Long-Term Industry Projections

General Description

Long-term industry projections are presented for New York State and its ten labor market regions. Projections are used to assess long-range trends in industry employment and resulting occupational opportunities. Over 90 detailed industry forecasts are presented for the 10-year period.

Data Collection Methodology

Industry employment totals are developed for the base year and industry employment estimates for the projected year. Projected year estimates are a function of several factors including national and local area trends in industry employment, population, personal income and the statewide economic outlook.

The projections program uses a total employment concept attempting to account for all workers, not just those included in the Current Employment Statistics (CES) program estimates. Consequently, additions are made for self-employed and unpaid family workers and employment in agriculture and private households. These additional categories of employment are treated as separate industries. The current employment models use a 30-year or longer history for each of the detailed industries in each labor market area. Quarterly Census of Employment and Wages (QCEW) Program data is used because of the finer industry detail available and consistency of the industry categories across areas. QCEW employment is benchmarked to CES employment.

Industry projections are made using two general categories of models, shift share and regression. The first class of models is simpler, relying on two points in time and ratios. Shift share models are less restrictive and do not include statistical parameters. Regression models use all the points in an employment time series and correlate the employment time series with equivalently long time series of variables used to explain changes in the industry employment. Regression models are based on a full range of probability assumptions.

Shift share models frequently used include the following models. The constant national share model assumes that the area industry will grow at the same rate as the national industry. The constant regional share model assumes that the regional rate will grow at the same rate it has in the past. The classical shift share model has three components: national, industry and regional components. The national share accounts for regional industry growth due to growth in total national employment. The industry share accounts for area industry change due to a forecast change in the national industry share of the national total or the industry mix. The regional share accounts for the regional industry share change relative to the national industry share historically or the regional shift. An employment-to-population model is used infrequently and assumes the area industry will grow at the same rate as the population.

Regression analysis uses parametric statistics to select regression models that best explain change in industry employment over time. Explanatory variables used include population and personal income forecasts at the national, state and regional level; and industry and total employment forecasts for the greater area. For example, a regional industry forecast can be based on a state or national forecast for the same industry. Time as well as other variables are used to forecast a given industry in a region.

Limitations of Data Use

Data are not available for geographies below labor market regions. Detail industry and regional forecasts are not part of a whole but estimates separately. Thus detail may not add to summary lines. Data are rounded to the nearest 10.

For additional background material regarding industry estimates and projections, visit the Bureau of Labor Statistics website at http://www.bls.gov/emp .