

workforce CONNECTIONS PLOYLL PARIMETERS POSSIBILITIES Connecting Employers to a Ready Workforce







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# EXECUTIVE SUMMARY

In October 2019, the Las Vegas Global Economic Alliance, in partnership with the Vegas Chamber and Workforce Connections, released a new Workforce Blueprint that built on the foundation of the inaugural Workforce Blueprint that LVGEA commissioned in 2017. This analysis highlighted in-demand occupations aligned with the region's target industries, providing a basis upon which economic and workforce development partners would work in tandem to address some of the region's most pressing workforce supply challenges.

In the time since this analysis was completed, Southern Nevada's economy—along with economies throughout the world—have experienced tremendous shocks and shifts as a result of the COVID-19 pandemic, which was especially challenging for regions in which a significant part of their economy and workforce are reliant upon industries essentially shuttered for extended periods of time. However, two years after the start of the pandemic, economic output throughout the world is once again on the rise. Southern Nevada in particular is experiencing an economic resurgence, with LVGEA setting a new record for yearly job creation in 2021 and establishing a new set of target industries that regional partners are working to expand with a distinct focus on diversifying and strengthening the regional economy.

As the region's economy begins to recover, regional leaders once again recognize the importance of understanding how recent economic shifts have impacted Southern Nevada's workforce, identifying the jobs expected to be in greatest demand for the coming years, and scaling educational and training solutions to meet this demand. To that end, LVGEA commissioned a third installment of the region's Workforce Blueprint, supported by key partners that include Workforce Connections, the Vegas Chamber, the Governor's Office of Economic Development, the Henderson Chamber of Commerce, the Latin Chamber of Commerce, and the Urban Chamber of Commerce Las Vegas. The underlying theme captured in this analysis is one of both disruption and opportunity for the regional workforce. Across the board, global trends like automation, employee burnout, safety concerns for in-person activities, remote and hybrid work, rapid growth in categories like e-commerce, and the fastest wage growth in 20 years have individually and collectively impacted Southern Nevada's top industries to varying degrees. One of the more crucial impacts has been the destabilization of the region's leisure and hospitality sector that, while positively recovering from the height of the pandemic, is expected to see sustained and possibly permanent job losses in the tens of thousands. Meanwhile, sectors like manufacturing, logistics, and warehousing are experiencing significant increased demand for skilled and technical workers, as evidenced in the top-ranked, in-demand occupations outlined in this analysis:

#### **RANKING OCCUPATION**

1	Software Developers, Applications
2	Software Developers, Systems Software
3	Civil Engineers
4	Managers, All Other
5	Veterinarians
6	Electronics Engineers, Except Computer
7	Environmental Scientists and Specialists, Including Health
8	General and Operations Managers
9	Aerospace Engineers
10	Information Security Analysts

The demand for management positions in some of these sectors is extreme; for example, general and operations managers ranks as the eighth most in-demand occupation for Southern Nevada, with 1,635 annual openings but a workforce pipeline that is currently only supplying 321 workers annually. The benefit, however, of some of these burgeoning sectors is the rapid manner in which employees can progress from entry-level roles to supervisory and management roles in very little time; for example, a warehouse laborer can progress to a first-line supervisor with minimal on-the-job experience and easily attainable certifications from an industry partner, earning more than 1.5 times the wage of an entry-level laborer in the process. Like many regions over the past two years, Southern Nevada continues to experience scarcity in a trained healthcare workforce that has been negatively impacted by the pandemic, with total annual demand for registered nurses alone expected to reach 1,588 workers and several other healthcare jobs ranking in the top 100 for in-demand occupations in Southern Nevada. The same is true for higher-level technical roles like software developers, engineers, architects, and cybersecurity specialists, representing additional demand for thousands of workers in fields that in many instances require two- and four-year degrees, or even advanced degrees.

While this Workforce Blueprint provides a clear, data-driven view into the demand for these and other occupations, economic and workforce development organizations in the region have been working in recent years to close these gaps. These partners including the K-12 school system, higher education institutions, and traditional and nontraditional training providers—continue to develop programs and present solutions that respond to these evolving industry needs and provide significant momentum for the region to continue leveraging in the coming years.

In addition to these individual efforts by regional partners, the entire region must continue banding together as it has for years to jointly address these significant workforce demands and keep pace with an economy that is poised to experience rapid growth and success for years to come. This Workforce Blueprint contains several strategies and initiatives rooted in this collaborative approach to solving challenges and seizing opportunities, as outlined below. These recommendations also align closely with key elements of LVGEA's Comprehensive Economic Development Strategy ("Vision 2025: A Comprehensive Economic Development Strategy for Southern Nevada"). This strategy, developed in August 2021, emphasizes a number of goals and objectives like stimulating a future-ready workforce and establishing, resourcing, or scaling programs that can have a direct impact in addressing noted workforce demands in an inclusive and equitable way.

• Coordinate and champion workforce development solutions that address key workforce gaps. These solutions can include placing a greater emphasis on apprenticeship opportunities, expanding the use of alternative skills testing for K-12 students, and informing state-level policy decisions or investments that can help grow the success of subcategories within an industry or sector. This is further reinforced and mirrored in *Vision 2025: Objective 5.2*, which focuses on encouraging and institutionalizing collaboration among stakeholders in Southern Nevada's workforce development community.

- Aggressively work to scale existing efforts led by regional partners currently addressing workforce needs. Partners like Workforce Connections are already establishing key programs and providing forums that help align industry demand with educational programs. These efforts should be expanded to the greatest extent possible with a focus on seeking federal grants and attracting funding that makes them sustainable over time. Additionally, they should be informed by outreach to workers in underserved communities, helping to strengthen the region's economic diversity and provide inclusive and equitable opportunities to residents throughout the region.
- Establish or leverage existing committees among economic development, workforce development, and business-focused organizations in the region to specifically drive workforce-related policy initiatives or issues. Each of these organizations—from the regional economic development agency to local chambers and training providers—should maintain a strong focus on coordinating and collaborating with one another to advocate for policies that help businesses and industries meet their workforce needs and promote more equitable participation in the region's economic recovery and future.
- Build interest in high-demand jobs that offer tremendous economic mobility but represent a significant career or occupational shift. Sectors like leisure and hospitality have shed thousands of jobs, perhaps permanently, while other sectors like manufacturing and logistics are experiencing unprecedented demand for workers. However, some of these trade jobs like electricians, plumbers, construction workers, and installation and maintenance workers carry perceptions that can be difficult to overcome without clearly communicating their value proposition to prospective workers. By demonstrating the significant potential for future earnings and the economic mobility entry-level positions in these sectors offer in a relatively short period of time, workers will be able to better understand that they're not just choosing an entry-level job, they're opting into a career. "Career maps" that visualize these scenarios can be effective tools for reaching these audiences, laying out clear pathways for how this mobility and advancement can occur with real earnings attached to each step in their career.

- Aggressively tell the region's story in targeting workers in adjacent states or geographies. LVGEA and the City of Las Vegas, among others in the region, have initiated efforts to attract new talent to the region while promoting the quality-oflife benefits that await inbound workers. As highlighted in *Vision* 2025: Objective 1.6, which focuses on increasing Southern Nevada's appeal to young families and professionals, these efforts should continue and be scaled to any degree possible as the region continues to invest within by building out additional workforce capacity among educational and training institutions. This focus on attracting talent in certain high-demand industries should also be coordinated at a regional level and on an industry basis to ensure talent recruitment efforts operate in tandem with reskilling programs and other efforts to mobilize Southern Nevada's existing workforce.
- Continue adapting training programs to rapidly reskill displaced workers and place them into new roles with elevated demand. This focus on rapidly reskilling workers must be deliberate and shared by all partners and providers to address the pressing sense of misalignment between supply and demand, building on existing efforts among partners to reskill displaced workers in industries like hospitality with the tools and skills they need to meet heightened demand in other rapidly growing industries.
- Continue being responsive to business and industry needs in real time. Educational partners have made great strides in recent years in adapting degree programs to support market demand for in-demand jobs. This is even more crucial in today's environment, particularly in providing advanced education programs in industries with pressing demand for highly technical or skilled workers, including those like healthcare where workforce supply was already challenged pre-pandemic. Entities like LVGEA's Economic Development Advisory Group can continue serving as a valuable forum for business, industry, local government, and educational and training providers to coordinate related projects and resources involving economic development in Southern Nevada.

 Challenge all community partners at the state, regional, and local levels to adopt and meaningfully advance a focus on diversity, equity, and inclusion as a foundational economic driver for positive economic change in the region. From defining and broadly communicating a shared DEI policy for the regional economy and creating a regional DEI committee consisting of industry representatives and large employers to supporting business incubators and broadening access to procurement and contracting opportunities, each of these partners must work individually and collectively to ensure the future economy for Southern Nevada is one that mirrors the population and communities it supports - and one where all interested parties have equitable and inclusive access to join in economic success. This focus area is further highlighted and reinforced in Vision 2025: Objective 2.2, emphasizing the need to "encourage effective business collaborations, including partnerships between startups and established, larger businesses."

While Southern Nevada has undergone numerous economic changes throughout its history, the region has always responded to challenges with a clear focus and solutions that not only emphasize economic recovery, but a vibrant and more sustainable future economy. In March 2020, Southern Nevada was once again presented with a challenge perhaps unlike any other it has faced in the COVID-19 pandemic; however, the collaboration and coordination that currently exists within the region served as a driving factor behind its economic resurgence, despite these challenges and their implications on the region's workforce that will last for years into the future. Through the data and recommendations included in this Workforce Blueprint, regional partners are poised to once again elevate and scale their individual efforts by leaning into this spirit of collaborationleveraging their collective resources to build Southern Nevada's workforce of today and tomorrow while informing a vibrant, diverse, and positive economic outlook for years to come.

# INTRODUCTION AND BACKGROUND

Southern Nevada has endured historically volatile times—from the shockwaves felt from the 2008 financial crisis to the impacts of the COVID-19 pandemic. While these events presented significant challenges to the regional economy, Southern Nevada has rebounded again and again, emerging from each period of decline with diversified strategies, greater cohesion among stakeholders, and rapid economic growth. The same trend is evident as the region and world emerge from the pandemic, with the regional economy on the upswing as it undergoes rapid growth combined with evolving workforce needs across key industries and occupations.

In 2017, the Las Vegas Global Economic Alliance (LVGEA) commissioned the region's first Workforce Blueprint in response to a significant economic upswing and the workforce demand driven by this growth. Through this unprecedented analysis for the region, LVGEA sought to understand the current and long-term occupational needs that were most pressing to employers, as well as where regional education and training providers needed to enhance or build new programs to help meet this demand. In 2019, LVGEA led an effort in coordination with its partners at Workforce Connections and the Vegas Chamber to update this supply-and-demand analysis with a second Workforce Blueprint that incorporated new data and more recent insights into economic growth projections that would further reinforce how regional stakeholders should prioritize training and education programming for key occupations.

By March 2020, COVID-19 had drastically changed the world, driving global economies and key industries to a screeching halt. For Southern Nevada, the economic fallout was immediately evident in the swift decline of the region's world-leading hospitality- and tourism-related sectors. Additionally, the pandemic prompted companies across all industries to shift to remote work, with many continuing this trend today or integrating remote work into a hybrid model—carrying major implications for economies and communities. As the world emerges from the depths of the pandemic, regional economies like Southern Nevada are rapidly reversing the pandemic-induced economic decline from the prior two years. To guide this growth, LVGEA established a new set of target industries in April 2021 that it is focusing on to grow jobs, build communities, and expand economies. This process highlighted many of the changes the economy has experienced in recent years: the continued growth of manufacturing and logistics, the pandemic's impact on the region's hospitality and tourism sectors, and the shifting needs of the global economy. In August 2021, to further assist the region, LVGEA adopted a new Comprehensive Economic Development Strategy (CEDS) for Southern Nevada that outlined a five-year strategic direction for regional economic development.

With new target industries in hand, LVGEA and its partners commissioned the third installment of this Workforce Blueprint to once again understand how recent economic changes and even more recent economic growth are impacting workforce needs to sustain this growth. As these workforce analyses have expanded, so have the partners and collaboration that guide them. In addition to Workforce Connections and the Vegas Chamber, crucial partners in helping to drive this analysis include the Governor's Office of Economic Development, the Henderson Chamber of Commerce, the Latin Chamber of Commerce, and the Urban Chamber of Commerce Las Vegas. Emergent Method-a management and strategy consulting firm-once again partnered with this team to prepare this report, which includes an analysis of current and projected economic conditions, related workforce needs or deficiencies, and occupations regional stakeholders should prioritize for education and training purposes given the scale and pace at which each is expected to grow in the coming years. This analysis also includes policy and programmatic recommendations economic and workforce development partners should consider in the months and years to come that can directly impact how Southern Nevada addresses some of the region's most pressing workforce needs, while working proactively to spur sustained economic growth.

The pandemic has demonstrated that economies and communities are not immune to disruption, even those considered world-leaders or with diversified economic drivers. What sets sustainable economies apart is how they respond to adversity and build greater resilience in the process.

Southern Nevada is also no stranger to adversity. Like it has done before, the region is already responding to these impacts in a way that has repositioned its economy for growth and success. One of the keys to sustained growth, however, is maintaining and supplying the necessary workforce to catalyze future growth. LVGEA and its partners are prepared to work diligently to address these needs—from retraining and reskilling workers displaced by recent economic challenges to attracting new talent to the region—and proactively position Southern Nevada as a vibrant hub for economic and workforce opportunity for years to come.



# TARGET INDUSTRY TRENDS

- General & Advanced Manufacturing
  - Creative Industries

SOUTHERN NEVADA FARGET INDUSTRIES

- Information & Communication Technologies
- Transportation & Logistics Technologies
- Business & Financial Services
- Healthcare Services
- Clean Technologies

The global workforce is evolving, with the pandemic prompting or highlighting workforce shifts around the world and how different economies are adapting. Over the past two years, some geographies and economies have experienced greater change than others, requiring a unique and regionalized course to recovery.

Many industries and employers are experiencing significant increases in demand for key jobs but a shortage of workers to fill them for a variety of reasons-from occupations where an available workforce was already lacking to those with changing industry or workforce conditions (i.e., those heavily influenced by automation) that are driving needs for reskilling and replacement. Pandemic-related employment volatility-from employee burnout to safety concerns associated with onsite work-and trends like "the great resignation" and workforce reductions due to retirements or attrition are leading to an imbalance or deficiency in certain industries, while more pandemic-immune sectors are experiencing a surplus of jobs compared to the number of those seeking employment. These challenges are compounded by the fastest wage growth in 20 years. Between March and July 2021, the leisure and hospitality sector experienced an increase in average hourly earnings rate of 17% and the warehousing and transportation sector experienced an increase of 14.7%.1

Prior to and since the onset of the pandemic, the global push for automation and manufacturing, along with a growing reliance on technology and modernization, highlighted key workforce development needs that extend to other high-demand sectors like resilient and sustainable infrastructure, business and financial services, and dependable healthcare. Further, recent trends in ecommerce adoption exacerbated by the pandemic have given consumers a first-hand understanding of the importance of the supply chain. The pandemic also impacted the economic engine that has historically powered Southern Nevada and other tourismcentric areas, resulting in higher temporary unemployment<sup>2</sup> and tens of thousands of workers suddenly confronted with an industry outlook that requires retraining for many and reskilling for others displaced by this economic shock looking for new opportunities.

Such shifts are happening in a number of industries and geographies throughout the world. While the pandemic caused major temporary disruptions, in many ways it also expedited some of these inevitable shifts in ways that have prompted industries, employers, and employees to adapt in real time to these new environments.

Manufacturing as a whole is experiencing a shift toward automation and robotics integration to meet increased market demand and efficiently produce high-quality, repetitive work with fewer errors. For context, while the World Economic Forum's longterm forecast notes over 85 million jobs globally may be displaced by shifts toward robotics by 2025, over 97 million new jobs are anticipated to emerge. These emerging jobs will be more complex, requiring specialized training or education but providing those entering the workforce with higher-paying, entry-level jobs with greater career mobility.<sup>3</sup> This trend toward greater automation opens up new job categories in these traditionally labor-intensive industries, such as in cybersecurity and through related roles to ensure automated systems are well structured to defend against threats and enhance the resilience of factory operations.

An additional consideration, though, is the need to attract and expand the manufacturing industry's essential in-person, hightouch roles that will continue to exist. As many industries move toward more permanent remote or virtual work offerings, it is even more crucial for the manufacturing industry to build its workforce pipeline in environments still heavily reliant on onsite workers. By expanding manufacturing apprenticeships and reskilling and retraining employees from other industries, the manufacturing industry may be able to utilize this additional pipeline to fulfill its needs for onsite employees.

<sup>&</sup>lt;sup>1</sup> Levanon, G. (2021). The Top Trends in America's Job Market. Forbes. <u>https://www.forbes.com/sites/gadlevanon/2021/08/17/the-top-trends-in-americas-job-market/?sh=44e79f415c1</u>

<sup>&</sup>lt;sup>2</sup> As of Nov 2021, Las Vegas-Henderson-Paradise, NV's Unemployment Rate was 6.3% (https://www.bls.gov/eag/eag.nv\_lasvegas\_msa.htm)

<sup>&</sup>lt;sup>3</sup> World Economic Forum. (2020). The Future of Jobs Report 2020. <u>https://www3.weforum.org/docs/WEF\_Euture\_of\_Jobs\_2020.pdf</u>

#### TOP 20 JOB ROLES IN INCREASING AND DECREASING DEMAND ACROSS INDUSTRIES

According to the World Economic Forum's The Future of Jobs Report 2020, 85 million jobs may be displaced by shifts in labor between humans and machines by 2025, while 97 million new roles may emerge.<sup>4</sup>

4	INCREASING DEMAND	÷	DECREASING DEMAND
 1	Data Analysts and Scientists	1	Data Entry Clerks
2	Al and Machine Learning Specialists	2	Administrative and Executive Secretaries
3	Big Data Specialists	3	Accounting, Bookkeeping and Payroll Clerks
4	Digital Marketing and Strategy Specialists	4	Accountants and Auditors
5	Process Automation Specialists	5	Assembly and Factory Workers
6	Business Development Professionals	6	Business Services and Administration Managers
7	Digital Transformation Specialists	7	Client Information and Customer Service Workers
8	Information Security Analysts	8	General and Operations Managers
9	Software and Applications Developers	9	Mechanics and Machinery Repairers
10	Internet of Things Specialists	10	Material-Recording and Stock-Keeping Clerks
11	Project Managers	11	Financial Analysts
12	Business Services and Administration Managers	12	Postal Service Clerks
13	Database and Network Professionals	13	Sales Rep., Wholesale and Manuf., Tech. and Sci. Products
14	Robotics Engineers	14	Relationship Managers
15	Strategic Advisors	15	Bank Tellers and Related Clerks
16	Management and Organization Analysts	16	Door-To-Door Sales, News and Street Vendors
17	FinTech Engineers	17	Electronics and Telecoms Installers and Repairers
18	Mechanics and Machinery Repairers	18	Human Resources Specialists
 19	Organizational Development Specialists	19	Training and Development Specialists
 20	Risk Management Specialists	20	Construction Laborers

Source: Future of Jobs Survey 2020, World Economic Forum.

<sup>&</sup>lt;sup>4</sup> As described in the World Economic Forum's The Future of Jobs Report 2018 and 2020, some jobs are visible both in declining and increasing demand. This is attributed to shifting demand within specific industries and geographies analyzed in this study, where demand for a specific occupation may be increasing in one area but declining in another.

The pandemic has multiplied the growth of e-commerce, with two to five times faster growth projected in general e-commerce when compared to pre-pandemic growth trends due to consumers' increased dependence on convenient products and services.<sup>5</sup> With these changes, there is an ever-growing need to move goods more quickly throughout the supply chain—from manufacturers and distributors to warehouses and ultimately end users.

All parts of the supply chain have recently experienced workforce shortages, with companies continuing to test different tactics for increasing their workforces. In the trucking industry, companies are enticing workers with signing bonuses and targeting historically underutilized groups like 18-year-olds to meet their workforce needs.<sup>6</sup> In response to this national trend, some companies have recently announced incentive programs for new truck drivers with signing bonuses ranging from \$15,000-\$20,000.7 Logistics companies are also investing heavily in advanced IT systems and supporting infrastructure to help meet increased demand, and professional service firms are expanding their services to help these companies optimize the flow of goods and people to meet the growing demand. The need for logistics operators and support roles is also increasing, creating new opportunities for workers with potential for rapid promotion from entry-level to supervisory roles.

Given the labor shortage across these fields, there are more opportunities for workers to rise through the ranks quickly, in some cases taking advantage of available educational benefits from their employers, earning more money per hour and realizing greater economic mobility. For instance, a warehouse laborer (53-7062) earns \$17.15 per hour. This position requires no formal education and was identified in the 2019 Workforce Blueprint as the 21<sup>st</sup> most in-demand occupation within the region. Within this year's top 100 list, the position is unranked, but the related firstline supervisors (53-1048) is on the top 100 list and has an average hourly wage of \$26.61–earning over 1.5 times the wages of entry-level laborers with just a few additional years of experience. The success of logistics companies often depends on stable, underlying infrastructure that must be invested in and maintained. However, the workforce that traditionally comprises infrastructure-focused companies (e.g., construction and civil engineering) has experienced pressing supply issues, with about 30% of these jobs considered hard to fill due to labor shortages and misalignment between workforce development and industry demand, along with access to career pathways and worker retirements.<sup>8</sup>

Over the past two years, many jobs transitioned to remote or hybrid formats, and employers continue to expand their recruiting for workers to fill and perform jobs remotely. Many companies have benefited from this shift by consolidating or significantly reducing their physical footprint and corresponding investment. However, this carries very real implications on local real estate markets and the predictability of a tax base that is now more mobile than ever. Further, the growth of remote work and the resulting employee flexibility has created hiring challenges for certain hands-on, in-person jobs like those in manufacturing, logistics, and leisure and hospitality, as the most disrupted jobs are those with the greatest physical proximity to coworkers and customers.<sup>9</sup> These jobs represent a large portion of the Southern Nevada workforce, which is especially true in the hospitality industry that includes staff at casinos, restaurants, bars, hotels and motels, and retail stores. These high-proximity jobs have contributed to Southern Nevada's high unemployment rate-one of the nation's highest as a result of the pandemic-and represent a challenge to both the region and these industries, especially leisure and hospitality.

<sup>&</sup>lt;sup>5</sup> McKinsey. (2021). The Future of Work After COVID-19. McKinsey Global Institute. <u>https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19</u> <sup>6</sup> Laing, K. (2021). Teen Truckers are Taking to the Streets, and Safety Advocates are Worried. Bloomberg Quint. <u>https://www.bloombergquint.com/business/teen-truckers-are-here-easing-u-s-shortage-and-stoking-concern</u>

<sup>&</sup>lt;sup>7</sup> Cowan Systems, LLC. (2021). Cowan Systems announces Regional Driver Incentive Program paying out up to \$20,000 in extra earnings for drivers who join now. https://www.cowansystems.com/wp-content/uploads/2021/08/CowanPress\_RegionalIncentiveProgram.pdf

<sup>&</sup>lt;sup>8</sup> National League of Cities. (2021). Hard-to-Fill Infrastructure Jobs: A Challenge to Building our Future. <u>https://www.nlc.org/wp-content/uploads/2021/09/Harder-to-Fill-Infrastructure-Jobs-Report.pdf</u>

<sup>&</sup>lt;sup>9</sup> McKinsey. (2021). The Future of Work After COVID-19. McKinsey Global Institute. <u>https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19</u>

With recent changes to the workforce and workplace, the importance of information and communication technologies has become more apparent. As a bulk of work and operations shifted from in-office to remote, companies were challenged to provide reliable technology solutions for their internal and external stakeholders to store, transmit, collaborate, and communicate data. Further, the infrastructure that supports these technologies was scrutinized and taxed unlike ever before as classroom and physician appointments moved to virtual environments. It also enabled job growth and demand in sectors such as gig work with companies like Uber, Lyft, TaskRabbit, and DoorDash. These jobs cater to those seeking flexibility, and as of August 2021, 16% of the surveyed U.S. adults have earned money by way of online gig platforms.<sup>10</sup> Although the opportunities are less likely to turn into a long-term career, the companies in this sector offer services that continue to be in demand.

To broaden the workforce talent pipeline, economies and workforce development organizations are approaching the concept of reskilling with great attention and focus, recognizing the surplus of workers that exist in some industries and the significant demand represented in others. In Nevada, agencies like DETR have prioritized retraining employees for high-demand occupations by promoting online tools like EMSI's SkillsMatch, which helps workers understand how skills they have from previous jobs could translate to a new field and look to alternatives for those impacted by the pandemic. One of the hardest hit industries, leisure and hospitality, now has a surplus of workers seeking work, with one analysis estimating that 40,000 of these jobs may not come back at all.<sup>11</sup> Therefore, there is a significant opportunity to retrain and reskill Southern Nevada's unemployed hospitality industry workforce and prepare them to transition into new lines of work in high-demand industries, like manufacturing or logistics, which can also help keep the workforce in the region. However, successful efforts to reskill workers from one industry for another are contingent upon their interest and the value they see in making such a transition, representing both a challenge and area of opportunity for economic and workforce development organizations to communicate the economic mobility and long-term earnings potential in a way that resonates.

Along these same lines, CSN and the Nevada Banking Association have created a new partnership and are offering an online banking (non-degree) program that caters to those who didn't major in finance and aims to more rapidly widen the talent pool for the banking industry.<sup>12</sup>

Healthcare is another industry negatively impacted by the pandemic, driving rapid demand for key services and, as such, increasing burnout among members of the current workforce. While regional healthcare needs are comparable to other similarly sized metropolitan areas, attracting and retaining different types of providers to Nevada has historically been a challenge, ranking last in the U.S. for overall healthcare access.<sup>13</sup> Southern Nevada in particular has historically been reliant on recruiting advanced healthcare workers like doctors and registered nurses into the region due to the lack of nearby graduate medical education opportunities, like residency training. In response, the region's graduate medical education programs have increased their program offerings and enrollment capacity, which is already making an impact in addressing these deficiencies and expanding the local healthcare workforce pipeline. This is of particular importance as healthcare workers continue experiencing increased stress due to the demands of the pandemic; in a recent survey, over half of frontline healthcare workers report burnout, with even higher reported rates of burnout among younger staff.<sup>14</sup> As a state with counties each having some type of shortage of health professionals,<sup>15</sup> it will be essential to continue investing in healthcare programs that build and reinforce Southern Nevada's healthcare workforce pipeline and ensure the region has access to the workforce necessary to provide quality care long term.

<sup>11</sup> Sieroty. C. (2022). Economic Forecast 2022: Nevada's Economy Recovering – But Coronavirus Still Haunts State. Nevada Business Magazine. https://www.nevadabusiness.com/2022/01/economic-forecast-2022-nevadas-economy-recovering-but-coronavirus-still-haunts-state/

<sup>15</sup> Department of Health and Human Services Nevada Division of Public and Behavioral Health. (n.d.). *Health Professional Shortage Area Designations*. https://dpbh.nv.gov/Programs/HPSA/Health\_Professional\_Shortage\_Area\_Designations\_-\_Home/

<sup>&</sup>lt;sup>10</sup> Pew Research Center. (2021). The State of Gig Work in 2021. <u>https://www.pewresearch.org/internet/2021/12/08/the-state-of-gig-work-in-2021</u>

<sup>&</sup>lt;sup>12</sup> Horwath, B. (2021). CSN Non-degree Certificate Program will Widen Banking Talent Pool. Vegas Inc. <u>https://m.vegasinc.lasvegassun.com/business/2021/dec/06/csn-non-degree-certificate-program-will-widen-bank/?utm\_content=190063413&utm\_medium=social&utm\_source=facebook&hss\_channel=fbp-117715698853&fbclid=IwAR2vTysOTFHLh1Jzh6DDca\_dM648PPs5x1RETqMV\_CBkrWIwb8JSKb2Dcx1</u>

<sup>&</sup>lt;sup>13</sup> U.S. News & World Report. (n.d.). Health Care Access Rankings. https://www.usnews.com/news/best-states/rankings/health-care/healthcare-access

<sup>14</sup> Deloitte. (2022). 2022 Global Health Care Outlook. https://www2.deloitte.com/global/en/pages/life-sciences-and-healthcare/articles/global-health-care-sector-outlook.html

As one of the nation's epicenters for creative entertainment, Southern Nevada temporarily experienced a decline in this industry over the past two years, given the industry's deep-rooted focus on in-person customer experience and audience engagement. While telecommunications, media, entertainment, and streaming services soared in subscriber growth and demand,<sup>16</sup> in-person entertainment experiences plummeted. However, as in-person experiences begin to rebound, technological advancements are positioning this industry for new growth and opportunities. The ongoing roll-out of 5G infrastructure will increase the speed and overall connectivity for video, gaming, and music industries, as well as e-commerce, cloud services, and esports (electronic sports).<sup>17</sup> With the rise in esports' popularity, Las Vegas' entertainment-centric structure positions the region to continue capturing a significant portion of the category's continually growing and evolving audience. Additionally, the region is poised to capture significant jobs and investment in this sector through its burgeoning professional sports teams that draw audiences, spur construction, and deliver significant indirect economic impact in other sectors.

Clean technologies are also primed for growth in Southern Nevada and around the world, as pressure grows to address climate change and ESG (environmental, sustainability, and governance) initiatives progress alongside accelerated demand for clean energy.<sup>18</sup> Historically, states led efforts around clean energy projects (e.g., solar and wind power), but under the Biden administration, directives around the generation of clean energy have taken a federal lead. As with any industry primed for growth, there are workforce needs and opportunities. In this sector, that means increased demand for engineers and HVAC and plumbing contractors, among others. Various workforce development organizations in Southern Nevada are already working to build capacity in these trade areas (e.g., College of Southern Nevada's HVAC and plumbing program and the Clark County School District's new program built to support the energy sector).



<sup>&</sup>lt;sup>16</sup> Wroan, M. (n.d.). COVID-19 Accelerates Streaming Challenges as well as Demand. KPMG News and Perspectives. <u>https://info.kpmg.us/news-perspectives/technology-innovation/covid-19-accelerates-streaming-challenges-and-demand.html</u>

<sup>&</sup>lt;sup>17</sup> Deloitte. (2020). 2021 Outlook for the US Telecommunications, Media, and Entertainment Industry. <u>https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-2021-outlook-for-the-us-tme-industry.pdf</u>

<sup>&</sup>lt;sup>18</sup> Deloitte. (2021). 2022 Renewable Energy Industry Outlook. https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/renewable-energy-outlook.html

# PEER REGIONAL ANALYSIS

LVGEA's CEDS identifies several comparable regions as peer regional economies, including Orlando-Kissimmee-Sanford, Florida; Phoenix-Mesa-Scottsdale, Arizona; Portland-Vancouver-Hillsboro, Oregon; and Salt Lake City, Utah. Relative to its peers, as noted throughout this report, Southern Nevada is taking comparable steps to adapt and expand its workforce to accommodate changes in demand and continue its recovery from pandemic-related impacts.

Employment numbers in the Orlando MSA are growing favorably,<sup>19</sup> as economic recovery continues to progress and businesses learn what is necessary to operate within pandemic restrictions-and for those in tourism, how to provide a safe experience for patrons. As a hub for tourism, it is home to venues that annually attract millions of tourists (e.g., Sea World, Universal Studios, and Walt Disney World) and professional sports teams (e.g., the Orlando Magic and the Orlando City Soccer Club). Just as with Southern Nevada, pandemic-related shutdowns and restrictions directly impacted the region, which experienced decreased travel of 53.5% between 2019 and 2020.<sup>20</sup> Now in recovery mode, the region's leisure and hospitality industry is forecasted to be the fastestgrowing sector, with an average 10.1% annual growth rate.<sup>21</sup> Orlando continues to garner opportunities to advance its economy. In July 2021, Disney announced plans for a new regional hub in the Orlando MSA, which will relocate more than

2,000 professionals (with annual average wages of \$120,000) to Orlando from California.  $^{\rm 22}$ 

The Phoenix MSA was also not immune to pandemic-related economic impacts but, like Southern Nevada, is undergoing its own economic resurgence.<sup>23</sup> This is in part because of coordinated efforts to reskill the region's workforce through initiatives like the Greater Phoenix Workforce Leadership Academy Fellows, the state's first academy in the Workforce Leadership Academic series. The program focuses on creating solutions to challenges encountered by businesses and workers and improving workforce development efforts and local economic mobility. In addition to the 10-month fellowship, the program provides a networking and educational experience focused on managing pandemic-related and other economic impacts in the changing business landscape.<sup>24</sup>

The Portland economy relies heavily on small businesses, as 73% of businesses in the region employ fewer than 10 people, <sup>25</sup> making broader trends less directly comparable to Southern Nevada. To directly respond to threats to small businesses, the region adopted the Greater Portland Economic Recovery Plan, which included steps for the next three to 24 months, prioritizing the highest need and most-impacted areas within the region. With input from different stakeholders and economists, the plan has three target impact areas: assisting small businesses as they continue to recover and expand, promoting and advancing individuals' economic mobility, and supporting area families and their children.

While its unemployment rate is one of the lowest in the country and has quickly responded to pandemic changes, the Salt Lake City area has proactively addressed the ongoing threat of existing and future workforce shortages.<sup>26</sup> In August 2021, the Salt Lake City Chamber hosted a workforce summit titled "Removing Barriers and Building Skills Together." Bringing together community advocates and business leaders, the summit focused on labor shortages and skill gaps in the workforce and included panel discussions around workforce infrastructure, removing barriers, and training and development. The summit served as a venue for businesses to collaborate as they address the career ladder early on and invest in their employees.<sup>27</sup>

- <sup>22</sup> Lake Nona. (2021). Disney Regional Campus Coming to Lake Nona. https://www.lakenona.com/articles/disney-regional-campus-coming-to-lake-nona/
- <sup>23</sup> U.S. Bureau of Labor Statistics. (2022). Economy at a Glance. <u>https://www.bls.gov/eag.az\_phoenix\_msa.htm</u>
- 24 Aspen Institute. (2021). The Center for the Future of Arizona Introduces the Inaugural Greater Phoenix Workforce Leadership Academy Fellows.
- https://www.aspeninstitute.org/news/press-release/greater-phoenix-workforce-leadership-academy-fellows/
- <sup>25</sup> Greater Portland Economic Development District, (2020), *Greater Portland Economic Recovery Plan*,
- https://greaterportlandinc.com/assets/documents/Recovery%20Plan/Greater-Portland-Economic-Recovery-Plan.pdf

<sup>&</sup>lt;sup>19</sup> U.S. Bureau of Labor Statistics. (2022). Economy at a Glance. <u>https://www.bls.gov/eag/eag.fl\_orlando\_msa.htm</u>

<sup>&</sup>lt;sup>20</sup> Visit Orlando. (2020). Travel to Orlando. <u>https://visitorlando.widen.net/s/hrmrzsb5dq/vo-2021-orlando-visitor-volume-2020</u>

<sup>&</sup>lt;sup>21</sup> UCF Institute for Economic Forecasting. (2021). Florida & Metro Forecast 2021-2024. <u>https://business.ucf.edu/wp-content/uploads/sites/4/2021/12/A-PROOF-FALL-2021-UCF\_FLMetro\_Forecast.pdf</u>

<sup>&</sup>lt;sup>26</sup> U.S. Bureau of Labor Statistics. (2022). Economy at a Glance. <u>https://www.bls.gov/eag/eag.ut\_saltlakecity\_msa.htm</u>

<sup>&</sup>lt;sup>27</sup> Bomis, M. (2021). Salt Lake Chamber Hosted Workforce Summit: Removing Barriers and Building Skills Together. Salt Lake Chamber. <u>https://slchamber.com/salt-lake-chamber-hosted-workforce-summit-removing-barriers-and-building-skills-together/</u>

## METHODOLOGY

The methodology used for this analysis deviated slightly from prior Workforce Blueprints to reflect the changing contexts and economic landscape and to incorporate different data not previously available. The purpose and outcome of the analysis, though, remains the same: to develop a ranking of the highdemand occupations for the Southern Nevada region that can help inform the work of economic and workforce development organizations, and to identify needs for reinforcing, refining, or expanding training and educational programs that can proactively meet industry and economic needs.

The 2022 Workforce Blueprint was developed using the following methodology:

- Reviewed recent state-level data, including DETR's 2018 – 2028 occupational forecast for Southern Nevada, GOED's analysis of in-demand occupations for Southern Nevada, and EMSI's 2028 Southern Nevada occupational projections
- Captured actual 2019 2021 employment growth across LVGEA target industries compared to growth targets established in the 2019 Workforce Blueprint, DETR short-term occupational projections, and DETR long-term occupational projections
- Assessed recent economic growth and LVGEA's economic development pipeline data to update aspirational growth targets and recalibrate longterm growth to reflect the emerging post-COVID outlook for the region

- 4. Engaged with economic and workforce development partners throughout the region to understand existing programs and services and recent expansions or growth that might not be captured in the most recent data, and to identify anticipated programs and offerings that will be launching in the near future
- 5. Identified total occupational demand across all economic sectors in Southern Nevada
- Identified educational and training resources in the region linked to high-demand occupations across LVGEA target industries, including the outflow of graduates from the region's three public higher education institutions, to establish annual job demand based on expected workforce supply<sup>28</sup>
- 7. Developed a comprehensive list of the Top 100 high-demand occupations for Southern Nevada

<sup>&</sup>lt;sup>28</sup> 2018-2019 academic completer data was used as the baseline for this analysis, consistent with the use of 2019 employment data. This was done deliberately to closely align economic performance and hiring needs with workforce supply from regional educational programs and to establish a baseline that more accurately represents growth without the pandemic's outsized impacts, which disrupted much of the growth that was previously anticipated to take place in 2020-2021. As Southern Nevada continues its robust recovery, this analysis assumes and anticipates long-term growth over the next six years to be reflective of the same trajectories established prior to 2020.

# KEY DATA INPUTS

### DETR BASELINE OCCUPATIONAL FORECASTS

In addition to GOED's high-demand occupational analysis, this Workforce Blueprint model leverages DETR's baseline industry and occupational forecast for longer-term job projections that capture many fundamental economic trends generally expected to re-emerge as the economy moves beyond the pandemic. The DETR Research and Analysis Bureau develops two-year (shortterm) and ten-year (long-term) projections, with the most recent long-run analysis conducted prior to the pandemic in forecasting job growth between 2018-2028.<sup>29</sup> As with prior Workforce Blueprints, the most recent statewide projections were refined to only include data for Southern Nevada and industries with North American Industry Classification System (NAICS) codes associated with LVGEA's seven target industry clusters, as well as the occupations tied to those target industries.<sup>30</sup>

Because this forecast primarily leverages historical performance trends and does not capture more recent trends or disruptions, particular consideration was given to include additional factors in the Workforce Blueprint model that best capture the pandemic's impact across LVGEA target industries and shifting economic trends at the time of this report.

### GOED HIGH-DEMAND OCCUPATIONAL ANALYSIS

As part of its focus on supporting statewide economic growth, GOED developed and regularly maintains an occupational analysis that identifies jobs anticipated to be in high demand throughout Nevada. These occupations are identified through a variety of data inputs and criteria, including their STEM focus, recent job postings, annual earnings, and associated risks of automation, as well as added factors that account for the pandemic's effects on occupations. The analysis provides a valuable baseline for the Workforce Blueprint model with a particular focus on Southern Nevada.

### LVGEA BUSINESS DEVELOPMENT PIPELINE

As the state-designated regional development authority for Southern Nevada, LVGEA develops and maintains a robust business development pipeline that includes potential capital investments and associated labor force needs of companies that are either being recruited to the region or seeking to expand existing operations and geographic footprints. This pipeline includes data current through January 2022. Each target has an associated number of jobs projected along a five-year timeframe, as well as an assigned likelihood of a prospect fully achieving capital investment and job creation targets. Economic development "wins" were considered for the purposes of calculating recent job growth and informing aspirational employment growth projections outside of DETR's baseline forecasts.

Given the competitive nature of economic development, business leads, and high-potential prospects, all LVGEA pipeline data were anonymized for this analysis and organized by each company's associated target industry.

### TARGET INDUSTRY ASPIRATIONAL GROWTH FACTORS

Many of the baseline data inputs for this analysis are developed at the state level. As such, one of the primary components of the Workforce Blueprint model involves establishing aspirational occupational growth targets for each of LVGEA's target industry clusters, which then informs specific growth targets at the occupational level. These growth factors consider Southern Nevada economic trends, recent wins, and other projections that may diverge from DETR's pre-pandemic forecasts and analysis. For the purposes of the Workforce Blueprint, each LVGEA target industry cluster was assigned an aspirational growth factor to realign each industry cluster with anticipated growth relative to DETR's base employment forecast. For example, because jobs in logistics are expected to increase in the coming years with an impact beyond its immediate industry, LVGEA's transportation and logistics technologies target industry reflects 30% greater growth than DETR's base forecast and is represented by a 1.3 aspirational growth factor.

<sup>&</sup>lt;sup>29</sup> Based on guidance from GOED, the EMSI 2028 regional forecast was also considered as a potential input in place of the DETR forecast, largely due to significant disruptions that have taken place since the most recent DETR long-term forecast was developed. The consistencies in projections between the EMSI and DETR forecasts largely reaffirmed the aspirational growth targets that serve as a key weighting criterion for the Workforce Blueprint.

<sup>&</sup>lt;sup>30</sup> To be consistent with prior Workforce Blueprint analyses, as well as DETR's long-term occupational forecasting methodology and projections, target industries were analyzed at the 3-digit NAICS code level. In some instances, target industries use a range of 6-digit codes with one to two industry codes omitted or assigned to a different industry. For this analysis, if at least 80% of the 6-digit codes within the 3-digit code level were listed, the 3-digit codes were utilized for consistency with those external data sources. In other instances, DETR's projected growth rate for the related 3-digit code was applied to the 6-digit code job numbers. If a particular industry (6-digit code) represents a small minority percentage of the 3-digit target industry, this analysis incorporates a filter so only those occupations requiring specialized training related to the target industry are captured (i.e., NAICS code 451140 vs. 451 – sporting goods, hobby, musical instrument, and bookstores). If Quarterly Census of Employment and Wages (QCEW) data for individual NAICS codes were not disclosable (ND) due to the small number of employees within that industry in Southern Nevada, that 6-digit code was excluded from the overall target industry total.

### ECONOMIC AND WORKFORCE DEVELOPMENT PARTNER DATA

In addition to the publicly accessible data inputs, other inputs for this analysis were provided by regional economic and workforce development partners (i.e., private training providers or educational institutions). These data were invaluable in providing a holistic understanding of the regional workforce and labor supply-side of this analysis, including anecdotes and metrics that provide a more comprehensive picture of how regional partners are working to support and sustain regional economic growth as on-the-ground factors change and evolve. For some postsecondary education and training providers, completer information was supplemented with data from the Integrated Postsecondary Education Data System (IPEDS) to ensure a consistent set of data on completers by program was available across all education and training providers.

### NEVADA P-20 TO WORKFORCE RESEARCH DATA

The Nevada P-20 to Workforce Research Data System (NPWR) captures all program completion data for Nevada's public higher education programs. The data were refined to include only public higher education institutions in Southern Nevada, as a measure of the current workforce supply within the region. More specifically, NPWR data include 2-, 4- and 6-digit Classification of Instructional Program (CIP) codes, the total number of graduates by degree type, and how many of these recent graduates are still employed in Nevada.



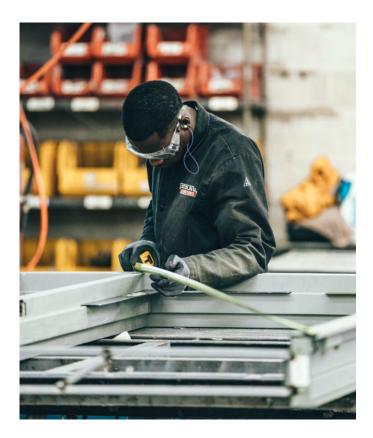
## DATA FINDINGS

### PROJECTED JOB GROWTH BY 2028

The following represents the results of the aggregate job growth analysis outline in Steps 1-3 above, including new jobs expected to be created leveraging these aspirational growth targets.

Each aspirational growth factor used in determining these projections leverages DETR's 10-year forecast as a benchmark for growth. Growth factors were selected in close coordination with LVGEA senior staff, based on known data and current economic trends. These factors realign long-term occupational demand captured in the pre-pandemic forecast around the current economic growth outlook for the coming years. The resulting growth factors are presented in the form of scaling factors for the 10-year DETR growth rate from the reference forecast along with 2019 actual employment, which provides the most recent benchmark prior to the pandemic-related distortions of 2020 and 2021.

These data focus exclusively on the region's target industries and jobs linked to one or multiple target industries. While there may be some natural spillover because of growing employment in target industries whereby workers move into other industries, most of this spillover is expected to be accounted for through this analysis due to the nature of the region's target industry mix and the comprehensive nature of the clusters relative to the Southern Nevada economy.



	0010	DETR 2028		
	2019 EMPLOYMENT	EMPLOYMENT Forecast	ASPIRATIONAL GROWTH FACTOR	2028 ASPIRATIONAL EMPLOYMENT TARGET
General & Advanced Manufacturing	25,583	27,096	1.2	32,515
Creative Industries	15,532	18,020	1.1	19,822
Information & Communication Technologies	26,406	32,737	1.1	36,010
Transportation & Logistics Technologies	33,599	38,961	1.3	50,649
Business & Financial Services	139,641	170,189	1.1	187,208
Healthcare Services	80,794	96,492	1.0	96,492
Clean Technologies	21,304	25,719	1.1	28,291

# PRIORITY RANKING FRAMEWORK

The 2017 Workforce Blueprint analysis was rooted in a framework further refined in the 2019 Workforce Blueprint to prioritize and rank regional occupational demand using a mix of state and regional economic and workforce development data. For the purposes of the 2022 Workforce Blueprint, the model also considers shorter-term disruptions from the past two years largely driven by the pandemic. These data were compared to actual job growth from 2018 to the second quarter of 2021, which collectively served as a basis for developing new growth targets for the region.

Data inputs were organized and considered by how much weight each would lend toward establishing a ranked priority list of occupations. These criteria follow a similar prioritization pattern used in the 2019 Workforce Blueprint analysis but with updated inputs to account for automation based on an expanded set of occupational characteristics introduced by GOED to its state-level model.

**STEM scores** established by the Brookings Institute serve as an important input to this framework, given the prevalence of STEM-related positions across LVGEA target industries.

The **real-time labor market** sourced from EMSI via GOED serves as another data input to indicate jobs employers were looking to fill from May 2020 to April 2021. This real-time datapoint, however, is not all-inclusive, as some employers do not use online job boards or advertising systems. It also represents a point-intime variable that, while useful, is not associated with short- or long-term trends.

Aspirational growth targets are based on actual job growth since DETR's most recent occupational forecast was developed, as well as economic development pipeline data based on LVGEA business development efforts. These targets are aggressive in nature, based on where trends suggest target industries and related occupational needs are expected to move in the coming years, which are likely unaccounted for within DETR's baseline forecasts. They further reflect more of a real-time snapshot of current economic development efforts and the climate surrounding those efforts, rather than over-focusing on the shortterm, pandemic-induced economic shocks of the past two years. Aspirational growth rates estimate future job growth trends built on top of DETR's long-term forecast and indicate how quickly key sectors are expected to grow based on recent economic trends and expected future growth. In addition to the number of new jobs projected for each occupation, significant anticipated growth is another strong signal that education and training may need to be prioritized to support that growth.

Average job wages were incorporated into the ranking system to mirror GOED's methodology for ranking occupational demand at the state level. This input has a slight emphasis on occupations that pay relatively higher wages to ensure that it is a consideration, although it represents the second lowest value in the priority ranking system to avoid any disproportionate emphasis on highpaying occupations without significant growth potential.

This 2022 analysis also includes an added factor: EMSI's **automation index**, provided by GOED, which captures and quantifies an individual occupation's risk of being affected by automation. Given the significant national and international trends toward automation, particularly in several of the region's target industries, this measure is particularly useful in considering those occupations that might be disproportionately affected by automation.

Finally, while location quotients are an integral part of the statelevel occupational analysis, there is less of a focus at the regional level on normalizing industry activity to match the rest of the U.S., given the foundational emphasis on targeting high-growth sectors as part of the region's economic development strategy. This strategy is reflected in this analysis, with job growth projections focused on achieving maximum levels of opportunity associated with economic development successes.

These criteria, which add up to 1.0 (or 100% of the weighting criteria), closely align with the factors used to calculate the priority ranking of occupations in the initial Workforce Blueprint and the 2019 Workforce Blueprint. Exceptions include wage data, which were added in 2019 following its inclusion in GOED's methodology, and the automation index, which was introduced in this analysis to account for the significant technology developments that make automation all but certain for key industries in coming years. The use of similar criteria allows for better comparison among all three analyses and provides an opportunity to highlight where demand has shifted over prior years.

### WEIGHTED CRITERIA FOR RANKING HIGH-DEMAND OCCUPATIONS

DATA INPUT	DESCRIPTION	WEIGHTING
Occupational STEM Scores (Brookings Institute)	These STEM scores have the strongest weighting in this framework, given the heightened demand for STEM skills across LVGEA's target industries and occupations.	0.30
Real-Time Labor Market Information	Real-time labor market information, sourced from EMSI via GOED, includes online job postings from May 2020 to April 2021 from online job boards and websites.	0.20
Aspirational Growth Target	The aspirational growth target establishes new jobs that would be created by achieving the targets set by aspirational growth factors, in addition to those assumed to be created by meeting DETR's baseline 2028 employment forecasts.	0.15
Aspirational Growth Rate	This number estimates future job growth trends based on DETR's long-term forecast, multiplying these baseline forecasts by a factor of 1.0 – 1.3. This indicates the extent to which key sectors are expected to grow based on recent economic growth and likely economic wins for the region.	0.25
Wage Data	Wage data features the mean hourly wage data associated with specifical occupational codes. This data was provided by GOED and included in the most recent state-level analysis to consider higher-paying occupations and how to prioritize gaps in the labor market.	0.07
Automation	This criterion was introduced this year to consider the national and regional trends toward automation across LVGEA target industries. While it is assigned the lowest weighting within the criteria, inclusion of this index is meant to help consider the changing nature of occupations and labor needs due to greater automation integration across industries.	0.03

# HIGH-DEMAND OCCUPATIONAL PRIORITIES

Through this analysis, 422 occupations were identified as having a direct link to LVGEA target industries, as identified in LVGEA's 2021 Target Industry Validation Study. In addition to calculating overall occupational rankings, this analysis also included a comparison to high-demand occupations outlined in the 2019 Workforce Blueprint to identify how and to what extent occupational demand may have shifted among industries. A full list of the top 100 high-demand occupations for Southern Nevada is included in *Appendix A*.

The table below includes select data inputs for each priority occupation, including their previous ranking in the prior Workforce Blueprint, the change in ranking between both analyses, and the associated annual openings available based on LVGEA's aspirational industry growth targets. As a note, while some occupations might have a larger raw number of annual openings, the priority ranking framework draws in multiple factors to ensure anticipated annual openings do not disproportionately favor any occupations. Some occupations may have a relatively higher priority ranking due to the skillset required by that occupation, scarcity of skillsets, associated wages, or the risk of automation within the occupation.

For example, Respiratory Therapists (29-1126) were ranked higher than both Registered Nurses (29-1141) and Physician Assistants (29-1071). Despite lower average associated wages and a lower

level of minimum education, the occupation is scarcer through the region and state, exacerbated by the pandemic-induced demand.

While Software Developers, Applications (15-1132) retained its ranking as the most in-demand occupation, the notable jump in rankings for Software Developers, Systems Software (15-1133) highlights the expanding role of the information and communication technologies target industry. Similarly, the relatively stable need for Managers, All Other (11-9199) and General and Operations Managers (11-1021) indicates the business and financial services industry cluster continues to remain a significant focal area of the Southern Nevada regional economy.

While both industries were assigned an aspirational growth weighting of 1.1, the prominence of these roles within the highdemand occupational rankings serve as a reminder that all anticipated growth beyond state-level predictions should be considered an optimistic outlook, particularly as the regional economy continues to recover and recorrect following the destabilizing effects of the pandemic.

Overall, most occupations included in the top 25 ranking, with few exceptions, appear to have close alignment with an LVGEA target industry or are positioned to facilitate continued growth within one or multiple target industries.



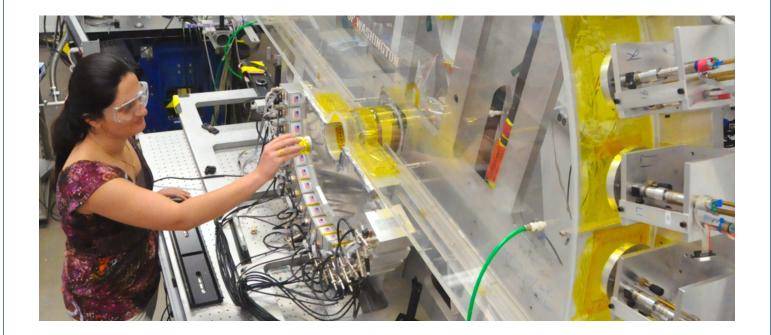
RANKING	SOC	OCCUPATION	PREVIOUSLY RANKED	CHANGE FROM 2019 RANKING	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)
1	15-1132	Software Developers, Applications	1	0	462
2	15-1133	Software Developers, Systems Software	123	+121	101
3	17-2051	Civil Engineers	6	+3	175
4	11-9199	Managers, All Other	3	-1	1126
5	29-1131	Veterinarians	61	+56	45
6	17-2072	Electronics Engineers, Except Computer	16	+10	67
7	19-2041	Environmental Scientists and Specialists, Including Health	42	+35	45
8	11-1021	General and Operations Managers	2	-6	1635
9	17-2011	Aerospace Engineers	46	+37	35
10	15-1122	Information Security Analysts	30	+20	56
11	29-1171	Nurse Practitioners	28	+17	47
12	15-1121	Computer Systems Analysts	19	+7	153
13	13-1199	Business Operations Specialists, All Other	5	-8	585
14	17-1011	Architects, Except Landscape and Naval	136	+122	48
15	17-2081	Environmental Engineers	134	+119	34
16	29-1126	Respiratory Therapists	9	-7	98
17	11-9041	Architectural and Engineering Managers	14	-3	53
18	15-1151	Computer User Support Specialists	12	-6	317
19	11-9111	Medical and Health Services Managers	35	+16	240
20	29-1071	Physician Assistants	56	+36	36
21	15-1199	Computer Occupations, All Other	29	+8	217
22	29-1141	Registered Nurses	4	-18	1588
23	11-3021	Computer and Information Systems Managers	79	+56	162
24	11-3031	Financial Managers	7	-17	562
25	19-1042	Medical Scientists, Except Epidemiologists	62	+37	18

# HIGHER EDUCATION ALIGNMENT TO HIGH-DEMAND OCCUPATIONS

Beyond quantifying overall job demand, this analysis seeks to better understand and capture the relationship between the region's workforce demands and graduates produced by regional higher education institutions, including unmet demand based on existing programs and graduates. The purpose is to inform efforts of education and training providers to develop or expand curricula that connect with one or multiple occupations where unmet demand is most acute.

A CIP-to-SOC crosswalk was used to align education and workforce data, where CIP (Classification of Instructional Programs) represents standard codes used by the National Center of Education Statistics for tracking and reporting fields of study and program completion activity and SOC (Standard Occupational Classification) represents the U.S. system of classifying occupations into distinct categories. Certificate and degree programs offered by six postsecondary institutions in the region the University of Nevada, Las Vegas; the College of Southern Nevada; Nevada State College; Roseman University; Touro University Nevada; and the University of Phoenix—were correlated to occupations based on where a tangible (nonzero) link exists to each occupation. This alignment of higher education programs to occupational needs in the region is limited to the programs from these six institutions. A core set of data on program completers was gathered from Nevada P-20 to Workforce Research Data System (NPWR) for the three public institutions and directly from the other institutions (with supplemental data from IPEDS as needed) providing for clear connections to occupations.

In addition to the training and programs offered by higher educational institutions throughout the region, there are a number of additional educational programs and resources available in industry-specific fields such as banking and manufacturing, as well as those providing broad, transferrable skills of benefit to multiple industries, such as those offered by Vegas PBS, Clark County School District, and the United Way of Southern Nevada. Data and outputs of these and other training and workforce development programs are captured in the "Existing Programs" section of this report.



# HIGHER EDUCATION PROGRAM-TO-OCCUPATION CROSSWALK

Throughout Southern Nevada, there is significant alignment between two-year and four-year programs and high-demand occupations. Programs in this analysis include those generating certificates, associate degrees, bachelor's degrees, and graduate degrees, as well as master's and doctoral completion data from the 2018-2019 academic year.<sup>31</sup> These programs include only those currently offered by postsecondary institutions throughout the region due to the availability of data where graduates are produced.

Even amid the pandemic, workforce development and education partners have responded to gaps and shortcomings identified within the 2019 Workforce Blueprint report and worked to reorient their programs and offerings accordingly.<sup>32</sup>

Though most occupations require a bachelor's degree, there are a significant number of occupations that require a two-year degree or less. The priority ranking of these jobs represents an opportunity to connect job seekers with occupations that require minimal to moderate training, offer potential for upward mobility and wage increases, and present greater likelihood for job stability in one of LVGEA's target industries.

Occupations such as Computer Network Support Specialists (15-1152) continue to remain in high demand and do not require a typical two-year or four-year degree, while others—including Transportation, Storage, and Distribution Managers (11-3071) require no formal postsecondary education, though candidates may benefit from some advanced managerial education. These occupations continue to be in high demand throughout Southern Nevada due to the continued growth of the information and communication technologies and transportation and logistics technologies target industries.

As with any occupation, standard job descriptions and corresponding training needs should be closely considered for regional relevance, the needs of private industry for defined skills, and the ability and interest of regional training providers or educational institutions to rapidly meet identified needs.

In the following table, the top 50 occupations from the list of highdemand occupations for Southern Nevada are correlated to inregion degree programs where program-to-occupation alignment may exist.

<sup>&</sup>lt;sup>31</sup> Note: the exception was Roseman University, which utilized 2019-2020 academic year data.

<sup>&</sup>lt;sup>32</sup> Given the relatively short period of time between reports, though, more recent changes to programmatic offerings or curricula may not be captured in this analysis due to the recency of available program completion data.

PRIORITY RANKING	SOC	DESCRIPTION	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)	TYPICAL ENTRY-LEVEL EDUCATION
1	15-1132	Software Developers, Applications	462	Bachelor's degree
2	15-1133	Software Developers, Systems Software	101	Bachelor's degree
3	17-2051	Civil Engineers	175	Bachelor's degree
4	11-9199	Managers, All Other	1126	Bachelor's degree
5	29-1131	Veterinarians	45	Doctoral or professional degree
6	17-2072	Electronics Engineers, Except Computer	67	Bachelor's degree
7	19-2041	Environmental Scientists and Specialists, Including Health	45	Bachelor's degree
8	11-1021	General and Operations Managers	1635	Bachelor's degree
9	17-2011	Aerospace Engineers	35	Bachelor's degree
10	15-1122	Information Security Analysts	56	Bachelor's degree
11	29-1171	Nurse Practitioners	47	Master's degree
12	15-1121	Computer Systems Analysts	153	Bachelor's degree
13	13-1199	Business Operations Specialists, All Other	585	Bachelor's degree
14	17-1011	Architects, Except Landscape and Naval	48	Bachelor's degree
15	17-2081	Environmental Engineers	34	Bachelor's degree
16	29-1126	Respiratory Therapists	98	Associate's degree
17	11-9041	Architectural and Engineering Managers	53	Bachelor's degree
18	15-1151	Computer User Support Specialists	317	Some college, no degree
19	11-9111	Medical and Health Services Managers	240	Bachelor's degree
20	29-1071	Physician Assistants	36	Master's degree
21	15-1199	Computer Occupations, All Other	217	Bachelor's degree
22	29-1141	Registered Nurses	1588	Bachelor's degree
23	11-3021	Computer and Information Systems Managers	162	Bachelor's degree
24	11-3031	Financial Managers	562	Bachelor's degree
25	19-1042	Medical Scientists, Except Epidemiologists	18	Doctoral or professional degree

PRIORITY RANKING	SOC	DESCRIPTION	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)	TYPICAL ENTRY-LEVEL EDUCATION
26	29-9011	Occupational Health and Safety Specialists	48	Bachelor's degree
27	19-4091	Environmental Science and Protection Technicians, Including Health	55	Associate's degree
28	11-9021	Construction Managers	576	Bachelor's degree
29	17-2071	Electrical Engineers	44	Bachelor's degree
30	13-1081	Logisticians	40	Bachelor's degree
31	11-3071	Trans., Storage, and Distribution Managers	92	High school diploma or equivalent
32	13-1041	Compliance Officers	155	Bachelor's degree
33	15-1152	Computer Network Support Specialists	160	Associate's degree
34	29-1123	Physical Therapists	102	Doctoral or professional degree
35	17-2141	Mechanical Engineers	34	Bachelor's degree
36	29-2056	Veterinary Technologists and Technicians	67	Associate's degree
37	17-2199	Engineers, All Other	35	Bachelor's degree
38	15-1111	Computer and Information Research Scientists	3	Master's degree
39	53-2011	Airline Pilots, Copilots, and Flight Engineers	190	Bachelor's degree
40	15-2031	Operations Research Analysts	19	Bachelor's degree
41	41-9031	Sales Engineers	8	Bachelor's degree
42	23-1011	Lawyers	388	Doctoral or professional degree
43	29-1069	Physicians and Surgeons, All Other	95	Doctoral or professional degree
44	13-1161	Market Research Analysts & Marketing Specialists	395	Bachelor's degree
45	13-1111	Management Analysts	430	Bachelor's degree
46	17-2111	Health and Safety Engineers, Except Mining Safety	14	Bachelor's degree
47	29-1122	Occupational Therapists	61	Master's degree
48	15-1143	Computer Network Architects	52	Bachelor's degree
49	15-1134	Web Developers	71	Associate's degree
50	29-1127	Speech-Language Pathologists	75	Master's degree

# REGIONAL POSTSECONDARY OUTPUT: ANNUAL DEMAND VS. WORKFORCE PIPELINE

The final step in determining how existing postsecondary programs correlate to forecasted demand involved allocating graduates, by degree program, across each occupation to determine an annual "workforce pipeline." This illustrates where gaps—large and small—may exist relative to ongoing employment needs.

It should be noted that several occupations link to the same degree or certificate program. To account for this, baseline employment data were used to allocate program graduates to occupations based on the percentage of total employment each occupation maintains relative to the other(s). For example, if a single degree program contributes to two occupations, and one occupation is shown in the 2019 employment data to have 900 employees while the other has 100, the former occupation is assumed to obtain 90% of those graduates. Each of these allocations was reviewed closely to ensure the assumed employment spread of graduates was reasonable.

Some occupations identified through this demand ranking process are more general in nature, and thus do not offer close alignment to specific programs. In such instances, graduates were not included for these occupations, such as Managers, All Other (11-9199), that represent significant employment figures and thus would lead to skewed pipeline data for other occupations. These occupations are noted by an "N/A" designation in the table below. Additionally, while multiple occupations may be supported by the same education program, one occupation may similarly be supported by multiple education programs. The more generic an occupation, such as General and Operations Managers (11-1021), the greater the variety in how education programs are supplying the workforce within the occupation. As previously noted, there are significant alternative training programs throughout the region that contribute heavily to the workforce pipeline for some occupations. Because verifiable graduate or completer data for these programs are not readily available, the pipeline inputs for these occupations is represented by an asterisk in the table below.

There are several occupations considered in high demand through 2028 but where workforce development capacity is significantly limited. This is evident for occupations with a small number of primary feeder programs, such as Registered Nurses (29-1141), as well as multiple occupational clusters supplied by one cluster of degree programs, such as computer science. In these instances, the entire cluster of related jobs should also be considered for the purposes of comparing demand to workforce capacity. For example, while completer data suggest significant progress in expanding training and education for IT-related occupations since the last Workforce Blueprint with approximately 620 completers per year, aspirational growth targets suggest approximately 1,300 more graduates are needed to address annual demand for this cluster of computer and/or IT-related positions, including the general growth and replacement needs within the region.

### REGIONAL HIGHER EDUCATION TRAINING CAPACITY VS. DEMAND (ANNUAL)

PRIORITY RANKING	SOC	DESCRIPTION	ANNUAL OPENINGS	ANNUAL Workforce Pipeline	ANNUAL Workforce Gap/surplus
1	15-1132	Software Developers, Applications	462	63	-399
2	15-1133	Software Developers, Systems Software	101	17	-84
3	17-2051	Civil Engineers	175	38	-137
4	11-9199	Managers, All Other	1126	*	N/A
5	29-1131	Veterinarians	45	*	N/A
6	17-2072	Electronics Engineers, Except Computer	67	11	-56
7	19-2041	Environmental Scientists and Specialists, Including Health	45	7	-38
8	11-1021	General and Operations Managers	1635	321	-1314
9	17-2011	Aerospace Engineers	35	0	-35
10	15-1122	Information Security Analysts	56	21	-35
11	29-1171	Nurse Practitioners	47	29	-18
12	15-1121	Computer Systems Analysts	153	1	-152
13	13-1199	Business Operations Specialists, All Other	585	*	N/A
14	17-1011	Architects, Except Landscape and Naval	48	21	-27
15	17-2081	Environmental Engineers	34	8	-26
16	29-1126	Respiratory Therapists	98	67	-31
17	11-9041	Architectural and Engineering Managers	53	0	-53
18	15-1151		317	127	-190
19	11-9111	5	240	137	-103
20	29-1071	•	36	20	-16
21	15-1199		217	123	-94
22	29-1141	-	1588	639	-949
23	11-3021	Computer and Information Systems Managers	162	47	-115
24	11-3031	Financial Managers	562	125	-437
25	19-1042	Medical Scientists, Except Epidemiologists	18	22	4

PRIORITY RANKING	SOC	DESCRIPTION	ANNUAL OPENINGS	ANNUAL Workforce Pipeline	ANNUAL Workforce Gap/Surplus
26	29-9011	Occupational Health and Safety Specialists	48	5	-43
27	19-4091	Environmental Science and Protection Technicians, Including Health	55	0	-55
28	11-9021	Construction Managers	576	42	-534
29	17-2071	Electrical Engineers	44	14	-30
30	13-1081	Logisticians	40	3	-37
31	11-3071	Trans., Storage, and Distribution Managers	92	14	-78
32	13-1041	Compliance Officers	155	*	N/A
33	15-1152	Computer Network Support Specialists	160	171	11
34	29-1123	Physical Therapists	102	41	-61
35	17-2141	Mechanical Engineers	34	26	-8
36	29-2056	Veterinary Technologists and Technicians	67	0	-67
37	17-2199	Engineers, All Other	35	44	9
38	15-1111	Computer and Information Research Scientists	3	0	-3
39	53-2011	Airline Pilots, Copilots, and Flight Engineers	190	*	N/A
40	15-2031	Operations Research Analysts	19	*	N/A
41	41-9031	Sales Engineers	8	*	N/A
42	23-1011	Lawyers	388	4	-384
43	29-1069	Physicians and Surgeons, All Other	95	106	11
44	13-1161	Market Research Analysts & Marketing Specialists	395	105	-290
45	13-1111	Management Analysts	430	35	-395
46	17-2111	Health and Safety Engineers, Except Mining Safety	14	*	N/A
47	29-1122	Occupational Therapists	61	23	-38
48	15-1143	Computer Network Architects	52	5	-47
49	15-1134	Web Developers	71	38	-33
50	29-1127	Speech-Language Pathologists	75	22	-53

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# EXISTING PROGRAMS

In addition to the region's three public higher education institutions, there are a variety of other educational institutions and training organizations that significantly contribute to the Southern Nevada workforce pipeline, addressing workforce demands within the region.

The programs and completion data below represent additional workforce inputs not included in the previous supply gap/surplus calculations and analysis but are significant to addressing the region's workforce demands. Given this, these programs and their related outputs should be included in any evaluation of the availability of skilled workforce in Southern Nevada.

#### **Clark County School District**

As the fifth-largest school district in the U.S.,<sup>33</sup> Clark County School District continues to reinforce and expand its programming to equip students with the necessary tools and pathways toward success while meeting the demand for workforce education. Over the past three years, CCSD has aligned its facility expansion plans and associated programs and curricula for new career and technical programs with workforce needs identified in the previous Workforce Blueprint. The first features a workforce-centered facility that will primarily offer reskilling programs, including wiring, construction, and automation, as well as leadership and management skills training. The second, located in the heart of Las Vegas, will include two new programs established with industry partners from the energy and health and human services sectors. The third, located in South Henderson, will house a career and technical academy with six to eight programs of study, including those with a medical focus. By creating these centers, CCSD is adding new and expanded resources for students and other community members to equip them to gain high-demand occupations that offer stability, high pay, and career mobility.

In addition to CCSD's extensive workforce training programs, which enrolled over 72,000 students across all three course levels during the 2020-2021 school year, the district provides rigorous, high-quality curriculum in all high schools, including Advanced Placement (AP) courses, with select schools that also offer International Baccalaureate (IB) curriculum. During the 2020-2021 school year, over 19,000 students enrolled in at least one AP course.

Even throughout the pandemic, enrollment for dual credit programs has grown by 75%, with over 7,000 students participating in concurrent enrollment offerings to receive credit for courses while still in high school from the College of Southern Nevada; Nevada State College; University of Nevada, Reno; and University of Nevada, Las Vegas.

#### **College of Southern Nevada**

The College of Southern Nevada provides numerous workforce development resources for training, reskilling, and upskilling. With the changing workforce landscape exacerbated by the pandemic, CSN is investing heavily in manufacturing programming—aided by a \$1.3 million allocation from the Governor's Office to update manufacturing equipment used in related training programs to industry standards.

CSN offers workforce development training in trade areas, including HVAC and plumbing, and trade apprenticeship opportunities in IT, healthcare, and manufacturing. Additionally, CSN offers a non-degree certificate program, with four core classes and additional specialty areas (e.g., wealth management and cybersecurity) aimed at expanding the talent pool for the banking industry.

In addition to these programs, CSN operates the state's largest Title II adult education program and directly supports employers in the development and deployment of curated trainings that rapidly upskill workers, particularly assisting organizations looking to quickly expand their workforce. CSN is particularly proud of its training centers and centers of excellence, which allow it to embed its programs in historically underserved areas within the region and to establish strong relationships within these communities. In partnership with Workforce Connections, CSN is incorporating innovative new models that help bridge key funding gaps, enabling students to take advantage of recent federal policy changes that allow students without high school diplomas to use financial aid to enroll in post-secondary classes that help them matriculate into credential and certificate programs aligned with clear workforce needs.

<sup>33</sup> National Center for Education Statistics. (2020). Enrollment, poverty, and federal funds for the 120 largest school districts, by enrollment size. https://nces.ed.gov/programs/digest/d19/tables/dt19\_215.30.asp

#### Nevada State College

Using the previous Workforce Blueprint, compounded by needs brought to light by the pandemic, Nevada State College has tailored its non-degree programming and certificate offerings to allow students to upskill and progress within their industries, gain skills to move within industries, or backfill skills once they are promoted.

Some of these degree program expansions include the introduction of two undergraduate degrees in data science, as well as a new human health sciences degree. NSC has also expanded its business administration degree to include concentrations that equip students in high-demand occupations.

Historically, NSC's graduating class sizes have grown each yeareven throughout the pandemic-reinforcing the importance of its programmatic offerings and ever-expanding role it plays in equipping students with the knowledge and skills to succeed.

#### University of Nevada, Las Vegas

Over the last two and a half years, the University of Nevada, Las Vegas has worked to build and launch career readiness initiatives that integrate with existing curricula, as well as build additional wraparound programs and resources that tie all parts of the student experience to career readiness.

Understanding that faculty are at the heart of all educational programs, UNLV has identified six career competencies— communication, critical thinking and problem solving, cultural intelligence, emotional intelligence, leadership, and professionalism—on which the institution is focused and developed modules to train faculty on how to tie their curriculum to these competencies, more directly preparing students to understand the link between the work they do in class and the skills that will help make them successful in their careers.

In addition to building experiential major maps—which provide students with information related to career options, occupational titles, salaries, and related skills—UNLV is expanding the conversation with regional employers to identify key skills gaps and work proactively with students to close them.

Beyond its commitment to boosting undergraduate student career readiness, UNLV's Kirk Kerkorian School of Medicine graduated its inaugural class of medical doctors in May 2021 and launched a new MD/MBA dual degree program in fall 2021.

#### **Great Basin College**

Though its main campus is not located in Southern Nevada, Great Basin College is growing its two-year manufacturing machining program, located on a high school campus in Pahrump. Using relationships built with area manufacturers and local machine shops, the program has had tremendous success in placing graduates, with some students using the program to also earn a one-year certification or an associate's degree, leveraging the skills and coursework previously completed through the program.

#### **University of Phoenix**

As a higher education institution with a historically online platform, the University of Phoenix has a growing Las Vegas student population. Approximately 90% of its Las Vegas students are online-only, while approximately 200 students attend in-person classes on the physical campus.

The UOPX model also focuses on providing the necessary wraparound supports for matriculating undergraduate students to support continued enrollment and ultimate success: Using a concierge-inspired student services model, students are supported throughout the admissions, enrollment, and course selection processes.

Although online-centered, UOPX has also pivoted to meet Southern Nevada's more immediate workforce needs. Exacerbated by the labor shortage, many students and employers are seeking certificates or training that can be completed in shorter periods of time instead of a traditional bachelor's degree. To support the need for upskilling with major employers in the area, UOPX is partnering with larger regional employers to use employer-provided educational benefits to provide employees with skills they need to succeed and progress in their careers.

#### Touro University Nevada

As the largest medical school in Nevada, Touro University Nevada continues to expand its enrollment across all programs, including its medical school, physician assistant program, occupational therapy doctorate program, school of education programs, physical therapy doctorate program, and nursing programs.

Touro's growth and impact are reflected throughout the region. The university emphasizes primary care, with completion data indicating about 60% of its medical students going into this highdemand area of medicine. The university is expanding, both physically and through program offerings, as it builds a multi-use center and through a \$2.6 million grant from United Health Foundation to provide prenatal care to homeless and underserved women throughout Nevada.

#### **Roseman University**

Roseman University offers numerous courses focused on health sciences and has continued to provide rigorous educational offerings throughout the pandemic, even when partially remote. As the demand for medical providers has evolved, especially with specific needs driven by the pandemic, Roseman has adapted and changed its offerings to accommodate its market demand.

At its Nevada campus, Roseman offers programs including Doctor of Pharmacy, Advanced Education in Orthodontics and Dentofacial Orthopedics Residency Program, Master of Business Administration, and Bachelor of Science in Nursing. The university is also expanding to offer additional programs that meet the needs of the Southern Nevada market, including graduate-level nursing programs and a research-based master's program. It is also in the process of developing a College of Medicine with related community-based programming.

Roseman also provides health-related education to the surrounding community. Through GENESIS, students from the university's nursing, pharmacy, and dental programs work in urban and rural areas to address systemic health inequalities in the region. To deepen the future pipeline of medical students. Roseman's students and faculty engage with local high schools to educate students on the steps to becoming physicians, while similar programs target junior high and high school students in underserved areas. Roseman also has a partnership with NSC that allows students to take prerequisites at NSC and then attend Roseman for pharmacy school-the only pharmacy school in the state-allowing students to complete what would be seven to eight years of education in a traditional program in just six years. Throughout the pandemic, Roseman's physical campus has served as a vaccination hub for the community, providing pharmacy and nursing students applied, hands-on experience that they might not have otherwise received.

#### United Way of Southern Nevada

The United Way of Southern Nevada administers and oversees several publicly funded programs in the state. UWSN has played a key role throughout the pandemic, especially in the agency's work with programs that provide support for early childhood education, and emergency assistance (e.g., rent, utilities, and food). Additionally, UWSN has operated and continues to serve as a communications resource, providing a coordinating point among direct-service organizations in the region to better meet community needs. UWSN is expanding its privately funded grants program: During the 2020-2021 year, it awarded seven privately funded grants. For 2021-2022, UWSN will increase that number to awarding grants to 44 nonprofit agencies. These agencies provide needed services to their communities through the programs they offer, specifically around workforce development, healthcare, leadership development, and afterschool care. Of the 11 workforce development grantees receiving funding, the majority are on track to meet or exceed estimated outputs by the end of the fiscal year.

#### Vegas Public Broadcasting Service

Vegas Public Broadcasting Service is a community resource that provides over 380 broadcasting, industry training, and career certification services and offerings. As a subset of its total offerings consisting of 386 career programs, Vegas PBS' platform, ETPL, offers 326 programs (previously 28), with most of its demand involving workforce systems. The programs and services benefit the unemployed population as well as long-term, middlemanagement individuals looking to change their current careers and trajectories. The number of people served through the programs led to an increase of 150% in career certifications, with most certificate seekers coming from the industries in which they're seeking certifications.

Vegas PBS' career programs have a job-seeking career coach assigned to them, who work on making resumes industry-specific, maintaining relationships with employers, and helping students by sending employment leads. The group regularly receives job postings and works to educate students and make them aware of opportunities, using a technology-forward, high-touch model to guide students toward available job opportunities.

Vegas PBS' career course completion rate is 90%; in both professional development programs and self-pays (i.e., programs focusing on professional development, test prep), the completion rates are closer to 96%. Vegas PBS also provides testing resources. For 18 months of the pandemic shutdowns, Vegas PBS was the only in-person test center in Nevada and administered tests such as Praxis, WorkKeys, high school diploma, and typing.

### REGIONAL PRIVATE HIGHER EDUCATION COMPLETION RATES

The below completion data were provided by the region's private higher education institutions. The reflected rates are separate from the reported regional public higher education completion rates.

SCHOOL	DEGREE	2020-2021 GRADUATES
	Doctor of Osteopathic Medicine (DO)	128
	Doctor of Physical Therapy (DPT)	40
	Doctor of Nursing Practice (DNP)	32
	Occupational Therapy Doctorate (OTD)	7
	Master of Medical Health Science (MHS)	43
Touro University	Master of Science in Nursing (MSN)	42
	Master Of Science in Occupational Therapy (MSOT)	16
	Master of Physician Assistant Studies (PA)	52
	Master of Education (MED)	20
	Advanced Certificate - Family Nurse Practitioner	4
	Bachelor of Science in Nursing (RN-to-BSN)	52
	Doctor of Pharmacy (PharmD)	132
Roseman University	Advanced Education in Orthodontics and Dentofacial Orthopedics Residency Program (AEODO)	10
Roseman oniversity	Master of Business Administration (MBA)	14
	Bachelor of Science in Nursing (BSN)	171
	Doctoral	1
University of Phoenix	Masters	39
University of Phoenix	Bachelors	348
	Associates	21

# CLOSING THE GAP: RECOMMENDATIONS

While the role of workforce development organizations, training providers, and educational institutions cannot be understated in addressing workforce supply needs outlined in this analysis, the reality is that there are numerous policy, communication, programmatic, and other solutions that can and must work in tandem with their efforts. In many ways, these solutions should be identified and coordinated at a regional level by organizations and leaders whose influence extends well beyond those providing direct training.

### POLICY AND COORDINATION

As noted in this analysis, the global landscape for local economies and corresponding workforce needs has evolved dramatically over the past two years. This is particularly true in Southern Nevada, with the pandemic expediting what had previously been a gradual workforce repositioning while prompting a renewed focus on economic and industry diversification.

As these shifts continue to occur, with some pandemic impacts becoming permanent, it is crucial that regional leaders continue taking an active position in **coordinating and championing nimble** workforce development solutions that address key gaps-from identifying and advancing policies that encourage and incentivize businesses to continue investing in the regional economy to policies that enable rapid training, reskilling, and expansion of the regional workforce. Such solutions may involve a greater emphasis on apprenticeship opportunities in industries like advanced manufacturing or logistics, expanding the use of ACT WorkKeys (a system of assessments that measure workplace success skills) in place of other standardized high-school testing less aligned with measuring and informing skills needed for success in a given industry or workplace, or even advising state leaders in state-level policy measures or investments in sectors like clean technology so that their impact is a net-positive for the regional economy. Solutions could also include exploration and further research into pathways by which mid-career workers can transition into high-demand occupations within target industries without experiencing downward economic mobility throughout the transition

In many ways, partners like Workforce Connections are establishing the necessary programs and forums to understand and advance these solutions through efforts like aligning skills testing and training with K-12 curricula and the formation of industry councils specifically designed to monitor regional workforce needs and align training and development around these needs. LVGEA and its partners should aggressively support and work to scale these efforts to achieve maximum impact, raise awareness and community support for training and educational programs that spur industry growth, and attract the necessary funding or other resources that make programs like these sustainable over time. Additionally, Southern Nevada partners can complement these efforts by establishing ad hoc, diverse, and inclusive committees that provide a highly focused conduit for the business community to formally and dynamically assist education partners in scaling their programs and services. This committee structure should also be leveraged to understand employers' willingness to hire workers who have received alternative or nontraditional training in lieu of the traditional two- and four-year degree pathway. Regional partners should then align this input with existing training providers in the region to determine programs that should be established or scaled.

In addition, economic development, workforce development, and business-focused organizations throughout the region should either establish or leverage existing policy committees to specifically focus on workforce-related policy initiatives or issues, driving policy changes that support sustained access to a diverse, skilled regional workforce. Depending on the role and mission of each organization, these committees should monitor, inform, and express support or concern for legislation or policies like business incentives that support and sustain economic growth, programmatic changes like new or revamped degree and certificate programs offered by education providers, and public policy measures or investments like those that help to promote more equitable participation in the region's economic recovery and future. The work of each of these committees should be collaborative and coordinated at a regional level for maximum alignment and impact.

#### COMMUNICATION AND MARKETING

As outlined in this Workforce Blueprint analysis, there are a number of occupations in great demand throughout Southern Nevada that require hard, technical skills. In many cases, however, these jobs can be considered "blue collar" and difficult to fill given the labor-intensive or even repetitive tasks required to perform them. The reality is that while this may be the case for entry-level roles in industries like warehousing and manufacturing, there is significant opportunity for rapid, upward mobility, as an entry-level operator or technician can earn a certification and ascend to a supervisory role in a matter of months while significantly enhancing their income.

LVGEA and its strategic partners can serve a key role in fostering this awareness and understanding by using the data in this report to produce "career maps" that clearly lay out pathways for how an entry-level job can lead to substantial career opportunities and earnings in very little time. In particular, these maps can be used to target displaced workers from industries like hospitality and tourism or unemployed workers interested in returning to the workforce and attract them to a new industry or career. They can also highlight the availability of and demand for these goodpaying jobs and the availability of training and certificate programs to catalyze their progression in a given technical trade or industry. Regional partners can then broadly market these resources to the Southern Nevada community and distribute them to partner agencies interacting with displaced or unemployed workers. Additionally, a "career maps toolkit" for employers in industries with significant entry-level demand should be created and include visual designs, messaging, and other communication resources that companies can co-brand and implement in their own recruiting programs.

In addition to developing and promoting these career maps, regional partners should integrate this approach into an overarching focus on utilizing communication strategies involving social media and other channels to broadly and widely promote careers in skilled jobs that may have historically not garnered much interest due to their image or perception. Changing these perceptions and overcoming stereotypes surrounding skilled labor, starting at the K-12 level, is a crucial part of helping current and future workers and their families recognize the careers they can have in these fields and understand the rapid income potential associated with jobs they may have not previously considered. In addition to reskilling programs and communications that attract nontraditional workers to entry-level jobs with potential for rapid advancement and earnings, there are several industries and occupations with workforce deficiencies that out-of-state recruitment efforts may more effectively and quickly resolve. For example, Southern Nevada has historically lacked a robust healthcare workforce pipeline; the pandemic has only exacerbated these challenges through fatigue and burnout that will likely prompt sustained attrition from the industry in the coming years. Some regions are better positioned than others to accommodate the replacement of these workers due to well-established workforce pipelines and medical programs. While there has been a concerted effort in Southern Nevada to build these pipelines. they can take many years to be fully realized, with significant investment and infrastructure accompanying them. As such, the region must aggressively tell its story to target workers in adjacent states or geographies and promote the strong quality of life, low tax environment, and other assets associated with Southern Nevada, building on and scaling campaigns like LVGEA's Vegas: Here, You Can campaign and the City of Las Vegas's Innovate. Vegas campaign, among others in the region.

Additionally, these and other ongoing workforce recruitment efforts underway in the region should focus on trailing spouses and families, advertising the many job opportunities in the regional economy and how economic development partners stand ready to help match family members of these specialized, highdemand workers with other well-paid, rewarding jobs in the region.

#### PROGRAMMATIC

It is clear in the ranking of Southern Nevada's highest-demand occupations and the corresponding supply gaps that there are two primary programmatic needs that economic and workforce development partners must address in the coming years.

Economic and workforce development organizations must continue working collaboratively to adapt training programs and connect with displaced workers to rapidly reskill and place these workers into new roles with elevated demand. Partnership models like the one being pioneered by College of Southern Nevada and Workforce Connections, where Workforce Connections funds the first six credits for students without high school diplomas or equivalent credentials so that they are eligible to use student aid for future credits, will be central to this success. These short-term needs continue to underscore the bulk of regional workforce supply and demand gaps, given the way leisure-focused industries continue to see higher unemployment spurred by the pandemic and automation trends, as well as how other industries like manufacturing and logistics have exploded over just the past year alone, driving significant demand for entry-level workers. This focus on short-term reskilling of workers must be deliberate and shared by all partners and providers to address this pressing sense of misalignment between supply and demand. Over time, and if successful, this focus on rapid reskilling can help attain longer-term goals like the continued diversification of the region's top industries and positioning workers in industries and roles with significantly higher ceilings when it comes to wage growth and upward mobility.

Further, Southern Nevada has made great strides in recent years through the region's two- and four-year degree granting institutions in adapting these degree programs to support market demand for in-demand jobs. Regional partners must continue being responsive to business and industry needs, expanding on these efforts to refine programs and adapt core curricula as necessary to ensure the longer-term workforce pipeline is full and able to address workforce supply gaps. This is particularly critical in sectors like healthcare, where workforce supply was already challenged prior to pandemic and is now even more dire due to pandemic-induced attrition. Regional leaders should continue advocating for and expanding programs like medical residency programs that supply highly educated workers in fields that demand them. In addition to mitigating the "brain drain" phenomenon that occurs when residents move to other states that better meet their needs, adopting a renewed focus on expanding this type of programming in sectors like healthcare can help to retain or even attract residents in need of high-quality, specialized care. While higher education institutions irrespective of their locale are typically challenged to make rapid adjustments to coursework or degree programs, it is crucial that economic development organizations like LVGEA, GOED, Clark County, municipal economic development teams, and the region's higher education institutions operate in close coordination and work aggressively to build out the necessary programming as quickly as possible to begin addressing longer-term workforce supply challenges. This coordination should include the continuation of LVGEA's Economic Development Advisory Group, which serves as a forum for the aforementioned stakeholders to coordinate projects and resources involving economic development in Southern Nevada, and distributing regular surveys designed by these partners to businesses in the region with the results provided to all regional higher education institutions.

Leaders should approach these programmatic areas of need with a **clear focus on reaching underrepresented workers to help diversify the region's workforce** so that their residents have clear opportunities and ways to support Southern Nevada's future economic growth. Building out a diverse workforce is an intentional exercise that goes beyond ensuring workforce demographics are reflective of the population. It should include a deliberate focus on cultivating spaces where all voices in the region are welcomed and embraced as a crucial part of the success and economic viability of the region. For example, in Detroit, Google and Ford Motors are establishing a transportation research hub focused on advanced mobility, locating this investment in Detroit's oldest neighborhood featuring a train station that has sat abandoned since 1988. Google is also opening a computer science educational lab at Michigan Central for high school students and partnering with area nonprofits for basic tech skills training and certificate programs.<sup>34</sup> In New York City, during the height of the pandemic, more than two dozen of the area's largest employers shared plans to hire 100,000 residents over the coming decade with a particular focus on minority and underrepresented communities.<sup>35</sup> These plans are complemented by educational programs and apprenticeships that connect students to entry-level technology jobs with advancement opportunities.

Community partners at the state, regional, and local level can take a leadership role bringing together large companies and stakeholders committed to diversity, equity, and inclusion (DEI) as a foundational driver for positive economic change in Southern Nevada. This role and focus should include:

- Developing and clearly articulating a DEI policy that notes diversity, equity, and inclusion as core values throughout the regional economy
- Evaluating existing economic and workforce development communications, messaging, and practices to ensure the use of inclusive language and initiatives
- Creating a regional DEI committee consisting of industry partners and large employers to share ideas, exchange best practices, and provide guidance for implementing DEI initiatives within their own organizations and communicating the importance of DEI more broadly across the region

- Using this DEI committee as a forum for business and industry leaders to hear directly from representatives and residents of the region's diverse communities, specifically surrounding what economic and workforce development organizations can do to help scale their impact on and work in these communities
- Advocating for corporate policies or DEI programming connected to the changing economy, such as trends toward remote or hybrid work, where data show people of color, women, and working mothers are disadvantaged in the workplace due to frequency at which they opt into flexible work arrangements and how such decisions can inform proximity bias and deepen inequities that may already exist<sup>36</sup>
- Supporting and promoting supplier diversity events and opportunities to widen procurement and contracting opportunities for large-scale economic development projects
- Supporting business incubators, mentorship initiatives, and mentor-protégé programs for underrepresented groups
- Regularly surveying regional stakeholders and historically underrepresented communities to expand on these efforts or identify new initiatives that help meet economic and workforce development targets and DEI goals

Further, while this analysis is heavily focused on high-demand occupations across the region's target industries, the reality is that if LVGEA and its partners can effectively close some of these noted workforce supply and demand gaps, the resulting impact will extend far beyond those workers who fill these jobs. Building overall capacity in this segment of the regional workforce will **spur circular effects and corresponding positive impacts on supporting industries** that employ hundreds of thousands of Southern Nevada residents—from increasing the demand for support or personal care services to enhancing the spending power of residents, resulting in more money placed back into the local economy.

<sup>&</sup>lt;sup>34</sup> Muller, J. (2022). Google and Ford team up on mobility research and job training in Detroit. Axios. <u>https://www.axios.com/google-and-ford-team-up-on-mobility-research-and-job-training-in-detroit-4f97c2b7-aeb1-499c-b413-555264e5e5ab.html</u>

<sup>&</sup>lt;sup>35</sup> Kingson, J. (2020). A big hiring pledge from New York CEOs. Axios. <u>https://www.axios.com/new-york-ceos-hiring-pledge-45f2f1e1-aa8e-474b-a8e2-f23d7b1bf31d.html</u>

<sup>&</sup>lt;sup>36</sup> Future Forum Pulse. (2022). Future Forum. Retrieved February 8, 2022, from <u>https://futureforum.com/pulse-survey/</u>

# APPENDIX A: TOP 100 HIGH-DEMAND OCCUPATIONS FOR SOUTHERN NEVADA TARGET INDUSTRIES

RANKING	SOC	OCCUPATION	PREVIOUSLY RANKED	CHANGE FROM 2019 RANKING	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)
1	15-1132	Software Developers, Applications	1	0	462
2	15-1133	Software Developers, Systems Software	123	121	101
3	17-2051	Civil Engineers	6	3	175
4	11-9199	Managers, All Other	3	-1	1126
5	29-1131	Veterinarians	61	56	45
6	17-2072	Electronics Engineers, Except Computer	16	10	67
7	19-2041	Environmental Scientists and Specialists, Including Health	42	35	45
8	11-1021	General and Operations Managers	2	-6	1635
9	17-2011	Aerospace Engineers	46	37	35
10	15-1122	Information Security Analysts	30	20	56
11	29-1171	Nurse Practitioners	28	17	47
12	15-1121		19	7	153
13	13-1199	Business Operations Specialists, All Other	5	-8	585

RANKING	SOC	OCCUPATION	PREVIOUSLY RANKED	CHANGE FROM 2019 RANKING	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)
14	17-1011	Architects, Except Landscape and Naval	136	122	48
15	17-2081	Environmental Engineers	134	119	34
16	29-1126	Respiratory Therapists	9	-7	98
17	11-9041	Architectural and Engineering Managers	14	-3	53
18	15-1151	Computer User Support Specialists	12	-6	317
19	11-9111	Medical and Health Services Managers	35	16	240
20	29-1071	Physician Assistants	56	36	36
21	15-1199	Computer Occupations, All Other	29	8	217
22	29-1141	Registered Nurses	4	-18	1588
23	11-3021	Computer and Information Systems Managers	79	56	162
24	11-3031	Financial Managers	7	-17	562
25	19-1042	Medical Scientists, Except Epidemiologists	62	37	18
26	29-9011	Occupational Health and Safety Specialists	149	123	48
27	19-4091	Environmental Science and Protection Technicians, Including Health	71	44	55
28	11-9021	Construction Managers	18	-10	576
29	17-2071	Electrical Engineers	17	-12	44
30	13-1081	Logisticians	105	75	40
31	11-3071	Trans., Storage, and Distribution Managers	60	29	92
32	13-1041	Compliance Officers	24	-8	155
33	15-1152	Computer Network Support Specialists	210	177	160
34	29-1123	Physical Therapists	38	4	102
35	17-2141	Mechanical Engineers	49	14	34
36	29-2056	Veterinary Technologists and Technicians	51	15	67
37	17-2199	Engineers, All Other	26	-11	35

RANKING	SOC	OCCUPATION	PREVIOUSLY RANKED	CHANGE FROM 2019 RANKING	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)
38	15-1111	Computer and Information Research Scientists	125	87	3
39	53-2011	Airline Pilots, Copilots, and Flight Engineers	331	292	190
40	15-2031	Operations Research Analysts	331	291	19
41	41-9031	Sales Engineers	331	290	8
42	23-1011	Lawyers	68	26	388
43	29-1069	Physicians and Surgeons, All Other	81	38	95
44	13-1161	Market Research Analysts & Marketing Specialists	11	-33	395
45	13-1111	Management Analysts	13	-32	430
46	17-2111	Health and Safety Engineers, Except Mining Safety	331	285	14
47	29-1122	Occupational Therapists	99	52	61
48	15-1143	Computer Network Architects	122	74	52
49	15-1134	Web Developers	41	-8	71
50	29-1127	Speech-Language Pathologists	187	137	75
51	11-9121	Natural Sciences Managers	114	63	11
52	17-3023	Electrical and Electronic Engineering Technicians	10	-42	156
53	29-1051	Pharmacists	23	-30	115
54	15-1142	Network and Computer Systems Administrators	53	-1	111
55	19-2043	Hydrologists	331	276	8
56	25-2031	Secondary School Teachers, Except Special and Career/Technical Education	32	-24	418
57	15-1141	Database Administrators	106	49	56
58	29-1031	Dietitians and Nutritionists	154	96	28
59	25-2021	Elementary School Teachers, Except Special Ed.	25	-34	754
60	11-2021	Marketing Managers	98	38	187
61	19-1023	Zoologists and Wildlife Biologists	331	270	7

RANKING	SOC	OCCUPATION	PREVIOUSLY RANKED	CHANGE FROM 2019 RANKING	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)
62	19-2021	Atmospheric and Space Scientists	331	269	5
63	31-9096	Veterinary Assistants & Lab. Animal Caretakers	45	-18	183
64	11-2022	Sales Managers	22	-42	319
65	29-1021	Dentists, General	129	64	43
66	47-2111	Electricians	37	-29	803
67	25-2022	Middle School Teachers, Except Special and Career/Technical Education	40	-27	321
68	29-2061	Licensed Practical and Licensed Vocational Nurses	55	-13	237
69	11-3061	Purchasing Managers	116	47	41
70	17-2061	Computer Hardware Engineers	231	161	9
71	49-1011		43	-28	306
72	17-3022	Civil Engineering Technicians	97	25	63
73	47-4011	Construction and Building Inspectors	59	-14	79
74	47-2152	Plumbers, Pipefitters, and Steamfitters	181	107	698
75	41-1012	First-Line Supervisors of Non-Retail Sales Workers	70	-5	212
76	53-1048	First-line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	331	255	424
77	53-2012	Commercial Pilots	118	41	74
78	31-2021	Physical Therapist Assistants	102	24	80
79	29-2032	Diagnostic Medical Sonographers	77	-2	40
80	29-2010	Clinical Laboratory Technologists and Technicians	331	251	107
81	29-1062	Family and General Practitioners	159	78	21
82	19-4099	Life, Physical & Social Science Technicians, Other	331	249	40
83	19-2031	Chemists	331	248	13
84	13-1151	Training and Development Specialists	48	-36	288
85	29-1199	Health Diagnosing & Treating Practitioners, Other	230	145	17

RANKING	SOC	OCCUPATION	PREVIOUSLY RANKED	CHANGE FROM 2019 RANKING	ANNUAL OPENINGS (ASPIRATIONAL GROWTH)
86	11-3121	Human Resources Managers	144	58	96
87	17-3011	Architectural and Civil Drafters	82	-5	133
88	29-2034	Radiologic Technologists	84	-4	99
89	49-3011	Aircraft Mechanics and Service Technicians	8	-81	162
90	47-1011	Supervisors of Construction and Extraction Workers	33	-57	585
91	37-1012	Supervisors of Landscaping, Lawn Service & Groundskeeping Workers	103	12	198
92	27-1024	Graphic Designers	113	21	274
93	17-1022	Surveyors	88	-5	29
94	17-3025	Environmental Engineering Technicians	161	67	11
95	29-2055	Surgical Technologists	126	31	99
96	33-1099	First-Line Supervisors of Protective Service Workers, All Other	213	117	169
97	49-9099	Installation, Maintenance & Repair Workers, Other	107	10	320
98	17-2112	Industrial Engineers	89	-9	15
99	13-1051	Cost Estimators	36	-63	195
100	27-1025	Interior Designers	177	77	66

## APPENDIX B: WORKFORCE REPORT CARD

This report card contains performance indicators across three distinct categories with clear connectivity to workforce development: K-12 education, postsecondary education, and talent and training. Initial data points for each indicator provide a clear foundation upon which the community can track and measure performance toward workforce development goals, both in quantity and quality. The report card should be updated regularly by LVGEA and its partners, with progress and movement across indicators used as a basis for implementing or funding new programs, adjusting curricula, or other actions that help ensure a high-quality workforce that meets the continued and growing needs of the regional economy.

•	E REPORT CA			INDICATES CHANGES COMPARED PREVIOUS YEAR'S PERFORMANCE
K-12				
AP PARTICIPATION <b>19,112</b>	CTE PARTICIPATION <b>72,704 •</b>	HIGH SCHOOL (PUBLIC S 21,34	CHOOLS)	LLEGE-READY GRADUATES (PUBLIC SCHOOLS) 28.3%
AP TEST PASSAGE: 46.59% SOUTH	ERN NEVADA   56% NATIONAL			
				100
ACT SCORES: 17.24 SOUTHERN NEV	ADA   20.7 NATIONAL			
				36
TALENT AND TRAINING				_
COMPLETED APPRENTICESHIPS	EMPLOYED FEMALES	EMPLOYED FO RESID		EMPLOYMENT BY TARGET INDUSTRY
868 个	<b>55.8%</b> 个	65.5	% ↑	<b>37.4%</b> ↑
AVERAGE WAGES (ASSOCIATE DEGREI		ADA   Ş21.51 NATIONA		30 
POSTSECONDARY EDUC	ATION			
ACT WORKKEYS NATIONAL CAREER READINESS CERTIFICATE (NCRC)	CERTIFICATE COMPLETERS	ASSOCIATE GRADUATES	BACHELOR'S GRADUATES	RECENT GRADUATES EMPLOYED IN NEVADA
11,660 个	1,473 🖖 🗧 🤤	3,496 🗅	4,968 🗅	<b>73.7%</b> ↑
ASSOCIATE DEGREE-HOLDING PO	PULATION: 8.5% SOUTHERN NEV	ADA   8.6% NATIONAL		k
				100
BACHELOR'S+ DEGREE-HOLDING	POPULATION: 25.6% SOUTHERN	NEVADA   33.1% NATIO	INAL	
				100

N SOUTHERN NEVADA

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### NOTES, DEFINITIONS, AND SOURCES

#### INDICATOR: Definition / Source, Year / Previous Year's Number

#### AP PARTICIPATION

AP curriculum participation rate and AP test passage rate for CCSD students / CCSD, 2020-2021 / 2019-2020: participation - 20,135, passage - 55.9%

#### ACT SCORES

Average ACT score of CCSD high schoolers / CCSD, 2020-2021 / 2019-2020: 17.7

#### CTE PARTICIPATION

CCSD high schoolers involved in Career Technical Education / CCSD, 2020-2021 / 2019-2020: 70,438

#### HIGH SCHOOL GRADUATES (PUBLIC SCHOOLS)

Number of CCSD high school graduates / CCSD, 2021 / 2020: 21,668

#### COLLEGE-READY GRADUATES (PUBLIC SCHOOLS)

Percent of CCSD graduates that enrolled at a Nevada public higher educational institution and met English and math ACT benchmark scores / NSHE / Class of 2018; Class of 2017: 27.4%

#### ACT WORKKEYS NATIONAL CAREER READINESS CERTIFICATE (NCRC)

Number of ACT WorkKeys National Career Readiness Certificate (NCRC) holders in Southern Nevada / Workforce Connections/ Work Ready Communities, January 2022 / September 2019: 7,881

#### POSTSECONDARY GRADUATES

Public higher education institution certificate completers (less than two year program), associate degree graduates, and bachelor's degree graduates / NSHE/NPWR, 2018-2019 / 2017-2018: certificate – 1,490, associate degree - 3,311, bachelor's degree - 4,846

#### RECENT GRADUATES EMPLOYED IN NEVADA

Percent of college graduates employed in Nevada / NSHE, Class of 2019 / Class of 2018: 72.9%

#### DEGREE-HOLDING POPULATION

Percent of Southern Nevada population 25 years or older holding an associate degree or bachelor's degree and higher / U.S. Census American Community Survey, 2019 / 2018: associate degree – 7.9%, bachelor's degree and higher – 24.6%

#### COMPLETED APPRENTICESHIPS

Number of registered apprenticeships completed / State of Nevada Labor Commissioner, 2021 / 2020: 600

#### EMPLOYED FEMALES

Percent of females aged 16-64 employed / U.S. Census American Community Survey, 2019 / 2018: 55.7%

#### EMPLOYED FOREIGN-BORN RESIDENTS

Percent of foreign-born residents aged 16-64 employed / U.S. Census American Community Survey, 2019 / 2018: 63.8%

#### AVERAGE WAGES (ASSOCIATE DEGREE OR LESS)

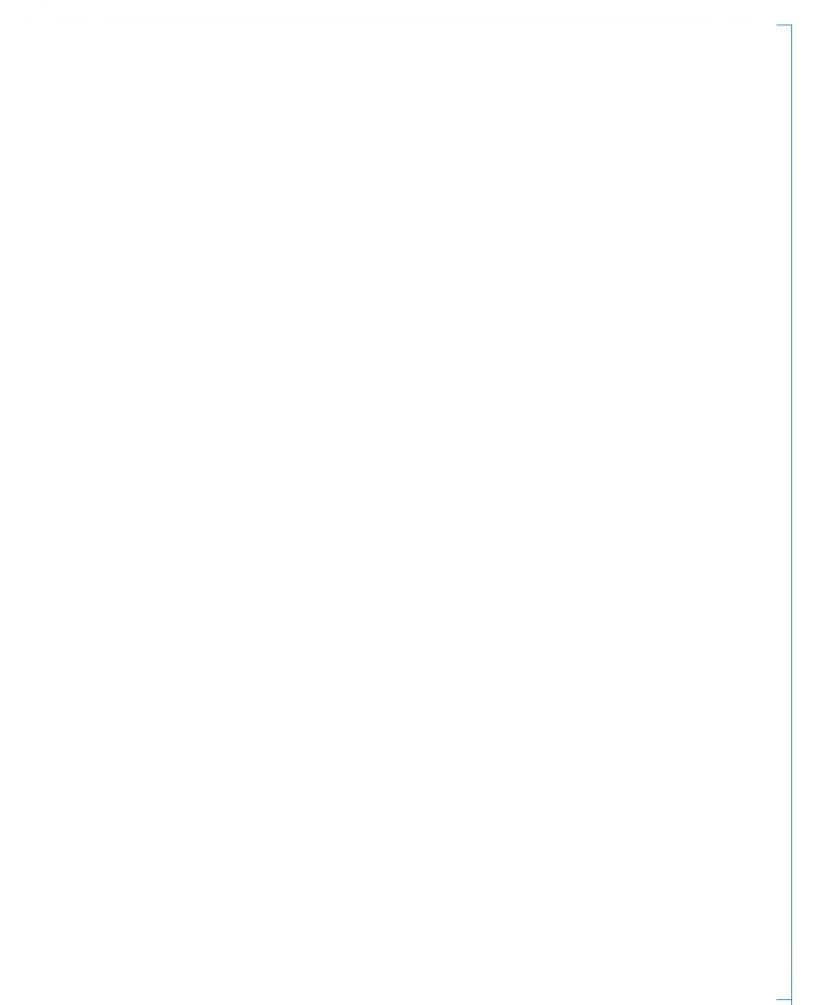
Average Wage of High Demand Jobs Requiring Associate Degree or Less / GOED analysis of high demand occupations in Southern Nevada / 2021 / 2019: \$23.82

#### NET MIGRATION

Total net migration in and out of Nevada / U.S. Census State Population Totals and Components of Change, 2021 / 2020: 47,488

#### EMPLOYMENT BY TARGET INDUSTRY

Percent of Southern Nevada population employed within a target industry / Quarterly Census of Employment and Wages (QCEW), 2020 / 2019: 34.4%



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