

**EXAMINATION OF THE RELATIONSHIP BETWEEN
WORKFORCE DEVELOPMENT AND HOUSING, EDUCATION
AND CHILDCARE SERVICES, AND HEALTHCARE SERVICES:
A WHITE PAPER**



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SERVICES: A WHITE PAPER**

Frederick A. Steinmann

Frederick Steinmann is the Director of the University Center for Economic Development,
College of Business at the University of Nevada, Reno.

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Frederick A. Steinmann, DPPD
University Center for Economic Development
University of Nevada, Reno
The College of Business
Mail Stop 0024
Reno, Nevada 89557
Phone: 775.784.1655



UCED
University of Nevada, Reno
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The College of Business

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1.0 Introduction and Overview

In spring 2023, the University Center for Economic Development, part of the College of Business at the University of Nevada, Reno, received a grant from the Governor’s Office of Workforce Innovation to utilize the new Nevada P-20 to Workforce Research Data System (NPWR) in an applied study of a selected public policy challenge in the areas of workforce development, economic diversification, and education. The primary research question proposed by the University Center for Economic Development, as part of this grant and approved by the Governor’s Office of Workforce Innovation, was to identify the critical workforce development needs of primary and emerging industry sectors in Nevada and the limiting conditions facing broad workforce development efforts.

As Nevada’s only U.S. Economic Development Administration funded University Center program in the state, the University Center for Economic Development provides direct technical assistance to Nevada’s various cities, counties, and each of the eight regional economic development authorities in developing, implementing, and administering their five-year Comprehensive Economic Development Strategies. The Comprehensive Economic Development Strategy is designed to identify and outline priority community and economic development goals relating to the creation and attraction of new businesses and the expansion and retention of existing businesses in existing critical and emerging industry sectors that serve as primary sources of employment that pay wages and incomes typically higher than mean and median wage and income levels. Across the state, and as part of the implementation of these five-year Comprehensive Economic Development Strategies, these various community and economic development efforts have been increasingly hampered by a growing lack of available workers needed to fill open and new positions. Statewide, individual firms have opted to delay or cancel plans to start operations or expand existing operations. Relatively flat or declining population levels and continued growth in median age levels at the community and county level coupled with historically low unemployment rates have significantly shrunk available workforce levels across Nevada, a trend particularly pronounced in Nevada’s rural and non-metropolitan statistical communities and counties. A lack of available housing and gaps in the availability of educational and childcare services and expanded basic and more advanced physical and mental healthcare services have been identified as critical factors limiting the growth of local and regional workforces.

This University Center for Economic Development technical report, *Examination of the Relationship between Workforce Development and Housing, Education and Childcare Services, and Healthcare Services: A White Paper*, presents a general summary of the work and results of this study along with a general discussion regarding some of the challenges encountered in obtaining and using data from the NPWR portal as well as areas of future research and study.

2.0 Overview of Data Used in Exploring the Research Question

To quantitatively evaluate the critical but largely anecdotal factors inhibiting the growth of local and regional workforces across the state, the University Center for Economic Development utilized several data series from the NPWR portal including Career Technical Education data

from the Nevada Department of Employment, Training, and Rehabilitation and from the Nevada System of Higher Education. University Center for Economic Development faculty and staff also utilized data from the U.S. Bureau of Labor Statistics Occupational Employment Statistics and from the U.S. Census Bureau. A statewide Nevada Workforce Development Needs Assessment survey was also developed by University Center for Economic Development faculty and staff as part of this project and was conducted in partnership with each of the eight regional economic development authorities and the Nevada Governor’s Office of Economic Development. To bolster the results of this study, the Governor’s Office of Workforce Innovation also provided University Center for Economic Development faculty and staff with the results of a Childcare Survey to the Nevada Business Community completed between December 2022 and January 2023.

U.S. Bureau of Labor Statistics Occupational Employment Statistics data was used to gather data and compare the change in total employment, hourly mean wages paid, annual incomes earned, and the hourly median wage paid between 2017 and 2021 for several occupation sectors for the United States national, for the entire state of Nevada, and for Nevada’s three metropolitan statistical areas of Carson City, Las Vegas, and Reno-Sparks. This data and analysis was performed for four occupation groups, with each of these four occupation sectors serving as estimates of the relative growth and strength of educational and childcare services and healthcare services throughout the state, including Community and Social Service Occupations (NAICS 21-0000), Educational and Instruction and Library Occupations (NAICS 25-0000), Healthcare Practitioners and Technical Occupations (NAICS 29-0000), and Healthcare Support Occupations (NAICS 31-0000). Total employment, hourly mean wages paid, annual incomes earned, and the hourly median wage paid between 2017 and 2021 were collected and analyzed at the major, minor, broad, and detailed NAICS (North American Industry Classification System) level and total employment per population estimates for each major, minor, broad, and detailed occupation sector group were estimated to evaluate whether or not growth in each of these four occupation sectors, in-terms of total employment, have kept pace with the overall change and growth in total population levels.

U.S. Census Bureau data, primarily American Community Survey five-year estimates, was used to gather data and compare the change in civilian workforce levels, total residential population, total number of housing units (occupied and vacant as well as the number of owner-occupied and renter-occupied), and homeowner and rental vacancy rates for the United States national, for the entire state of Nevada, and for each one of Nevada’s 17 counties. This data was primarily used to evaluate whether or not the state’s general inventory of different housing types, primarily owner-occupied and renter-occupied housing, has kept overall pace with the change and growth in total population across the state and to evaluate what, if any, differences in change and growth in the housing stock has occurred between the state’s three metropolitan statistical areas and the state’s various non-metropolitan and rural counties. An estimate of total population per total number of housing units, occupied and vacant as well as owner-occupied and renter-occupied combined, was estimated for all 17 counties in Nevada and the 2017 through 2021 annual average, actual change, and percentage change were each compared.

The 2023 Nevada Workforce Development Needs Assessment Survey was developed using the Iowa Workforce Development’s 2022 Workforce Development Needs Assessment Survey. The

2023 Nevada Workforce Development Needs Assessment Survey of 35 separate questions and was given to approximately 200 individual businesses across the state of Nevada in certain targeted industry sectors, industry sectors targeted in the Nevada Governor’s Office of Economic Development’s new five-year statewide Comprehensive Economic Development Strategy, *2023 Nevada State Plan: Realizing Nevada’s Electric, Innovative, and Connected Future*. This survey was designed to evaluate the workforce development needs of individual firms throughout the state and the barriers that these firms have and continue to encounter in either retaining their existing workforce or in recruiting qualified workers for open positions. The Governor’s Office of Workforce Innovation Childcare Survey to the Nevada Business Community was developed and administered by the Governor’s Office of Workforce Innovation and the results of this survey were provided to University Center for Economic Development faculty and staff. Combined with the results of the University Center for Economic Development’s 2023 Nevada Workforce Development Needs Assessment Survey, it was possible to develop a more comprehensive understanding of the challenges and needs of individual businesses and employers across the state and to better utilize the results of the analysis performed on data collected and analyzed using the NPWR portal.

Using the NPWR portal, University Center for Economic Development faculty and staff focused primarily on Career Technical Education data and statistics provided by the Nevada Department of Employment, Training, and Rehabilitation and by the Nevada System of Higher Education across each of the Nevada System of Higher Education’s campuses and institutions. The focus on Career Technical Education data and statistics, including graduation rates across related high school programs at the county level and within across degree programs offered by the Nevada System of Higher Education’s various institutions, allowed University Center for Economic Development faculty and staff to better understand the changing and evolving characteristics of Nevada’s workforce and to better evaluate whether or not existing Career Technical Education programs have or are producing the types of workers with specific skills and training needed by individual firms in emerging industry sectors.

3.0 Preliminary Findings and Results

The results of the 2023 Nevada Workforce Development Needs Assessment Survey provide strong evidence to support the anecdotal observation, observed as part of the University Center for Economic Development’s continued five-year Comprehensive Economic Development Strategy efforts with cities, counties, and regional economic development authorities across the state, that it has become increasingly difficult for individual firms in selected emerging industry sectors to fill open and/or vacant employment positions in their firm today, in 2023, as compared to the previous year in 2022 and prior to the beginning of the COVID-19 global pandemic in 2019. Question No. 13 from the 2023 Nevada Workforce Development Needs Assessment Survey asked, “How has your experience in filling open and/or vacant employment positions in your firm in 2023 compared to that of 2022?”. The results for Question No. 13 are presented in Table 3.1 with the top two answers selected by survey respondents highlighted.

Of the 38 survey respondents that answered Question No. 13, 18 total survey respondents, or 47.4 percent, selected “About the Same as 2022” as their answer and ten additional total survey respondents, or 26.3 percent, selected “More Difficult than 2022” as their answer. A total of 28

survey respondents, or 73.7 percent of the 38 total survey respondents that answered Question No. 13, indicated that they have experienced either the same difficulty or more difficulty in filling open and/or vacant positions in 2023. Only three total survey respondents, or 7.9 percent of survey respondents, indicated that it was easier to fill open and/or vacant employment positions in 2023 when compared to their experience in filling open and/or vacant employment positions in 2022. Just seven total survey respondents, or 18.5 percent of total survey respondents, reported that there were no open and/or vacant positions in either 2022 or 2023.

Table 3.1 – Question No. 13: How has your experience in filling open and/or vacant employment positions in your firm in 2023 compared to that of 2022? Nevada Workforce Development Needs Assessment Survey, 2023		
Answer	Total Number of Responses	Percentage of Total Responses
Easier than 2022	3	7.9%
About the Same as 2022	18	47.4%
More Difficult than 2022	10	26.3%
There were No Open and/or Vacant Positions in 2022	2	5.3%
There have been No Open and/or Vacant Positions in 2023	5	13.2%
Total Number of Responses	38	100.0%

This trend, in that it has become increasingly difficult to fill open and/or vacant employment positions among firms in selected emerging industry sectors, is even more pronounced when survey respondents were asked to evaluate their experience in filling open and/or vacant employment positions today in 2023 relative to their experience in 2019 and prior to the beginning of the COVID-19 global pandemic. Table 3.2 presents the results from the 2023 Nevada Workforce Development Needs Assessment Survey for Question No. 14, “How has your experience in filling open and/or vacant employment positions in your firm in 2023 compared to that of 2019 (Prior to the Pandemic)?”. The top two answers selected by survey respondents for Question No. 14 are highlighted.

Of the 37 survey respondents that answered Question No. 14, ten total survey respondents, or 27.0 percent, selected “About the Same as 2019” as their answer and 17 total survey respondents, or 46.0 percent, selected “More Difficult than 2019” as their answer. A total of 27 survey respondents, or 73.0 percent of the 37 total survey respondents that answered Question No. 14, indicated that they have experienced either the same difficulty or more difficulty in filling open and/or vacant positions in 2023. Only two total survey respondents, or just 5.4 percent of survey respondents, indicated that it was easier to fill open and/or vacant employment positions in 2023 when compared to their experience in filling open and/or vacant employment positions in 2022.

Just eight total survey respondents, or 21.6 percent of total survey respondents, reported that there were no open and/or vacant positions in either 2019 or 2023.

Table 3.2 – Question No. 14: How has your experience in filling open and/or vacant employment positions in your firm in 2023 compared to that of 2019 (Prior to the Pandemic)?		
Nevada Workforce Development Needs Assessment Survey, 2023		
Answer	Total Number of Responses	Percentage of Total Responses
Easier than 2019	2	5.4%
About the Same as 2019	10	27.0%
More Difficult than 2019	17	46.0%
There were No Open and/or Vacant Positions in 2019	4	10.8%
There have been No Open and/or Vacant Positions in 2023	4	10.8%
Total Number of Responses	37	100.0%

The results from both Question No. 13 and Question No. 14 indicate that individual firms across the state, especially firms in emerging industry sectors, have experienced increased difficulty in filling open and/or vacant employment positions within their firm over the past year and when compared to a period of time before the beginning of the COVID-19 global pandemic. Despite widespread economic recovery from the global pandemic across the state of Nevada, the results of the 2023 Nevada Workforce Development Needs Assessment Survey indicate a lag in recovery within the state’s workforce. A continued lag in Nevada’s workforce could potentially threaten ongoing and future economic development efforts as individual firms may need to delay internal plans for expansion and growth if solutions to this workforce challenge are not found and promptly implemented.

Question No. 20 of the 2023 Nevada Workforce Development Needs Assessment Survey asked the survey respondent, “When recruiting new employees, are any of the following barriers for your organization?”, and the survey respondent was instructed to select all provided answers that apply to their current situation. Table 3.3 presents the results from the 2023 Nevada Workforce Development Needs Assessment Survey for Question No. 20, “When recruiting new employees, are any of the following barriers for your organization?”. The top four answers selected by survey respondents for Question No. 20 are highlighted.

Among the 34 survey respondents that answered Question No. 20, 15 total survey respondents, or 44.1 percent, selected Affordable Housing and another 15 total survey respondents selected Competitive Wages as the most prominent barrier that their firm faces in recruiting new employees to fill open and/or vacant employment positions. Another 13 total survey

Table 3.3 – Question No. 20: When recruiting new employees, are any of the following barriers for your organization? Select all that apply. Nevada Workforce Development Needs Assessment Survey, 2023		
Answer	Total Number of Responses	Percentage of Total Responses
Advertising/Marketing Funds	9	26.5%
Affordable Housing	15	44.1%
Available Number of Work Hours	3	8.8%
Available Health Care (Expanded Basic and More Advance Mental and Physical Health Care)	6	17.7%
Benefits	5	14.7%
Child Care	7	20.6%
Community Amenities (Parks, Bike Trails, etc.)	1	2.9%
Community Appeal	5	14.7%
Company Education Benefits & Training Programs	3	8.8%
Competitive Wages	15	44.1%
Cost of Living	13	38.2%
Demands/Duties of the Job	9	26.5%
Employee Relocation Assistance	5	14.7%
Lack of Recruiting Staff	7	20.6%
Lack of Telework/Hybrid Schedule Options	8	23.5%
Location	11	32.4%
Opportunity for Advancement	4	11.8%
Quality of Schools in the Area	2	5.9%
Shifts/Hours Offered	6	17.7%
Wellness Program	0	0.0%

Table 3.3 Cont'd – Question No. 20: When recruiting new employees, are any of the following barriers for your organization? Select all that apply. Nevada Workforce Development Needs Assessment Survey, 2023		
Other (please specify):	4	11.8%
Total Number of Responses	34	100.0%

respondents, or 38.2 percent, selected Cost of Living and another 11 total survey respondents, or 32.4 percent, selected Location. While affordable housing was the single largest barrier to recruiting new employees selected by survey respondents, the selection of competitive wages, cost of living, and location suggest geographical and community specific challenges that might be addressed through broader yet targeted community development strategies.

Question No. 24 asked survey respondents to indicate whether their firm plans to expand, downsize, or maintain the current size of their existing workforce over the next two years. Of the 37 total survey respondents that answered Question No. 24, 20 total survey respondents, or 54.1 percent, indicated that they plan to maintain their current workforce over the next two years. A total of 17 survey respondents, or 46.0 percent, indicated that they plan to expand their current workforce over the next two years and no survey respondents indicated that they plan to downsize their current workforce. The results to Question No. 24 indicate overall continued economic recovery over the next two years and further suggests that firms in targeted emerging industry sectors plan to continue to expand their operations, resulting in an immediate need for additional workers with a variety of skills and training. Question No. 25 asked survey respondents, “If you answered “EXPAND” for Question 24, which occupation sectors are you looking to hire from within the next two years?”, and prompted the survey respondent to select all provided answers that apply to their current plans for expansion. Table 3.4 presents the results from the 2023 Nevada Workforce Development Needs Assessment Survey for Question No. 25, “If you answered “EXPAND” for Question 24, which occupation sectors are you looking to hire from within the next two years?”. The top four answers selected by survey respondents for Question No. 25 are highlighted.

Of the 17 survey respondents that answered Question No. 25, seven survey respondents, or 41.2 percent, selected Office & Administrative Support (Clerks, Interviewers, Secretaries, etc.) and seven additional survey respondents selected Production (Assemblers, Machine Operators, Welders, etc.). Six additional survey respondents, or 35.3 percent, selected Management (Administrators, Executive Managers, Treasurers, etc.) and four additional survey respondents, or 23.5 percent, selected Construction & Extraction (Carpenters, Pipe Fitters, etc.) as the specific occupations sectors that they are looking to hire from within the next two years as part of their overall expansion plans. The results of the analysis performed on the Career Technical Education data provided by the Nevada Department of Employment, Training, and Rehabilitation and from the Nevada System of Higher Education through the NPWR portal suggests that high school students and college/university students are only somewhat graduating and completing Career Technical Education programs that individual firms in emerging industry sectors are currently demanding and need in order to support their overall business expansion

Table 3.4 – Question No. 25: If you answered “EXPAND” for Question 24, which occupation sectors are you looking to hire from within the next two years? Select all that apply.		
Nevada Workforce Development Needs Assessment Survey, 2023		
Answer	Total Number of Responses	Percentage of Total Responses
Architecture & Engineering (Engineers, Drafters, Surveyors, etc.)	3	17.7%
Farming, Fishing & Forestry (Agriculture & Conservation Workers, etc.)	0	0.0%
Office & Administrative Support (Clerks, Interviewers, Secretaries, etc.)	7	41.2%
Arts, Design, Entertainment Sports & Media (Coaches, Designers, Copy Writers, etc.)	3	17.7%
Food Preparation & Serving Related (Bartenders, Cooks, etc.)	1	5.9%
Personal Care & Service (Barbers, Personal Care Aides, etc.)	2	11.8%
Building & Grounds Cleaning & Maintenance (Grounds Maintenance, Janitors, etc.)	3	17.7%
Healthcare Practitioners & Technical (Audiologists, Registered Nurse, etc.)	0	0.0%
Production (Assemblers, Machine Operators, Welders, etc.)	7	41.2%
Business & Financial Operations (Accountants, HR Generalists, etc.)	2	11.8%
Healthcare Support (Aides, Orderlies, Assistants, etc.)	0	0.0%
Protective Service (Bailiffs, Firefighters, Police Officers, etc.)	0	0.0%
Community & Social Services (Social Worker, Counselors, etc.)	2	11.8%
Installation, Maintenance & Repair (Auto Techs, Machine Repairers, etc.)	2	11.8%
Sales & Related (Cashiers, Salespersons, Telemarketers, etc.)	2	11.8%
Computer & Mathematical Science (Actuaries, Software Developers, etc.)	1	5.9%
Legal (Lawyers, Title Examiners, etc.)	2	11.8%
Transportation & Material Moving (Packers of Materials, Semi Truck Drivers, etc.)	2	11.8%
Construction & Extraction (Carpenters, Pipe Fitters, etc.)	4	23.5%

Table 3.4 Cont'd – Question No. 25: If you answered “EXPAND” for Question 24, which occupation sectors are you looking to hire from within the next two years? Select all that apply.		
Nevada Workforce Development Needs Assessment Survey, 2023		
Life, Physical & Social Science (Biological Technicians, Economists, etc.)	0	0.0%
Education, Training & Library (Librarians, Teaching Assistants, etc.)	0	0.0%
Management (Administrators, Executive Managers, Treasurers, etc.)	6	35.3%
Total Number of Responses	17	100.0%

plans over the next two years. Additional Career Technical Education instruction in these targeted occupation sectors will be needed to support the efforts of these firms in emerging industry sectors, industry sectors that will likely become major drivers of future economic growth for the state. Table 3.5 presents the results from the 2023 Nevada Workforce Development Needs Assessment Survey for Question No. 26, “If you answered “EXPAND” for Question 24, what are the reason(s) for expanding the workforce for your organization?”. The top three answers selected by survey respondents for Question No. 26 are highlighted.

Table 3.5 – Question No. 26: If you answered “EXPAND” for Question 24, what are the reason(s) for expanding the workforce for your organization? Select all that apply.		
Nevada Workforce Development Needs Assessment Survey, 2023		
Answer	Total Number of Responses	Percentage of Total Responses
Automation	3	16.7%
Changes in Tax or Regulatory Incentives	1	5.6%
Entry Into New Markets	7	38.9%
Increase Share of Existing Market	10	55.6%
Meet Current Market Demands	8	44.4%
Merger/Acquisition	3	16.7%
Moving Specific Business Operations In-House	0	0.0%
Opening a New Location	7	38.9%
Reduction in Labor Costs	1	5.6%
Reduction in Overtime	1	5.6%
Reduction in Production Costs	0	0.0%
Relocation of Assets to a New Location	0	0.0%
Relocation of Assets to an Existing Location	1	5.6%
Other (please specify):	4	22.2%
Total Number of Responses	18	100.0%

The major reason behind the need to expand existing workforces, as selected by survey respondents who responded to the 2023 Nevada Workforce Development Needs Assessment Survey, was Increase Share of Existing Markets, selected by ten total survey respondents or by 55.6 percent of the 18 survey respondents that responded to Question No. 26. Meet Current Market Demands was selected by eight total survey respondents, or by 44.4 percent, and seven survey respondents, or 38.9 percent, selected both Entry Into New Markets and Opening a New Location. The results from Question No. 26, combined with the results of the previous survey questions presented in this section, suggest that the firms in emerging industry sectors selected to respond to this survey believe that their business will continue to grow and that additional workers with specific skill sets will be needed to support that future growth.

Certainly, the need for expanded Career Technical Education programming and training in targeted occupation sector areas will be needed in order to provide the workforce that individual firms in critical and emerging industry sectors will need to support their future expansion plans. The analysis of the Career Technical Education data provided by both the Nevada Department of Employment, Training, and Rehabilitation and by the Nevada System of Higher Education through the NPWR portal provides clear evidence that current Career Technical Education, among Nevada's public K through 12 schools and among Nevada's colleges and universities are only partially meeting this demand. Outside the need for additional Career Technical Education programming and training in targeted occupation sector areas among Nevada's public K through 12 schools and among Nevada's colleges and universities, the results of this comprehensive examination of the relationship between workforce development needs and housing, education and childcare services, and healthcare services indicates that additional community development efforts, namely the development of additional housing, and additional economic and workforce development efforts, namely in expanding education and childcare services and various healthcare services, is also needed to address current and future employer workforce needs among various emerging industry sectors.

The resulting socio-demographic and housing analysis performed using U.S. Census Bureau data, including an estimation of the ratio of total population per total number of housing units (occupied and vacant and owner-occupied and renter-occupied combined) supports the results from the 2023 Nevada Workforce Development Needs Assessment Survey that access to affordable housing is the primary barrier that employers in emerging industry sectors are facing when recruiting new employees. Table A-1 in Appendix 1 of this University Center for Economic Development technical report demonstrates that 12 of Nevada's 14 non-metropolitan counties had an estimated annual average ratio of total population to the total number of housing units that was *less than* the ratio of total population to the total number of housing units for the entire state of Nevada between 2017 and 2021 (Churchill County, Douglas County, Esmeralda County, Eureka County, Humboldt County, Lander County, Lincoln County, Lyon County, Mineral County, Nye County, Storey County, and White Pine County). Three of Nevada's 14 non-metropolitan counties even experienced a *decrease* in the ratio of total population to the total number of housing units between 2017 and 2021 (Elko County, Humboldt County, and Lander County). Only Clark County had an estimated average total population per total number of housing units ratio between 2017 and 2021 that was greater than both the state average ratio and the national average rate, 2.43 people per housing unit between 2017 and 2021 in Clark County compared to 2.38 people per housing unit statewide and to 2.36 people per housing unit

nationwide. All but two of Nevada's 14 rural and non-metropolitan counties had an average ratio of people per housing unit that was *less than* the average ratio of total population to the total number of housing units for the entire state of Nevada and for the entire United States between 2017 and 2021, with Elko County having an estimated average 2.45 people per housing unit and Pershing County having an estimated 2.71 people per housing unit. Both Carson City, with an average ratio of 2.31 people per housing unit, and Washoe County, with an average ratio of 2.33 people per housing unit, were *less than* the average ratios for both the entire state of Nevada and for the entire United States.

Similar estimates of total population per total number of employees for each of the four occupation sectors analyzed using U.S. Bureau of Labor Statistics Occupation Employment Statistics data indicate a similar shortfall in the supply of workers in the education and childcare services area and healthcare services area to the observed shortfall in the availability of housing. Statewide, additional Career Technical Education training is needed in the Community and Social Service Occupations sector, the Educational Instruction and Library Occupations sector, the Healthcare Practitioners and Technical Occupations sector, and in the Healthcare Support Occupations sectors in order to attract and retain the workforce needed to grow overall levels of education and childcare services and healthcare services in order to attract the workforce that individual firms in emerging industry sectors. The results of the Career Technical Education data provided by the Nevada Department of Employment, Training, and Rehabilitation and the Nevada System of Higher Education through the NPWR portal suggests additional workforce development education and training efforts are needed in each of these four occupation sectors and that individual communities throughout the state must invest in the development of additional affordable and attainable housing in order to recruit and retain existing workers across a variety of critical and emerging industry sectors.

4.0 Research Challenges and Areas for Future Research and Study

Once University Center for Economic Development faculty and staff were able to successfully request and obtain the necessary Career Technical Education data from the NPWR portal, it was fairly easy to complete a summary analysis of the desired fields. However, University Center for Economic Development faculty and staff encountered a 'steep learning curve' in understanding the various fields and also found it difficult to properly translate and compare Career Technical Education data across different state agencies, namely the Department of Employment, Training, and Rehabilitation and the Nevada System of Higher Education. Increased standardization of similar fields and categories across state agencies that participate in and provide data through the NPWR portal would significantly improve the ability to make cross-agency and cross-institutional data comparisons for the purpose of building time series analyses. Additional training for faculty and staff that will be utilizing data provided through the NPWR portal would also significantly improve the overall ease of use of the portal and would likely improve the quality of the resulting analysis performed using requested and obtained data.

For future research, University Center for Economic Development faculty and staff will seek to incorporate the results of this research and future similar research performed using data requested and obtained through the NPWR portal into existing five-year Comprehensive

Economic Development Strategies and future five-year Comprehensive Economic Development Strategies that the Center will continue to assist in developing, implementing, and administering. Not only will the future use of data requested and obtained through the NPWR portal assist in the overall development of these existing and future Comprehensive Economic Development Strategies, the data can also be used to evaluate the overall success in achieving the strategic community and economic development goals, objectives, and actionable items outlined throughout these Comprehensive Economic Development Strategies. The Comprehensive Economic Development Strategy program is a program that is often used by federal funding sources to determine allocations of federal non-entitlement competitive economic development dollars through grants issued by a variety of federal agencies and departments. The U.S. Economic Development Administration, the federal agency that oversees the Comprehensive Economic Development Strategy program, requires objective evaluation of stated strategic community and economic development goals, objectives, and actionable items. The data that can be requested and obtained through the NPWR portal can be used to complete this objective evaluation and potentially increase the amount of federally awarded non-entitlement competitive economic development dollars to communities, counties, and regional economic development authorities located throughout the state of Nevada.

**Appendix A – Total Population per Total Number of Housing Units for each
of Nevada’s 17 Counties**

Table A-1 – Total Population per Total Number of Housing Units (Occupied and Vacant Combined) Nevada Counties, State of Nevada, United States 2017 through 2021									
Jurisdiction	2017	2018	2019	2020	2021	2017 to 2021 Annual Average	2017 to 2021 Actual Change	2017 to 2021 Percent Change	
Carson City	2.29	2.29	2.28	2.29	2.38	2.31	0.09	4.1%	
Churchill County	2.21	2.20	2.22	2.24	2.33	2.24	0.12	5.4%	
Clark County	2.41	2.41	2.42	2.44	2.45	2.43	0.04	1.8%	
Douglas County	1.98	1.98	1.97	1.97	2.03	1.99	0.05	2.5%	
Elko County	2.49	2.45	2.42	2.41	2.47	2.45	-0.02	-0.8%	
Esmeralda County	1.11	1.03	1.02	1.11	1.29	1.11	0.17	15.7%	
Eureka County	1.48	1.56	1.52	1.60	1.68	1.57	0.20	13.4%	
Humboldt County	2.29	2.26	2.23	2.22	2.26	2.25	-0.03	-1.5%	
Lander County	2.19	2.23	2.12	1.90	1.99	2.09	-0.20	-9.2%	
Lincoln County	1.96	1.87	1.96	1.89	1.97	1.93	0.01	0.5%	
Lyon County	2.28	2.29	2.32	2.35	2.41	2.33	0.13	5.7%	
Mineral County	1.61	1.53	1.53	1.66	1.92	1.65	0.31	19.1%	
Nye County	1.94	1.96	1.98	2.03	2.02	1.98	0.08	4.3%	
Pershing County	2.70	2.67	2.65	2.64	2.90	2.71	0.20	7.4%	
Storey County	1.98	2.05	2.02	2.08	2.17	2.06	0.19	9.6%	
Washoe County	2.33	2.32	2.32	2.30	2.35	2.33	0.02	0.9%	
White Pine County	2.18	2.15	2.14	2.11	2.20	2.16	0.02	0.8%	
State of Nevada	2.37	2.37	2.38	2.39	2.41	2.38	0.04	1.8%	
United States	2.37	2.37	2.36	2.36	2.36	2.36	-0.01	-0.4%	

Source: United States Census Bureau; American Community Survey; Five-Year Estimates Data Profiles; 2017 through 2021
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