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Strengthening the Southern Nevada Workforce Pipeline

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STRENGTHENING THE SOUTHERN NEVADA WORKFORCE PIPELINE

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Abstract

Workforce development has been a keystone in the discussion of economic diversification of Las Vegas for decades. The leisure and hospitality industry is the lifeline for the Southern Nevada economy due to the reliance on tourism as the region's main economic driver. The leisure and hospitality industry requires physical labor and more face-to-face customer interaction than other employment sectors. Thus, these jobs often do not require high educational attainment, but rather sharp soft skills like effective listening, nonverbal communication, and negotiation strategies.¹ While these are valuable traits, the lack of educational attainment and technical skills training suppresses opportunities for career advancement for employees in the Las Vegas leisure and hospitality.

This report analyzes the Southern Nevada employment ecosystem by utilizing occupational clusters recognized by the U.S. Department of Labor. The first section examines occupations in the tourism industry using three occupational clusters: hospitality and leisure; arts, audio/video technology and communications; and the transportation, distribution, and logistics. Next, this report utilizes the Las Vegas Global Economic Alliance's *2022 Workforce Blueprint* to identify the top 15 in-demand occupations for Southern Nevada and occupational clusters.² The six in-demand clusters range from architecture and construction to information technology. All these occupations require at least a bachelor's degree and pay significantly more than the leisure and hospitality related clusters. Finally, three policy recommendations that address the wage disparities within the Southern Nevada workforce are discussed. A case study of the MGM College Opportunity Program (COP) is presented to demonstrate an existing workforce training program that promotes upward mobility of leisure and hospitality employees in the community. Policy recommendations include creating more private-public partnerships like the MGM COP, aligning state and local governments' workforce development priorities, and increasing funding for higher education. These recommendations require collaboration between key contributors to the Las Vegas economy in order to strengthen the regional workforce pipeline.

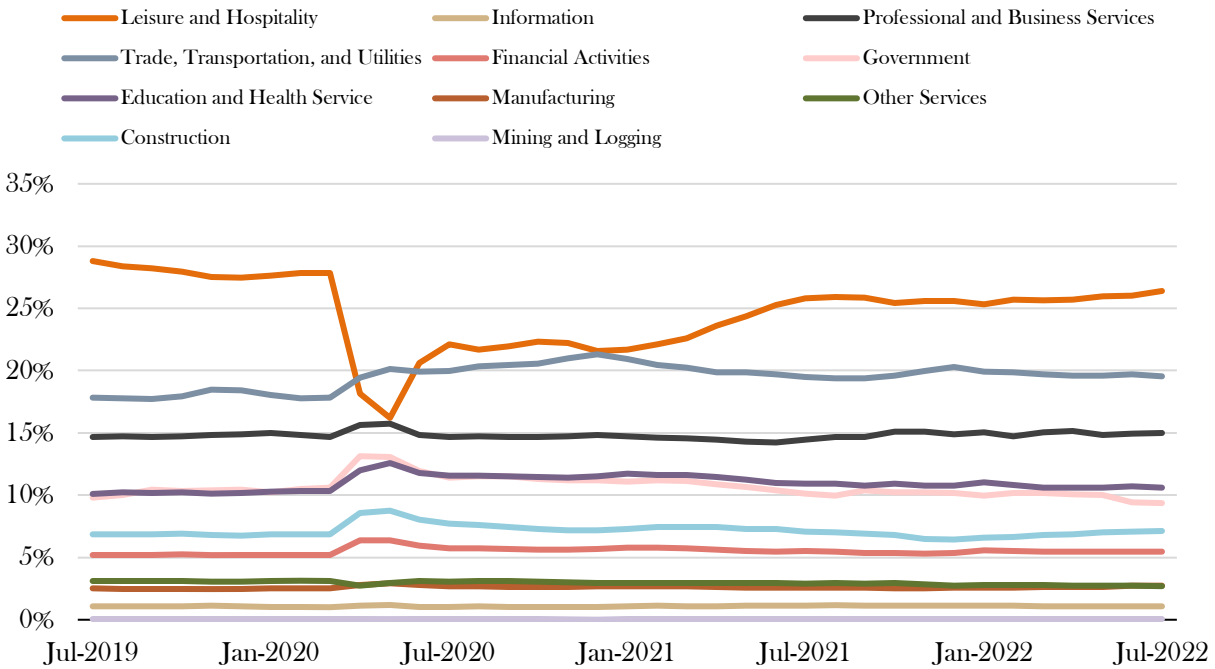
Introduction

Las Vegas is famous for its tourism reputation. The self-proclaimed “Entertainment Capital of the World” provides a playground for adults to gamble, dine, shop, and watch performances all in the span of the four-mile Las Vegas Strip. In 2019, more than 42.5 million visitors came to Las Vegas, continuing a strong upward trend since the Great Recession.³ Despite COVID-19 ravaging the tourism industry, 2021 was an impressive rebound with 32.2 million visitors flocking to Las Vegas.⁴ The number of upcoming events in the region continues to grow, including Formula 1 Las Vegas Grand Prix in November 2023 and Super Bowl LVIII in February 2024. It is clear that tourism remains vibrant and will continue to thrive in Las Vegas for years to come.

To anyone not from Nevada, it seems uncanny that people actually live and work in Las Vegas. However, there is an abundant workforce that fuels the Southern Nevada tourism industry. Waiters and waitresses bring exquisite food prepared by bustling chefs, while ushers and lobby attendants help guests find their seats at a spectacular show. It is difficult to precisely define the range of jobs and workers that all support the leisure and hospitality industry; almost as difficult as naming every activity to do on the Las Vegas Strip.

The Bureau of Labor Statistics (BLS) surveys the nation’s labor market to create a multitude of data sets. The BLS utilizes the North American Industrial Classification System (NAICS), a framework for organizing market activity based on the primary activity of individual firms. Leisure and hospitality is one of the eleven supersectors that are further differentiated into more specific sub-sectors. The leisure and hospitality supersector is comprised of two sectors: arts, entertainment, and recreation and accommodation and food services.⁵ The leisure and hospitality employment supersector accounts for a plurality of jobs within Las Vegas labor force. Figure 1 presents employment data for the eleven NAICS supersectors in Las Vegas from July 2019 to July 2022.⁶

Figure 1: Las Vegas Supersector Employment, 2019- 2022



Source: Author’s calculations using Current Employment Statistics for July 2019 through July 2022

The leisure and hospitality supersector employs over a quarter of a million people in Las Vegas, comprising 26.4 percent of all jobs in Las Vegas metropolitan statistical area (MSA).⁷ The next closest supersector is trade, transportation, and utilities at 19.5 percent, followed by professional and business services at 15.0 percent. Not only does this employment information reveal the number of workers within the industry, but also how fast it is growing. Within the past year, leisure and hospitality employment has grown 8.6 percent as the region rebounded from pandemic-driven job losses. This is even amidst a widespread labor shortage, which has made it difficult for businesses to fill open positions on the Las Vegas Strip.⁸ The scale of the tourism industry merits an in-depth analysis to better understand this workforce.

Assessing the Southern Nevada Workforce

This report utilizes five data sources to examine the workforce pipeline in Southern Nevada. Primarily, the BLS’ Occupational Employment and Wage Statistics (OEWS) are used to assess occupational densities in the Las Vegas MSA. The OEWS reports annual occupational data at the national, state, metropolitan, micropolitan, and combined statistical area levels. The most recent OEWS data were published in March 2022 with a reference date from May 2021. The 2021 OEWS data reflect the earnings and employment levels of 830 occupations from an employer survey of over one million establishments.⁹ The OEWS relies on the Standard Occupational Classification System (SOC) to code the wages and employment of different jobs across the country. The SOC differs from NAICS because NAICS provides industrial sectors that groups jobs based on the categorization of the business, while the SOC gives a more precise assessment of a singular occupation. Take for example the difference between a retail store manager and a bank manager: NAICS would classify the first manager as part of the trade, transportation, and utilities supersector, and the second would fall

under financial activities. On the other hand, SOC would group them together as management occupations. NAICS and SOC are not related; thus, the leisure and hospitality *industry* does not have a defined set of *occupations* within the SOC.

Second, the U.S. Department of Labor's Occupational Information Network (O*NET) is utilized to determine which SOC occupations should be included in a leisure and hospitality analysis. O*NET "collects, analyzes, and disseminates information on various occupational characteristics" with the identical occupational taxonomies as the BLS' OEWS.¹⁰ O*NET created sixteen career clusters based on occupations in similar fields of work that require similar skills.¹¹ For section two of this report, the hospitality and leisure cluster is primarily used, along with related occupations in the arts, audio/video technology and communications cluster and the transportation, distribution and logistics cluster. A comprehensive list of occupations within each of the clusters considered in section two can be found in Appendix A.

The leisure and hospitality occupations examined in section two of this report were selected based on location quotients from the OEWS database. A location quotient is a ratio of a local area's concentration of the workforce in a particular industry divided by the national concentration of the workforce in a particular industry.¹² For instance, a location quotient equal to one means that the area has the same share of local employment in an industry as the nation, while a location quotient over (under) one means the local area has a greater (smaller) share of employment in a particular industry when compared to the rest of the country.

Measuring job concentration with location quotients provides insight into the saturation of a particular occupation when compared to the national average, rather than measuring job concentration solely by the number of employees of an occupation in an area. Leisure and hospitality and related occupations were selected for this report by filtering the OEWS data for the highest location quotients. Then from the list of highest location quotients, fifteen unique minor occupational groups (the first three digits of their SOC code) were selected in effort to mitigate selecting occupations solely from one detailed occupational group and to differentiate the selected occupations. Only occupations with minor groups that fell into the hospitality and tourism O*NET cluster or hospitality-adjacent clusters (arts, audio/video technology and communications and transportation, distribution and logistics) were selected. The process of selecting occupations with the highest location quotients, unique minor codes, and the three examined clusters was repeated until a list of fifteen occupations was created. Once selected, wage, employment, and educational attainment data were collected from the BLS.

Third, this report relies on the Las Vegas Global Economic Alliance's *2022 Workforce Blueprint* to determine the most current, in-demand occupations in Southern Nevada. The *2022 Workforce Blueprint* supplements this report with the top 15, most-needed occupations in Southern Nevada, their corresponding SOC code, and their aspirational growth job openings. Wage and employment data for these occupations were taken from the 2021 OEWS; occupational clusters for each in-demand job were gathered from O*NET.

Additionally, educational attainment data from the BLS Employment Projections are collected for both leisure and hospitality occupations and the top 15 in-demand occupations.¹³ This allows for wage comparison based on the basic academic requirements for the different types of jobs.

Finally, this report examines a way to bridge the educational attainment gap between the leisure and hospitality industry and the in-demand occupations. One existing program is the MGM College Opportunity Program (COP), a private-public partnership between MGM Resorts International and the Nevada System of Higher Education (NSHE). This collaboration allows full-time MGM employees to enroll in any NSHE institution for free to pursue a pre-selected online degree program. In order to analyze how the MGM COP has been utilized at UNLV, enrollment data were obtained from the UNLV Office of Decision Support. This deidentified list provided the total enrollment of MGM COP students, whether they are undergraduate or graduate students, the academic major of each student, and demographic information. With this data, the report assesses how MGM COP enrollment has fluctuated since the program's inception in Fall 2019, which majors students are pursuing, and how to best align these students to pursue the defined in-demand occupations for Southern Nevada.

The Leisure and Hospitality Industry

The leisure and hospitality industry encompasses a wide range of workers within Southern Nevada. For the purposes of this study, three occupational clusters from O*NET are assigned to the leisure and hospitality industry: 1) hospitality and tourism, 2) arts, audio/video technology and communications, and 3) transportation, distribution and logistics. The second and third categories were selected because occupations within the clusters, such as lighting technicians and taxi drivers, contribute to the regional tourism economy. Moreover, there is a high concentration of employees within these occupations in the arts, audio/video technology and communications and transportation, distribution and logistics clusters in Las Vegas, signifying that they should be included in a discussion of the local leisure and hospitality industry.

Table 1 provides the typical educational requirements from the BLS for each leisure and hospitality occupation. Five occupations require no formal education (taxi drivers, gambling change persons and booth cashiers, entertainers and performers, sports and related workers, all other, dining room and cafeteria attendants and bartender helpers, and bartenders), eight require a high school diploma or equivalent (gambling dealers, first-line supervisors of gambling services workers, gambling cage workers, gambling manager, baggage porter and bellhops, gambling surveillance officers and gambling investigators, media and communication workers, all other, and flight attendants), one requires a postsecondary nondegree award (lighting technicians) and one requires a bachelor's degree (set and exhibit designers). Altogether, the less restrictive educational requirements for the leisure and hospitality occupations signals that there is a significant deficiency of technical skills within the Las Vegas tourism labor force.

Table 1: Leisure and Hospitality Industry Occupations and Codes

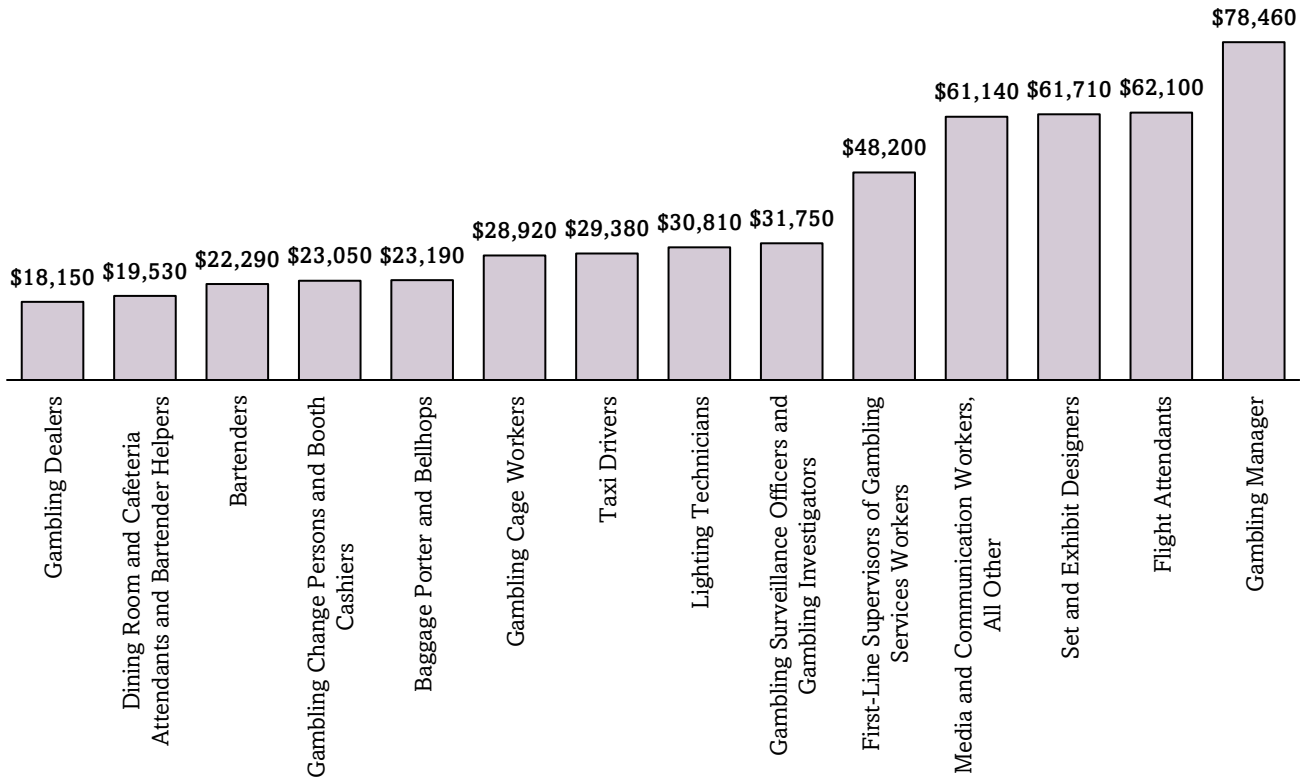
SOC Code	Occupations	Typical Education Needed for Entry	Occupational Cluster
53-3054	Taxi Drivers	No formal educational credential	Transportation, Distribution and Logistics
39-3011	Gambling Dealers	High school diploma or equivalent	Hospitality and Tourism
39-1013	First-Line Supervisors of Gambling Services Workers	High school diploma or equivalent	Hospitality and Tourism
43-3041	Gambling Cage Workers	High school diploma or equivalent	Hospitality and Tourism
11-9071	Gambling Manager	High school diploma or equivalent	Hospitality and Tourism
39-6011	Baggage Porter and Bellhops	High school diploma or equivalent	Hospitality and Tourism
33-9031	Gambling Surveillance Officers and Gambling Investigators	High school diploma or equivalent	Hospitality and Tourism
27-1027	Set and Exhibit Designers	Bachelor's degree	Arts, Audio/Video Technology and Communications
41-2012	Gambling Change Persons and Booth Cashiers	No formal educational credential	Hospitality and Tourism
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	No formal educational credential	Arts, Audio/Video Technology and Communications
27-4015	Lighting Technicians	Postsecondary nondegree award	Arts, Audio/Video Technology and Communications
27-3099	Media and Communication Workers, All Other	High school diploma or equivalent	Arts, Audio/Video Technology and Communications
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	No formal educational credential	Hospitality and Tourism
53-2031	Flight Attendants	High school diploma or equivalent	Transportation, Distribution and Logistics
35-3011	Bartenders	No formal educational credential	Hospitality and Tourism

Source: OEWS 2021, Employment Projections, and O*NET

Wages

Figure 2 highlights the differences in annual wages among the leisure and hospitality occupations. The lowest annual wage occupation is gambling dealers at \$18,150 while the highest annual wage occupation is gambling managers at \$78,460. Sixty percent of the leisure and hospitality occupations fall below the median annual wage \$37,550 for all occupations in Las Vegas.¹⁴ Education has some impact on annual wages, given that three out of the four lowest paying occupations have no educational requirements. However, the only job to require a bachelor's degree is the third-highest paying job (set and exhibit designers), indicating that the correlation between wages and educational attainment may be nonlinear. No wage data are available for entertainers and performers, sports and related workers, and all other occupations.

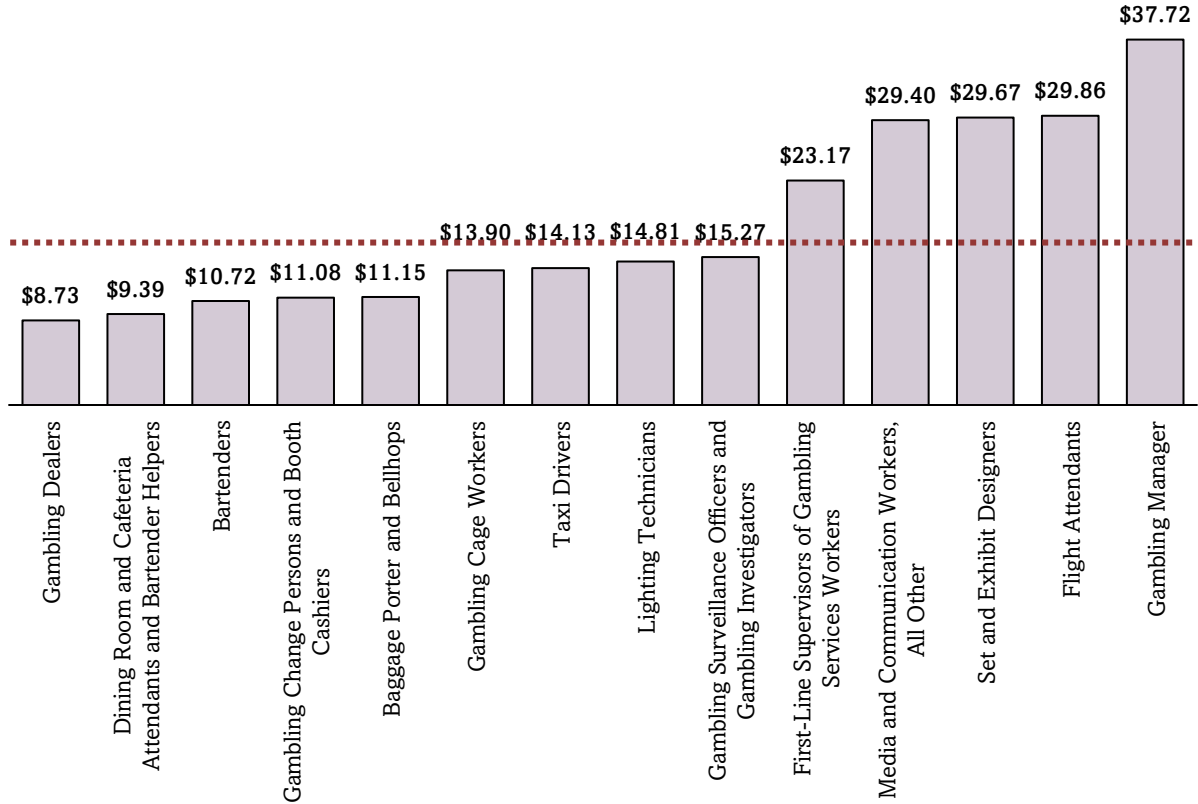
Figure 2: Annual Wage of Leisure and Hospitality Occupations, 2021



Source: OEWS 2021

Figure 3 presents the median hourly wages of the leisure and hospitality occupations. At the time these data were collected in May 2021, the Nevada state minimum wage was \$8 per hour for employees that were offered health benefits and \$9 per hour for other employees who were not offered benefits.¹⁵ Figure 3 demonstrates that gambling dealers and dining room and cafeteria attendants and bartender helpers have a median hourly wage very close to the state minimum wage. Sixty percent of the occupations make less than the living wage for a single adult with no children (\$15.90 per hour), according to MIT’s Living Wage Calculator.¹⁶ For the living wage of a single adult with one child, thirteen out of fifteen of the leisure and hospitality occupations fall under the \$32.78 per hour living wage.¹⁷ These data suggest that wages in the main economic sector in Las Vegas are inadequate for the average employee to support their family. No wage data are available for entertainers and performers, sports and related workers, and all other occupations.

Figure 3: Leisure and Hospitality Occupations Hourly Wage, 2021



Source: OEWS 2021 and *Living Wage Calculation for Las Vegas-Henderson-Paradise, NV*. Massachusetts Institute of Technology (2021-2022)

Employment

Another important consideration when examining the state of leisure and hospitality industry is employment. The tourism economy was ravaged by the onset of the COVID-19 pandemic with the shutdown of nonessential businesses on March 17, 2020.¹⁸ The following month, Nevada led the nation with the highest unemployment rate at 29.8 percent while the Las Vegas MSA suffered with an unemployment rate of 33.5 percent.¹⁹ Leisure and hospitality related jobs comprised a majority of those lost within the short amount of time. Even when the casinos reopened on June 4, 2020, the tourism industry was initially slow to recover.²⁰ Yet, the latest available data from September 2022 report that leisure and hospitality employment is at 95 percent of what it was in September 2019.²¹ This is an impressive rebound for tourism-related employment in the short span of two years. The increase in the employment signifies a demand for service-based experiences that only the Las Vegas Strip can provide. This is advantageous to employees who need a job, as employers struggle to find workers to return to back to the labor force.

Table 2 offers a specific breakdown of employment data for the leisure and hospitality occupations. The most populous jobs are gambling dealers (11,020), bartenders (8,820), and dining room and cafeteria attendants and bartender helpers (8,730). Each of these occupations comprise around one percent of the overall share of total employment in the Las Vegas MSA. This could be because these

occupations are more entry-level rather than managerial positions. The ADP Research Institute, a part of the human resources management software company ADP, produced the “2019 State of the Workforce Report: Pay, Promotions and Retention” highlighting national trends among the major job industries.²² One metric is the span of control, or the number of subordinates that are under the control of a manager.²³ The report mentions “sectors with unskilled workers, where the job functions tend to be routine and relatively simple, are more likely to have wide spans, as is the case with the leisure and hospitality sector, which has the highest overall span of control at 11.4 directs per manager.”²⁴ In other words, the entry-level occupations should have considerably more workers than their supervisor and managerial counterparts. This aligns with the data presented in Table 2. For instance, there are 330 gambling managers while there are 11,020 gambling dealers, or thirty-three dealers for every one manager. The concentration of lower-skill and lower-ranking occupations within the leisure and hospitality industry in Las Vegas highlights an opportunity to reskill and retrain a substantial part of the workforce.

Table 2: Leisure and Hospitality Occupational Densities, 2021

SOC Code	Occupations	Total Las Vegas Employment	Share of Total Employment
53-3054	Taxi Drivers	2,550	0.3%
39-3011	Gambling Dealers	11,020	1.2%
39-1013	First-Line Supervisors of Gambling Services Workers	3,190	0.3%
43-3041	Gambling Cage Workers	1,170	0.1%
11-9071	Gambling Manager	330	0.0%
39-6011	Baggage Porter and Bellhops	1,790	0.2%
33-9031	Gambling Surveillance Officers and Gambling Investigators	440	0.0%
27-1027	Set and Exhibit Designers	330	0.0%
41-2012	Gambling Change Persons and Booth Cashiers	790	0.1%
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	380	0.0%
27-4015	Lighting Technicians	170	0.0%
27-3099	Media and Communication Workers, All Other	460	0.1%
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	8,730	1.0%
53-2031	Flight Attendants	2,470	0.3%
35-3011	Bartenders	8,820	1.0%

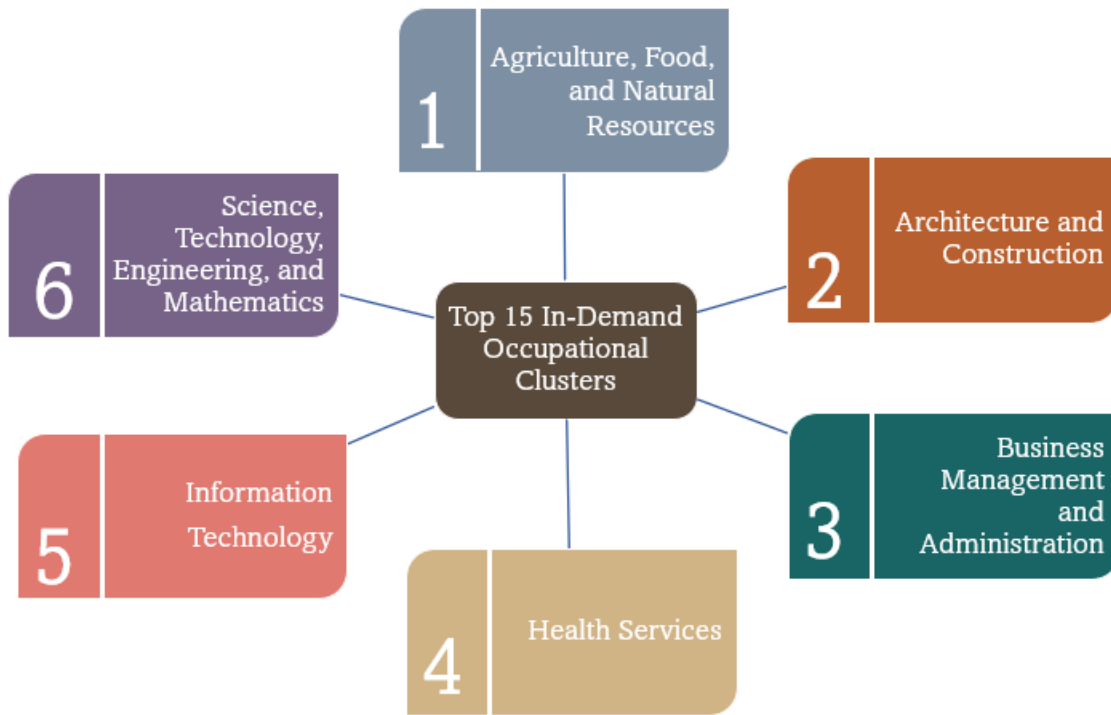
Source: Author’s calculations from OEWS 2021

In-Demand Occupations

While the leisure and hospitality industry has an outsized role in the Southern Nevada economy, a dynamic and highly-skilled workforce is needed to attract firms that are necessary to diversify the regional economy. Economic development and diversification has been a priority since 2011 as the state and region have worked to recover from the Great Recession.²⁵ In Southern Nevada, the cities of Las Vegas, North Las Vegas, and Henderson, as well as Clark County are competing to attract new and notable companies to the region. The Governor's Office of Economic Development (GOED) reported that in 2021, 30 out of 42 companies which received tax abatements to come to the state will operate in Southern Nevada.²⁶ What's more, 15 of those businesses that are relocating to Clark County are manufacturing operations.²⁷ This follows a trend since the Great Recession of major companies investing in Southern Nevada, including Amazon, Google, and Allegiant. Businesses that are expanding the region's manufacturing sector include Haas Automation, the Rockefeller Group, and Nuro.²⁸ Nonetheless, President and CEO of LVGEA, Tina Quigley, remarks that all businesses coming to Southern Nevada will need to be the right businesses that can "meet the challenges of regional drought, land scarcity and a workforce geared toward the hospitality industry."²⁹

The expanding Southern Nevada economy will require a renaissance of workforce development to develop a robust labor pool of local employees who are ready to fill these new jobs. As previously demonstrated, a quarter of the Southern Nevada workforce are in the leisure and hospitality industry, which does not require high educational attainment. This skills gap will pose a challenge to manufacturing and other advanced sectors that relocate to Southern Nevada because there will be an insufficient number of qualified workers. The Las Vegas Global Economic Alliance (LVGEA) in April 2022 produced the *2022 Workforce Blueprint* to highlight the current state and future challenges of the region's economy. Provided in the report is a list of the top 100 high-demand occupations for Southern Nevada's target industries.³⁰ To simplify the list and provide a comparable number of jobs that were outlined for the leisure and hospitality industry, the top 15 occupations were included in this report. Figure 6 represents the six O*NET clusters of the most demanded jobs. These are 1) agriculture, food, and natural resources, 2) architecture and construction, 3) business management and administration, 4) health services, 5) information technology, and 6) science, technology, engineering, and mathematics.

Figure 6: Southern Nevada’s Top 15 In-Demand Occupational Clusters, 2022



*Source: Author’s analysis of 2022 Workforce Blueprint and O*NET*

Table 3 provides a breakdown of the jobs that comprise the top 15 most in-demand occupations in Southern Nevada. These in-demand occupations span a broad spectrum of occupational clusters. For instance, there are six different occupational clusters within the 15 occupations, ranging from jobs in architecture and construction to information technology. Thus, as the economic ecosystem diversifies, it will require worker talent from varying fields. The two most needed occupations are different types of software developers; the demand for these occupations is related to the new types of businesses coming to Southern Nevada. Additionally, it is important to note that all occupations on this list have a bachelor’s degree or higher for their typical entry-level education. Nurse practitioners require a master’s degree and veterinarians require a doctoral or professional degree. The educational requirements for top demanded jobs indicate that the demand for higher skilled workers will require higher educational attainment versus the majority of occupations within the leisure and hospitality industry.

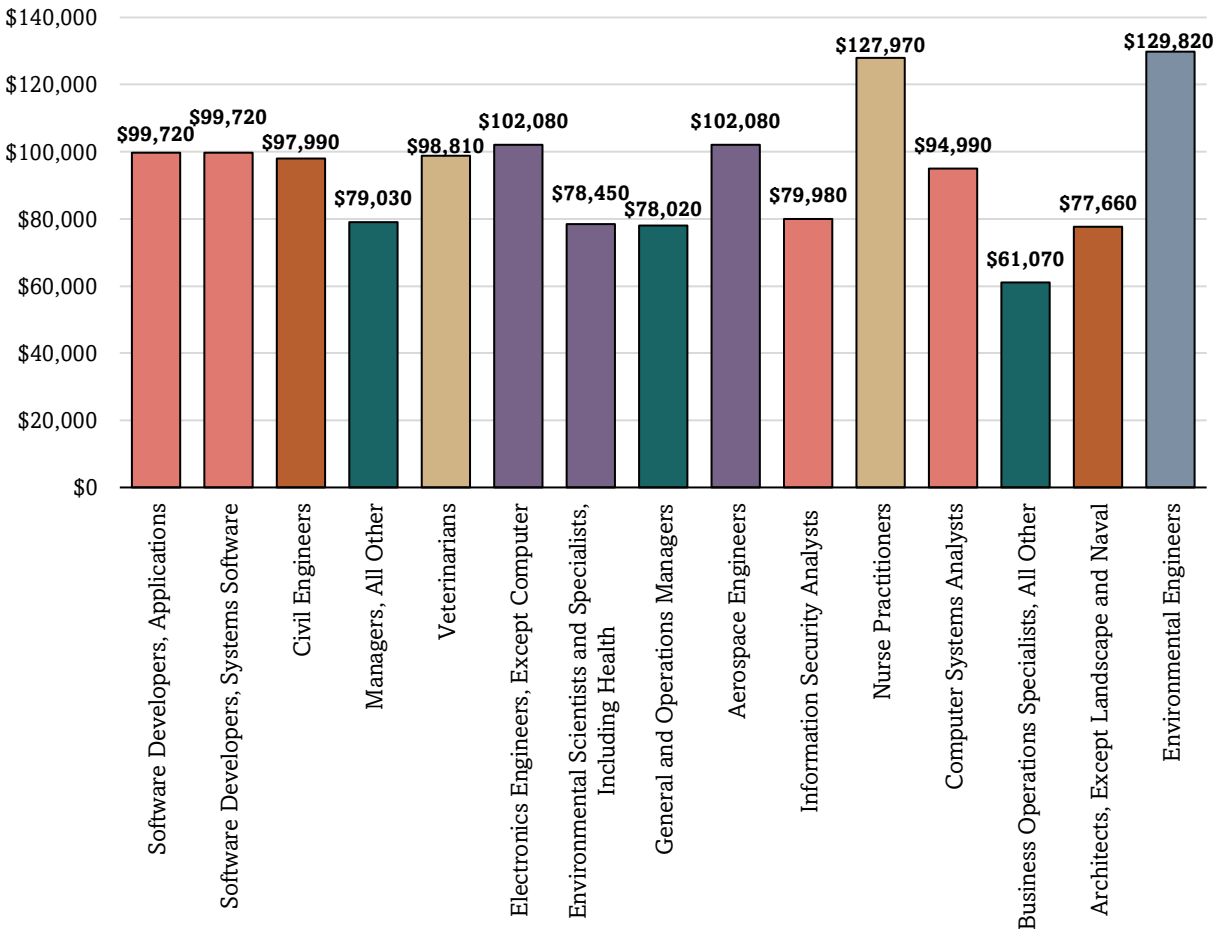
Table 3: Southern Nevada’s Top 15 In-Demand Occupations, 2022

Rank	SOC Code	Occupations	Typical Education Needed for Entry	Occupational Cluster
1.	15-1132	Software Developers, Applications	Bachelor's degree	Information Technology
2.	15-1133	Software Developers, Systems Software	Bachelor's degree	Information Technology
3.	17-2051	Civil Engineers	Bachelor's degree	Architecture and Construction
4.	11-9199	Managers, All Other	Bachelor's degree	Business Management and Administration
5.	29-1131	Veterinarians	Doctoral or professional degree	Health Services
6.	17-2071	Electronics Engineers, Except Computer	Bachelor's degree	Science, Technology, Engineering and Mathematics
7.	19-2041	Environmental Scientists and Specialists, Including Health	Bachelor's degree	Science, Technology, Engineering and Mathematics
8.	11-1021	General and Operations Managers	Bachelor's degree	Business Management and Administration
9.	17-2011	Aerospace Engineers	Bachelor's degree	Science, Technology, Engineering and Mathematics
10.	15-1122	Information Security Analysts	Bachelor's degree	Information Technology
11.	29-1171	Nurse Practitioners	Master's degree	Health Services
12.	15-1121	Computer Systems Analysts	Bachelor's degree	Information Technology
13.	13-1199	Business Operations Specialists, All Other	Bachelor's degree	Business Management and Administration
14.	17-1011	Architects, Except Landscape and Naval	Bachelor's degree	Architecture and Construction
15.	17-2081	Environmental Engineers	Bachelor's degree	Agriculture, Food and Natural Resources

Source: 2022 Workforce Blueprint, Employment Projections, and O*NET

Figure 7 presents the annual wages of Southern Nevada’s top 15 in-demand occupations. Of the six occupational clusters, business management and administration offer the lowest annual wage, averaging \$72,707 from the three selected occupations. Agriculture, food and natural resources ranks the best in terms of average annual salary, averaging \$129,820 from one occupation, followed by health services at an average salary of \$113,390 from two occupations. In terms of singular jobs, environmental engineers earn the most annually at \$129,820 with nurse practitioners closely behind at \$127,970. The occupation that earns the least annually at \$61,070 is business operations specialists. Yet, it is important to note that the lowest annual wage among the top 15 in-demand occupations is \$42,920 greater than the lowest annual wage occupation from the leisure and hospitality industry, gambling dealers. This demonstrates a perceptible difference in pay among the leisure and hospitality industry occupations and the in-demand occupations in Southern Nevada.

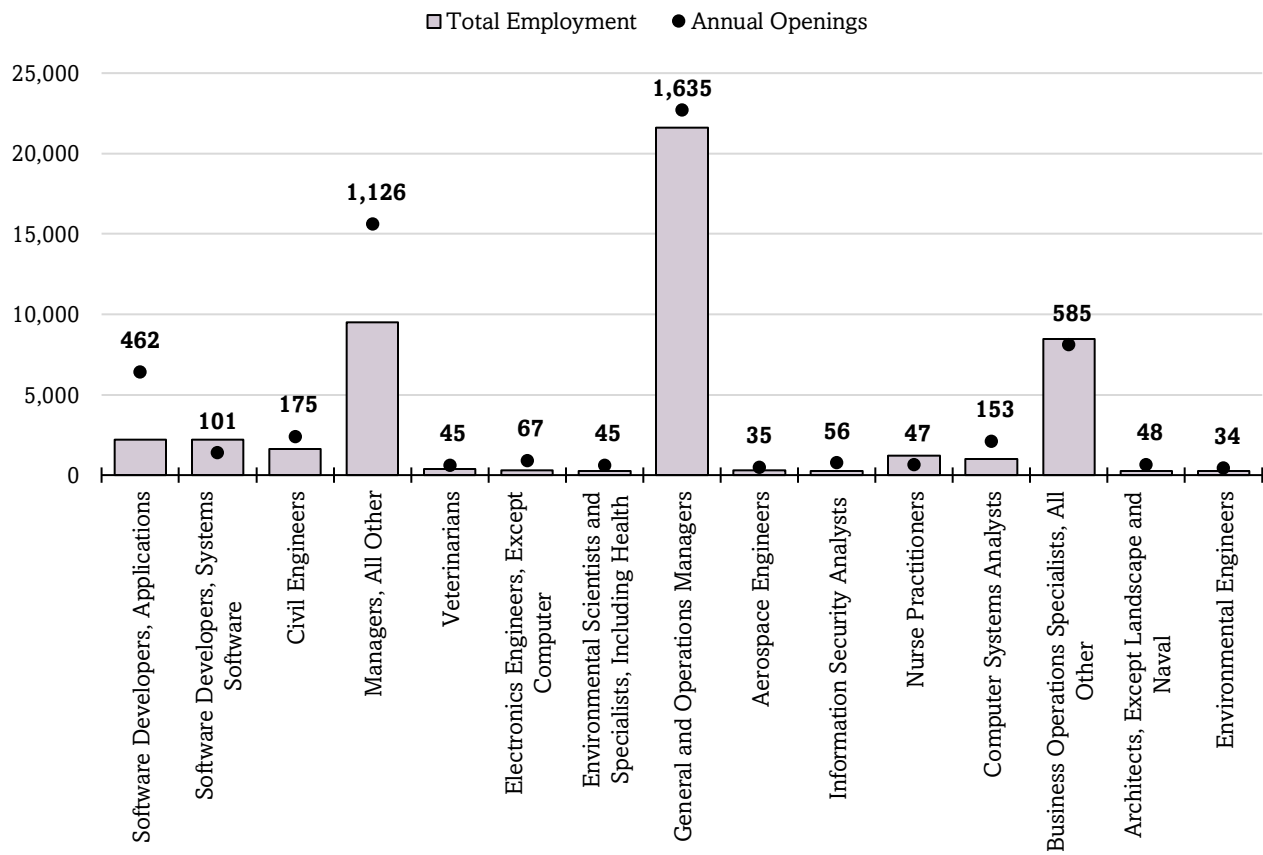
Figure 7: Annual Wage of Southern Nevada’s Top 15 In-Demand Occupations, 2022



Source: 2022 Workforce Blueprint and OEWS 2021

Additionally, the 2022 Workforce Blueprint provides current employment and annual job openings for each of the in-demand occupations. The bars in Figure 8 display the current total employment for each occupation in Las Vegas, while the black dots represent the annual openings projected based on aspirational growth targets. The LVGEA’s calculated aspirational growth targets rely on Southern Nevada economic trends, shifts of predominant industries coming to the region, and other projections.³¹ In conjunction, LVGEA aligned each occupation’s aspirational growth factor with the anticipated growth forecasted by the Department of Employment, Training, and Rehabilitation’s (DETR) base employment analysis.³² Hence, the aspirational growth factor considers many different facets when determining future employment growth of each in-demand occupation.

Figure 8: Total Employment and Annual Job Openings for Southern Nevada’s Top 15 In-Demand Occupations, 2022



Source: 2022 Workforce Blueprint

Figure 8 reveals that all in-demand occupations will have numerous job openings. The amount of job openings is relative to the current amount of total employment. For instance, general and operations managers already employs a large number of Southern Nevadans (21,600), and it is also projected to have the highest amount of job annual job openings (1,635). On the other hand, environmental engineers are projected to have the lowest amount of annual job openings (34) but are also tied for the lowest current number of employees (270, along with environmental scientists and specialists). The high number of annual openings across all of the top 15 occupations is indicative that there is a great demand for employees to fill these jobs. Each occupation will have a significant amount of career openings in the near future. However, Table 4 reveals that all of these jobs require a bachelor’s degree or more for entry-level education requirements. With one-fourth of the Southern Nevada workforce in low-educational attainment occupations, it will be difficult for these employers in the top demanded occupations to find skilled employees. The following section of the report examines a way to remedy the labor force skill gap.

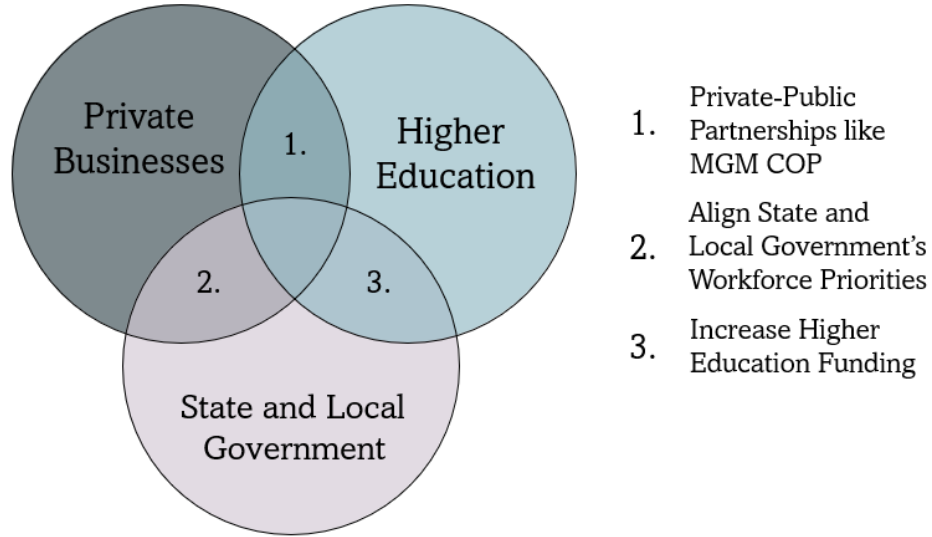
Policy Recommendations

The data presented in this report illustrate a workforce skills gap in the Southern Nevada workforce pipeline. Las Vegas' economy is heavily reliant on the leisure and hospitality industry, which is susceptible to downturns stemming from macroeconomic shocks and provides relatively low-paying jobs. In contrast, the top in-demand occupations provide more sustainable careers and higher wages but require higher educational attainment. Consequently, there is a mismatch between the abundance of lower-skilled workers and the demands of innovative employers.

Moreover, some low-skill occupations may become obsolete within the near future. MIT researcher, Andrew McAfee, and Stanford University senior fellow, Erik Brynjolfsson, write about the potential harm of automation to the low-skill workforce in their novel *The Second Machine Age: Work Progress, and Prosperity in a Time of Brilliant Technologies*.³³ The authors illuminate that low-skill jobs are susceptible to automation because artificial intelligence is first to replace jobs that rely on routine tasks.³⁴ Examples of this phenomenon already exist within the Las Vegas leisure and hospitality industry. The Tippy Robot located in the Miracle Miles Shops pours robot-crafted alcoholic drinks for dazzled tourists, concocting 1,440 drinks per day.³⁵ The Vdara Hotel offers room service from Fetch and Jett, two Relay robots who deliver meals, drinks, and spa products to guests all from the comfort of their hotel room.³⁶ The Fred Segal Market at Resorts World is a cashier-less convenience store; Amazon's "just walk out" technology allows shoppers to enter with a credit card and leave with their items and no human interaction.³⁷ All of these examples demonstrate that some entry-level leisure and hospitality occupations are subject to automation.

The leisure and hospitality worker renaissance will need to be bolstered by three key contributors: private businesses, state and local governments, and higher education institutions. Yet these entities cannot operate alone. Rather, they must collaborate to strengthen the Las Vegas employment ecosystem. The first way is through private-public partnerships, where private businesses fund their employee's education at public universities or colleges. The second way is to align state and local governments' workforce priorities to eliminate competition and invite collaboration among agencies. Finally, the third way is for the government to increase higher education funding. These three policy recommendations are visualized in Figure 9. Without support from the private sector, the government, and higher education institutions, the Southern Nevada workforce will continue the cycle of a predominate low-wage workforce instead of welcoming the potential opportunities tied to economic diversification.

Figure 9: Policy Recommendations

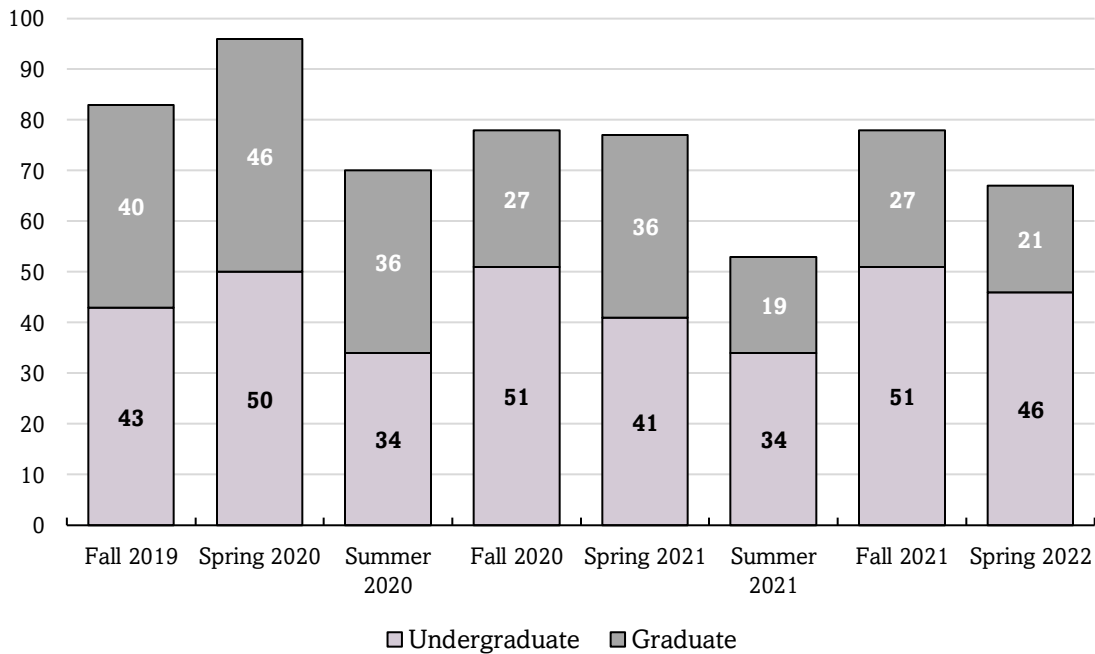


Source: Author's analysis

Private-Public Partnership Case Study: The MGM COP

One of the most prominent names in the tourism industry catalyzed the private-public partnership opportunity for leisure and hospitality employees to pursue higher education. MGM Resorts International created the College Opportunity Program (COP), “the first ever partnership between a state-wide higher education system and a Fortune 500 company,” uniting with the Nevada System of Higher Education (NSHE) in 2019.³⁸ The COP offers eligible MGM Resorts employees free tuition for the seven NSHE teaching institutions: University of Nevada, Las Vegas; University of Nevada, Reno; Great Basin College; Western Nevada College; Nevada State College; College of Southern Nevada; and Truckee Meadows Community College.³⁹ MGM employees can earn a certificate, associate’s degree, bachelor’s degree, master’s or professional degree from a predetermined set of programs.⁴⁰ The COP has already gained significant traction in its three years. Figure 10 provides the undergraduate and graduate enrollment data from the University of Nevada, Las Vegas (UNLV) for each semester since the program’s inception. Enrollment peaked in the Spring 2020 semester, but then decreased for subsequent semesters. This follows a national trend of more than half a million students dropping out of college during the COVID-19 pandemic.⁴¹ Nonetheless, the MGM COP is significantly impacting the lives of those taking advantage of the program. Across all semesters, excluding Summer 2020, undergraduate enrollment has surpassed graduate enrollment. Enrollment is the lowest during the shorter summer semesters.

Figure 10: UNLV Undergraduate and Graduate Enrollment in the MGM COP, by Semester, 2019-2022



Source: UNLV Office of Decision Support

Table 4 presents the enrollment by degree at UNLV for each of the semesters. It is important to note that MGM COP students are constrained to the degree programs they can pursue. At UNLV, the Spring 2022 cohort had sixteen options, thirteen undergraduate degree plans and three master’s degree programs. Note that academic majors listed as “PRE” signify that those students need to satisfy a certain number of credits until they can be fully enrolled in their major.⁴² Although not all of the available programs are directly related to the leisure and hospitality industry, the skills acquired through, for example, urban leadership or criminal justice programs are applicable across multiple industries. As a consequence, students completing these programs may be competitive for jobs in a number of sectors. Also, note that because not every program listed in Table 5 was available each semester, some of the cells have no observations. The enrollment data is longitudinal, meaning that a student pursuing the Anthropology BA in Fall 2019 could be the same student in the total for Anthropology BA in Spring 2022. Among the undergraduate majors, communication studies and psychology are popular choices for MGM COP students. Regarding master’s degrees, hospitality administration has the greatest number of students enrolled.

Table 4: UNLV Degree Program Enrollment, 2019-2022

Academic Majors	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	Summer 2021	Fall 2021	Spring 2022
Anthropology BA	2	2	2	3	3	2	3	3
Business PRE				1		1	1	2
Communication Studies BA			8	9	10	9	9	6
Communication Studies PRE	23	23	5	3	3	1	3	3
Criminal Justice BA				2		1	2	2
Criminal Justice PRE				2	1		2	2
Emergency and Crisis Mgmt MS	3	3		1	2		1	1
Entrepreneurship BSBA				1		1	1	1
Exec Mstr Hlthcare Admn EMHA				1	1		1	
Graduate Non-degree Seeking				1		1	1	
Health Care Admin PRE	5	6	3	2	2	1	2	2
Health Care Administration BS	1	1	1	2	2	2	2	2
Hospitality Administration MHA	29	31	24	21	28	17	21	17
Hospitality Management BS			5	6	6	5	6	7
Interdisc-Multidisc Studies BA	2	1		2	1	1	2	2
Interdisc-Social Sci Stud BA	7	3	1	4	2	1	4	3
Psychology BA	1	9	5	13	8	7	13	11
Urban Leadership MA	8	12	12	3	5	1	3	3
Urban Studies BS	2	5	4	1	3	2	1	
Total	83	96	70	78	77	53	78	67

Source: UNLV Office of Decision Support

The MGM COP is a clear example of a private-public partnership that enables employees to invest in their own human capital. The program has already successfully graduated twenty-seven students at UNLV: six undergraduates and twenty-one master's students.⁴³ However, this program cannot stand alone in the community. Other tourism corporations like Caesars and Station Casinos should adopt a similar program to advance their workers with subsidized higher education and certificate training. Another option is to expand private-public partnership outreach beyond the leisure and hospitality industry. One example is the Starbucks College Achievement Plan (CAP) with Arizona State University (ASU). Similar to the MGM COP, the Starbucks CAP provides full tuition coverage for eligible employees to attend an online degree program at ASU. A private-public partnership should be an option for large companies in diverse industries, such as Switch, to heighten the skills of their entry-level employees to improve their prospects for promotion to managerial roles. Businesses could also align their chosen curriculum with academic majors or certificates that benefit their company. For example, Switch could create a private-public partnership with NSHE to enroll their employees in computer science courses and certificate trainings to become software developers, a highly sought-after occupation in Southern Nevada. Private-public partnerships are often used for investment in infrastructure projects, however workforce training and reskilling share similar goals of promoting the general welfare. The MGM COP needs to continue strengthening the human capital of Southern Nevada and other notable businesses should follow suit to create their own private-public partnerships with NSHE.

Aligning State and Local Governments' Workforce Development Priorities

Another policy recommendation for creating a holistic approach to strengthening workforce development is streamlining workforce development agendas among numerous government and economic development agencies to promote accessibility and transparency of available training opportunities. In Southern Nevada, the long list of agencies with workforce development departments include GOWINN (Governor's Office of Workforce Innovation), GOED, NSHE, DETR, local governments, LVGEA, and Workforce Connections. A common goal of all these organizations is to foster business development and assist community members in finding employment opportunities in Southern Nevada. While the success of these agencies is undeniable, more inter-agency cohesion in workforce development priorities needs to be established to avoid duplicative policies and eliminate gridlock amongst agencies.

An example of valuable collaboration is the Governor's Workforce Development Board (GWDB), which is facilitated through GOWINN and comprised of Southern Nevada community leaders from all regions of the state and all facets of workforce development, including the private sector, local and state government, and labor unions.⁴⁴ The GWDB brings together leaders from diverse industries to consider best practices for workforce development and crafts policy on how to execute their recommendations. Duties of the board include "the identification and dissemination of information on best practices," "review and development of statewide policies affecting the coordinated provision of services through the state's one-stop delivery system," and "the development of the statewide workforce and labor market information system."⁴⁵ The GWDB is a powerful asset in the state to foster collaboration among the partners that are critical to workforce development.

Additionally, the partnership between College of Southern Nevada (CSN), the City of Henderson, and Haas Automation magnifies how collaboration between higher education and businesses can achieve local workforce development goals. The City of Henderson and CSN are currently constructing the Center of Excellence, a multi-use 17,000 square foot facility utilized for the college's advanced manufacturing program.⁴⁶ The building is slated to be ready by the end of 2022, ready to develop students with employable and in-demand skills.⁴⁷ The Center of Excellence will open in anticipation of Haas Automation's expansion to Henderson. This case study provides a tangible way for the public sector to assist local workforce development efforts by developing a targeted, specific goal to address a particular need within the advanced manufacturing sector. More government agencies should identify business community partners interested in growing job training for in-demand sectors.

Increase Higher Education Funding

More higher education funding equals more opportunities to assist Southern Nevadans with expanding their skillsets. Higher education budgets were slashed during the COVID-19 pandemic due to revenue shortfalls. In Nevada, two rounds of budget cuts for fiscal year 2020 and fiscal year 2021 reduced higher education appropriations by \$128.9 million, while tuition paid by students increased.⁴⁸ Reductions in higher education spending persisted for fiscal years 2022 and 2023 due to a 12 percent decrease, or \$170 million loss, relative to pre-pandemic state funding for higher education.⁴⁹ For students, the reduction in funding leads to decreases in student services, vacant faculty positions and hiring freezes, and the threat of UNR and UNLV losing their Carnegie R1 research status if they cannot meet the required employee-to-student ratios.⁵⁰

Another consideration is the decrease in higher education enrollment due to COVID-19. The Brown Center on Education Policy at the Brookings Institution identified that nationwide, there was a 16 percent decline in community college entry, with the sharpest declines in enrollment at Hispanic-serving institutions.⁵¹ These national trends are reflective of enrollment in local Southern Nevada higher education institutions. For example, enrollment decreased at the College of Southern Nevada (CSN) from Fall 2019 to Fall 2021, the state’s largest higher education institution and first federally designated Hispanic Serving Institution in Nevada.⁵² Enrollment at CSN dropped from 33,900 in Fall 2019 to 30,000 in Fall 2020, an 11.7 percent drop in the span of one year.⁵³ The following year from Fall 2020 to Fall 2021 remained relatively stagnant as enrollment dropped to 29,900 in Fall 2021.⁵⁴ A reduction in higher education enrollment is a contributing factor to the lack of skilled workers in Southern Nevada.

The alarming concerns of a higher education funding decrease should prompt the government officials to take action by reinstating some lost funding. One way this could be achieved is through federal dollars. The American Rescue Plan Act (ARPA) was passed by Congress on March 11, 2021, to supplement state and local governments with resources to recover from the COVID-19 pandemic.⁵⁵ Clark County was awarded \$440 million in Fiscal Recovery Funds from the ARPA, however none of it was specifically allocated toward higher education.⁵⁶ The June 2022 update of the county’s “Recovery Plan Performance Report” only includes \$630,000 (less than one percent of total funding) toward workforce education training, with no specific indication of how the money would be utilized.⁵⁷ Nevada leaders should learn from how other states prioritized higher education with their ARPA spending. For instance, the City of Seattle gave \$6.8 million of ARPA funding towards the Seattle Promise Scholarship and Success Program, a support program for public school seniors similar to the Nevada Promise Scholarship.⁵⁸ Likewise, the City of Colorado Springs gave \$2 million of ARPA money to directly fund the University of Colorado at Colorado Springs and Pikes Peak Community College.⁵⁹ Both of these examples demonstrate that Southern Nevada could supplement higher education with federal money. Higher education plays an imperative in the reskilling and reshaping of the Southern Nevada economy.

Discussion and Conclusion

Overall, the findings in this report illuminate the current state of the Las Vegas labor force, display present and future workforce demands, and provide three policy recommendations to bridge the gap in the current workforce — and the one that will be needed. Leisure and hospitality employs the most Southern Nevadans out of all the other supersectors, with rapid growth nearing pre-pandemic levels of employment. Three occupational sectors from the U.S. Department of Labor’s O*NET were identified and analyzed in this report: hospitality and leisure; arts, audio/video technology and communications; and the transportation, distribution, and logistics. Data from the Bureau of Labor Statistics reveal that wages are relatively low across the board, while employment remains high in the leisure and hospitality industry. Moreover, educational requirements for leisure and hospitality industries are also very low. Research from ADP unveils that low-skill industries, like leisure and hospitality, are more likely to have employees concentrated in the entry-level positions.

The LVGEA's *2022 Workforce Blueprint* illustrates the most needed jobs within Southern Nevada. Data reveal that all of these occupations require higher education, but also pay substantially more than the leisure and hospitality occupations. Finally, this report recognizes the skills and educational attainment gap within the Southern Nevada economy and provides policy recommendations for decision makers in private business, higher education, and state and local government. First, creating more private-public partnerships like the MGM College Opportunity Program would create partnerships between private businesses and higher education institutions. Next, aligning state and local governments' workforce priorities would eliminate competition and invite collaboration to streamline workforce development. Finally, an increase in higher education funding would provide better opportunities for existing and potential students within Southern Nevada. Across all options, the cornerstone of these recommendations is accessible higher education. Andria Smythe with the Washington Center for Equitable Growth reinforces this idea through the following, "Institutions of higher learning shape and supply skilled labor to the economy. They absorb excess workers in low-income jobs from the labor market by providing a productive alternative to work and by providing opportunities for future advancement."⁶⁰ Southern Nevada should target this mindset in order to strengthen its workforce pipeline in order to achieve the coveted goal of economic diversification.

Appendix A: Las Vegas Leisure and Hospitality Occupations Detailed Data

O*NET Cluster	Career Pathway	SOC Code	Occupation	Location Quotient	Median Wage	Employment	Typical Education Needed for Entry
Hospitality & Tourism	Lodging	11-9081	Lodging Managers	2.72	\$47,670	640	High school diploma or equivalent
	Lodging	37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	2.03	\$38,540	2,030	High school diploma or equivalent
	Lodging	37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1.58	\$29,420	20,980	No formal educational credential
	Lodging	37-2012	Maids and Housekeeping Cleaners	2.72	\$30,170	12,850	No formal educational credential
	Lodging	37-2019	Building Cleaning Workers, All Other	N/A	\$29,490	N/A	No formal educational credential
	Lodging	39-6011	Baggage Porters and Bellhops	13.41	\$23,190	1,790	High school diploma or equivalent
	Lodging	39-6012	Concierges	1.83	\$28,220	400	High school diploma or equivalent
	Lodging	43-4081	Hotel, Motel, and Resort Desk Clerks	2.27	\$28,720	3,260	High school diploma or equivalent
	Recreation, Amusements & Attractions	11-9071	Gambling Managers	13.82	\$78,460	330	High school diploma or equivalent
	Recreation, Amusements & Attractions	27-2021	Athletes and Sports Competitors	0.53	\$29,880	40	No formal educational credential
	Recreation, Amusements & Attractions	27-2023	Umpires, Referees, and Other Sports Officials	N/A	N/A	N/A	High school diploma or equivalent
	Recreation, Amusements & Attractions	39-1013	First-Line Supervisors of Gambling Services Workers	25.08	\$48,200	3,190	High school diploma or equivalent
	Recreation, Amusements & Attractions	39-2011	Animal Trainers	N/A	N/A	N/A	High school diploma or equivalent
	Recreation, Amusements & Attractions	39-3011	Gambling Dealers	26.13	\$18,150	11,020	High school diploma or equivalent
	Recreation, Amusements & Attractions	39-3012	Gambling and Sports Book Writers and Runners	15.33	\$23,710	730	High school diploma or equivalent
	Recreation, Amusements & Attractions	39-3019	Gambling Service Workers, All Other	24.67	\$29,030	1,740	High school diploma or equivalent

Hospitality & Tourism	Recreation, Amusements & Attractions	39-3021	Motion Picture Projectionists	N/A	N/A	N/A	No formal educational credential
	Recreation, Amusements & Attractions	39-3031	Ushers, Lobby Attendants, and Ticket Takers	3.9	\$18,630	1,400	No formal educational credential
	Recreation, Amusements & Attractions	39-3091	Amusement and Recreation Attendants	1.98	\$22,310	3,390	No formal educational credential
	Recreation, Amusements & Attractions	39-3099	Entertainment Attendants and Related Workers, All Other	10.47	\$22,930	290	High school diploma or equivalent
	Recreation, Amusements & Attractions	39-9032	Recreation Workers	0.65	\$30,400	1,130	High school diploma or equivalent
	Recreation, Amusements & Attractions	41-2012	Gambling Change Persons and Booth Cashiers	7.03	\$23,050	790	No formal educational credential
	Recreation, Amusements & Attractions	43-3041	Gambling Cage Workers	16.11	\$28,920	1,170	High school diploma or equivalent
	Restaurants & Food/Beverage Services	11-9051	Food Service Managers	2.66	\$47,290	3,650	High school diploma or equivalent
	Restaurants & Food/Beverage Services	35-1011	Chefs and Head Cooks	2.11	\$49,940	1,790	High school diploma or equivalent
	Restaurants & Food/Beverage Services	35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1.28	\$30,570	8,670	High school diploma or equivalent
	Restaurants & Food/Beverage Services	35-2011	Cooks, Fast Food	1.59	\$23,780	7,960	No formal educational credential
	Restaurants & Food/Beverage Services	35-2012	Cooks, Institution and Cafeteria	0.46	\$30,900	1,170	No formal educational credential
	Restaurants & Food/Beverage Services	35-2013	Cooks, Private Household	N/A	N/A	N/A	Postsecondary nondegree award
	Restaurants & Food/Beverage Services	35-2014	Cooks, Restaurant	1.84	\$29,970	14,350	No formal educational credential
	Restaurants & Food/Beverage Services	35-2015	Cooks, Short Order	2.18	\$35,670	1,780	No formal educational credential
	Restaurants & Food/Beverage Services	35-2019	Cooks, All Other	1.34	\$35,840	160	No formal educational credential
	Restaurants & Food/Beverage Services	35-2021	Food Preparation Workers	1.76	\$28,430	9,010	No formal educational credential
	Restaurants & Food/Beverage Services	35-3011	Bartenders	2.79	\$22,290	8,820	No formal educational credential
	Restaurants & Food/Beverage Services	35-3023	Fast Food and Counter Workers	1.09	\$22,720	21,920	No formal educational credential

Hospitality & Tourism	Restaurants & Food/Beverage Services	35-3023	Baristas	N/A	N/A	N/A	N/A
	Restaurants & Food/Beverage Services	35-3031	Waiters and Waitresses	1.91	\$21,300	22,510	No formal educational credential
	Restaurants & Food/Beverage Services	35-3041	Food Servers, Nonrestaurant	0.57	\$29,530	910	No formal educational credential
	Restaurants & Food/Beverage Services	35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	3.97	\$19,530	8,730	No formal educational credential
	Restaurants & Food/Beverage Services	35-9021	Dishwashers	2.3	\$27,500	5,660	No formal educational credential
	Restaurants & Food/Beverage Services	35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2.19	\$23,230	4,630	No formal educational credential
	Restaurants & Food/Beverage Services	35-9099	Food Preparation and Serving Related Workers, All Other	3.41	\$24,740	1,850	No formal educational credential
	Restaurants & Food/Beverage Services	51-3011	Bakers	0.94	\$29,900	1,110	No formal educational credential
	Security & Protective Services	33-9031	Gambling Surveillance Officers and Gambling Investigators	7.4	\$31,750	440	High school diploma or equivalent
	Travel & Tourism	39-7011	Tour Guides and Escorts	N/A	N/A	N/A	N/A
	Travel & Tourism	39-7012	Travel Guides	N/A	N/A	N/A	N/A
	Travel & Tourism	41-3041	Travel Agents	1.26	\$48,930	310	High school diploma or equivalent
	Travel & Tourism	43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	2.64	\$38,080	1,740	High school diploma or equivalent

Appendix A: Las Vegas Leisure and Hospitality Occupations Detailed Data (cont.)

O*NET Cluster	Career Pathway	SOC Code	Occupation	Location Quotient	Median Wage	Employment	Typical Education Needed for Entry
Transportation, Distribution, & Logistics	Transportation Operations	53-2031	Flight Attendants	3.91	\$62,100	2,470	High school diploma or equivalent
	Transportation Systems/ Infrastructure Planning, Management and Regulation	53-2021	Air Traffic Controllers	1.66	\$112,940	230	Associate's degree
	Transportation Systems /Infrastructure Planning, Management and Regulation	53-2022	Airfield Operations Specialists	0.82	\$60,090	70	High school diploma or equivalent
	Transportation Operations	53-3032	Heavy and Tractor-Trailer Truck Drivers	0.71	\$48,960	8,810	Postsecondary nondegree award
	Transportation Operations	53-3033	Light Truck Drivers	0.88	\$38,380	5,780	High school diploma or equivalent
	Transportation Operations	53-3099	Motor Vehicle Operators, All Other	1.04	\$25,740	330	No formal educational credential
	Transportation Operations	53-3053	Shuttle Drivers and Chauffeurs	1.07	\$29,280	1,230	No formal educational credential
	Transportation Operations	53-3054	Taxi Drivers	27.99	\$29,380	2,550	No formal educational credential

Appendix A: Las Vegas Leisure and Hospitality Occupations Detailed Data (cont.)

O*NET Cluster	Career Pathway	SOC Code	Occupation	Location Quotient	Median Wage	Employment	Typical Education Needed for Entry
Arts, Audio/Video Technology, & Communications	Visual Arts	27-1011	Art Directors	0.46	\$80,540	130	Bachelor's degree
	Visual Arts	27-1019	Artists and Related Workers, All Other	N/A	N/A	N/A	No formal educational credential
	Visual Arts	27-1021	Commercial and Industrial Designers	N/A	N/A	N/A	Bachelor's degree
	Visual Arts	27-1012	Craft Artists	N/A	N/A	N/A	No formal educational credential
	Visual Arts	27-1029	Designers, All Other	0.86	\$79,680	60	Bachelor's degree
	Visual Arts	27-1022	Fashion Designers	N/A	N/A	N/A	Bachelor's degree
	Visual Arts	27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	N/A	N/A	N/A	Bachelor's degree
	Visual Arts	27-1023	Floral Designers	0.55	\$29,810	130	High school diploma or equivalent
	Visual Arts	27-1024	Graphic Designers	0.66	\$48,970	880	Bachelor's degree
	Visual Arts	27-1027	Set and Exhibit Designers	7.38	\$61,710	330	Bachelor's degree
	Visual Arts	27-1014	Special Effects Artists and Animators	1.14	\$80,150	150	Bachelor's degree
	Performing Arts	27-2011	Actors	0.29	N/A	60	Some college, no degree
	Performing Arts	27-2032	Choreographers	N/A	N/A	N/A	High school diploma or equivalent
	Performing Arts	27-2031	Dancers	N/A	N/A	N/A	No formal educational credential
	Performing Arts	27-2091	Disc Jockeys, Except Radio	2.04	N/A	60	High school diploma or equivalent
	Performing Arts	27-2099	Entertainers and Performers, Sports and Related Workers, All Other	6.96	N/A	380	No formal educational credential
	Performing Arts	27-2012	Media Programming Directors	N/A	N/A	N/A	N/A
	Performing Arts	27-2012	Media Technical Directors/Managers	N/A	N/A	N/A	N/A

Arts, Audio/Video Technology, & Communications	Performing Arts	27-2041	Music Directors and Composers	N/A	N/A	N/A	Bachelor's degree
	Performing Arts	27-2042	Musicians and Singers	2.07	*	330	No formal educational credential
	Performing Arts	27-2012	Producers and Directors	0.81	\$77,070	730	Bachelor's degree
	Performing Arts	27-2012	Talent Directors	N/A	N/A	N/A	N/A
	Journalism and Broadcasting	27-3011	Broadcast Announcers and Radio Disc Jockeys	1.17	\$46,640	190	Bachelor's degree
	Journalism and Broadcasting	27-3041	Editors	0.32	\$77,030	190	Bachelor's degree
	Journalism and Broadcasting	27-3023	News Analysts, Reporters, and Journalists	0.59	\$61,700	150	Bachelor's degree
	Journalism and Broadcasting	27-3043	Poets, Lyricists and Creative Writers	N/A	N/A	N/A	N/A
	Journalism and Broadcasting	27-3042	Technical Writers	0.31	\$77,490	100	Bachelor's degree
	Journalism and Broadcasting	27-3043	Writers and Authors	0.76	\$76,600	250	Bachelor's degree
	Performing Arts; Journalism and Broadcasting	27-3099	Media and Communication Workers, All Other	4.29	\$61,140	460	High school diploma or equivalent
	Journalism and Broadcasting	27-4011	Audio and Video Technicians	1.48	\$62,050	490	Postsecondary nondegree award
	Journalism and Broadcasting	27-4012	Broadcast Technicians	0.63	\$38,120	100	Associate's degree
	Journalism and Broadcasting	27-4031	Camera Operators, Television, Video, and Film	1.53	\$37,510	200	Bachelor's degree
	Journalism and Broadcasting	27-4032	Film and Video Editors	0.58	\$61,750	110	Bachelor's degree
	Journalism and Broadcasting	27-4015	Lighting Technicians	6.1	\$30,810	170	Postsecondary nondegree award
	Journalism and Broadcasting	27-4099	Media and Communication Equipment Workers, All Other	0.84	\$78,620	90	High school diploma or equivalent
	Journalism and Broadcasting	27-4021	Photographers	1.58	\$30,220	400	High school diploma or equivalent
	Journalism and Broadcasting	27-4014	Sound Engineering Technicians	N/A	N/A	N/A	Postsecondary nondegree award

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