2016–2026 New Mexico Employment Projections
Introduction, Definitions, and Methodology

**INTRODUCTION**

The New Mexico Department of Workforce Solutions (NMDWS) Economic Research and Analysis Bureau (ER&A) has completed and finalized long-term projections for the 2016 to 2026 period. New Mexico’s employment projections are produced in conjunction with the U.S. Department of Labor (US DOL). Long-term projections have been prepared for New Mexico, its four metropolitan statistical areas (Albuquerque, Farmington, Las Cruces, and Santa Fe), and four Workforce Regions (Central, Northern, Eastern, and Southwestern, as defined by the Workforce Investment and Opportunity Act (WIOA)).

Employment projections data are designed to assist students, job seekers, educators, employers, and public and private groups in their individual planning and reporting purposes. Employment growth and occupational job openings provide insight into key growth sectors and potential areas of decline in New Mexico’s labor market. Projections are presented for over 100 industries and close to 800 detailed occupations at the state and substate levels.

**INDUSTRY PROJECTIONS**

Industry employment projections are presented at the 2- and 3-digit North American Industry Classification System (NAICS) level for the state and substate areas. Industry projections include a base-year employment estimate (2016), ten-year employment projection (2026), and projected numeric and percentage employment change.

- **Major industry groups** are denoted by NAICS codes ending in four zeros ("XX-0000"). All other industries are at the 3-digit detailed NAICS level ("XX-X000").

- **Numeric change** is the difference between the 2016 employment estimate and 2026 employment projection.

- **Percentage change** is the growth change between the 2016 employment estimate and 2026 employment projection.

**OCCUPATION PROJECTIONS**

Occupation employment projections are presented at the 2- and 6-digit Standard Occupational Classification (SOC) level for the state and substate areas. Occupation projections data include a base-year employment estimate (2016); ten-year employment projection (2026); projected numeric and percentage employment change; and total projected annual openings and annual openings due to growth, transfers, and exits.

- **Major occupation groups** are denoted by SOC codes ending in four zeros ("XX-0000"). All other occupations are at the 6-digit detailed SOC level.
**Numeric change** is the difference between the 2016 employment estimate and 2026 employment projection.

**Percentage change** is the growth change between the 2016 employment estimate and 2026 employment projection.

**Growth openings** represent openings that are completely new, not having been filled by a previous worker who left the occupation. Total annual openings due to growth equal the numeric growth of the occupation.

**Transfer openings** represent openings that are the result of workers leaving an occupation and transferring to a different occupation. Transfers represent permanent separations from an occupation, not temporary movements where the worker is expected to return to the same occupation in the future.

**Exit openings** represent openings that are the result of workers leaving an occupation entirely and exiting the labor force. Labor force exits are not necessarily permanent exits from the labor force but are permanent separations from an occupation.

In many cases, occupation employment projections data are presented alongside the following additional data/information:

- Wage data from the Occupational Employment Statistics (OES) program;
- Minimum typical education requirements, commonly required work experience in a related occupation, and typical on-the-job training needed to obtain competency in the occupation from the US DOL;
- Job Zone indicators, providing information on the overall level of preparation needed to enter an occupation, from US DOL O*Net; and
- Calculated in-demand and star occupation indicators produced by NMDWS using multiple inputs and a unique methodology.

### Data Suppression

New Mexico and its substate areas have many small industries and occupations that have little employment. In addition, some of the industries have few employers. While the projected growth of these industries and occupations is important, the low employment levels and small number of employers often mean that data cannot be reported due to U.S. Bureau of Labor Statistics (BLS) suppression requirements. In addition, low employment levels can create extreme growth measurements that, if classified in similar ways as larger industries and occupations, can be misleading. For example, if an occupation's employment grows from 5 to 10, the percentage growth would be 100 percent. That growth shouldn't necessarily be compared to that of a larger occupation, which would likely report smaller percentage growth by the nature of its large base and projected employment.

Data suppression is indicated in different ways depending on the publication or online source. **Within NMDWS's online data system LASER, all employment and projections data are suppressed and noted as such.** Within the projections dashboards (and other select publications), some percentage growth and total annual job openings data are made available. The following outlines the rules for suppression applied to the dashboards (and other publications if so noted).
**Dashboard and Publication Suppression Rules**

When an industry or subsector’s data are suppressed, some information may still be reported. When an industry’s base (2016) employment is above the tenth percentile for all industries, that industry’s percentage growth (only) is shown. Similar rules are applied for major occupation groups and detailed occupations with suppressed data. If the occupation’s base (2016) employment is above the thirtieth percentile across all occupations, the percentage growth and total annual openings are shown. The corresponding chart provides the percentile rules for publication and dashboard suppression.

### Definitions

**Projections Data Definitions**

**Employment:** The base employment level, representing a count of jobs, not people, in 2016

**Numeric Change:** The numeric change in employment between 2016 and 2026, also equaling total job openings from growth

**Percentage Change:** The percentage change in employment between 2016 and 2026, also representing the rate of change

**Growth/Growth Openings:** Openings that are completely new, not having been filled previously by a worker who left the occupation. Total annual openings from growth equal the numeric growth of the occupation

**Transfers/Transfer Openings:** Openings that are the result of workers leaving an occupation and transferring to a different occupation. Transfers represent permanent separations from an occupation, not temporary movements where the worker is expected to return to the same occupation in the future

**Exits/Exit Openings:** Openings that are the result of workers leaving an occupation entirely and exiting the labor force. Labor force exits are not necessarily permanent exits from the labor force but are permanent separations from an occupation

**Total Projected Job Openings:** The sum of job openings from growth and job openings from transfers and exists. In other words, the sum of growth, transfer, and exit openings.

### Education and Training Classifications

BLS uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. The assignments allow occupations to be grouped to create estimates of the education and training needs for the labor force as a whole and estimates of the outlook for occupations with various types of education and training needs. New Mexico applies this information to its statewide and substate occupation projections. For more information on education and training classifications, visit [http://www.bls.gov/emp/ep_education_tech.htm](http://www.bls.gov/emp/ep_education_tech.htm).

**Education**

The level of education typically required for entry into the occupation. Categories are as follows:

- Doctoral or professional degree: degree awarded usually for at least three years of full-time academic work beyond a bachelor’s degree; *e.g.*, lawyers, physicians and surgeons, and dentists

---

### Rules for Suppression

<table>
<thead>
<tr>
<th>Industries 10th Percentiles</th>
<th>Occupations 30th Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>Detailed</td>
</tr>
<tr>
<td>New Mexico</td>
<td>10,052</td>
</tr>
<tr>
<td>ABQ/Central</td>
<td>1,049</td>
</tr>
<tr>
<td>Farmington</td>
<td>254</td>
</tr>
<tr>
<td>Las Cruces</td>
<td>427</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>172</td>
</tr>
<tr>
<td>Eastern</td>
<td>1,105</td>
</tr>
<tr>
<td>Northern</td>
<td>1,578</td>
</tr>
<tr>
<td>Southwestern</td>
<td>814</td>
</tr>
</tbody>
</table>
Master’s degree: degree awarded usually for one or two years of full-time academic study beyond a bachelor’s degree.

Bachelor’s degree: degree awarded usually for at least four years of full-time academic study beyond high school.

Associate’s degree: degree awarded usually for at least two years of full-time academic study beyond high school.

Postsecondary non-degree award: usually a certificate or other award that is not a degree. Certifications issued by professional organizations or certifying bodies are not included in this category. Programs may last only a few weeks to two years. e.g., nursing assistants, emergency medical technicians (EMTs) and paramedics, and hairstylists.

Some college, no degree: a high school diploma or the equivalent, plus the completion of one or more postsecondary courses that did not result in any degree or award.

High school diploma or equivalent: the completion of high school or the equivalent resulting in the award of a high school diploma or the equivalent, such as the General Education Development (GED) credential.

No formal education credential: the completion of any level of education that did not result in the awarding of a formal credential, like a high school diploma or postsecondary certificate.

**Work experience in a related occupation ("Work Experience")**

The level of work experience in an occupation related to a given occupation; the work experience captures work experience that is commonly considered necessary by employers or is a commonly accepted substitute for other, more formal types of training or education. Categories are as follows:

*Five years or more:* the number of years of experience in a related occupation typically needed for entry into a given occupation is more than five years.

*Less than 5 years:* the number of years of experience in a related occupation typically needed for entry into a given occupation is less than five years.

*None:* No work experience in a related occupation is typically needed for entry.

**On-the-job training**

Training or preparation that is typically needed, once employed in an occupation, to attain competency in the occupation. Training is occupation-specific rather than job-specific; skills learned can be transferred to another job in the same occupation. Categories are as follows:

*Internship/Residency:* training that involves preparation in a field such as medicine or teaching, generally under supervision in a professional setting, such as a hospital or classroom. This type of training may occur before one is employed. Completion of an internship or residency program is commonly required for state licensure or certification in fields including medicine, counseling, architecture, and teaching. This category does not include internships that are suggested for advancement.

*Apprenticeship:* a formal relationship between a worker and sponsor that consists of a combination of on-the-job training and related occupation-specific instruction in which the workers learns the practical and theoretical aspects of an occupation. Apprenticeship programs are sponsored by individual employers, joint employer-and-labor groups, and employee associations. Apprenticeship programs usually provide at least 144 hours of occupation-specific technical instruction and 2,000 hours of on-the-job training per year over a three-to-five-year period. Examples of occupations that utilize apprenticeships include electricians and structural iron and steel workers.

*Long-term on-the-job training:* more than 12 months of on-the-job training or, alternatively, combined work experience and formal classroom instruction, are needed for workers to develop the skills to attain competency. This on-the-job training category also includes employer-sponsored training programs. Such programs include those offered by fire academies and schools for air traffic controllers. In other occupations—nuclear power reactor operators, for example—trainees take formal courses, often provided at the jobsite, to
prepare for the required licensing exams. This category also includes occupations in which workers typically need to possess a natural ability or talent—including musicians and singers, athletes, dancers, photographers, and actors—and that ability or talent must be cultivated over several years, sometimes in a non-work setting. This category excludes apprenticeships.

**Moderate-term on-the-job training:** more than one month up to 12 months of combined on-the-job experience and informal training is needed for the worker to develop the skills to attain competency; this on-the-job training category also includes employer-sponsored training programs.

**Short-term on-the-job training:** one month or less of combined on-the-job experience and informal training is needed for the worker to develop the skills to attain competency; this on-the-job training category also includes employer-sponsored training programs.

**None:** no additional occupation-specific training or preparation is typically required to attain competency in the occupation.

### JOB ZONE DEFINITIONS

Job Zone information is collected from O*Net, specifically O*Net OnLine (www.onetonline.org). A Job Zone is a group of occupations that are similar in (1) how much education people need to do the work, (2) how much related work experience people need to do the work, and (3) how much on-the-job training people need to do the work. There are five Job Zones.

**JOB ZONE ONE: LITTLE OR NO PREPARATION NEEDED**

**Education:** Some of these occupations may require a high school diploma or GED certificate.

**Related Experience:** Little or no previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a waiter or waitress even if he/she has never worked before.

**Job Training:** Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.

**JOB ZONE TWO: SOME PREPARATION NEEDED**

**Education:** These occupations usually require a high school diploma.

**Related Experience:** Some previous work-related skill, knowledge, or experience is usually needed. For example, a teller would benefit from experience working directly with the public.

**Job Training:** Employees in these occupations need anywhere from a few months to one year of working with experienced employees. A recognized apprenticeship program may be associated with these occupations.

**JOB ZONE THREE: MEDIUM PREPARATION NEEDED**

**Education:** Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree.

**Related Experience:** Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

**Job Training:** Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations.

**JOB ZONE FOUR: CONSIDERABLE PREPARATION NEEDED**

**Education:** Most of these occupations require a four-year bachelor's degree, but some do not.
Related Experience: A considerable amount of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.

Job Training: Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

**Job Zone Five: Extensive Preparation Needed**

Education: Most of these occupations require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).

Related Experience: Extensive skill, knowledge, and experience are needed for these occupations. Many require more than five years of experience. For example, surgeons must complete four years of college and an additional five to seven years of specialized medical training to be able to do their job.

Job Training: Employees may need some on-the-job training, but most of these occupations assume that the person will already have the required skills, knowledge, work-related experience, and/or training.

**STEM Definitions**

STEM occupations are those that have been categorized within Science, Technology, Engineering, and/or Mathematics. STEM occupations are identified using BLS definitions and categorizations, which can be found at [https://www.bls.gov/oes/additional.htm](https://www.bls.gov/oes/additional.htm). As of 2017, BLS had identified 99 STEM occupations.

**In-Demand Definitions**

NMDWS identifies occupations that are projected to be in higher demand than most other occupations over the ten-year projections period. These occupations are identified as In-Demand occupations. In-Demand occupations have:

- **More job openings:** Projected annual job openings of the specific occupation are greater than the openings of at least 75 percent of all occupations (i.e., in the top 25th percentile for openings).

- **Faster job growth:** The projected percentage growth of employment in the specific occupation is higher than the average percentage growth for all occupations in the area.

**Star Occupation Definitions**

While demand is an important measure for job seekers when evaluating an occupation’s potential employment opportunities, wage is also a critical factor when making career decisions.

NMDWS identifies In-Demand occupations that have the strongest employment growth and competitive wages amongst all occupations, and in some cases, occupations requiring the same level of education. These occupations are identified as Star occupations. Star occupations are categorized using two different demand categories and three different wage categories.

**Criteria**

**Demand**

- **In-Demand:** The occupation is classified as an In-Demand occupation, per the criteria provided above.

- **High-Demand:** The occupation is not only an In-Demand occupation, but:
  
  - Projected annual openings are greater than the openings of at least 90 percent of all occupations (i.e., in the top 10th percentile) for the area.
  
  - Projected percentage growth of employment is higher than the percentage growth of at least 75 percent of all occupations (i.e., in the top 25th percentile) for the area.
Wage

**Education Wage:** The median wage (i.e., 50th percentile wage) must be greater than the median across all occupations within the area that require the same minimum education.

**High Wage:** The median wage must be greater than the median wage across all occupations within the area.

**Top Wage:** The median wage must meet the education-wage and high-wage criteria.

**STAR Occupation Definitions**

**5-STAR occupation:** in high demand and has a top wage

**4-STAR occupation:** either in high demand and has a high wage OR in demand and has a top wage

**3-STAR occupation:** either in high demand and has a competitive education wage OR in demand and has a high wage

**WAGE DEFINITIONS**

Occupational wages are produced by ER&A’s Occupational Employment Statistics program each year. Multiple wages are produced for each occupation, with most occupations having an annual and hourly wage estimate.

**Entry Wage:** the average of the bottom one-third of all wages

**Average (Mean) Wage:** the estimated total wages of an occupation divided by its employment

**Experienced Wage:** the average of the upper top one-third of all wages

**10th Percentile Wage:** The 10th percentile of the distribution of wages based on data collected from all employers. Ten percent of workers in an occupation earn less than this wage, while 90 percent earn more.

**25th Percentile Wage:** The 25th percentile of the distribution of wages based on data collected from all employers. Twenty-five percent of workers in an occupation earn less than this wage, while 75 percent earn more.

**50th Percentile (Median) Wage:** The 50th percentile of the distribution of wages based on data collected from all employers. Fifty percent of workers in an occupation earn less than this wage, while 50 percent earn more.

**75th Percentile Wage:** The 75th percentile of the distribution of wages based on data collected from all employers. Twenty-five percent of workers in an occupation earn more than this wage, while 75 percent earn less.

**90th Percentile Wage:** The 90th percentile of the distribution of wages based on data collected from all employers. Ten percent of workers in an occupation earn more than this wage, while 90 percent earn less.

**Methodology**

Employment projections are based on methodologies developed by US DOL for projecting state and area occupational needs using both national information and procedures specifically adapted to each state’s industrial and occupational patterns. ER&A utilizes the Projections Suite software system, which is a national standard product of the Projections Workgroup, under the direction of the Projections Managing Partnership (PMP). The PMP works in cooperation with the Employment and Training Administration of US DOL. The Projections Suite is developed by the Utah Department of Workforce Services, Workforce Information Division, Systems Research & Analysis. Industry employment projections are developed through simple time-share, shift-share, extrapolation, and regression model analysis using state-specific inputs. Occupational projections are prepared by applying occupational staffing patterns for each industry to industry employment projections. The staffing patterns used are derived from information collected by the OES survey.

**Industry Projections**

Industry employment measured in the projection process is primarily derived from employment reported at the establishment level through the Quarterly Census of Employment and Wages (QCEW) program, at the 2- and 3-digit NAICS level. Because QCEW data capture only those workers covered by unemployment insurance, QCEW...
data are supplemented with employment data from the Current Employment Statistics (CES) program, the U.S. Census Bureau, Bureau of Economic Analysis (BEA), and the Census of Agriculture. Employment projection inputs measure wage and salary workers, as well as self-employed and unpaid family workers, farmers and farm workers, private household workers, and other residual employment. Therefore, base employment estimates used for projections will likely differ from those reported by other sources, including QCEW. In addition, some industries incorporate both private- and public-sector employment in order to comply with the methods used to collect occupational staffing patterns. For example, state and local government educational services employment is included in the educational services sector in the projections process, but is actually included in the government sector in QCEW.

**OCCUPATIONAL PROJECTIONS**

**Special Note**

Beginning in 2011, BLS began developing a new separations methodology for occupational projections which has since been employed for the first time with the 2016–2026 projections. Before then, BLS used a cohort-component method for estimating job openings due to replacement needs from the 1991 through the 2014–24 projections. This method is no longer in use because BLS identified statistical and conceptual issues with the implementation of this method that compromised the accuracy and validity of the resulting estimates. BLS continuously seeks to improve and evolve data quality to ensure projections are a comprehensive overview of the workforce. The new separations methodology was implemented to better reflect the evolution of the workforce in the last 20 years and will help stakeholders better understand what will happen in the dynamic new economy.

Occupation employment and projections are derived by applying staffing patterns (the distribution of occupations by industry) developed through the OES survey. In cases where OES survey responses are low or missing in a particular industry, national staffing patterns or patterns from earlier OES surveys are substituted. Staffing patterns for industries not covered by the OES survey are derived from other sources, such as the U.S. Census Bureau. Occupational estimates for self-employed and unpaid family workers are not industry-specific, and are reported as one sector, as opposed to being distributed across industries.

When industry and occupational staffing patterns are merged to project occupational employment, BLS national occupational change factors (the projected change in the distribution of occupations within an industry) are applied to produce new occupational staffing patterns. The new patterns are adjusted to equal the projected employment by industry. The projected employment of an occupation, therefore, is based on changes in the proportion of workers in the occupation in each industry and the growth rates of the industries in which employment in that occupation is found.

To project occupational openings, an estimate of openings created by workers exiting the labor force, due to retirement or other reasons, and openings created by workers transferring to different occupations are calculated. Projections of these types of openings are combined with projections of employment change to determine total occupational openings. This estimate of openings does not count workers who change jobs but remain in the same occupation.

Openings created by workers exiting the labor force and those created by workers transferring to different occupations are projected using two different models, one for labor force exits and another for occupational transfers. Both models use a regression analysis of historical data to identify the characteristics of a worker, such as age and educational attainment, that make them likely to separate from their occupation. These patterns from historical data are then applied to the current distribution of employment for each occupation to project future openings created by exiting workers and transferring workers.

For more detailed information on projections methodology, visit http://www.bls.gov/emp/ep_projections_methods.htm.
DATA LIMITATIONS AND ASSUMPTIONS

Projections produced by ER&A necessarily have some limitations that should be acknowledged any time the data are used. Long-term projections report what is likely to happen if historical and state-level employment patterns continue on their historical growth trends; this includes trends in population, labor force, productivity, and economic growth. These projections do not take into consideration major shocks to the economy, and assume that employment will ultimately return to levels that fit long-term growth trends. The projections process assumes the (1) institutional framework of the economy will not radically change; (2) current technological, scientific, and social trends will continue; (3) and major events (e.g. natural disasters, terrorist attacks, conventional wars) will not be significant enough to alter the industrial structure of the economy or its growth. New developments will undoubtedly, however, impact the labor market in unexpected ways. Certain industries are also particularly sensitive to business cycles, and their employment can be more difficult to project. Because of these assumptions, projections are designed to provide general magnitudes and probable directional changes in employment rather than precise predictions of actual employment developments.

Other assumptions and limitations include the following:

- Projections measure occupational demand only, not supply of labor. Projections, therefore, should be utilized as a starting point in evaluating occupational surpluses and shortages in the labor market and should be coupled with other data measurements for such purposes.
- Employment projections are based on place-of-work and count the number of jobs (including full and part-time) as opposed to the number of workers. The total number of projected jobs will exceed the number of employed workers in the labor force due to persons holding more than one job or commuting from other states for work.
- Projected employment growth or decline will not be consistent over the 10-year projection period. At the same time, growth rates could be interpreted as either recovery growth or post-recovery growth, depending on how each industry or occupation is impacted by a recession or depression.
- Projections are more reliable at the major industry and occupation groups.
- National assumptions include the following:
  - the labor force will grow at the same rate as during the past 10-year period;
  - productivity will grow faster than before;
  - the unemployment rate will remain constant;
  - trade deficits will increase;
  - a Federal budget surplus will exist;
  - Federal spending programs will grow moderately;
  - consumer spending on durable goods will grow faster than average;
  - spending on food and beverages will grow more slowly than the average for all consumer expenditures;
  - health care and other services spending will grow faster than average;
  - investment in production equipment will grow quickly; and
  - residential construction will grow with the population, while nonresidential construction will make a comeback from depressed levels seen during the previous 10 years.
- State assumptions include the following:
  - New Mexico population growth will closely track the national average;
  - personal incomes will continue to grow moderately;
  - tourism will increase due to promotion, special events, and the state’s unique appeal;
  - federal government spending for both defense and non-defense purposes will remain at roughly the current level;
  - natural resources will play a larger role in the New Mexico economy than it was in the recent past due to higher prices, demand, and other factors such as technology improvements;
  - employment in the manufacturing sector will maintain its share of between 4 and 5 percent of non-farm employment; and
manufacturing employment will grow in absolute terms as manufacturing and other companies relocate to New Mexico and existing businesses expand their operations due to extensive recruitment campaigns, an ample supply of labor at relatively low wage scales, favorable living conditions, and other considerations.