SANTA FE
ADVANCE

Designing a Workforce for Economic Success

2017

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FORWARD FROM MAYOR JAVIER GONZALES

Cities across the U.S. are changing more rapidly than ever before. Led by technological advancements all cities, are seeing rapid changes, including changes in the skill requirements of its citizens to compete for the jobs of the future. Key to any city's economic development and future is jobs, job growth, and job creation.

Santa Fe attracts tourists from all over the world. People are drawn to our city's culture and beauty. It remains a unique destination. But more importantly, as Mayor, I want Santa Fe to be a promising city, a city that provides opportunity and economic advancement to its citizens. As Mayor, I have been working to redefine Santa Fe — always the beautiful and adoring "Santa Fe City Different", but also a city with promise for all citizens, a city that can not only lead New Mexico but the nation in defining the new economy of jobs. Santa Fe residents will lead Santa Fe into its future. And the youth today will be the leaders of tomorrow.

This paper points to designing an ecosystem that will provide the infrastructure to citizens that will launch Santa Fe into the future. The work will require employers, training partners, educators, and citizens to work together for a new way to work, learn, and live. As Mayor I am committed to this ecosystem and will work with each of you to assure we all succeed... together.

Mayor Javier Gonzales, February 15, 2017

Focusing on the findings of Santa Fe Advance, we will work to attract new Santa Feans while advancing pathways for citizens across our City, allowing them to understand the jobs available, get the credentials, certifications and/or post-secondary degree they desire and become a vital part of the Santa Fe economy.

– MAYOR JAVIER GONZALES

THOUGHTS FROM LEADERS

William (Bill) Smith, President & CEO, Santa Fe Community Foundation

Ensuring that our children have many options for pathways to careers is a vital part of success, not just for our children and youth, but for our city as a whole. Educational outcomes, workforce development and economic development are intrinsically linked and ultimately contribute to the wellbeing of our families and community. This makes investing in our workforce and strong career pathways in our education a sound strategy for the whole community. Santa Fe needs a strong, diverse, local workforce development plan that is aligned with local strategic industries and education. That work can only be done if we work together collectively across sectors – all of us doing our parts to create a connected and coordinated ecosystem across schools, businesses, government, andnonprofits and philanthropy. This report is a key first step to developing a comprehensive plan for economic inclusion for Santa Fe residents to help all community members thrive and grow from birth to career.

Jeff Barela, Executive Director, Northern Area Local Workforce Development Board

The Northern Area Local Workforce Development Board (NALWDB) is responsible for the administration of the Workforce Innovation and Opportunity Act (WIOA) throughout Northern New Mexico. Through our efforts we are constantly seeking various ways to approach current and future strategies and efficiencies that address the continuing modernization of the workforce system. The opportunity to partner with Santa Fe Advance to help build a Skills-Based Workforce Ecosystem is an innovative way for our organization to support our mission and improve our community. The collaborative development of this endeavor gives Santa Fe the opportunity to be a leader in both workforce and economic development in our State.

Veronica C. Garcia, Ed.D., Superintendent, SFPS

Creating pathways for our young adults is critical to the success of SFPS. Many of our youth are leaving Santa Fe for better opportunities. If they don't leave they find that the career opportunities are somewhat limited. We want to work with Santa Fe Advance to better prepare our youth for employment, education and training. Santa Fe Advance is a critical piece of work, and as Superintendent I will do everything I can to assure we work collaboratively.

Randy Grissom, President, SFCC

As the leading educational institution serving Santa Fe we are pleased to be part of Santa Fe Advance and the work ahead. As President, I am committed to new training and credentials that will expand access and learning to all citizens in Santa Fe. As education shifts across the country to meet the needs of the working learner, we are committed to assuring new avenues to learning and our continued strategies working with business and industry to meet their needs.

Ray Sandoval, Event Chair, Annual Burning of Zozobra, President, Santa Fe Hispanic Chamber of Commerce

While both of the organizations I am honored to represent (Kiwanis Club of Santa Fe and Hispanic Chamber of Commerce) work diligently in partnership with both government and local businesses to address Santa Fe's economic and cultural needs and resources, we recognize that there is still more to be done. Unless our children can grow up to be enthusiastic and financially-stable adult participants in the rich cultural life for which Santa Fe is known, our historic traditions and the lifestyle we enjoy will not endure. In closing, both the Kiwanis Club and the Hispanic Chamber appreciate this opportunity to share our Mayor's commitment to a birth-to-career economy, and we look forward to doing our part to help Santa Fe advance.

Very few Americans have four years of time and four years of money at the same time. The number of Americans who can and should avail themselves of traditional education pathways is shrinking. We have to expand opportunity for economic mobility to all.

– JAMAI BLIVIN, INNOVATE+EDUCATE

EXECUTIVE SUMMARY AND KEY FINDINGS

Building a Workforce Ecosystem for Economic Advancement

Across the country, the traditional education to employment market is failing. It is failing not only businesses but also civic leaders, educators, policymakers and most importantly, the community at large. Talent exists across cities, but the traditional methodologies of finding talent no longer works. Most importantly, the inadequate supply/demand issues for filling middle skill jobs is putting pressure on productivity of cities across the U.S., both large and small. At the heart of the issue is a real anomaly: qualified, aspiring workers remain underemployed or unemployed, while employers across industries and regions complain more than ever before that they cannot find the talent for the jobs. Economists would call this a market failure crisis. And it is stalling economic growth.

So, what does this mean to Santa Fe, New Mexico. Our answer: a great deal. This market failure is alive and real in Santa Fe. Business leaders across the region have been feeling the pain. And, so have citizens seeking employment and economic opportunity. The work of Santa Fe Advance provides business leaders a promising opportunity to work with training providers, policymakers, nonprofits and philanthropy to develop a new ecosystem for the next generation of Santa Feans. This will require a radical re-thinking of stakeholders' role in the ecosystem, and it will require significant behavior change. Most importantly, it will require a vision, a vision for Santa Fe, the City Different — to Advance.

This will require employers and community leaders to accept a leadership role for creating a new ecosystem for educating, training and advancing aspiring workers based on competencies aligned to the jobs.

The findings in this report underscore a continued need to focus on growth of targeted industries. However, we call out three core recommendations for target areas, as we believe they are interrelated and can build an **ecosystem for growth** with transferability across sectors.

Recommendation #1 – A Call for Skills

Skills are measurable, trainable and validate job readiness. Close to 90% of all jobs require the same set of core skills for job success. These core skills are the "soft skills" employers say are critical for their jobs, such as communications, critical thinking, leadership, and customer service. These core skills are important not just in the targeted strategic industries such as Healthcare & Social Assistance and Professional, Scientific & Technical sectors but broad bases of Santa Fe economy providing large employments such as Accommodation and Food Services, Public Administration, Retail Trade, Educational Services and Construction. Santa Fe Advance seeks to create a new ecosystem based on foundational core skills that will improve the Return on Investment for both the jobseeker and the employer.

Recommendation #2 – Add Skills-based Hiring

The data suggests that Santa Fe is a highly skilled region, but not a highly degreed region especially for younger workforce whose educational attainment level falls behind older populations. There is a significant misalignment in job requirements by employers and workforce skills particularly in the middle-skills category. Employers must adopt a new way to train, advance and hire talent based on skills. Santa Fe Advance will develop an ecosystem led by employers, educators and citizens to allow this ecosystem to flourish.

Recommendation #3 – A focus on Two Strategic Growth Industries

Santa Fe has a unique opportunity to develop two fast growing areas with relatively high wages and opportunities for all skill levels (low, middle and high) as they build this new ecosystem: **Healthcare & Social Assistance (i.e. Healthcare Sector)** and **Professional, Scientific & Technical Services (i.e. Innovation and Tech Sector)**. This report goes deeper into each sector and recommends strategies for focusing on these sectors, with a focus on credentials and skills for roles, while also developing a "technology and innovation" hub for Santa Fe economic growth.

All the stakeholders must also commit to contributing to a new conversation and take action. Too often, leaders talk about the need for a four-year college education, but this is not the only path to a respectable and rewarding career. Santa Fe's competitiveness rests on the shoulders of its middle-skills workforce. It is time for Santa Fe Advance.

HISTORY OF
THE CITY DIFFERENT

Santa Fe, New Mexico is the capital of the State of New Mexico and the fourth largest city in the State with approximately 70,000 full time residents. More importantly, it is the oldest capital city in North America and the oldest European community west of the Mississippi. While Santa Fe was inhabited on a very small scale in 1607, it was truly settled by the conquistador Don Pedro de Peralta in 1609-1610.

INTRODUCTION

Santa Fe, New Mexico is known worldwide for its beauty, as a hub for the arts and culture, and for its beautiful skies. Finally, everyone knows it is a great place to vacation. New Mexico is often spoken of as "the land of enchantment" or even the "land of entrapment", and Santa Fe is the reason people come to visit from across the globe.

This paper seeks to leverage the enchantment and expand the story to opportunity: opportunity for citizens of the community, as well as new talent. The area has long been involved in trade and commerce of varying sorts since as early as 1598. The area was an ideal place for settling as it was close in proximity to the Rio Grande which provided water for drinking, irrigation, and a means of defense from raids. And as the years progressed, the Santa Fe Trail trade route was established, creating a linkage from deep into Mexico to Louisiana and New York City, which then connected to London and Paris. (Myers, 2010)

Progress continued as Santa Fe remained a key city for trade and merchants. On January 6, 1912, almost 300 years after Don Pedro de Peralta settled in Santa Fe, Congress admitted New Mexico as the 47th state in the union. Once statehood was granted to New Mexico, the economy started to move toward a focus on artists and tourism due to the vast cultural heritage, dry climate, and beautiful mountain views. One of the tools that was used to facilitate Santa Fe becoming the tourist destination that it is today was the policy that was implemented after 1912 to have buildings remain true to the Spanish Pueblo Revival aesthetic (i.e. adobe). This makes Santa Fe one of the most unique and beautiful cities in the United States, hence its moniker, "The City Different".

The Economy:

While Santa Fe has remained and will most likely always remain strong in tourism and hospitality the City has struggled to grow its economy beyond tourism and the government sector. As noted in a September 2003 report (www.angeloueconomics.com/our-work/case-studies/the-city-of-santa-fe-new-mexico). This same report recognized three economic signs that Santa Fe's economy was at risk of long term deterioration. These signs were; a lack of business diversity which tied the city too closely to fluctuations in tourism and the government sector; the beginnings of urban sprawl, because of Santa Fe County growing faster than the city, meaning people will move farther outside the city to find land and lower costs for housing; and an aging population coupled with a rapidly shrinking population of individuals under 45 years old, making Santa Fe less attractive to business recruits.

Almost 14 years later, this report leverages the knowledge of the committed leaders and stakeholders of the Santa Fe Advance to identify core areas for a new ecosystem that will address these economic weaknesses with a specific lens on workforce outcomes that will provide solutions for both the citizens seeking education and employment, as well as the employers seeking talent and return on their investment in talent.

For more information on the work of Santa Fe Birth to Career Collaboration please see http://www.santafeb2c.org

A SHIFT TO COMPETENCIES IN CITIES ACROSS THE U.S.

A movement is under way across the U.S. around education, learning, training, and hiring. Learning is no longer under one roof. In addition, many U.S. citizens work full-time and are learning while they work. In 2016, the ACT Foundation released an entire strategy around the working learner. Dr. Parminder Jassal noted this research and theory in the ACT Point of View Foundation blog in October 2016. "Today, working learners are all around us. They are individuals who work for pay and are simultaneously going to school to earn a credential. Working learners are **21 million** strong with **14 million** in postsecondary education and training programs and another **7 million in high schools**. Low-income working learners suffer the most disadvantages by working and learning and we need to remove barriers so no one is left behind."

The rise of the working learner signifies a dramatic shift in how foundations, cities, companies, and educational institutions are thinking about their futures. Just like any other economy, the new learning economy operates at many different levels: global, state, regional, and local. As Santa Fe Advance considered the changing economy, there was great consideration around the need to provide more opportunities for learning, training, and most importantly, the need to connect dots between industry needs and competencies.

This shift requires a move toward skills and competency based learning and hiring, which allows the learner to focus on the skills and training most suitable to a sector or career. Pilots around this work that are connected to industry demand are happening all over the Country. This also allows citizens that are working to further expand their knowledge to advance into other fields and higher paying jobs. Competency-based learning is moving us closer toward a vision of competency-based hiring as new assessments and business models transform both the supply and demand sides of the talent pipeline.

And, it is important to note that great work is happening and underway. Santa Fe Community College (SFCC) already does an excellent job working to develop curriculum and training for companies across the region, including working with key hospitals and Los Alamos National Laboratory. In addition, SFCC has a strong pipeline of Santa Fe Public Schools (SFPS) students seeking higher education. In fact, approximately 42% (974 of 2,300) of SFPS graduates between 2010 and 2015 who went on to higher education came to SFCC. These more traditional pathways allow students to "follow their dreams". But, what about the many citizens working full time, going to school part time, and who are underemployed or unemployed? What about someone wanting to start up their own company in software design? The traditional system may not be flexible enough for those citizens. An ecosystem that allows for innovation is essential to economic growth.

The ecosystem must enable candidates to understand what they need for successful employment, as well as enabling employers the ability to better articulate the skills and credentials they need for business growth and acceleration. Working with key leaders across the City, Santa Fe Advance seeks to create an ecosystem in which businesses across the region can identify and articulate the competencies they need, assess for those competencies, and then leverage the training the exists (or could exist) to fill the jobs for citizens across the region.

In December 2016, University Ventures, Whiteboard Advisors, and Innovate+Educate released a national paper titled **SHIFT Happens — The Entrepreneurs, Wonks, and Investors Revolutionizing the Learning to Employment Landscape**. This paper indicates a great movement in front of us around where, when and how people will learn, both now and in the future. The shifts are strong, and cities like Santa Fe can be leaders in re-innovating their learning and hiring ecosystems. "The shift to competencies may soon render old concepts like 'classes and courses' — or even subject matter — obsolete, as providers combine modules of learning into pathways that are cost-effective, agile, and adaptable to the changing labor market. In the not-too-distant future, competencies will become so inextricably linked with our education and employment practices that terms like competency-based learning or hiring will become obsolete. We will simply speak learning and hiring — and find it hard to imagine a time when we did it any other way," states Ryan Craig, Managing Director, University Ventures in the paper.

One of the pivotal issues we face as a nation is that the cost of college tuition, fees, and room and board are continually on the rise; while simultaneously, median incomes are unfortunately not one the same upward trajectory. Between 1974 and 2015, tuition and room and board costs for four-year public colleges has increased by 142.1%, while median incomes increased by 17.6%. To look at this issue in a little more detail, in 1975, college costs accounted for 16.4% of median income that year, while in 2015 college costs account for 33.8% of that year's median income. What this translates to is that people that are living paycheck to paycheck cannot reasonably afford this type of financial hardship while still providing for families and living a financially sustainable life. At the same time, these individuals are being left out of the hiring equation due to their lack of educational attainment.

Jamai Blivin, CEO, Innovate+Educate states, "The data supports a critical need for a shift to hiring based on skills and competency. Very few Americans have four years of time and four years of money at the same time. The number of Americans who can and should avail themselves of traditional education pathways is shrinking. We have to expand opportunity for economic mobility to all. A shift will lift people up and give them the chance at realizing their potential and value to the economy."

So, let's look at how this can occur.

The shift to competencies may soon render old concepts like 'classes and courses' — or even subject matter — obsolete, as providers combine modules of learning into pathways that are cost-effective, agile, and adaptable to the changing labor market. In the not-too-distant future, competencies will become so inextricably linked with our education and employment practices that terms like competency-based learning or hiring will become obsolete. We will simply speak learning and hiring — and find it hard to imagine a time when we did it any other way.

– RYAN CRAIG, MANAGING DIRECTOR, UNIVERSITY VENTURES

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AN ECONOMIC FORECAST:
WHAT ARE THE GROWTH SECTORS?

We begin this journey by looking at the projected growth sectors for employment in Santa Fe. Like many cities across the U.S., the jobs are no longer just in merchant trade. Jobs are now in healthcare, scientific, arts, and services. The top ten sectors that are projected to show employment growth between 2016 and 2026 for the Santa Fe Metropolitan Service Area (MSA) are in order of demand in employment:

- Healthcare and Social Assistance;

- Educational Services;

- Construction;

- Professional, Scientific, and Technical Services;

- Finance and Insurance;

- Arts, Entertainment, and Recreation;

- Administrative and Support and Waste Management Remediation Services;

- Accommodation and Food Services;

- Wholesale Trade;

- Mining, Quarrying, and Oil and Gas Extraction.

As shown in Figure 1, It is not surprising that healthcare is a tremendous growth sector, similar to almost every city across the U.S. This is followed by Educational Services, Construction, and Professional, Scientific and Technical. We will use the term "Healthcare and Social Assistance" and "healthcare" along with "Professional, Scientific, and Technical Services" and "innovation and tech" interchangeably throughout this paper when referring to these two growth sectors. For the large Hospitality, Accommodation and Retail sectors we will use the term "service sector".

HEALTHCARE

Companies that provide goods or services relating to medicine or healthcare. The healthcare sector includes hospital management firms, health maintenance organizations (HMOs), biotechnology and a variety of medical products.

INNOVATION AND TECH

The research, development and/or distribution of technologically based goods and services. This sector contains businesses revolving around the manufacturing of electronics, creation of software, computers or products and services relating to information technology.

SERVICE

Service industry companies are involved in retail, transport, distribution, food services, as well as other service-dominated businesses. Businesses that provide services to customers rather than producing a product.

Figure 2 is a visual of average wages and average annual growth in each industry sector where the size of the bubble indicates the total employment. This is key in the recommendations for this report. In terms of total employment, three of the largest employment sectors in Santa Fe include: the service sector (which includes food, accommodation and retail); healthcare and social assistance (i.e. healthcare); and, professional, scientific and technical (i.e. innovation and tech). Each of these sectors is predicted to remain stable or display growth. Also, important to note is that wages are low (and most likely below poverty line) in the service industry, while wages are higher for healthcare and innovation and tech. For more detailed information regarding historical and projected growth for industry sectors, please reference Appendix Figure A21.

This data provides the foundation for the recommendations for the new ecosystem.

Figure 1: Total Employment Growth Demand (2016-2026)

Industry	Growth
Health Care and Social Assistance	1,816 (1.7%)
Total - All Industries	1,526 (0.2%)
Educational Services	272 (0.5%)
Construction	226 (0.6%)
Professional, Scientific, and Technical Services	192 (0.5%)
Finance and Insurance	105 (0.6%)
Arts, Entertainment, and Recreation	50 (0.2%)
Administrative and Support and Waste Management and Remediation Services	36 (0.1%)
Accommodation and Food Services	26 (0.0%)
Wholesale Trade	7 (0.1%)
Mining, Quarrying, and Oil and Gas Extraction	0 (0.0%)
Management of Companies and Enterprises	-3 (-0.1%)
Utilities	-4 (-0.2%)
Other Services (except Public Administration)	-18 (-0.1%)
Agriculture, Forestry, Fishing and Hunting	-47 (-1.0%)
Real Estate and Rental and Leasing	-48 (-0.4%)
Transportation and Warehousing	-116 (-1.3%)
Information	-156 (-1.5%)
Manufacturing	-181 (-1.7%)
Retail Trade	-196 (-0.2%)
Public Administration	-435 (-0.5%)

Source: JobsEQ – Total Employment Growth Demand (Data as of 2016 Q3)

Figure 2: NAICS 2-Digit Industry Sector Average Wages, Average Annual Projected Growth, and Employment Bubble Graph
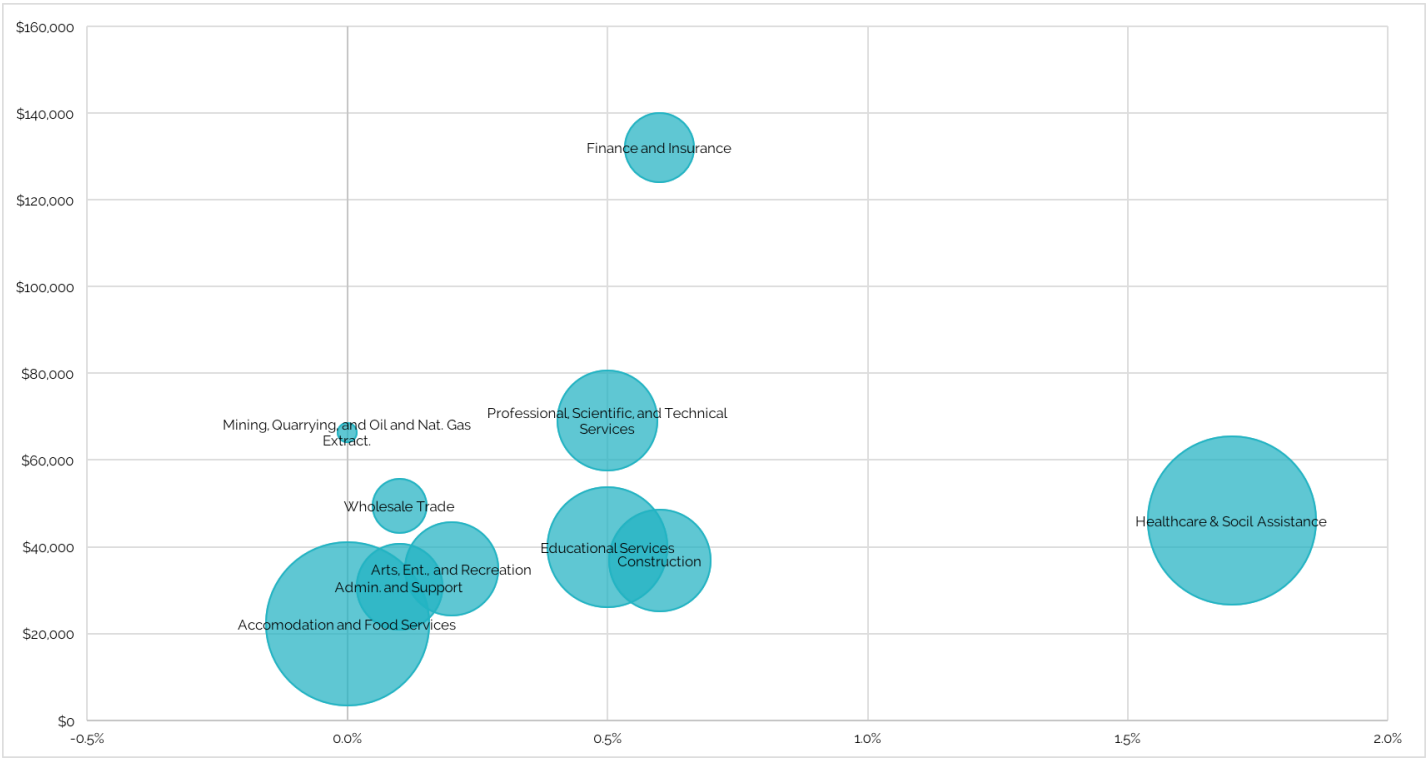
Source: JobsEQ – Total Employment Growth Demand, Santa Fe NM (Data as of 2016 Q3)

SKILLS IN DEMAND: A FOCUSED STRATEGY FOR SANTA FE TO ADVANCE

What are the required skills, who is hiring, and what are the in-demand occupations?

The above top ten growth sectors can provide a strong economy for Santa Fe over the next decade. More importantly, the skills required for these jobs are very transferable to not only the industries that exist today but for the industries that will exist that we don't even know of yet. This paper seeks to articulate a framework for economic growth around three core sectors, all building transferability for advancement and innovation. In an ecosystem that adopts a skills and competency based ecosystem, the knowledge, skills, and abilities (KSAs), as well as common work activities are critical to understand for stakeholders to align their requirements and training for the candidates (learners) to come with the skills for success.

This report looks to address key considerations for the community leadership, the citizens, and the businesses in the region. Key considerations are:

- A focus on core sectors that can have the greatest impact in 3-5 years;
- Assuring an ecosystem that provides mobility out of lower paying jobs into middle-skill jobs;
- Working with employers to understand the talent needs for their own success;
- Attracting new talent around innovation and technology;
- Assuring we have the learning resources available for these jobs;
- A strategy for working together as a community for collective impact in workforce to assure economic success for all.

According to Education Insider panel on Learning &Development predictions for 2017:

- **About 60% of Insiders predict that more companies will embrace both skills-based hiring methods and digital credentials in 2017.**

- **A majority (57%) predict that employers will increase education benefits more than traditional benefits in the coming year.**

- **Nearly three-quarters (71%) expect that partnering with outside providers will be the best strategy for companies to close the skills gap.**

RECOMMENDATION 1:
A CALL FOR SKILLS

Across the U.S. employers continue to say they are not finding the talent they need. In SHIFT Happens it is noted that working adults are in desperate need of educational experiences and credentials that can translate into better jobs and economic opportunity. The budget of navigating the world of work is not an easy task and there must be better tools for citizens to move up the economic ladder. "We know education credentials are the coin of the realm in our economy," states Rachel Carlson, Founder of Guild Education, "but employers are going to have to help employees make better decisions about when, what, and how to pursue educational experiences that will enable them to move up the economic ladder." Across the many job postings in the Santa Fe area, we know that key core skills include literacy (reading), applied math (not trigonometry but applying math in the workplace), and analysis (reading charts and diagrams, scheduling, etc). We also know that most of the job postings ask for key skills such as "customer service, teamwork, communication skills, and critical thinking." These are known as "soft skills" or "core skills." While this may be daunting to the reader, it is not as difficult as it may seem. These skills are measurable, teachable, and definable. And, there are assessments that are free of cost to New Mexico residents to assess most of these skills.

Not only are these soft skills critical but we also know that cognitive skills (reading, applied math, reading charts/diagrams) are also key skills necessary for employment success. The NM Department Workforce Solutions also believes greatly in skills. Since 2010, the State has provided workforce centers across the State a license for any candidate seeking a job to take these assessments free of charge to better match them to a job. Candidates may assess skills and receive a certificate for workforce readiness. Key employers such as City of Santa Fe Buckman Water Facility, Christus St. Vincent ,and Presbyterian Medical Services all have recognized Workkeys in their hiring processes.

So what happens when we look at a sample of skill scores of individuals across Santa Fe that completed one of the assessments (applied mathematics). Below is an analysis of 484 individuals that completed the applied mathematics assessment in Santa Fe testing centers.

What is WorkKeys®?

The ACT WorkKeys® is a skills assessment test for those who are seeking employment or are currently working for employers that place an emphasis on the National Career Readiness Certificate (NCRC), which is the credential attained by those who successfully finish the test. The assessments measure foundational and soft skills.

Three different main assessments are offered: applied mathematics, locating information, and reading for information. The goal of these assessments is to quantify "real world" skills that various employers deem are necessary to be successful employees.

WorkKeys Applied Math Analysis

Figure 3: WorkKeys Applied Math Skills Scores, Santa Fe, NM, 2014-2016

Applied Math

	Below 3	Level 3	Level 4	Level 5	Level 6	Level 7
Santa Fe, NM	4%	9%	18%	31%	26%	12%
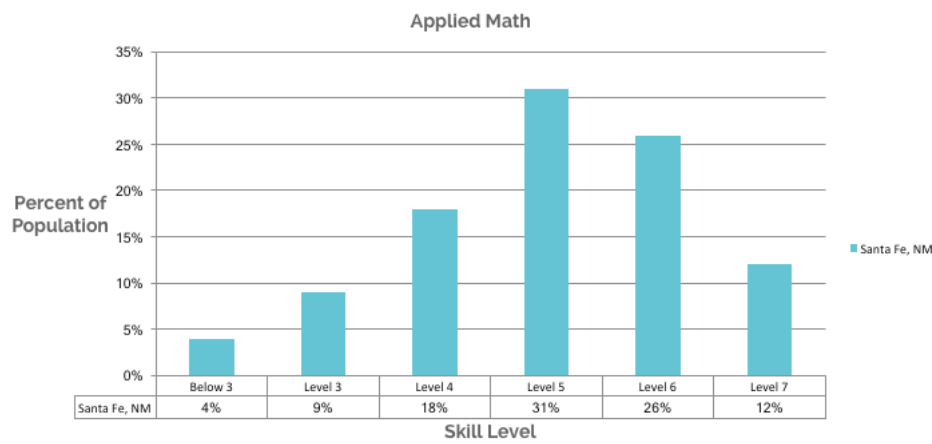
Figure 4: Santa Fe Skills Scores Compared to National Scores

	Below 3	Level 3	Level 4	Level 5	Level 6	Level 7
National(798,589)	7%	16%	22%	30%	18%	6%
Santa Fe, NM	4%	9%	18%	31%	26%	12%
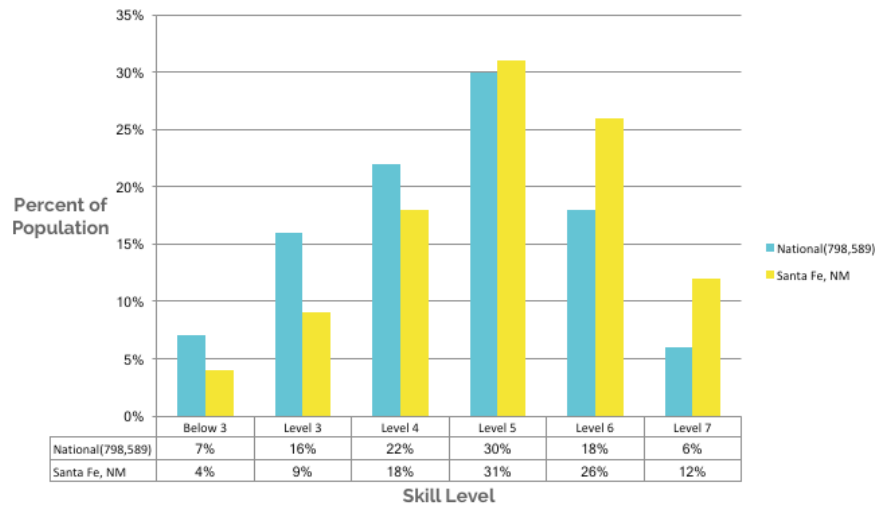
Figure 5: Santa Fe Test Scores Compared to National Job Profiles

	Below 3	Level 3	Level 4	Level 5	Level 6	Level 7
National Job Profiles(4,298)	0%	46%	36%	13%	3%	1%
Santa Fe, NM	4%	9%	18%	31%	26%	12%
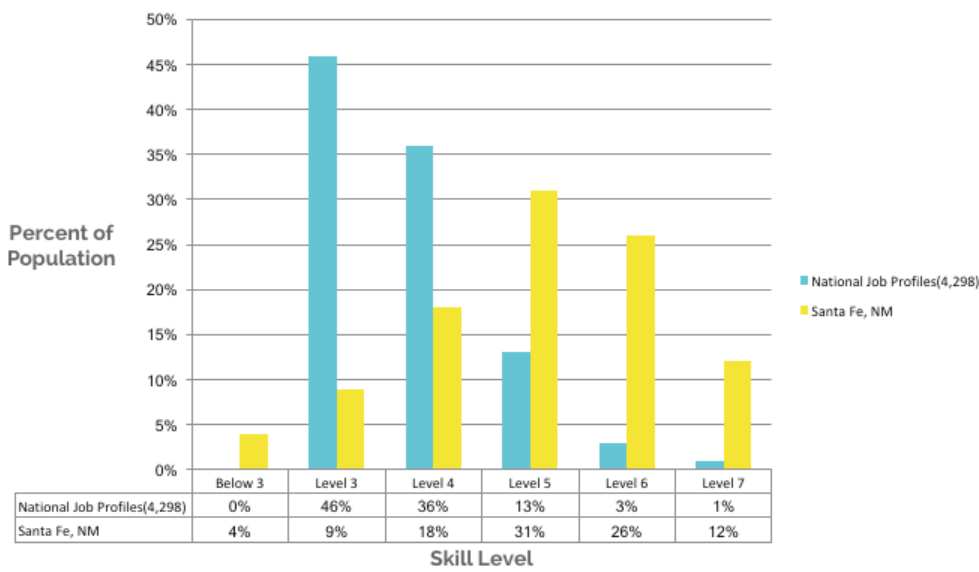
RECOMMENDATION 2:
Add Skills-based Hiring

Employers across the country are beginning to look at credentials much more aligned to skills, such as IT boot camp certifications, customer service certifications, retail supervisory certifications, and other credentials that allow one to demonstrate their skills based on training, rather than the traditional four year degree.

The data suggests that Santa Fe is a highly skilled region, but not a highly degreed region, especially for younger workforce whose educational attainment level falls behind older population. Adding a skills based hiring strategy based on training, certifications and credentials can close the gap significantly in Santa Fe, providing a boost to companies and jobseekers alike. Why is this a recommendation? The data suggests that there is a significant misalignment in job requirements by employers and workforce skills particularly in the middle-skills category. This gap will require a new ecosystem and will require employers and training partners alike to work together to shift their strategies. Santa Fe Advance will develop an ecosystem led by employers, educators and citizens to allow this ecosystem to flourish.

Overall, skills scores are above average in Santa Fe. In earlier work funded by the W. K. Kellogg Foundation (2011-2013) disconnect youth were given WorkKeys® across Santa Fe and New Mexico. The findings were similar. While only 1% of these out of school, out of work youth were eligible for employment based on a degree requirement, 33% of those same youth had the skills equivalent to a degree. Therefore, we surmise that citizens and young adults in Santa Fe do have the talent for employment based on skills. What could happen if they had better pathways and understanding of how to use those skills for full employment? And, how do we attract our citizens and new residents to expand their pathways, understand the jobs available, get the credentials, certifications and/or post-secondary degree necessary for them to advance and be part of the economy? How do we develop pathways within the high demand growth sectors that allow one to navigate their own success in a career? How do employers post and advertise jobs that reduce the barriers to entry but do not reduce their quality in talent? If employers relax their barriers that include years of experience and educational requirements and move towards a skills and competency based hiring model, more people that do not have the traditional requirements for employment will be able to compete and attain employment with higher salary ceilings. We also know that once candidates understand the pathways available to them, they will want to attain credentials/certificates and even degrees.

Therefore, designing a new ecosystem that will provide the infrastructure to citizens can launch Santa Fe into the future. This will require employers, training partners, educators, and citizens to work together for a new way to work, learn, and live. This is the work of Santa Fe Advance.

This is not to say there are no skill gaps in Santa Fe. To investigate the issue of skills gaps in the Santa Fe MSA, it is important to first understand what skills are relevant to certain sectors. Certain sectors require less to no formal education, credentials, or training, while others need moderate to extensive education, credentials, and/or training. These skills categories can be separated into three distinct categories: low-skill, middle-skill, and high-skill, detailed below.

The general definitions for the skill set criteria are as follows:

- Low-skill – Positions that require a high school diploma, but less formal education may be acceptable
- Middle-skill – Positions that generally require some significant education and/or training beyond high school but less than a bachelor's degree
- High-skill – Positions that require a minimum of a four-year degree, and may require graduate school or specialized certifications and credentials

While these general definitions are helpful, employers have used the four year degree and years of experience as the proxy for "job readiness". We propose that a more analytical, research-based, and skill-based approach should be part of the new ecosystem. In a recent report released by the Federal Reserve Bank (FRB) of Philadelphia titled "Uneven Opportunity: Exploring Employers' Educational Preferences for Middle-Skills Jobs", the FRB notes that many jobs that previously did not require a four-year degree now do. Their findings also show steeper barriers in communities/cities with a larger number of degreed citizens. The study also notes that college degree is used as a proxy due to no other way to measure. We disagree, as we know you can measure job readiness based on skills. For some occupations (e.g. IT help desk technician), the Burning Glass (2014) data finds virtually no difference in skill requirements between the set of ads requiring college degree and the set seeking a less-educated candidate. Interview and surveys suggest that some employers prefer college-educate candidates not for their technical skills or abilities, but for skills they can't seem to measure such as leadership, reliability and the ability to advance.

As Rothwell notes, "The difference in education requirements between existing jobs and open jobs means that many metro areas will have to adjust to the reality that for every retirement, layoff or expansion, the replacement jobs or new jobs will require more education. This presents a major challenge to both the supply and demand, and the many workers that cannot afford four years of college."

1 %

of unemployed
New Mexican youth
eligible if by Degree
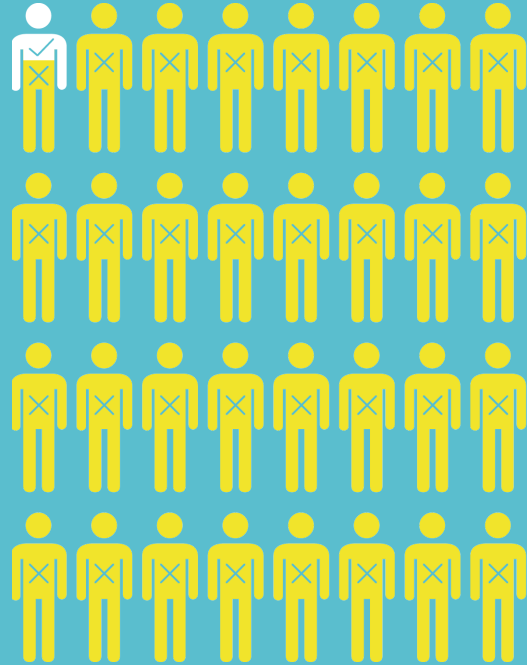
33 %

of unemployed
New Mexican youth
eligible if by Skill
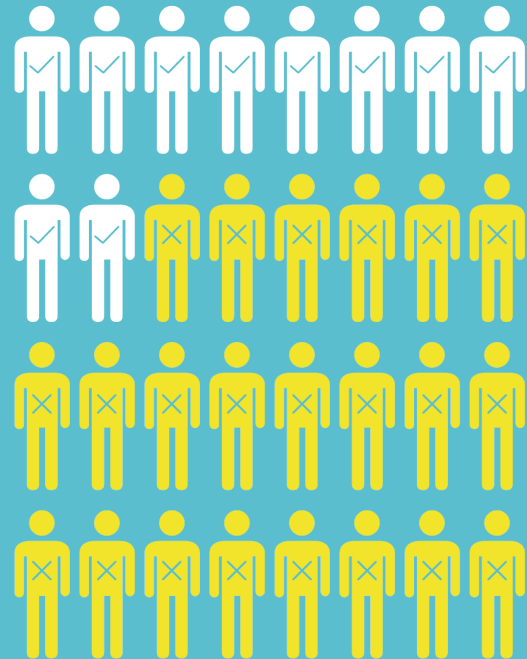
Figure 6: Santa Fe MSA Job Openings and Workforce Population by Skill Level

High: 44.1%, 18.4%
Middle: 13.3%, 30.4%
Low: 42.6%, 41.0%

■ Online Jobs Advertised by Minimum Education (%)   ■ % of Employment in Skill Category
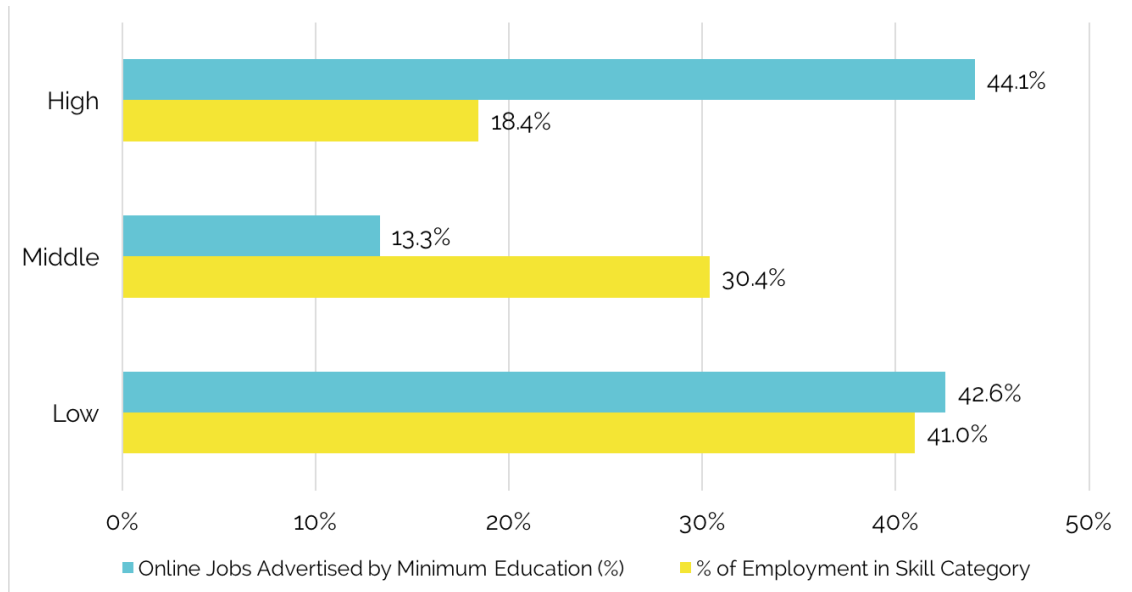
Source: Jobs EQ – Workforce Characteristics (2014 Q3)
BurningGlass Minimum Advertised Education (September 2007 – September 2016)

To illustrate the jobs and worker skill set misalignment, refer to Figure + above. The high-skill category accounted for 18.4% of the workforce, while accounting for 44.1% of job openings. This demonstrates a demand side issue where there are far more advertised jobs with minimum education requirement commensurate with high-skills than there are employed people with that level of education. When viewing the middle-skills category, the skills gap becomes more glaring. Middle-skill jobs advertised accounted for 13.3% of all advertisements that listed a minimum education, however, 30.4% percent of the MSA's workers have educational attainment at this level. There are far more people within the middle-skill sets than there are jobs advertised in this category. However, there is analysis that must be done here to assure that the misalignment is real. Are the job postings requiring barriers that are not accurate to the skills needed? Is there a way to pull some of these jobs into the middle-skill area in which there is an oversupply of workers? What would it take to close the almost 17% gap in the middle-skill area? This could be the highest Return on Investment in addressing workforce for the region, and a place that training could make an incredible impact in wages and job growth.

The low-skills category shows better alignment regarding the population with that skill level as compared to the percentage of jobs advertised requesting the equivalent level of education, with 42.6% of jobs advertised requesting either high school or vocational requirements and 41% of employees with this level of educational attainment. However, we should not ignore this sector. There is incredible opportunity to work with retail, hospitality, and the service industry (many are young adults) to assure there are incumbent pathways into higher wage jobs. Many of the core skills learned in the service industry are transferable to other industries. How do these skills become recognized and transferable? How do we reach into these jobs and find learners wanting to attend SFCC or other educational institutions, receive credentials and advance themselves?

Overall, the gap we see here is common across the U.S. This could be the result of employers requesting more education than what the position or occupation has historically required (Wardrip, Nelson, & Andreason, 2015). If employers re-evaluate their hiring practices to be more inclusive of candidates without 4 year degrees or higher and look at skills and competencies, a larger percent of the population could be re-aligned with the higher skills industry sector occupations. In doing so, a large portion of the population would be eligible for the wages that go with high-skills employment. And, they can seek training and post-secondary credentials at SFCC or other institutions to further their advancement. As we will discuss in greater detail further into this report, when viewed through the lens of skills and competencies rather than educational attainment more people can be brought into the fold when a new ecosystem is defined.

RECOMMENDATION 3:
A Focus on Two Strategic Growth Industries — Healthcare Sector and Innovation & Tech Sector

Referring back to Figure 2, Santa Fe has a unique opportunity to develop two fast growing sectors with relatively high wages and opportunities for all skill levels (low, middle and high) as they build this new ecosystem: Healthcare & Social Assistance (i.e. Healthcare Sector) and Professional, Scientific & Technical Services (i.e. Innovation and Tech Sector). This report goes deeper into each sector and recommends strategies for focusing on these sectors, with a focus on credentials and skills for roles, while also developing a "technology, entrepreneurial and innovation" hub for Santa Fe economic growth.

Healthcare

The recommendation for a strong focus on the healthcare sector is a simple one. The robustness of this sector in Santa Fe will be a vital part of successful economies across the country as the nation's population ages, and this goes the same for our community. People are living longer now as is referenced by Figure 7 below, which will put pressure on this sector to accommodate the needs of the aged. By 2050 about 20% of the population in the United States will be over the age of 65 (Ortman, Velkoff, & Hogan, 2014; Weiner, 2002). This trend in population aging will translate into needs for additional infrastructure for this sector as well as continuing employment opportunities for the foreseeable future. With baby boomers exiting the workforce en masse and the medical attention that this group will require ensures demand for occupations within this sector.

Figure 7: United States - Age by Population Group (2015 and 2050)

Age	2015 Female	2015 Male	2050 Female	2050 Male
85+	1.29%	0.67%	2.78%	1.71%
80-84	1.05%	0.75%	1.81%	1.43%
75-79	1.40%	1.12%	2.06%	1.75%
70-74	1.92%	1.65%	2.29%	2.06%
65-69	2.63%	2.36%	2.60%	2.44%
60-64	3.09%	2.84%	2.82%	2.77%
55-59	3.48%	3.29%	2.99%	3.04%
50-54	3.52%	3.40%	2.94%	3.03%
45-49	3.25%	3.20%	2.98%	3.09%
40-44	3.15%	3.11%	3.02%	3.15%
35-39	3.15%	3.16%	3.11%	3.27%
30-34	3.34%	3.38%	3.16%	3.33%
25-29	3.41%	3.54%	3.10%	3.28%
20-24	3.42%	3.61%	2.97%	3.15%
15-19	3.18%	3.34%	2.88%	3.03%
10-14	3.12%	3.26%	2.89%	3.03%
5-9	3.11%	3.25%	2.93%	3.07%
0-4	3.20%	3.35%	2.95%	3.08%

Legend: ☐ Male ☐ Female
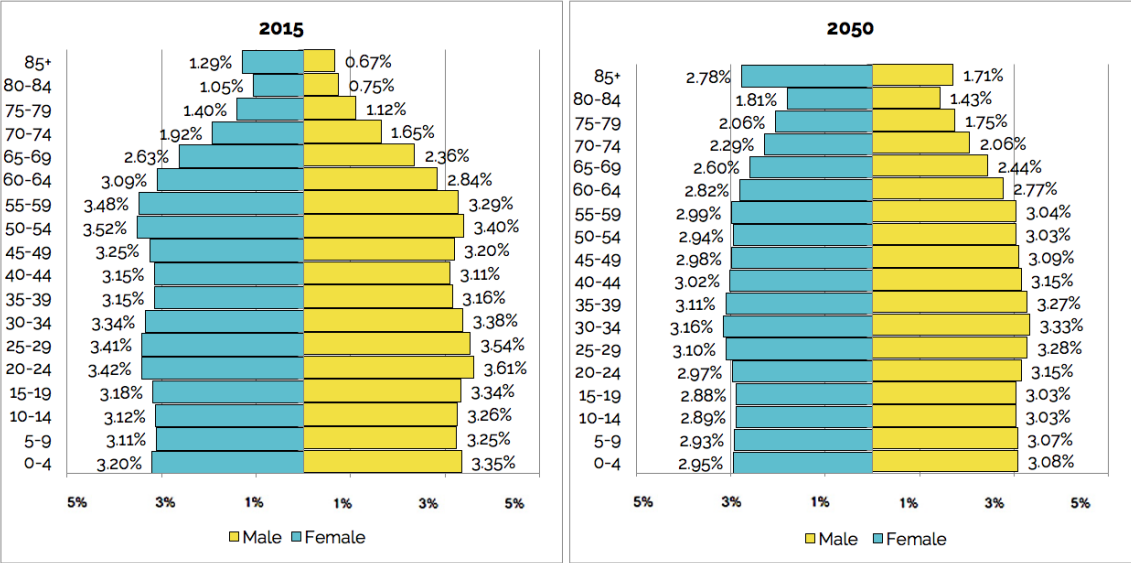
There are some interesting and innovative resources that are currently happening in Santa Fe to grow this pipeline and to follow an educational and career path in the Medical Field if that is their desire. One such example is the University of New Mexico combined BA/MD program. This program offers a Baccalaureate Degree from the College of Arts and Sciences and is open to New Mexico high school seniors planning to begin college in the fall semester after graduating high school. Upon completion of the four-year program, which is designed to prepare students for medical school and, ultimately, to practice medicine in New Mexico, students will transition to the school of medicine and begin working toward their Doctorate of Medicine. This program can be coupled with dual-credit offerings to give students that enter this program a strong start to college.

As well as being a pipeline for students to enter a career in a growth sector, other benefits of this program include financial assistance for the undergraduate program, a reserved seat in the MD program upon completion of the four-year program, and MCAT preparatory courses. When students enter the Medical Science Academy, they are familiar with 3-5 different careers in healthcare. When they complete the program, they have been introduced to over 50+ different careers in the industry. Some of these are direct patient care such as Physicians and Occupational Therapy and others are in the areas of Biomedical Engineering and Laboratory Technology.

2017 New Mexico Teacher of the Year Stephanie Gurule-Leyba highly regards this program for Santa Fe students in high school. "Students completing the Medical Science Academy at Capital High School are on a pathway to certification (examples include EMT, CNA, Phlebotomy, etc.), an Associate's degree, or other higher education and additional training pertaining to healthcare. The healthcare industry is currently addressing a shortage of professionals at all levels and the Medical Science Academy addresses this subject. Our goal is to graduate students who will be well rounded citizens, prepared for the world of work and college ready. We also stress that it is the quality of education and training you receive and to be passionate about your interests. We are always stressing relationships with our students and students with our community. Students

have a mentorship opportunity in our pathway and we do have guest speakers that come in and work with our students as well. We are always emphasizing to our students that we would like them to return to their community and give back but we also want them to explore and become Global Citizens."

"Many of the students in the program may be first in their family to possibly graduate from high school and attend college. Many of our students are ELL learners as well. We work with students who are passionate about their education and are very driven and want to do better. Also, relationships are key to a student success. It is not just the relationships that we build with our students and families but also the relationships that our community builds with our students. Many look to teachers as the people who need to educate our children, but what we all need to remember that we are all in this together and it takes a community to raise a child. The more involved we are with our children, the more opportunities they will have at success!"

Another innovative program that is working to get people into careers in healthcare is the New Mexico Sun Path program. New Mexico's Skill Up Network (SUN) program is a consortium of New Mexico Public colleges working with the New Mexico Department of Workforce Solutions.

The goals of this partnership are to:
- Expand capacity and systematic improvements in the delivery of healthcare career pathways that align with industry needs
- Increase the attainment of degrees, certifications, and industry-recognized credentials
- Create strategic alignment between education and workforce systems

New Mexico's SUN PATH is funded by the Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program and SFCC serves as the lead institution for the consortium of New Mexico colleges.

Santa Fe Advance will work closely with SFCC and leading medical providers to assure multiple training opportunities for entering healthcare. We recommend more pathway work to expand access and training to assure the gap is filled.

Innovation & Tech Sector

Santa Fe is considered a city of innovation, but there must be a much stronger ecosystem to attract talent that will live, work, and play in Santa Fe. Currently, much of the IT workforce is found outside of Santa Fe. A key recommendation for Santa Fe is to develop a strong Innovation and Tech Sector ecosystem. This ecosystem will leverage the work of SFCC and other training providers, working with employers to assure they have the technology workforce needed. Recommendations include building out a tech boot camp, working with TechHire national and New Mexico to leverage partnerships for New Mexico, and marketing Santa Fe as a hub for young developers, IT professions and innovators. We see this as one of the strongest areas for economic growth in the City. This will require top employers in Santa Fe to agree this ecosystem is critical and to be part of the "movement". Resources required will be space, oversight, technology infrastructure,marketing, and awareness campaigns.

This is a difficult task but not impossible. While students in Santa Fe struggle with having access to technology and tools in the classroom, they do have access at home and on their phone. The generation of 18-35 year olds are wired for technology, and it is not daunting for them to consider a career in innovation and technology.

The core recommendation is to begin with entry level IT and boot camps (blended and/or online) which will then feed into higher level programming, tech design, systems analysis and other related tech occupations.

Innovation - Entrepreneurship

We also recommend that Entrepreneurship is part of this Innovation and Tech Sector. We hear about how entrepreneurial Santa Fe is, but, actually, since the Great Recession of 2007, Santa Fe MSA has seen a pronounced reduction in the creation of businesses less than a year old. From 1994 to 2014, there was a reduction of 50.1% or 229 firms less than a year old (Figure 8 -the Santa Fe MSA is on the left axis and the United States is on the right axis). Overall, new businesses less than a year old declined across the country and the Santa Fe MSA. However, unlike the United States, the Santa Fe metro area has yet to witness an entrepreneurial revitalization. There was a decrease of 48.1% in jobs creation since 1994 (Santa Fe MSA is on the left axis and the United States is on the right axis). Since 1994 there has been a steady decrease in job creation with the 2007 recession dramatically aggravating this downward trend.

Figure 8: Number of Firms Less Than One-Year-Old (Santa Fe MSA and United States)
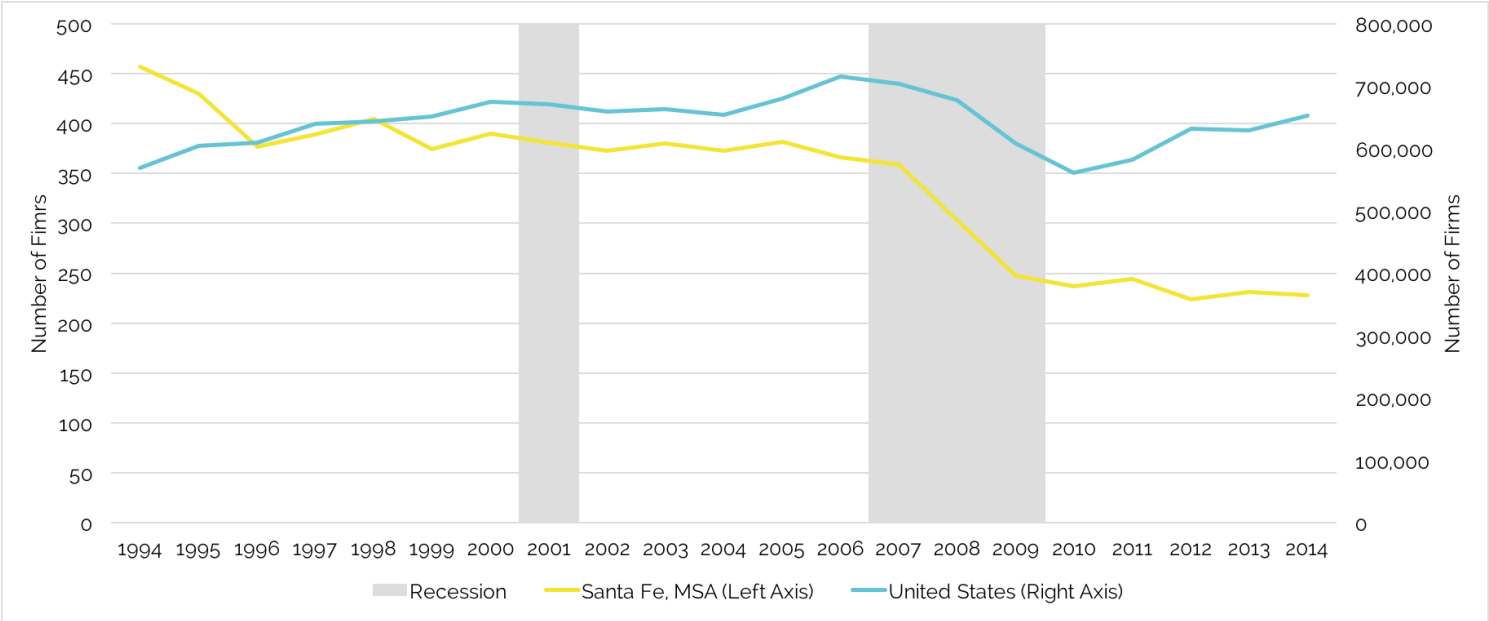
Source: Bureau of Labor Statistics - Firm Age by Firm Size by MSA Data Tables

Figure 9: Number of Jobs Created by Firms Less Than One-Year-Old (Santa Fe MSA and United States)
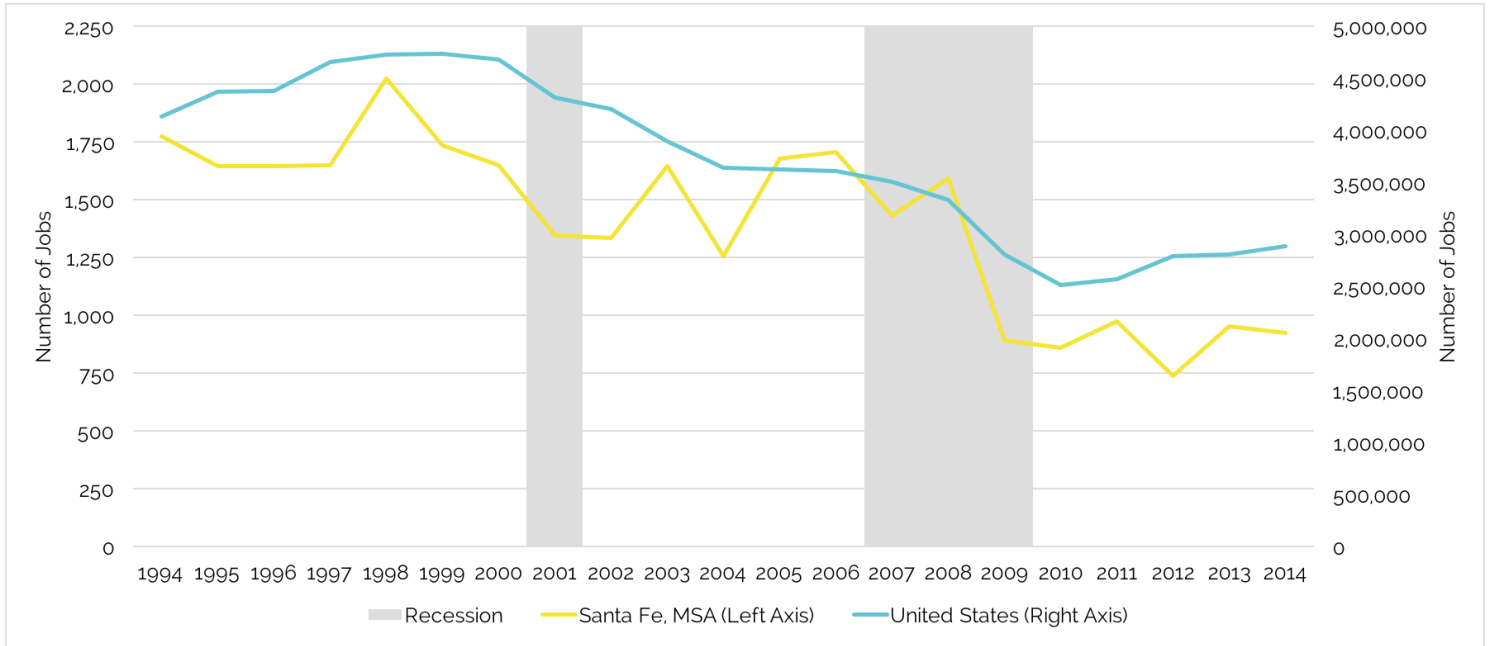
Source: Bureau of Labor Statistics - Firm Age by Firm Size by MSA Data Tables

Despite this downward trend in firm creation less than a year old, there are some operations taking place throughout the United States that could be a model for spurring entrepreneurial activity in the Santa Fe area. One such organization is MAKE Santa Fe, a small business incubator located inside the Meow Wolf art complex. MAKE Santa Fe is an interdisciplinary building space designed to support entrepreneurs working in emerging technologies such as IOT security technologies (Internet of Things Security – which focuses on safeguarding connected networks and devices), robotics, physical material coding, state of the art textiles, construction, furniture design and numerous other craft and cottage manufacturing opportunities. This incubator offers space and expertise to advanced manufacturing and skills/trades entrepreneurs in the hopes of nurturing these entities into successful and innovative operations.

Zane Fischer, the Coordinator-at-Large for MAKE Santa Fe, believes Santa Fe has the intellectual, creative and business infrastructure to MAKE Santa Fe a hub for entrepreneurial activity, he goes on to state "Santa Fe is a nexus point for entrepreneurship for a few important reasons. First off, Santa Fe has an incredibly strong creative community comprised of visual artists, musicians, writers, performers, etc, that routinely push boundaries and develop tools within their respective disciplines and practices. Think of these folks as a pool of unofficial "experience engineers" whose primary instinctive drive is toward innovation. And secondly, there is a powerful tradition of craft, construction and trades in New Mexico. Many of our kids today are just a generation or two away from having had to be "makers" and "inventors" by necessity. Culturally, we have a high-aptitude for creative problem solving and driving toward practical solutions. We have a loose, but impressive consortium of high-tech and cutting edge institutional players comprised firstly by two National Labs and complemented by area colleges and universities, Santa Fe Institute, strong regional NGOs and an increasingly proactive local government."

In addition to the distinct entrepreneurial traits within Santa Fe, we also are within proximity to two National Laboratories which is a fortune many locales are not afforded. MAKE Santa Fe is working to develop strong partnerships with LANL via funding opportunities through the New Mexico Small Business Association (NMSBA) which enables small businesses to access the capabilities and expertise of some of LANL's greatest minds. Also, MAKE Santa Fe's Maker Professional program is producing apprentices that could align well with LANL's hiring needs in the near term as baby-boomers continue to leave the workforce in large numbers. As time goes on, this relationship could be a fruitful one as entrepreneurs are nurtured and provided expertise and there is a vibrant pipeline to employment for people in the skilled trades and crafts into one of the region's largest and most prestigious employer.

Probing Question: How do efforts like this become elevated and part of the ecosystem for Innovation and Tech for Santa Fe, in which an entrepreneurial spirit begins to light a fire across the City? What resources are needed to expand entrepreneurism into our City, to inform young innovators that they can start their own companies, create things, and find the support and technical assistance to build companies that will advance Santa Fe into the future? Santa Fe Advance will continue to explore this with a focus on the entire sector of Innovation and Tech.

OTHER FACTORS TO CONSIDER
Factor 1: Educational Attainment Relating to Skills Categories

While degree attainment may not be the most important factor in building an ecosystem for a competitive workforce, it is valuable in seeing where the overall population stands regarding what types of jobs they will be qualified for. The following graph will elaborate on this topic further.

Figure 10: Educational Attainment by Age Group in Santa Fe County
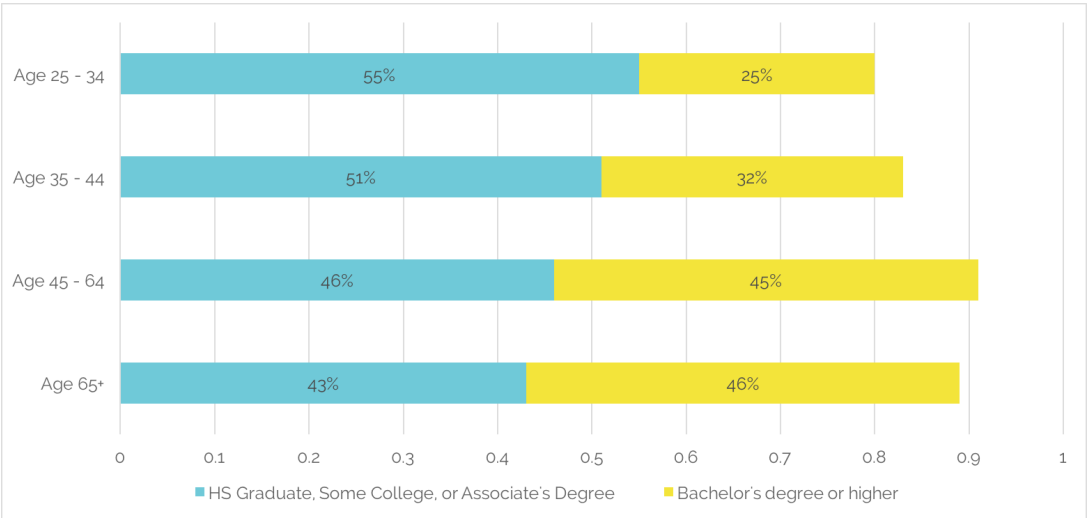
Source: U.S. Census Bureau - American Community Survey 2015 5-year Estimate

What the chart above displays is that the educational attainment levels of the 25-44 age range are not nearly as high as that for the 45-64 age group. As the baby-boomers retire there will be a markedly less educated workforce to fill these vacant positions. In order to fill these positions and keep the Santa Fe MSA labor and talent pipeline operating effectively, the 24-44 age group will need to be educated and/or skilled-up properly to provide employers with the requisite talent to be competitive.

This is a key target area for Santa Fe Advance. Most likely these are working learners, these people need the skills necessary to compete for jobs in the middle and high-skills categories, a new ecosystem must exist to enable these populations to succeed in the workforce. An ecosystem that articulates needs of employers, provides a pathway for the learner to understand the skills and credentials they need for successful advanced level employment.

Factor 2: Skills in Highest Demand

It is important when a new ecosystem is envisioned to understand what the current demand is in that existing ecosystem. Based on online job advertisements between September 2015 to September 2016 in the Santa Fe MSA, customer service was the skill that was most requested followed by sales and scheduling. This is not so surprising in a "service and tourism city." It is also not surprising that almost 90% of all jobs in the country require some type of customer service/communications to deliver results.

Along with customer service there are other skills that are highly requested that deal directly with interpersonal relationship and interaction such as supervisory skills, teaching, and customer contact. Which translates in part to communications abilities which is the most often requested baseline skill as seen in Figure 11 below.

Probing Question: How do we align training for these skills to assure that our citizens are qualified against these requirements? What type of ecosystem is required for this, and how could it reduce costs for the City?

Figure 11: Specialized Skills in Highest Demand in the Santa Fe MSA (September 2015 – September 2016)
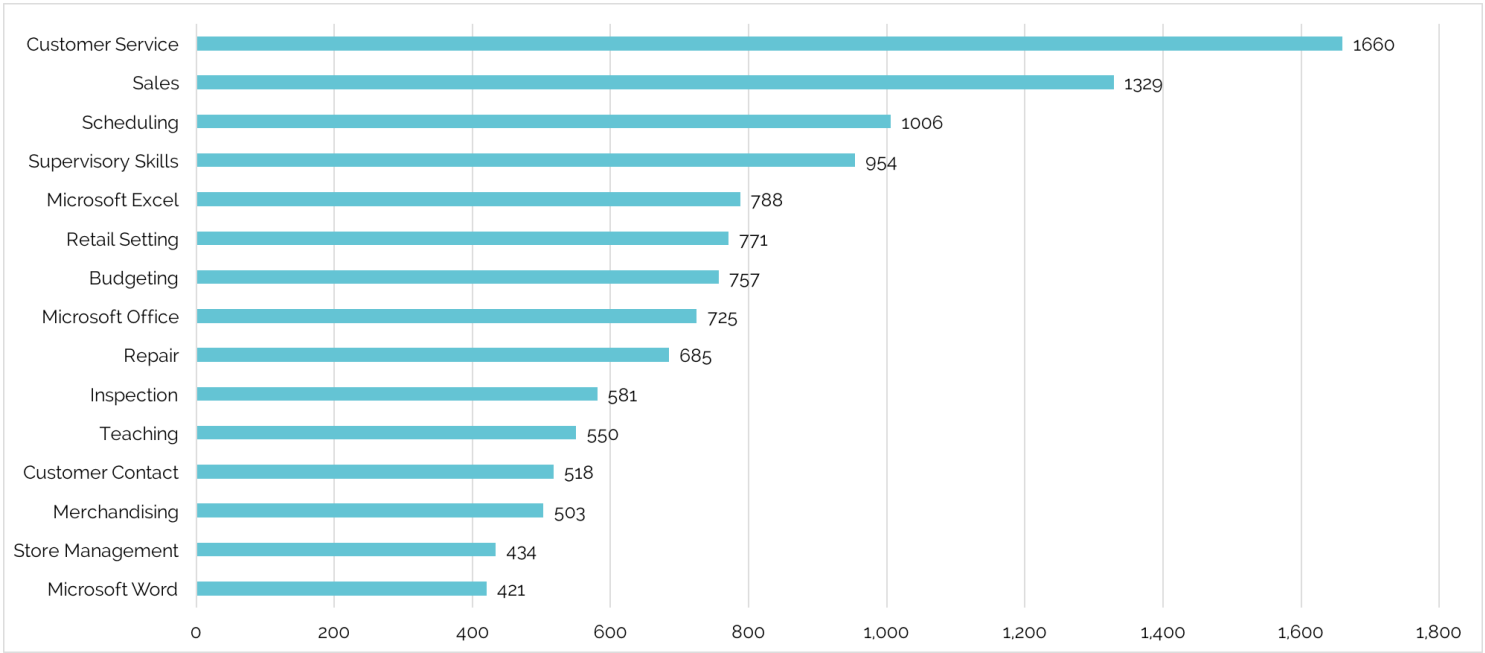
Source: Burning Glass – Labor Insights: Specialized Skills Requested

Figure 12: Baseline Skills in Highest Demand in the Santa Fe MSA (September 2015 – September 2016)
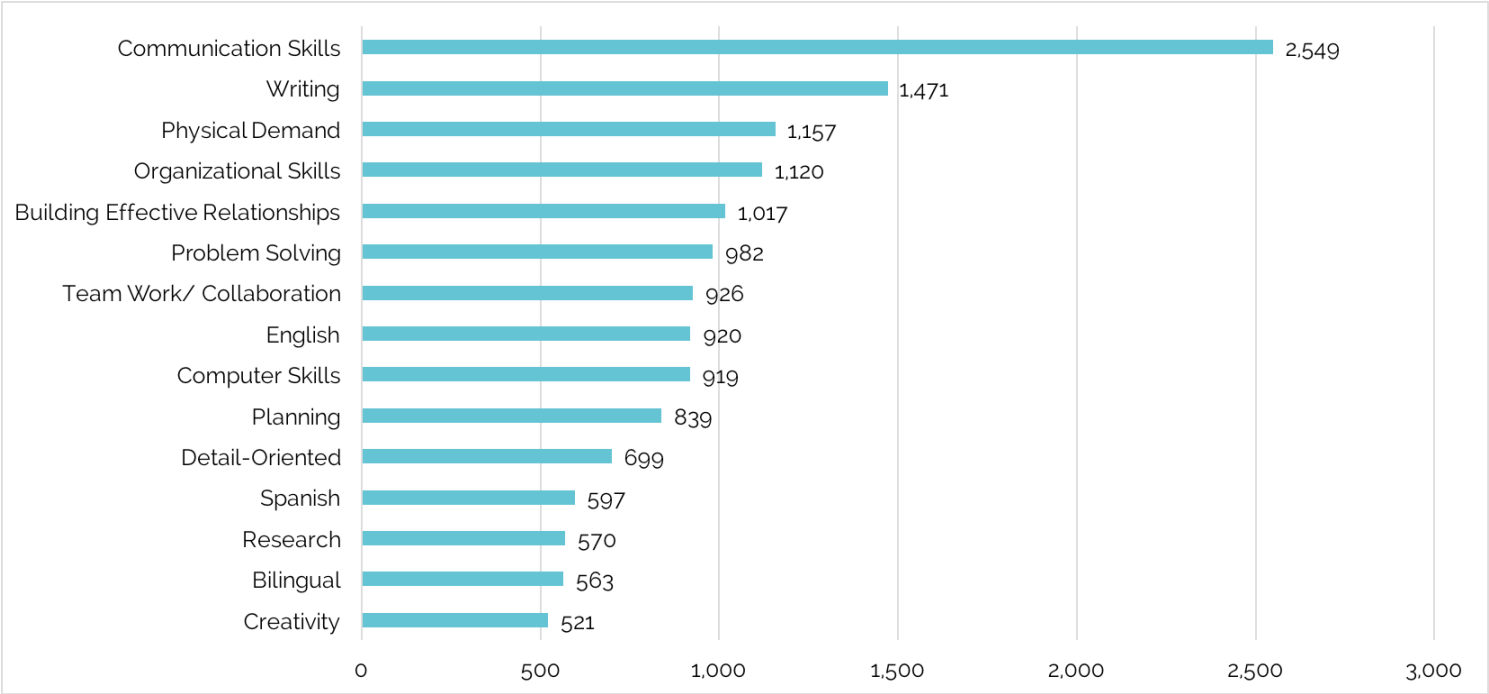
Source: Burning Glass – Labor Insights: Baseline Skills Requested

Figure 11 shows how important employers in the Santa Fe MSA value communication skills with it being the most requested baseline skill by a large margin with writing ability being the second most highly requested skill. Communications is a vital skill for the Santa Fe MSA workforce as it can have impacts on a number of other facets in the day to day operations of a business or organization.

Towards the bottom of the chart Spanish and bilingualism are requested in over 1,000 job advertisements. The topic of the importance of bilingualism will be discussed in the following section.

Factor 3: Importance of Bilingualism to the Santa Fe Economy

Santa Fe has always been a majority Hispanic State. As the entire U.S. demographics continues to have an increase in Hispanic and Latinos there is a continued increased need for Spanish speakers (bilingual) in the workforce across the U.S. At the National level the population that speaks Spanish or Spanish Creole alone is expected to grow substantially through 2020 to approximately 41 million people speaking only these languages. There will be tremendous growth in youth population for Latinos, and over time Latinos will have greater population density across the U.S. than Whites and African Americans combined. This provides a unique opportunity to a City that has always been predominantly Spanish.

Figure 13: Spanish or Spanish Creole Speakers Projection Through 2020
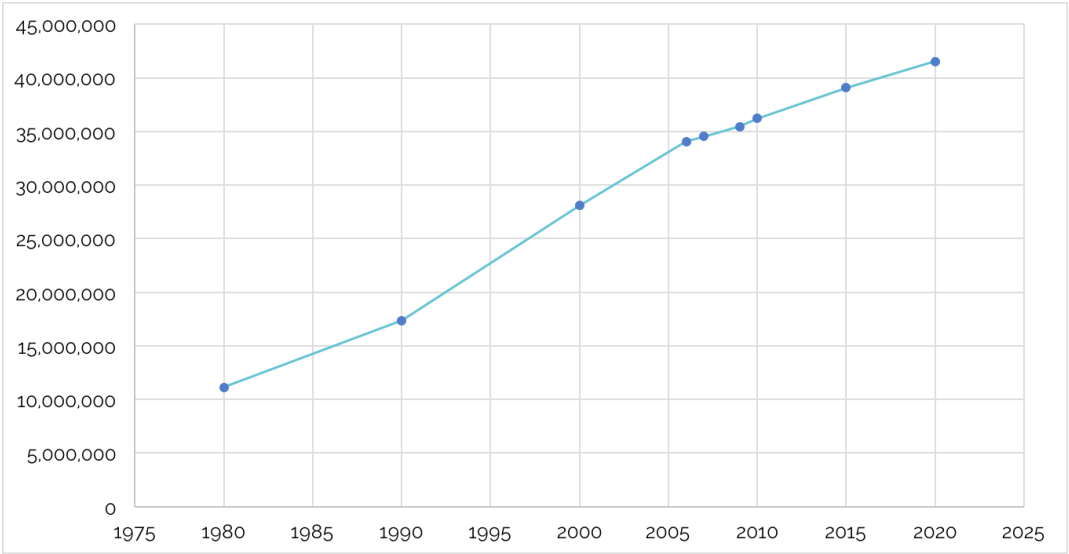
Source U.S. Census Bureau Language Forecast Through 2020

This skill is important not only to jobseekers as it allows them the opportunity at employment in organizations that have Spanish speaking clientele and give them a competitive advantage at these institutions over their non-bilingual counterparts, it is a great opportunity for businesses as well. By having a well skilled and bilingual workforce, a business can increase their clientele base by including a section of the population that may not have their needs and wants entirely fulfilled due to the lack of communication channels.

To compound on this further, there are many occupations that having this ability would be a substantial competitive advantage over a similar candidate that did not speak Spanish. Some examples include individuals in the Healthcare or Retail trades, some of these occupations deal directly with the public, and in doing so will inevitably encounter people that do not speak English. To provide adequate services, the workforce needs to have the abilities to overcome these language barriers.

Probing questions: How does Santa Fe prepare for this future workforce? As the oldest city in the U.S. why can't we lead this critical work to prepare early for the change that is inevitable.

SUMMARY AND CONCLUSIONS

In summary, Santa Fe Advance has three recommendations to act upon:

Recommendation #1 – A Call for Skills

Santa Fe Advance will work to create a new ecosystem based on core foundation skills that will held the jobseeker advance and that will provide a better match for employers. This will also identify talent that was invisible to the employer before.

Recommendation #2 – Add Skills-based Hiring

Santa Fe Advance will work with employers and stakeholders to assure that job postings and pathways articulate the skills one needs for the job, mapping them to training and opportunities for the job and career they desire. In partnership with Santa Fe and training providers, this will advance the entire workforce strategy to better fill the gap. Training will e identified to assure citizens can receive the skills they need for job success.

Recommendation #3 –Two Strategic Growth Industries

Santa Fe Advance will work to focus on two high growth, higher paying industry sectors: Healthcare and Innovation & Tech. Goals will be set by the Santa Fe Advance to assure there are milestones being met across these two sectors.

Based on the data provided in this report, Santa Fe must shore up these gaps by creating relationships between local training and higher education institutions, industry leaders, employers and making a commitment to training and skilling up the incumbent workforce. The array of resources that should be brought to the table includes training schools, technical colleges, two-year community colleges, and four-year colleges and universities (The Economist Intelligence Unit, 2014). Once these relationships and communication channels are opened and working efficiently the benefits of a skilled workforce, employers reducing turnover, training and education institutions producing relevant skills and credentials can begin to work in synchronicity and move the Santa Fe MSA economy into a thriving location to live, work and play.

For Employers:

Industry leaders and employers should be encouraged to communicate their skills needs to the institutions listed above so these institutions can adjust and/or create curriculum to meet jobs demands needs. Once the skills of the population are more aligned to the needs of employers the benefits of increasing productivity and efficiency, employee retention, and employee job satisfaction can be realized.

For Educators:

One of the best services an educator can provide to the populous would be to provide information to their constituents about where the growth is taking place is as well as where there is the potential to enter an occupation that has higher than average salary. This can go even further when the individual analyzes what educational attainment, certifications, or licenses can make them more competitive to employers. When this analysis is completed an individual can make informed decisions about what occupation is the path of least resistance to the lifestyle and career goals they wish to attain. Often the public is not aware of what direction to go when it comes to occupations supply and demand, with educators acting as a facilitator people can start off on a strong path to economic security.

For Job Seekers:

For job seekers, it is the other side of the coin of what was just detailed for educators. It will be the job seekers responsibility to understand with the help of guidance from various informational supplements which route to go to attain economic viability. This will ultimately come down to the individual looking at the employment landscape and determining where their interests and passions lie in conjunction with which industry sectors and occupations can provide them with a fulfilling career that pays well. Once this is determined, the individual can work on getting the education, skills, credentials, and/or licenses that are needed to attain employment and be successful in that field. Providing the support and infrastructure for job seekers and citizens to navigate their pathways is critical to their success and to the success of the City's workforce strategy.

Recommendation from Santa Fe Advance:

A task force should be identified that will develop a new ecosystem for Santa Fe's future. This will define the mission and vision for the future of Santa Fe's workforce. This task force will create an ecosystem blueprint that will begin the re-imagination of Santa Fe's workforce — a workforce to advance Santa Fe into the future.

APPENDIX: DATA ON TOP TEN GROWTH SECTORS IN SANTA FE

The knowledge, skills, abilities, and common work activities identified to be proficient in the top ten projected growth sectors are broken down by their respective category below. This information was populated using some of Innovate+Educate's proprietary technology that assesses workforce information and outputs data relating to what skills, abilities, etc. are important for the input criteria (i.e. what skills are important to the Healthcare and Social Assistance workforce).

Other information included in this section is the jobs advertised online by employers and occupations within that sector, as well as some general information regarding occupational growth projections for the occupations that were in high demand based on online advertisements. The occupational growth rate is populated via the New Mexico Department of Workforce Solutions (NMDWS) occupational projections through 2024. When NMDWS occupational projections are unavailable for the Santa Fe MSA, state level data will be substituted.

Note: The occupational growth rate is populated via the New Mexico Department of Workforce Solutions (NMDWS) occupational projections through 2024. When NMDWS occupational projections are unavailable for the Santa Fe MSA, state level data will be substituted.

Growth Sector #1: Healthcare and Social Assistance

Occupations in this sector include registered nurses, speech language pathologist, critical care nurses, medical and health service managers, nurse practitioners, and other health and social assistance occupations. Table A1 identifies the KSAs and work activities across this sector. Figure A1 identifies top employers. Based on public jobs posted online over the one year period, the top three employers for the Santa Fe MSA were Christus St. Vincent Regional Medical Center, Presbyterian Medical Services, and the New Mexico Behavioral Health Institute.

Figure A1 indicates top positions. Registered Nurses are the most in demand occupation amongst jobs posted online between September 2015 to 2016. The NMDWS occupational outlook for the Santa Fe MSA for these occupations confirms that this will be an important field with ample opportunities, with growth of 1.7% annually. The typical educational requirements for registered nurses ranges from a diploma in an approved nursing program, an associate's degree in nursing, and up to a bachelor's degree in nursing. The second most advertised occupation in the Santa Fe MSA in 2015 was speech language pathologists which usually require a Master's degree, with this occupation projected to grow by 3.2% annually.

Table A1: Healthcare and Social Assistance – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Therapy and Counseling	Social Perceptiveness	Explosive Strength	Assisting and Caring for Others
Sociology and Anthropology	Service Orientation	Memorization	Resolving Conflicts and Negotiating with Others
Psychology	Coordination	Speech Clarity	Performing for or Working Directly with the Public
Philosophy and Theology	Active Listening	Fluency of Ideas	Performing Administrative Activities
Customer and Personal Service	Speaking	Oral Comprehension	Documenting/Recording Information

Source: Dorothy Employment-Tech

Figure A1: Healthcare and Social Assistance – Employers with the Most Online Advertised Jobs (September 2015-2016)
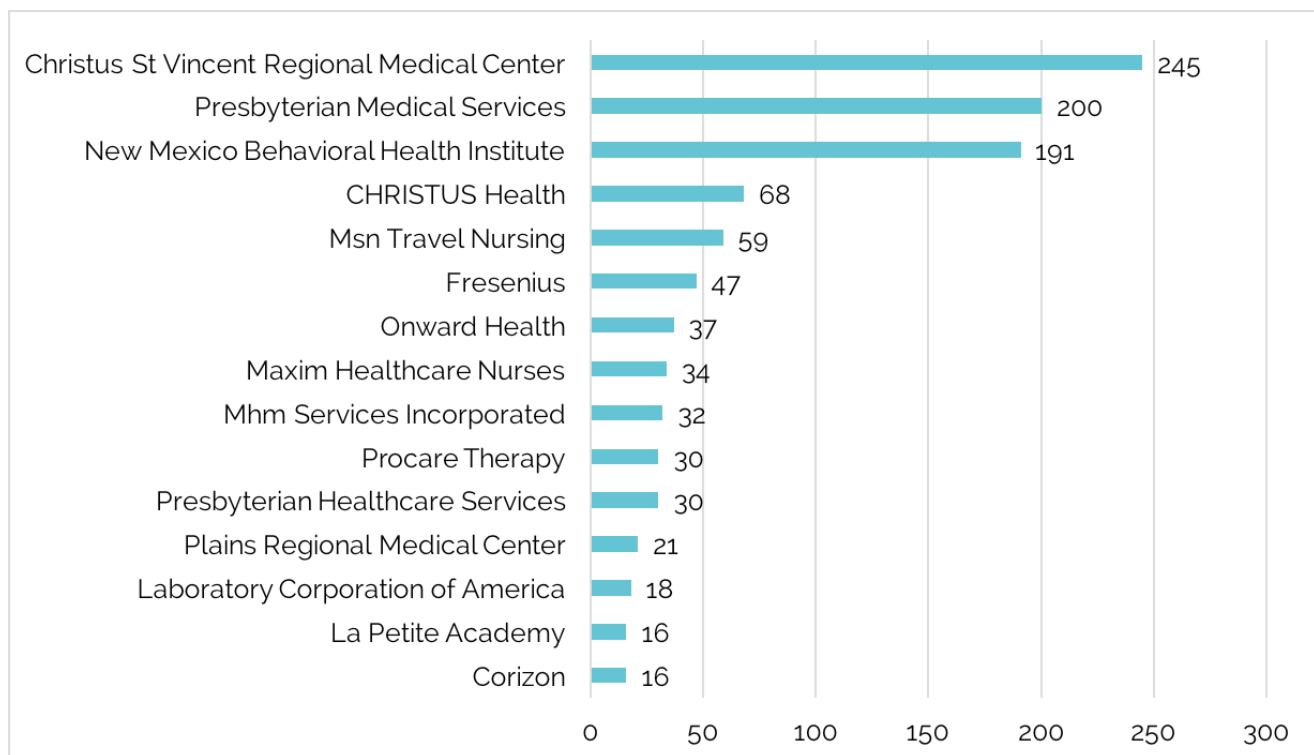
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A2: Healthcare and Social Assistance – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Jobs
Registered Nurses (29-1141.00)	849
Speech-Language Pathologists (29-1127.00)	125
Critical Care Nurses (29-1141.03)	123
Medical and Health Services Managers (11-9111.00)	115
Nurse Practitioners (29-1171.00)	114
Occupational Therapists (29-1122.00)	89
Physical Therapists (29-1123.00)	85
Licensed Practical and Licensed Vocational Nurses (29-2061.00)	67
Physicians and Surgeons, All Other (29-1069.00)	53
Medical Assistants (31-9092.00)	46
Physician Assistants (29-1071.00)	42
Nursing Assistants (31-1014.00)	41
Managers, All Other (11-9199.00)	36
Medical Secretaries (43-6013.00)	32
Medical Records and Health Information Technicians (29-2071.00)	30

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Growth Sector #2: Educational Services

Occupations in this sector include coaches and scouts, middle school teachers (except special and career/technical education), secondary school teachers (except special and career/technical education), and elementary school teachers (except special education). As reflected by online jobs advertised in this category, coaches and scouts were the most in-demand occupations. These occupations are slated to grow annually by 1%. The typical entry-level education required is a Bachelor's degree.

The second highest ranked occupation advertised online for the Educational Services sector was middle school teachers. This occupation is projected to grow by 1% annually. The typical entry-level education required is a Bachelor's degree.

Table A2: Educational Services – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Education and Training	Instructing	Memorization	Coaching and Developing Others
Sales and Marketing	Persuasion	Written Expression	Conventional
Clerical	Judgment and Decision Making	Mathematical Reasoning	Social
Management	Writing	Number Facility	Investigative
Service	Comprehension	Speech Clarity	Artistic

Source: Dorothy Employment-Tech

Figure A3: Educational Services – Employers with the Most Online Advertised Jobs (September 2015-2016)
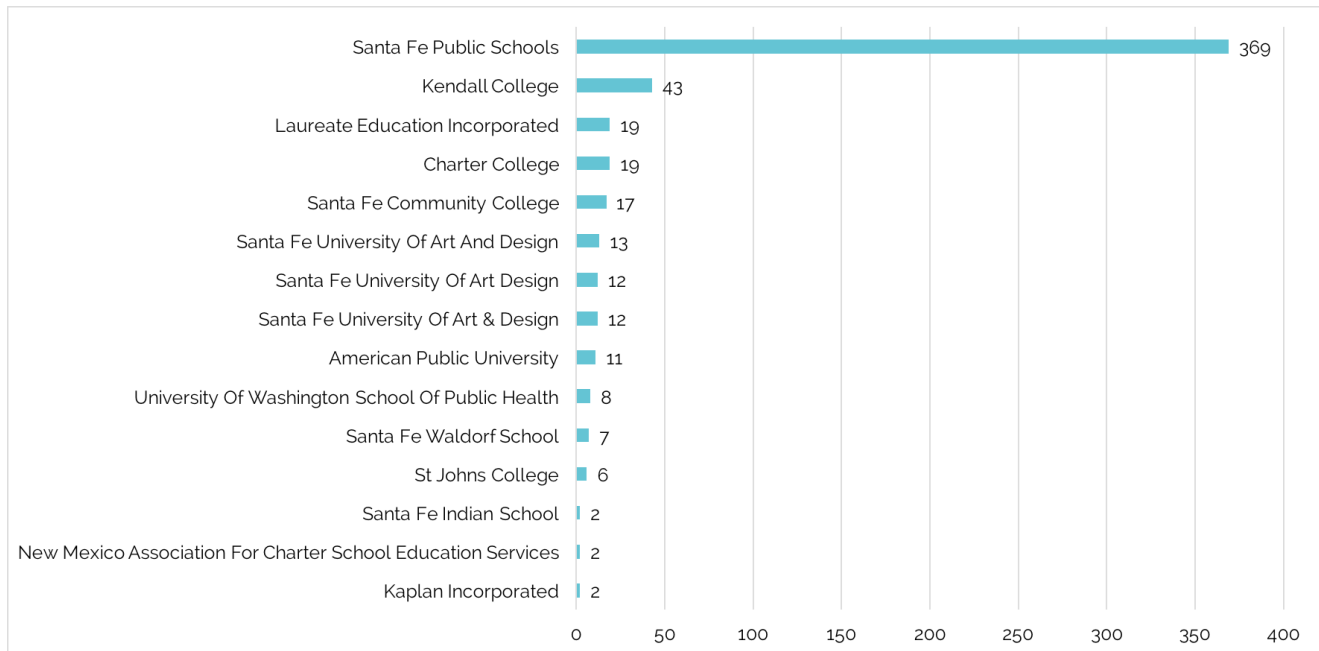
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A4: Educational Services – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Jobs
Coaches and Scouts (27-2022.00)	68
Middle School Teachers, Except Special and Career/Technical Education (25-2022.00)	56
Secondary School Teachers, Except Special and Career/Technical Education (25-2031.00)	54
Postsecondary Teachers, All Other (25-1199.00)	52
Elementary School Teachers, Except Special Education (25-2021.00)	38
Special Education Teachers, All Other (25-2059.00)	27
Educational, Guidance, School, and Vocational Counselors (21-1012.00)	22
Teachers and Instructors, All Other (25-3099.00)	20
Education Administrators, Elementary and Secondary School (11-9032.00)	19
Education Administrators, Postsecondary (11-9033.00)	15
Managers, All Other (11-9199.00)	14
Registered Nurses (29-1141.00)	13
School Psychologists (19-3031.01)	12
Interviewers, Except Eligibility and Loan (43-4111.00)	10
Self-Enrichment Education Teachers (25-3021.00)	9

Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs

A teacher shortage that is happening across the country, as fewer enter education programs across Universities. The state of New Mexico also pays lower than average for teachers.

Therefore, alternative certification programs are critical, and SFCC has developed an innovative program to address the shortage in pipeline we will continue to face. The SFCC Teacher Academy has a mission to professionally prepare educators prepared to teach and inspire students, families, districts and the communities they serve. Alternative licensure programs exist for citizens across Santa Fe. The average student is 45 years of age, and have previous degrees. The classes are one night per week and/or online since most students are working full time. The program take approximately 1 ½ years to complete and has students enrolled across the State and even globally.

There may be citizens across Santa Fe that are working full time but can also envision themselves teaching the next generation of students. This field will continue to grow, and alternative credentials such as the alternative licensure program are a true benefit to the region.

For more information see: **http://w2.sfcc.edu/programs/teacher_education/teacher_certification**

Growth Sector #3: Construction

Occupations in this sector include plumbers, construction managers, heating and air conditioning mechanics and installers, and first-line supervisors of construction trades and extraction workers.

Table A3: Construction– Knowledge, Skills, Abilities, and Work Activities

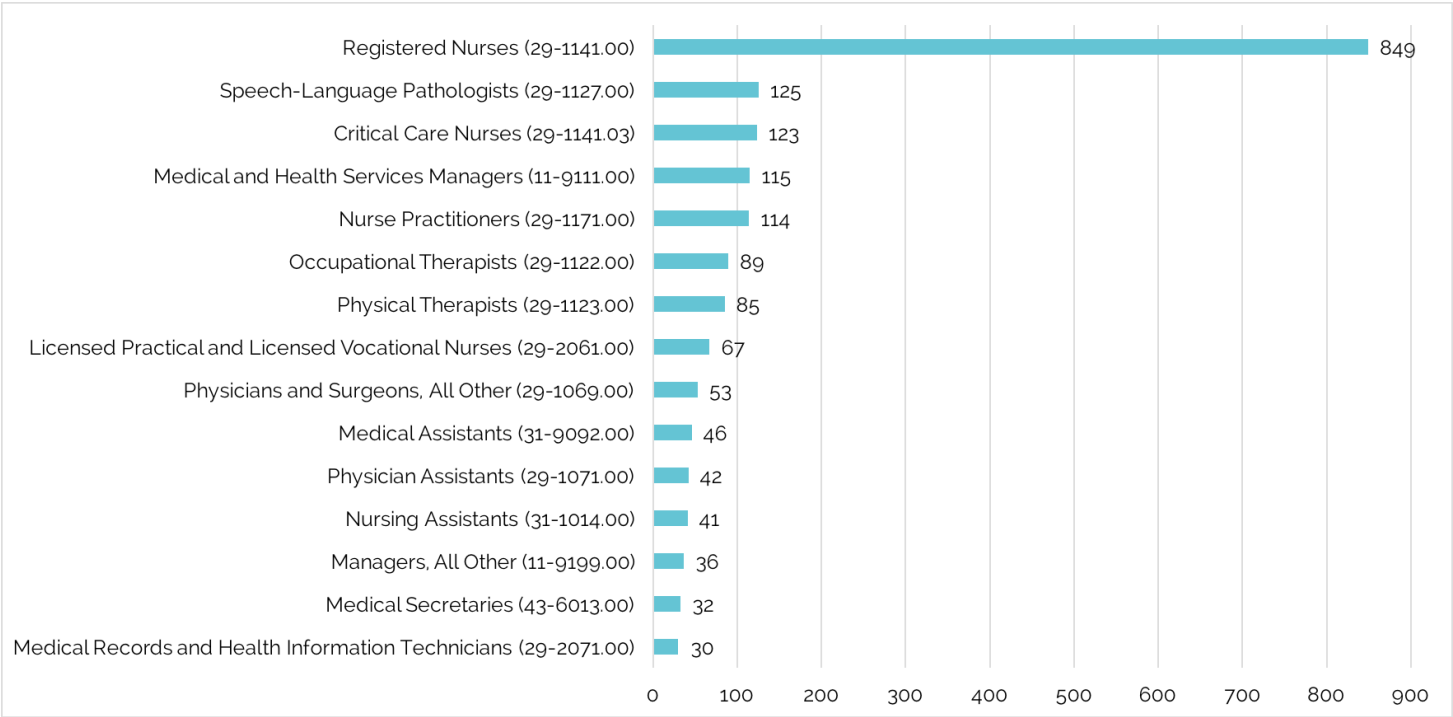| Knowledge	Skills	Abilities	Work Activities
Building and Construction	Management of Material Resources	Information Ordering	Scheduling Work and Activities
Design	Operations Analysis	Visualization	Coordinating the Work and Activities of Others
Engineering and Technology	Management of Financial Resources	Number Facility	Developing and Building
Administration and Management	Time Management	Far Vision	Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment
Economics and Accounting	Management of Personnel Resources	Mathematical Reasoning	Resolving Conflicts and Negotiating with Others

Source: Dorothy Employment-Tech

Figure A5: Construction – Employers with the Most Online Advertised Jobs (September 2015-2016)
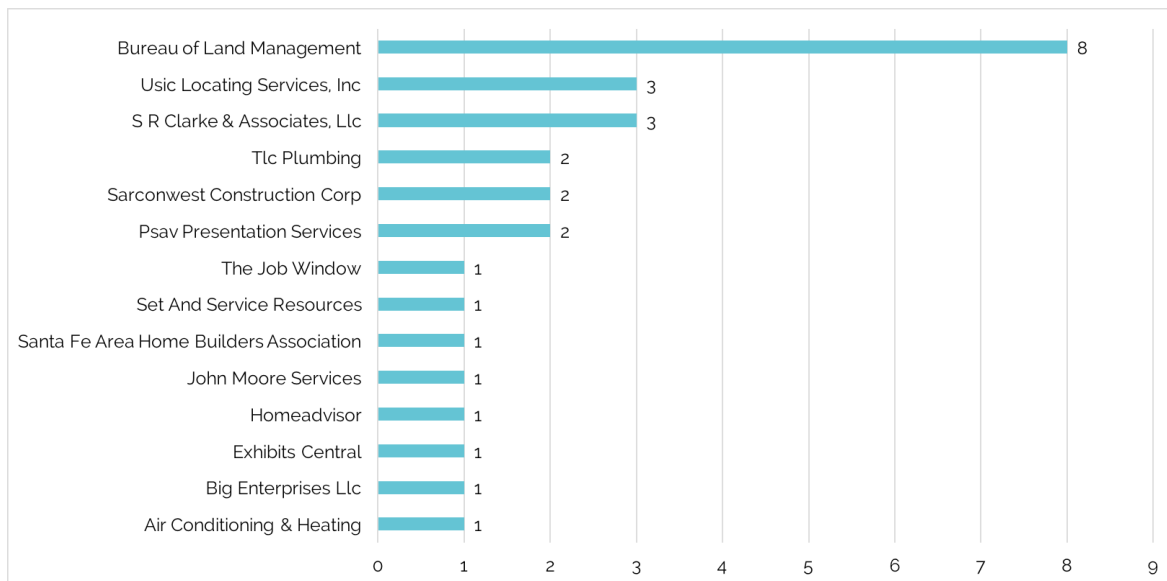
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A6: Construction – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Jobs
Plumbers (47-2152.02)	5
Construction Managers (11-9021.00)	5
Heating and Air Conditioning Mechanics and Installers (49-9021.01)	3
First-Line Supervisors of Office and Administrative Support Workers (43-…	3
Electrical Power-Line Installers and Repairers (49-9051.00)	3
Welders, Cutters, and Welder Fitters (51-4121.06)	2
Retail Salespersons (41-2031.00)	2
Construction Laborers (47-2061.00)	2
Audio and Video Equipment Technicians (27-4011.00)	2
Sales Representatives, Wholesale and Manufacturing, Except Technical and…	1
Physical Scientists, All Other (19-2099.00)	1
Office Clerks, General (43-9061.00)	1
Mining and Geological Engineers, Including Mining Safety Engineers (17-…	1
Meeting, Convention, and Event Planners (13-1121.00)	1
Market Research Analysts and Marketing Specialists (13-1161.00)	1

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Between September 2015 to September 2016, Plumbers and construction managers were the number one in-demand occupation from jobs advertised online within the Construction sector. Annual growth for plumbing occupations are projected to grow by 1.1%. Typical educational attainment requirements for entry into this profession is a high school diploma or equivalent.

Occupational growth for construction managers is projected at a more modest figure of 0.2% through 2024. Typical educational requirements for this occupation is a Bachelor's degree. Workers within this occupation will have the strongest outlooks if they have a Bachelor's degree in construction science, construction management, or civil engineering combined with construction experience.

Growth Sector #4: Professional, Scientific, and Technical Services

Table A4: Professional, Scientific, and Technical Services – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Computers and Electronics	Programming	Category Flexibility	Thinking Creatively
Mathematics	Technology Design	Number Facility	Interacting With Computers
Engineering and Technology	Operations Analysis	Mathematical Reasoning	Developing Objectives and Strategies
Design	Systems Analysis	Fluency of Ideas	Provide Consultation and Advice to Others
Physics	Systems Evaluation	Information Ordering	Processing Information

Source: Dorothy Employment-Tech

Occupations in this sector include accountants, medical records and healthcare information technicians, computer systems engineers, and software developers.

Figure A7: Professional, Scientific, and Technical Services – Employers with the Most Online Advertised Jobs (September 2015-2016)
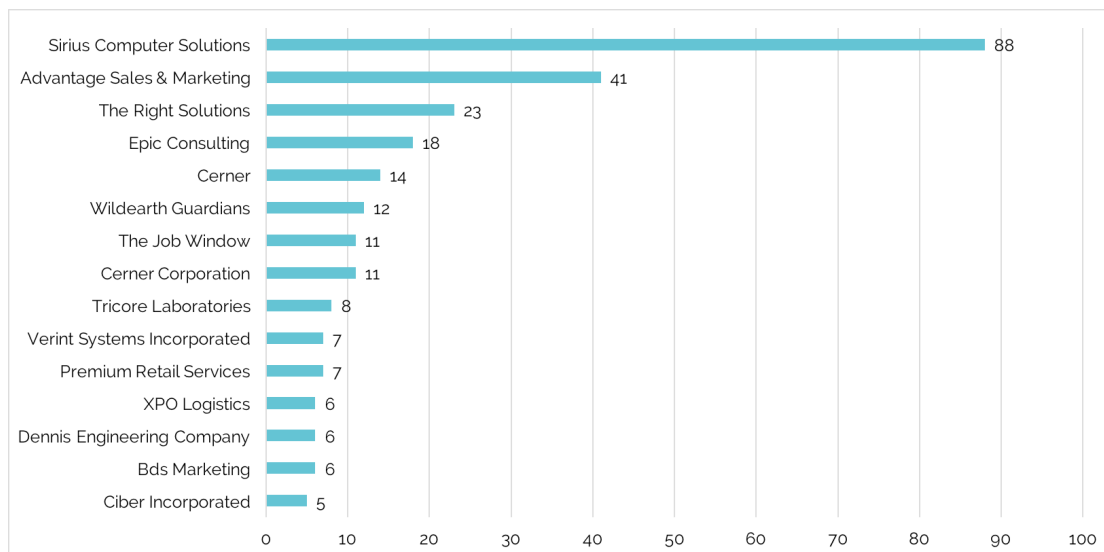
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A8: Professional, Scientific, and Technical Services – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Value
Registered Nurses (29-1141.00)	36
Medical Records and Health Information Technicians (29-2071.00)	36
Computer Systems Engineers/Architects (15-1199.02)	29
Software Developers, Applications (15-1132.00)	26
Merchandise Displayers and Window Trimmers (27-1026.00)	23
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (41-4012.00)	22
Database Administrators (15-1141.00)	20
Computer User Support Specialists (15-1151.00)	19
Demonstrators and Product Promoters (41-9011.00)	18
Computer Systems Analysts (15-1121.00)	16
Clinical Data Managers (15-2041.02)	16
Network and Computer Systems Administrators (15-1142.00)	13
Stock Clerks, Sales Floor (43-5081.01)	12
Medical and Health Services Managers (11-9111.00)	12
Customer Service Representatives (43-4051.00)	12

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Per the NMDWS Occupational Outlook, Medical Records and Health Information Technicians are forecasted to be a strong growth occupation through 2024. Growth in this occupation will be driven by the aging population as well as more people obtaining mandatory health insurance due to federal requirements. Growth in these occupations is forecasted at 1.7% per annum. Typical educational requirement for these occupations is "Postsecondary non-degree award", which means that certificates are needed, but not a college degree.

Another in demand occupation based on online job advertisements is computer systems engineers and architects. As business reliance on computer systems continues to grow so will the importance of these types of occupations. NMDWS data indicates that these occupations stand to grow by 0.5% annually through 2024 for the state of New Mexico. There will be additional demand for people in these fields in the Healthcare and Social Assistance sector as firms continue to move towards electronic healthcare records and other types of Healthcare IT systems and services.

Growth Sector #5: Finance and Insurance

Table A5: Finance and Insurance – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Economics and Accounting	Persuasion	Mathematical Reasoning	Selling or Influencing Others
Sales and Marketing	Mathematics	Deductive Reasoning	Analyzing Data or Information
Mathematics	Management of Financial Resources	Number Facility	Coaching and Developing Others
Administration and Management	Critical Thinking	Memorization	Establishing and Maintaining Interpersonal Relationships
Law and Government	Reading Comprehension	Speech Recognition	Provide Consultation and Advice to Others

Source: Dorothy Employment-Tech

Occupations in this sector include insurance sales agents, sales representatives; wholesale and manufacturing (except technical and scientific products), tellers, and sales managers.

Figure A9: Finance and Insurance – Employers with the Most Online Advertised Jobs (September 2015-2016)
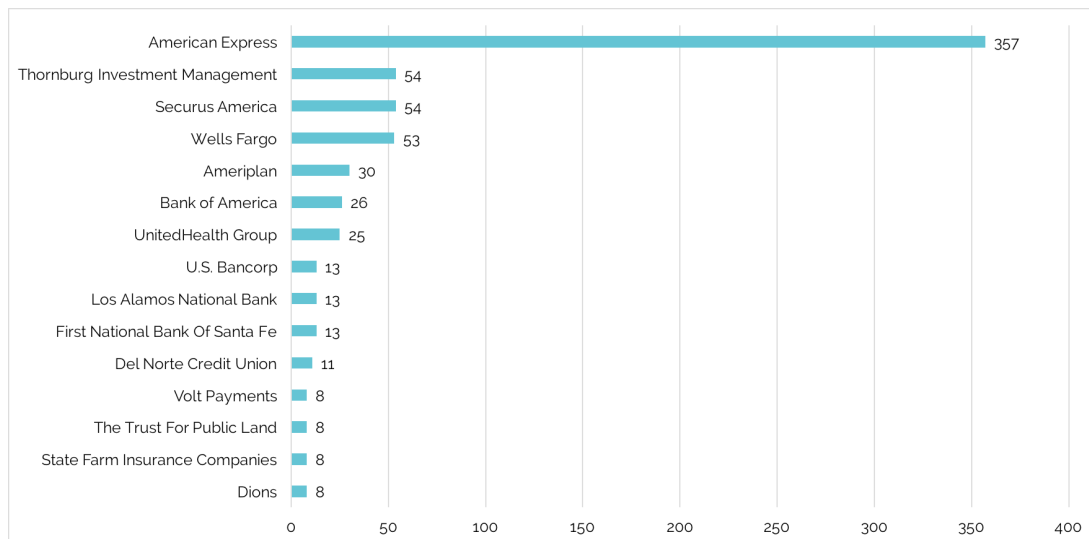
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A10: Finance and Insurance – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Count
Insurance Sales Agents (41-3021.00)	93
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (41-4012.00)	74
Tellers (43-3071.00)	61
Sales Managers (11-2022.00)	49
Software Developers, Applications (15-1132.00)	44
Customer Service Representatives (43-4051.00)	39
Management Analysts (13-1111.00)	36
Managers, All Other (11-9199.00)	31
Sales Agents, Financial Services (41-3031.02)	25
Human Resources Specialists (13-1071.00)	23
Loan Officers (13-2072.00)	20
Information Technology Project Managers (15-1199.09)	19
Computer Systems Engineers/Architects (15-1199.02)	18
Retail Salespersons (41-2031.00)	16
Registered Nurses (29-1141.00)	15

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Based on online job postings between September 2015 and September 2016 the most in demand occupation was for Insurance and Sales Agents. Insurance and Sales Agents occupational growth rate through 2024 is projected at 1.0% yearly. Occupational growth should be strongest for agents selling health insurance and long-term care insurance. This is due in part because of an aging population and federally mandated insurance coverage. The typical education required for entry into this occupation is a high school diploma or equivalent.

Growth Sector #6: Arts, Entertainment, and Recreation

Table A6: Arts, Entertainment, and Recreation – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Therapy and Counseling	Service Orientation	Explosive Strength	Assisting and Caring for Others
Customer and Personal Service	Social Perceptiveness	Gross Body Coordination	Performing for or Working Directly with the Public
Sociology and Anthropology	Coordination	Stamina	Performing General Physical Activities
Psychology	Speaking	Gross Body Equilibrium	Scheduling Work and Activities
Fine Arts	Active Listening	Oral Expression	Staffing Organizational Units

Source: Dorothy Employment-Tech

Occupations in this sector include maids and housekeeping cleaners, hotel/motel/resort desk clerks, and slot supervisors.

Figure A11: Arts, Entertainment, and Recreation – Employers with the Most Online Advertised Jobs (September 2015-2016)
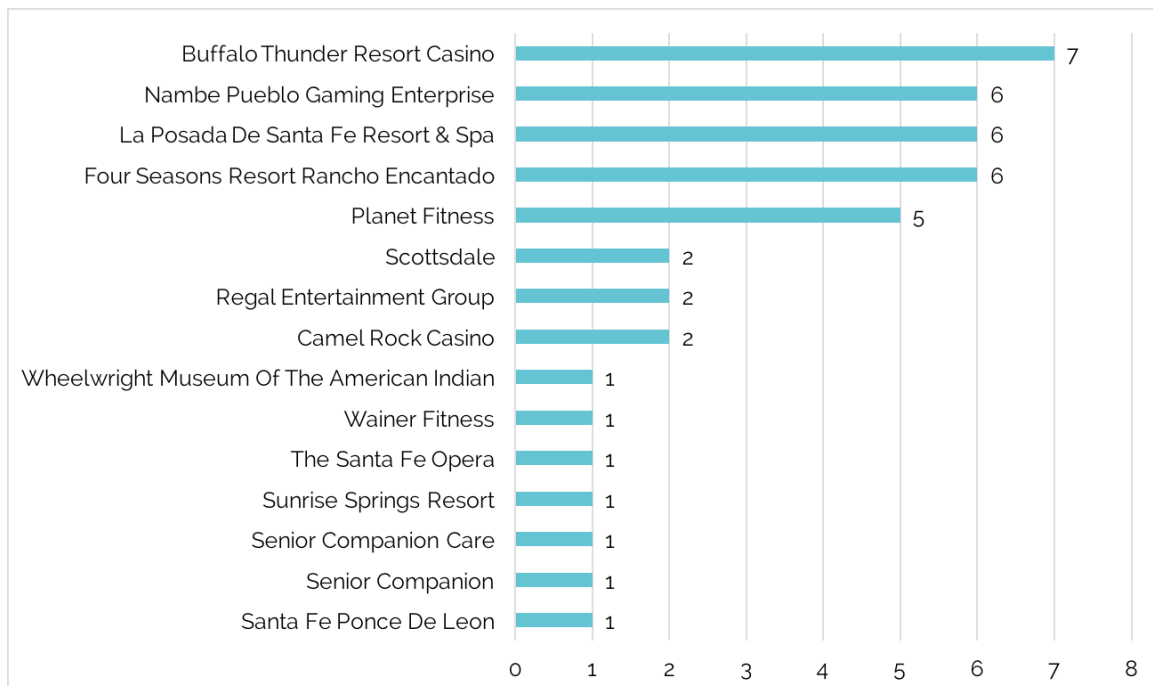
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A12: Arts, Entertainment, and Recreation – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Value
Maids and Housekeeping Cleaners	5
Hotel, Motel, and Resort Desk Clerks	3
First-Line Supervisors of Office and Administrative…	3
Ushers, Lobby Attendants, and Ticket Takers	2
Slot Supervisors	2
Public Relations and Fundraising Managers	2
Managers, All Other	2
Lifeguards, Ski Patrol, and Other Recreational…	2
General and Operations Managers	2
First-Line Supervisors of Housekeeping and Janitorial…	2
First-Line Supervisors of Food Preparation and Serving…	2
Dishwashers	2
Construction Managers	2
Architectural and Engineering Managers	2
Security and Fire Alarm Systems Installers	1

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Maids and housekeeping cleaners were the most advertised occupation within this industry sector between September 2015 and September 2016. Santa Fe MSA growth for this occupation is projected at 0.6% annually through 2024. Less than a high school diploma up to a high school diploma or equivalent is often sufficient for employment in this occupation.

Hotel, motel, and resort desk clerks were the second most advertised occupation within the arts, entertainment, and recreation industry sector. This occupation's forecasted growth is 0.7% annually. Less than a high school diploma up to a high school diploma or equivalent is often sufficient for employment in this occupation.

With Santa Fe and the surrounding areas being a popular tourist destination these occupations are important to maintaining that status.

Growth Sector #7: Administrative and Support and Waste Management and Remediation Services

Table A7: Administrative and Support and Waste Management and Remediation Services – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Clerical	Time Management	Speech Recognition	Performing Administrative Activities
Customer and Personal Service	Writing	Written Expression	Interacting With Computers
Personnel and Human Resources	Service Orientation	Speech Clarity	Documenting/Recording Information
English Language	Reading Comprehension	Oral Comprehension	Performing for or Working Directly with the Public
Computers and Electronics	Speaking	Written Comprehension	Communicating with Supervisors, Peers, or Subordinates

Source: Dorothy Employment-Tech

Occupations in this sector include security guards, customer service representatives, human resource specialists, and bus and truck mechanics and diesel engine specialists.

Figure A13: Administrative and Support and Waste Management and Remediation Services – Employers with the Most Online Advertised Jobs (September 2015-2016)
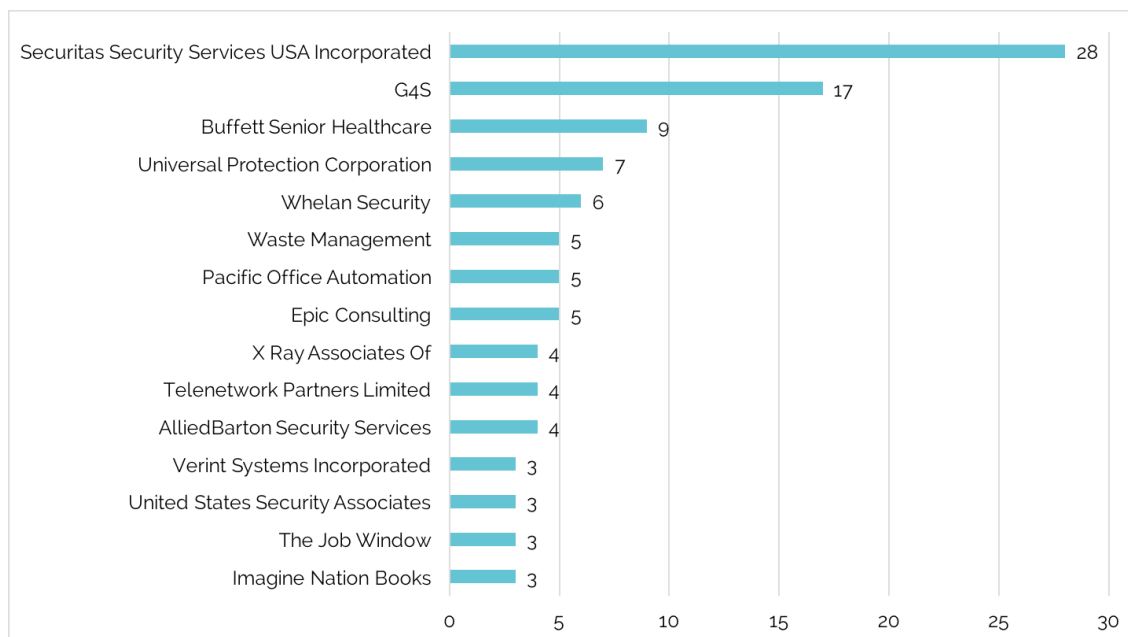
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A14: Administrative and Support and Waste Management and Remediation Services – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Jobs
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	78
Security Guards	61
Customer Service Representatives	55
Human Resources Specialists	13
Bus and Truck Mechanics and Diesel Engine Specialists	7
Retail Salespersons	6
Insurance Sales Agents	5
Travel Agents	3
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	3
Sales Representatives, Services, All Other	3
Sales Managers	3
Protective Service Workers, All Other	3
Private Detectives and Investigators	3
Managers, All Other	3
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	3

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Sales representatives for wholesale and manufacturing were the most advertised occupation online within the Santa Fe MSA in this sector. This occupation is projected to grow by 0.7% yearly through 2024. A bachelor's degree is the most common educational attainment for people in this occupation.

The second most advertised occupation online for the Santa Fe MSA between September 2015 and 2016 were security guards. Security guards are projected to grow yearly by 0.6%. A high school diploma or equivalent is sufficient for employment in this occupation.

Growth Sector #8: Accommodation and Food Services

Table A8: Accommodation and Food Services – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Food Production	Service Orientation	Speed of Limb Movement	Performing General Physical Activities
Customer and Personal Service	Social Perceptiveness	Stamina	Handling and Moving Objects
Foreign Language	Coordination	Trunk Strength	Performing for or Working Directly with the Public
Sales and Marketing	Monitoring	Gross Body Coordination	Assisting and Caring for Others
Public Safety and Security	Installation	Dynamic Strength	Controlling Machines and Processes

Source: Dorothy Employment-Tech

Occupations in this industry sector include waiters/waitresses, first-line supervisors of food preparation and serving workers, and restaurant cooks.

Figure A15: Accommodation and Food Services – Employers with the Most Online Advertised Jobs (September 2015-2016)
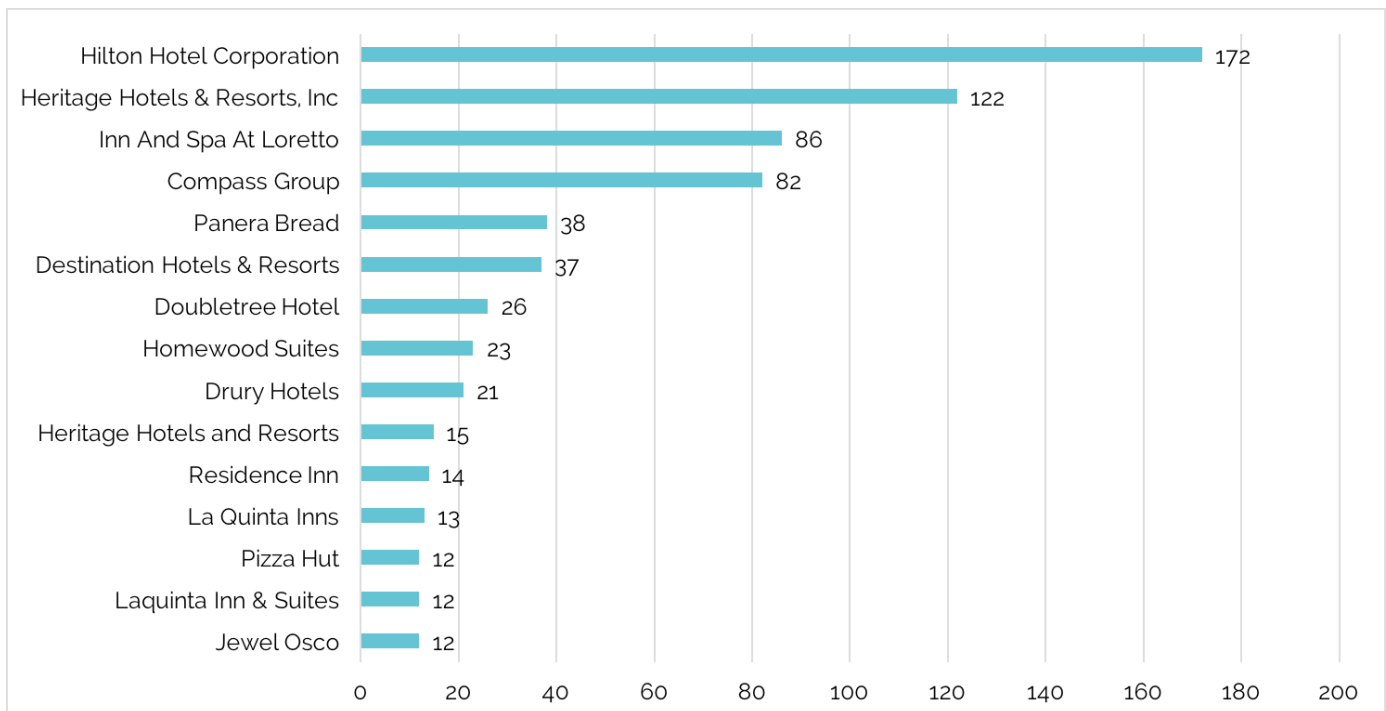
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A16: Accommodation and Food Services – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)

Occupation	Value
Hotel, Motel, and Resort Desk Clerks	98
Waiters and Waitresses	89
First-Line Supervisors of Food Preparation and Serving Workers	77
Cooks, Restaurant	65
Maids and Housekeeping Cleaners	57
Combined Food Preparation and Serving Workers, Including…	54
Food Service Managers	38
Bartenders	37
Chefs and Head Cooks	34
Locker Room, Coatroom, and Dressing Room Attendants	32
Lodging Managers	25
Maintenance and Repair Workers, General	22
Sales Managers	21
Dining Room and Cafeteria Attendants and Bartender Helpers	19
Laundry and Dry-Cleaning Workers	18

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Waiters and waitresses were advertised prominently within this industry sector, with an annual growth projection of 0.8%. Employment in this occupation can usually be attained with less than a high school diploma up to a high school diploma or equivalent.

First-line supervisors of food preparation and serving workers is projected to grow at 1.5% annually and employment can be realized with a high school diploma or less.

Growth Sector #9: Wholesale Trade

Table A9: Wholesale Trade – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Sales and Marketing	Negotiation	Speech Recognition	Selling or Influencing Others
Economics and Accounting	Persuasion	Speech Clarity	Resolving Conflicts and Negotiating with Others
Administration and Management	Management of Financial Resources	Oral Expression	Communicating with Persons Outside Organization
Customer and Personal Service	Social Perceptiveness	Oral Comprehension	Establishing and Maintaining Interpersonal Relationships
Communications and Media	Management of Material Resources	Fluency of Ideas	Estimating the Quantifiable Characteristics of Products, Events, or Information

Source: Dorothy Employment-Tech

Occupations in this sector include drivers/sales workers, counter/rental clerks, and merchandise displayers and window trimmers.

Figure A17: Wholesale Trade – Employers with the Most Online Advertised Jobs (September 2015-2016)
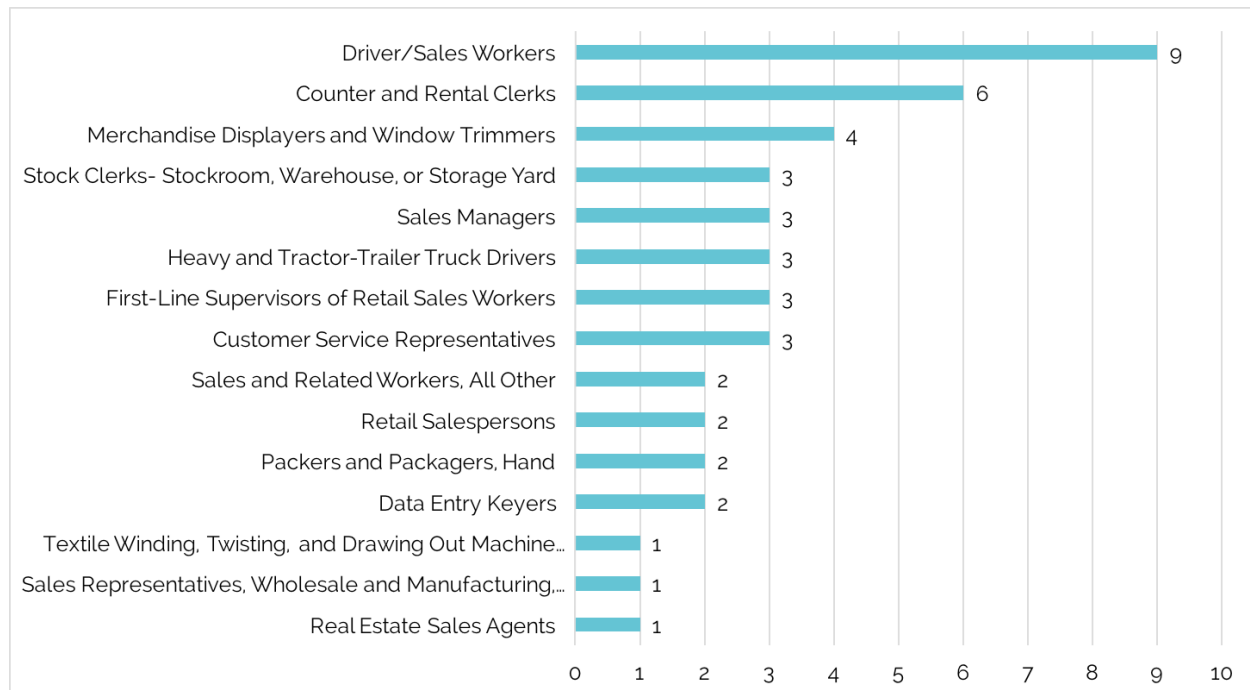
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A18: Wholesale Trade – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)
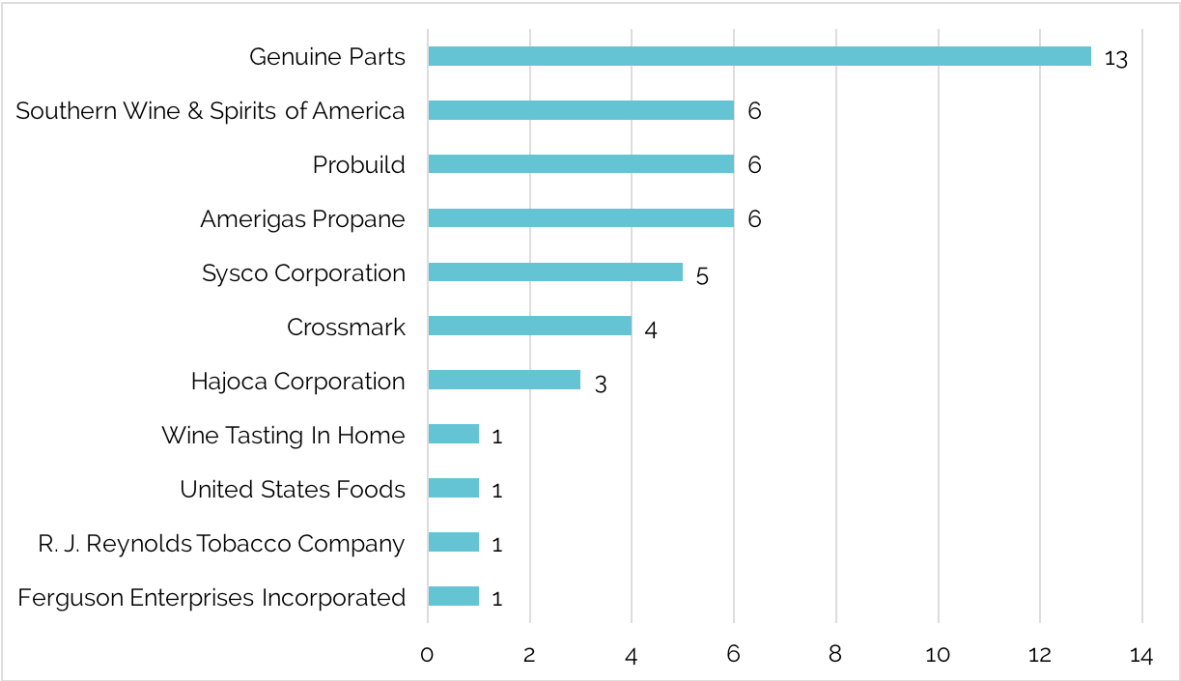
Company	Value
Genuine Parts	13
Southern Wine & Spirits of America	6
Probuild	6
Amerigas Propane	6
Sysco Corporation	5
Crossmark	4
Hajoca Corporation	3
Wine Tasting In Home	1
United States Foods	1
R. J. Reynolds Tobacco Company	1
Ferguson Enterprises Incorporated	1

*Source: Burning Glass – Labor Insights: Santa Fe MSA Occupations (8-Digit O*NET) with the Most Online Advertised Jobs*

Drivers and sales workers were the most advertised occupation online between September 2015 and 2016. This occupation's annual growth projection through 2024 is 0.9%. The Commercial Vehicle Driver's License (CDL) is crucially important to this occupation.

The second most advertised occupation online were for counter and rental clerks. This occupation is forecasted to grow at 0.5% annually through 2024. Employment in this occupation can usually be attained with less than a high school diploma up to a high school diploma or equivalent.

Growth Sector #10: Mining, Quarrying, and Oil and Gas Extraction

Table A10: Mining, Quarrying, and Oil and Gas Extraction – Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills	Abilities	Work Activities
Physics	Equipment Selection	Sound Localization	Coordinating the Work and Activities of Others
Chemistry	Management of Personnel Resources	Spatial Orientation	Estimating the Quantifiable Characteristics of Products, Events, or Information
Mathematics	Critical Thinking	Night Vision	Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment
Mechanical	Operation and Control	Peripheral Vision	Guiding, Directing, and Motivating Subordinates
Geography	Operation Monitoring	Visual Color Discrimination	Coaching and Developing Others

Source: Dorothy Employment-Tech

Occupations in this sector include soil and water conservationists and civil engineers.

Figure A19: Mining, Quarrying, and Oil and Gas Extraction – Employers with the Most Online Advertised Jobs (September 2015-2016)
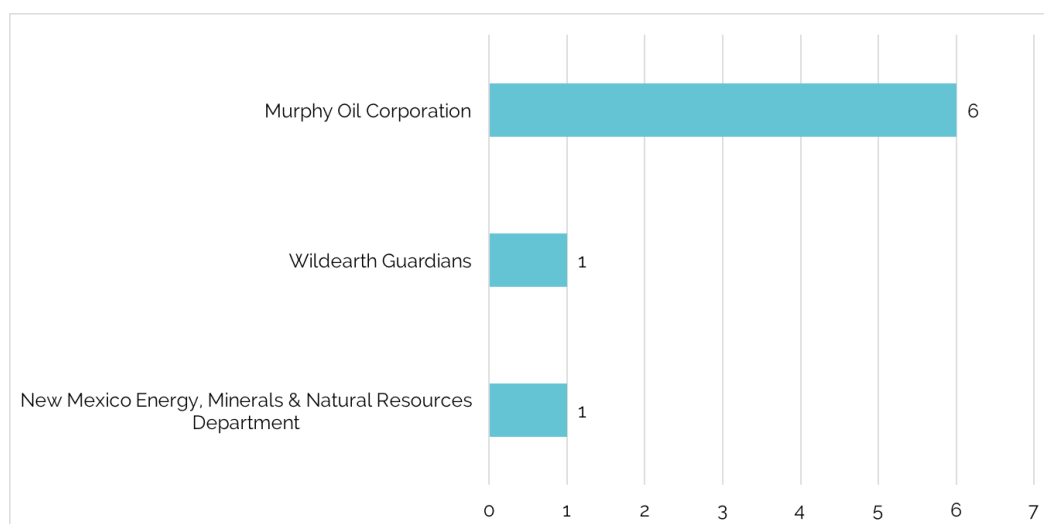
Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

Figure A20: Mining, Quarrying, and Oil and Gas Extraction – Occupations (8-Digit O*NET) with the Most Online Advertised Jobs (September 2015-2016)
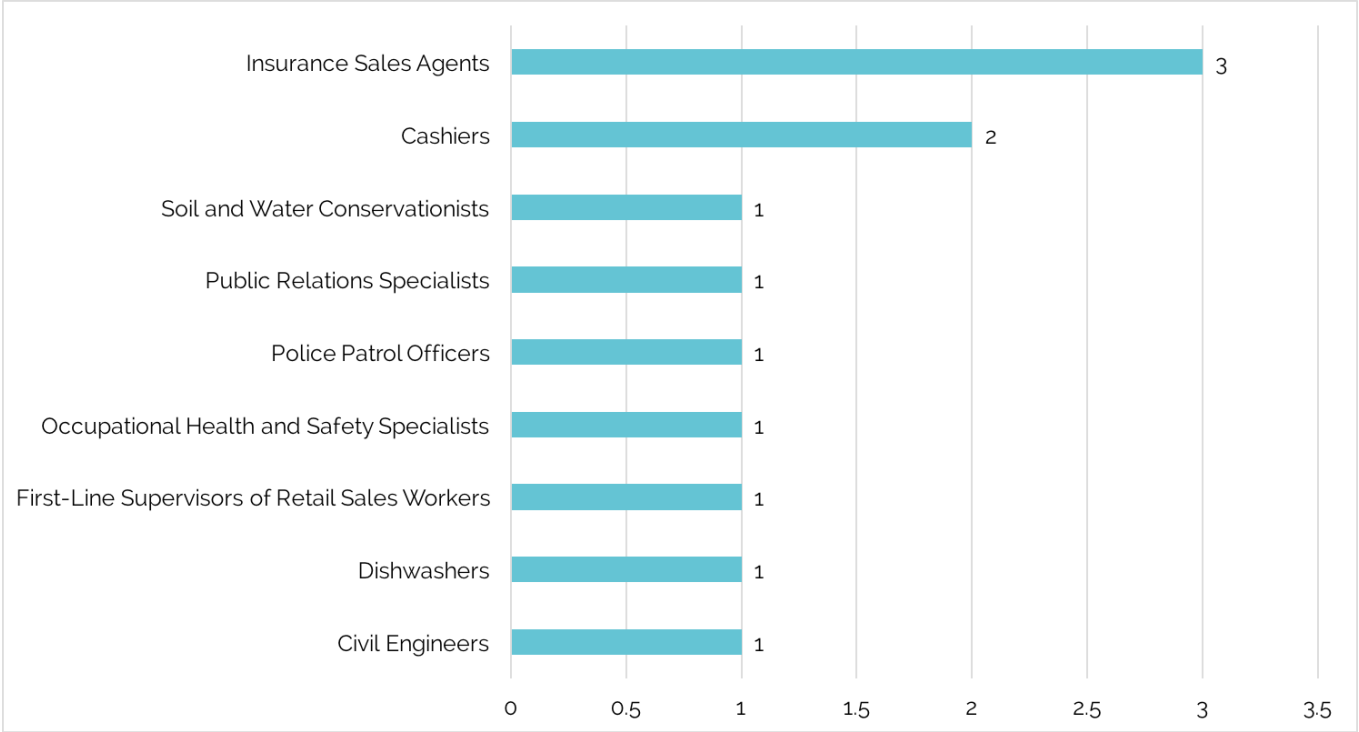
Occupation	Value
Insurance Sales Agents	3
Cashiers	2
Soil and Water Conservationists	1
Public Relations Specialists	1
Police Patrol Officers	1
Occupational Health and Safety Specialists	1
First-Line Supervisors of Retail Sales Workers	1
Dishwashers	1
Civil Engineers	1

Source: Burning Glass – Labor Insights: Santa Fe MSA Employers with the Most Online Advertised Jobs

ADDITIONAL FIGURES AND TABLES

A21: Historical and Projected Total Employment (2006-Q4 to 2026-Q3)
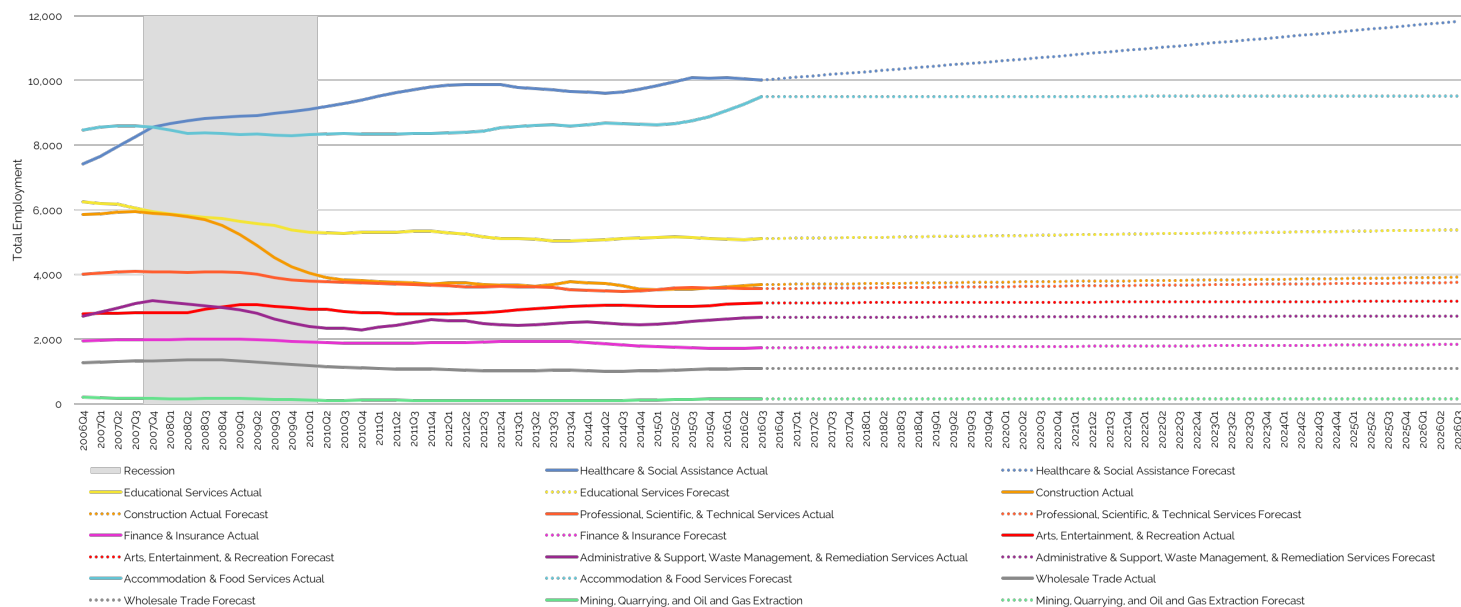
Source: JobsEQ – Historical and Projected Total Employment (2006-Q4 to 2026-Q3)

Table A11: Total Covered Employment (2014 Q3) and Online Jobs Advertised (September 2007 - September 2016)

Industry Sector	Skill Category	Covered Employment (2014 Q3)	% of Employment in Skill Category	Average Annual Earnings, Stable Jobs	Online Jobs Advertised by Minimum Education	Online Jobs Advertised by Minimum Education (%)
Healthcare and Social Assistance	Low	3,508	38.9%	$34,035	1,119	19.8%
	Middle	3,099	34.3%	$46,509	2,134	37.7%
	High	1,849	20.5%	$78,426	2,402	42.5%
	NA	569	6.3%	$21,597	-	-
Educational Services	Low	1,669	33.9%	$29,849	746	28.7%
	Middle	1,584	32.2%	$35,460	59	2.3%
	High	1,387	28.2%	$42,058	1,797	69.1%
	NA	282	5.7%	$12,706	-	-
Construction	Low	1,550	53.0%	$37,197	95	70.4%
	Middle	807	27.6%	$43,528	2	1.5%
	High	347	11.9%	$47,862	38	28.1%
	NA	219	7.5%	$26,233	-	-
Professional, Scientific, and Technical Services	Low	678	28.2%	$46,367	665	32.8%
	Middle	735	30.5%	$60,029	172	8.5%
	High	891	37.0%	$91,883	1,190	58.7%
	NA	103	4.3%	$24,411	-	-

Industry Sector	Skill Category	Covered Employment (2014 Q3)	% of Employment in Skill Category	Average Annual Earnings, Stable Jobs	Online Jobs Advertised by Minimum Education	Online Jobs Advertised by Minimum Education (%)
Finance and Insurance	Low	520	30.9%	$61,218	634	27.1%
	Middle	531	31.5%	$94,667	114	4.9%
	High	514	30.6%	$270,538	1,591	68.0%
	NA	118	7.0%	$26,898	-	-
Arts, Entertainment, and Recreation	Low	990	41.8%	$31,502	216	63.7%
	Middle	696	29.4%	$37,071	20	5.9%
	High	359	15.2%	$48,052	103	30.4%
	NA	324	13.7%	$18,105	-	-
Administrative and Support and Waste Management and Remediation Services	Low	902	45.3%	$30,919	424	60.0%
	Middle	554	27.8%	$37,743	46	6.5%
	High	318	16.0%	$51,015	237	33.5%
	NA	216	10.8%	$20,139	-	-
Accommodation and Food Services	Low	3,851	45.0%	$24,075	1,175	71.6%
	Middle	1,936	22.6%	$26,044	114	7.0%
	High	1,031	12.1%	$27,184	351	21.4%
	NA	1,733	20.3%	$15,895	-	-
Wholesale Trade	Low	415	45.2%	$41,213	189	75.3%
	Middle	288	31.4%	$54,754	12	4.8%
	High	162	17.6%	$70,181	50	19.9%
	NA	54	5.8%	$25,479	-	-
Mining, Quarrying, and Oil and Gas Extraction	Low	52	53.5%	$61,043	23	27.1%
	Middle	28	29.2%	$76,131	4	4.7%
	High	17	16.9%	$88,438	58	68.2%
	NA	0	0.4%	$37,212	-	-
Management of Companies and Enterprises	Low	68	37.6%	$36,957	1	5.3%
	Middle	62	34.2%	$48,911	1	5.3%
	High	37	20.6%	$73,743	17	89.5%
	NA	14	7.5%	$20,401	-	-
Utilities	Low	99	39.3%	$58,447	91	62.3%
	Middle	87	34.7%	$68,376	4	2.7%
	High	60	24.0%	$93,570	51	34.9%
	NA	5	2.1%	$37,036	-	-
Other Services (except Public Administration)	Low	1,121	13.1%	$32,157	194	42.6%
	Middle	751	8.8%	$39,815	35	7.7%
	High	461	18.1%	$49,712	226	49.7%
	NA	222	2.6%	$20,226	-	-

Industry Sector	Skill Category	Covered Employment (2014 Q3)	% of Employment in Skill Category	Average Annual Earnings, Stable Jobs	Online Jobs Advertised by Minimum Education	Online Jobs Advertised by Minimum Education (%)
Agriculture, Forestry, Fishing and Hunting	Low	88	52.0%	$30,647	29	30.9%
	Middle	43	25.3%	$33,096	2	2.1%
	High	23	13.8%	$33,226	63	67.0%
	NA	15	8.9%	$21,288	-	-
Real Estate and Rental and Leasing	Low	391	41.6%	$35,199	164	41.6%
	Middle	297	31.7%	$43,219	62	15.7%
	High	182	19.3%	$61,191	168	42.6%
	NA	69	7.4%	$22,848	-	-
Transportation and Warehousing	Low	419	48.0%	$38,262	335	80.5%
	Middle	281	32.2%	$43,537	18	4.3%
	High	117	13.4%	$53,080	63	15.1%
	NA	56	6.4%	$23,430	-	-
Information	Low	331	34.2%	$41,888	248	45.2%
	Middle	299	30.9%	$50,220	4	0.7%
	High	251	25.9%	$66,041	297	54.1%
	NA	86	8.9%	$19,345	-	-
Manufacturing	Low	432	51.2%	$32,921	409	43.1%
	Middle	226	26.8%	$40,949	39	4.1%
	High	119	14.1%	$61,606	501	52.8%
	NA	66	7.9%	$20,367	-	-
Retail Trade	Low	3,859	43.1%	$31,540	1,873	78.0%
	Middle	2,406	26.9%	$35,271	107	4.5%
	High	1,083	12.1%	$44,698	422	17.6%
	NA	1,600	17.9%	$17,084	-	-
Public Administration	Low	3,839	39.1%	$44,429	1,399	59.7%
	Middle	3,659	37.2%	$49,745	187	8.0%
	High	1,931	19.6%	$58,962	759	32.4%
	NA	399	4.1%	$34.333	-	-
Total	Low	24,781	41.0%	$38,993	10,029	42.6%
	Middle	18,370	30.4%	$48,254	3,136	13.3%
	High	11,138	18.4%	$70,573	10,384	44.1%
	NA	6,151	10.2%	$23,252	-	-

Source: JobsEQ – Workforce Characteristics: Education Demographics
BurningGlass – Online Job Advertisements with Minimum Education Requirements
Green Highlighted figures represent an average wage that is greater than the New Mexico median income of $44,968

Table A12: 4-year Public College Tuition, Fees, and Room and Board vs. Median Income (1975-2015)

Academic Year	Tuition and Fees and Room and Board (Public Four-Year)	Tuition and Fees and Room and Board (Public Four-Year) Percent Change over Previous Year	Median Income	Median Income - Percent Change over Previous Year	College Costs as Percent of Income
1975-1976	$7,899		$48,066		16.4%
1976-1977	$ 8,159	3.3%	$48,370	0.6%	16.9%
1977-1978	$8,040	-1.5%	$50,242	3.9%	16.0%
1978-1979	$7,857	-2.3%	$50,146	-0.2%	15.7%
1979-1980	$7,664	-2.5%	$48,518	-3.2%	15.8%
1980-1981	$7,423	-3.1%	$47,712	-1.7%	15.6%
1981-1982	$7,540	1.6%	$47,585	-0.3%	15.8%
1982-1983	$7,888	4.6%	$47,283	-0.6%	16.7%
1983-1984	$8,270	4.8%	$48,720	3.0%	17.0%
1984-1985	$8,512	2.9%	$49,631	1.9%	17.2%
1985-1986	$8,615	1.2%	$51,388	3.5%	16.8%
1986-1987	$8,901	3.3%	$52,032	1.3%	17.1%
1987-1988	$8,879	-0.2%	$52,432	0.8%	16.9%
1988-1989	$9,047	1.9%	$53,367	1.8%	17.0%
1989-1990	$9,121	0.8%	$52,684	-1.3%	17.3%
1990-1991	$9,364	2.7%	$51,145	-2.9%	18.3%
1991-1992	$9,633	2.9%	$50,725	-0.8%	19.0%
1992-1993	$9,992	3.7%	$50,478	-0.5%	19.8%
1993-1994	$10,352	3.6%	$51,065	1.2%	20.3%
1994-1995	$10,735	3.7%	$52,664	3.1%	20.4%
1995-1996	$10,641	-0.9%	$53,407	1.4%	19.9%
1996-1997	$10,947	2.9%	$54,506	2.1%	20.1%
1997-1998	$11,199	2.3%	$56,510	3.7%	19.8%
1998-1999	$11,456	2.3%	$57,909	2.5%	19.8%
1999-2000	$11,664	1.8%	$57,790	-0.2%	20.2%
2000-2001	$11,752	0.8%	$56,531	-2.2%	20.8%
2001-2002	$12,245	4.2%	$55,871	-1.2%	21.9%
2002-2003	$12,924	5.5%	$55,823	-0.1%	23.2%
2003-2004	$13,779	6.6%	$55,629	-0.3%	24.8%
2004-2005	$14,454	4.9%	$56,224	1.1%	25.7%
2005-2006	$14,920	3.2%	$56,663	0.8%	26.3%
2006-2007	$15,180	1.7%	$57,423	1.3%	26.4%
2007-2008	$15,660	3.2%	$55,376	-3.6%	28.3%
2008-2009	$15,720	0.4%	$54,988	-0.7%	28.6%
2009-2010	$17,020	8.3%	$53,568	-2.6%	31.8%

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2010-2011	$17,860	4.9%	$52,751	-1.5%	33.9%
2011-2012	$18,270	2.3%	$52,666	-0.2%	34.7%
2012-2013	$18,710	2.4%	$52,850	0.3%	35.4%
2013-2014	$18,940	1.2%	$53,719	1.6%	35.3%
2014-2015	$19,120	1.0%	$56,516	5.2%	33.8%

1975-1976 to 2014-2015		142.1%		17.6%	

Source: College Board: Trends in Higher Education - Tuition and Fees and Room and Board over Time; US Census Bureau – Historical Median Incomes 1975-2015.

Note: Tuition and Fees and Room and Board and Median Incomes are adjusted to 2015 dollars

DATA SOURCES AND LOCATIONS

Data Sources	Resource Location	Resource Used
Bureau of Labor Statistics	http://www.bls.gov/bdm/entrepreneurship/entrepreneurship.htm	Entrepreneurship and the U.S. Economy
Burning Glass: Labor Insights	http://burning-glass.com/labor-insight/	Santa Fe MSA Jobs Advertised by Employer and O*Net Occupations and Online Jobs Advertised with Minimum Education Requirements
Dorothy Employment-Tech		Knowledge, Skills, Abilities, Interests, and Work Activities
Jobs EQ	http://www.chmuraecon.com/jobseq/	NAICS-2 2016-2026 Sector Growth and Historical and Projected Total Employment
United States Census Bureau	http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml	Educational Attainment
Pew Research Center	http://www.pewresearch.org/next-america/#Two-Dramas-in-Slow-Motion http://data.worldbank.org/indicator/SP.DYN.LE00.IN	Age by Population Group

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