan division and the

balances of Illinois, Ohio, Michigan, Florida, and Washington. These areas will be re-estimated back to 1990.

Substate areas not listed above are directly affected by improvements to the Handbook method and disaggregation procedure from January 2010 forward and indirectly affected by controlling to the new model-based estimates back to their series beginning in January 1990.

For the 2010 OMB geography, estimates for 1990 to 2009 will be aggregated from their county or city and town components. Estimates for 2010 forward will reflect the new estimation methods based on 2010 geography.

5. Why is LAUS making these program improvements?

Some issues have been identified with the 2005 methods of estimation at the state and substate levels that affect accuracy and analysis of the estimates. Because LAUS is committed to producing high-quality data, it must conduct research and improve its methods and procedures. Moreover, when data sources cease to exist, it must find new sources to replace them. The 2015 state and substate estimation approaches generate more accurate and reliable estimates.

6. Who decided to implement these program improvements?

The LAUS national office in consultation with the states decided to implement the 2015 Redesign. The 50 states, the District of Columbia, and Puerto Rico had an opportunity to review and comment on various aspects of the Redesign. In addition, the [Federal Register Notice](#) provided an opportunity for the general public to comment.

7. How do the 2005 models compare with the 2015 models?

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. Current Employment Statistics (CES) employment and unemployment insurance (UI) claims are used as regressor variables, rather than separate input variables. This improves computational performance, as well as adds greater flexibility for the treatment of outliers and for long-term model development. In addition, substate models will also utilize this regressor structure, allowing the use of CES employment and UI claims at the substate level.

In the 2005 generation of the models, real-time benchmarking was an external process applied after the completion of model estimation. With the 2015 generation, 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. In other words, states that contributed more to the discrepancy will receive a larger adjustment.

The 2015, or fourth generation, models utilize an improved smoothed seasonal-adjustment filter. In addition to the trend filter, weights have been added to create a seasonal filter. This removes the volatility introduced by real-time benchmarking, while simultaneously removing residual seasonality that results from benchmarking to a seasonal series.

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 the other states.

See [Report on Revision to State and Area Time-Series Models](#) for more details.

8. How are estimates for the census divisions developed with the 2015 models?

In both the 2005 and 2015 models, the census division estimates are generated essentially the same, except that in the 2015 models, the outlier effect is removed prior to estimation. Real-time benchmarking is done a bit differently than in 2005. In 2015, real-time benchmarking will be done by estimating all the divisions simultaneously, with a requirement that they add to the national totals. Thus, there is no need for pro rata, or ratio, adjustment as in 2005.

9. If a census division contains a large state, how will the monthly benchmark adjustment affect other states in the division?

The 2015 models have greater flexibility for benchmarking. To distribute the difference between the sum of the states' estimates and the divisions' estimate, the models take into account how much each state within the division is estimated to have contributed to the difference. Thus, on a percent basis, the adjustment rate will vary by state within the division. On an absolute basis, a large state gets a larger absolute adjustments than smaller state.

10. If a state has an atypical monthly CPS value during the current year estimation, how will that affect its current month estimates and the estimates of other states in the division?

In the 2015 models, as with the 2005 approach, the model will discount most of a state CPS atypical movement by attributing it to the noise component. Any remaining state CPS atypical movement will be mostly retained in the originating state. By combining the estimation and real-time benchmarking procedures, the 2015 models have greater flexibility for keeping local atypical movements in the corresponding State. During annual processing, atypical movements are evaluated and if they are classified as outliers, they are addressed appropriately.

11. How does the 2005 Handbook method compare with the 2015 Handbook method?

The overall structure of the Handbook method does not change. However, some inputs to some Handbook lines will be more current with the 2015 Redesign. Changes in the Handbook method include: updated Dynamic Residency Ratios (DRR), more accurate estimates for all-other employment, more accurate estimation of agricultural employment, and improved estimation of non-covered agricultural unemployment.

In addition, the Handbook estimation will be done at the county level instead of at the Labor Market Area level to better reflect local conditions.

The Redesign also introduces estimation inputs from the American Community Survey (ACS) to replace inputs that were previously obtained from the decennial census long-form survey.

See [Report on Revision to Handbook Method Employment Estimation](#) and [Report on Revision to Handbook Method Unemployment Estimation](#) for more details.

12. What is the American Community Survey, and why is it being used in LAUS estimation?

The [American Community Survey \(ACS\)](#) is an ongoing monthly survey conducted by the U.S. Census Bureau. With a sample of approximately 295,000 households, 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.

The LAUS program had been reliant on the census long-form data as the basis for developing substate estimates for self-employed, unpaid family workers, private household workers, and agricultural workers throughout the decade. These data elements represent employment that is either not covered by unemployment insurance compensation programs, or not covered in the payroll survey data (Current Employment Statistics).

13. How were the 2015 estimation methods evaluated prior to implementation?

The 2015 Redesign involved a multi-year effort to research robust estimation methods for all areas. For changes to the models, estimates based on the new methodologies were made available to states for their review. Formal feedback from states on the Redesign models estimates was provided to BLS in 2014. For the other substate areas, components of the Handbook Method were evaluated regarding methodological improvements and new data sources. Information regarding any proposed changes and/or effects of using new data sources were made available to states for their review and comment.

In addition, the Federal Register Notice provided an opportunity for the general public to comment on the new methodology.

All of the systems used to generate LAUS estimates were modified and tested to ensure that the 2015 Redesign will be implemented correctly.

14. Will the 2015 Redesign affect when labor force estimates will be released each month?

No. The use of the 2015 Redesign methodologies will not impact the BLS release of labor force estimates relative to prior years.

15. How will the LAUS 2015 Redesign affect historical comparisons?

For the census divisions, states, and balance of states, the entire historical series from January 1976 forward will be replaced with estimates based on the redesigned models. For the five modeled metropolitan areas and divisions, the plan is to re-estimate back to 1990. For the remaining substate areas, the re-estimation with the new methodology will be carried back to 2010. Hence, many areas can be expected to display breaks in series between 2009 and 2010.

16. Will the state and area estimates still be revised at the end of the year?

Yes. The end-of-year revision process remains essentially the same as with the 2005 models.

17. Where can I go to get technical information on the Redesign?

See [Upcoming changes to state and local area labor force estimation in 2015](#) for additional information.