

2020

Labor Markets in New Mexico's Career and Technical Education Region G



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NS4ED

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Region G

Introduction

Career Technical Education (CTE) provides students of all ages with the academic and technical skills necessary to succeed in future careers and to become lifelong learners. In total, about 12.5 million high school and college students are enrolled in CTE across the nation. Funded by the Carl D. Perkins Career and Technical Education Act (Perkins), CTE prepares these learners for the world of work by introducing them to workplace competencies, and makes academic content accessible to students by providing hands-on experiences in various industry sectors.¹

More than 62,000 New Mexico students are enrolled in CTE programs, and more than 17,000 are “concentrators,” who take two or more CTE courses. CTE Concentrators graduate high school at a rate more than 23 percentage points higher than the general student body. More than half of the state’s community college students are enrolled in CTE programs, with more than 33,000 concentrating in CTE fields.

Federal legislation requires a Comprehensive Local Needs Assessment for proposed CTE programs, and the New Mexico Public Education Department commissioned this initiative to provide parameters and guidance to CTE program applicants. Our intention is to provide intelligence on regional labor markets and economic trends to inform CTE strategies that make high-quality career opportunities more available to the students we serve.

The Region

Region G comprises a number of school districts and charter schools:

- Animas
- Cobre Consolidated
- Deming
- Lordsburg Municipal
- Magdalena Municipal
- Quemado Independent
- Reserve Independent
- Silver Consolidated
- Socorro Consolidated
- Truth or Consequences Municipal
- State Charter-Aldo Leopold

Regional Education Cooperatives (RECs) exists to provide educational services to students, staff, and families of the member districts and communities. REC’s provide ancillary support and technical assistance in implementing federal and state statutes and regulations; professional development; and support for members in meeting the Public Education Department's requirements The region is served by Regional Education Cooperatives #5 and #10.

Two degree-granting postsecondary institutions serve the area: Western New Mexico University and the New Mexico Institute of Mining and Technology. The districts lie primarily in Hidalgo, Luna Grant, Socorro, Catron and Sierra Counties, all of which are within the Southwestern Workforce Region.

¹ <https://webnew.ped.state.nm.us/bureaus/college-career-readiness/career-technical-education/>

The Key Findings

The People

- CTE Region G has seen generally negative population trends over recent years, with none of the region's counties experiencing net positive growth since 2010. Combined, the region's population has decreased 6.2% since that time, including an 8.9% decline in Sierra County.
- It is notable that the population of the region is aging. Every age band has experienced significant decreases in the region since 2010, including a 21.5% decline in the critical working-age band of 40-49. The only age band to see any increase is those 65 years and older, and their ranks have swelled by a remarkable 16% in recent years.
- More than 51% of the population in the region has either a high school diploma and no college experience or some college experience and no degree.
- The percentage who hold a bachelor's degree or higher (20.4%) is significantly lower than the national average of 30.9%.

The Employers

The largest industries in the region include:

1. Government and Government Enterprises
2. Health Care and Social Assistance
3. Retail Trade
4. Accommodation and Food Service
5. Mining, Quarrying, and Oil and Gas Extraction
6. Agriculture, Forestry, Fishing and Hunting
7. Manufacturing
8. Construction

One of the unique characteristics of this region is the concentration of the *Home Health Care and Services for the Elderly and Disabled* industries. Additionally, the Copper, Nickel, Lead and Zinc Mining.

According to the New Mexico Department of Workforce Solutions, there are two organizations in the region who employ more than 500 workers.

- United States Government
- Gila Regional Medical Center

The Jobs

The occupation families with the largest projected growth include:

1. Personal Care and Service Occupations (801 new jobs)
2. Farming, Forestry and Fishing (257 new jobs)
3. Health Care Practitioners and Technical Occupations (186)
4. Installation, Maintenance and Repair (179)
5. Health Care Support (115)
6. Management (114)

This report also sought to identify “quality careers,” which are projected to grow significantly in coming years in this region and which typically pay higher-than-average wages.

Several of these Quality Careers were from the *Manufacturing and Installation, Maintenance and Repair* clusters, including Industrial Machinery Mechanics (\$60,671, 98 new jobs), Electrical Power-Line Installers/Repairers (\$60,687, 6), Welders/Cutters/Solderers/Brazers (\$50,286, 17), Water Treatment Plant and System Operators (\$34,955, 17) and Inspectors/Testers/Weighers (\$60,161, 23).

Other Quality Careers came from the Engineering cluster, including *Mining and Geological Engineers, Petroleum Engineers* and *Materials Engineers*.

The Observations

This report identifies three segments of the regional economy which can serve as a starting point for conversations about the region’s economic priorities.

Architecture and Engineering

Many of the occupations that offer both high demand and higher-than-average wages come from the Architecture and Engineering Cluster. In particular, Geological Engineers, Petroleum Engineers and Materials Engineers are projected to experience significantly increased demand. High quality career opportunities in this field exist at every level of education.

Skilled Construction Trades

The skilled construction trades offer some of the region’s most in-demand careers, with great earning potential and the prospect of a high-quality career pathway without the burden of large student debt loads. Many of these careers make use of cutting-edge technology and offer work environments and working conditions other than the interior office environments and formal processes of many other fields.

21st Century Transportation

Many of the region’s largest industries rely on an adequate transportation industry, including education, manufacturing and construction. Truck Drivers are in high demand throughout the region, and the evolution of technologies in this field mean that education and training will continue to be a primary component of readiness.

Other areas that were considered for this recommendation, but ultimately not included were:

- Mining and Natural Resources
- Advanced Manufacturing

The People

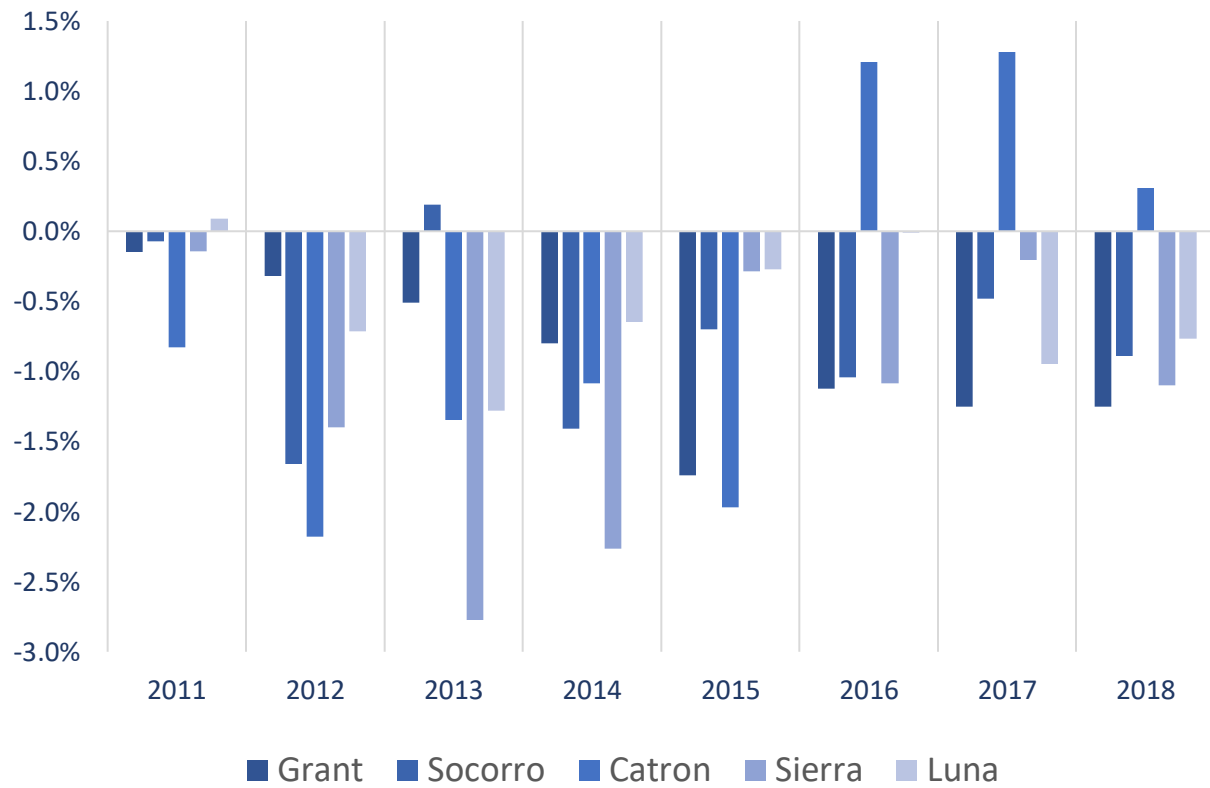
Population

There are 3,969 students enrolled in grades 9-12 across the region's ten school districts. Trends in the region's population will have an obvious effect on that enrollment and warrants regular analysis. CTE Region G has seen generally negative population trends over recent years, with none of the region's counties experiencing net positive growth since 2010. Combined, the region's population has decreased 6.2% since that time, including an 8.9% decline in Sierra County.

Table 1: Population by County, 2010-2018:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Grant	29,381	29,338	29,245	29,096	28,863	28,361	28,043	27,692	27,346
Socorro	17,789	17,776	17,481	17,514	17,267	17,146	16,967	16,885	16,735
Catron	3,750	3,719	3,638	3,589	3,550	3,480	3,522	3,567	3,578
Sierra	12,042	12,025	11,857	11,528	11,267	11,235	11,113	11,090	10,968
Luna	25,082	25,105	24,926	24,607	24,448	24,382	24,379	24,148	23,963

Population, Annual Percentage Change, by County, Region G

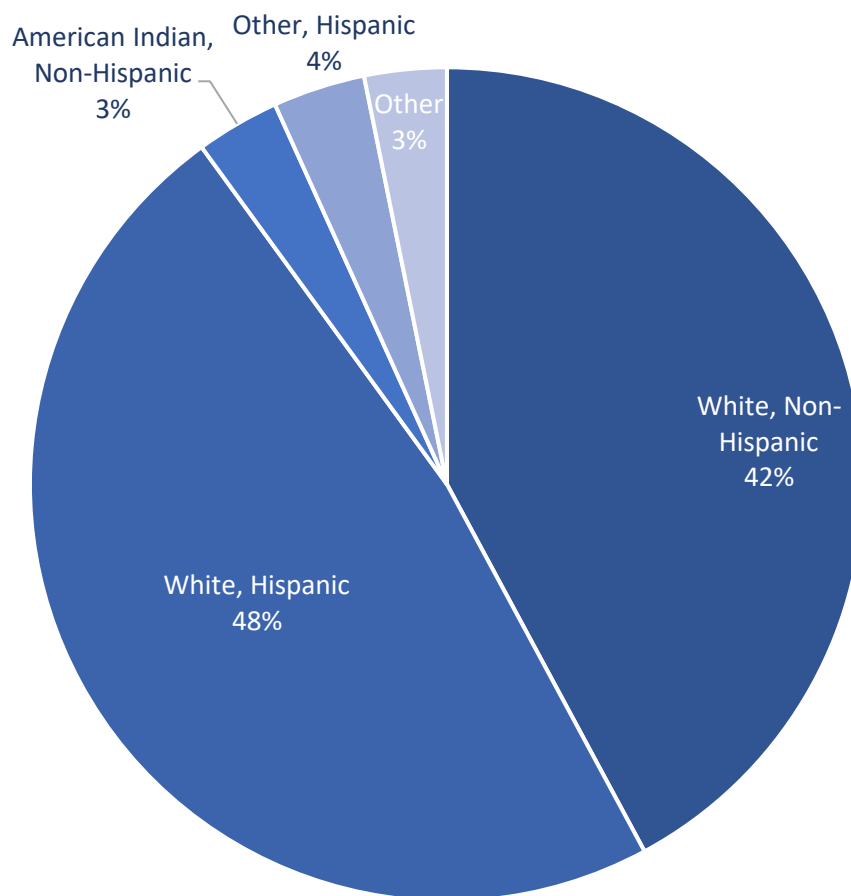


Demographics-Race and Ethnicity

Table 2: Region G Population, by Race and Ethnicity:

Race/Ethnicity	2010 Population	2018 Population	Change	% Change	2018 % of Total
White, Non-Hispanic	41,079	34,804	(6,275)	-15.3%	42.1%
White, Hispanic	40,245	39,519	(726)	-1.8%	47.8%
American Indian, Non-Hispanic	2,479	2,679	200	8.1%	3.2%
Other, Hispanic	2,220	2,954	734	33.1%	3.6%
Other	2,021	2,635	614	30.4%	3.2%

United States Census Bureau, Annual Population Estimates



Demographics-Age

It is notable that the population of the region is aging. Every age band has experienced significant decreases in the region since 2010, including a 21.5% decline in the critical working-age band of 40-49. The only age band to see any increase is those 65 years and older, and their ranks have swelled by a remarkable 16% in recent years.

Table 3: Region G Population, by Age:

Age Cohort	2010 Population	2018 Population	Change	% Change	2018 % of Cohort
Under 10	10,784	9,759	(1,025)	-9.5%	11.82%
10-19	11,486	10,011	(1,475)	-12.8%	12.12%
20-29	9,559	9,315	(244)	-2.6%	11.28%
30-39	8,260	8,237	(23)	-0.3%	9.97%
40-49	10,001	7,852	(2,149)	-21.5%	9.51%
50-64	19,460	16,056	(3,404)	-17.5%	19.44%
65+	18,490	21,360	2,870	15.5%	25.86%

United States Census Bureau, Annual Population Estimates

Demographics-Educational Attainment

Table 4: Region G Population by Educational Attainment:

Education Level	Population
Less than 9 th Grade	11.8%
9 th Grade to 12 th Grade	9.4%
High School Diploma	30.4%
Some College	21.2%
Associate's Degree	6.9%
Bachelor's Degree	12.8%
Graduate Degree or Higher	7.6%

United States Census Bureau, American Community Survey

More than 51% of the population in the region has either a high school diploma and no college experience or some college experience and no degree.

The percentage who hold a bachelor's degree or higher (20.4%) is significantly lower than the national average of 30.9%.

The Employers

To gain perspective on the businesses who employ workers in Region G, we look at data from the New Mexico Department of Workforce Solutions, in particular the *Quarterly Census of Employment and Wages*. Data from that instrument are organized according to the *North American Industry Classification System (NAICS)*, in which businesses are categorized by their primary lines of business into general industry sectors, then subdivided into more granular industry definitions. For this report, we look first at the general industry sectors, then at the detailed industries they include.

An Employment Location Quotient is an indexed value that illustrates the concentration of an industry in a particular location. An LQ of 1.0 indicates that employment in the target industry is exactly equal to the national average. An LQ of 2.0, then would indicate that employment in the target industry is double the national average.

Employment, Top Industry Sectors, Region G

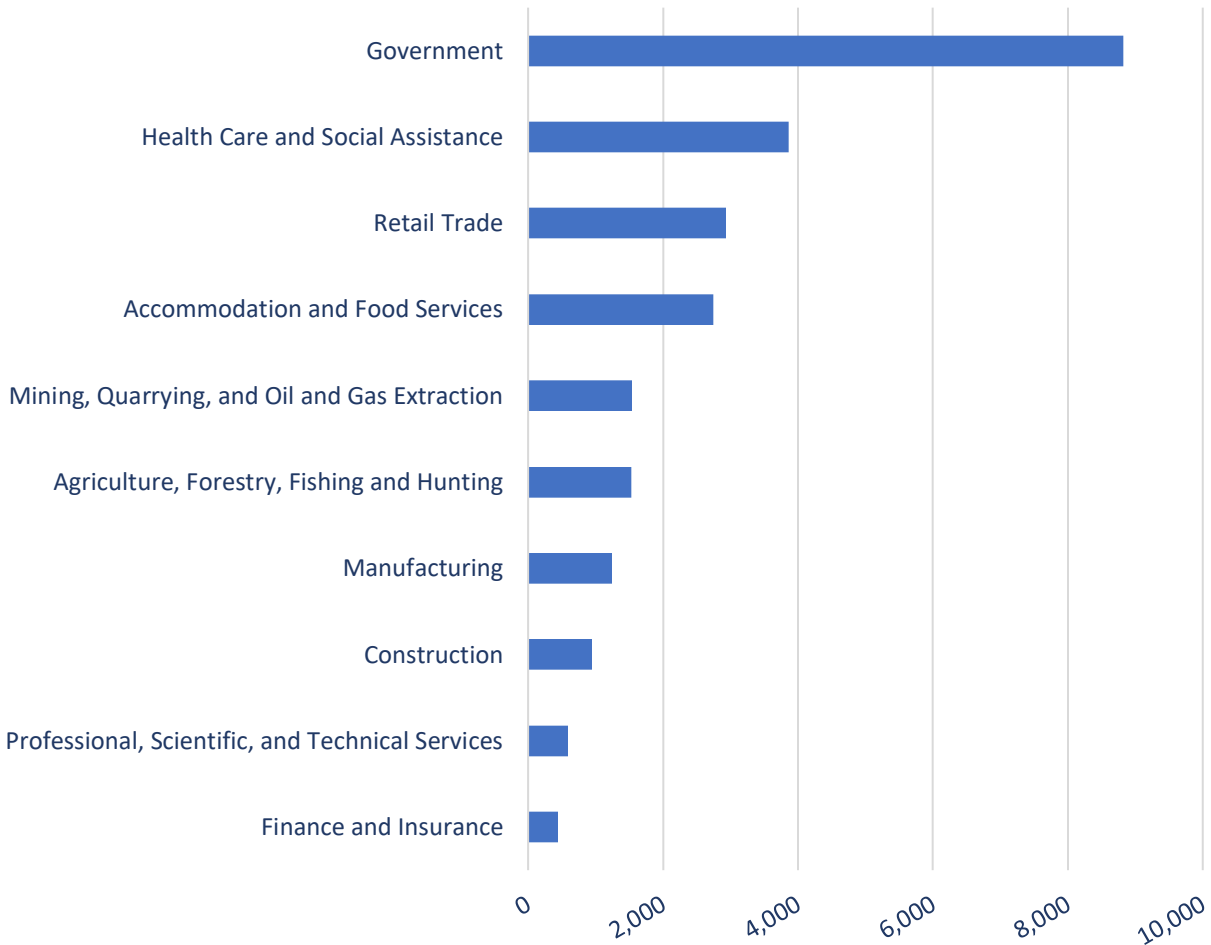


Table 5: Components of Top Industry Sectors, Region G:

Sector/Top Detailed Industries	2019 Jobs	Average Wages	Location Quotient
Government			
Education (Local Government)	2,176	\$36,368	1.53
Education (State Government)	1,882	\$35,408	3.83
Local Government, Excluding Education and Hospitals	1,840	\$34,917	1.79
State Government, Excluding Education and Hospitals	1,206	\$47,370	2.98
Health Care and Social Assistance			
Services for the Elderly and Persons with Disabilities	770	\$14,964	2.22
Home Health Care Services	676	\$15,269	2.54
General Medical and Surgical Hospitals	540	\$57,230	0.64
Offices of Physicians	470	\$57,203	1.00
Nursing Care Facilities (Skilled Nursing Facilities)	272	\$44,777	0.95
Child Day Care Services	208	\$18,574	1.24
Mining, Quarrying and Oil and Gas Extraction			
Copper, Nickel, Lead, and Zinc Mining	1,434	\$79,060	445.90
Agriculture, Forestry, Fishing and Hunting			
Support Activities for Crop Production	612	\$22,476	6.97
Animal Production	524	\$34,741	11.10
Crop Production	371	\$26,558	3.82
Construction			
Residential Building Construction	188	\$33,864	1.26
Site Preparation Contractors	155	\$42,571	2.43
Water and Sewer Line and Related Structures Construction	136	\$47,410	3.90
Electrical Contractors and Other Wiring Installation Contractors	96	\$40,131	0.55
Plumbing, Heating, and Air-Conditioning Contractors	96	\$39,615	0.47
Power/Communication Line and Related Structures Construction	76	\$68,871	2.05
Commercial and Institutional Building Construction	58	\$39,815	0.47
Highway, Street, and Bridge Construction	56	\$43,878	0.92

Sector/Top Detailed Industries	2019 Jobs	Average Earnings	Location Quotient
Professional, Scientific and Technical Services			
Research/Development-Physical, Engineering, and Life Sciences	236	\$72,624	2.05
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	82	\$35,171	0.45
Engineering Services	65	\$68,163	0.36

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Detailed Industries by County

It is also instructive to look at detailed industries in each of the counties that make up this CTE Region. In our quest to prioritize industries and occupations, one of the most valuable pieces of intelligence we can utilize is industry employment data.

Table 6: Employment by Industry, Catron County, 2019:

Catron	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Services for the Elderly and Persons with Disabilities	128	\$10,488	15.10	65%
Local Government, Excluding Education and Hospitals	117	\$32,756	4.67	N/A
Federal Government, Civilian, Excluding Postal Service	78	\$63,141	7.86	N/A
Education (Local Government)	55	\$25,871	1.58	N/A
Gasoline Stations with Convenience Stores	41	\$11,348	11.29	N/A
State Government, Excluding Education and Hospitals	16	\$43,493	1.59	N/A
Bread and Bakery Product Manufacturing	14	\$14,592	13.08	N/A
Animal Production	13	\$30,630	11.67	N/A
Petroleum Bulk Stations and Terminals	13	\$46,701	90.29	N/A
Drinking Places (Alcoholic Beverages)	13	\$9,588	7.30	N/A

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Table 7: Employment by Industry, Grant County, 2019:

Grant	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Copper, Nickel, Lead, and Zinc Mining	1,434	\$79,060	1,273.45	46.9%
Restaurants and Other Eating Places	743	\$12,906	1.10	17.9%
Education (Local Government)	723	\$33,360	1.45	48.0%
Education (State Government)	624	\$28,521	3.63	49.0%
State Government, Excluding Education and Hospitals	554	\$40,471	3.91	42.8%
Hospitals (Local Government)	536	\$59,285	12.68	56.0%
Local Government, Excluding Education and Hospitals	414	\$38,202	1.15	46.1%
Merchandise Stores, Warehouse Clubs and Supercenters	355	\$24,408	2.90	38.0%
Offices of Physicians	306	\$52,511	1.85	57.2%
Supermarkets and Other Grocery (except Convenience) Stores	169	\$23,962	1.07	41.4%

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Table 8: Employment by Industry, Sierra County, 2019:

Sierra	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Local Government, Excluding Education and Hospitals	300	\$31,147	2.34	46.3%
Restaurants and Other Eating Places	268	\$13,531	1.11	N/A
State Government, Excluding Education and Hospitals	209	\$56,473	4.13	N/A
Education (Local Government)	200	\$43,007	1.12	48.5%
Merchandise Stores, Warehouse Clubs and Supercenters	173	\$25,568	3.95	39.3%
Nursing Care Facilities (Skilled Nursing Facilities)	170	\$39,984	4.75	46.5%
General Medical and Surgical Hospitals	157	\$44,072	1.48	51.0%
Hotels (except Casino Hotels) and Motels	155	\$15,130	4.21	46.5%
Crop Production	142	\$25,048	11.63	N/A
Home Health Care Services	130	\$21,169	3.90	59.2%

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Table 8: Employment by Industry, Socorro County, 2019:

Socorro	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Education (State Government)	1,154	\$39,745	10.85	49.0%
Education (Local Government)	602	\$35,078	1.96	48.0%
Restaurants and Other Eating Places	388	\$13,944	0.93	28.4%
Services for the Elderly and Persons with Disabilities	374	\$16,183	4.98	40.6%
Local Government, Excluding Education and Hospitals	365	\$32,558	1.65	46.3%
Elementary and Secondary Schools	302	\$23,900	6.94	56.0%
Animal Production	262	\$33,064	25.69	48.9%
Research and Development in the Physical, Engineering, and Life Sciences	236	\$72,437	9.45	66.9%
Merchandise Stores, Warehouse Clubs and Supercenters	196	\$25,419	2.58	34.2%
State Government, Excluding Education and Hospitals	170	\$51,650	1.94	N/A

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Table 8: Employment by Industry, Luna County, 2019:

Luna	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Local Government, Excluding Education and Hospitals	644	\$36,294	2.21	46.1%
Education (Local Government)	596	\$40,059	1.48	48.0%
Restaurants and Other Eating Places	529	\$12,196	0.97	24.0%
Support Activities for Crop Production	441	\$18,362	17.69	60.3%
Federal Government, Civilian, Excluding Postal Service	410	\$108,015	3.54	44.1%
Fruit and Vegetable Canning, Pickling, and Drying	406	\$31,252	97.96	48.8%
Home Health Care Services	368	\$15,030	4.87	55.2%
Merchandise Stores, Warehouse Clubs and Supercenters	312	\$24,690	3.14	37.2%
State Government, Excluding Education and Hospitals	258	\$52,238	2.24	42.6%
General Medical and Surgical Hospitals	242	\$52,290	1.01	48.8%

Economic Modelling Specialists International

The Jobs

Another instrument of the New Mexico Department of Workforce Solutions that provides valuable perspective on career opportunities in this region is the *Occupational Employment Statistics Series*. Employment and wages are estimated for more than 750 occupation categories, and to evaluate growth in demand for particular occupations, we return the occupations with the largest growth since 2010.

Table 9: Occupation Employment, Region G, 2010-2019:

Description	2010 Jobs	2019 Jobs	2010 - 2019 Change	2010 - 2019 % Change	Annual Openings	Median Annual Earnings
Secretaries and Administrative Assistants	1,084	1,084	0	0%	142	\$30,074
Cashiers	964	912	(52)	(5%)	189	\$19,043
Janitors and Cleaners	642	573	(69)	(11%)	89	\$21,526
Food Prep/Serving Workers, Fast Food	639	687	48	8%	136	\$17,375
Retail Salespersons	639	558	(81)	(13%)	100	\$20,609
Waiters and Waitresses	536	554	18	3%	125	\$17,175
Office Clerks, General	504	404	(100)	(20%)	58	\$21,127
Registered Nurses	485	549	64	13%	47	\$62,311
Farmworkers-Crop, Nursery, and Greenhouse	476	609	133	28%	131	\$17,479
Postsecondary Teachers	468	421	(47)	(10%)	44	\$51,595
Elementary School Teachers	463	400	(63)	(14%)	44	\$44,891
Stock Clerks and Order Fillers	434	390	(44)	(10%)	60	\$21,861
Teacher Assistants	424	386	(38)	(9%)	50	\$18,251
Bookkeeping, Accounting, and Auditing Clerks	374	281	(93)	(25%)	39	\$32,952
Substitute Teachers	373	366	(7)	(2%)	58	\$23,413
Maintenance and Repair Workers, General	364	426	62	17%	49	\$29,026
Heavy and Tractor-Trailer Truck Drivers	304	382	78	26%	61	\$38,976
Correctional Officers and Jailers	293	252	(41)	(14%)	28	\$35,124
Personal Care Aides	291	1,082	791	272%	198	\$18,394
First-Line Supervisors of Retail Sales Workers	286	246	(40)	(14%)	32	\$30,197
Middle School Teachers	284	236	(48)	(17%)	26	\$49,788
Secondary School Teachers	284	261	(23)	(8%)	28	\$49,451
Supervisors-Office & Administrative Support	280	258	(22)	(8%)	30	\$45,992
General and Operations Managers	279	323	44	16%	34	\$78,075

Many factors go into an evaluation of a career’s potential, including demand and earning potential. The New Mexico Department of Workforce Solutions also projects changes in total employment for every occupation by 2026. The occupations that are projected to experience the largest growth and that pay wages above the region’s average are categorized here as high-quality careers, and detailed occupations are grouped into general “occupation families.”

Table 10: Projected Change, Occupations, 2016-2026, Region G:

High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
Health Care Practitioners and Technical Occupations						
Registered Nurses	485	549	64	13%	47	\$62,311
Licensed Practical & Licensed Vocational Nurses	79	78	(1)	(1%)	10	\$49,717
Radiologic Technologists	51	53	2	4%	5	\$51,781
Clinical Laboratory Technologists / Technicians	47	46	(1)	(2%)	5	\$43,498
Pharmacists	37	37	0	0%	3	\$126,412
Physical Therapists	34	48	14	41%	5	\$88,818
Speech-Language Pathologists	26	33	7	27%	3	\$69,046
Installation, Maintenance and Repair						
Industrial Machinery Mechanics	137	235	98	72%	41	\$60,671
Electrical Power-Line Installers and Repairers	60	66	6	10%	9	\$60,687
Mobile Heavy Equipment Mechanics	76	82	6	8%	14	\$54,368
Outdoor Equipment & Small Engine Mechanics	11	16	5	45%	3	\$30,515
HVAC and Refrigeration Mechanics and Installers	26	31	5	19%	4	\$39,125
Telecommunications Equipmt Installer/Repairer	29	33	4	14%	5	\$40,147
Production						
Inspectors, Testers, Sorters, Samplers, Weighers	72	95	23	32%	15	\$60,161
Welders, Cutters, Solderers, and Brazers	68	85	17	25%	14	\$50,286
Water Treatment Plant and System Operators	51	68	17	33%	8	\$34,955
Transportation and Material Moving						
Heavy and Tractor-Trailer Truck Drivers	327	415	88	27%	66	\$39,546
Light Truck or Delivery Services Drivers	106	109	3	3%	15	\$30,631

High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
Health Care Support						
Physical Therapist Assistants	13	20	7	54%	3	\$31,145
Dental Assistants	62	66	4	6%	10	\$31,079
Architecture and Engineering						
Mining and Geological Engineers	30	49	19	63%	9	\$86,380
Petroleum Engineers	12	28	16	133%	4	\$93,752
Materials Engineers	14	28	14	100%	4	\$64,034
Construction and Extraction						
Supervisors-Construction Trades and Extraction	142	175	33	23%	24	\$57,300
Electricians	110	133	23	21%	23	\$43,964
Plumbers, Pipefitters, and Steamfitters	35	40	5	14%	9	\$37,874

The Talent Development Ecosystem

Assets

CTE Region G is served by Regional Education Cooperatives #5 and #10. Postsecondary educational institutions in the region include Western New Mexico University and the New Mexico Institute of Mining and Technology.

Awards

In 2018, the most recent academic year for which data are available, 1,150 degrees and certificates were awarded by these institutions, including 111 non-degree certificates.

Workforce Equilibrium

Finally, we use a crosswalk from the United States Department of Education to estimate the balance between the region’s emerging supply of qualified talent and projected demand for workers with relevant skills. The difference between awards in a program and the aggregated number of openings in related occupations is quantified here as a “Workforce Equilibrium Value.”

Ideally, the numbers representing emerging supply will be roughly equal to projected demand. Where an imbalance exists, there may be an opportunity to expand program offerings or to encourage students and jobseekers to consider careers in these fields. The educational system thus becomes a valuable factor in not only the success of individual students, but also in the economic success of the region.

Table 11: Program Awards and Openings in Related Occupations, Region G:

Description	2018 Awards	Openings-Related Occupations	2019 Jobs	Equilibrium Value
Social Work	233	16	130	217
Welding Technology/Welder	84	15	85	69
Mechanical Engineering	76	6	37	70
Petroleum Engineering	59	6	35	53
Business Administration and Management, General	44	85	775	(41)
Registered Nursing/Registered Nurse	41	49	574	(8)
Criminal Justice/Safety Studies	37	4	44	33
Rehabilitation Science	32	49	446	(17)
Electrical, Electronic and Communications Engineering Technology/Technician	30	3	12	27
Computer Science	30	22	193	8
Psychology, General	29	6	48	23
General Studies	27	0	0	27
Chemical Engineering	24	2	16	22
Mathematics, General	22	3	25	19
Biology/Biological Sciences, General	22	7	58	15
Electrical and Electronics Engineering	20	4	22	16
Materials Engineering	19	7	44	12
Elementary Education and Teaching	18	46	421	(28)
Occupational Therapy/Therapist	16	2	19	14
Science Teacher Education/General Science Teacher Education	15	56	523	(41)
Kindergarten/Preschool Education and Teaching	15	24	173	(9)
English Language and Literature, General	15	46	422	(31)
Chemistry, General	15	5	41	10
Physics, General	15	7	58	8
Physical Sciences	14	3	24	11
Mining and Mineral Engineering	13	11	56	2

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