

2020

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



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NS4ED

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Region A

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 A comprises a number of school districts and charter schools:

- Aztec Municipal
- Bloomfield
- Central Consolidated
- Farmington Municipal
- Gallup-McKinley County
- Grants-Cibola County
- Zuni Public
- State Charter-Middle College Charter HS

Regional Education Cooperatives (REC) REC 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 Cooperative #1.

Four postsecondary institutions serve the area: San Juan College, the University of New Mexico-Gallup, Navajo Technical University, Dine College and NMSU-Grants. The districts lie primarily in San Juan, McKinley and Cibola Counties, all of which are within the Northern Workforce Region.

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

The Key Findings

The People

- Population in the region has declined slightly in recent years, and the decline is most pronounced in the school age and prime working age bands. Pronounced growth of more than 30% has occurred in those 65 years and older.
- More than 57% 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 of the population in the region who hold a bachelor's degree or higher (12.6%) 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. Mining, Quarrying, and Oil and Gas Extraction
5. Accommodation and Food Service
6. Construction

One of the unique characteristics of this region is the concentration of the *Mining & Oil/Gas Extraction* industry and the services that support it. For example, workers in this region are concentrated in the *Natural Gas Extraction* industry at a rate more than 50 times the national average.

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

- City of Farmington
- Aztec Well Servicing Company
- North American Coal
- Northern Navajo Medical Center
- Westmoreland Coal Company
- San Juan Regional Medical Center
- Navajo Agricultural Products
- Gallup Indian Medical Center
- RMCHCS Red Rock Clinic

The Jobs

The occupation families with the largest projected growth include:

1. Personal Care and Service Occupations (930 new jobs)
2. Health Care Practitioners and Technical (357)
3. Health Care Support (213)
4. Farming, Fishing and Forestry (88)
5. Management (64)

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 Health Sciences cluster, including Registered Nurses (\$65,900, 137 new jobs), Truck Drivers (\$43,798, 122 new jobs), Industrial Machinery Mechanics (\$59,037, 122 new jobs) and Occupational Health and Safety Specialists (\$74,834, 44 new jobs).

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.

Health Care

Ten of the region’s largest-growth occupations are from the Health Care Practitioners and Technical Occupations family or the Health Care Support Occupations family. Health Care businesses employ more than 12,000 people, and many of these jobs pay higher-than-average wages. Five different pathways provide a spectrum of career opportunities:

- Therapeutic Services
- Health Informatics
- Diagnostic Services
- Biotechnology Research and Development
- Support Services

Another career, Medical and Health Services Managers is one of the region’s highest-paying fields and is projected to grow by 21% in the coming years.

Business Management

A number of business and financial careers were profiled in this report, including Financial Managers, Construction Managers and Medical, Marketing Research Analysts, Human Resources Specialists and Health Services Managers. These careers are crucial to many of the region’s most critical industries. Professional, Scientific and Technical Services, Hospitals and Construction.

Industrial production technology

Manufacturers employ more than 2,000 people in this region, and accounts for 6.0% of the region’s gross regional product. Occupations like machinists and welders are in constant demand and offer high wages and valuable opportunities to develop.

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

- Skilled construction trades
- Transportation and Warehousing

The People

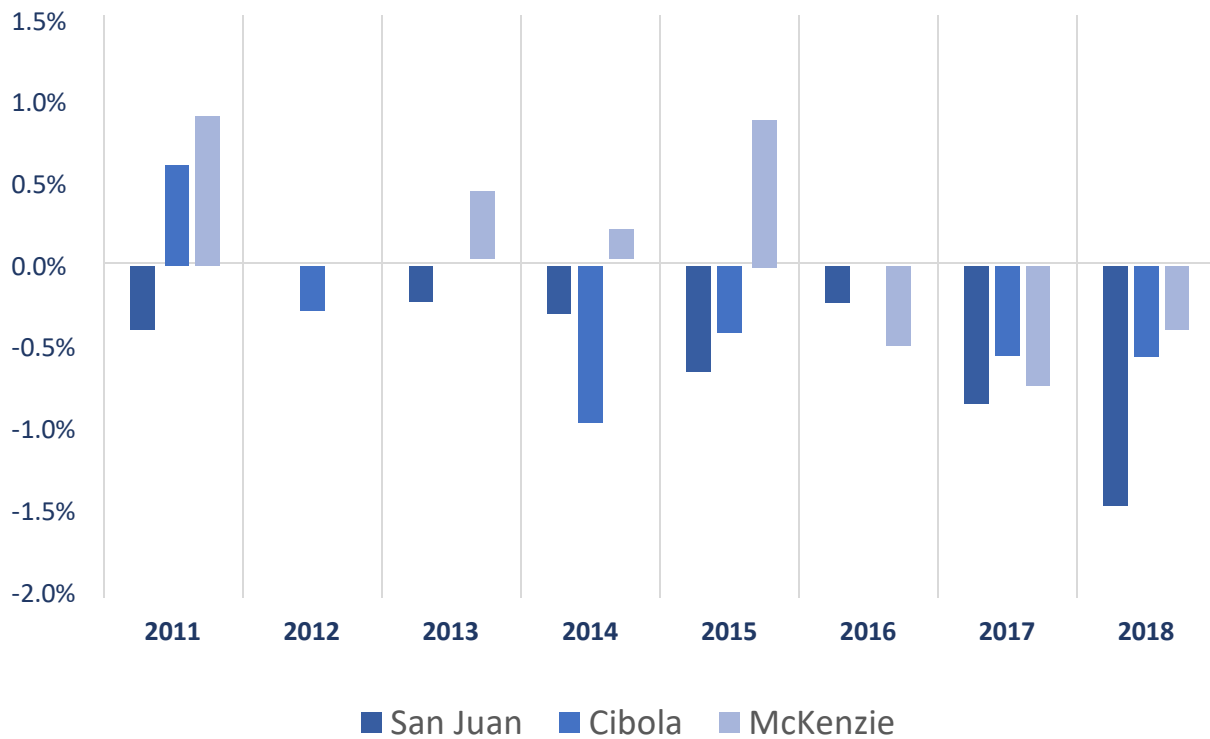
Population

There are 11,926 students enrolled in grades 9-12 across the region’s seven school districts. Trends in the region’s population will have an obvious effect on that enrollment and warrants regular analysis. CTE Region A has seen uneven population trends over recent years, with only McKinley County experiencing net positive growth since 2010. Combined, the region’s population has decreased 2.2% since that time, including a 4.0% decline in San Juan County.

Table 1: Population by County, 2010-2018:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
San Juan	130,202	129,694	129,748	129,468	129,094	128,261	127,973	126,902	125,043
Cibola	27,320	27,488	27,414	27,419	27,158	27,047	27,043	26,895	26,746
McKinley	71,672	72,328	72,374	72,674	72,807	73,461	73,106	72,574	72,290

Population, by Annual Percentage Change, by County

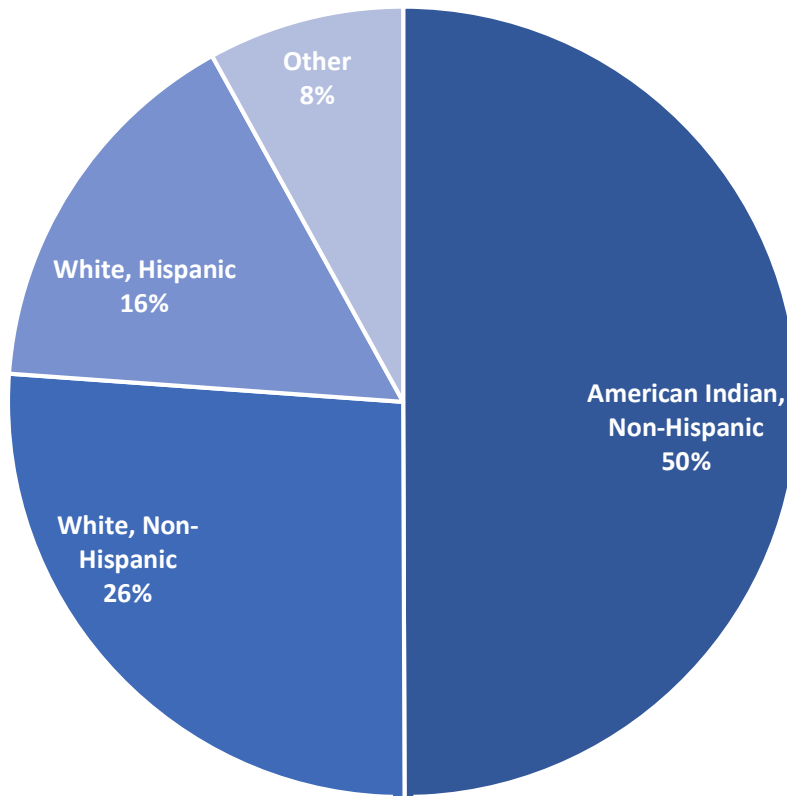


Demographics-Race and Ethnicity

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

Race/Ethnicity	2010 Population	2018 Population	Change	% Change	2018 % of Total
American Indian, Non-Hispanic	109,675	111,910	2,235	2%	49.94%
White, Non-Hispanic	68,708	58,690	(10,018)	(15%)	26.19%
White, Hispanic	36,396	35,472	(924)	(3%)	15.83%
American Indian, Hispanic	5,857	8,453	2,596	44%	3.77%
Other, Hispanic	2,201	2,439	238	30.0%	1.09%
Other	6,352	7,105	753	41.0%	3.17%

United States Census Bureau, Annual Population Estimates



Demographics-Age

It is notable that the population of the region is aging. The youngest age bands have declined in recent years, while those 50 years and older have increased significantly.

Table 3: Region A Population, by Age:

Age Cohort	2010 Population	2018 Population	Change	% Change	2018 % of Cohort
Under 10	37,222	32,389	-4,833	-13.0%	14.5%
19-Oct	36,796	33,583	-3,213	-8.7%	15.0%
20-29	32,048	30,610	-1,438	-4.5%	13.7%
30-39	28,349	29,712	1,363	4.8%	13.3%
40-49	29,173	25,159	-4,014	-13.8%	11.2%
50-64	25,006	28,101	3,095	12.4%	12.5%
65 and over	5,869	7,642	1,773	30.2%	3.4%

United States Census Bureau, Annual Population Estimates

Demographics-Educational Attainment

Table 4: Region A Population by Educational Attainment:

Education Level	Population
Less than 9 th Grade	8.5%
9 th Grade to 12 th Grade	11.7%
High School Diploma	33.7%
Some College	23.9%
Associate's Degree	9.6%
Bachelor's Degree	7.4%
Graduate Degree or Higher	5.2%

More than 57% 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 (12.6%) is significantly lower than the national average of 30.9%.

United States Census Bureau, American Community Survey

The Employers

To gain perspective on the businesses who employ workers in Region A, 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 A

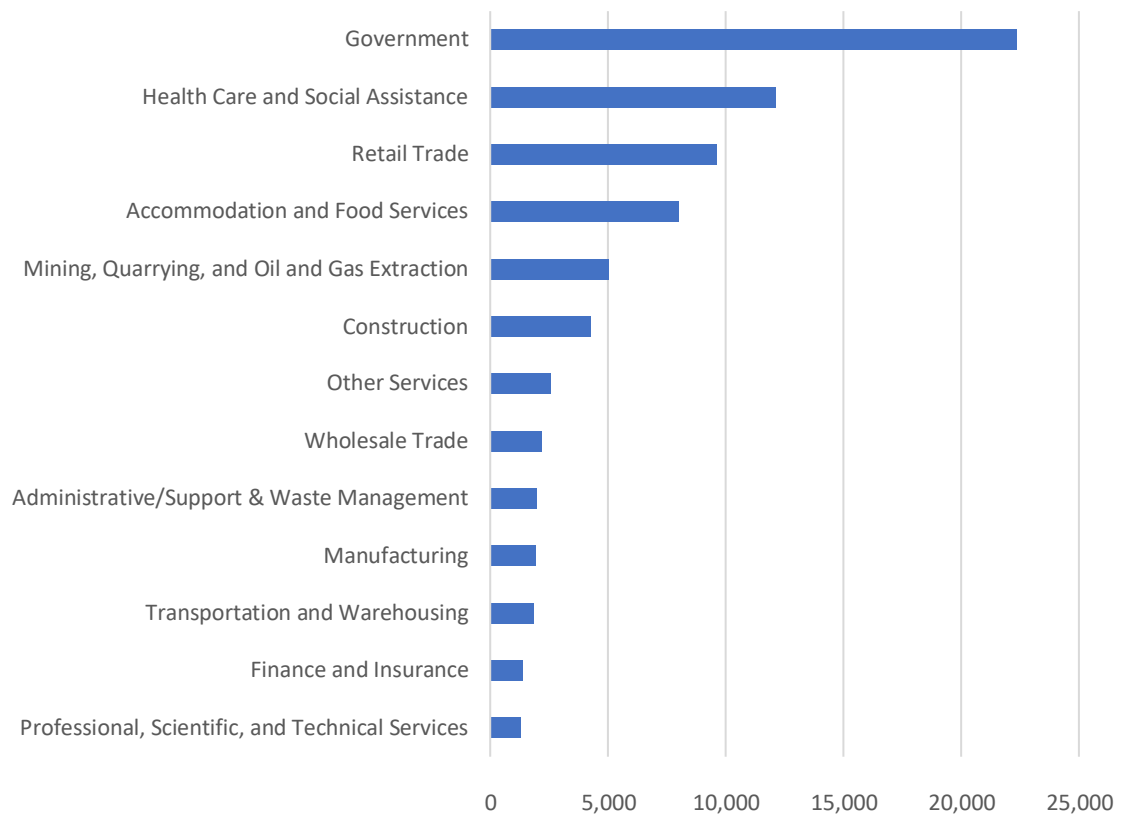


Table 5: Components of Top Industry Sectors, Region A:

Sector/Top Detailed Industries	2019 Jobs	Average Wages	Location Quotient
Government			
Education (Local Government)	8,116	\$33,615	1.99
Local Government, Excluding Education and Hospitals	7,935	\$38,933	2.69
Federal Government, Civilian, Excluding Postal Service	3,979	\$70,902	3.39
State Government, Excluding Education and Hospitals	1,043	\$48,567	.90
Health Care and Social Assistance			
General Medical and Surgical Hospitals	2,645	\$71,884	1.09
Services for the Elderly and Persons with Disabilities	2,595	\$15,076	2.63
Home Health Care Services	2,015	\$19,249	2.65
Offices of Physicians	980	\$61,449	0.73
Offices of Dentists	627	\$43,793	1.27
Nursing Care Facilities (Skilled Nursing Facilities)	573	\$33,586	0.70
Retail Trade			
General Merchandise Stores, Warehouse Clubs, Supercenters	2,006	\$24,737	1.99
Supermarkets and Other Grocery (except Convenience) Stores	1,387	\$24,073	1.07
Gasoline Stations with Convenience Stores	1,031	\$48,645	2.42
New Car Dealers	1,007	\$47,941	1.73
Department Stores	529	\$16,947	0.91
Mining, Quarrying and Oil and Gas Extraction			
Support Activities for Mining	2,865	\$72,781	16.03
Natural Gas Extraction	986	\$106,200	50.68
Coal Mining	897	\$91,539	33.94
Crude Petroleum Extraction	240	\$70,962	4.47
Accommodation and Food Services			
Restaurants and Other Eating Places	6,610	\$14,835	1.20
Hotels (except Casino Hotels) and Motels	1,118	\$16,065	1.33
Food Service Contractors	165	\$16,196	0.63

Sector/Top Detailed Industries	2019 Jobs	Average Earnings	Location Quotient
Construction			
Oil and Gas Pipeline and Related Structures Construction	1,279	\$59,766	14.37
Plumbing, Heating, and Air-Conditioning Contractors	403	\$39,223	0.69
Electrical Contractors and Other Wiring Installation Contractors	375	\$59,779	0.76
Industrial Building Construction	348	\$82,079	3.93
Commercial and Institutional Building Construction	313	\$52,218	0.90
All Other Specialty Trade Contractors	303	\$58,762	1.69
Residential Building Construction	256	\$26,237	0.60
Power/Communication Line & Related Structures Construction	253	\$78,783	2.41
Site Preparation Contractors	166	\$43,507	0.92

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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, San Juan County, 2019:

San Juan	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Education and Hospitals (Local Government)	5,456	\$30,118	1.97	52%
Local Government, Excluding Education and Hospitals	4,512	\$41,456	2.45	38%
Restaurants and Other Eating Places	3,939	\$15,208	1.14	19%
Support Activities for Mining	2,808	\$73,116	25.17	42%
General Medical and Surgical Hospitals	1,667	\$84,054	1.10	49%
Utility System Construction	1,510	\$64,306	8.25	44%
Federal Government, Civilian	1,479	\$72,372	1.60	52%
Oil and Gas Extraction	1,226	\$99,288	26.84	50%
Individual and Family Services	1,212	\$16,275	1.47	46%
General Merchandise Stores, Warehouse Clubs/Supercenters	1,053	\$24,804	1.67	36%

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

McKinley	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Federal Government, Civilian	2,418	\$69,591	5.91	51%
Restaurants and Other Eating Places	2,235	\$14,292	1.47	25%
Education and Hospitals (Local Government)	2,204	\$42,179	1.80	57%
Local Government, Excluding Education and Hospitals	1,623	\$38,851	2.00	38%
Individual and Family Services	1,220	\$14,702	3.34	49%
General Medical and Surgical Hospitals	745	\$47,502	1.12	48%
General Merchandise Stores, Warehouse Clubs/Supercenters	703	\$24,402	2.53	37%
Home Health Care Services	688	\$12,755	3.28	48%
Grocery Stores	587	\$24,599	1.54	38%
Traveler Accommodation	527	\$15,340	1.91	37%

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

Cibola	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Local Government, Excluding Education and Hospitals	1,801	\$32,687	6.09	38%
Home Health Care Services	624	\$25,627	8.18	58%
Education and Hospitals (Local Government)	456	\$34,065	1.03	57%
Restaurants and Other Eating Places	436	\$14,253	0.79	22%
Individual and Family Services	411	\$20,418	3.09	57%
State Government, Excluding Education and Hospitals	391	\$48,710	3.35	54%
Facilities Support Services	322	\$43,152	40.34	33%
Coal Mining	264	\$82,046	99.73	45%
Federal Government, Civilian	261	\$62,453	1.75	53%
General Merchandise Stores, Warehouse Clubs/Supercenters	251	\$25,393	2.48	41%

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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 A, 2010-2019:

Description	2010 Jobs	2019 Jobs	2010 - 2019 Change	2010 - 2019 % Change	Annual Openings	Median Annual Earnings
Personal Care Aides	2,088	3,836	1,748	84%	626	\$19,792
Fast Food & Combined Prep/Serving Workers	2,029	2,583	554	27%	503	\$18,025
Cooks, Restaurant	607	792	185	30%	117	\$21,345
Secretaries and Administrative Assistants	2,275	2,426	151	7%	309	\$32,541
Registered Nurses	1,304	1,441	137	11%	95	\$65,940
Supervisors-Food Preparation and Serving	704	827	123	17%	125	\$25,012
Heavy and Tractor-Trailer Truck Drivers	1,280	1,402	122	10%	193	\$43,798
Industrial Machinery Mechanics	577	699	122	21%	77	\$59,037
General and Operations Managers	1,016	1,118	102	10%	111	\$73,971
Teachers and Instructors, All Other	429	524	95	22%	69	\$63,412
Sales Representatives, Services, All Other	136	225	89	65%	33	\$53,058
Farmworkers/Laborers, Crop, Nursery..	159	244	85	53%	49	\$19,345
Customer Service Representatives	696	777	81	12%	106	\$26,931
Dental Assistants	289	356	67	23%	47	\$37,293
Supervisors-Personal Service	118	182	64	54%	21	\$32,622
Medical Assistants	298	361	63	21%	45	\$29,352
Protective Service Workers, All Other	184	238	54	29%	58	\$28,257
Medical Secretaries	346	396	50	14%	47	\$29,838
Service Unit Operators, Oil, Gas, and Mining	566	616	50	9%	115	\$63,729
Insurance Sales Agents	169	213	44	26%	27	\$36,029
Occupational Health and Safety Specialists	107	151	44	41%	12	\$74,834
Construction Managers	156	200	44	28%	23	\$97,367
Human Resources Specialists	141	185	44	31%	21	\$49,501
Workers, Farm, Ranch, Aquacultural Animals	41	81	40	98%	15	\$20,296

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 A:

High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
Health Care Practitioners Health Care Support Occupations						
Registered Nurses	1,426	1,576	150	11%	94	\$65,940
Industrial Machinery Mechanics	583	636	53	9%	68	\$59,037
Physical Therapists	79	116	37	47%	8	\$84,262
Physical Therapist Assistants	51	76	25	49%	10	\$47,510
Nurse Practitioners	54	77	23	43%	6	\$100,289
Licensed Practical & Licensed Vocational Nurses	216	237	21	10%	19	\$49,326
Physician Assistants	83	102	19	23%	7	\$112,949
Occupational Therapists	43	60	17	40%	4	\$87,964
Dental Hygienists	141	158	17	12%	11	\$77,498
Respiratory Therapists	90	104	14	16%	6	\$45,161
Management Occupations						
Medical and Health Services Managers	141	170	29	21%	15	\$93,476
Construction Managers	177	192	15	8%	17	\$97,367
Production Occupations						
Welders, Cutters, Solderers, and Brazers	486	549	63	13%	65	\$51,728
Machinists	100	141	41	41%	18	\$55,443
Supervisors-Production and Operating Workers	221	247	26	12%	26	\$70,226
Aircraft Structure, Surfaces, Systems Assemblers	30	46	16	53%	8	\$65,159
Architecture and Engineering Occupations						
Mechanical Engineers	39	61	22	56%	6	\$43,311

High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
Computer and Mathematical Occupations						
Software Developers, Applications	35	48	13	37%	4	\$113,721
Transportation and Material Moving Occupations						
Heavy and Tractor-Trailer Truck Drivers	1,302	1,387	85	7%	161	\$43,798
Construction and Extraction Occupations						
Plumbers, Pipefitters, and Steamfitters	350	371	21	6%	44	\$40,045
Supervisors-Construction Trades and Extraction	794	808	14	2%	89	\$59,391
Floor Layers	39	57	18	46%	7	\$42,540
Business and Financial Operations Occupations						
Human Resources Specialists	170	189	19	11%	20	\$49,501
Market Research Analysts/Marketing Specialists	55	79	24	44%	9	\$50,578
Financial Managers	110	126	16	15%	10	\$82,028

The Talent Development Ecosystem

Assets

CTE Region A is served by Regional Education Center #X. Postsecondary educational institutions in the region include San Juan College, Dine College, the University of New Mexico-Gallup Campus, Navajo Technical University and New Mexico State University-Grants.

Awards

In 2018, the most recent academic year for which data are available, 2,349 degrees and certificates were awarded by these institutions, including 2,010 which were awarded in programs not offered as distance education.

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 A:

Description	2018 Awards	Openings-Related Occupations	2019 Jobs	Equilibrium Value
Liberal Arts and Sciences/Liberal Studies	190	47	535	143
Welding Technology/Welder	148	65	557	83
Automobile/Automotive Mechanics Technology/Technician	143	61	633	82
Instrumentation Technology/Technician	106	0	4	106
Business Administration and Management, General	85	209	2,348	-124
Emergency Medical Technology/Technician (EMT Paramedic)	71	17	256	54
Early Childhood Education and Teaching	68	48	433	20
Carpentry/Carpenter	66	125	1,211	-59
Registered Nursing/Registered Nurse	58	94	1,441	-36
Truck & Bus Driver/Commercial Vehicle Operator & Instructor	55	264	2,294	-209
General Studies	50	0	0	50
Industrial Technology/Technician	49	1	9	48
Diesel Mechanics Technology/Technician	46	25	258	21
Social Work	44	34	335	10
Autobody/Collision and Repair Technology/Technician	44	19	187	25
Cosmetology/Cosmetologist, General	43	17	106	27
Psychology, General	42	2	30	40
Pre-Nursing Studies	38	113	1,645	-75
Criminal Justice/Police Science	37	37	521	0
Administrative Assistant and Secretarial Science, General	35	273	2,563	-238
Data Processing and Data Processing Technology/Technician	27	5	67	22
Nursing Assistant/Aide and Patient Care Assistant/Aide	26	94	783	-68
Pre-Medicine/Pre-Medical Studies	25	62	740	-37
Secondary Education and Teaching	24	42	615	-18
Fire Science/Fire-fighting	23	15	212	8
Industrial Mechanics and Maintenance Technology	23	112	1,114	-89

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