

Long-Term Occupational Projections


Introduction

Occupational estimates and projections for New York State and its ten labor market regions are developed every other year. Projections are widely used for planning and preparation of educational and training programs, developing career information and studying long-range trends in occupational employment. The projections process consists of four principal phases:

1. Developing industry employment totals 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;
2. Collecting and analyzing Occupational Employment Statistics (OES) program survey data from 57,000 New York employers on how many individuals they employ in each occupation. The results generate an occupational distribution or staffing pattern for each industry;
3. Applying occupational staffing patterns from the OES survey to the industry employment totals to produce base year occupational employment estimates. In turn, expected staffing pattern changes are applied to the base year pattern. The modified staffing patterns are then applied to projected industry employment levels to obtain projected occupational employment levels;
4. Applying replacement rates to the projected occupational employment levels and adding growth to obtain estimates of occupational openings for approximately 800 specific occupations.

Definitions and Concepts

The tables presented in this application contain the following items:

- Occupational title and code--titles and codes are from the [Standard Occupational Classification \(SOC\) User Guide](#): 
- Employment--number of workers estimated to be employed in an occupation in the base year and in the projected year;
- Level (numeric) and percent change--actual and percentage change in number of workers employed in occupation between base year and projected year;
- Total, average annual openings--annual number of job openings expected in an occupation due to growth (see below) plus replacement need (see below);
- Growth, average annual openings--openings in occupation due to industry expansion and the consequent need for additional workers;
- Replacement, average annual openings--calculated by weighing the number of people exiting the occupation against the number of people entering the occupation by age group. This net measurement is best for quantifying how many new people are needed to enter a given occupation, and, if training is required, to identify its minimum training requirements.

(Note: Individuals who change employers, but remain in the same occupation fall under the category of job turnover and are not included in this measure.)

Cautions When Using Estimates and Projections Data:

Occupational employment estimates should be interpreted as only an approximation of the true level of jobs in an area. The OES employer survey, which is the basis for occupational data, is subject to statistical error as a result of both the sampling process and the level of employer response to the survey mailings. In addition, employers may have problems in completing the survey.

Occupational projections are based on staffing patterns derived from the OES survey and past and current industrial and occupational trends. They serve to illustrate likely employment patterns, barring major changes from past trends. However, the projection models do not take into account such factors as immigration, emergence of new occupations, relocation of employment opportunities, and major events such as war or an economic downturn that would significantly alter the industrial structure of the economy, the occupational staffing patterns, or the long-term rate of growth.

To carry out occupational employment projections at the national level, the Bureau of Labor Statistics makes many assumptions regarding rates of replacement, future staffing pattern changes, population, personal income and industry employment growth. The New York employment projections follow the same set of major assumptions used by BLS.

There are a number of other key points to keep in mind when using occupational employment projections:

- OES data represent job positions, not the number of individuals employed;
- Jobs data are based on a place-of-work concept, thus jobs are counted in the geographic area in which their employer is located, not where the employee lives;
- Projected employment data are annual averages, which may not accurately portray seasonal occupations in industries such as recreation and construction;
- Occupational employment levels and estimated numbers of occupation openings are projected averages for a ten-year period and there for cannot be attributed to a specific year.