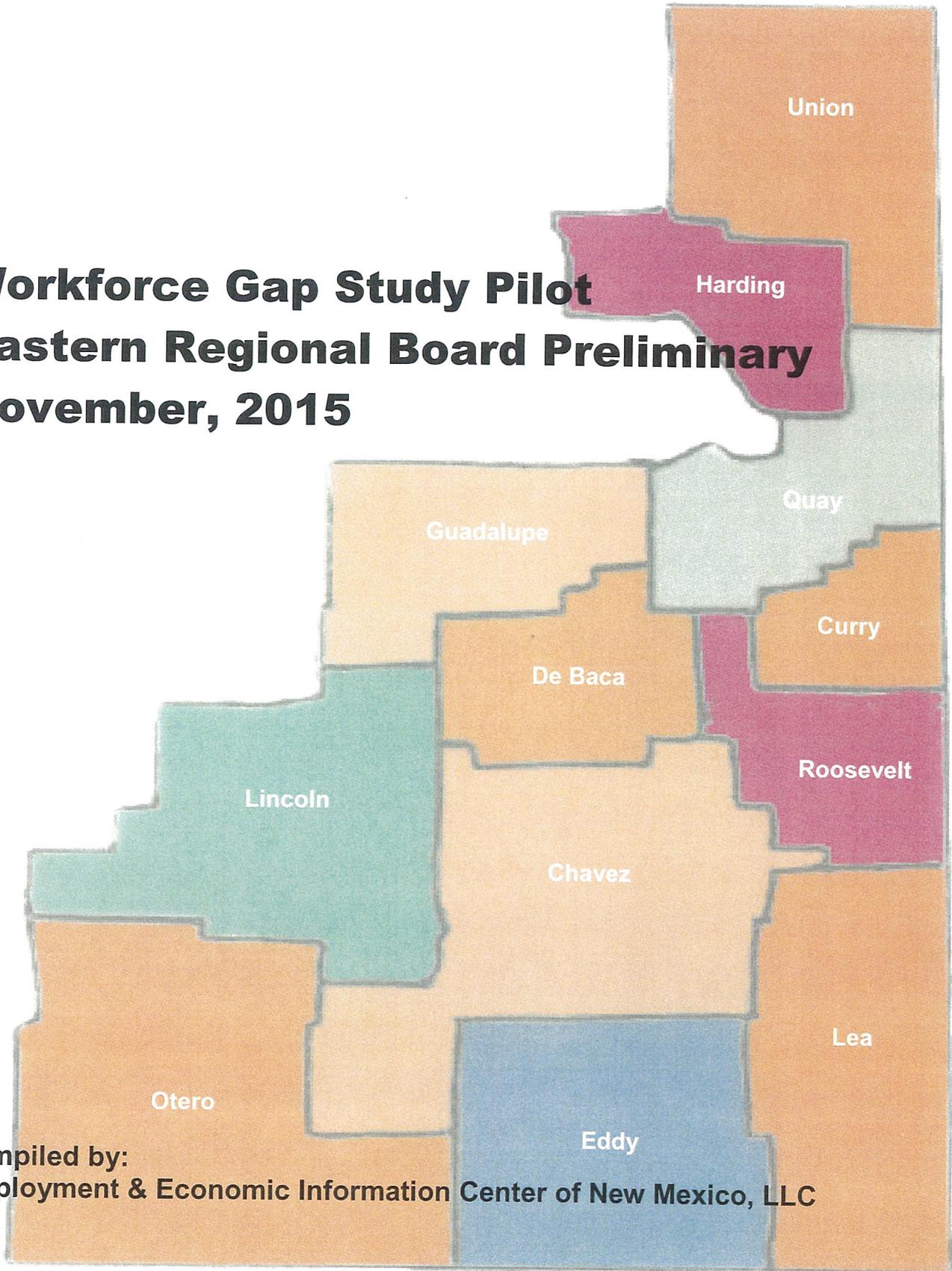


**Workforce Gap Study Pilot  
Eastern Regional Board Preliminary  
November, 2015**



**Compiled by:  
Employment & Economic Information Center of New Mexico, LLC**

## TABLE OF CONTENTS

### EXECUTIVE SUMMARY

GAP MODEL 1

### INITIAL PRELIMINARY

#### REGIONAL DEMOGRAPHICS

POPULATION D1  
LABOR FORCE D2  
WAGES D3  
LARGEST EMPLOYERS D4

#### CURRENT JOB OPENINGS

ADVERTISED JOB OPENINGS ONLINE O1-O8  
WORKFORCE CENTER MANAGERS REPORTS WF1  
POSTSECONDARY INSTITUTION ADMINISTRATOR REPORTS I-1  
EMPLOYER PLANS E1-E2  
INDUSTRY REPORTS IR1-IR2

#### PROJECTED JOB NEEDS

INDUSTRY GROWTH P1-P3  
OCCUPATIONAL OPENINGS AND WAGES O1-O4  
JOBS IN DEMAND D1-D3

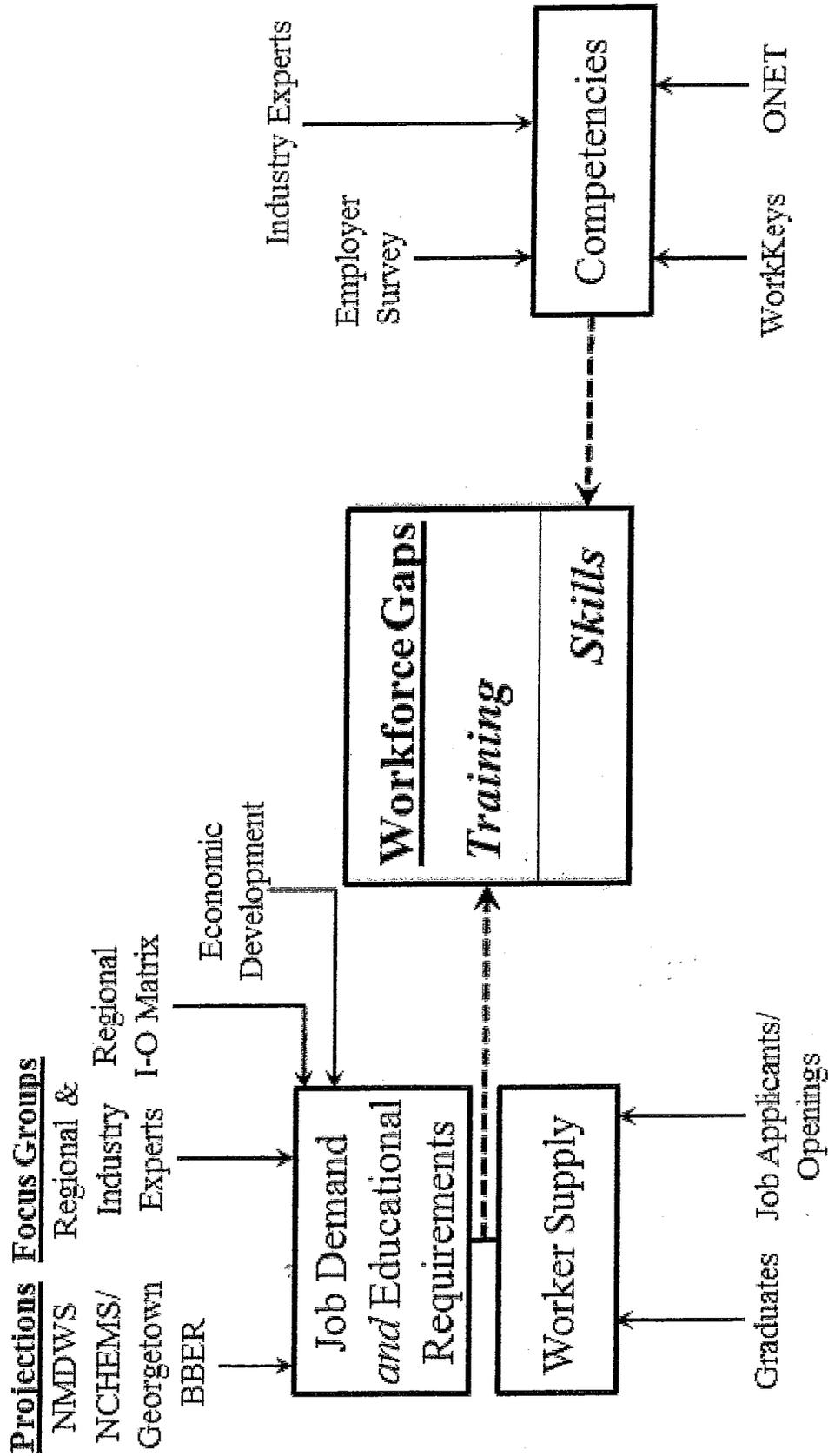
JOB SEEKER SKILLS S1-S3

EMPLOYABILITY SKILLS E1

### TO BE DONE FOR STATEWIDE REPORT

RECONCILE EDUCATIONAL PROJECTIONS-NMDWS vs Georgetown Center on Education and Work  
CONDUCT INDUSTRY FOCUS GROUP MEETINGS  
INCORPORATE NCHEMS, EMSI, HED/NMDWS GRADUATE OUTCOMES, ONET

# WORKFORCE GAP MODEL



**Sub-Task 1**

**Sub-Task 3**

**Sub-Task 2**

### Eastern Area Projected Populations

County	2015	2025
New Mexico	2,208,450	2,487,227
South East Total	376,345	410,101
Chaves	68,538	74,867
Curry	51,001	54,778
De Baca	1,987	1,909
Eddy	55,832	59,945
Guadalupe	4,742	4,779
Harding	693	670
Lea	71,465	85,773
Lincoln	21,104	21,875
Otero	65,542	66,825
Quay	8,954	8,840
Roosevelt	21,657	24,522
Union	4,830	5,318

Source: **New Mexico County Population Projections July 1, 2010 to July 1, 2040, BBER**

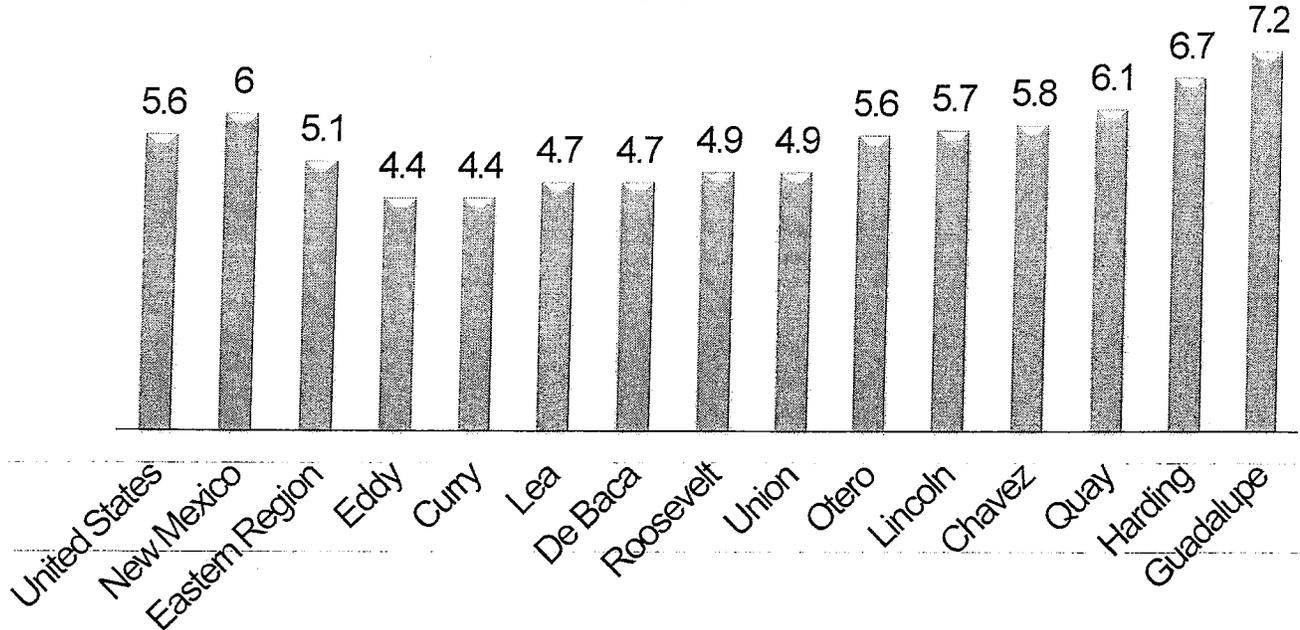
# New Mexico Labor Force Estimates

Preliminary, June 2015

Area	Labor Force	Employment	Unemployment	Rate
Statewide	934,061	867,104	66,957	7.2%
South East Total				
	161,788	151,523	10,265	6.3%
Chaves	27,539	25,547	1,992	7.2%
Curry	21,858	20,635	1,223	5.6%
De Baca	807	754	53	6.6%
Eddy	30,488	28,896	1,592	5.2%
Guadalupe	1,716	1,588	128	7.5%
Harding	328	302	26	7.9%
Lea	31,692	29,661	2,031	6.4%
Lincoln	9,393	8,846	547	5.8%
Otero	24,831	23,065	1,766	7.1%
Quay	3,550	3,292	258	7.3%
Roosevelt	7,866	7,313	553	7.0%
Union	1,720	1,624	96	5.6%

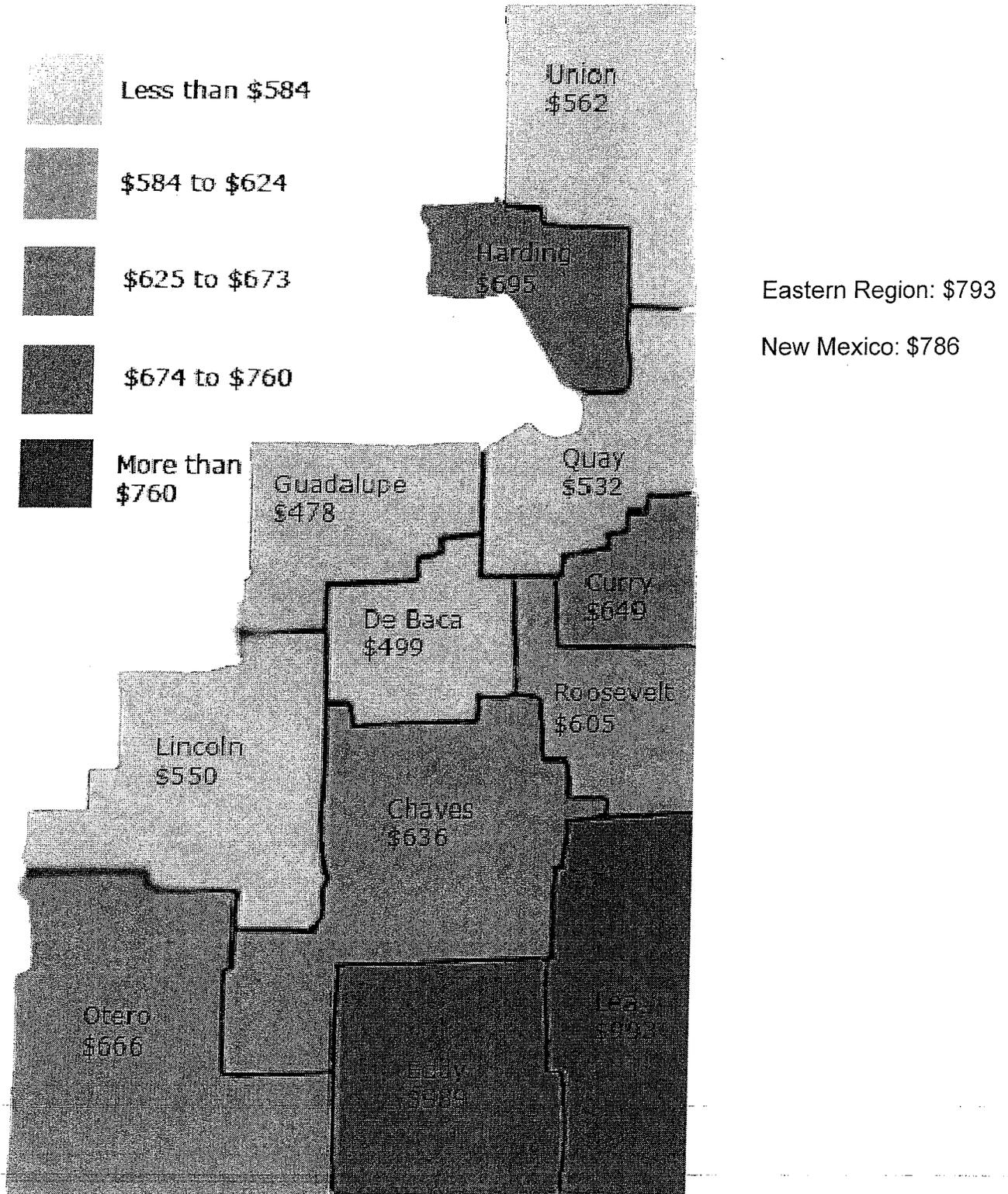
## Unemployment Rate, March 2015

■ Unemployment Rate



Source for both: NMDWS Economic Research and Analysis Bureau

### Average Weekly Wages, Eastern Region, Third Quarter 2014



Source: NMDWS

## Largest Eastern New Mexico Employers (250+ workers)

Company Name	City
New Mexico Military Institute	Roswell
Eastern New Mexico University	Roswell
Leprino Foods	Roswell
Eastern New Mexico Medical Center	Roswell
Plains Regional Medical Center	Clovis
Wal-Mart Supercenter	Multiple
Southwest Cheese	Clovis
Cannon Air Force Base	Cannon Air Force Base Carlsbad
<b>Constructors</b>	
Madron Services	Carlsbad
C I Construction Services	Carlsbad
Holly Corporation	Artesia
Mosaic Potash	Carlsbad
Yates Petroleum	Artesia
Carlsbad Medical Center	Carlsbad
Urs Corporation	Carlsbad
Eddy County	Carlsbad
Lea Regional Medical Center	Hobbs
Willbros USA	Eunice
Hobbs City	Hobbs

---

<b>RWI Construction</b>	<b>Hobbs</b>
<b>Ferguson Construction</b>	<b>Lovington</b>
<b>Patterson-Uti Drilling</b>	<b>Hobbs</b>
<b>Lin-Mar</b>	<b>Hobbs</b>
<b>Exelon</b>	<b>Lovington</b>
<b>Willbros Construction</b>	<b>Eunice</b>
<b>Marathon Petroleum</b>	<b>Lovington</b>
<b>Key Energy Services</b>	<b>Hobbs</b>
<b>Ruidoso Downs Race Track</b>	<b>Ruidoso Downs</b>
<b>Inn of the Mountain Gods</b>	<b>Mescalero</b>
<b>Holloman Air Force Base</b>	<b>Holloman Air Force Base</b>
<b>Casino Apache Travel Center</b>	<b>Mescalero</b>
<b>Gerald Champion Regional Medical Center</b>	<b>Alamogordo</b>
<b>Alamogordo City</b>	<b>Alamogordo</b>
<b>Eastern New Mexico University</b>	<b>Portales</b>
<b>Clovis City</b>	<b>Clovis</b>
<b>Roswell City</b>	<b>Roswell</b>
<b>Allsup's Convenience Store</b>	<b>Multiple</b>
<b>Nor Lea Hospital</b>	<b>Lovington</b>

---

Source: **NMDWS Laser System**

# Regional Job Openings

## Job Openings Advertised Online in Eastern Workforce Area

September 2015	11,045
August 2015	9,898
July 2015	14,375
June 2015	14,288
May 2015	15,774
April 2015	14,950
March 2015	10,736
February 2015	10,493
January 2015	10,305
December 2014	9,899
November 2014	10,063
October 2014	12,682

Source: **NMDWS VOSS System**

**Footnote:**

Real-time advertised jobs are collected daily from employer corporate sites, hospitals, non-profits, local and federal government agencies, schools and universities, recruiter sites, newspapers, volunteer sites and other public, private, and state job boards. Each site is individually reviewed and evaluated and each site's data extractions is custom tailored to that site. Every job listing is spidered every day so that it can be removed from the database when the job is de-posted. Each job is processed for O\*NET code assignment, NAICS code assignment, employer name normalization, and city/town name standardization.

The spidering technology that is used extracts 48 distinct data elements such as job title, job description, education, salary, experience, certifications, and other key fields. This spidering and parsing process allows the jobs data to be used for many other real-time data fields such as required experience, education, and average salaries.

## Job Openings by Occupational Group and Salary in Eastern Workforce Area, August 2015

Healthcare Practitioners and Technical Occupations	2,271	\$89,601
Management Occupations	918	\$59,658
Transportation and Material Moving Occupations	824	\$50,101
Office and Administrative Support Occupations	720	\$27,973
Sales and Related Occupations	622	\$38,002
Installation, Maintenance, and Repair Occupations	392	\$36,903
Education, Training and Library Occupations	316	\$38,804
Food Preparation and Serving Related Occupations	312	\$20,710
Healthcare Support Occupations	265	\$34,521
Architecture Engineering Occupations	245	\$87,318
Production Occupations	207	\$37,290
Construction and Extraction Occupations	168	\$37,481
Protective Service Occupations	157	\$46,620
Arts, Design, Entertainment, Sports, and Media Occ	154	\$35,388
Business and Financial Operations Occupations	126	\$48,190
Building & Grounds & Cleaning & Maintenance Occ	110	\$21,042
Computer and Mathematical Occupations	106	\$48,247
Personal Care and Service Occupations	98	\$22,117
Community and Social Services Occupations	95	\$32,950
Life, Physical, and Social Science Occupations	42	\$50,790

Source: NMDWS VOSS System

## Employers with the Highest Number of Job Openings Online, September 2015

Community Health Systems	132
Roswell Independent School District	132
Pizza Hut, Inc.	113
Lea Regional Medical Center	89
Eastern New Mexico Medical Center	85
AECOM International/URS	81
Presbyterian Healthcare Services	68
Carlsbad Medical Center	67
Alamogordo Public Schools	60
Buffalo Wild Wings	52
US Air Force	51
Sears	47
Gordon Trucking	44
Penn National Gaming	41
Roehl Transport	39
Brinker International	38
United Supermarkets	38
Sears Holdings Corporation	37
Swift Transportation	35
Covenant Transport	33

**Employers with the Highest Number of Job Openings Online, September 2015**

Love's Travel Stops and Country Stores	33
Pilot Flying J	33
Wells Fargo and Company	32
Eastern New Mexico University	31
The GEO Group	31

Source: **NMDWS VOSS System**

## Education Requirements for Online Jobs

No Minimum Education Requirement	21.05%
High School Diploma or Equivalent	54%
1 Year of College or a Technical or Vocational School	0.1%
2 Years of College or a Technical or Vocational School	0.19%
Vocational School Certificate	1.43%
Associate's Degree	7.43%
Bachelor's Degree	9.71%
Master's Degree	4.76%
Doctorate Degree	0.48%
Specialized Degree (e.g. MD, DDS)	0.86%

Source: **NMDWS VOSS System**

## Work Experience Required

Minimum Experience	Percent
Entry Level	33%
Less than 1 Year	16.5%
1 Year to 2 Years	34.41%
2 years to 5 Years	14.88%
5 Years to 10 Years	0.81%
More than 10 Years	0.4%

Source: **NMDWS VOSS System**

### Online Job Certifications Required

Basic Life Support (BLS) Certification	762
Commercial Drivers License (CDL)	434
Certification in Cardiopulmonary Resuscitation (CPR)	398
Advanced Cardiac Life Support Certification (ACLS)	352
Pediatric Advanced Life Support (PALS)	190
Certified Manager of Exhibits	150
Certified Nursing Assistant (CNA)	61
American Speech-Language-Hearing Association (ASHA) Certification	48
Certified Medical Assistant	42
Emergency Medical Technician (EMT)	33

Source: **NMDWS VOSS System**

### Work Experience Level of Available Candidates

Less than 1 Year	8.87%
1 Year to 2 Years	7.18%
2 Years to 5 Years	15.81%
5 Years to 10 Years	20.10%
More than 10 Years	48.04%

Source: **NMDWS VOSS System**

**Occupations with the highest job openings Online**

Registered Nurses	547
Heavy and Tractor-Trailer Truck Drivers	314
Physical Therapist	183
Customer Service Representatives	137
Speech-Language Pathologist	134
Occupational Therapist	126
Physicians and Surgeons, all other	112
Retail Salespersons	108
Teachers and Instructors, all other	101
First-Line Supervisors of Food Preparation and Serving Workers	95

Source: **NMDWS VOSS System**

**Registered Nurses Employers by number of Job Openings**

Community Health Systems, Inc	34
Gerald Champion Regional Medical Center	21
Presbyterian Healthcare Services	20
Lea Regional Medical Center	17
American Mobile Healthcare	15
NursesRx	15
Eastern New Mexico Medical Center	13
Aureus Medical Group	10
Carlsbad Medical Center	10
Onward Healthcare, Inc	9

---

Source: **NMDWS VOSS System**

WORKFORCE CENTER MANAGER INTERVIEWS  
SOUTHEAST NEW MEXICO

Shortages

Aircraft Mechanics, licensed	Roswell
Registered Nurses	All
Teachers, certified	Roswell, Carlsbad

Heavy Demand

Carpenters	Carlsbad, Clovis
Electricians	Carlsbad, Clovis
Maintenance, general	Carlsbad
Medical Laboratory Tech	Roswell
Painters, aircraft	Roswell
Retail and Hospitality	All
Security Investigators	Alamogordo
Truck Drivers	Carlsbad, Hobbs (slowing)

Major Employment Activities

Nuclear processing technicians	Hobbs
Oil and gas industry uncertain layoffs in support and drilling cutback	Hobbs, Carlsbad but Permian Basin excellent field
Potash mines startup	Carlsbad
Solar plant construction	Roswell
Wind energy farms	Clovis

POSTSECONDARY EDUCATIONAL INSTITUTIONS SURVEY  
SOUTHEAST NM WORKFORCE BOARD AREA

RECENT GRADUATE EMPLOYMENT SUCCESSFUL PROGRAMS

<u>Program</u>	<u>Employment Results</u>	<u>Comments</u>
<u>Bachelor/Masters</u>		
Teachers	Excellent	Many go out of state for higher pay
Nursing		
Speech Therapists		Hospital and schools
Mathematics		Teaching, information technology
Business	Good	Accounting, finance and economics especially
Social Work		
Fine Arts Design		
Broadcast Journalism		
Biology and Chemistry		Go out of state, graduate school
Criminal Justice		Law enforcement, border patrol, prisons
Computer Science		Go out of state
<u>Associates</u>		
Electrical Engineer Tech	Excellent	Start at \$50-\$70k, student shortage
Nursing		
Welding, certified	Good	Capacity limited, expansions planned
Truck Driver, CDL		Mining, over the road
Automotive		
Industrial Tech		Wind energy
Paralegal		

DEMAND PROGRAMS STARTING UP OR PLANNED

Certified Financial Planner  
Information Management

Electrical Lineman  
EMT Program Administrator, online  
Health Information Tech-coding, billing, confidentiality  
Instrumentation Design and Control Tech  
Industry Staff Improvement-computer and communications, online  
Lease Operator Production Pumper

Physical Therapy Assistant  
Surgical Tech  
Welder, certified  
Wildlife and Forest Management

Source: Phone survey of university and community college administrators in  
southeastern NM, October and November 2015

RECENT ANNOUNCED EMPLOYER EXPANSION OR START UP PLANS  
SE NM WORKFORCE BOARD AREA

<u>Employment</u>	<u>County</u>	<u>Project and Employer</u>
350 constr.	Eddy	Natural gas processing plant by Agove Energy
150-200	Eddy	Expansion of biofuels plant by Joule Unlimited
50	Eddy	Firearms manufacturing facility by CGS Corp
50-75, 200 seas.	Roosevelt	Reopening peanut processing plant by Ready Roast
140	Chaves	Expansion of aircraft storage, maintenance, recycling and sales by Aircraft Technical Support
unk	Chaves	Liquid natural gas plant
unk	Chaves	Film Studio
350 seasonal	Lincoln	Racetrack

Source: NMDWS Economic Research Bureau, newspapers

## INDUSTRY EMPLOYER GROUPS

### MINING INDUSTRY

Community Colleges adequately handle most of the training required  
Majority of training skill shortages are in the soft skill areas rather than technical  
training. Drug free testing eliminates some workers.

## County & Local Government Education Recommendations

Create a strategic alliance of experts from independent bodies (e.g., universities, state government) to assist New Mexico's counties and municipalities with issues on energy development and provide science-based education and technical information regarding oil and gas development. Also provide education about the economic impact of the industry and the rules and regulations that the state has in place to protect groundwater and ensure public safety.

Provide speakers to the New Mexico Association of Counties annual convention and other gatherings of local decision makers to address oil and gas and renewable energy issues and provide education.

Have a "clearinghouse" of information or phone number that county commissioners can call to get information about oil and gas regulation.

Provide science and technical fact-based education for New Mexicans, including those in former uranium development areas, on the current capabilities and risks of modern nuclear energy technologies and in situ uranium mining.

## WORKFORCE TRAINING

Develop initiatives with state and local colleges and universities to improve workforce training for the energy sector

Between 2007 and 2012 the oil and gas workforce in the United States grew 40%, while the rest of private sector employment grew only 1%. Demand for a skilled workforce in the oil and gas industry is perhaps as high as it has ever been. With growing workforce needs and high rates of retirement among skilled industry labor, the oil and gas industry and state and federal regulatory bodies alike require graduates trained in engineering, geology, and hydrology to fill entry-level to management positions.

Other energy sectors also offer a variety of job opportunities, and the renewable energy, energy efficient building, and nuclear industries have a variety of needs for skilled labor. Many jobs in the energy industry require science and technology training from the "STEM" (science, technology, engineering, and math) disciplines. There are many existing STEM education programs targeting all levels of the education system in New Mexico, including through the Experimental Program to Stimulate Competitive Research (EPSCoR), which serves as a hub for energy STEM education at the college and K-12 levels.

New Mexico has a number of existing successful workforce training programs from which the state

can build. San Juan College School of Energy in Farmington has been nationally recognized for its oil and gas training curriculum, which was developed in partnership with industry. New Mexico Junior College in Hobbs has developed a successful workforce training program to support the needs of the URENCO uranium enrichment facility in Eunice. Santa Fe Community College Center for Excellence is also nationally known for its green energy training programs and certifications, which have attracted students from across the world.

Four-year institutions are also poised to keep the workforce pipeline filled with bachelors and advanced degree students. The New Mexico Institute of Mining and Technology has faculty expertise in conventional and renewable energy technologies, and its petroleum engineering program is ranked as one of the top ten in the nation. The University of New Mexico (UNM) has one of the few nuclear engineering departments in the country, which uniquely qualifies the state to train workers for next generation nuclear technologies. New Mexico State University offers specialized training in renewable energy technologies through a minor in its Engineering Technology program and has research in the area of the energy/water nexus.

For New Mexico to keep up with the oil and gas sector and capture a share of emerging job markets in the renewable energy and small modular nuclear sectors, its educational institutions will have to align with workforce needs and actively seek to keep pace with industry.

## Workforce Training Recommendations

Encourage colleges and universities to align their curricula with core energy workforce needs. New Mexico's university system should develop world-class degrees that will promote the development and growth of the energy industry in New Mexico. Offering degrees and recruiting students (Bachelors, Masters, and PhDs) in engineering, geology, hydrology, and other key technical areas should be a primary mission of the university system.

Support two-year energy training programs in applied energy technologies, such as those offered at San Juan College School of Energy, New Mexico Junior College, Santa Fe Community College, and Central New Mexico Community College.

Pursue specialized degree programs or certifications to meet industry needs, including:

- An oil and gas law certification program at the School of Law at UNM. This should be developed in consultation with industry representatives to ensure that legal training adequately meets the needs of the industry and remains abreast of developments in the law.
- A regulatory engineering degree at New Mexico Tech that prepares students for careers in energy regulation in federal or state government and industry.

Create a state certification program at the San Juan College School of Energy for the training of employees in the oil and gas industry using curriculum designed by the industry, including safety training.

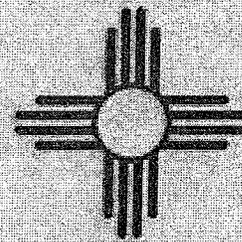
Prepare students to choose careers in energy by making information about jobs, education, and training opportunities in the energy industry more accessible, and expose high school and college students to opportunities in oil and gas and other energy industries.

## COMMITMENT TO ENERGY POLICY

Review the energy policy at regular intervals and monitor state energy policy implementation

Prior to this effort, the state has not had a formal energy policy in more than 20 years, despite changes in oil and gas production and greater penetration of intermittent renewable energy sources. The process of formulating a state energy policy involves identifying needs and issues that warrant attention from the state. If the energy policy is not updated frequently, important policy decisions cannot be informed by the most up-to-date energy information, resulting in poor policy and planning.

In addition to updating the policy at regular, discrete intervals, it is important to track and evaluate the progress of policy implementation.



### Energy Policy Commitment

EMNRD should review the Energy Policy on a regularly scheduled basis: a full review with public outreach and participation opportunities is required every five years, with more frequent internal review with reference to implementation to address any needed changes. This review should score the effectiveness of all policies in place and address those that have not proven to be beneficial. This review cycle should be institutionalized via rule changes or other formal mechanisms.

## Eastern Region Industry Employment Projections 2012-2022

NAICS	Industry	Employment		Growth	
		2012	2022	Numeric	Pct.
	All Industries	139,727	156,096	16,369	11.7
11-0000	Agriculture	***	***	***	-0.5
11-1000	Crop Production	669	647	-22	-3.3
11-2000	Animal Production	3,833	3,890	57	1.5
11-3000	Forestry & Logging	0	0	0	0.0
11-5000	Support Activities for Agriculture & Forestry	313	254	-59	-18.8
21-0000	Mining	13,660	15,274	1,614	11.8
21-1000	Oil & Gas Extraction	2,388	3,408	1,020	42.7
21-2000	Mining (Ex. Oil & Gas)	1,420	1,498	78	5.5
21-3000	Support Activities for Mining	9,852	10,368	516	5.2
22-0000	Utilities	1,035	1,033	-2	-0.2
22-1000	Utilities	1,035	1,033	-2	-0.2
23-0000	Construction	7,921	9,496	1,575	19.9
23-6000	Construction of Buildings	***	***	***	34.0
23-7000	Heavy & Civil Engineering Construction	***	***	***	24.0
23-8000	Specialty Trade Contractors	4,189	4,704	515	12.3
31-0000	Manufacturing	3,712	3,508	-204	-5.5
31-1000	Food Manufacturing	1,931	1,928	-3	-0.2
31-2000	Beverage & Tobacco Product Manufacturing	69	97	28	40.6
31-3000	Textile Mills	***	***	***	***
31-4000	Textile Product Mills	16	13	-3	-18.8
31-5000	Apparel Manufacturing	0	0	0	0.0
31-6000	Leather & Allied Product Manufacturing	0	0	0	0.0
32-1000	Wood Product Manufacturing	46	40	-6	-13.0
32-2000	Paper Manufacturing	0	0	0	0.0
32-3000	Printing & Related Support Activities	90	69	-21	-23.3
32-4000	Petroleum & Coal Products Manufacturing	0	0	0	0.0
32-5000	Chemical Manufacturing	417	340	-77	-18.5
32-6000	Plastics & Rubber Products Manufacturing	32	12	-20	-62.5
32-7000	Nonmetallic Mineral Product Manufacturing	287	238	-49	-17.1
33-1000	Primary Metal Manufacturing	37	33	-4	-10.8
33-2000	Fabricated Metal Product Manufacturing	***	***	***	10.2
33-3000	Machinery Manufacturing	324	301	-23	-7.1
33-4000	Computer & Electronic Product Manufacturing	35	57	22	62.9
33-5000	Electrical Equip., Appliance & Component Mfg	65	57	-8	-12.3
33-6000	Transportation Equip. Manufacturing	15	15	0	0.0
33-7000	Furniture & Related Product Manufacturing	27	22	-5	-18.5
33-9000	Miscellaneous Manufacturing	128	116	-12	-9.4
42-0000	Wholesale Trade	3,242	3,402	160	4.9
42-3000	Merchant Wholesalers, Durable Goods	1,623	1,916	293	18.1
42-4000	Merchant Wholesalers, Nondurable Goods	1,509	1,323	-186	-12.3
42-5000	Wholesale Electronic Markets & Agents & Brokers	110	163	53	48.2
44-0000	Retail Trade	15,489	17,174	1,685	10.9
44-1000	Motor Vehicle & Parts Dealers	2,217	2,383	166	7.5
44-2000	Furniture & Home Furnishings Stores	303	331	28	9.2
44-3000	Electronics & Appliance Stores	448	338	-110	-24.6
44-4000	Bldg Material & Garden Equip. & Supplies Dealers	1,587	2,154	567	35.7
44-5000	Food & Beverage Stores	2,388	2,604	216	9.0
44-6000	Health & Personal Care Stores	672	783	111	16.5

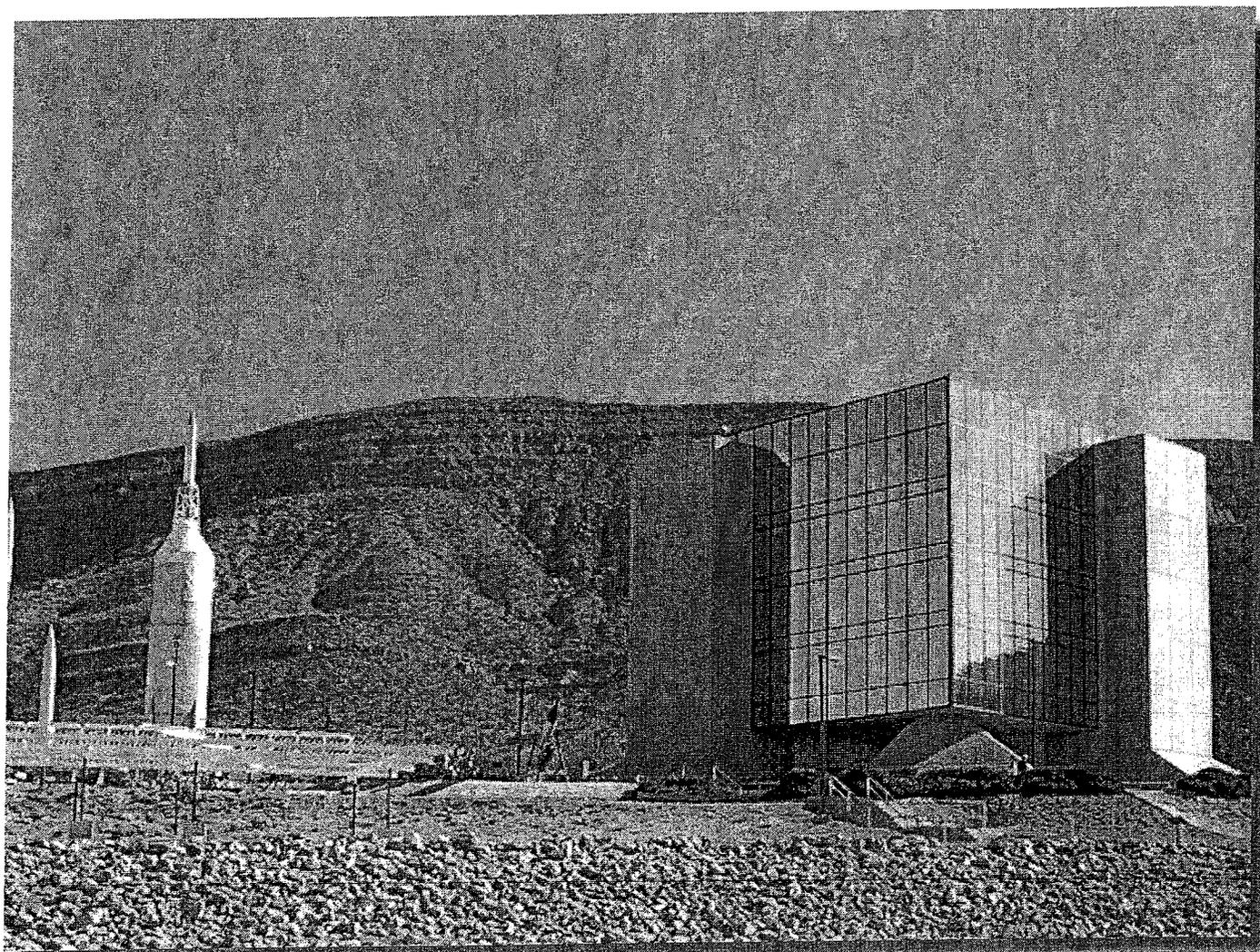
### Eastern Region Industry Employment Projections Continued 2012-2022

NAICS	Industry	Employment		Growth	
		2012	2022	Numeric	Pct.
44-7000	Gasoline Stations	1,582	1,696	114	7.2
44-8000	Clothing & Clothing Accessories Stores	674	734	60	8.9
45-1000	Sporting Goods, Hobby, Book & Music Stores	227	307	80	35.2
45-2000	General Merchandise Stores	4,166	4,688	522	12.5
45-3000	Miscellaneous Store Retailers	921	893	-28	-3.0
45-4000	Nonstore Retailers	304	263	-41	-13.5
48-0000	Transportation & Warehousing	4,307	4,884	577	13.4
48-1000	Air Transportation	25	25	0	0.0
48-2000	Rail Transportation	0	0	0	0.0
48-4000	Truck Transportation	***	***	***	13.4
48-5000	Transit & Ground Passenger Transportion	472	559	87	18.4
48-6000	Pipeline Transportation	***	***	***	-48.6
48-7000	Scenic & Sightseeing Transportation	0	0	0	0.0
48-8000	Support Activities for Transportation	594	689	95	16.0
49-1100	Postal Service	536	443	-93	-17.4
49-2000	Couriers & Messengers	202	275	73	36.1
49-3000	Warehousing & Storage	44	54	10	22.7
51-0000	Information	1,392	1,454	62	4.5
51-1000	Publishing Industries (Ex. Internet)	224	200	-24	-10.7
51-2000	Motion Picture & Sound Recording Industries	167	266	99	59.3
51-5000	Broadcasting (Ex. Internet)	206	180	-26	-12.6
51-7000	Telecommunications	774	786	12	1.6
51-8000	Data Processing, Hosting & Related Services	21	22	1	4.8
51-9000	Other Information Services	0	0	0	0.0
52-0000	Finance & Insurance	3,097	3,337	240	7.7
52-2000	Credit Intermediation & Related Activities	2,153	2,311	158	7.3
52-3000	Securities/Commodity Contracts/Other Investments	300	310	10	3.3
52-4000	Insurance Carriers & Related Activities	634	703	69	10.9
52-5000	Funds, Trusts & Other Financial Vehicles	10	13	3	30.0
53-0000	Real Estate & Rental	1,499	1,707	208	13.9
53-1000	Real Estate	758	846	88	11.6
53-2000	Rental & Leasing Services	741	861	120	16.2
54-0000	Professional, Scientific & Technical Svcs	3,147	3,299	152	4.8
54-1000	Professional, Scientific & Technical Services	3,147	3,299	152	4.8
55-0000	Management of Companies & Enterprises	733	783	50	6.8
55-1000	Management of Companies & Enterprises	733	783	50	6.8
56-0000	Admin./Support & Waste Mgmt Svcs	5,417	5,868	451	8.3
56-1000	Administrative & Support Services	4,546	4,717	171	3.8
56-2000	Waste Mgmt & Remediation Services	871	1,151	280	32.1
61-0000	Educational Svcs	12,240	14,148	1,908	15.6
61-1000	Educational Services	12,240	14,148	1,908	15.6
62-0000	Health Care & Social Assistance	15,645	20,371	4,726	30.2
62-1000	Ambulatory Health Care Services	***	***	***	32.3
62-2000	Hospitals	4,112	5,030	918	22.3
62-3000	Nursing & Residential Care Facilities	***	***	***	26.6
62-4000	Social Assistance	3,561	4,935	1,374	38.6
71-0000	Arts, Entertainment & Recreation	***	***	***	8.1
71-1000	Performing Arts/Spectator Sports/Related Industries	93	103	10	10.8

### Eastern Region Industry Employment Projections Continued 2012-2022

NAICS	Industry	Employment		Growth	
		2012	2022	Numeric	Pct.
71-2000	Museums, Historical Sites & Similar Institutions	***	***	***	***
71-3000	Amusement, Gambling & Recreation Industries	1,079	1,159	80	7.4
72-0000	Accommodation & Food Svcs	13,826	17,171	3,345	24.2
72-1000	Accommodation, Incl. Hotels & Motels	3,254	3,857	603	18.5
72-2000	Food Services & Drinking Places	10,572	13,314	2,742	25.9
81-0000	Other Services (Ex. Government)	3,312	3,700	388	11.7
81-1000	Repair & Maintenance	1,441	1,497	56	3.9
81-2000	Personal & Laundry Services	779	756	-23	-3.0
81-3000	Religious/Grantmaking/Civic/Prof. Organizations	944	1,269	325	34.4
81-4000	Private Households	148	178	30	20.3
90-0000	Total Government	12,804	12,686	-118	-0.9
91-0000	Federal Government	4,102	3,626	-476	-11.6
92-0000	State Government	2,424	2,418	-6	-0.2
93-0000	Local Government	6,278	6,642	364	5.8

\*\*\*Data is suppressed. If percentage growth is shown as suppressed, it indicates that 2012 employment was below 70.



Employment by industry, occupation, and percent distribution, 2012 and projected 2022

332710 Machine shops

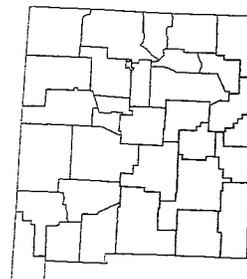
(Employment in thousands)

Occupations with fewer than 50 jobs, confidential data, or poor quality data are not displayed

Occupation			2012			2022		
Sort Order	Code	Title	Employment	Percent of industry	Percent of occupation	Employment	Percent of industry	Percent of occupation
1	00-0000	Total, all occupations	284.3	100.0	0.2	305.7	100.0	0.2
132	51-0000	Production occupations	203.2	71.5	2.3	221.6	72.5	2.5
143	51-4000	Metal workers and plastic workers	163.6	57.5	8.6	180.5	59.1	9.5
156	51-4041	Machinists	89.1	31.4	22.4	101.7	33.3	23.5
81	43-0000	Office and administrative support occupations	31.1	10.9	0.1	31.8	10.4	0.1
144	51-4010	Computer control programmers and operators	28.9	10.2	17.6	33.9	11.1	17.7
145	51-4011	Computer-controlled machine tool operators, metal and plastic	24.4	8.6	17.4	27.8	9.1	17.3
150	51-4030	Machine tool cutting setters, operators, and tenders, metal and plastic	21.0	7.4	6.2	19.4	6.4	6.5
172	51-9000	Other production occupations	18.1	6.4	0.7	18.8	6.2	0.7
2	11-0000	Management occupations	15.1	5.3	0.2	15.7	5.1	0.2
163	51-4120	Welding, soldering, and brazing workers	14.9	5.2	3.6	15.9	5.2	3.6
133	51-1000	Supervisors of production workers	13.5	4.7	2.3	14.0	4.6	2.4
134	51-1011	First-line supervisors of production and operating workers	13.5	4.7	2.3	14.0	4.6	2.4
164	51-4121	Welders, cutters, solderers, and brazers	12.5	4.4	3.5	13.0	4.2	3.4
3	11-1000	Top executives	9.4	3.3	0.4	9.7	3.2	0.4
5	11-1021	General and operations managers	8.5	3.0	0.4	8.9	2.9	0.4
101	43-9000	Other office and administrative support workers	8.5	3.0	0.2	8.3	2.7	0.2
104	43-9061	Office clerks, general	8.4	2.9	0.3	8.2	2.7	0.3
135	51-2000	Assemblers and fabricators	7.9	2.8	0.4	8.2	2.7	0.5
177	51-9061	Inspectors, testers, sorters, samplers, and weighers	7.8	2.8	1.7	8.1	2.7	1.7
181	51-9190	Miscellaneous production workers	7.2	2.5	0.8	7.5	2.5	0.8
94	43-5000	Material recording, scheduling, dispatching, and distributing workers	6.9	2.4	0.2	7.0	2.3	0.2
113	49-0000	Installation, maintenance, and repair occupations	6.5	2.3	0.1	7.2	2.4	0.1
154	51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	6.4	2.3	16.7	6.0	2.0	18.1
186	53-0000	Transportation and material moving occupations	6.5	2.3	0.1	6.6	2.2	0.1
19	13-0000	Business and financial operations occupations	6.0	2.1	0.1	6.4	2.1	0.1
84	43-3000	Financial clerks	5.9	2.1	0.2	6.1	2.0	0.2
124	49-9000	Other installation, maintenance, and repair occupations	5.8	2.1	0.2	6.5	2.1	0.2
184	51-9198	Helpers—production workers	6.1	2.1	1.5	6.3	2.1	1.4
43	17-0000	Architecture and engineering occupations	5.7	2.0	0.2	5.8	1.9	0.2
98	43-6000	Secretaries and administrative assistants	5.6	2.0	0.1	6.2	2.0	0.1
140	51-2090	Miscellaneous assemblers and fabricators	5.5	1.9	0.4	5.7	1.8	0.4
153	51-4033	Grinding, tapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic	5.1	1.8	7.2	4.8	1.6	7.7
68	41-0000	Sales and related occupations	4.9	1.7	0.0	5.1	1.7	0.0
100	43-6014	Secretaries and administrative assistants, except legal, medical, and executive	4.7	1.7	0.2	5.3	1.7	0.2
141	51-2092	Team assemblers	4.7	1.7	0.5	4.9	1.6	0.5
9	11-3000	Operations specialties managers	4.5	1.6	0.3	4.7	1.5	0.3
20	13-1000	Business operations specialists	4.5	1.6	0.1	4.7	1.6	0.1
86	43-3031	Bookkeeping, accounting, and auditing clerks	4.4	1.6	0.2	4.6	1.5	0.2
96	43-5071	Shipping, receiving, and traffic clerks	4.6	1.6	0.7	4.7	1.6	0.7
146	51-4012	Computer numerically controlled machine tool programmers, metal and plastic	4.6	1.6	18.9	6.2	2.0	19.9
44	17-2000	Engineers	4.2	1.5	0.3	4.4	1.4	0.3
76	41-4000	Sales representatives, wholesale and manufacturing	4.0	1.4	0.2	4.2	1.4	0.2
78	41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	3.9	1.4	0.3	4.0	1.3	0.3
155	51-4035	Milling and planing machine setters, operators, and tenders, metal and plastic	4.0	1.4	17.4	3.8	1.2	18.6
194	53-7000	Material moving workers	3.8	1.4	0.1	3.9	1.3	0.1
151	51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	3.6	1.3	2.0	3.4	1.1	2.0
13	11-3051	Industrial production managers	3.4	1.2	2.0	3.5	1.1	2.1
161	51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	3.1	1.1	3.6	2.9	1.0	3.9
196	53-7060	Laborers and material movers, hand	3.2	1.1	0.1	3.3	1.1	0.1
125	49-9040	Industrial machinery installation, repair, and maintenance workers	2.9	1.0	0.6	3.5	1.1	0.7
89	43-4000	Information and record clerks	2.7	0.9	0.0	2.6	0.9	0.0
21	13-1020	Buyers and purchasing agents	2.2	0.8	0.5	2.3	0.7	0.5
50	17-2141	Mechanical engineers	2.4	0.8	0.9	2.5	0.8	0.9
64	37-0000	Building and grounds cleaning and maintenance occupations	2.4	0.8	0.0	2.5	0.8	0.0
65	37-2000	Building cleaning and pest control workers	2.4	0.8	0.1	2.5	0.8	0.1
66	37-2010	Building cleaning workers	2.4	0.8	0.1	2.5	0.8	0.1
67	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	2.4	0.8	0.1	2.5	0.8	0.1
129	49-9071	Maintenance and repair workers, general	2.3	0.8	0.2	2.4	0.8	0.2
162	51-4111	Tool and die makers	2.4	0.8	3.1	2.6	0.9	3.4
165	51-4122	Welding, soldering, and brazing machine setters, operators, and tenders	2.3	0.8	4.4	2.9	0.9	4.5
190	53-3000	Motor vehicle operators	2.4	0.8	0.1	2.5	0.8	0.1
191	53-3030	Driver/sales workers and truck drivers	2.4	0.8	0.1	2.5	0.8	0.1
198	53-7062	Laborers and freight, stock, and material movers, hand	2.3	0.8	0.1	2.4	0.8	0.1
23	13-1023	Purchasing agents, except wholesale, retail, and farm products	2.1	0.7	0.7	2.2	0.7	0.7

**EASTERN REGION**

**2014**



**OCCUPATIONAL WAGES FOR JOB SEEKERS**

Annual Wages for Occupations with the Most Projected Annual Job Openings

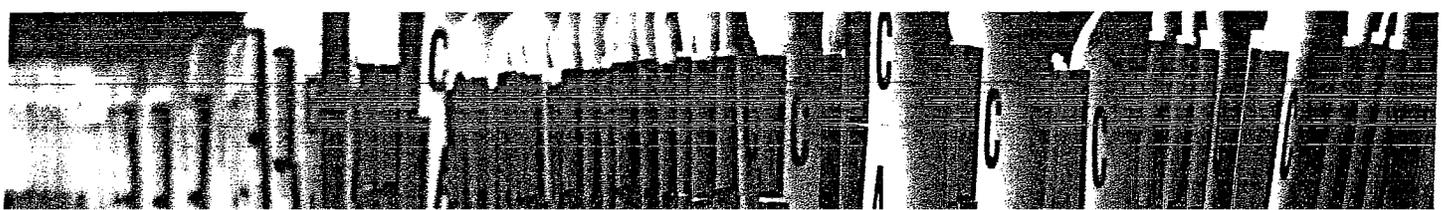
OCCUPATION	WAGE			PROJECTED ANNUAL JOB OPENINGS
	ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	
<b>MASTER'S DEGREE OR HIGHER</b> Education Administrators, Elementary & Secondary School	\$66,947	\$85,938	\$95,433	10
Education Administrators, Postsecondary	\$46,443	\$67,272	\$77,686	10
Pharmacists	\$87,127	\$121,057	\$138,022	10
Physical Therapists	\$67,316	\$91,772	\$104,001	10
Educational, Guidance, School & Vocational Counselors	\$36,788	\$54,674	\$63,618	10
Family & General Practitioners	\$107,085	\$199,009	\$244,971	10
Clinical, Counseling & School Psychologists	\$51,897	\$72,273	\$82,461	<5
Lawyers	\$61,467	\$107,631	\$130,712	<5
Education Teachers, Postsecondary	\$48,188	\$70,119	\$81,085	<5
Dentists, General	\$70,202	\$197,658	N/A	<5
Mental Health Counselors	\$28,031	\$39,635	\$45,437	<5
Healthcare Social Workers	\$25,812	\$42,682	\$51,117	<5
Speech-Language Pathologists	\$50,412	\$89,326	\$108,783	<5
Nurse Practitioners	\$89,012	\$117,358	\$131,531	<5
Nursing Instructors & Teachers, Postsecondary	\$44,845	\$77,156	\$93,312	<5
Librarians	\$30,019	\$45,396	\$53,085	<5
Instructional Coordinators	\$32,388	\$58,961	\$72,248	<5
Physician Assistants	\$31,716	\$79,913	\$104,012	<5
Occupational Therapists	\$48,077	\$97,943	\$122,876	<5
Business Teachers, Postsecondary	\$40,784	\$66,036	\$78,662	<5

OCCUPATION	WAGE			PROJECTED ANNUAL JOB OPENINGS
	ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	
<b>BACHELOR'S DEGREE</b> General & Operations Managers	\$43,274	\$97,657	\$124,848	80
Elementary School Teachers, Ex. Special Education	\$38,692	\$56,099	\$64,803	60
Secondary School Teachers, Ex. Special & Career/Tech. Education	\$39,860	\$56,135	\$64,272	40
Accountants & Auditors	\$34,260	\$56,127	\$67,060	30
Substitute Teachers	\$17,089	\$18,196	\$18,749	30
Middle School Teachers, Ex. Special & Career/Tech. Education	\$39,641	\$50,190	\$55,464	30
Construction Managers	\$61,042	\$100,921	\$120,860	20
Medical & Health Services Managers	\$58,497	\$105,516	\$129,025	10
Coaches & Scouts	\$17,209	\$29,706	\$35,955	10
Kindergarten Teachers, Ex. Special Education	\$40,476	\$54,666	\$61,761	10
Sales Managers	\$56,274	\$102,628	\$125,805	10
Financial Managers	\$52,300	\$89,713	\$108,420	10
Petroleum Engineers	\$44,701	\$79,153	\$96,378	10
Mental Health & Substance Abuse Social Workers	\$27,777	\$43,150	\$50,837	10
Administrative Services Managers	\$32,364	\$67,455	\$85,001	10
Management Analysts	\$32,152	\$50,415	\$59,547	10
Special Education Teachers, Kindergarten & Elementary School	\$41,379	\$55,740	\$62,921	10
Recreation Workers	\$17,205	\$24,133	\$27,597	10

# EASTERN REGION

ASSOCIATE'S DEGREE		ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	PROJECTED ANNUAL JOB OPENINGS
	Registered Nurses	\$47,404	\$61,314	\$68,269	70
	Forest & Conservation Technicians	\$26,334	\$35,468	\$40,034	10
	Preschool Teachers, Ex. Special Education	\$18,740	\$36,058	\$44,716	10
	Dental Hygienists	\$56,668	\$72,229	\$80,009	10
	Radiologic Technologists & Technicians	\$37,648	\$52,239	\$59,535	10
	Medical & Clinical Laboratory Technicians	\$26,671	\$41,069	\$48,268	10
	Electrical & Electronics Engineering Technicians	\$46,652	\$57,858	\$63,460	10
	Paralegals & Legal Assistants	\$26,934	\$33,153	\$36,263	<5
	Respiratory Therapists	\$44,194	\$52,025	\$55,940	<5
	Diagnostic Medical Sonographers	\$34,905	\$54,569	\$64,401	<5
	Occupational Therapy Assistants	\$35,311	\$52,918	\$61,722	<5
	Air Traffic Controllers	\$71,338	\$82,638	\$88,288	<5
	Computer Network Support Specialists	\$37,887	\$56,006	\$65,065	<5

POSTSECONDARY NON-DEGREE AWARD OR COLLEGE, NO DEGREE		ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	PROJECTED ANNUAL JOB OPENINGS
	Heavy & Tractor-Trailer Truck Drivers	\$28,714	\$42,819	\$49,871	90
	Teacher Assistants	\$17,323	\$20,855	\$22,622	40
	Nursing Assistants	\$17,943	\$22,522	\$24,812	40
	Medical Assistants	\$20,142	\$26,327	\$29,420	30
	Licensed Practical & Licensed Vocational Nurses	\$31,779	\$43,627	\$49,550	20
	Aircraft Mechanics & Service Technicians	\$35,015	\$54,915	\$64,865	20
	Computer User Support Specialists	\$24,364	\$39,702	\$47,371	10
	Medical Records & Health Information Technicians	\$20,350	\$27,859	\$31,614	10
	Firefighters	\$22,819	\$31,130	\$35,285	10
	Dental Assistants	\$24,862	\$32,534	\$36,370	10
	Supervisors of Production & Operating Workers	\$32,789	\$57,527	\$69,896	10
	Library Technicians	\$18,390	\$25,480	\$29,025	10
	Heating, Air Conditioning & Refrigeration Mechanics & Installers	\$26,522	\$36,590	\$41,624	10
	Emergency Medical Technicians & Paramedics	\$20,752	\$31,642	\$37,087	10
	Surgical Technologists	\$27,813	\$37,033	\$41,642	<5
	Supervisors of Fire Fighting & Prevention Workers	\$40,806	\$54,439	\$61,255	<5
	Phlebotomists	\$20,144	\$24,515	\$26,700	<5
	Electrical & Electronics Repairers, Commercial & Industrial Equipment	\$37,267	\$53,657	\$61,853	<5
	Medical Transcriptionists	\$26,565	\$30,317	\$32,193	<5
	Computer, Automated Teller & Office Machine Repairers	\$18,344	\$31,013	\$37,347	<5



# 2014 OCCUPATIONAL WAGES FOR JOB SEEKERS

OTHER OCCUPATIONS WITH 10 OR MORE ANNUAL OPENINGS

	ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	PROJECTED ANNUAL JOB OPENINGS	TYPICAL MINIMUM EDUCATION REQUIRED
Cooks, Institution & Cafeteria	\$17,170	\$19,827	\$21,156	30	LHS
Derrick Operators, Oil & Gas	\$36,142	\$49,729	\$56,523	30	LHS
Rotary Drill Operators, Oil & Gas	\$38,523	\$59,987	\$70,719	30	LHS
Cooks, Fast Food	\$17,105	\$17,143	\$17,162	30	LHS
Bartenders	\$17,054	\$18,798	\$19,670	20	LHS
Counter Attendants, Cafeteria, Food Concession & Coffee Shop	\$16,966	\$17,626	\$17,956	20	LHS
Carpenters	\$30,149	\$40,888	\$46,257	20	HSE
Dining Room & Cafeteria Attendants & Bartender Helpers	\$17,194	\$20,982	\$22,876	20	LHS
Automotive Service Technicians & Mechanics	\$23,703	\$36,999	\$43,647	20	HSE
Petroleum Pump System Operators, Refinery Operators & Gaugers	\$43,535	\$58,867	\$66,533	20	HSE
Supervisors of Mechanics, Installers & Repairers	\$40,092	\$60,855	\$71,236	20	HSE
Bus & Truck Mechanics & Diesel Engine Specialists	\$22,770	\$36,801	\$43,816	20	HSE
Bus Drivers, School or Special Client	\$17,302	\$22,897	\$25,695	20	HSE
Painters, Construction & Maintenance	\$25,051	\$30,075	\$32,588	20	LHS
Medical Secretaries	\$20,029	\$26,507	\$29,746	20	HSE
Food Batchmakers	\$20,861	\$28,232	\$31,918	20	HSE
Industrial Machinery Mechanics	\$30,725	\$47,022	\$55,171	20	HSE
Cooks, Short Order	\$16,955	\$18,524	\$19,309	20	LHS
Supervisors of Personal Service Workers	\$21,229	\$30,614	\$35,307	10	HSE
Mobile Heavy Equipment Mechanics, Ex. Engines	\$33,511	\$45,094	\$50,886	10	HSE
Electrical Power-Line Installers & Repairers	\$34,756	\$52,448	\$61,293	10	HSE
Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	\$33,893	\$61,859	\$75,842	10	HSE
Electricians	\$26,310	\$45,721	\$55,426	10	HSE
Parts Salespersons	\$18,954	\$27,577	\$31,889	10	LHS
Plumbers, Pipefitters & Steamfitters	\$31,611	\$47,073	\$54,805	10	HSE
Helpers--Installation, Maintenance & Repair Workers	\$19,316	\$29,925	\$35,229	10	HSE
Driver/Sales Workers	\$17,222	\$25,622	\$29,822	10	HSE
Packers & Packagers, Hand	\$17,090	\$18,527	\$19,245	10	LHS
Supervisors of Housekeeping & Janitorial Workers	\$19,284	\$28,176	\$32,621	10	HSE
Amusement & Recreation Attendants	\$17,067	\$20,598	\$22,364	10	LHS
Farmworkers, Farm, Ranch & Aquacultural Animals	\$18,500	\$29,432	\$34,899	10	LHS
Pharmacy Technicians	\$24,847	\$31,024	\$34,112	10	HSE
Insurance Sales Agents	\$27,258	\$41,433	\$48,521	10	HSE
Telecommunications Line Installers & Repairers	\$30,338	\$39,488	\$44,063	10	HSE

SE: High School Diploma or Equivalent

LHS: Less than High School

region" refers to the Workforce Investment Act Region. Occupational wages are produced through the Occupational Employment Statistics (OES) program, while projected annual openings and typical minimum education required are produced through the Employment Projections program. Both programs work in conjunction with the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Wage estimates are for 2013 and are rounded to the nearest \$10. The entry wage represents the mean of the lowest third of the wage distribution, with the experienced wage being the mean of the highest third of the distribution. Projected annual job openings are also rounded. Occupations classified as "All Other" are excluded, as are occupations where wage data is not disclosed. Education levels represent the typical minimum education needed to enter into the job, although higher levels of education may often be

# 2014 OCCUPATIONAL WAGES FOR JOB SEEKERS

## HIGH SCHOOL DIPLOMA OR EQUIVALENT

	ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	PROJECTED ANNUAL JOB OPENINGS
Secretaries & Administrative Assistants, Ex. Legal, Medical & Exec.	\$18,944	\$27,350	\$31,554	80
Supervisors of Food Preparation & Serving Workers	\$20,688	\$26,805	\$29,864	60
Supervisors of Office & Administrative Support Workers	\$26,333	\$40,898	\$48,180	50
Supervisors of Retail Sales Workers	\$23,670	\$33,711	\$38,732	50
Operating Engineers & Other Construction Equipment Operators	\$29,292	\$44,598	\$52,250	50
Bookkeeping, Accounting & Auditing Clerks	\$22,683	\$32,366	\$37,207	50
Office Clerks, General	\$17,193	\$24,063	\$27,498	40
Childcare Workers	\$17,121	\$20,050	\$21,514	40
Hotel, Motel & Resort Desk Clerks	\$17,281	\$18,366	\$18,908	40
Supervisors of Construction Trades & Extraction Work	\$37,924	\$64,947	\$78,458	40
Customer Service Reps	\$19,915	\$27,794	\$31,734	40
Maintenance & Repair Workers, General	\$20,734	\$32,393	\$38,222	40
Receptionists & Information Clerks	\$17,584	\$23,274	\$26,119	40
Police & Sheriff's Patrol Officers	\$33,259	\$43,454	\$48,552	30
Tellers	\$19,564	\$23,542	\$25,531	30
Social & Human Service Assistants	\$20,184	\$27,361	\$30,949	20
Helpers—Extraction Workers	\$26,384	\$31,127	\$33,498	20
Light Truck or Delivery Services Drivers	\$17,863	\$28,916	\$34,442	20
Sales Reps, Wholesale & Mfg, Ex. Technical & Scientific Products	\$30,557	\$56,376	\$69,286	20
Welders, Cutters, Solderers & Brazers	\$31,255	\$47,123	\$55,057	20

## LESS THAN HIGH SCHOOL DIPLOMA

	ENTRY WAGE	AVERAGE WAGE	EXPERIENCED WAGE	PROJECTED ANNUAL JOB OPENINGS
Retail Salespersons	\$17,361	\$23,629	\$26,762	220
Personal Care Aides	\$17,149	\$17,972	\$18,384	190
Cashiers	\$17,205	\$18,822	\$19,631	190
Waiters & Waitresses	\$17,101	\$19,731	\$21,046	180
Combined Food Preparation & Serving Workers, Incl. Fast Food	\$17,092	\$17,523	\$17,739	160
Construction Laborers	\$20,098	\$26,484	\$29,677	100
Roustabouts, Oil & Gas	\$25,279	\$37,683	\$43,885	90
Service Unit Operators, Oil, Gas & Mining	\$38,347	\$51,875	\$58,639	80
Laborers & Freight, Stock & Material Movers, Hand	\$18,174	\$25,858	\$29,701	80
Maids & Housekeeping Cleaners	\$17,189	\$18,653	\$19,385	70
Food Preparation Workers	\$17,119	\$19,765	\$21,088	70
Home Health Aides	\$16,978	\$19,724	\$21,098	70
Farmworkers & Laborers, Crop, Nursery & Greenhouse	\$17,003	\$21,546	\$23,818	70
Janitors & Cleaners, Ex. Maids & House Cleaners	\$17,117	\$21,847	\$24,212	60
Dishwashers	\$17,176	\$17,826	\$18,151	50
Stock Clerks & Order Fillers	\$17,299	\$21,643	\$23,815	40
Cooks, Restaurant	\$17,065	\$19,711	\$21,035	40
Wellhead Pumpers	\$34,699	\$46,270	\$52,056	40

DRAFT 4-1

# EASTERN REGION IN-DEMAND OCCUPATIONS

## CRITERIA

Projected ANNUAL Job Openings

**5**

or more

This represents the projected number of job openings from both new jobs and existing jobs that become available.

Projected Employment Growth

**13.0%**

or more

This represents how fast employment is projected to grow, with a higher percentage meaning faster growth.

## IN-DEMAND OCCUPATIONS

These occupations meet both of the criteria for the Eastern Region, including Chaves, Curry, De Baca, Eddy, Guadalupe, Harding, Lea, Lincoln, Otero, Quay, Roosevelt, and Union Counties.

### Occupation Code & Title



Jobs  
as of  
2012

Projected  
Annual Job  
Openings

Projected  
Employment  
Growth



Typical  
Education  
Required

#### MANAGEMENT OCCUPATIONS

11-9033	Education Administrators, Postsec.	150	10	21.9%	Master's
11-9051	Food Service Managers	***	10	***	High School Diploma/Equivalent
11-9111	Medical & Health Services Managers	280	10	26.0%	Bachelor's
13-1111	Management Analysts	220	10	15.8%	Bachelor's

#### COMPUTER & MATHEMATICAL OCCUPATIONS

15-1151	Computer User Support Specialists	380	10	13.2%	Some College, No Degree
---------	-----------------------------------	-----	----	-------	-------------------------

#### ARCHITECTURE & ENGINEERING OCCUPATIONS

17-2171	Petroleum Engineers	170	10	22.0%	Bachelor's
---------	---------------------	-----	----	-------	------------

#### COMMUNITY & SOCIAL SERVICES OCCUPATIONS

21-1093	Social & Human Service Assistants	540	20	19.4%	High School Diploma/Equivalent
21-1021	Child, Family & School Social Workers	160	10	20.5%	Bachelor's
21-1012	Educational, Guidance, School & Vocational Counselors	160	10	17.9%	Master's
21-1023	Mental Health & Substance Abuse Social Workers	200	10	20.2%	Bachelor's
21-1015	Rehabilitation Counselors	***	10	***	Master's

#### EDUCATION, TRAINING & LIBRARY OCCUPATIONS

25-2021	Elementary School Teachers, Ex. Special Education	1,530	60	19.1%	Bachelor's
25-2022	Middle School Teachers, Ex. Special & Career/Technical Education	650	30	19.0%	Bachelor's
25-2012	Kindergarten Teachers, Ex. Special Education	260	10	19.3%	Bachelor's
25-2011	Preschool Teachers, Ex. Special Education	220	10	15.2%	Associate's

#### ARTS, DESIGN, ENTERTAINMENT, SPORTS & MEDIA OCCUPATIONS

27-2022	Coaches & Scouts	240	10	24.0%	Bachelor's
---------	------------------	-----	----	-------	------------

#### HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-1141	Registered Nurses	1,620	70	21.5%	Associate's
29-2061	Licensed Practical & Licensed Vocational Nurses	440	20	21.0%	Postsec. Non-Degree Award

**EASTERN REGION**

**IN-DEMAND OCCUPATIONS (continued)**

**IN-DEMAND OCCUPATIONS**

**Occupation Code & Title**

Jobs as of 2012    Projected Annual Job Openings    Projected Employment Growth     Typical Education Required

29-2021	Dental Hygienists	180	10	21.7%	Associate's
29-2012	Medical & Clinical Laboratory Technicians	120	10	26.1%	Associate's
29-2071	Medical Records & Health Information Technicians	210	10	19.9%	Postsec. Non-Degree Award
29-1051	Pharmacists	170	10	13.3%	Doctoral or Professional Degree
29-2052	Pharmacy Technicians	330	10	21.1%	High School Diploma/Equivalent
29-1123	Physical Therapists	100	10	27.9%	Doctoral or Professional Degree
29-2034	Radiologic Technologists	210	10	19.5%	Associate's
<b>HEALTHCARE SUPPORT OCCUPATIONS</b>					
31-1011	Home Health Aides	990	70	49.5%	Less than High School
31-1014	Nursing Assistants	930	40	22.5%	Postsec. Non-Degree Award
31-9092	Medical Assistants	720	30	22.8%	Postsec. Non-Degree Award
31-1015	Orderlies	130	10	22.7%	High School Diploma/Equivalent
<b>PROTECTIVE SERVICE OCCUPATIONS</b>					
33-3012	Correctional Officers & Jailers	1,250	60	19.0%	High School Diploma/Equivalent
33-1011	Supervisors of Correctional Officers	90	10	17.0%	High School Diploma/Equivalent
<b>FOOD PREPARATION AND SERVING RELATED OCCUPATIONS</b>					
35-3031	Waiters & Waitresses	2,560	180	21.4%	Less than High School
35-3021	Combined Food Preparation & Serving Workers, Incl. Fast Food	2,230	160	33.0%	Less than High School
35-2021	Food Preparation Workers	1,480	70	18.4%	Less than High School
35-1012	Supervisors of Food Preparation & Serving Workers	***	60	***	High School Diploma/Equivalent
35-9021	Dishwashers	730	50	21.2%	Less than High School
35-2014	Cooks, Restaurant	730	40	33.0%	Less than High School
35-2011	Cooks, Fast Food	730	30	15.6%	Less than High School
35-2012	Cooks, Institution & Cafeteria	710	30	17.6%	Less than High School
35-9031	Hosts & Hostesses, Restaurant, Lounge & Coffee Shop	340	30	20.3%	Less than High School
35-3011	Bartenders	370	20	28.2%	Less than High School
35-2015	Cooks, Short Order	***	20	***	Less than High School
35-9011	Dining Room & Cafeteria Attendants & Bartender Helpers	300	20	20.7%	Less than High School
35-3041	Food Servers, Nonrestaurant	***	10	***	Less than High School
<b>BUILDING &amp; GROUNDS CLEANING &amp; MAINTENANCE OCCUPATIONS</b>					
37-2012	Maids & Housekeeping Cleaners	1,900	70	18.6%	Less than High School
37-1011	Supervisors of Housekeeping & Janitorial Workers	280	10	13.4%	High School Diploma/Equivalent
<b>PERSONAL CARE &amp; SERVICE OCCUPATIONS</b>					
39-9021	Personal Care Aides	3,220	190	50.4%	Less than High School
39-9011	Childcare Workers	810	40	20.4%	High School Diploma/Equivalent
39-3091	Amusement & Recreation Attendants	110	10	31.0%	Less than High School
39-9032	Recreation Workers	260	10	15.3%	Bachelor's
39-9041	Residential Advisors	***	10	***	High School Diploma/Equivalent

**EASTERN REGION IN-DEMAND OCCUPATIONS (continued)**

**IN-DEMAND OCCUPATIONS**

Occupation Code & Title	Jobs as of 2012	Projected Annual Job Openings	Projected Employment Growth	 Typical Education Required
39-1021 Supervisors of Personal Service Workers	400	10	18.0%	High School Diploma/Equivalent
<b>SALES &amp; RELATED OCCUPATIONS</b>				
41-3021 Insurance Sales Agents	270	10	13.5%	High School Diploma/Equivalent
<b>OFFICE &amp; ADMINISTRATIVE SUPPORT OCCUPATIONS</b>				
43-1011 Supervisors of Office & Administrative Support Workers	1,390	50	15.0%	High School Diploma/Equivalent
43-4081 Hotel, Motel & Resort Desk Clerks	570	40	21.8%	High School Diploma/Equivalent
43-6013 Medical Secretaries	390	20	30.8%	High School Diploma/Equivalent
43-3011 Bill & Account Collectors	120	10	14.6%	High School Diploma/Equivalent
<b>CONSTRUCTION &amp; EXTRACTION OPERATIONS</b>				
47-2061 Construction Laborers	2,730	100	13.9%	Less than High School
47-5013 Service Unit Operators, Oil, Gas & Mining	1,380	80	17.8%	Less than High School
47-5011 Derrick Operators, Oil & Gas	500	30	14.4%	Less than High School
47-2031 Carpenters	720	20	14.8%	High School Diploma/Equivalent
47-2141 Painters, Construction & Maintenance	390	20	27.3%	Less than High School
47-2051 Cement Masons & Concrete Finishers	170	10	16.1%	Less than High School
47-3013 Helpers--Electricians	220	10	21.7%	High School Diploma/Equivalent
<b>INSTALLATION, MAINTENANCE &amp; REPAIR OCCUPATIONS</b>				
49-9041 Industrial Machinery Mechanics	260	20	30.9%	High School Diploma/Equivalent
49-9012 Control & Valve Installers & Repairers, Ex. Mechanical Door	100	10	15.5%	High School Diploma/Equivalent
49-9051 Electrical Power-Line Installers & Repairers	300	10	14.0%	High School Diploma/Equivalent
49-9043 Maintenance Workers, Machinery	***	10	***	High School Diploma/Equivalent
<b>PRODUCTION OCCUPATIONS</b>				
51-8093 Petroleum Pump System Operators, Refinery Operators & Gaugers	350	20	18.2%	High School Diploma/Equivalent
51-3011 Bakers	120	10	21.4%	Less than High School
51-9061 Inspectors, Testers, Sorters, Samplers & Weighers	150	10	14.3%	High School Diploma/Equivalent
<b>TRANSPORTATION &amp; MATERIAL MOVING OCCUPATIONS</b>				
53-7073 Wellhead Pumpers	660	40	17.4%	Less than High School
53-3022 Bus Drivers, School or Special Client	510	20	17.3%	High School Diploma/Equivalent
53-7071 Gas Compressor & Gas Pumping Station Operators	250	20	27.8%	Less than High School
53-6031 Automotive & Watercraft Service Attendants	170	10	17.5%	Less than High School
53-1031 Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	340	10	15.2%	High School Diploma/Equivalent

For more information on in-demand occupations, and for listings by all substate areas, visit [www.dws.state.nm.us](http://www.dws.state.nm.us). Prepared by NMDWS Economic Research and Analysis Bureau, Fall 2015, using 10-year employment projections.

## Applicant Workforce Basic Skill Levels South Eastern New Mexico

ACT Work Keys is a national job skills assessment system measuring real world skills that employers have determined are critical to job success. The foundational basic skills are Applied Mathematics, Reading for Information and Locating Information. These are measured by 45 minute, 40 multiple choice question tests.

### Applied Mathematics Skill Level, SENM City

ACT Level	National	SENM City	Qualified for Jobs Training
3	16%	13%	50%
4	23%	28%	85%
5	31%	35%	97%
6	21%	18%	99%
7	9%	5%	99%

### Reading For Information Skill Level

### Locating Information Skill Level

Source: ACT

Employment by industry, occupation, and percent distribution, 2012 and projected 2022

3327 10 Machine shops

(Employment in thousands)

Occupations with fewer than 50 jobs, confidential data, or poor quality data are not displayed

Sort Order	Code	Occupation Title	2012			2022		
			Employment	Percent of industry	Percent of occupation	Employment	Percent of industry	Percent of occupation
1	00-0000	Total, all occupations	284.3	100.0	0.2	305.7	100.0	0.2
132	51-0000	Production occupations	203.2	71.5	2.3	221.6	72.5	2.5
143	51-4000	Metal workers and plastic workers	163.6	57.5	8.6	180.5	59.1	9.5
156	51-4041	Machinists	89.1	31.4	22.4	101.7	33.3	23.5
81	43-0000	Office and administrative support occupations	31.1	10.9	0.1	31.8	10.4	0.1
144	51-4010	Computer control programmers and operators	28.9	10.2	17.6	33.9	11.1	17.7
145	51-4011	Computer-controlled machine tool operators, metal and plastic	24.4	8.6	17.4	27.8	9.1	17.3
150	51-4030	Machine tool cutting setters, operators, and tenders, metal and plastic	21.0	7.4	6.2	19.4	6.4	6.5
172	51-9000	Other production occupations	18.1	6.4	0.7	18.8	6.2	0.7
2	11-0000	Management occupations	15.1	5.3	0.2	15.7	5.1	0.2
163	51-4120	Welding, soldering, and brazing workers	14.9	5.2	3.6	15.9	5.2	3.6
133	51-1000	Supervisors of production workers	13.5	4.7	2.3	14.0	4.6	2.4
134	51-1011	First-line supervisors of production and operating workers	13.5	4.7	2.3	14.0	4.6	2.4
164	51-4121	Weilders, cutters, solderers, and brazers	12.5	4.4	3.5	13.0	4.2	3.4
3	11-1000	Top executives	9.4	3.3	0.4	9.7	3.2	0.4
5	11-1021	General and operations managers	8.5	3.0	0.4	8.9	2.9	0.4
101	43-9000	Other office and administrative support workers	8.5	3.0	0.2	8.3	2.7	0.2
104	43-9061	Office clerks, general	8.4	2.9	0.3	8.2	2.7	0.3
135	51-2000	Assemblers and fabricators	7.9	2.8	0.4	8.2	2.7	0.5
177	51-9061	Inspectors, testers, sorters, samplers, and weighers	7.8	2.8	1.7	8.1	2.7	1.7
181	51-9190	Miscellaneous production workers	7.2	2.5	0.8	7.5	2.5	0.8
94	43-5000	Material recording, scheduling, dispatching, and distributing workers	6.9	2.4	0.2	7.0	2.3	0.2
113	49-0000	Installation, maintenance, and repair occupations	6.5	2.3	0.1	7.2	2.4	0.1
154	51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	6.4	2.3	16.7	6.0	2.0	18.1
186	53-0000	Transportation and material moving occupations	6.5	2.3	0.1	6.6	2.2	0.1
19	13-0000	Business and financial operations occupations	6.0	2.1	0.1	6.4	2.1	0.1
84	43-3000	Financial clerks	5.9	2.1	0.2	6.1	2.0	0.2
124	49-9000	Other installation, maintenance, and repair occupations	5.8	2.1	0.2	6.5	2.1	0.2
184	51-9198	Helpers--production workers	6.1	2.1	1.5	6.3	2.1	1.4
43	17-0000	Architecture and engineering occupations	5.7	2.0	0.2	5.8	1.9	0.2
98	43-6000	Secretaries and administrative assistants	5.6	2.0	0.1	6.2	2.0	0.1
140	51-2090	Miscellaneous assemblers and fabricators	5.5	1.9	0.4	5.7	1.8	0.4
153	51-4033	Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic	5.1	1.8	7.2	4.8	1.6	7.7
68	41-0000	Sales and related occupations	4.9	1.7	0.0	5.1	1.7	0.0
100	43-6014	Secretaries and administrative assistants, except legal, medical, and executive	4.7	1.7	0.2	5.3	1.7	0.2
141	51-2092	Team assemblers	4.7	1.7	0.5	4.9	1.6	0.5
9	11-3000	Operations specialties managers	4.5	1.6	0.3	4.7	1.5	0.3
20	13-1000	Business operations specialists	4.5	1.6	0.1	4.7	1.6	0.1
86	43-3031	Bookkeeping, accounting, and auditing clerks	4.4	1.6	0.2	4.6	1.5	0.2
96	43-5071	Shipping, receiving, and traffic clerks	4.6	1.6	0.7	4.7	1.6	0.7
146	51-4012	Computer numerically controlled machine tool programmers, metal and plastic	4.6	1.6	18.9	6.2	2.0	19.9
44	17-2000	Engineers	4.2	1.5	0.3	4.4	1.4	0.3
76	41-4000	Sales representatives, wholesale and manufacturing	4.0	1.4	0.2	4.2	1.4	0.2
78	41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	3.9	1.4	0.3	4.0	1.3	0.3
155	51-4035	Milling and planing machine setters, operators, and tenders, metal and plastic	4.0	1.4	17.4	3.8	1.2	18.6
194	53-7000	Material moving workers	3.8	1.4	0.1	3.9	1.3	0.1
151	51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	3.6	1.3	2.0	3.4	1.1	2.0
13	11-3051	Industrial production managers	3.4	1.2	2.0	3.5	1.1	2.1
161	51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	3.1	1.1	3.6	2.9	1.0	3.9
196	53-7060	Laborers and material movers, hand	3.2	1.1	0.1	3.3	1.1	0.1
125	49-9040	Industrial machinery installation, repair, and maintenance workers	2.9	1.0	0.6	3.5	1.1	0.7
89	43-4000	Information and record clerks	2.7	0.9	0.0	2.6	0.9	0.0
21	13-1020	Buyers and purchasing agents	2.2	0.8	0.5	2.3	0.7	0.5
50	17-2141	Mechanical engineers	2.4	0.8	0.9	2.5	0.8	0.9
64	37-0000	Building and grounds cleaning and maintenance occupations	2.4	0.8	0.0	2.5	0.8	0.0
65	37-2000	Building cleaning and pest control workers	2.4	0.8	0.1	2.5	0.8	0.1
66	37-2010	Building cleaning workers	2.4	0.8	0.1	2.5	0.8	0.1
67	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	2.4	0.8	0.1	2.5	0.8	0.1
129	49-9071	Maintenance and repair workers, general	2.3	0.8	0.2	2.4	0.8	0.2
162	51-4111	Tool and die makers	2.4	0.8	3.1	2.6	0.9	3.4
165	51-4122	Welding, soldering, and brazing machine setters, operators, and tenders	2.3	0.8	4.4	2.9	0.9	4.5
190	53-3000	Motor vehicle operators	2.4	0.8	0.1	2.5	0.8	0.1
191	53-3030	Driver/sales workers and truck drivers	2.4	0.8	0.1	2.5	0.8	0.1
198	53-7062	Laborers and freight, stock, and material movers, hand	2.3	0.8	0.1	2.4	0.8	0.1
23	13-1023	Purchasing agents, except wholesale, retail, and farm products	2.1	0.7	0.7	2.2	0.7	0.7

LOCAL AVAILABLE WORKFORCE SKILLS

**Machinists**

**Machinists**

 **green**

**O\*Net Code:** *(Click to open wages and additional information in a new window)*  
51-4041.00

**Clusters:** *(Click one to search all jobs in cluster)*  
Manufacturing

**Description:**  
Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machinery. Requires applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

Skill Area	Median Skill Level	Minimum Skill Level	Maximum Skill Level	Numb Profil
Applied Mathematics		4	3	7
Reading for Information		4	3	5
Locating Information		4	3	6

**Welders, Cutters, Solderers, and Brazers**

**Welders, Cutters, Solderers, and Brazers**

 **Bright Outlook**

**O\*Net Code:** *(Click to open wages and additional information in a new window)*  
51-4121.00

**Clusters:** *(Click one to search all jobs in cluster)*  
Manufacturing

**Description:**  
Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or other defects in fabricated metal products.

Skill Area	Median Skill Level	Minimum Skill Level	Maximum Skill Level	Numb Profil
Applied Mathematics		3	3	4
Reading for Information		3	3	5
Locating Information		4	3	5

MACHINIST REQUIRES MATHEMATICS WORKKEYS SCORE OF 4 OR HIGHER 187 QUALIFY

WELDER REQUIRES MATHEMATICS WORKKEYS SCORE OF 3 OR HIGHER 207 QUALIFY

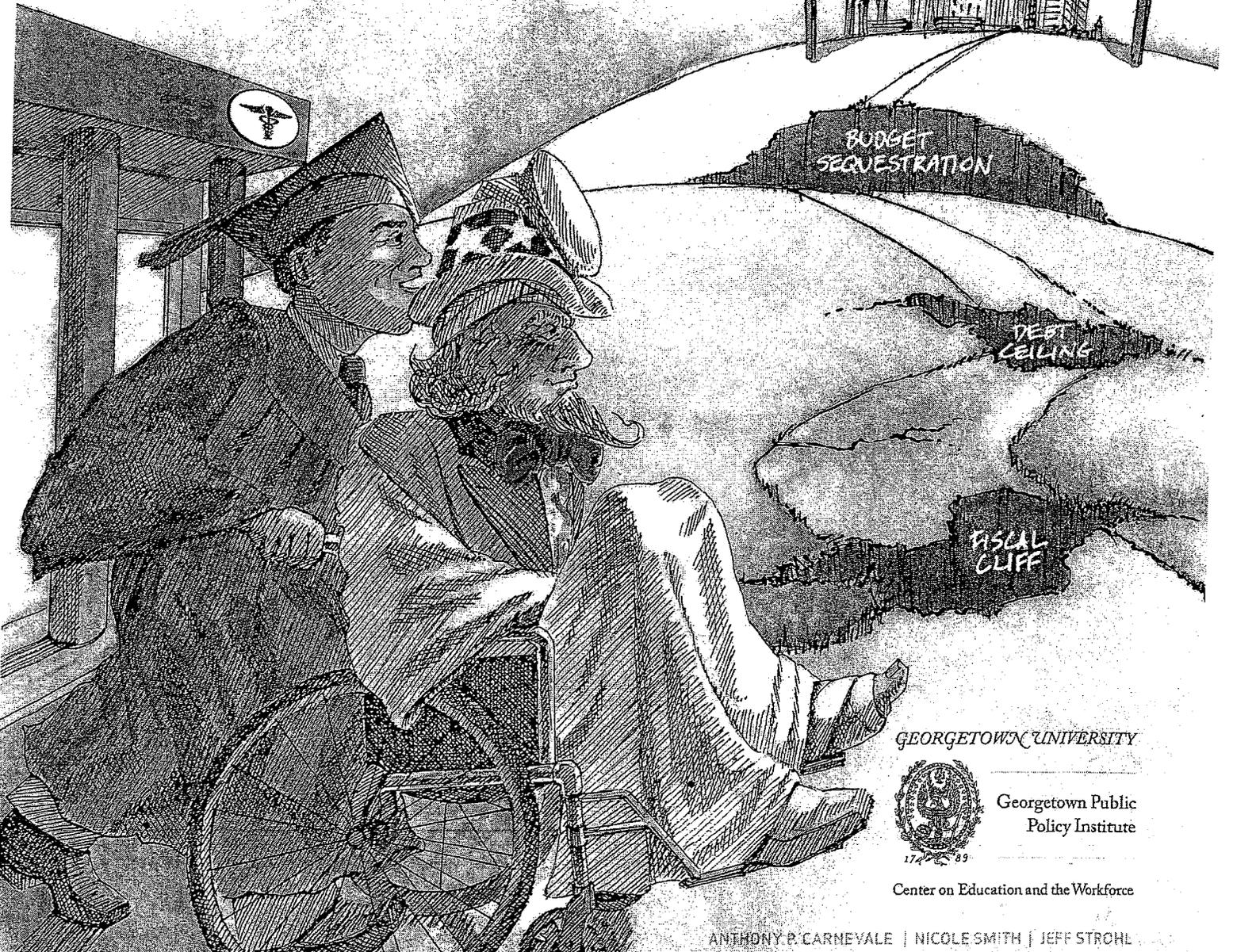
## EMPLOYABILITY SOFT SKILLS

A recent unpublished employer survey of NM employers found General Work Habits w lacking in job applicants as much as specific technical skills. Weaknesses were particularly noted (\*) in Teamwork, Customer Service, Adaptability, Negotiation, Listening and Communicating, Willingness to Learn and Problem Solving followed closely.

- Adaptability\*
- Communications, oral and written\*
- Cooperation
- Customer Service\*
- Dedication
- Dependability
- Honesty
- Innovative
- Initiative
- Integrity
- Leadership
- Loyalty
- Negotiation
- Organizing
- Motivation
- Multi tasking
- Multicultural Sensitivity
- Persistence
- Problem Solving\*
- Respectfulness
- Responsibility
- Self Development\*
- Teamwork
- Time Management

# RECOVERY

JOB GROWTH AND EDUCATION REQUIREMENTS  
THROUGH 2020



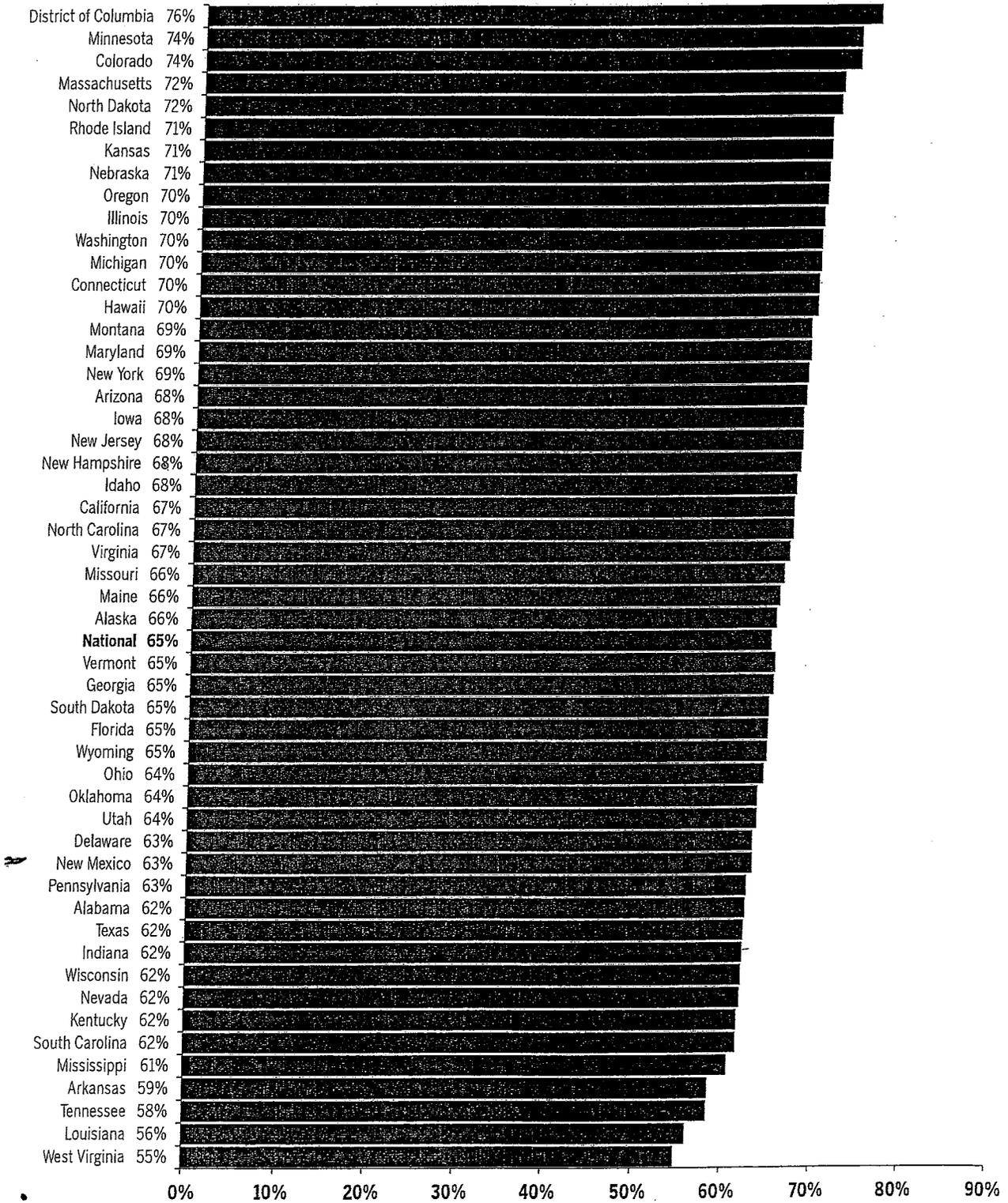
GEORGETOWN UNIVERSITY



Georgetown Public  
Policy Institute

Center on Education and the Workforce

**Figure 1: By 2020, 65 percent of jobs in the nation will require postsecondary education.**



**Charles Lehman**

**From:** Leach, Ashley, NMDWS [Ashley.Leach@state.nm.us]  
**Sent:** Tuesday, October 27, 2015 5:06 PM  
**To:** Charles-Gmail  
**Subject:** Projections Data by Education

Charles,

The following table provides employment projections data by typical minimum education required. Let me know if this satisfies your request.

I'm check with Rachel on the IO-Matrix data. I should have more information for you tomorrow.

**Projected Employment by Typical Minimum Education Required, 2012–2022  
 Eastern Region of New Mexico**

Typical Minimum Education Requirement	2012		2022	
	Employment	% of Total	Employment	% of Total
Less than high school	47,880	34.3%	55,849	35.8%
High school diploma or equivalent	56,287	40.3%	60,204	38.6%
Some college, no degree	1,576	1.1%	1,764	1.1%
Postsecondary non-degree award	8,555	6.1%	9,644	6.2%
Associate's degree	4,401	3.1%	5,026	3.2%
Bachelor's degree	17,362	12.4%	19,352	12.4%
Master's	1,777	1.3%	2,115	1.4%
Doctoral or professional degree	1,889	1.4%	2,142	1.4%
<b>TOTAL EMPLOYMENT, ALL OCCUPATIONS</b>	<b>139,727</b>	<b>100.0%</b>	<b>156,096</b>	<b>100.0%</b>

Thanks,

*Ashley*

Ashley Leach  
 Economist

NM Department of Workforce Solutions  
 Economic Research & Analysis Bureau  
 505-383-2737  
[www.dws.state.nm.us](http://www.dws.state.nm.us)  
[ashley.leach@state.nm.us](mailto:ashley.leach@state.nm.us)

**New Mexico Supply/Demand Dashboard**  
 Prototype Only - Do Not Distribute

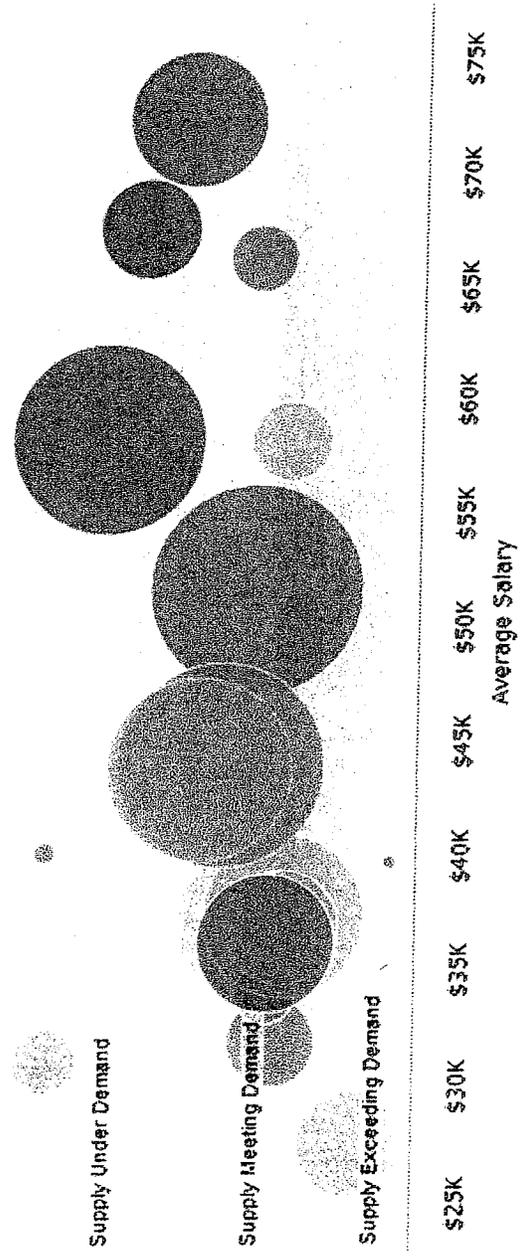
Select State Region  
 New Mexico ▼

Data Projection  
 Current  
 Future

Level of Detail  
 Major Grouping ▼

Degree Level  
 Bachelors  
 Sub-Baccalaureate

- Occupation Category
- Architecture and Engineering Occupations
  - Arts, Design, Entertainment, Sports, and Media...
  - Building and Grounds Cleaning and Maintenance...
  - Business and Financial Operations Occupations
  - Community and Social Service Occupations
  - Computer and Mathematical Occupations
  - Construction and Extraction Occupations
  - Education, Training, and Library Occupations
  - Farming, Fishing, and Forestry Occupations
  - Food Preparation and Serving Related Occupa...
  - Healthcare Practitioners and Technical Occup...
  - Legal Occupations
  - Life, Physical, and Social Science Occupations
  - Management Occupations
  - Office and Administrative Support Occupations
  - Personal Care and Service Occupations
  - Production Occupations
  - Protective Service Occupations
  - Sales and Related Occupations



\$25K \$30K \$35K \$40K \$45K \$50K \$55K \$60K \$65K \$70K \$75K  
 Average Salary

File Edit View History Bookmarks Tools Help

Address bar: https://public.tableau.com/#!/vizhome/MarkChisholm/SalaryandNumberWorking

Navigation: Home, Search, Star, Home, Refresh, Stop, Back, Forward, Print, Home, Stop, Back, Forward, Print

Navigation: GALLERY, AUTHORS, BLOG, RESOURCES, ACTIVITY, SIGN IN

1/5



## Salary and Number Working Full Time

Graph shows the median salary and number of graduates working full time. Select graduation year, number of years after graduation, award level, program detail, and institution(s). All cells with fewer than 3 members are suppressed.

Measure Nam...  
 Median Sal...  
 Number Wa...

Award Level: Bachelors Deg

Sector: (All)

Institution: (All)

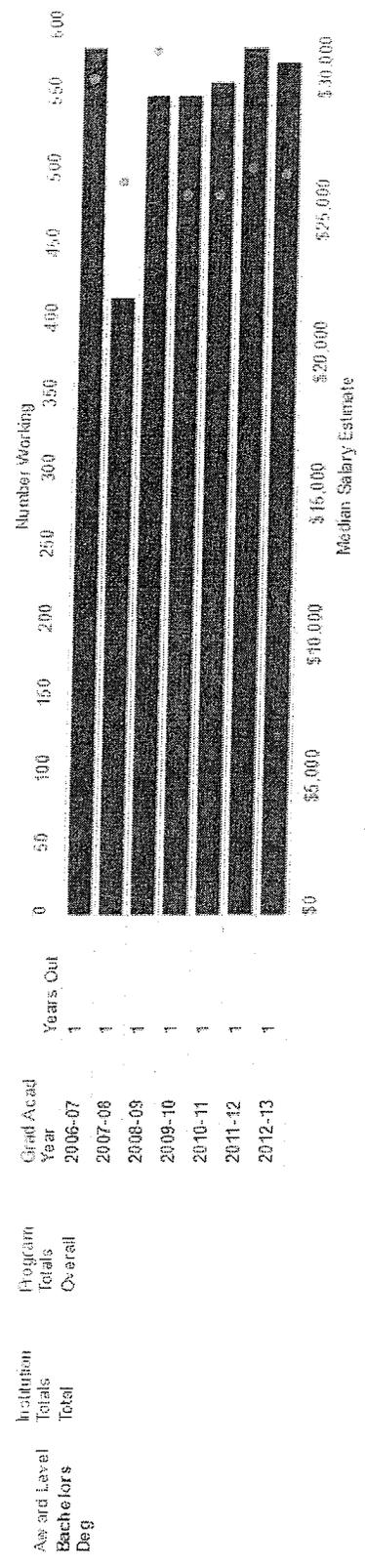
Grad Acad...: (All)

Years Out: 1

Degree Program: Education

Program Detail (CIP4): (All)

### Number and Median Salary



Mark Chisholm's Profile



## Salary and Number Working Full Time

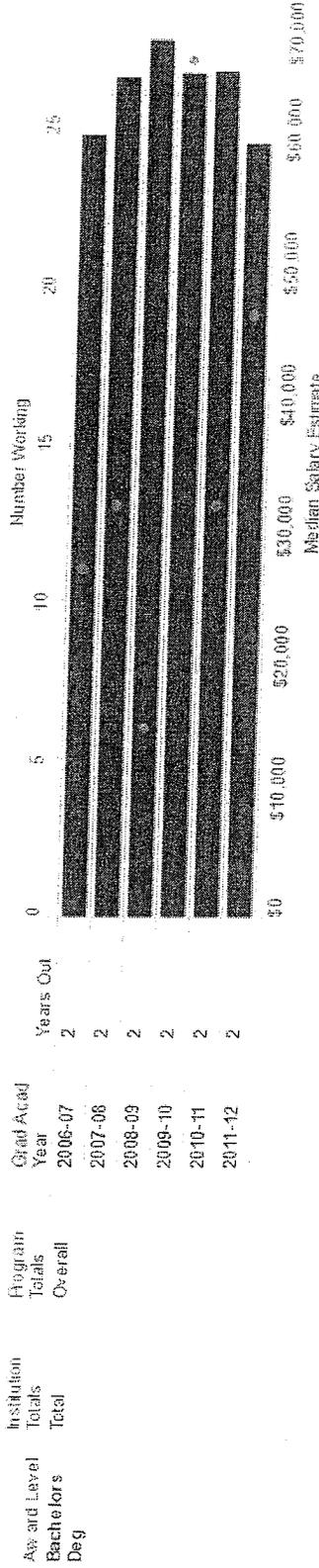
Graph shows the median salary and number of graduates working full time. Select graduation year, number of years after graduation, award level, program detail, and institution(s). All cells with fewer than 3 members are suppressed.

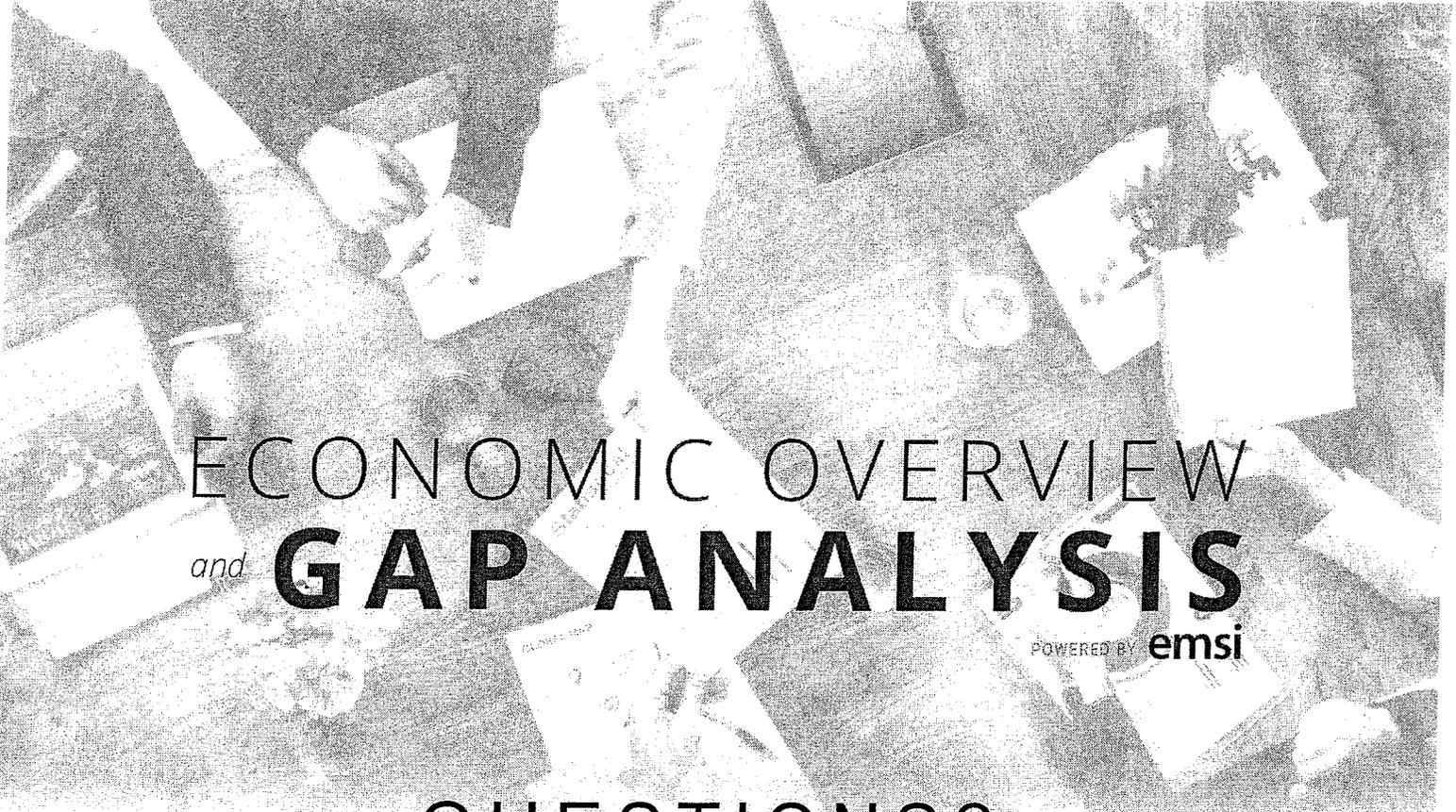
Measure Nam...  
 Median Sal...  
 Number Wo...

Award Level:  Sector:  Grad Acad...:

Institution:  Years Out:  Degree Program:  Program Detail (CIP4):

### Number and Median Salary





ECONOMIC OVERVIEW  
*and* **GAP ANALYSIS**

POWERED BY **emsi**

**QUESTIONS?**

[www.economicmodeling.com](http://www.economicmodeling.com)

208-883-3500



## AREAS OF OPPORTUNITY

SOC	SOC TITLE	AVERAGE ANNUAL OPENINGS	AVERAGE ANNUAL COMPLETERS	GAP	MEDIAN HOURLY EARNINGS	EDUCATION LEVEL
53-3032	Heavy & Tractor-Trailer Truck Drivers	57	0	57	\$16.41	Certificate
49-9071	Maintenance & Repair Workers, General	33	0	33	\$14.42	Certificate
47-2073	Operating Engineers & Other Construction Equipment Operators	21	0	21	\$16.48	Certificate
53-3022	Bus Drivers, School or Special Client	20	0	20	\$13.70	Certificate
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	15	0	15	\$13.15	Certificate
33-9032	Security Guards	14	0	14	\$11.83	Certificate
53-3033	Light Truck or Delivery Services Drivers	14	0	14	\$11.40	Certificate
33-3012	Correctional Officers & Jailers	12	0	12	\$14.08	Certificate
31-9097	Phlebotomists	11	0	11	\$11.65	Certificate
51-8031	Water & Wastewater Treatment Plant & System Operators	8	0	8	\$14.57	Certificate
51-7042	Woodworking Machine Setters, Operators & Tenders, Except Sawing	7	0	7	\$12.13	Certificate
47-2121	Glaziers	6	0	6	\$13.39	Certificate



**O\*NET OnLine**

## Summary Report for: 17-3023.03 - Electrical Engineering Technicians

Updated 2015

green

Test or modify developmental or operational electrical machinery or electrical control equipment and circuitry in industrial or commercial plants or laboratories. Usually work under direction of engineers or technologists.

**Sample of reported job titles:** Electrical Engineering Technician, Electrical Technician, Engineering Assistant, Engineering Technician, Generation Technician, Instrument and Controls Technician (I & C Technician), Relay Tester, Results Technician, Test Specialist, Test Technician

View report: **Summary** Details Custom

[Tasks](#) | [Tools & Technology](#) | [Knowledge](#) | [Skills](#) | [Abilities](#) | [Work Activities](#) | [Detailed Work Activities](#) | [Work Context](#) | [Job Zone](#) | [Education](#) | [Credentials](#) | [Interests](#) | [Work Styles](#) | [Work Values](#) | [Related Occupations](#) | [Wages & Employment](#) | [Job Openings](#) | [Additional Information](#)

### Tasks

5 of 24 displayed

- Assemble electrical systems or prototypes, using hand tools or measuring instruments.
- Build, calibrate, maintain, troubleshoot, or repair electrical instruments or testing equipment.
- Inspect electrical project work for quality control and assurance.
- Identify solutions to on-site technical design problems involving electrical systems equipment.
- Collaborate with electrical engineers or other personnel to identify, define, or solve developmental problems.

[back to top](#)

### Tools & Technology

10 of 73 displayed

Tools used in this occupation:

- Automatic soldering machine** — Desoldering stations; Soldering stations
- Electronic measuring probes** — Current probes; Voltage probes
- Frequency analyzers** — Harmonic analyzers; Radio frequency RF spectrum analyzers; Spectrum analyzers
- Signal generators** — Function generators; Radio frequency RF signal generators
- Voltage or current meters** — Digital voltmeters DVM; Voltage testers

Technology used in this occupation:

- Analytical or scientific software** — Cadence PSpice; Mentor Graphics ModelSim; Proportional integral derivative control PID software; The MathWorks MATLAB
- Computer aided design CAD software** — Autodesk AutoCAD software; Autodesk Revit; Bentley Microstation; Cadence software
- Development environment software** — C; Microsoft Visual Basic; National Instruments LabVIEW; Verilog
- Industrial control software** — Programmable logic controller PLC software; Rockwell RSLogix; Rockwell RSView; Supervisory control and data acquisition SCADA software
- Object or component oriented development software** — C++; Computer aided software engineering CASE tools

[back to top](#)

### Knowledge

5 of 8 displayed

- Computers and Electronics** — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- Engineering and Technology** — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- English Language** — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Mathematics** — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

- ⊕ **Production and Processing** — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.

[back to top](#)

## Skills

 5 of 18 displayed

- ⊕ **Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- ⊕ **Reading Comprehension** — Understanding written sentences and paragraphs in work related documents.
- ⊕ **Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- ⊕ **Complex Problem Solving** — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- ⊕ **Monitoring** — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

[back to top](#)

## Abilities

 5 of 25 displayed

- ⊕ **Problem Sensitivity** — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- ⊕ **Near Vision** — The ability to see details at close range (within a few feet of the observer).
- ⊕ **Deductive Reasoning** — The ability to apply general rules to specific problems to produce answers that make sense.
- ⊕ **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- ⊕ **Inductive Reasoning** — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).

[back to top](#)

## Work Activities

 5 of 28 displayed

- ⊕ **Interacting With Computers** — Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- ⊕ **Getting Information** — Observing, receiving, and otherwise obtaining information from all relevant sources.
- ⊕ **Making Decisions and Solving Problems** — Analyzing information and evaluating results to choose the best solution and solve problems.
- ⊕ **Communicating with Supervisors, Peers, or Subordinates** — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- ⊕ **Evaluating Information to Determine Compliance with Standards** — Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.

[back to top](#)

## Detailed Work Activities

 5 of 25 displayed

- ⊕ Interpret design or operational test results.
- ⊕ Calibrate scientific or technical equipment.
- ⊕ Document technical design details.
- ⊕ Prepare contracts, disclosures, or applications.
- ⊕ Test performance of electrical, electronic, mechanical, or integrated systems or equipment.

[back to top](#)

## Work Context

 5 of 24 displayed

- ⊕ **Electronic Mail** — 85% responded "Every day."
- ⊕ **Face-to-Face Discussions** — 72% responded "Every day."

- ⊕ **Work With Work Group or Team** — 57% responded "Extremely important."
- ⊕ **Importance of Being Exact or Accurate** — 59% responded "Extremely important."
- ⊕ **Freedom to Make Decisions** — 51% responded "Some freedom."

[back to top](#)

## Job Zone

**Title** 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 Examples** These occupations usually involve using communication and organizational skills to coordinate, supervise, manage, or train others to accomplish goals. Examples include food service managers, electricians, agricultural technicians, legal secretaries, occupational therapy assistants, and medical assistants.

**SVP Range** (6.0 to < 7.0)

[back to top](#)

## Education

Percentage of Respondents	Education Level Required
32	Post-secondary certificate
25	Associate's degree
17	Some college, no degree

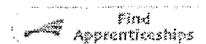
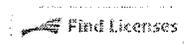
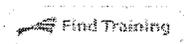
This occupation may require a background in the following science, technology, engineering, and mathematics (STEM) educational disciplines:

**Computer Science** — Computer Engineering Technology/Technician; Computer Technology/Computer Systems Technology

**Engineering** — Computer Engineering Technology/Technician; Electrical, Electronic and Communications Engineering Technology/Technician

[back to top](#)

## Credentials



[back to top](#)

## Interests

All 3 displayed

Interest code: **RIC**

- ⊕ **Realistic** — Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.
- ⊕ **Investigative** — Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.
- ⊕ **Conventional** — Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.

[back to top](#)

## Work Styles

5 of 16 displayed

- ⊕ **Attention to Detail** — Job requires being careful about detail and thorough in completing work tasks.
- ⊕ **Dependability** — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- ⊕ **Analytical Thinking** — Job requires analyzing information and using logic to address work-related issues and problems.
- ⊕ **Integrity** — Job requires being honest and ethical.
- ⊕ **Cooperation** — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.

[back to top](#)

### Work Values

All 3 displayed

- ⊕ **Support** — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.
- ⊕ **Working Conditions** — Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.
- ⊕ **Relationships** — Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are Co-workers, Moral Values and Social Service.

[back to top](#)

### Related Occupations



5 of 10 displayed

- 17-3023.01 [Electronics Engineering Technicians](#) Green
- 17-3027.00 [Mechanical Engineering Technicians](#)
- 17-3029.09 [Manufacturing Production Technicians](#) Bright Outlook
- 27-4011.00 [Audio and Video Equipment Technicians](#)
- 49-2091.00 [Avionics Technicians](#)

[back to top](#)

### Wages & Employment Trends

Median wages data collected from [Electrical and Electronic Engineering Technicians](#).  
Employment data collected from [Electrical and Electronic Engineering Technicians](#).  
Industry data collected from [Electrical and Electronic Engineering Technicians](#).

Median wages (2014) \$28.76 hourly, \$59,820 annual

State wages

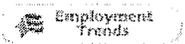


Employment (2012) 147,000 employees

Projected growth (2012-2022) Little or no change (-2% to 2%)

Projected job openings (2012-2022) 30,400

State trends

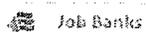
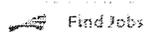


Top industries (2012) [Manufacturing](#)  
[Professional, Scientific, and Technical Services](#)

Source: Bureau of Labor Statistics [2014 wage data](#) and [2012-2022 employment projections](#). "Projected growth" represents the estimated change in total employment over the projections period (2012-2022). "Projected job openings" represent openings due to growth and replacement.

[back to top](#)

### Job Openings on the Web



[back to top](#)

### Sources of Additional Information

All 3 displayed