INDUSTRY AND OCCUPATIONAL EMPLOYMENT PROJECTIONS

The Labor & Economic Division (LEAD) prepares projections of future growth in employment by industry and occupation for the state and sub state areas utilizing industry and occupational data. Projections allow for useful labor market information, particularly job trend information. This information is crucial to North Carolina's employment situation. Projections are used by both individuals and groups who might be studying long-range economic and employment trends, educational institutions, or workforce development.

DATA SOURCES AND METHODOLOGY

Projections are prepared using the methodology, software tools and guidance developed by the Projections Managing Partnership (PMP) in conjunction with the U.S. Department of Labor. The long-term industry and occupation projections are produced every two years while the short-term projection is prepared every year. Sub-state areas are prepared biannually with a focus on the workforce board areas.

LEAD utilizes industry employment data derived from the Enhanced Quarterly Unemployment Insurance (EQUI) dataset. It is the most complete and timely source of monthly employment and quarterly wages information by detailed industry and county. The data contains a quarterly count of employment and wages report that is sent from employers based on the North American Industry Classification System (NAICS) code. Employment data on uncovered industries within the Unemployment Insurance (UI) program is collected from other sources such as Current Employment Statistics (CES), Census Bureau, and Railroad Retirement Board. The EQUI dataset also forms the base for federal data programs through the BLS.

The employment data passes through multiple phases of data processing and analysis. Historical data is first cleaned to ensure consistent formatting and validity then aggregated by NAICS for all detail levels. The data is also aggregated from the county level to sub state areas and statewide.

The second phase involves importing the historical data into the industry projections system. The industry projections system has multiple estimation models. The analyst chooses the model that best fits the historical data among the included shift-share, time series and regression models. Outside sources of information are also valuable in the projections process. Industry expert opinion, current events, and objective national and regional input all play a role in producing a reasonable estimate.   Economic indicator variables, such as population or retail sales, are used in the projection process after analyzing the historical data series to determine which variables could be used to explain the particular industry historical data series. These variables become an integral portion of the projection models.

Lastly, the collection and analysis of the industry- staffing pattern is examined. An industry-staffing pattern is the ratio of the employment in each occupation to the total employment in the industry. Data used in the creating of the staffing pattern is collected from the Occupational Employment Statistics (OES) program. Micro data from OES is imported into the Estimate Delivery System (EDS) system to produce an industry-occupation matrix that transforms the industry employment projections into occupational employment projections..