2020

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

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NS4ED

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Region E

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 E comprises a number of school districts and charter schools:

- Belen Consolidated
- Bernalillo
- Estancia Municipal
- Los Lunas
- Moriarty
- Mountainair
- Rio Rancho
- State Charter-School of Dreams
- State Charter-Robert F Kennedy

Regional Education Cooperatives (REC)s 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 #5.

Seventeen postsecondary institutions serve the area. The two largest are the University of New Mexico and Central New Mexico Community College. The districts lie primarily in Sandoval, Bernalillo, Valencia and Torrance Counties, all of which are within the Central Workforce Region.

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

The Key Findings

The People

- It is notable that the population of the region is aging. The youngest age bands have declined in recent years, while the number of those 65 years and older have increased dramatically.
- Just less than half 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 (30.4%) is slightly lower than the national average of 30.9%.

The Employers

The largest industries in the region are

1. Government and Government Enterprises
2. Health Care and Social Assistance
3. Retail Trade
4. Accommodation and Food Service
5. Professional, Scientific and Technical Services
6. Administrative and Waste Management Services
7. Construction
8. Manufacturing

One of the unique characteristics of this region is the concentration of the *Medical and Diagnostic Laboratories, which employs the region's workers at a rate 2-1/2 times the national average, and the Research and Development in the Physical, Engineering and Life Sciences* industry, which employs the region's workers at a rate approximately eight times the national average.

According to the New Mexico Department of Workforce Solutions, there are twelve organizations in the region who employ more than 1,000 workers.

- Isleta Casino and Resort
- Intel Corporation
- Albuquerque International Airport
- Albuquerque Police Department
- Tricore Reference Laboratories
- Honeywell Aerospace
- Presbyterian Healthcare Services

- Sandia Resort and Casino
- University of New Mexico School of Medicine
- Da Vita Medical Group
- Sandia Corporation
- Central New Mexico Correctional Facility

The Jobs

The occupation families with the largest projected growth include:

1. Personal Care and Service Occupations (5,595 new jobs)
2. Construction (2,995)
3. Health Care Practitioners and Technical (2,895)

4. Management (2,301)
5. Business and Financial Operations (1,773)
6. Transportation and Material Moving (1,159)
7. Health Care Support (213)

This report 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 Information Technology cluster, including Applications Developers ($80,720, 248 new jobs by 2026), Systems Analysts ($81,091, 186 new jobs), Security Analysts ($104,985, 134) and Computer and Information Research Scientists ($132,586, 78). Several other quality careers came from the Construction Cluster, including Inspectors ($56,965, 507) and Structural Iron and Steel Workers ($57,763, 4).

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.

STEM

Science, Technology, Engineering and Mathematics play an outsized role in the labor markets of this region. Health Care is a critical sector which faces challenging shortages of qualified talent in several fields. Engineering is a high-demand field, with applications in computer-oriented businesses, laboratories, research and development organizations and others. Computer occupations are some of the most high-demand, high-wage careers in the region. The evolving technological demands of these fields is blurring the lines between them. For that reason, this report identifies STEM as a priority field instead of identifying each area separately.

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.

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.

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

- Education
- 21st Century Transportation

The People

Population
There are 11,337 students enrolled in grades 9-12 across the region's nine school districts. Trends in the region's population will have an obvious effect on that enrollment and warrants regular analysis. CTE Region E has seen uneven population trends over recent years, with only Sandoval County experiencing net positive growth since every year since 2010. Combined, the region's population has increased 3.0% since that time, including a 9.6% increase in Sandoval County.

Table 1: Population by County, 2010-2018:

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sandoval	132,430	134,312	135,381	136,326	137,039	138,531	140,471	142,624	145,179
Bernalillo	663,948	670,278	673,697	676,497	676,229	676,678	678,165	678,686	678,701
Valencia	76,797	76,950	76,786	76,502	75,915	75,731	75,682	75,994	76,456
Torrance	16,399	16,443	16,153	15,825	15,669	15,608	15,515	15,593	15,591

Population, by Annual Percentage Change, by County
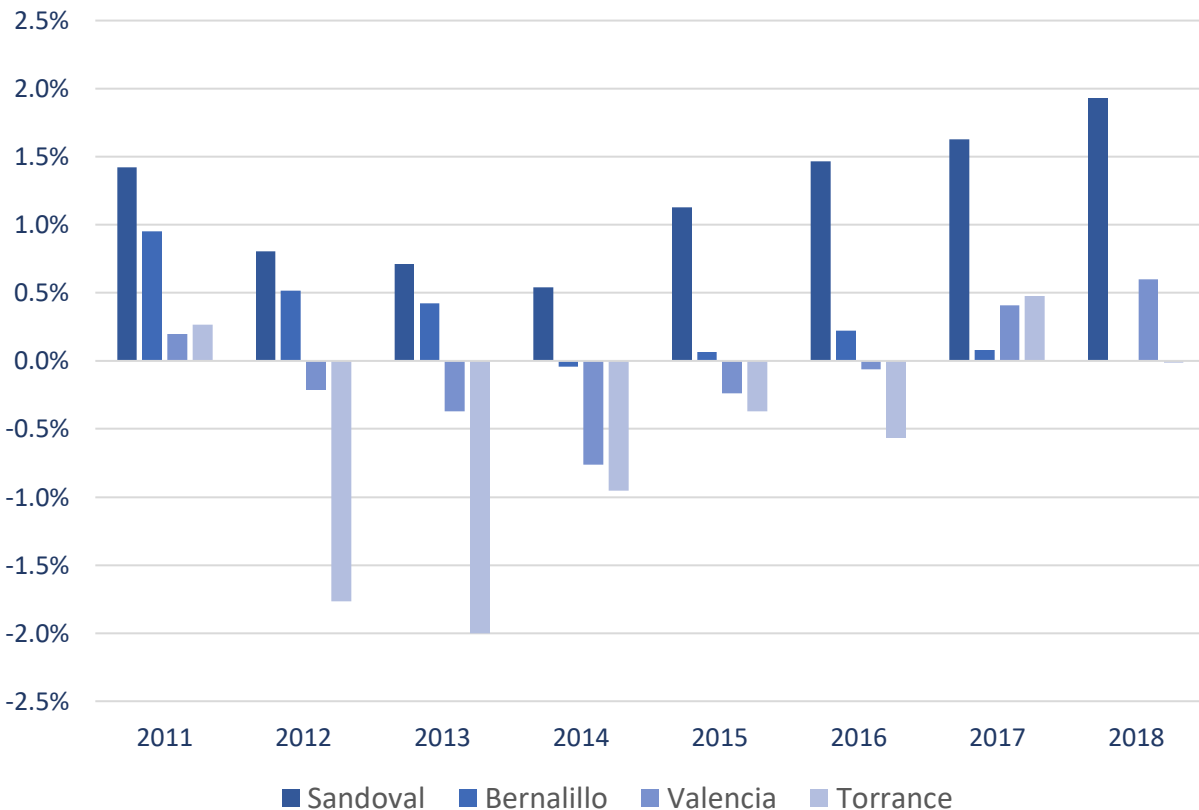
Demographics-Race and Ethnicity

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

Race/Ethnicity	2010 Population	2018 Population	Change	% Change	2018 % of Total
White, Hispanic	382,272	415,388	33,116	8.7%	42.97%
White, Non-Hispanic	376,401	354,203	(22,198)	-5.9%	42.31%
American Indian or Alaskan Native, Non-Hispanic	44,960	50,583	5,623	12.5%	5.05%
Black, Non-Hispanic	20,134	20,961	827	4.1%	2.26%
Other, Hispanic	34,133	42,093	7,960	23.3%	3.84%
Other	31,677	37,057	5,380	17.0%	3.56%

United States Census Bureau, Annual Population Estimates
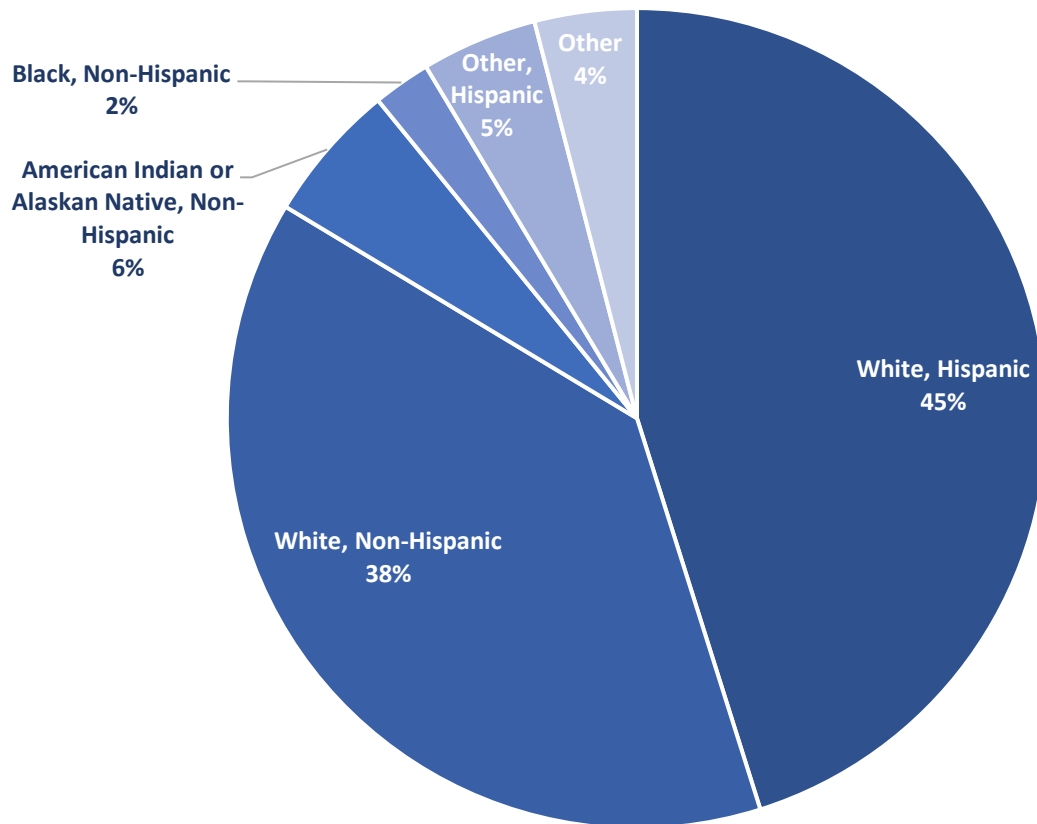
Demographics-Age

It is notable that the population of the region is aging. The youngest age bands have declined in recent years, while the number of those 65 years and older have increased dramatically.

Table 3: Region E Population, by Age:

Age Cohort	2010 Population	2018 Population	Change	% Change	2018 % of Cohort
Under 10	121,444	107,192	(14,252)	(11.7%)	11.6%
10-19	121,894	118,008	(3,886)	(3.2%)	12.8%
20-29	126,118	122,633	(3,485)	(2.8%)	13.3%
30-39	115,401	128,103	12,702	11.0%	13.9%
40-49	120,835	110,509	(10,326)	(8.5%)	12.0%
50-64	174,009	175,258	1,249	0.7%	19.0%
65+	109,874	158,583	48,709	44.3%	17.2%

United States Census Bureau, Annual Population Estimates

Demographics-Educational Attainment

Table 4: Region E Population by Educational Attainment:

Education Level	Population
Less than 9th Grade	5.3%
9th Grade to 12th Grade	7.0%
High School Diploma	25.0%
Some College	24.3%
Associate's Degree	8.0%
Bachelor's Degree	17.2%
Graduate Degree or Higher	13.2%

United States Census Bureau, American Community Survey

Just less than half 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 (30.4%) is slightly lower than the national average of 30.9%.

The Employers

To gain perspective on the businesses who employ workers in Region E, 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 indicates that industry employment is double the national rate.

Employment, Top Industry Sectors, Region E

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

Sector/Top Detailed Industries	2019 Jobs	Average Wages	Location Quotient
Government			
Local Government, Excluding Education and Hospitals	21,577	$43,505	1.45
Education (Local Government)	20,391	$35,480	0.99
Federal Government, Civilian, Excluding Postal Service	12,837	$84,420	2.16
Education (State Government)	10,903	$53,434	1.53
Hospitals (State Government)	8,464	$58,148	8.62
State Government, Excluding Education and Hospitals	7,072	$51,061	1.20
Federal Government, Military	5,620	$52,457	1.13
US Postal Service	1,563	$62,381	0.99
Health Care and Social Assistance			
General Medical and Surgical Hospitals	10,156	$68,285	0.83
Services for the Elderly and Persons with Disabilities	8,125	$18,814	1.61
Offices of Physicians	5,551	$82,337	0.81
Home Health Care Services	4,934	$25,150	1.28
Other Outpatient Care Centers	4,747	$59,270	2.71
Child Day Care Services	3,132	$23,267	1.29
Nursing Care Facilities (Skilled Nursing Facilities)	2,988	$41,047	0.72
Offices of Dentists	2,982	$48,922	1.20
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	2,751	$24,818	1.12
Medical and Diagnostic Laboratories	1,785	$58,887	2.48

Sector/Top Detailed Industries	2019 Jobs	Average Earnings	Location Quotient
Professional, Scientific and Technical			
Research/Development-Physical, Engineering, Life Science	13,343	$104,544	7.95
Computer Systems Design and Related Services	3,385	$71,940	0.60
Offices of Lawyers	3,381	$78,052	1.23
Engineering Services	3,204	$92,322	1.24
Accounting, Tax Prep, Bookkeeping, and Payroll Services	2,166	$51,607	0.82
Management Consulting Services	1,418	$74,242	0.44
Veterinary Services	1,088	$39,425	1.06
Architectural Services	628	$63,524	1.25
Environmental Consulting Services	582	$72,573	2.53
Research/Development-Social Sciences and Humanities	554	$29,067	3.34
Administrative and Waste Services			
Telephone Call Centers	6,489	$35,242	4.97
Temporary Help Services	4,060	$28,030	0.53
Janitorial Services	2,971	$15,676	1.05
Investigation, Guard, and Armored Car Services	2,756	$27,698	1.32
Construction			
Electrical Contractors, Wiring Installation Contractors	4,017	$56,819	1.60
Commercial and Institutional Building Construction	3,580	$60,139	2.02
Plumbing, Heating, and Air-Conditioning Contractors	2,851	$51,405	0.96
Residential Building Construction	2,046	$48,063	0.95
Highway, Street, and Bridge Construction	1,324	$55,032	1.48
Water/Sewer Line and Related Structures Construction	1,186	$61,476	2.35

Sector/Top Detailed Industries	2019 Jobs	Average Wages	Location Quotient
Manufacturing			
Semiconductor, Electronic Components	3,002	$97,359	3.09
Navigational…, Electromedical, and Control Instruments	954	$81,505	0.88
Pharmaceutical and Medicine	651	$53,127	0.84

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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, Sandoval County, 2019:

Sandoval	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Local Government, Excluding Education and Hospitals	4,285	$38,337	3.58	46.1%
Telephone Call Centers	3,430	$35,902	32.71	28.5%
Education (Local Government)	2,834	$41,447	1.71	48.0%
Restaurants and Other Eating Places	2,817	$16,067	1.26	19.4%
Semiconductor, Electronic Component Manufacturing	1,401	$134,796	18.00	72.8%
Merchandise Stores, Warehouse Clubs and Supercenters	938	$22,867	2.30	32.0%
General Medical and Surgical Hospitals	651	$49,513	0.66	36.9%
Religious Organizations	634	$20,377	1.77	56.3%
Services for the Elderly and Persons with Disabilities	608	$16,255	1.50	45.6%
Retirement Communities, Elderly Assisted Living Facilities	598	$24,315	3.03	41.1%

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

Bernalillo	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Restaurants and Other Eating Places	27,378	$18,299	1.12	21.8%
Local Government, Excluding Education and Hospitals	16,184	$45,329	1.25	46.1%
Education (Local Government)	15,281	$34,380	0.85	47.1%
Research/Development-Physical, Engineering, and Life Science	13,336	$104,541	9.13	50.5%
Federal Government, Civilian, Excluding Postal Service	12,545	$84,962	2.43	44.2%
Education (State Government)	10,614	$54,330	1.71	49.0%
General Medical and Surgical Hospitals	9,506	$69,571	0.89	45.3%
Hospitals (State Government)	8,464	$58,148	9.90	55.0%
Services for the Elderly and Persons with Disabilities	6,785	$19,575	1.54	45.6%
State Government, Excluding Education and Hospitals	5,782	$50,890	1.13	42.6%

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

McKinley	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Education (Local Government)	546	$34,419	3.28	48.2%
Local Government, Excluding Education and Hospitals	239	$30,289	1.98	46.4%
Restaurants and Other Eating Places	106	$13,295	0.47	N/A
Offices of Physicians	104	$65,681	1.87	N/A
Other Gasoline Stations	96	$23,501	44.95	N/A
Home Health Care Services	93	$30,860	2.98	N/A
Gasoline Stations with Convenience Stores	91	$21,981	5.25	N/A
Crop Production	88	$21,686	7.70	N/A
New Car Dealers	88	$46,725	3.70	64.8%
Services for the Elderly and Persons with Disabilities	85	$14,246	2.08	N/A

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

McKinley	2019 Jobs	Average Wages/ Earnings	Location Quotient	Age 45+
Education (Local Government)	1,730	$35,762	2.07	48.0%
Restaurants and Other Eating Places	1,466	$14,992	1.30	22.9%
State Government, Excluding Education and Hospitals	892	$54,324	3.75	42.7%
Local Government, Excluding Education and Hospitals	868	$38,653	1.44	46.1%
Merchandise Stores, Warehouse Clubs and Supercenters	735	$24,871	3.57	40.3%
General Warehousing and Storage	706	$43,785	6.39	41.6%
Services for the Elderly and Persons with Disabilities	647	$13,832	3.17	43.6%
Electrical Contractors, Other Wiring Installation Contractors	610	$69,764	5.98	42.1%
Rail Transportation	377	$98,595	16.05	40.6%
Home Centers	303	$26,276	4.08	42.2%

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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 E, 2010-2019:

Description	2010 Jobs	2019 Jobs	2010 - 2019 Change	2010 - 2019 % Change	Annual Openings	Median Annual Earnings
Chief Executives	501	268	(233)	(47%)	28	$272,923
General and Operations Managers	5,371	6,485	1,114	21%	640	$92,036
Legislators	143	122	(21)	(15%)	12	$19,903
Advertising and Promotions Managers	83	63	(20)	(24%)	7	$62,040
Marketing Managers	242	276	34	14%	29	$89,884
Sales Managers	570	572	2	0%	54	$81,682
Public Relations and Fundraising Managers	82	119	37	45%	13	$100,569
Administrative Services Managers	838	952	114	14%	92	$93,471
Computer/Information Systems Managers	512	575	63	12%	52	$100,352
Financial Managers	1,156	1,331	175	15%	116	$101,984
Industrial Production Managers	177	205	28	16%	19	$98,821
Purchasing Managers	130	128	(2)	(2%)	13	$118,627
Transportation, Storage, Distribution Mgrs	228	247	19	8%	24	$83,443
Compensation and Benefits Managers	27	15	(12)	(44%)	2	$106,505
Human Resources Managers	212	314	102	48%	35	$98,565
Training and Development Managers	66	94	28	42%	12	$103,365
Farmers, Ranchers, Agricultural Managers	105	107	2	2%	15	$63,341
Construction Managers	659	822	163	25%	73	$81,028
Preschool Education Administrators	199	194	(5)	(3%)	18	$39,467
Elementary/Secondary Education Admins	612	625	13	2%	57	$81,952
Education Administrators, Postsecondary	219	229	10	5%	22	$86,779
Education Administrators, All Other	58	76	18	31%	7	$76,760
Architectural and Engineering Managers	1,067	1,082	15	1%	93	$176,824
Food Service Managers	442	463	21	5%	56	$51,745

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 E:

High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
Construction Occupations						
Supervisors-Construction and Extraction	2,229	2,736	507	23%	324	$56,965
Construction and Building Inspectors	180	213	33	18%	28	$51,908
Service Unit Operators, Oil, Gas, Mining	26	40	14	54%	7	$70,157
Structural Iron and Steel Workers	42	46	4	10%	7	$57,763
Elevator Installers and Repairers	89	93	4	4%	13	$73,259
Rail-Track Equipment Operators	41	45	4	10%	5	$64,878
Health Care Practitioners and Technical Occupations						
Registered Nurses	9,275	10,366	1,091	12%	642	$74,527
Nurse Practitioners	391	511	120	31%	36	$112,198
Physical Therapists	579	678	99	17%	37	$92,847
Speech-Language Pathologists	391	485	94	24%	33	$65,034
Respiratory Therapists	393	481	88	22%	33	$59,740
Physician Assistants	402	484	82	20%	33	$113,077
Dental Hygienists	483	561	78	16%	43	$74,120
Diagnostic Medical Sonographers	350	428	78	22%	29	$65,805
Occupational Health and Safety Specialists	319	377	58	18%	26	$73,800
Occupational Therapists	341	397	56	16%	26	$77,822
Radiologic Technologists	597	642	45	8%	39	$59,920
Computer Occupations						
Software Developers, Applications	716	964	248	35%	84	$80,720
Computer Systems Analysts	1,009	1,195	186	18%	100	$81,091
Information Security Analysts	407	541	134	33%	48	$104,985
Computer & Information Research Scientists	270	348	78	29%	33	$132,586

High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
Business and Financial Operations Occupations						
Management Analysts	1,394	1,669	275	20%	173	$79,983
Market Analysts & Marketing Specialists	791	999	208	26%	114	$54,887
Logisticians	332	530	198	60%	67	$72,984
Accountants and Auditors	3,409	3,597	188	6%	347	$62,093
Management Occupations						
Financial Managers	1,175	1,461	286	24%	132	$92,036
Medical and Health Services Managers	781	988	207	27%	91	$101,984
Construction Managers	699	868	169	24%	77	$118,993
Computer/Information Systems Managers	513	642	129	25%	59	$81,028
Administrative Services Managers	877	999	122	14%	92	$100,352
Social and Community Service Managers	321	415	94	29%	43	$93,471
Architectural and Engineering Managers	965	1,046	81	8%	89	$64,189

The Talent Development Ecosystem

Assets
CTE Region E is served by Regional Education Center #5. Postsecondary educational institutions in the region include the University of New Mexico, Central New Mexico Community College, Pima Medical Institute, Carrington College, the University of Phoenix, Brown-Mackie College, Southwestern Indian Polytechnic Institute, National American University and the Southwest University of Visual Arts..

Awards
In 2018, the most recent academic year for which data are available, 21,353 degrees and certificates were awarded by these institutions, including 12,909 that were awarded by Central New Mexico Community College and 6,318 from the University of New Mexico-Main Campus.

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 E:

Description	2018 Awards	Openings-Related Occupations	2019 Jobs	Equilibrium Value
Business Administration and Management, General	1,238	1,483	14,768	(245)
Registered Nursing/Registered Nurse	719	642	9,422	78
Psychology, General	688	50	646	638
Medical/Clinical Assistant	374	486	3,870	(112)
Nursing Assistant/Aide and Patient Care Assistant/Aide	332	364	2,749	(32)
Biology/Biological Sciences, General	316	61	511	255
Emergency Medical Technology/Technician (EMT Paramedic)	308	107	890	201
Child Care Provider/Assistant	261	218	1,344	43
Business/Commerce, General	252	1,314	13,374	(1,062)
Computer and Information Sciences, General	206	437	4,871	(231)
Sociology	182	1	4	181
Elementary Education and Teaching	180	176	2,320	4
Accounting	166	396	4,062	(230)
Dental Assisting/Assistant	163	171	1,356	(8)
Corrections	162	192	2,044	(30)
English Language and Literature, General	160	369	4,415	(209)
Rhetoric and Composition	160	369	4,415	(209)
Spanish Language and Literature	152	23	214	129
Cosmetology/Cosmetologist, General	151	171	1,222	(20)
Accounting Technology/Technician and Bookkeeping	128	576	4,831	(448)
Mechanical Engineering	126	242	2,785	(116)
Political Science and Government, General	125	3	21	122
Phlebotomy Technician/Phlebotomist	123	61	530	62
Automobile/Automotive Mechanics Technology/Technician	116	210	2,079	(94)
Art/Art Studies, General	113	20	185	93
Law	111	120	2,106	(9)

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