

NEVADA GOVERNOR'S OFFICE OF

Economic Development

ANNUAL REPORT | 2020



Nevada Governor's Office of
ECONOMIC DEVELOPMENT

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Letter

FROM GOV. STEVE SISOLAK
& EXECUTIVE DIRECTOR MICHAEL BROWN



GOVERNOR
STEVE SISOLAK



DIRECTOR
MICHAEL BROWN

Dear Nevada Legislators and GOED Board Members,

IT IS OUR PLEASURE TO PRESENT THIS ANNUAL REPORT from the past year that was dominated by bold action to protect Nevada’s economy while we faced the worst health crisis in more than a century. When 2020 began, the Governor’s Office of Economic Development (GOED) was working on finishing a five-year economic development plan for the first time in nearly a decade. When March hit, GOED pivoted into developing an 18–24-month recovery and resilience plan.

Our historic major industries have served our state well and will continue to thrive as our economy recovers. We cannot brush aside the 287,000 Nevadans who had lost their jobs at the height of the health crisis. As we enter the 2021 Legislature, there are roughly 150,000 of our fellow Nevadans who are out of work. These are unprecedented numbers.

Included in this report is Nevada’s Plan for Recovery and Resilience that was coordinated by GOED, researched, and written by SRI International with significant contributions from RCG Economics and Brookings Mountain West. Before we pivot back to a long-term economic plan, we must first provide immediate assistance to the small businesses who have faced immense challenges throughout this pandemic. That’s why the Governor’s recommended budget includes \$50 million to continue \$10,000 emergency grant funding for small businesses.

We understand that to get our economy back on its feet we need to get people back to work, that’s why the Governor’s recommended budget and policy agenda laid out in his recent State of the State includes:

- **Nevada’s New Energy Economy:** A commitment to increased transmission, storage, and distribution of all forms of clean energy.
- **Focus on New Industries:** The creation of Innovation Zones in Nevada and investment in local research and development that will lead to economic opportunities, including \$5 million for the Knowledge Fund to encourage creation and support for new business, business innovation, and to leverage federal funds.
- **Preparing the Workforce for New Nevada Economy:** The creation of the Nevada Job Force and exploring new remote work opportunities.
- **Creating Jobs through Infrastructure:** \$75 million for future capital improvement projects that will be used to launch the State Infrastructure Bank.

Thank you for your partnership as stewards of Nevada’s economic future. We look forward to working together to get to the other side of this health crisis and getting Nevadans back to work.

The logo for the Governor's Office of Economic Development (GOED), featuring the letters "GOED" in white on a dark blue background.

Summary

GOED PLAYED KEY RECOVERY ROLE IN NEVADA'S EFFORTS TO MITIGATE COVID-19 ECONOMY



GOED also played a major role in helping the Small Business Administration roll-out the Paycheck Protection Program...

IN 2020, THE GOVERNOR'S OFFICE OF ECONOMIC RECOVERY worked closely with the State Treasurer's Office and the Department of Business and Industry to implement a number of statewide economic assistance programs funded through CARES Act funding to address the COVID-19 Pandemic. They included:

- Commercial Rental Assistance Grant Program (CRAG) which doled out \$7.1 million to 770 small businesses for lease assistance.
- Pandemic Emergency Technical Support Grant Program (PETS) has been allocated \$51 million so far to help small businesses to cover expenses.
- \$6,048,981 in Coronavirus Relief Funds (CRF) was allocated for 11 research and development projects at the Desert Research Institute (DRI), the University of Nevada, Las Vegas (UNLV) and the University of Nevada, Reno (UNR).
- \$2,732,843 in CRF was allocated for 26 workforce development projects at the College of Southern Nevada (CSN), Great Basin College (GBC), Truckee Meadows Community College (TMCC), Western Nevada College (WNC), Nevada State College (NSC) and UNLV.

GOED also played a major role in helping the Small Business Administration roll-out the Paycheck Protection Program and Nevada was one of the first states to qualify for the Economic Injury Disaster Loans in March. GOED was dispatched by the Governor to focus on pressing needs during the pandemic.

From February through July GOED provided direct back-up support on the Pandemic Response, including Director Brown's participation on Nevada's Local Empowerment Advisory Council. Communications Director Greg Bortolin provided Public Information Support to the Nevada Superintendent of Public Instruction. Compliance and Regulatory Affairs Director James Humm provided support to the Health Response Unit. Deputy Director Kris Sanchez provided support on Personal Protective Equipment and Deputy Director Bob Potts provided economic analysis.

From July through December, GOED designed, together with State Treasurer Zach Conine, a variety of Economic Relief Programs focused on small business, workforce and public health resiliency while commencing the planning for Recovery by redeploying SRI to the development of a Recovery and Resiliency plan.

Since November, GOED again pivoted towards economic recovery and the building of new resiliency in the economy. Several of those short-term proposals were included in the State of the State and others will be considered in due course. As business is now beginning to come back alive, we are reengaged in the traditional work of economic diversification, while continuing to support Relief programs and preparing for Biden Administration initiatives in the areas of infrastructure and small business assistance.



To strategically deal with the health crisis, Director Brown reorganized GOED structurally into four parts:

- Agency Continuity was assigned to Kris Sanchez, Melanie Sheldon (business development, Pawel Pietrasienski (international), Eric Preiss (film), Joan Rueben (PTAC), and Leandra Diossa (administration and staff).
- Pandemic Response/Relief support for Governor's Office and the National Guard was assigned to Director Brown, Sonia Joya (minority and business support), Vance Farrow (healthcare), Jeanette Holguin (business development), Patty Herzog (rural and community development, and Tatjana Vukovic (business development).
- Forward Planning was assigned to Bob Potts, Karsten Heise (strategic programs), Stacey Bostwick (workforce development), and Chelsea Walburg (research).
- Communications was assigned to Greg Bortolin (public information), James Humm (compliance and regulatory affairs) and Carli Smith (social media).

GOED's two deputy directors took on additional roles during the pandemic.

When COVID-19 hit, Bob Potts, GOED's Deputy Director, was charged with facilitating weekly calls with the state's economists to ensure the Governor's Office had the latest data on the toll the pandemic was taking on the state's economy. State health officials were always on the call to help inform the process. Potts also convened a regular call of the Regional Development Authorities to engage the RDAs in the latest economic conditions as well as getting their help with the roll out of the CRAG and PETS programs. The RDAs were especially helpful with the Labor Certification Study, the EMSI SkillsMatch platform and the millions of dollars in grant funding applications being coordinated the State of Nevada.

Kristopher Sanchez, GOED Deputy Director, is partnering with the Nevada Department of Transportation, the Governor's Office of Science Innovation and Technology, NSHE, regional and local governments, and the Nevada Treasurer's office to develop a Nevada Infrastructure Roadmap. The research team assembled for the project is reviewing the copious number of documents produced by state agencies, think tanks, and the regional development authorities seeking to identify projects that will spur economic development and job growth. For the purposes of the road map, infrastructure is defined broadly to include broadband, 5G telecommunications technology, computing power (data capture, storage, and processing), entrepreneur support, and more traditionally referenced factors such as roads and intermodal facilities.

Business Activities



The GOED Business Development Team works to attract and foster quality job creation, enterprise growth and new investments in the state.

GOED BUSINESS DEVELOPMENT TEAM REPORT 2020

INTRODUCTION

The GOED Business Development Team works to attract and foster quality job creation, enterprise growth and new investment in the state. The Business Development Teams duties include but are not limited to:

- Working with new and existing companies and Regional Development Authorities (RDAs) to manage the state's abatement program application process, comprising everything from the business recruitment stage to the contractual abatement phase
- Assisting potential and existing projects with site selection needs by working closely with RDAs, local governments, and other state agencies, as well as commercial real estate entities, to fast-track the process of finding the adequate commercial property/land with adequate infrastructure and to providing assistance and support for licensing or permitting processes
- Managing and administering the quarterly Board Meeting process, including company vetting, economic incentives modeling, and adherence to Open Meeting Law (OML)
- Fostering relationships with Nevada's RDAs, local governments, utility providers, and other state agencies for the purposes of cohesive economic development activity
- Responsible for the abatement reporting process and ensuring timely reports to the Nevada Legislative Council Bureau (LBC) and the general public. The Team is responsible for reports pursuant to NRS 231.0685, NRS 353.207, NRS 360.895, NRS 360.975, and NRS 231.0535
- Working in partnership with the Nevada Department of Business and Industry (B&I) to market the state's Captive Insurance Program
- Special projects such as co-design, implementation, and ongoing support of / for CARES Act grant programs

NEVADA'S ECONOMIC DEVELOPMENT INCENTIVE PROGRAMS

GOED's Business Development Team manages the state's Economic Development incentive programs. Business incentives widely vary between each state and can comprise, but are not limited to, tax credits, tax abatements, grants, upfront cash payments, deal-closing funds, and real property subsidies or gifts. Most states offer a mix of statutory and discretionary incentive programs.

Nevada is relatively unique in that it offers an entirely **statutory** Tax Abatement program. These tax abatements are finite and performance-based. The abatement program does not include any up-front cash funds or allocations from the state budget.

In FY 2020, eight companies were approved for the state's abatement program. These companies will create an anticipated 403 jobs, in the first two years of operation, and make an estimated \$164,540,895 in capital equipment investment in the state.

Abatement Applications were heard at the June, September, and December GOED Board Meetings. As of December 2020, 21 companies have been incentivized and will create and anticipated 1,109 new jobs, in the first two years of operation, and make and estimated \$918,207,783 in capital equipment investment in the state.

INCENTIVES - TAX ABATEMENTS

State and local governments across the United States use several types of tax incentives to encourage private sector firms to create jobs, invest in communities, and strengthen local industries.

The Nevada Governor's Office of Economic Development (GOED) offers various tax abatements to help qualifying companies decide to do business in the state.

WHAT ARE TAX ABATEMENTS?

Tax abatements are a reduction of taxes granted by a government entity to a company for a specific period to encourage economic development.

No money is given to a company; it receives a discount on its tax obligation that sunsets on a specific date.

A company receiving a tax abatement enters into an agreement (a contract) with the state. Each contract allows a company to receive a predetermined reduction in its tax obligations (reduced tax payments) for a certain period.

In return, the company receiving the abatement is obligated to invest a significant amount of capital into the economy, invest in people and training by creating new jobs and paying wages and benefits to those workers. Companies that receive abatements are regularly audited by the Department of Taxation to ensure they meet the abatement requirements. When the abatement period is over, businesses are obligated to continue paying the full amount of taxes.

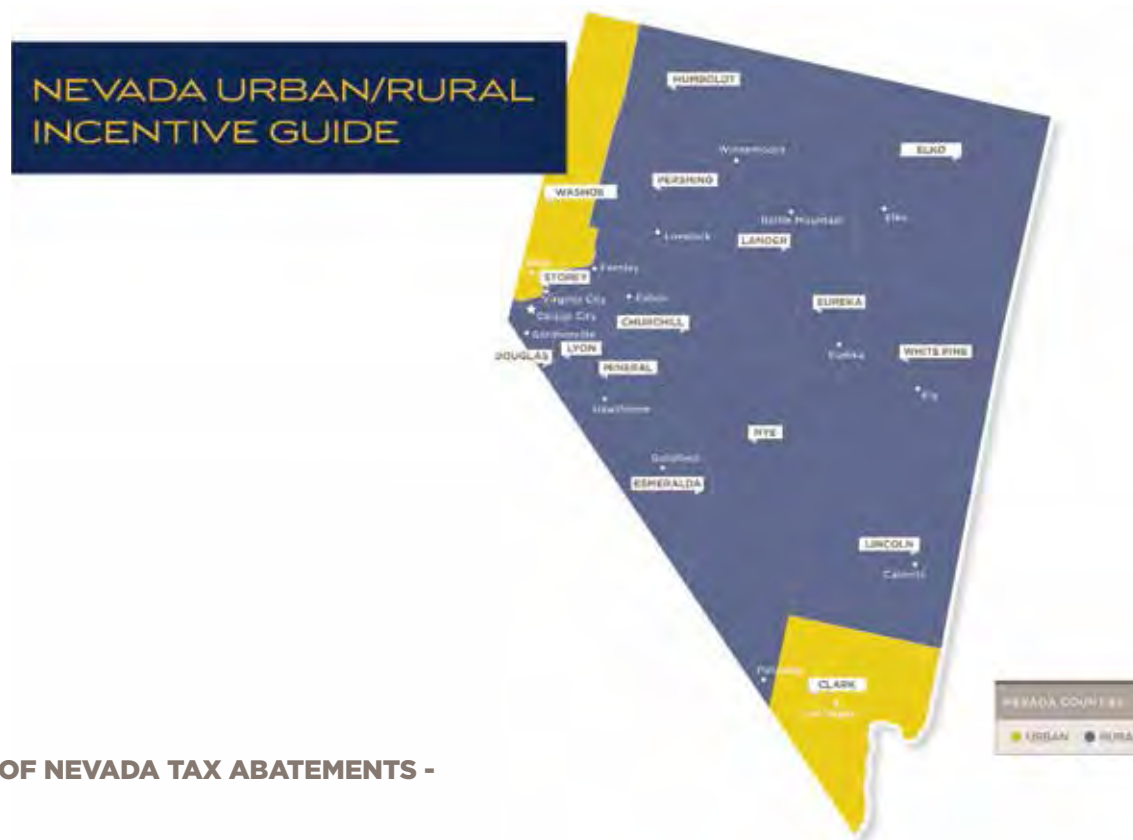
Business Activities CONTINUED

Important is to Know:

- Tax abatements are almost always granted to companies that would not otherwise relocate to Nevada.
- Tax abatements are granted to companies to promote growth by prioritizing firms in advanced industries that drive the competitive advantage, innovation, productivity, and wage gains.
- Tax abatements are discounts, not a pass for paying taxes. Businesses that receive tax abatements still pay taxes but at a discounted rate.

STATE OF NEVADA TAX ABATEMENTS

The State offers Standard abatements that include sales and use tax abatements on capital equipment purchases, sales and use tax deferral on capital equipment purchases, abatements on personal property and modified business taxes, real property tax abatements for recycling, as well as abatements on aviation parts and data centers.



STATE OF NEVADA TAX ABATEMENTS - GUIDE

Standard Abatements (NRS 360.750)

- **Sales and Use Tax Abatement (NRS 374.357)**
– Sales and use tax abatement on qualified capital equipment purchases, with reductions in the rate to as low as 2%.
- **Modified Business Tax Abatement (NRS 363B.120)** – An abatement of 50 percent of the 1.475% rate on quarterly wages exceeding \$50,000.
- **Personal Property Tax Abatement (NRS 361.0687)** – An abatement on personal property not to exceed 50% over a maximum of 10 years.
- **Real Property Tax Abatement for Recycling (NRS 701A.210)** – Up to 50% abatement for up to 10 years on real and personal property for qualified recycling businesses.

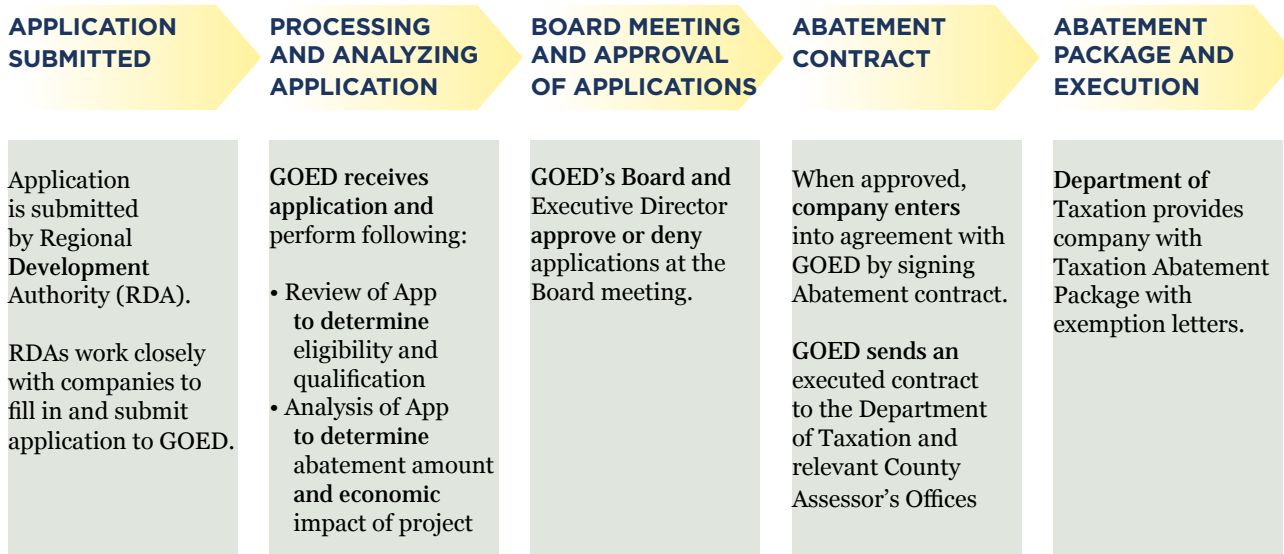
Data Center Abatement (*NRS 360.754*) – A partial abatement from personal property tax and sales and use tax are available to data center companies that locate or expand their business in Nevada. Abatements apply to collocated businesses of the data center.

Aviation Parts Abatement (*NRS 360.753*) – Partial abatements from Personal Property and Sales & Use Taxes are available to aviation companies that locate or expand their business in Nevada.

TAX ABATEMENT PROCESS

1. APPLICATION PROCESS
2. PROCESS TIMELINE
3. ABATEMENT REQUIREMENTS
4. ABATEMENT CONTRACT, AUDIT PROCESS AND REPORTING

APPLICATION PROCESS



Applications should be submitted to GOED's office only through the appropriate Regional Development Authority.

PROCESS TIMELINE

BEFORE BOARD MEETING

6 weeks: Received Abatement Applications:

RDA's submit applications for companies they are working with to GOED staff.

5 weeks: Processing and Analyzing Applications:

GOED staff is determines qualifications, working with RDA's to collect any additional documents required or needed. GOED staff also calculates the estimated abatement amount, as well as fiscal and economic impact of the application. This usually takes two weeks.



Business Activities CONTINUED

4 weeks: Public Notice and Notification Letters to Local Governments

GOED staff posts 30-day Notice for the General Public and notifies the applicable local government (County, City and SD) about abatements by mail 30 days prior to the Board meeting. (NRS 360.757)

3 weeks: Letter to Abatement Applicants

GOED staff prepares notification letters to applying companies to let them know their applications will be presented and considered at the upcoming Board meeting by certified mail. (NRS 241.034)

2 weeks: Pre-calls with abatement applicants and the Department of Taxation

GOED staff emails the prepared draft applications for one last check, and schedules pre-call meetings with company representatives, RDA representatives, and the Department of Taxation to go over details of the Board meeting and what to expect after the application is approved.

Abatement applications are double checked with State Regulatory Agencies

GOED reviews the applications with regulators in the Department of Business and Industry, the Department of Conservation and Natural Resources, the Department of Taxation, and the Secretary of State to identify any regulatory issues in order to resolve them prior to the Board meeting.

3 Days: Open Meeting Law Posting Notice

Three business days prior to the meeting, GOED posts Board Materials to the GOED and state website, sends Agenda to counties, RDAs and school districts for posting. (NRS 241.020(2)(c))

BOARD MEETING

AFTER BOARD MEETING

1 week: Abatement Agreement/Contract

GOED staff prepares Abatement Contract to be signed between GOED and company receiving tax abatements.

2–3 weeks: Taxation Abatement Package

Executed Abatement Contract will be sent to Department of Taxation and relevant County Assessor's offices. The Department of Taxation and Assessor's Office will issue the Abatement Package to company receiving abatements.

Abatement Requirements

As per *NRS 360.750*, a qualifying application must meet 2 out of 3 criteria to be considered for abatement:

1. Meet an average wage criterion – must meet or exceed statewide average hourly wage. This is the main requirement, and if company is not meeting this requirement, they will not even be considered for abatement.
2. Meet the statutory requirements for job creation numbers – Provide Primary jobs. (NAC 231.363)
3. Meet the statutory requirement for capital equipment investment.

In addition to meeting the above requirements, the company must meet following:

- The company offers a health insurance plan and pay at least 65% of the plan's premium costs.
- The applicant needs to generate more than 50% of revenue from outside of the state.
- The applicant is expected to register pursuant to the laws of Nevada and to obtain all licenses and permits required by Nevada and the county, city, or town in which business operates.
- The applicant commits to maintaining the business in Nevada for five years.

For details regarding the abatement requirements go to: **Incentive Reference Guide**

Confidentiality of records and documents

When submitting an application, company can request a confidentiality agreement for certain categories and parts of application (*NRS 231.065*). This must be approved by GOED Executive Director. The Executive Director can determine if certain parts of the application (detail schedule of equipment list or detail schedule of employment list) are proprietary information of the business and should not be public record.



ABATEMENT CONTRACT/ AGREEMENT, AUDIT PROCESS AND REPORTING

Once an abatement application is approved, five to seven business days after the Board meeting, GOED staff prepares and sends abatement contract to the approved company.

Abatement Contract/Agreement – sets forth contractual terms and requirements for a grant of tax abatements:

1. **Abatement Agreement Terms** – The company will agree that approved abatements are conditioned by terms and requirements listed in the signed agreement.
2. **Compliance Audit** – The company will provide the Department of Taxation with access to the books, records, files, and other material needed for department to carry out abatement compliance audits after 2 and 5 years to monitor and verify the Company's compliance with the terms of signed agreement.
3. **Recapture Provisions** – If GOED, in consultation with the Department of Taxation, decides the company has failed to comply with the requirements of the signed agreement, they shall repay all granted abatements.

Once the abatement contract/agreement is executed between GOED and the company, the Department of Taxation will receive it, and based on the contract they will issue a taxation abatement package.

Taxation Abatement Package – Department of taxation will provide company with packet that will include exemption letters and reporting forms or “Abatement Returns”.

The company will have to submit these Abatement Returns to Department of Taxation as follows:

- Sales and Use Tax (SUT) Abatement Return – monthly
- Modify Business Tax (MBT) Abatement Return – quarterly
- Personal Property Tax (PPT) Abatement Return - annually

Abatement Audit – The Department of Taxation performs Abatement Compliance Audits two and five years from the effective date of Abatement Contract. (*NRS 360.755, NRS 360.225*)

Reporting – GOED prepares and submits a Biennial Report to Legislature of Abatements from Taxation. The report provides all abatements awarded by GOED with Audit Compliance Results. (*NRS 231.0685*)



GOED APPROVES GOOGLE AND LITHIUM NEVADA CORP. FOR ABATEMENTS

COMPANIES WILL INVEST TOTAL OF \$1.1 BILLION, CREATING 163 PERMANENT JOBS AT AN AVERAGE WAGE OF ABOUT \$35 PER HOUR AND 5,300 CONSTRUCTION JOBS COMBINED

The Nevada Governor’s Office of Economic Development (GOED) Board of Directors on September 16th approved abatements for Lithium Nevada Corp. and Google (Design, LLC) that will result in \$1.1 billion in investments and the creation of 163 permanent jobs and 5,300 construction jobs.

“These are two good companies that are bringing highly skilled and paid jobs to Nevada – both in the immediate period and for the long term,” said Governor Steve Sisolak. “During this downturn in our economy, we are grateful for the major investments that Lithium Nevada Corp., and Google are each making in our state.”

Google plans to invest \$600 million in a data center for Google products and services at the Tahoe Reno Industrial Center (TRIC) in Storey County that will employ at least 50 people at an average wage of \$31.29 per hour. Additionally, GOED estimates this will create more than 2,500 construction jobs. The company expects the facility to be fully operational in 2021. They were approved for a 2 percent sales tax abatement for 20 years that is worth an estimated \$16.8 million and a 75 percent personal property tax abatement for 20 years that is worth an estimated \$8.25 million.

Governor Sisolak also announced today that Google intends to make an additional \$600 million investment in their Henderson Data Center – doubling their original investment and bringing their total Southern Nevada investment to \$1.2 billion. When combined with the approval of the Storey County Data Center today, their total proposed investment to the State of Nevada is more than \$1.8 billion. Additionally, Google has committed to working with the State to continue investing in our communities and schools.

“This is a very good deal for Nevada,” said Michael Brown, GOED executive director. “In return for the \$25 million abatement that Google will receive, the company will make a \$427 million impact on the economy over 20 years and generate \$94 million in tax revenue over 20 years.

Lithium Nevada Corp. is currently designing and permitting for the chemical manufacturing of high purity lithium chemicals as a byproduct of mineral processing in Thacker Pass in northern Humboldt County. The company will invest \$514.3 million in the project, creating 113 jobs at an average wage of \$37.84 per hour in the first two years of operation. Additionally, GOED estimates this will create more than 2,800 construction jobs. They received a 2 percent sales tax abatement for two years that is worth \$5 million, a 50 percent modified business tax abatement for four years that is worth \$225,614 and a 50 percent personal property tax abatement for 10 years that is worth \$3.38 million.

“The lithium project not only builds on one of Nevada’s historic industries, it will also help establish Nevada as a global leader in the lithium-ion battery processing business,” Brown said. “This project creates jobs in rural Nevada and is projected to have a \$537 million impact on the state’s economy over the next decade while generating \$75 million in new tax revenue.”



GOED BOARD APPROVES 11 NEW COMPANIES

The Nevada Governor's Office of Economic Development (GOED) Board of Directors on December 2nd approved abatements for 11 companies that will generate \$90,207,019 in tax revenue and create 1,991 jobs over the next 10 years.

"I am glad to welcome these companies to the Silver State to help to diversify our economy and create in-demand, high-skilled, and good-paying jobs," Governor Steve Sisolak said. "As we continue to navigate the challenges presented by the ongoing pandemic, job creation and rebuilding our economy remains a top priority."

The companies that were approved for abatements by the GOED Board on December 2nd include:

- **Acorn Pulp Group, LLC**, in Washoe County received a an estimated \$616,706 in tax abatements but will produce an estimated \$4,073,084 million in tax revenues over the next 10 years. The company will initially create 54 jobs at an average wage of \$24.33 per hour. The estimated economic impact over the next 10 years is \$340,433,164 with 119 jobs.
- **American Battery Technology Company** in Lyon County received an estimated \$1,331,016 in tax abatements but will produce \$7,544,803 million in tax revenues over the next 10 years. The company will initially create 50 jobs at an average wage of \$45.47 per hour. The estimated economic impact over the next 10 years is \$348,467,751 with 89 jobs. This project will also make a capital equipment investment of \$18,091,250 with an estimated 160 construction jobs.

Business Activities CONTINUED

- **Beyond Meat, Inc.**, in Washoe County received an estimated \$4,390,290 in tax abatements but will produce \$13,488,036 million in tax revenues over the next 10 years. The company will initially create 135 jobs at an average wage of \$23.61 per hour and make an initial capital equipment investment of \$42.2 million. The estimated economic impact over the next 10 years is \$903,162,299 that includes 343 jobs.
- **Centerline Structural Innovations, Inc.**, of Washoe County received an estimated \$348,806 in tax abatements but will generate an estimated \$9,118,430 in tax revenues over the next 10 years. The company will initially create 55 jobs at an average wage of \$37.44 per hour. The estimated economic impact over the next 10 years is \$451,930,521 that includes 261 jobs. This project will also make a capital equipment investment of \$3,351,051 and create an estimated 18 construction jobs.
- **GigaCrete, Inc.**, of Clark County received an estimated \$454,337 in tax abatements but will produce \$3,116,263 in tax revenues over the next 10 years. The company will initially create 25 jobs at an average wage of \$26.10 per hour. The estimated economic impact over the next 10 years is \$114,693,517 that includes 70 jobs. This project will also make a capital equipment investment of \$5,967,600.
- **Lithion Battery, Inc.**, of Clark County received an estimated \$533,869 in tax abatements but will produce \$2,916,142 in tax revenues over the next 10 years. The company will initially create 22 jobs at an average wage of \$30.41 per hour. The estimated economic impact over the next 10 years is \$140,921,666 that includes 65 jobs. This project will also make a capital equipment investment of \$5,179,049.
- **Nanotech Energy Inc.**, of Washoe County received an estimated \$20,716,652 in tax abatements but will produce \$21,840,024 in tax revenues over the next 10 years. The company will initially create 57 jobs at an average wage of \$30.56 per hour. The estimated economic impact over the next 10 years is \$586,085,854 that includes 302 jobs. This project will also make a capital equipment investment of \$260,150,000 and create an estimated 171 construction jobs.
- **Safe Life Defense, LLC** of Clark County received an estimated \$288,532 in tax abatements but will produce \$12,853,427 in tax revenues over the next 10 years. The company will initially create 50 jobs at an average wage of \$24.59. The estimated economic impact over the next 10 years is \$526,300,998 that includes 377 jobs. This project will also make a capital equipment investment of \$2,319,300 and create an estimated 18 construction jobs.
- **SAMSARG, Inc.**, of Lyon County received an estimated \$126,646 in tax abatements but will produce \$6,417,240 in tax revenues over the next 10 years. The company will initially create 25 jobs at an average wage of \$53.88 per hour. The estimated economic impact over the next 10 years is \$725,722,245 that includes 180 jobs in addition to an estimated 46 construction jobs.
- **Sonoma Creamery LLC** of Washoe County received an estimated \$696,713 in tax abatements but will produce \$5,841,253 in tax revenues over the next 10 years. The company will initially create 50 jobs at an average wage of \$24.40 per hour. The estimated economic impact over the next 10 years is \$349,840,323 that includes 117 jobs. This project will also make a capital investment of \$6,238,412 .
- **ZLINE Kitchen and Bath, LLC** of Washoe County received an estimated \$69,333 in tax abatements but will produce \$2,998,317 in tax revenues over the next 10 years. The company will initially create 25 jobs at an average wage of \$26.86 per hour. The estimated economic impact over the next 10 years is \$80,199,234 that includes 77 jobs. This project will also make a capital equipment investment of \$593,894 and create an estimated four construction jobs.

ADDITIONAL ECONOMIC DEVELOPMENT ACTIVITIES

- GOED's Business Development Team continues to work with companies considering Nevada as a potential location. As of December 2020, GOED's business Development pipeline has 15 active Request of Information (RFI) projects.
- On July 30, 2020, Melanie Sheldon, Director of Business Development (south), was a speaker at a virtual conference held by the Council of State Governments West (CSG West). CSG facilitates regional discussions among western state legislators. Melanie presented at a one-hour breakout session where state economic chiefs/CEOs/experts join from CA, UT, WY, and NV facilitated a Q&A on their most recent efforts in healing the state economies during the pandemic.
- As a broad and ongoing engagement strategy initiated by GOED Director Michael Brown, Melanie Sheldon and Director Brown joined and participated in the State Economic Development Executives (SEDE) Network. This is a forum for state economic development and commerce agency CEOs, executive directors, commissioners, and their deputies to exchange information, learn from one another, and advance the practice and impact of economic development across the nation. The group commenced meeting regularly at the onset of the pandemic to discuss state responses to the COVID-19 challenge. The group now continues to meet intermittently.
- As a result of the above point, on November, 9,10, 16, and 17, 2020, Melanie Sheldon participated in the Center for Regional Economic Competitiveness (CREC) Incentives Compliance Workshop. This workshop was designed to provide state agency staff, across the USA, with the skills and insights to implement best practices in incentives monitoring and management. GOED was also invited to provide a video presentation, for the workshop, by Kenneth E. Poole, Ph.D. President, CEO, & Executive Director, CREC. Melanie delivered the video presentation on behalf of GOED.
- Tatjana Vukovic, Director of Business Development, northern Nevada, developed a comprehensive white paper titled the Importance of Tax Abatements on Business Investment Decisions in conjunction with a policy paper on Tax Abatements for Economic Development. <https://goed.nv.gov/wp-content/uploads/2020/12/TaxAbatementAnalysisnew1.pdf>
- In conjunction with their business development duties, Jeanette Holguin, Business Development Specialist, and Mariah Heriman, Business Development coordinator, were redeployed to provide constituent support on various pandemic related matters, including essential business enquiries and grant/relief program support.
- Melanie Sheldon recently joined the LVGEA Business Development Task Force. This group is chaired by Betsy Fretwell, SVP of Switch Cities with Switch, the Las Vegas-based technology infrastructure corporation.
- The GOED Business Development Team has increased its agency working and now holds a bi-monthly information sharing/best practice/collaboration meeting with B&I team led by Marcel Schaefer, Deputy Director, B&I.

GOED BUSINESS DEVELOPMENT TEAM MEMBERS

Tatjana Vukovic – Director of Business Development – northern Nevada

Melanie Sheldon – Director of Business Development – southern Nevada

Mariah Heriman – Business Development Coordinator

Jeanette Holguin – Business Development Specialist

Business Activities CONTINUED

Nevada Governor's Office of
ECONOMIC DEVELOPMENT

ECONOMIC DEVELOPMENT - 2020

QUARTERLY PERFORMANCE REPORT

2020 YTD

NUMBER OF
ASSISTED COMPANIES
2020 YTD



INITIAL JOBS FROM
ASSISTED COMPANIES
2020 YTD



NUMBER OF
BUILD OUT JOBS
2020 YTD



AVERAGE WAGE PAID BY
ASSISTED COMPANIES
2020 YTD



ASSISTED COMPANY
INVESTMENTS
2020 YTD



NUMBER OF LEADS
Q3 2020



NUMBER OF PROSPECTS
Q3 2020



NUMBER OF WINS
Q3 2020



DIVISIONS

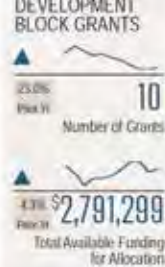
Q3 2020
GLOBAL
ENGAGEMENT



JUL - DEC 2019
EMERGING
SMALL BUSINESS
PROGRAM



2020
RURAL
COMMUNITY
DEVELOPMENT
BLOCK GRANTS



Q3 FY21
PROCUREMENT
TECHNICAL
ASSISTANCE
CENTER



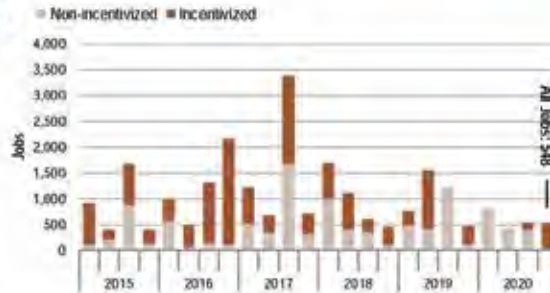
Q1 FY21
NEVADA
FILM OFFICE



JOB ANNOUNCED BY ASSISTED COMPANIES

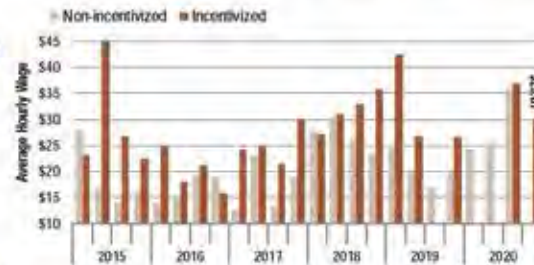
In the fourth quarter of this year, 11 companies added 548 jobs to Nevada's economy. Once these companies are fully staffed, the build-out job estimate is 1,236*. It should be noted that non-incentivized companies have not yet been reported to GOED for the fourth quarter. The number of assisted companies and jobs will be adjusted upward once these numbers are reported.

In 2020, 51.2 percent of the assisted companies were manufacturers followed by logistics and operations (19.5 percent), and information technology (14.6 percent).



WAGES PAID BY ASSISTED COMPANIES

The average hourly wage paid by assisted companies was \$28.57 so far in 2020. In 2020, the incentivized average wage is finalized at \$31.23. Non-incentivized average wages have not yet been reported for the fourth quarter, thus year-over-year comparisons are inappropriate. Incentives were approved for the first time in 2020 during the third quarter.



ASSISTED COMPANY INVESTMENT

Capital investment by incentivized companies came in at \$349.9 million in the fourth quarter, bringing the year-to-date total for all assisted companies, aside from those excluded in the note below, to \$619.2 million. Capital investment is estimated to exceed last year's total once non-incentivized companies have been reported for the fourth quarter.

Note: Excludes large scale projects like Boulder Solar Power (\$1B), Apple (\$1B), Tesla (\$5B), or companies that qualified for Aviation or Data Center abatements.
* No assisted companies received tax abatements in the third quarter of 2019, the first quarter of 2020, or the second quarter of 2020. Making direct comparisons to the business development activity in previous periods is inappropriate.



CONTRACT AND ACTUAL JOBS BY NEW INCENTIVIZED COMPANIES



As new incentivized companies add staff, the number of actual jobs has exceeded those that were contracted*.

CAPITAL INVESTMENT BY ASSISTED AVIATION AND DATA CENTER COMPANIES



One company received a Data Center abatement in the 2020. Capital investment into the State by this company stands at \$300 million. There were no Aviation abatements in 2020*.

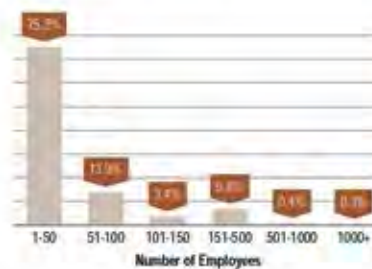
Business Activities CONTINUED

RECRUITMENT ACTIVITY: 2019 Q3 - 2020 Q3



There were 11 wins in the third quarter of 2020. This represents a 22.2 percent increase from the second quarter of 2020, but a 21.4 percent decrease from last year. Activity in the earlier stages of the recruitment pipeline during the third quarter were mixed. When compared to the previous quarter, Leads were up by 99.1 percent and Prospects were up by 34.5 percent. When compared to last year, Leads were up by 214.7 percent while Prospects were down by 32.8 percent. Increased activity in the early stages of the pipeline is an indicator that companies plan to expand post-pandemic.

SIZE OF COMPANY ASSISTED



Nevada's official definition of a small business are those which employ fewer than 150 employees and 89.1 percent of companies assisted by economic development over the past eight years fit that definition. Less than one percent employ 500 or more workers and 75.2% employed 50 or less.

NEW AND EXISTING INCENTIVIZED COMPANIES



Of total companies receiving abatements since 2012, 57.3 percent are new companies who have relocated to the state and 42.7 percent are existing Nevada businesses expanding their operations.

ANNUAL ASSISTED COMPANY STATISTICS

Year	ALL COMPANIES				INCENTIVIZED COMPANIES				NON-INCENTIVIZED COMPANIES						
	COMPANIES	INITIAL JOBS	BUILD-OUT JOBS	AVERAGE WAGE	CAPITAL INVESTMENT	COMPANIES	INITIAL JOBS	BUILD-OUT JOBS	AVERAGE WAGE	CAPITAL INVESTMENT	COMPANIES	INITIAL JOBS	BUILD-OUT JOBS	AVERAGE WAGE	CAPITAL INVESTMENT
2014	97	7,033	14,700	\$22.21	\$12,071,696,217	32	5,356	12,294	\$23.08	\$11,827,951,641	65	1,677	2,406	\$19.43	\$243,744,576
2015	86	3,406	7,350	\$22.62	\$5,116,142,613	53	2,056	5,629	\$27.16	\$6,067,620,607	33	1,350	1,721	\$15.71	\$54,522,006
2016	61	4,982	12,570	\$18.07	\$2,103,622,702	34	4,106	10,881	\$18.62	\$2,081,796,202	27	876	1,689	\$15.52	\$21,824,500
2017	74	5,014	9,661	\$19.48	\$399,536,389	35	3,137	5,866	\$23.96	\$306,712,272	39	2,877	3,815	\$15.03	\$92,824,117
2018	88	3,875	7,952	\$29.35	\$8,157,922,024	48	2,017	5,123	\$30.79	\$7,829,424,122	40	1,858	2,829	\$27.88	\$328,497,902
2019	64	4,017	7,362	\$23.59	\$857,627,103	25	1,761	3,883	\$29.14	\$541,320,103	40	2,291	3,514	\$19.51	\$426,450,029
2020 YTD	41	2,300	4,002	\$28.57	\$918,150,254	13	681	1,449	\$31.23	\$753,666,889	28	1,619	2,553	\$27.45	\$155,483,365

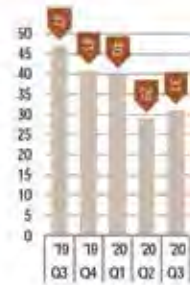
GLOBAL RECRUITING: Q3 2020

In the third quarter, there were eight additional leads and one prospect added to the Global Recruiting Pipeline.

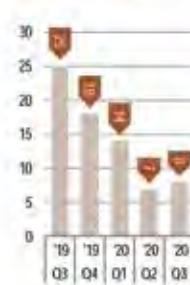
After removing those which have become inactive, the current inventory of all active global leads and prospects now stands at 31 and eight, respectively.

There was one company win in the third quarter.

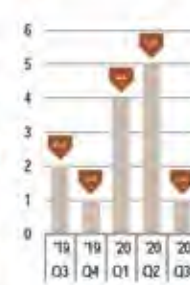
ACTIVE LEADS



ACTIVE PROSPECTS



WINS



INTERNATIONAL FUNDED EDUCATION AND GOVERNMENT AGREEMENTS

FOREIGN PARTNER	AMOUNT
Polish Institute of Aviation and the Nevada Institute for Autonomous Systems	\$480,000
Province of Lubelskie Poland and Nevada GOED – Nevada Lubelskie Acceleration Bridge 2018-2020	\$462,000
Warsaw School of Economics and the University of Nevada Reno	\$207,000
Province of Mazowieckie Poland and Nevada GOED (Nevada Global)	\$50,000
National Center for Research and Development and GOED (Nevada Global)	\$100,000

INTERNATIONAL TRADE ACTIVITY

- GOED's International Trade Division finalized discussions with the SBA Office of International Trade and agreed on a Collaboration and Referral Protocol that will increase coordination and cooperation between GOED, SBA, SBDC, Department of Commerce, and other export promotion partners in facilitating Nevada small business entry and/or expansion into global markets.
- Discussions have advanced between the GOED International Trade Division and the Israel Economic Mission to the West Coast, Ministry of Economy and Industry, to create a Memorandum of Understanding with GOED, as well as, formal agreements with interested institutions in Nevada. This is a joint effort to bring additional external resources in Nevada to support innovation at a time of major budgetary shortfalls.
 - The Israel Innovation Authority will provide financial support to pilot and deploy relevant Israeli technologies in Nevada. Additionally, the GOED International Trade Division is in discussion with the Israeli-American Civic Action/Israeli-American Civic Education Institute about the creation of a business council or chamber to enhance economic diversification and boost Israeli-Nevada relations.
- GOED's International Trade Division has been working with the U.S. Commercial Service at the U.S. Embassy in the Czech Republic on attracting Foreign Direct Investment to Nevada. This partnership lead to securing seven prosperous leads. GOED's International Trade Division will continue collaboration with each company individually and support their international expansion plans in Nevada.
- GOED's International Trade Division is also increasing collaboration with Japan External Trade Organization to discuss international investment opportunities and ways to support Japanese companies based in Nevada.
- In cooperation with the Confederation of Indian Industry for North America and the Las Vegas India Chamber of Commerce and Tourism, the GOED International Trade Division is araging a virtual Business Roundtable to attract future investments to Nevada from India. So far, Nevada has received \$150 million in Indian Federal Direct Investments.
- This year, 500 Startups approached GOED about possible collaboration with Nevada business accelerators and how they can complement the Nevada Global Virtual Initiatives. This prompted a discussion on startup ecosystems and what Nevada needs to boost its entrepreneurial growth. It was agreed the areas for cooperation include exploring complementary partnerships with the NV Global Platform and various Nevada based accelerators for the sports and entertainment, gaming, and hospitality sectors.

Business Activities CONTINUED

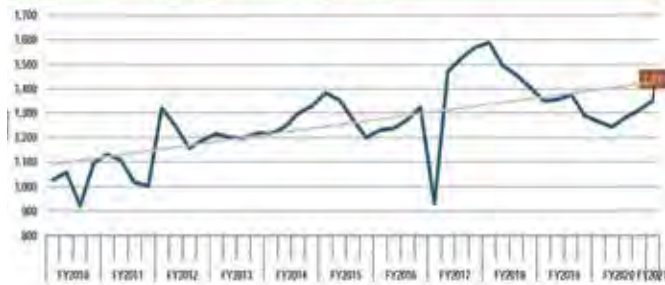
Nevada Governor's Office

ECONOMIC DEVELOPMENT

2020 YTD

PERFORMANCE INDICATORS

PROCUREMENT TECHNICAL ASSISTANCE CENTER



	PRIME CONTRACT AWARDS				SUBCONTRACT AWARDS		
	CLIENTS	NO.	AMOUNT	AVERAGE	NO.	AMOUNT	AVERAGE
Y 2016	1,266	366	\$42,579,799	\$116,338	38	\$9,634,197	\$253,532
Y 2017	1,375	662	\$129,047,457	\$194,936	43	\$4,326,685	\$100,621
Y 2018	1,486	1,309	\$328,285,762	\$250,791	57	\$14,701,162	\$257,915
Y 2019	1,343	1,209	\$169,325,057	\$140,054	36	\$9,461,682	\$262,825
Y 2020	1,275	1,396	\$263,399,314	\$188,681	106	\$25,350,150	\$239,152
Y 2021 YTD	1,350	545	\$164,331,473	\$301,526	18	\$16,364,003	\$909,111

PROCUREMENT TECHNICAL ASSISTANCE CENTER

OVERVIEW FY2021

- The Nevada Procurement Technical Assistance Center (PTAC) reported 545 contracts and 18 subcontracts for its clients in the first quarter of FY21. The number of clients increased from 1,312 in the fourth quarter to 1,350 in the first quarter.
- Consistent growth in PTAC metrics persist as the division continues its one-on-one counseling sessions as clients pursue local, state, and federal government-related contracts and subcontracts in Nevada and across the country. Counseling, in part, includes help with solicitation document review, draft proposal review, and contract administration guidance. The PTAC also provides no-charge outreach events such as webinars.

EMERGING SMALL BUSINESS PROGRAM



	BUSINESSES		CONTRACTS		
	CERTIFIED	SOLICITED	NUMBER	AMOUNT	AVERAGE
January - June 2016	115	155	468	\$3,671,437	\$7,845
July - December 2016	107	174	505	\$5,721,589	\$11,330
January - June 2017	165	278	547	\$4,497,936	\$8,223
July - December 2017	125	398	468	\$5,635,403	\$12,041
January - June 2018	145	246	276	\$3,950,738	\$14,314
July - December 2018	82	515	320	\$6,978,338	\$21,807
January - June 2019	75	519	332	\$6,552,283	\$19,736
July - December 2019	164	943	230	\$6,010,495	\$26,133

EMERGING SMALL BUSINESS PROGRAM

OVERVIEW

- The current number of Emerging Small Businesses (ESB's) that have been certified has expanded by 5.3 percent since the end of last year to a total of 1,605.
- For the year, the number of ESB's solicited to submit a quote, bid, or proposal on a contract improved by 92.1 percent. This growth was largely because of the increased interest and number of applications submitted for the ESB Program.

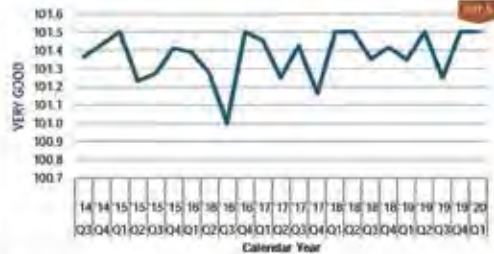
NEVADA FILM OFFICE

NEVADA FILM OFFICE ANNUAL PRODUCTION REVENUE*

FISCAL YEAR	NUMBER OF PRODUCTIONS	REVENUE
2006	776	\$102,945,418
2007	425	\$113,748,400
2008	436	\$82,727,400
2009	361	\$91,900,600
2010	367	\$81,130,250
2011	479	\$102,525,600
2012	520	\$88,783,700
2013	559	\$67,571,708
2014	370	\$58,716,755
2015	500	\$65,159,732
2016	495	\$73,160,712
2017	501	\$40,134,588
2018	333	\$50,066,857
2019	414	\$46,586,786
2020	428	\$33,599,018
2021 YTD	78	\$28,118,043

*Revenue in Nevada, i.e. local production expenditures.

CLIENT SATISFACTION INDEX** 100-AVERAGE



VERY GOOD = 101.5-100.1 (2008) = 100.9-100.2 (2016) = 100.2-99.7 (2019) = 100.7-100.1 (2018) = 101.1-101.5

There were no responses to the Nevada Film Office Client Satisfaction Survey for the second or third quarters of 2020; however, customer responses to the survey were solidly in the "very good" range of 101.5 and 100.9 over the previous two quarters.

**The Index is an aggregate measure on how customers rated their experience on availability, responsiveness, knowledge, willingness to help, and overall level of service. Since inception in 2014, client responses to the Nevada Film Office's Satisfaction Survey have consistently been very good.

SIGNIFICANT PROJECTS* FY2021 Q1

PROJECT	PROJECT TYPE
Love Island	Reality
The Adventures Of Tikki The Wonder Dog	Feature Film
Once Upon A Main Street	Feature Film
JSFV4	Reality
Pawn Stars	TV Series
Property Brothers: Forever Home, Season 2	Reality

*Each of the projects contributed more than \$50,000 in local production expenditures.

COMMUNITY DEVELOPMENT BLOCK GRANTS

2020 GRANTS

- Sixteen grants totaling \$3,283,881
- Rural Nevada: Ten grants with a total allocation of \$2,791,299
- Carson City (Urban): Six grants with a total allocation of \$492,582

RURAL COMMUNITY DEVELOPMENT BLOCK GRANTS

YEAR	NUMBER OF GRANTS	TOTAL ALLOCATION*	AVERAGE GRANT AWARD	PERCENT ECONOMIC DEVELOPMENT
2013	22	\$2,445,704	\$111,168	9%
2014	24	\$2,439,168	\$101,632	22%
2015	20	\$2,544,500	\$127,225	84%
2016	18	\$2,487,320	\$153,296	61%
2017	13	\$2,803,961	\$234,183	69%
2018	9	\$2,621,876	\$340,213	70%
2019	8	\$2,666,348	\$334,641	91%
2020 YTD	10	\$2,791,299	\$279,130	97%

RURAL GRANT PROGRESS

- During the third quarter (July/August/September), \$202,181 was paid to one rural county and one rural city.
- CDBG staff closed one grant representing \$220,049 in CDBG funds. No cash or in-kind funds were contributed by the grantee.
- The closed grant assisted 2,358 Nevadans, 1,353 (57.38 percent) were Low to Moderate Income individuals.
- There are currently 20 open grants: 1 from 2017, 7 from 2018, and 12 from 2019. Ten projects were recommended for funding in March 2020 and are not yet posted, as the grant agreement has not been received.

URBAN COMMUNITY DEVELOPMENT BLOCK GRANTS

- During the third quarter (July/August/September), \$22,475 was paid to Carson City.
- Carson City reverted to the state's CDBG program in 2017 receiving \$459,890 in HUD allocation to fund six projects. Carson City's focus is urban with different priorities than GOED's existing rural programs.
- Future urban project recommendations for funding will be reviewed to award grants with greater economic development impact.

*Total Allocation includes HUD allocation as well as recaptured funds.

Workforce Development



Programs that supply workforce critical to the public health emergency response were prioritized including supply chains logistics, healthcare and advanced manufacturing.

WORKFORCE DEVELOPMENT PANDEMIC RESPONSE

Background: Nevada’s employers and their workforce were significantly impacted by the response to the public health emergency presented by COVID-19. To that end, the Governor’s Office of Economic Development (GOED) developed proposals to support responses in the following areas:

1. Workforce Development System Response Coordination (LWDBs, DETR, OWINN, B&I, GOED, DWSS, Labor Commissioner)
2. WINN Fund Fast Track Funding process
3. Economic Development Agency CARES NOFO Coordination and Technical Assistance
4. Labor Supply Certification Study (separate narrative)
5. SkillsMatch platform (separate narrative)
6. NSHE Workforce Training System Supports (detailed below)

Goal: GOED sought Coronavirus Relief Funds to facilitate necessary adjustments that post-secondary workforce training programs were faced with to meet COVID-19 guidelines or adjusted needs of area employers. Programs that supply workforce critical to the public health emergency response were prioritized including supply chain logistics, healthcare and advanced manufacturing.

Process: GOED worked closely with the Nevada System of Higher Education to identify workforce training programs in need of assistance and obtained approval for allocation requests representing twenty-six (26) projects and \$2,732,843 in program investments.

In Action: *(Impact in italics)*

College of Southern Nevada

Allied Health Programs – \$970,385

Equipment, technology and supplies to increase virtual reality and simulation skills training capacity in lieu of field training (4,790 students)

Great Basin College

Allied Health Programs – \$349,788

Supply Chain – \$98,400

Remote Learning – \$102,500

Equipment, technology and supplies to increase simulation skills training capacity in lieu of field training; technology solutions for remote learning (450 students)

Truckee Meadows Community College

Allied Health Programs – \$257,000

Supply Chain – \$19,800

HVAC – \$13,000

STEM – \$6,370

Remote Learning – \$75,660

Equipment, technology and supplies to increase simulation skills training capacity in lieu of field training; online content and technology solutions for remote teaching and learning (10,500 students)

Western Nevada College

Allied Health Programs – \$215,126

Advanced Manufacturing – \$260,580

Computer Information Technology – \$2,500

Equipment, technology and supplies to increase simulation skills training capacity in lieu of field training; technology solutions for remote learning (405 students)

Nevada State College

Allied Health Programs – \$65,875

Remote Learning – \$61,500

Equipment, technology and supplies to increase simulation skills training capacity in lieu of field training; technology solutions for remote teaching and learning (7,100 students)

University of Nevada, Las Vegas

Allied Health Programs – \$171,900

Teacher Education – \$62,460

Equipment to increase simulation skills training capacity in lieu of field training; content development and conversion for remote learning and teacher preparation (4,750 students)

WORKFORCE INNOVATIONS FOR A NEW NEVADA

Defined: Fund managed by GOED to address industry business needs by creating, customizing or expanding workforce training programs that will impart the skills needed by employers.

Measured: The State, through Workforce Innovation for a New Nevada (WINN) funds, addresses resource gaps in industry driven partnerships with education providers to enable:

1. Accelerated execution of new, revised or expanded training program
2. Delivery of skilled workers into high-wage and high-skill employment opportunities new to Nevada
3. Infrastructure to support a program platform to deliver current and future technological skills
4. Sustainability of program design to continue to foster pipeline of skilled workers



How: New or expanding business needs in GOED’s priority economic development strategies drive creation, customization or expansion of training programs to fill projected openings. Educational providers can request funds to support the costs associated with delivering the program. WINN was funded at \$6 million in the current biennium ending 6/30/2021.



Workforce Development CONTINUED

In Action: WINN has supported the development and launch of five new training programs and systems this year:

1. Advanced Manufacturing Expansion at College of Southern Nevada
2. Mobile Mech Tech Lab at Western Nevada College
3. Internet of Things Specialty at Nevada Technology Academy
4. Cybersecurity Training at Nevada Technology Academy
5. Northern Nevada Advanced Manufacturing Initiative at Truckee Meadows Community College

Highlight: *With funding from GOED's WINN fund, College of Southern Nevada is responding to the growing manufacturing sector needs in southern Nevada in partnership Haas Automation, Inc. and other southern Nevada manufacturing partners. CSN will transform the Sahara West Training Center to allow for the development of new manufacturing and industrial skills training programs heretofore unavailable in Clark County. The new program will utilize existing open entry-open exit competency models in the state and is projected to train over 200 Nevadans per year after it is launched. With over 1,100 manufacturing employers in Clark County, and lower than expected labor supply in these skilled occupation opportunities, GOED's support will be instrumental in meeting the demands of the current sector and afford an ability to grow in this critical industry.*

Highlight: *With funding from GOED's WINN fund, Western Nevada College is addressing the need to expand access to skilled training in higher education "deserts" but where quality jobs in skilled occupations exist. WNC has developed a mobile training lab that will prepare future employees of in-demand industries in advanced manufacturing, automated systems, and mining in partnership with Nevada Copper and Comstock Mining. Students complete rigorous technical online coursework prior to the lab experience, starting with the fundamentals and building into complex topics to prepare for industry certification. The mobile lab will then offer the students the hands-on skill development and confidence needed to be successful in technical field environments. The project also leverages support from the William N. Pennington Foundation and will be able to offer previously inaccessible training to 50 rural Nevadans per semester when launched.*

LABOR CERTIFICATION STUDY

Need: Nevada's workforce has been one of the hardest hit in the nation and job displacement impacts are not expected to level off in the near future. It is paramount that workforce and economic development systems align to expedite the return to work through strategic response systems based on the needs of business and the workforce pipeline. Response systems and decision-makers need accurate and real time data to develop and execute plans.

Goal: The overarching goal of the requested study was to gain a better understanding of the availability of workers, their skills and occupational goals to enable data-driven decision making around workforce and economic development in Nevada. By deploying a survey tool, the study will garner accurate and real-time statewide and localized information not currently available in any database, State or Federal. With this data, GOED will coordinate with Nevada's Department of Employment, Training and Rehabilitation, the Governor's Office of Workforce Innovation, the Office of Science and Technology, the Department of Education, and local/regional partners to provide immediate response systems and develop mid- to long-range response plans that address the needs shed by the data.



Process: GOED requested Coronavirus Relief Funds to engage a consultant to perform this work and received approval from the Interim Finance Committee on October 22, 2020. GOED then retained the Growth Services Group, LLC., (GSG) a national workforce intelligence consultant, to administer the Labor Supply Certification study. The survey was developed in partnership with several state and regional stakeholders and was deployed at the end of October for approximately six (6) weeks. The survey designed by Growth Services Group (GSG) was conducted by use of social media targeted marketing with local partner outreach support. GOED has received the initial report following the survey.

In Action: With receipt of the initial report, GOED will be taking several steps to put the survey data into action:

1. Engage 600+ Nevadans with a need to train to regain employment or advance their career
2. Develop Executive Summary and Recommendations
3. Convene Town Hall(s) with workforce and economic development stakeholders to highlight key findings
4. Provide Survey Report(s) to Legislative Counsel Bureau
5. Reconvene Workforce and Economic Development Subcabinet to distribute report and develop actionable policy and/programming plan

WORKFORCE SKILLS MATCHING PLATFORM

Need: Nevada is striving to recover from the devastation of COVID-19, and support the many dislocated workers displaced in the fallout of the public health emergency. Software platforms that offer those dislocated workers an easy and effective foundation to articulate their skills and how they transfer or align with available jobs are an effective and accessible tool for all impacted statewide. For those Nevadans whose occupation may never recover, a skills identification platform also provides insights into retraining opportunities in industries that are foreign to them. The likelihood that jobs lost following the public health emergency may never rematerialize means that Nevadan workers across gender and racial groups, communities and industries require a proportional response of accessible support mechanisms.

Goal: GOED sought out a software solution that would guide job seekers through the process of inventorying their skills and then matching them to both local jobs and upskilling/reskilling opportunities. This will allow displaced workers and adult learners to understand their backgrounds from a skills lens and make career/education decisions based on their experience. GOED’s goal was to deploy a statewide resource that can expedite the reemployment of displaced workers and increase the visibility of workforce training programs that can propel workforce reentry.

Process: GOED requested Coronavirus Relief Funds to engage a vendor to perform this work and received approval from the Interim Finance Committee on October 22, 2020. GOED then retained EMSI, a national labor market data company, to develop a custom Nevada SkillsMatch platform. GOED partnered with the Office of Workforce Innovation and Nevada System of Higher Education institutions to launch this project.



Workforce Development CONTINUED

In Action: The site went live in November and GOED initiated a communication plan in December 2020. Additional milestones include:

1. Three (3) workforce development stakeholder training sessions will be conducted in January 2020 to share the resource with those providing workforce services
2. Over 1700 Training programs from seventeen (17) providers have been imported in the first two months
3. Custom training video for Nevada scheduled to be live in February 2021



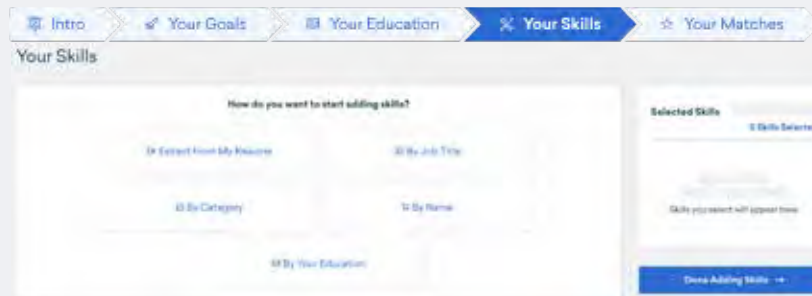
A better way to find a job or discover training

Skills are what you have, and what employers need. And now there is an easy and better way to match them and match you with the job you want.

The Nevada SkillsMatch platform quickly inventories your past experience and training along with your career goals. With this information, it identifies the career areas your interests and skills match to training needed to fill any gaps, and personalized training opportunities to get you on your desired career path. Best of all, it also produces live and local job postings based on the skills you have or plan to get, so you can start pursuing the job you want.



Tell Nevada SkillsMatch your goals, education, and skills.



And it will show you training to get you to the job you want.

Or job postings that match your current skills.



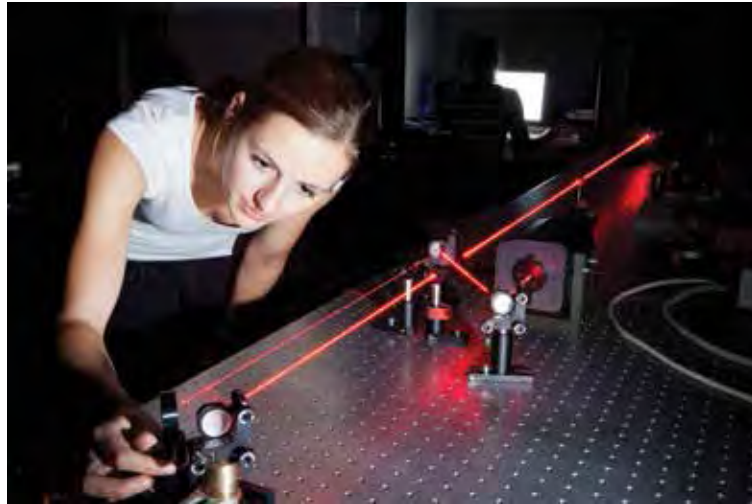
Innovation Based Economic Development



The Knowledge Fund is the most critical program to foster Nevada's innovation economy...

INNOVATION BASED ECONOMIC DEVELOPMENT

KNOWLEDGE FUND



The Knowledge Fund was enacted during the 2011 legislative session (NRS 231.1591 to 231.1597) but was not funded until the fiscal year 2014. The Knowledge Fund is the most critical program to foster Nevada's innovation economy, turning scientific research into market opportunities at Nevada's three research institutions, University of Nevada, Reno; University of Nevada, Las Vegas; Desert Research Institute, in areas the state has targeted for economic growth. An innovation economy transforms scientific research into new jobs and businesses, fosters entrepreneurship, increases access to critical resources, and ensures economic prosperity and opportunity for all people, both today and for future generations. When the people and institutions in a region are creating new scientific knowledge and technology, innovators and entrepreneurs are creating startups and high-growth small businesses, and the local workforce is educated and trained in the necessary skills to utilize the latest advances. All Nevadans will benefit from increases in growth and prosperity.

These integrated forces drive an economy that creates new businesses and well-paying jobs while developing solutions for serious problems. In short, an innovation economy raises the overall quality of life for the people in that region. Importantly, because this economy is built on a foundation of identifying and transforming new knowledge, the system continues to produce these benefits well into the future – beyond the boom-and-bust lifecycle of any one industry or business.

GOED

Innovation Based Economic Development CONTINUED

GOED followed a strategic approach and rationale to allocate funding under this program. The cause has been based on an approach termed *Innovation Based Economic Development* (IBED), sometimes also known as technology-based economic development. This approach puts a university research infrastructure at the center of a regional innovation system (RIS) comprised of two interacting ecosystems: The startup economy ecosystem powered by startup firms; and an innovation economy ecosystem driven by existing innovative growth companies. A robust dynamic regional innovation system requires efforts and initiatives to enhance both ecosystems substantially.

Over the past four funding cycles (2013, 2015, 2017, 2019), GOED has been selecting projects with the objective to strengthen the innovation economy ecosystem. To do this, GOED developed a vision of implementing *Applied Research Centers* at each of Nevada’s universities and Desert Research Institute (DRI). These centers would conduct applied research and create intellectual property that will be used to develop new, relevant technologies to help companies grow their research and development (R&D) base and enhance their growth through innovation. Applied Research Centers will assist companies to turn advanced technologies into production processes and commercial products by working collaboratively with such firms. These centers can be regarded as ‘outsourced R&D departments’ providing ‘innovation on demand’ services. The origins of this model are based on the ‘Fraunhofer Institutes’ in Germany and the ‘Catapult’ centers in the United Kingdom. Thus, entrepreneurial startup culture has, over time, been spilling over to the universities and spur a ‘change of culture,’ including an increased rate of development of marketable university IP. Hence, for the second phase, a reformed Knowledge Fund will be broadening its approach and continue supporting Applied Research Centers in their focus on the regional *growth economy ecosystem*. It will also increase directing efforts at the *startup economy ecosystem* focusing on small, highly scalable businesses and support structures for fostering their formation and growth.

The reformed Knowledge Fund (*‘Nevada Innovation Fund’ - NIF*) will increasingly support the startup economy ecosystem while continuing to strengthen the growth economy ecosystem. The NIF would ensure that the current momentum in the form of an increased number of university spinout companies being formed, startup companies locating on university campuses to facilitate scale-up and growth, increased industry-university collaboration on R&D will be maintained.

The NIF will retain Innovation Based Economic Development as the underlying rationale, as well as ensuring alignment with the new GOED State Plan by focusing on the following four target areas: *Innovation Capacity Building* – grant funding for applied R&D infrastructure and projects at Nevada System of Higher Education (NSHE) with emphasis for allocation to industry-university partnerships; *Innovation Transfer* – grant funding for technology transfer projects at NSHE and private small, scalable businesses, Small Business Innovation research (SBIR), and Small Business Technology Transfer (STTR); *Innovation Acceleration* – grant funding to accelerate innovation for private early-stage Nevada tech companies to help them scale and create acceleration & venture building programs; and *Innovation Ventures* – seeking the creation of Independent Commercialization Entity to offer NSHE path to effective formation of spin-out companies.

KNOWLEDGE FUND - HIGHLIGHTS 2020



- **DRI** has successfully spun out its first company focused on innovative solutions in agriculture. Tu Biomics Inc., inspired by DRI’s expertise in microbial ecology, is an agricultural biotechnology company that targets industrial-scale farming’s soil health challenges. In conjunction with DRI’s plant and molecular biology scientists, Tu Biomics is developing a platform of organically derived biocontrol agents (BCAs) as a sustainable, effective alternative to currently available synthetic chemistry options. After GOED funded a \$350,000 Knowledge Fund project at DRI, Tu Biomics subsequently received nearly \$1 million in seed financing from venture investors and industry partners.

- After investments totaling \$4.3 million through the Knowledge Fund, the **WaterStart** program spun out of the DRI into a successful company that has already addressed \$30 million in water technology challenges based in Nevada. With a growing membership, proven model, and diversified funding, WaterStart is ready to write its next chapter and operate independently. WaterStart was founded as a non-profit in 2013 in response to the impacts of the Great Recession and 20 years of continuous drought in Nevada. The public-private partnership was housed within DRI and funded by the Knowledge Fund. Dedicated to deploying new water technologies and making Nevada a hub for water innovation, WaterStart membership and sponsors are made up of the State's largest water agencies, consumers, and philanthropies, including the Southern Nevada Water Authority, Truckee Meadows Water Authority, MGM Resorts, NV Gold, the Wells Fargo Foundation and OneDrop.
- Since 2015, GOED has made a \$6.2 million investment in the **University of Nevada, Reno's (UNR) Nevada Center for Applied Research (NCAR)**. The investment has produced more than \$75 million in capital and 300 jobs created by NCAR-affiliated companies; over 150 companies and agencies engaged with UNR through memberships or agreements; over 20 companies with currently working on campus; and more than \$25 million in grants, contracts, and gifts to support NCAR-related initiatives. After a period of booming business incubation, three technology companies incubated in NCAR have emerged as viable companies and have outgrown their operation at NCAR. The companies that have chosen to locate laboratory R&D operations at UNR are, Bioelectronica, NexTech Batteries and LactaLogics. Each conducted its business-startup operations in on-campus laboratory space managed by NCAR. They have relocated all or partial operations to private, commercial areas; two of them, Bioelectronica and NexTech Batteries, remain in northern Nevada and continue to do work with NCAR through a fee-for-service agreement.
- **Velodyne Lidar, Inc.** announced a partnership with UNR to advance transportation infrastructure research. NCAR is using Velodyne's lidar sensors in its Intelligent Mobility initiative to collect data aimed at making transportation more efficient, sustainable and safe.



- The Knowledge Fund investment in the **CoLab Esports Innovation Lab Project** between Rainmaking and the International Gaming Institute's (IGI) Hospitality and Esports Labs is the first of its kind and a major step in funding development in the hospitality and gaming industries in the post-COVID-19 pandemic era. The project leverages the explosive demand for online entertainment and esports with the pressing need for real world revenue and economic recovery for Nevada's most significant industry. The CoLab ensures that this industry, in which Nevada has enjoyed

a global competitive advantage for decades, will stay ahead and continue to thrive. Rainmaking is an outstanding innovation and development firm with a strong history of commercialization of intellectual property to specific vertical industries. Rainmaking's unique approach is to work directly with industry representatives to understand the types of problems that, when solved through entrepreneurial and innovative thinking, result in immediate economic development activity. The collaboration, funded by the Knowledge Fund, will enable not only entrepreneurial activity precisely targeted at helping Nevada's largest industry in a post-pandemic recovery scenario, but will also produce revenue through commercialization of these highly targeted innovative projects developed in the CoLab.



Innovation Based Economic Development CONTINUED

- The Knowledge Fund enabled a statewide expansion of a program to help technology entrepreneurs earn federal grant funding to support their businesses' early-stage development or innovations. Initially funded through the Federal and State Technology Partnership (FAST) at UNR in 2019, the **Sierra Accelerator for Growth and Entrepreneurship** (SAGE) program is being expanded to southern Nevada at UNLV with GOED Knowledge Fund support. This support and expansion come at a critical moment for small technology-based businesses in Nevada. SAGE is designed to put Nevada's small technology-based businesses on the path to earn grant funding through the competitive SBIR and STTR programs. Known as "America's Seed Fund," the SBIR and STTR programs offer Phase 1 grants of up to \$225,000 and Phase 2 grants of up to \$750,000.

KNOWLEDGE FUND RETURN ON INVESTMENT

DRI

- The Knowledge Fund allowed DRI to launch the Healthy Nevada Project, a population health study examining genetic and environmental risks for certain diseases among Nevadans. With more than 50,000 Nevadans already enrolled, the Healthy Nevada Project is the country's most extensive population health study. The funding was critical to DRI developing a partnership with Renown Healthcare to launch the Renown Institute for Health Innovation, which has garnered \$35 million in funding since its inception and allowed DRI to launch a new Cancer Biology Lab.
- WaterStart, a 501(c)(3) and operating in a region of proven first adopters, sitting at the nexus of technology, research and economic development. WaterStart provides channels for innovation for various stakeholders and water resource managers, including technology companies, management agencies and policymakers, and has addressed \$30 million in water technology challenges based in Nevada.
- Creation of startup and subsequent spinout of company TuBiomics, which is working to solve an agricultural problem of white rot with Nevada and California's largest garlic growers through the development of organic antifungal chemicals.

UNLV

- The Knowledge Funds has been fostering innovation in Nevada's leading industry, gaming, with the launch of the Center for Gaming Innovation. The Center for Gaming Innovation is diversifying the state's core economic strength in gaming. The Center is a true academic incubator, creating innovative and commercially viable casino games, and training students and working professionals for leadership roles in hospitality, gaming, and technology companies. The Center for Gaming Innovation has resulted in 18 patents, four student tech startups, and eight games that have been licensed for play.
- Creation of the Nevada Institute of Personalized Medicine (NIPM), which is working to improve Nevada's individual and community health through research and technology commercialization, education, and workforce training. NIPM is advancing Nevada to tomorrow's data-driven decision-making by decoding genomes to predict disease susceptibility, sift through treatment options, and fine-tune drug dosages to minimize adverse effects and help Nevadans lead longer, healthier lives. NIPM has secured more than \$16 million in federal funding, with a return of investment of more than \$4 for every dollar invested. Most recently, NIPM's spinout company Heligenics closed its first seed funding round.

UNR

- GOED, in collaboration with UNR, applied the Applied Research Center model, resulting in the creation of the NCAR, which has been supported by the Knowledge Fund since 2015. NCAR provides entrepreneurs and industry access to the equipment, facilities and expertise of the university; resources needed for ideas and companies to take off and that would be cost-prohibitive for startups on their own. Through subgrants, the Knowledge Fund supports the Biosciences Entrepreneurial Lab, which makes affordable "wet" laboratory space available on-campus. This provides a safe and cost-advantage environment for small bioscience businesses while supporting their entrepreneurial R&D, as well as the Autonomous Robots Lab that participates in the DARPA Subterranean Challenge and is partnering with Nevada Gold/Barrick to develop subterranean robotics and autonomous vehicles for exploration and mining safety. Additionally,

the Knowledge Fund investment has facilitated large, multidisciplinary research initiatives involving coalitions of public and private stakeholders, including the Intelligent Mobility initiative and, through it, the development of real-world, transportation “Living Labs” across Nevada. The funding helps drive private-sector entrepreneurialism through the operation of the University’s Innevation Center, the downtown Reno co-working environment and makerspace.

SSBCI AND BATTLE BORN VENTURE

The Battle Born Venture Program (“Battle Born”) is a state venture capital program overseen by GOED, under the auspices of the US Treasury’s State Small Business Credit Initiative (SSBCI). Battle Born makes equity and equity-like investments in early-stage, high-growth Nevadan enterprises in the following industries: aerospace & defense, agriculture, energy, healthcare, IT, logistics & operations, manufacturing, mining, tourism & gaming, water. It seeks an economic return on investment, and any proceeds from investments are reinvested into the program to benefit the citizens of the State of Nevada. The program invests alongside other private investors, such as angel groups, seed and venture capital funds.

Battle Born accepts applications through the Gust platform, and all applications are evaluated by an independent Investment Advisory Committee. Battle Born’s investments are held by Nevada Battle Born Growth Escalator, Inc, a corporation for public benefit and 501(c)(3).

A recent survey reconfirmed that minority entrepreneurs continue to receive only a tiny portion of venture capital dollars. By contrast, in 2019, about half of Battle Born Growth portfolio companies, 42 percent by assets allocated, have at least one minority leadership team member at the time of investment. While Battle Born’s mandate is not to create a culturally diverse portfolio, it is instead a consequence of Battle Born’s investment process, specifically: *open to all; avoid homophily; investment advisory committee and investment manager are diverse.*

BATTLE BORN GROWTH ESCALATOR – INVESTMENT HIGHLIGHTS 2020

CircleIn – *Participation in a second investment round*

Las Vegas-based CircleIn has developed a student-to-student tutoring app that allows students to study with one another and tutor one another, winning rewards in the process. Its advisory board includes the Education Director at Microsoft, and the former CTO of Merrill Lynch, AOL, and News Corp.

Grrrl – *New investment*

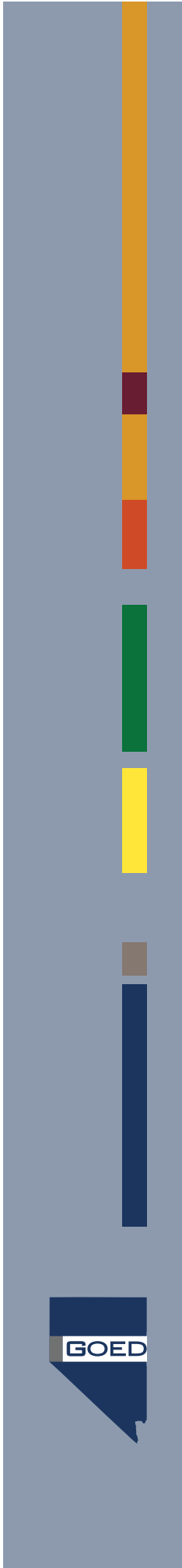
Grrrl is a Las Vegas-based athleisure company that focuses on size-free clothing and targets niche women’s sports such as MMA and Highland Games. Its philosophy is centered around women’s empowerment, with an emphasis on fitness at any size. Grrrl was co-founded by a husband-and-wife team who relocated to Las Vegas in 2019.

Outlaw Soaps – *New investment*

Outlaw Soaps is a Sparks, Nevada based personal care product company that is capitalizing on a resurgence in the male grooming market, and on consumers’ demand for clean beauty. The company was founded by a husband-and-wife team with experience in building startups and digital brands at Oprah.com. The team relocated from California to Northern Nevada in early 2020.

TuBiomics – *Providing seed funding for DRI Knowledge Fund spinout*

Reno-based Tu Biomics is focused on developing organic crop protection products for the global agriculture industry. The first applications were solving an agricultural problem of white rot with Nevada and California’s largest garlic growers through the development of organic antifungal chemicals. Battle Born’s investment is from second-generation funds (proceeds from exits from prior portfolio investments) and dedicated to providing seed investment for promising Knowledge Fund spinout companies.



Heligenics – Providing seed funding for UNLV Knowledge Fund spinout

Las Vegas-based Heligenics, incorporated in 2019, is an industry disrupter on the leading-edge of drug development and diagnostic testing by defining the function of genetic variation with its proprietary GigaAssay technology. It can take years to identify a single genetic marker. Heligenics measures the impact of all mutations within a gene in months. Battle Born's investment is from second-generation funds (proceeds from exits from prior portfolio investments) and dedicated to providing seed investment for promising Knowledge Fund spinout companies.

Community Entrepreneurship Project at City of North Las Vegas in Collaboration with Innovation Collective

While not constituting an equity investment, the State Venture Program is utilizing second-generation funds (proceeds from exits from prior portfolio investments) in support of a unique economic development initiative in collaboration with *Innovation Collective*. This initiative helps diversify the City of North Las Vegas' economy by unlocking the creativity within its residents, business owners, and entrepreneurs. It is unleashing it in a way that creates shared value for all, which includes working with them to rediscover their creativity, learn new technical and soft skills, build new companies, expand current companies and matchmake startups to larger brands. The initiative aims to connect with community members of all ages to help them begin to take first steps in unlocking their full potential.

SSBCI COLLATERAL SUPPORT PROGRAM

The State Small Business Credit Initiative (SSBCI) was created by the Small Business Jobs Act of 2010 to enhance local capital infrastructures. The initiative is managed by the U.S. Treasury, which requires that each State undergo thorough due diligence of the form and management of each component of the program before the funds allocated to each state are released. The Nevada SSBCI program began in 2011, and currently consists of two components, Collateral Support Program, managed by GOED, which pledges cash collateral shortfall to lending institutions to enhance the collateral coverage of individual loans taken by qualified Nevadan companies, and the State Venture Capital Program, "Battle Born Growth Escalator".

The intent of the Nevada Collateral Support Program is to supply cash collateral accounts to Nevada financial institutions to enhance the collateral coverage of borrowers. These accounts will cover all, or a portion of a calculated collateral shortfall as determined by the lending institution. Borrowers with a collateral shortfall will apply for coverage through their financial institution that will then coordinate directly with GOED. Companies using this program will be otherwise strong with typically good historical cash flow coverage and strong indicators of future business and/or sales activity. They will also tend to have strong management teams in place, which the lender believes will perform well going forwards.

REIMAGINE WORKFORCE PREPARATION

In late September, Nevada was awarded \$13.8 million Reimagine Workforce Preparation (RWP) grant out of the CARES Act's Education Stabilization Fund. Nevada was one of only eight states which received this three-year grant for its Project SANDI ("Supporting and Advancing Nevada's Dislocated Individuals").

GOED had been a lead architect in a proposal submitted by the Office of Workforce Innovation (OWINN) to the U.S. Department of Education for this grant.

The program's goals are to build a modern workforce system that maps skills to competencies and credentials, expands remote access to short-term training, and educational opportunities by utilizing digital platforms and technologies.

Through this project, Nevada will:

- Help displaced workers return to gainful employment and transition underemployed workers to new fields by building and piloting a new system (“Skills Decoder”) that can translate work experience and skills into competencies, which are then converted into badges and credentials and later, flexibly bundled into certifications and degree programs. This approach responds to developments accelerated by COVID-19 pertaining to decentralized learning (e.g., non-classroom, hybrid classes, on-site training, open- entry/open-exit models), in conjunction with a geographically dispersed workforce, and geographically dispersed learning.
- Help new workers enter jobs within in-demand sectors and transition underemployed workers to new fields by implementing and expanding new accelerated degree programs, expanding remote access to in-demand occupations through distance education and the innovative use of digital platforms (virtual reality), and directing job seekers to an enhanced Nevada CareerExplorer that integrates career navigation with case management and online training links.
- Assist small business owners gain the skills needed to create new businesses or grow current businesses and become more resilient by creating a credit-based, online, self-paced entrepreneurship Nevada, enhancing the online presence of NV Grow, a small business development center located at the College of Southern Nevada (CSN), offering incentives to business startups, and launching a student venture accelerator cohort model.

Ultimately, this grant funds the collaboration between the key stakeholders (employers, OWINN, GOED, NSHE, DETR, Nevada State Library) as an effort *to modernize the current workforce system by developing a coordinated digital platform that allows dislocated, underemployed, and new job seekers easy access to accelerated training and education for in-demand, living-wage occupations and entrepreneurial pursuits.* The Nevada State Library already has a service platform that leverages industry-leading solutions to manage information needs in a modern, mobile-friendly online environment. This grant will enhance the unified resource solutions that are already in place to simplify further and expand the information discovery experience of the job seeker, facilitate streamlined career exploration and training access, and increase cooperation between educators, librarians, career navigators, and individuals seeking to engage more fully in the workforce.

NEVADA STATE LIBRARY



GOED, as a member of the State Council on Libraries and Literacy (SCLL), has been providing thought leadership and guidance for highly innovative and nationally recognized workforce development projects piloted at Nevada’s libraries. Examples include:

- **“Nevada’s Working Capital” project (2015)**, the first of its kind in the nation, that leveraged library technology and special programs to provide “maker-spaces” for STEM learning, access to specialized engineering software (SolidWorks) for employers/employees seeking to advance in manufacturing careers, and formalized training opportunities to earn a recognized industry credential, Manufacturing Technician 1 (MT1).



Innovation Based Economic Development CONTINUED

- **Nevada Career Explorer deployment (2018)**, a comprehensive Nevada-first career information platform that connected the numerous occupational, education, training, and job search sources for easy navigation and search. This allowed every Nevadan with a library card to access the database, helping students, parents and job seekers make sense of the increasingly complex career environment and the job market.
- **“Workforce Recovery Partnership Project” (2019)**, a partnership between the Nevada State Library and CSN to pilot a 3D and virtual reality (VR) career exploration system mapped to an accelerated 12-week training program for Kidney Dialysis Technicians, an in-demand occupation that pays a living wage. The fully online program, previously only offered in the Las Vegas Metropolitan area, expanded access to this much-needed training across the state leveraging VR-technologies, thus providing alternative instruction modes to in-person laboratory classes. A 360° immersive video completely captured CSN’s Dialysis Patient Care Technician (DPCT) program into a 3D virtual environment so that a potential student can take a field trip of a dialysis lab, shadow a dialysis tech, and, upon enrollment in the program, dive into figures within their textbook guided by their instructor, as well as work through their homework with a librarian, all in an XR environment. In these modules, students visualize reactions and processes while solving problems. The modules combine real-world context (dialysis), critical thinking, and some mathematics to develop quantitative reasoning. Curated for diagnostic healthcare, the 3D content helps cognitively anchor difficult science concepts, creating meaningful understanding of the job. The project drew nationwide attention, exemplified by the 2020 virtual visit of the American Library Association president as part of his nationwide tour.

It has been this groundbreaking work which helped built the technological base and enabled Nevada to win the RWP-grant with its proposal of ‘Project SANDI.’

Under GOED and the Nevada State Library, leadership for major components of ‘Project SANDI’ will be able to reach vulnerable parts of Nevada’s communities that have been adversely affected by the economic consequences of the pandemic. The Nevada State Library connects to 87 public libraries across the state, many operating in Nevada’s most economically challenged communities. This grant leverages the wide geographical and demographic reach of Nevada’s public library system, as well as the Nevada State Library’s federal mandate to participate in workforce development.



LEAP

As the standard template for career pathway development in Nevada, LEAP integrates education, government and industry in a standardized process to ensure that workers have the skills they need to succeed in both the short – and long-term in the state. LEAP is designed to be a dynamic and responsive framework that consists of fully integrated, highly flexible pathways in which credit transfers seamlessly from high school to community college, and ultimately to a university. Each stage within the framework represents “on and off ramps,” thereby enabling a student to enter the workforce while offering opportunities to re-enter the pathway at a later date to take further advanced qualifications and degrees.

As part of the Education Stabilization Fund (ESF) grant, ‘Project SANDI,’ will contain the inclusion of interactive LEAP-frameworks on the Nevada Career Explorer, to help steer learners through career progression on manufacturing, Life Sciences and Advanced Information Communication Technologies (ICT) Pathways.



The PTAC team provides one-on-one counseling sessions to assist its clients.



THE NEVADA PROCUREMENT TECHNICAL ASSISTANCE CENTER (PTAC) helps for-profit Nevada businesses, especially the small businesses with goods and/or services to sell, pursue public sector or local, state, and federal government-related contracts (or prime contracts) and subcontracts in Nevada and across the United States.

The PTAC team provides one-on-one counseling sessions to assist its clients. Counseling, in part, includes helping clients with solicitation document review and understanding, draft proposal review within a reasonable timeframe, and contract administration guidance. The PTAC also provides no-charge outreach events such as webinars whether led by the PTAC or by small business resource partners in Nevada. Since March 2020, the PTAC switched to a 100% virtual service model when counseling clients, conducting outreach events, and collaborating with resource partners. A subset of total PTAC clients has competed for and been awarded public sector contracts, which is vitally important during the recession the pandemic has caused. As relayed to the PTAC by a number of clients, and if it were not for public sector business, PTAC clients do not know how they would have survived and/or thrived during the Great Recession. The same holds true, even more so given the recession caused by the ongoing pandemic, and more businesses expanding their portfolios to sell to the public sector.



Additionally, the Nevada PTAC team won the Outstanding Project Award in March 2020 from the Association of Procurement Technical Assistance Centers (APTAC). Out of all award nominees, the team won the award for its ten-page checklist to help Nevada businesses mitigate contract risk when selling professional services on a fixed-price basis within the public sector. The award recognizes an accomplishment that stands out from the usual activities that all PTACs in every U.S. state and in some territories organize and undertake. The award is given for a project that benefits all APTAC members and/or serves as a model for other PTACs to emulate. The Nevada PTAC's proactive and innovative project to create a valuable resource that can be used by all, represents such an initiative, as officially stated by APTAC in a widely-distributed press release.

The Nevada PTAC program has experienced year-over-year growth:

For the program year ending July 31, 2020 (8/1/19-7/31/20):

- About **1,350** total clients
- A total of **51** outreach events either led by the PTAC or a small business resource partner
- A subset of the total clients was awarded a total of **1,572** prime contracts valued at a total of **\$272,615,252**
- A subset of the total clients was awarded a total of **94** subcontracts valued at a total of **\$40,087,039**

For the program year ending July 31, 2019 (8/1/18-7/31/19):

- About **1,290** total clients
- A total of **54** outreach events either led by the PTAC or a small business resource partner
- A subset of the total clients was awarded a total of **1,111** prime contracts valued at a total of **\$135,146,747**
- A subset of the total clients was awarded a total of **40** subcontracts valued at a total of **\$9,715,110**

Nevada Film Office Overview



The creation of content provides employment opportunities for Nevadans, business development and growth for small Nevada businesses...

ESTABLISHED IN 1982, the Nevada Film Office attracts and facilitates the creation of content to gain attention to Nevada generating economic growth in our communities. The office administers a Transferable Film Incentive program to spur the growth of content created in Nevada along with coordinating intergovernmental cooperation throughout the state, connecting productions with qualified crew and vendors to complete productions. The creation of content provides employment opportunities for Nevadans, business development and growth for small Nevada businesses, and highlights Nevada's unique locations and attractions throughout the state. Distributed to a worldwide audience, content created in Nevada contributes to driving the state's tourism economy, highlighting the diversity of Nevada's resources, industries, and its residents.

HIGHLIGHTS

The calendar year 2020 has been an unpredictable year with the shutdown of productions worldwide, including Nevada beginning in March and continuing through December 2020. Despite these shutdowns, highlights for the Calendar Year 2020 include:

- Issued film incentives to one project totaling \$141,288 with economic activity to Nevada totaling \$909,516.
- In process productions with estimated incentives totaling \$4,265,634 with economic activity to Nevada totaling \$21,300,032.
- Created 125 full time equivalent jobs for these productions.
- Coordinated outreach to governmental agencies throughout the state including state parks, such as Valley of Fire, to improve processes for filming to occur, highlighting the beauty of Nevada landmarks to drive increased visitation and economic development.
- The office sponsored and coordinated series of online videos promoting productions recently filmed in Nevada, including Pawn Stars and Bleacher Report, generating attention to these productions and the benefits of producing content in Nevada.
- The office continues to produce video content available on its website to provide resources and answer most frequently asked questions regarding filming in Nevada, further simplifying the process of creating in Nevada.

Nevada Film Office Overview CONTINUED

- Coordinating with the University of Nevada, Las Vegas and Community Colleges of Nevada, the office engages with the film and video production programs to create opportunities and work towards pathways for students in Nevada to remain in the Nevada workforce and grow within the industry.
- Coordination with local union representatives from International Alliance of Theatrical Stage Employees (IATSE) to provide comprehensive support to productions in Nevada and further develop the local workforce.
- Track and update industry guidance related to COVID-19 mandates and directives as they relate to production in Nevada.
- Create production safety guidelines for COVID-19, published on our website and shared with local permitting jurisdictions to offer guidance on safely producing content in Nevada.
- Partnered with Safe Sets International to provide free COVID-19 awareness courses to the production community.
- Work with and promote film festivals in Nevada.
- Provide resources to industry in Nevada regarding Pandemic Unemployment Assistance, grants and programs for small business assistance including PETS grant, National Grants for the Arts, City of Las Vegas Grant Programs, CARES Act.

The following projects were in progress or planning during 2020 related to the film incentive program:



FELIZ NAVIDAD — Single father David is matched with out-of-town musician Sophie on a dating app. Since she is only in town for the holidays, they agree to ‘practice-date’ – but will they fall in love for real? The Christmas feature film, *Feliz Navidad*, highlights Carson City, NV as a travel destination for Nevada. This film has a distribution agreement

with A&E Lifetime.

DEAR CHRISTMAS — Natalie has a hit podcast based on love. Problem is, she’s not very good at finding it herself, that’s when Chris Massey enters her life and shakes things up. This Christmas feature film, *Dear Christmas*, highlights the Incline Village, NV area as a travel destination for Nevada. This film has a distribution agreement with A&E Lifetime.



ONCE UPON A MAIN STREET — Amelia, who wants to open a year-round Christmas store, bids for a shop lot against Vic, who wants to open a chocolate shop. Rivalry becomes romance when they must work together. This Christmas feature film highlights the

Carson City/Gardnerville area as a travel destination for Nevada. This film has a distribution agreement with A&E Lifetime.



LOVE ISLAND SEASON 2 — *Love Island* is a fast turnaround reality dating show with viewer interaction, set in a spectacular villa. It is a competition to be crowned the USA’s favorite couple. A group of gorgeous singles arrive at the luxury villa on in an exciting and unique location. *Love Island* will air multiple times a week for 4 and a half weeks on CBS.



CATCH 21 — *Catch 21* is a riveting game show broadcast on the Game Show Network (GSN). Three contestants

compete against each other playing a card game, much like Blackjack, while answering trivia questions. The show is based on a popular online game from GSN’s website and has aired for four seasons. All the contestants are Nevada residents. The show is hosted by Alfonso Ribeiro.

Rural Economic & Community Development



Over the past five years, CDBG investments of \$14,993,664 have contributed to the funding of 83 projects in rural ten cities and ten counties.

The Community Development Block Grant (CDBG) program is one of five formula programs administered by the Department of Housing & Urban Development (HUD). Authorized as part of the Housing and Community Development Act in 1974, the CDBG program allocates funding to the State of Nevada; the funds are allocated to cities with populations under 50,000 and counties under 200,000. This program is called the State and Small Cities Program – or the Non-Entitlement Program. Larger cities and counties, cities over 50,000 and counties over 200,000, receive funding directly from HUD through the CDBG Entitlement Program.

The Governor’s Office of Economic Development (GOED): Division of Rural Community & Economic Development administers the CDBG Non-Entitlement Program. Funds are allocated to small cities and counties to help develop communities by providing Nevadans with (1) suitable living environments, (2) decent housing and (3) economic opportunity for low- to moderate income individuals and households. All projects must meet one of three national program objectives: (1) benefit low-moderate income persons, (2) prevent or eliminate slum and blight or (3) meet current urgent community development needs.

Annually, approximately \$3.2 million is made available annually to 27 Non-Entitlement Eligible Entities. Each July 1st, a new grant year begins with submission of proposals for eligibility. Approved projects are developed into full proposals/ applications, which are due mid-February. Applications in this competitive grant process are reviewed by external reviewers, when appropriate, and by the CDBG Advisory Committee. The CDBG Advisory Committee recommends funding for projects. Recommendations are sent to the Governor for final approval.

Over the past five years, CDBG investments of \$14,993,664 have contributed to the funding of 83 projects in rural ten cities and ten counties. Another \$20,669,625 has been invested by the communities as leveraged funds. Investments have benefited 315,796 low- to moderate-income individuals.



2020 CDBG ALLOCATIONS

Carson City	Colorado St. ADA Compliance Improvement Project	\$340,868
Carson City	FISH Transitional Housing Design Project	\$30,583
Carson City	Nevada Health Center Medical Technology Project	\$31,873
Carson City	Ron Woods Youth Absentee Reduction Project	\$20,000
Carson City	RSVP Nevada Rural Counties Veterans' Project	\$20,000
Carson City	Grant Management Project	\$49,258
City of Ely	Ely Fire Department Extrication Tool Project	\$12,229
City of Ely	Murry Street Sewer Upgrade Project, Phase II	\$332,363
Esmeralda County	Emergency Generator Project	\$360,000
Esmeralda County	Goldfield Historical Street Rehabilitation Project, Phase III	\$425,000
Lincoln County	Pioche Airport Road Drainage Project	\$751,500
Lyon County	Walker River Economic Corridor Economic Development Project	\$200,000
Nye County	Pahrump Fairgrounds Environmental Assessment Project	\$50,000
Nye County	Pahrump Fairgrounds Water & Well System Project	\$500,000
White Pine County	McGill Sewer Pond Lining Project, Phase I	\$75,150
White Pine County	McGill Slag Ditch Study Project	\$75,150

CDBG-CV

ROUND 1

In response to the Coronavirus Pandemic (COVID-19) the U.S. Department of Housing and Urban Development Community Development Block Grant Program (CDBG) notified the Nevada Non-Entitlement CDBG Program that it received a formula allocation in the amount of \$2,049,574 from the first round of CDBG-CV funding to be used specifically for the prevention of, preparation for, and response to the Coronavirus. The allocation was authorized by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Public Law 116-136, which was signed on March 27, 2020. Of that allocation, \$161,488 was allowed for Administration and Technical Assistance. This amount could be allocated to projects at a later date.

The State of Nevada accepted applications from rural cities under 50,000 in population and rural counties under 200,000 in population. Clark County, Las Vegas, North Las Vegas, Henderson, Reno and Sparks are Entitlement communities and receive separate allocations and conduct separate application processes. Applications for the Non-Entitlement areas were due on August 14th, 2020. The CDBG Advisory Committee met on September 1, 2020 and recommended funding for projects in the amount of \$1,229,784 for the CDBG-CV #1 (a) round of funding. Funding in the amount of \$658,302 was available for a second round of applications for CDBG-CV 1 (b).



CDBG-CV ROUND 1 (A) FUNDED PROJECTS

APPLICANT	PROJECT	AWARDED
Elko County	NV Health Center: Negative Pressure Rooms Project	\$43,600
Elko County	NV Health Center: Covered Parking Structure Project	\$139,100
Lyon County	Healthy Communities Coalition: Silver Springs Food Pantry Expansion Project	\$97,034
Lyon County	Healthy Communities Coalition: Silver Springs Transportation Expansion Project	\$70,000
Washoe County	Food Bank of No. NV: Food Distribution Expansion Project	\$144,300
Washoe County	Food Bank of No. NV: Transportation Expansion Project	\$30,000
Washoe County	Rural Senior Centers Food Distribution Project	\$11,747
Wells	Senior Center Facility Project	\$332,000
Yerington	Boys and Girls Club Expanded Services Project	\$125,000
		\$992,781
Carson City	NVHC Covered Parking Structure Project	\$57,191
Carson City	Spirit of Hope-Vehicle Purchase Project	\$51,585
Carson City	Boys and Girls Club Expanded Services Project	\$19,826
Carson City	Nights Off The Streets Warming Shelter Project	\$20,080
Carson City	COVID-19: Planning and Grant Management	\$28,322
Carson City	Boys and Girls Club Transportation Expansion Project	\$60,000
		\$237,004
		\$1,229,785

CDBG-CV ROUND 1 (B) FUNDED PROJECTS

APPLICANT	PROJECT DESCRIPTION	REQUESTED
Mineral County	Hawthorne Boys & Girls Club Project	\$255,000
Esmeralda County	Fish Lake Community Center Upgrade Project	\$200,000
Esmeralda County	Teleconference Equipment Upgrade Project	\$70,000
TOTAL - NON-ENTITLEMENT		\$525,000
CDBG-CV: ROUND #1 - ANTICIPATED PROJECTS - CARSON CITY		
Carson City	Advocates to End Domestic Violence Transportation Expansion	\$35,677
Carson City	NV Health Centers Immunization Preparation	\$45,278
Carson City	Senior Center Meals Expansion	\$70,426
Carson City	Spirit of Hope- Professional Cleaning/ New Housing/Tech	\$70,426
TOTAL - CARSON CITY		\$221,807
TOTAL		\$746,807

Rural Economic & Community Development CONTINUED

CDBG-CV

ROUND 2

In response to the Coronavirus Pandemic (COVID-19) the U.S. Department of Housing and Urban Development Community Development Block Grant Program (CDBG) notified the Nevada Non-Entitlement CDBG Program that it received a formula allocation in the amount of \$9,963,639 from the second round of CDBG-CV funding to be used specifically for the prevention of, preparation for, and response to the Coronavirus. The allocation was authorized by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Public Law 116-136, which was signed on March 27, 2020. This allocation is to be distributed across the state of Nevada to entitlement and non-entitlement areas, based on a HUD formula.

All counties and Entitlement cities are eligible to submit projects to the State of Nevada. Cities, counties and non-profit organizations can submit projects to the eligible jurisdictions. Refer to table for allocations by jurisdictions. Applications are due to the state of Nevada by April 27, 2021 by 5:00 p.m.



CDBG-CV ROUND 2 FORMULA ALLOCATION

ELIGIBLE COUNTIES AND ENTITLEMENT CITIES

	ALLOCATION AMOUNT WITHOUT BASE	BASE	AMOUNT TO DISTRIBUTE
Carson City	\$180,504	\$25,000	\$205,504
Churchill County	\$66,898	\$25,000	\$91,898
Clark County	\$3,097,156	\$25,000	\$3,122,156
Henderson	\$1,126,676	\$25,000	\$1,151,676
Las Vegas	\$2,061,482	\$25,000	\$2,086,482
North Las Vegas	\$657,436	\$25,000	\$682,436
Douglas County	\$188,474	\$25,000	\$213,474
Elko County	\$103,602	\$25,000	\$128,602
Esmeralda County	\$3,496	\$25,000	\$28,496
Eureka County	\$3,858	\$25,000	\$28,858
Humboldt County	\$32,850	\$25,000	\$57,850
Lander County	\$12,564	\$25,000	\$37,564
Lincoln County	\$16,214	\$25,000	\$41,214
Lyon County	\$177,932	\$25,000	\$202,932
Mineral County	\$15,864	\$25,000	\$40,864
Nye County	\$183,221	\$25,000	\$208,221
Pershing County	\$14,774	\$25,000	\$39,774
Storey County	\$15,655	\$25,000	\$40,655
Washoe County	\$219,062	\$25,000	\$244,062
Reno	\$928,797	\$25,000	\$953,797
Sparks	\$284,367	\$25,000	\$309,367
White Pine County	\$22,781	\$25,000	\$47,781
Total:	\$9,413,639	\$550,000	\$9,963,661

Rural Economic & Community Development CONTINUED

CDBG-CV

ROUND 3

In response to the Coronavirus Pandemic (COVID-19) the U.S. Department of Housing and Urban Development Community Development Block Grant Program (CDBG) notified the Nevada Non-Entitlement CDBG Program that it received a formula allocation in the amount of \$2,474,984 from the third round of CDBG-CV funding to be used specifically for the prevention of, preparation for, and response to the Coronavirus. The allocation was authorized by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Public Law 116-136, which was signed on March 27, 2020.

The State of Nevada will accept applications from rural cities under 50,000 in population and rural counties under 200,000 in population. Clark County, Las Vegas, North Las Vegas, Henderson, Reno and Sparks are Entitlement communities and receive separate allocations and conduct separate application processes. Applications for the Non-Entitlement areas are due on April 27, 2021 by 5:00 p.m. PDT. The CDBG Advisory Committee will meet early May and recommend funding for projects in the amount of \$2,474,984 for the CDBG-CV Round #3.

\$2,474,984

Total allocation

\$371,247.60

Carson City 15%

\$2,103,736.40

Non-Entitlement allocation

CDBG - RECOVERY HOUSING PROGRAM

The Recovery Housing Program (RHP) provides funding for states and the District of Columbia to provide stable, transitional housing for individuals in recovery from a substance use disorder. The funding covers a period of not more than two years or until the individual secures permanent housing, whichever is earlier.

RHP was authorized under Section 8071 of the Support for Patients and Communities (SUPPORT) Act. HUD published its formula in the Federal Register on April 17, 2019 (84 FR 16027), identifying the 25 eligible grantees and allocation percentages.

RHP eligible activities include:

- Public facilities and improvements
- Acquisition and disposition of real property
- Payment of lease, rent, and utilities
- Rehabilitation, reconstruction, and construction of both single family, multifamily, and public housing
- Clearance and demolition
- Relocation
- Administration and technical assistance



The RHP Notice encourages coordination with other federal partners addressing substance-abuse related programs. Recovery Housing Program FY2020 Allocations: Nevada – 3.46% (Allocation Shares* per Formula Notice), \$847,000.00



NEVADA MAIN STREET

Nevada Main Street is a holistic approach to downtown revitalization that supports business creation and retention to support healthy and economically vibrant communities. The state program began in 2017 and provides a framework for communities to address a full range of issues and challenges facing traditional commercial districts. This is the second year Nevada Main Street has awarded grants to support downtown revitalization. A total of 12 applications totaling were received from six eligible Nevada Main Street communities in this grant cycle. Nevada Main Street Revitalization Grant were awarded May 29, 2020 to five communities requesting \$227,902. Funded grant awards totaled \$150,000 and included:

- **Gardnerville:** \$4,012 to update Main Street brochures
- **Reno:** \$50,000 for the Virginia Street & ReTRAC Beautification project. Used as matching funds for \$200,000 EDA grant application.
- **Tonopah:** \$14,913 for a downtown beautification project
- **Wells:** \$40,000 for façade improvements and murals
- **White Pine:** \$11,700 for reopening businesses in downtown Ely
- **White Pine:** \$10,500 to install a trailhead kiosk at Broadbent Park
- **White Pine:** \$18,875 to publish “50 Fabulous Places in White Pine” book

All the grant awards are be matched with local funding and donated services.

Other program highlights included:

- Held Nevada Main Street leadership training in Gardnerville, August 28–29, 2019.
- Presentation to Lander County Chamber of Commerce, September 11, 2019.
- Presentation to Lander County Commission, October 24, 2019.
- Main Street program assessment in Wells, December 10, 2019.
- Strategy planning and budget session for Tonopah Main Street, January 17, 2020.
- Winnemucca Main Street presentation, January 27, 2020.
- Executive Director training held in Carson City, March 3, 2020.
- National Main Street Now conference canceled due to COVID-19, May 2020.
- Biweekly calls with Main Street program leaders, SHPO, Travel Nevada, Outdoor Recreation, SBDC, and USDA, May 14, 2020.
- Kickoff meeting for Nevada Main Street programs to begin website development through Locable, August 13, 2020.
- Locable Nevada Main Street websites live December 10, 2020.

NEVADA OPPORTUNITY FUND

In order to assist small businesses in obtaining the funds they need for growth and expansion, the state created the Nevada Opportunity Fund, administered by Bank of Nevada. In partnership with GOED, Bank of Nevada provides startups with business plans access to borrow up to \$25,000. Existing small businesses can borrow up to \$50,000 unsecured or \$100,000 secured. In response to the pandemic, loans in the portfolio were given deferments on payments to November 2020 and interest rates were reduced. The program stopped funding new loans in June 2020 due to state budget shortfall.



LOAN DEMOGRAPHICS

Las Vegas	13
Reno	1
Rural	1

Original Fund Exposure:	\$1,000,000.00
Historical Charge Offs:	\$16,738.44
Reduction to Fund by GOED:	\$461,904.26
New Fund Exposure:	\$521,357.30
09/30/20 Principal Outstanding:	\$480,551.71
Fund Availability:	\$40,805.59

This loan program is for minority, women-owned, and disadvantaged businesses. The Nevada Opportunity Fund – <https://www.leg.state.nv.us/Statutes/79th2017/Stats201716.html#Stats201716page2911>

SSBCI COLLATERAL SUPPORT PROGRAM

The CSP is 100% federally funded and part of the State Small Business Credit Initiative Program (SSBCI). The program provides collateral support to strengthens loans for Nevada businesses (makes a good loan better). There have been 28 CSP deals since the program’s inception in 2012 for a total of \$12 million.

- **27** deals have been in Las Vegas and
- **1** deal was in Elko.

Of the \$12 million disbursed, \$2.8 million remains outstanding with \$9.3 million returned to date to support future CSP deals. The funds disbursed to the participating lending institution are placed into a bank account separate from the loan itself and the CSP funds are not used by the bank. The funds remain in the account and funds are returned to the State as the loan is paid off. In addition to the Federal funds awarded by the U.S. Treasury, this program generates revenue as follows:

- **Filing Fees:** GOED negotiates with each lending institution and charges a filing fee between 1% to 3% of the collateral amount that is paid when the loan is funded by the bank. Since the program's inception this funding source has generated \$285,000 in revenue.
- **Treasurer's Interest Distribution:** The SSBCI budget account is an interest-bearing account that has earned \$446,000 in interest since the program began.
- **Bank Interest Earned:** The collateral support funds placed in each deal's bank account earns a small percentage of the balance of the account. Since the program's inception this funding source has generated \$46,000 in revenue. These funds are paid to the State when the loan is paid in full and the CSP bank account is closed.

ENTREPRENEURSHIP PROGRAM FOR RURAL NEVADA



With the goal of expanding the entrepreneurial ecosystem that has developed in Reno-Tahoe area, GOED led an effort to begin developing an entrepreneurial ecosystem in rural Nevada. This effort included supporting entrepreneurs with mentorship, access to capital, and networking opportunity. Through partnerships with existing business resources such as: Northern Nevada Development Authority, Great Basin College, StartUpNV, the Nevada Small Business Development Center, and Nevada Cooperative Extension; entrepreneurs were provided support in order to create a complete ecosystem of entrepreneurs, mentors, and investors resulting in successful business

development across Nevada. The partnership started to bridge the Urban-Rural divide connecting a statewide business incubator program, StartUpNV, with entrepreneurs in rural Nevada to tap into the developing startup community in Reno-Tahoe. Over the past few years, the Reno area has seen a boom in entrepreneurship. Many large technology companies have moved to the Tahoe Reno Industrial Park and with it a spirit of entrepreneurship has increased in Nevada. The University of Nevada, Reno has supported this development through the Sontag Entrepreneurship Competition, The Innevation Center, and organizations such as Entrepreneurs Assembly. The Economic Development Authority of Western Nevada (EDAWN) hosted a Venture Conference in 2019 providing Angel investing training, and raised capital to launch the Reno Seed Fund. This fund invests in companies in early-stage, revenue generating, and some earlier and later-stage companies with significant operations in Northern Nevada.

Rural Nevada can tap into the developing startup economy in Reno. Over the past few years, the Reno-Tahoe area has seen a boom in entrepreneurship. Many large technology companies have moved to the Tahoe Reno Industrial Park and with it a spirit of entrepreneurship has increased in Nevada. The University of Nevada, Reno has supported this development through the Sontag Entrepreneurship Competition, The Innevation Center, and organizations such as StartUpNV and the Entrepreneur Assembly. The Economic Development Authority of Western Nevada has hosted a Venture Conference, Angel investing training, and raised capital to launch the Reno Seed Fund. This fund invests in companies in early-stage, revenue generating, and some earlier and later-stage companies with significant operations in Northern Nevada.

Utilizing the networks and resources of this partnership, the first startup training for rural entrepreneurs was held on November 7, 2019 at Great Basin College in Elko. Presentations were made on entrepreneurship (Bryan McArdle, EDAWN), mentorship (Karol Hines, Entrepreneurs Assembly), funding (Kelly Northridge, The Audacity Fund), and how to put together a pitch (Maggie Saling, StartUpNV). This led to the first annual Rural Pitch Day originally scheduled for May 22, 2020 but due to the pandemic, the pitch day was postponed to November 6, 2020 and held virtually.

RURAL START UP PITCH COMPETITION

STEERING TEAM

Maggie Saling
StartUpNV, Communications Director

Karol Hines
Karol Hines Consulting, Owner/Startup Enabler

Tatjana Vukovic
GOED, Business Development

Patty Herzog
GOED, Rural Economic and Community Development

PLANNING TEAM

Sheldon Mudd
Northeastern Nevada Regional Development Authority

George Kleeb
Great Basin College, SBDC

Kelly Northridge
Audacity Fund, Founder

Danielle Rees
Audacity Fund, Founder

Lynn O'Mara
Northern Nevada Development Authority

Winnie Dowling
SBDC

Marcel Schaerer
Department of Business and Industry

Richard Bartholet
UNR Ozmen Center

Dave Croasdell
UNR

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EDAWN

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Jolene Supp
City of Welles, Wells Main Street

Lisa Costa Campbell
Great Basin College, Winnemucca

Matt Westfield
Entrepreneurs Assembly

Greg Bortolin
GOED, Communications

Carli Smith
GOED, Communications Pitch Day Presenters, Panelist, Judges

Donna Bath
Silver Lion Farms, Community Relations

Gian Khalsa
Silver Lion Farms, Founder

Bob Kurilko
Silver Lion Farms, CEO

Jonny Price
WeFunder

Mike O'Donnell
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Department of Business and Industry

Liz Goodgold
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Ian Muceus
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Brian Blair
LoneRock Aerospace, Churchill County

Richard McKay
McKay Minoletti Enterprises, Eureka County

Lisa Song Sutton
Entrepreneur & Investor, TEDx Speaker, Miss Nevada US

Jeff Sutich
NV Energy

Anabel Navarro
SBDC

DONATIONS

NV Energy
Cash donation, \$2,500

StartupNV
Free entry to AngelNV, the angel group that will invest \$200,000 into one Nevada business, \$200 for Facebook advertising, and \$200 for Zoom logistics

Audacity Fund
FounderDoctor Start-Up Package (\$1,500 value) to the second place winner. The package includes one Visioning Session and three Support Sessions

SBDC
Cash donation of \$1000 for additional radio promotion

NNRDA
\$1,500 for radio promotion ads on Ruby Radio

FIRST ANNUAL RURAL PITCH DAY

The first annual Rural Pitch Day competition was held virtually on November 6, 2020. A generous donation from NV Energy provided prize money and additional contributions to awards came from StartUpNV and the Audacity Institute. Each company founder had seven minutes to make a pitch followed by questions from a distinguished panel of judges for five minutes. The following companies participated in the inaugural event and were awarded prizes:

- New Tech Products, LLC, earned \$1,150 for first place and also won the Audience Choice award. New Tech Products makes the Tidy Oil Changer, a magnetic device that connects to an oil pan to direct oil away from the pan and into a catch basin. It changes the dirty job of an oil change into a white glove job.
- Goat Shell, represented by George Skivington, earned \$500 for second place. Goat Shells are hard sided pop-up camper shells that fit over regular and long bed trucks and come in two sizes. They are priced much lower than their competition.
- GL Innovation, represented by Gerald Laughter, earned \$250 for third place. GL Innovation makes battery interrupters for large vehicles and mining sites. Future markets include electric cars and aircraft.
- The Little Rider foundation, represented by Joshua Peterson, presented an idea for a nonprofit organization with the mission to provide every child the chance to learn to ride a bike.
- Watec Nevada, represented by Garold Hines, presented an idea for a Cryo-Thermal Desalinators.



International Trade Division



Since the inception of the program a decade ago, the amount of \$1.7 million has been awarded to Nevada to help small businesses leverage global sales growth.

STATE TRADE EXPANSION PROGRAM (STEP)

The Competitive State Trade Expansion Program (STEP) is a federal trade and export initiative to make matching-fund awards to states to assist their small businesses with entering and succeeding in the international marketplace. The program is funded in part through a grant with the U.S. Small Business Administration (SBA) and administered by GOED International Trade Division (ID) on behalf of the state. GOED is proud of the relationship it has developed over the course of the last decade with the SBA, which has led to results that have made a remarkable impact on Nevada small businesses. GOED has won another \$149,500 in grant funding in September 2020 for the implementation of a STEP 9 program to support Nevada companies in exporting their products and services internationally. Cumulatively during 2020, GOED was managing \$557,414 under STEP 7, STEP 8, and STEP 9 grant awards. Since the inception of the program a decade ago, the amount of \$1.7 million has been awarded to Nevada to help small businesses leverage global sales growth. On September 28, 2020 GOED ID joined the SBA in recognizing ten years of helping small businesses find global success with the assistance of STEP program.

STEP is gaining momentum in Nevada and in 2020 GOED organized several marketing campaigns in partnership with the Department of Commerce, SBA Nevada District Office, Small Business Development Center, Nevada Industry Excellence, regional development authorities, chambers of commerce, and local authorities. Three rounds of application and evaluation procedures were conducted in collaboration with the Nevada Department of Business & Industry and U.S. Export Assistance Center, resulting in awarding 95 Nevada small businesses with a STEP grant.

Our nation's small businesses have faced an unprecedented economic disruption due to the COVID-19 outbreak. The state took steps to reopen the economy and assist small, export ready businesses to overcome obstacles to exporting by providing grants to cover the costs associated with international trade. In order to facilitate global market success for exporting companies, grant rules have been adapted during these challenging times to include additional allowable activities and virtual service offerings. The program supports international marketing of products and campaigns, E-commerce activities, website design and development with international focus, export research tools, compliance testing of existing product for entry into an export market, shipping sample products, search engine optimization, participation in virtual foreign trade missions, virtual trade shows, virtual matchmaking services, export training workshops, and subscriptions to services provided by the U.S. Department of Commerce.



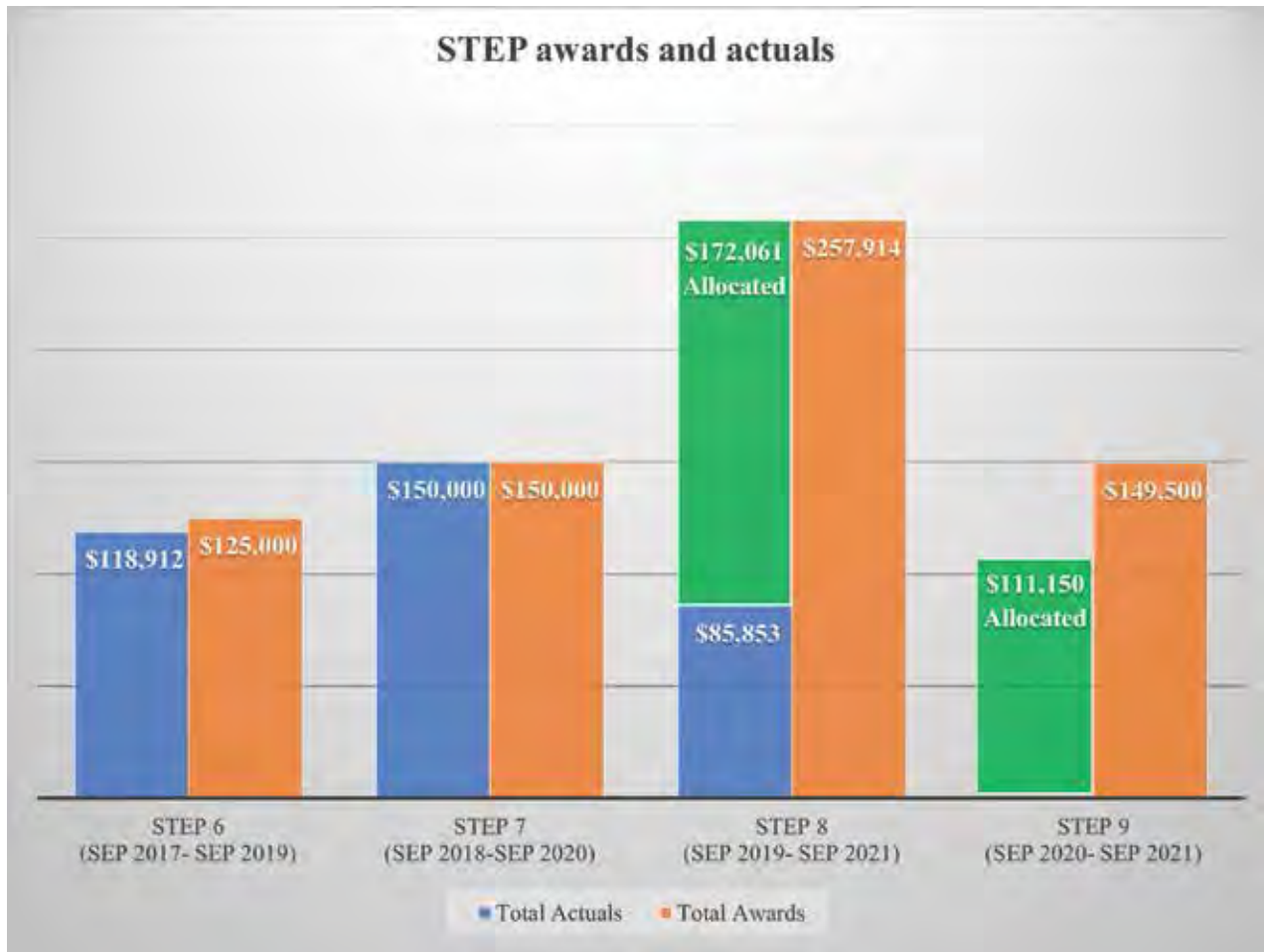
A key to expanding any business is finding more customers and 95 percent of the world's customers live outside of the U.S. In 2019, Nevada exported almost \$9 billion of Made-in-America goods to the world and by October 2020 the Silver State exported another \$9 billion of goods worldwide. Annually, exports create over 50,000 jobs.

In 2020, GOED successfully closed the STEP seven grant. This marked the first time ever since 2011 that we were able to expend federal funds with 100% rate, assisting 21 businesses, creating and retaining 268 jobs throughout the state. The grant supported market expansion of 12 companies and assisted nine new-to-export companies' entry into the global market. Out of this number, seven businesses self-certified as disadvantaged small business communities. Nevada small businesses generated \$7.8 million in export sales, significantly exceeding projected sales and return on investment (ROI). We have seen the highest ROI to date, \$51.80 in export sales was the result for every \$1 that grant funding provided. Another grant under implementation – STEP 8 federal FY 19 is expected to create over \$11 million in export sales and yield a 50-to-1 return on investment. This grant currently assists 49 Nevada companies, doubling the number of supported small businesses compared to the previous grant year. Predominant industry sectors among Nevada STEP clients are oriented around manufacturing, information technology, professional, scientific, and technical services, agriculture, and wholesale trade. STEP companies are focused on the European market (United Kingdom, Switzerland, Poland, Slovenia, Germany, Scandinavia), Canada, Australia, India, Japan, South Korea, Israel, United Arab Emirates, Mexico, Vietnam, China, Hong Kong, Argentina, Peru, and South Africa.

GOED ID finalized conversations on extended collaboration with the SBA Office of International Trade in D.C. and agreed on a Referral Protocol that would sustain effective coordination and cooperation between GOED and the SBA in promoting and facilitating Nevada small business entry and/or expansion into global markets amidst and beyond pandemic with the goal to increase the value of small business exports by effectively connecting Nevada small businesses to appropriate resources to support increased competitiveness, global sales growth, and job creation.

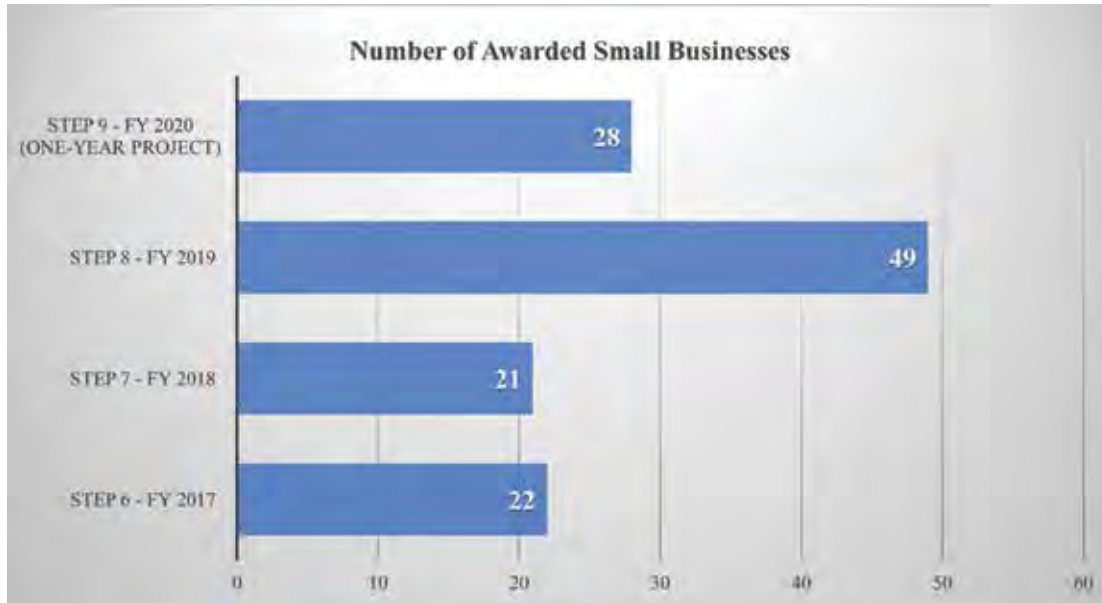
Nevada STEP program continues to succeed in providing the resources our small businesses need to increase their competitiveness and navigate selling of their goods and services to customers overseas. We look forward to supporting an even higher number of the Nevada entrepreneurs in reaching their global potential.

State of Nevada and Grant Allocations and Reimbursements to the Nevada Small Businesses

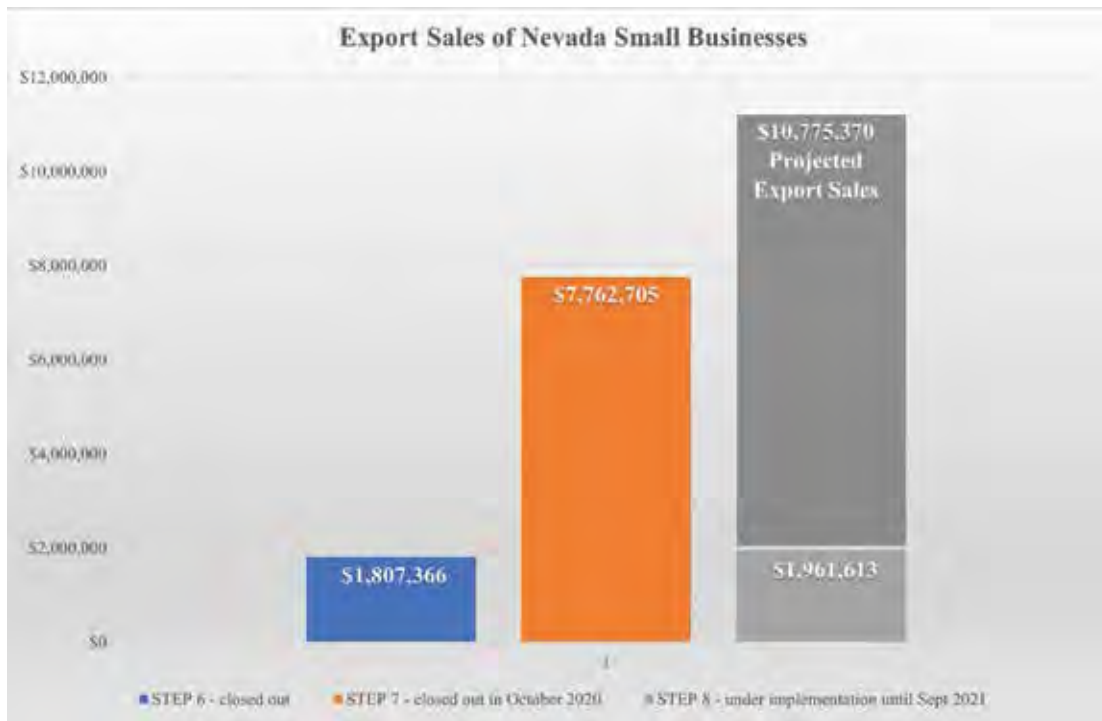


- Total Actuals are the amounts reimbursed to Nevada companies for completing their export activities.
- Total Award amounts show the award allocations from the U.S. Small Business Administration to the State of Nevada.
- Allocated amounts in the green box under STEP eight & nine represent the committed funds already awarded to the Nevada small businesses, which will perform their export activities by September 2021.

Awarded Small Businesses



Export of the Assisted Companies in Goods and Services



- The reported amount of \$1,961,613 under STEP eight reflects the actual export sales of 14 companies which completed their export activities by September 2020.

STEP Grant Return on Investment



- Predicted STEP eight return on investment is based on the awarded amount and projected export sales. The actual ROI will be known in December 2021.



STEP IN SOCIAL MEDIA



International Trade Division CONTINUED

STEP IN SOCIAL MEDIA

GOED
@DiversifyNevada

It's STEP's 10 YEAR ANNIVERSARY! Shout-out to #Nevada STEP client, @Goloterra who joined our European trade mission in the beginning of 2020. As a result, they're successfully exporting to new partners: Embiq and Untitled Kingdom from Poland, Chipolo and Qubino in Slovenia. @SBA



3:30 PM · Sep 28, 2020 · Hootsuite Inc.

DiversifyNevada
20h · 🌐

Did you know that U.S. Small Business Administration export promotion program can help you increase your global footprint? Retro Manufacturing, 2020 Nevada Small Business Exporter of the Year utilized the grant for a foreign market sales trip and compliance testing. Leading producer of audio components for the classic vehicle market and proactive supporter of the automotive restoration around the globe shared with us the advantages of the grant.

"The STEP Grant has allowed us to meet our international dealers face-to-face and better address their customers' specific wants and needs. We have been given opportunities we normally wouldn't have, which has led to an increase in our export sales of over 30%. Viggo Lorentsen's 59 Cadillac sitting peacefully under the northern lights is a shining example of how our overseas customers' enthusiasm helps to push sales domestically. The STEP Grant has been a critical component in achieving our goals worldwide."



DiversifyNevada
32m · 🌐

On the U.S. Small Business Administration State Trade Expansion Program's 10-year anniversary, please meet Free Brands, a Nevada women-owned company and producer of natural cosmetics. Free Brands is a great example of a small business that took advantage of STEP to reach new global customers.

Free Brands attended international trade shows, redesigned their website and led international marketing. The grant has made a significant impact on their focus to gain exposure, expand the product line to foreign markets and to start exporting into international markets: Europe, Canada and South America.

To learn more about the grant and how to apply, click here: <http://ow.ly/Y6wu5DBEMms>



GOED
@DiversifyNevada

Congratulations to @QuantumMarkLLC, a women-owned consulting company that used @SBAGov export grant to make key contacts leading to export of their services to Slovenia, Poland, Czech Republic and Croatia. Their partnerships are already bringing sustainable results across Europe.



12:48 PM · Sep 29, 2020 · Hootsuite Inc.

INTERNATIONAL TRADE RELATIONS

EUROPEAN TRADE MISSION



From February 28 to March 12, 2020, GOED led a two-week trade and education mission to Poland, Slovenia, Croatia, and the Czech Republic. The mission objectives were to promote Nevada Global platform, enhance trade relations, attract direct investment in Nevada, and expand exports. This mission marked the largest ever delegation led by GOED where the International Trade Division (GOED ID) accompanied 15 delegates who represented 12 different businesses and educational institutions.

The following companies and organizations participated in the trade and education mission: Northern Nevada Development Authority, Advanced Carbonate Technologies, Bayramoglu Law Offices, Ioterra / Breadware, Hemisphere West International, The Medrala Law Firm, NeONBRAND, Quantum Mark, StartUpNV, University of Nevada, Reno: College of Business and Nevada Center for Applied Research, and Entrepreneurs Assembly. Participating companies were awarded with up to \$9,000, from the U.S. SBA Nevada State Trade Expansion Program (STEP) to assist with approved costs.

During the mission, GOED ID took the lead and coordinated over 50 meetings and events with international state and local government officials, academic institutions, chambers of commerce and businesses. Two highlighted companies that the delegation was able to meet with were the Slovenian company Roto (industry leader in roto molding) and the Czech company HE3DA (industry leader in energy storage). Both these businesses have interest in opening their headquarters in Nevada. This mission also marked the first U.S. business delegation to visit Slovenia in the past 25 years, the first Europe – Nevada Global Summit which was held in Savudrija, Croatia, had the outcome of academic letters of intent signed, as well as closing business deals between the Nevada participants and European companies. Following the mission, GOED ID has continued working with the U.S. Commercial Service to attract companies from the Czech Republic interested in investing in Nevada.

ISRAEL

Nevada and Israel share vibrant and broad commercial relationships with extensive investment in both directions and deep ties in multiple sectors. In 2019, Nevada's export of goods to Israel amounted to \$148.6 million while the value of imports was \$48.2 million. Almost twenty Israeli companies have already deployed technologies and pilot projects or are actively negotiating partnerships with agencies in Nevada, including two Israeli groups which have now launched formal efforts through GOED and the Nevada Innovation Center LLC (NIC) to establish U.S. offices, industrial facilities, and technology incubators in our state. The focus of this effort has been with municipal and government agencies, as well as academic and research centers, i.e. City of Las Vegas, RTC Southern Nevada, RTC Washoe, UNR - Nevada Center for Applied Research, Nevada Department of Transportation, City of North Las Vegas, WaterStart, Las Vegas Convention & Visitors Authority, Las Vegas Metro Police, and Nevada Hospital Association. GOED has provided central guidance and support while Vegas Chamber, the Nevada Institute of Autonomous Systems, Las Vegas Global Economic Alliance, and UNLV have all been directly involved in the effort.

International Trade Division CONTINUED



To strengthen Nevada-Israel economic cooperation during the period of COVID challenges, GOED began discussions with the Israel Economic Mission to the West Coast – Ministry of Economy and Industry and NIC on signing a Memorandum of Understanding between Israel and Nevada and creating formal agreements with interested institutions in Nevada. Israel Innovation Authority and the Israel – US Binational Industrial Research and Development Foundation will provide financial support to pilot and deploy relevant Israeli technologies in the State. These conversations have identified a specific opportunity to create partnerships in transportation, smart mobility, unmanned aircraft systems, and healthcare.





JAPAN

Following on publishing of the Survey on Japanese Investment Update: Japanese Companies Responses to the US COVID-19 Pandemic, which showed that over one third of Japanese companies in the US was affected by the Presidential Proclamation on Non-Immigrant Visas, GOED decided to offer support and directly connect with the Japanese-affiliated companies in Nevada. In December 2020, GOED organized the first ever **Japan-Nevada Business Roundtable** in partnership with Japan External Trade Organization (JETRO) Office in San Francisco, the Consulate-General of Japan in San Francisco, Honorary Consul of Japan in Nevada, and Nevada Industry Excellence. Japan has a strong economic friendship with Nevada, and many Japanese businesses operate here providing their services to our state. There are over 7,300 jobs supported by FDI from Japan and in 2019 Nevada's exports of goods to Japan exceeded \$300 million, the value of imports was \$400 million, while only by September 2020 close to \$600 million worth of goods was exchanged. At the roundtable, three valuable Japanese subsidiaries spoke about their business presences in Nevada: Mary's Gone Crackers, Inc. (the largest organic and gluten free cracker company in the United States, a wholly owned subsidiary of Kameda Seika, Japan's largest manufacturer of rice crackers), NTT (the fourth largest telecommunications company in the world in terms of revenue), and Sega Sammy Creation (a gaming machine manufacturer). Each company represents a different business sector, but all were unequivocal about Nevada's business-friendly environment and reliable consumer base.

INDIA

GOED continued working with Las Vegas India Chamber of Commerce and Tourism, Confederation of Indian Industry, Consulate General of India in San Francisco, U.S. Chamber of Commerce / U.S. India Business Council, U.S. Strategic Partnership Forum on various initiatives including arranging the first ever Nevada – India Business Investment Roundtable with current Indian investors and the C-suite and senior management executives looking for the ideal location for their U.S. investment. So far, Nevada has received \$150 million Indian FDIs and Nevada businesses exported more than \$1.5 billion in products, goods, and services to India, making the country the number one export market for Nevada in 2019.

International Trade Division **CONTINUED**

TAIWAN

GOED maintained close relations with Taipei Economic and Cultural Office in San Francisco (TECO) and was involved in the preparation of the 9th U.S. Business Day, organized by the Ministry of Economic Affairs of Taiwan and Taiwan External Trade Development Council. Nevada and Taiwan nourish their long-standing sister-state relations and during the State of Nevada 80th Legislature Session the Senate passed the bill celebrating the relationship with the aim to enhance bilateral trade, educational and cultural relations. In May 2020, Governor Steve Sisolak and First Lady Kathy Sisolak presented a certificate of recognition to TECO for their generous donation of 30,000 masks from Taiwanese citizens for Nevada's healthcare providers to help Nevada stop the spread of COVID-19.



REPUBLIC OF KOREA

GOED hosted a Korean delegation during the CES 2020 and joined the Korean Global Open Innovation Networks and Groups Initiative to establish a sustainable platform to collaborate on innovation and technology for sustainable development. In 2020, Nevada Center for Applied Research (NCAR) at the University of Nevada, Reno and Global Research & Development Business Center at Seoul National University signed the Memorandum of Understanding with the major goal to conduct joint research and development of smart city projects. GOED ID successfully matched both parties and supported the cooperation from the beginning.

AUSTRALIA

The Australian State of Queensland and the state of Nevada (represented by economic development organizations) agreed to extend Memorandum of Understanding to advance relations and strengthen cooperation and facilitate mutually beneficial outcomes leading to increased trade and investment opportunities for both states. Queensland and Nevada agreed to continue developing a platform for sharing challenges and best practices across mining, higher education, water management and technology and innovation. In line with the renewed MoU GOED ID has been involved in organization of a virtual trade mission for water tech companies planned to be conducted in the first quarter of 2021. The mission will build international connections, foster productive relationships, identify partnering opportunities, attract investment, identify sourcing opportunities for product and service providers with the focus on securing supply chains affected by COVID-19 and natural disasters, and acquire orders for products and services.

CANADA

Canada and Nevada enjoy a comprehensive trading relationship, 82,800 Nevada jobs depend on trade and investment with Canada, and 11,000 Nevadans are employed by Canadian-owned businesses. GOED has been in close communication with Canadian contacts regarding the United States–Mexico–Canada Agreement (USMCA), which entered into force on July 1, 2020 replacing the North American Free Trade Agreement (NAFTA), and how it can mutually benefit Nevada and Canada. USMCA supports close to 40,000 jobs in Nevada. This has included seminars with the Consulate General of Canada and the Business Council of Canada and Nevada, discussions with Alberta government on renewing the Sister State Agreement between Nevada and Alberta, collaboration with Ontario and MineConnect as well as the creation of trade briefs and collection of market research to better understand economic trends between Nevada and Canada.

In collaboration with Northeastern Nevada Regional Development Authority GOED has been working with Northern Ontario for nearly 5 years now to identify and capitalize on synergies that exist within our two world class mining districts. In 2020 Nevada Global platform has built a new partnership with MineConnect, which represents the interests of Canada's largest concentration of hard rock mining expertise and is made up of over 190 companies, employing over 8,800 people throughout Northern Ontario. The partnership will help Canadian companies in the mining sector establish their subsidiaries in Nevada and the Nevada Global platform will connect the companies with mentors and potential Nevada partners. Over a three-year period, MineConnect intends to cycle in 20 to 30 top tier companies through their new office established in Elko in 2020, with an end goal of having at least ten of them establishing a permanent presence in northern Nevada. The selected Ontario companies will have the resources to ensure such a transition possible and would offer products that are technologically advanced and considered step changers within the global mining industry resulting in high-paying quality jobs for Nevada workforce.



UNITED KINGDOM

With the goal to further heighten UK-NV relations GOED has also been engaging with UK government officials including the British Consulate General in Los Angeles regarding the U.S. – UK Trade Agreement Negotiations and Nevada's main interests apropos the agreement, discussions with U.S. Commercial Service in UK about a virtual inbound UAV and UAS trade mission, and the creation of a white paper showing UK companies operating in Nevada as well as key trade industries between the UK and NV. During 2019 Nevada and UK

exchanged nearly \$400 million in goods. The UK accounts for 10% of the top sources of foreign direct investment and UK subsidiaries support over 7000 of jobs in the state. The total value of Nevada services exports to the UK account to \$800 million yearly. At the same time Las Vegas annually welcomes close to 800,000 UK visitors. Nevada small business exporters who are NV State Trade Expansion Program clients primarily select the UK market as part of their global expansion strategy.

SELECTUSA UNMANNED AIRCRAFT SYSTEMS (UAS)/ UNMANNED AERIAL VEHICLE (UAV) VIRTUAL INBOUND INVESTMENT MISSION TO NEVADA (JANUARY 2021)

Nevada has been selected to showcase investment opportunities in the UAS/UAV sectors and GOED started to prepare a bespoke virtual program tailored to the interests and expertise of the 122 international delegates, from 19 different countries (UK, Israel, Spain, Turkey, France, Romania, Austria, Estonia, Germany, Norway, etc.) representing 70 companies vetted by the US Department of Commerce / SelectUSA and ready to land in the U.S. The mission was led in January 2021 and Nevada highlighted unique opportunities about its FAA test site and the reasons why we are the world leader for innovation in the industry. International companies offer solutions for military, commercial, agriculture, emergency, energy & power, construction & mining and other industries will decide on the locations for their future test operations, R&D projects, and establishment of the U.S. offices.

International Trade Division **CONTINUED**



SELECTUSA VIRTUAL INVESTMENT MISSION TO NEVADA (FEBRUARY 2021) (SMART CITY, IOT, MANUFACTURING AND HOSPITALITY)

GOED is getting ready for another SelectUSA inbound investment mission with the goal to attract foreign direct investments in Smart City and IoT, manufacturing, and hospitality. U.S. Department of Commerce's International Trade Administration approved Nevada for the highest profile U.S. event to connect with global companies and facilitate their business investment in Nevada. Both the virtual and in-person events have been received with much interest from our international partners including the UK Consulate – Los Angeles, Canadian Consulate in Los Angeles, Taipei Economic & Cultural Office in San Francisco, and Japan External Trade Organization.

CONSUMER ELECTRONICS SHOW (CES)



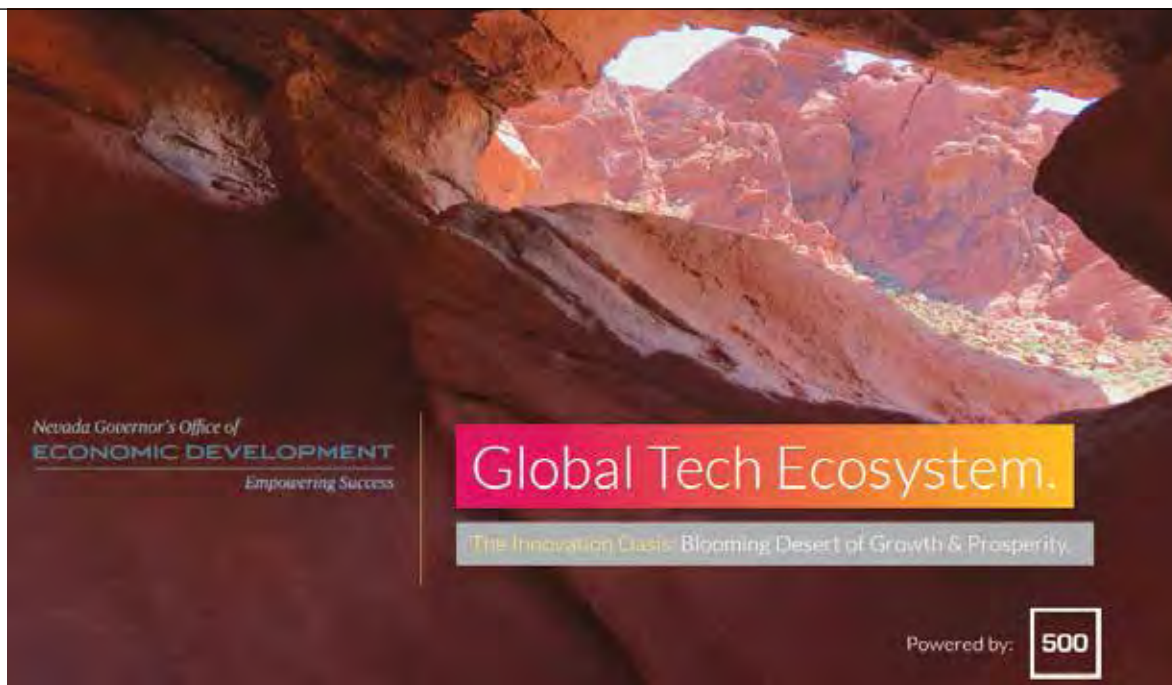
During the CES trade show in Las Vegas in 2020, International Trade Division discussed investment, partnership and collaboration projects with numerous foreign government, diplomatic and business delegations, including Japan (Japan External Trade Organization – JETRO, J-start up, Ministry of Economy of Japan, NTT Data Services, Slovenia (companies selected by the U.S. Embassy in Slovenia), Korea (Seoul National University, Seoul Smart City, Seoul Institute of Technology), India (India start-ups and U.S. – India Strategic Partnership Forum), Italy (Ministry of Innovation, Consulate General of Italy, Embassy of Italy to U.S.), France (French Ministry of Tourism and tech start-ups).

NEVADA GLOBAL

GOED ID hosted the biggest ever Nevada Global Immersion Program under the umbrella of Nevada Lubelskie Acceleration Bridge (NLAB) in the period of January 19 – February 2, 2020 for eleven prospect companies from Poland, looking to relocate or expand in Nevada.

The team conducted structured discussions with 25 Nevada local partners during May and June 2020. The purpose of the meetings was to find out how our partners have been affected by COVID-19 and to continue our valued partnerships with them. We also wanted to obtain their views on how we can support our local ecosystem and collaborate on plans to continue our international programs during these difficult times.

Due to COVID-19 the Nevada Global platform was transformed to a virtual program which includes webinars, bootcamps, and demo days organized by the GOED International Division. We are fortunate to have a robust list of local Nevada mentors that will be educating international companies and highlighting our great state during the virtual programs. GOED ID will start Nevada Global Virtual with our partners at the National Center for Research and Development and the Nevada-Lubelskie Acceleration Bridge in Poland, and then expand the program with other partners in Slovenia, Czech Republic, India, South Korea, and Japan among others.



In June 2020, the first virtual Nevada Global Demo Day focused on academic startups from Warsaw School of Economics was organized in partnership with GOED, University of Nevada Reno, College of Business, and mentors from Nevada representing UNR Innevation Center and Entrepreneurs Assembly. Three winning startup teams will visit Nevada in 2021 for the final part of acceleration program in Reno aiming to strengthen Nevada’s entrepreneurial ecosystem. The whole program has been financed through the competitive grant from National Agency for Academic Cooperation and was won jointly by UNR and Warsaw School of Economics, and was supported by GOED ID.

GOED has had the opportunity to partner with 500 Startups, a San Francisco-based Venture Capital firm, with the vision of creating an integrated and sustainable global ecosystem for the State of Nevada, offering new ways for growth and prosperity in an era of change. The areas for mutual cooperation include exploring partnerships with the NV Global Platform and various Nevada-based accelerators for the technology & innovation, sports and entertainment sector, gaming, and hospitality.



INTER-AGENCY STATE AND FEDERAL COOPERATION

The International Division has continuously increasing inter-agency cooperation during the pandemic to support Nevada businesses and has successfully delivered joint projects in collaboration with the Small Business Administration (SBA) Office of International Trade, SBA Nevada District Office, Nevada Department of Business & Industry, Nevada Department of Agriculture, Western United States Agricultural Trade Association, U.S. Department

of Commerce (DoC), Nevada Industry Excellence (NVIE). Additionally, the team worked on the STEP marketing and recruitment strategy with U.S. Commercial Service, NVIE, Small Business Development Center (SBDC), chambers, regional development authorities, Nevada District Export Council, and other partners. GOED ID actively participated in the Quarterly Referral Protocol meetings with the SBA and coordinated Partners Meetings with DoC, NVIE, SBDC, and SCORE to facilitate Nevada small business entry and/or expansion into global markets amidst the pandemic. The team actively participated in State of International Development Organizations network meetings together with other international trade divisions nationwide.

International Trade Division **CONTINUED**

RESEARCH PAPERS

GOED ID has been working on multiple white papers in regard to COVID-19 response efforts in multiple countries, tracking second wave progression of the virus, the surge in green policy in response to the economic effects of COVID-19, reopening of the economy during COVID-19 (U.S., Asia & EU), foreign investors to Nevada in order to better assist international businesses operating in or looking to enter into the Nevada market, attracting venture capital to Nevada's startup ecosystem, enriching tech in hospitality sector and mapping the Nevada entrepreneurial environment (including incubators and accelerators) in order to identify how to better support businesses during this time. GOED ID produced an international trade white paper focused on Nevada's imports and exports and main import and export partners in 2019 and one of the highlights in the paper has been that Nevada exports has increased by 20 percent in 2020 when comparing the same period last year.

Additionally, the division has been assisting with the creation of the Nevada Infrastructure Roadmap and was tasked to conduct rigorous research on the infrastructure needs throughout the state as well as using scholarly research to define infrastructure in a progressive and modern way. The team has been looking at the different Comprehensive Economic Development Strategies from the rural, metropolitan North, and metropolitan South areas for their infrastructure needs. The team has had a large impact on the research into the intermountain west corridor and I-11 as well as on how to boost Nevada-based companies' internationalization, increase entrepreneurship and the impact of acceleration programs on the state's economy.

TRADE DATA

When looking at direct comparisons by month for 2019 and 2020, 2020 has outperformed 2019 almost every month (January through October) in both exports and imports. 2020, up to October, had overall exceeded 2019 by over \$1 billion in both export total and import total. In 2020, at the height of the pandemic, Nevada's highest valued commodity cluster being traded from the state was HS Code 85. Despite trade disruptions due to COVID-19, Nevada still found a way to increase the value of its trade.

However, 2020 experienced an increase in the deficit of trade by about \$255 million due to increased imports. 2019 had an average trade deficit of \$174 million per month through October, while 2020 showed an average deficit of almost \$200 million per month.

NEVADA EXPORTS

	JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	OVERALL
Total	694,330,651	581,221,791	706,751,337	553,836,407	686,004,092	1,117,521,486	667,586,769	700,204,727	822,984,317	795,068,285	7,325,509,862
Top Commodity	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	71-7102 (Diamonds)	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	
Top Country	Switzerland	India	India	India	India	India	Switzerland	Canada	Switzerland	Switzerland	
Total	779,443,234	857,489,880	916,378,510	856,825,261	839,533,925	838,644,745	1,009,706,757	822,345,363	832,466,465	894,974,615	8,647,808,755
Top Commodity	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	71-7108 (Gold)	71-7108 (Gold)	71-7108 (Gold)	
Top Country	Switzerland	India	Switzerland	China	Switzerland/China	Switzerland/Canada	Mexico	Switzerland	Switzerland	Switzerland	



International Trade Division CONTINUED

NEVADA IMPORTS

	JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	OVERALL
Total	1,028,932,039	921,519,051	790,907,048	855,799,546	1,117,518,082	799,175,345	993,509,030	888,556,266	868,056,673	804,836,612	9,068,809,692
Top Commodity	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	71-7102 (Diamonds)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8507 (Electric storage batteries, including separators therefor, whether or not rectangular (including square); parts thereof:)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	
Top Country	China	China	China	China	China	China	China	China	China	China	
Total	934,343,789	878,191,514	1,312,116,586	953,373,658	999,890,870	1,274,186,264	1,067,695,307	982,056,115	1,119,627,723	1,124,275,449	10,645,757,275
Top Commodity	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8517 (Electric Apparatus for Line Telephony)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	85-8517 (Electric Apparatus for Line Telephony)	85 - 8517 (Electric Apparatus for Line Telephony)	85-8542 (Electronic Integrated Circuits & Micro-Assembly)	
Top Country	China	China	China	China	China	China	China	China	China	China	

2019 TRADE DEFICIT

	JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	
Exports	694,330,651	581,221,791	706,751,337	553,836,407	686,004,092	1,117,521,486	667,586,769	700,204,727	822,984,317	795,068,285	
Imports	1,028,932,039	921,519,051	790,907,048	855,799,546	1,117,518,082	799,175,345	993,509,030	888,556,266	868,056,673	804,836,612	Average
Trade Deficit	-334,601,388	-340,297,260	-84,155,711	-301,963,139	-431,513,990	318,346,141	-325,922,261	-188,351,539	-45,072,356	-9,768,327	-174,329,983

2020 TRADE DEFICIT

	JAN 20	FEB 20	MAR 20	APR 20	MAY 20	JUN 20	JUL 20	AUG 20	SEP 20	OCT 20	
Exports	779,443,234	857,489,880	916,378,510	856,825,261	839,533,925	838,644,745	1,009,706,757	822,345,363	832,466,465	894,974,615	
Imports	934,343,789	878,191,514	1,312,116,586	953,373,658	999,890,870	1,274,186,264	1,067,695,307	982,056,115	1,119,627,723	1,124,275,449	Average
	9	14	86	58		07		15	23	49	
Trade Deficit	-154,900,555	-20,701,634	-395,738,076	-96,548,397	-160,356,945	-435,541,519	-57,988,550	-159,710,752	-287,161,258	-229,300,834	-199,794,852

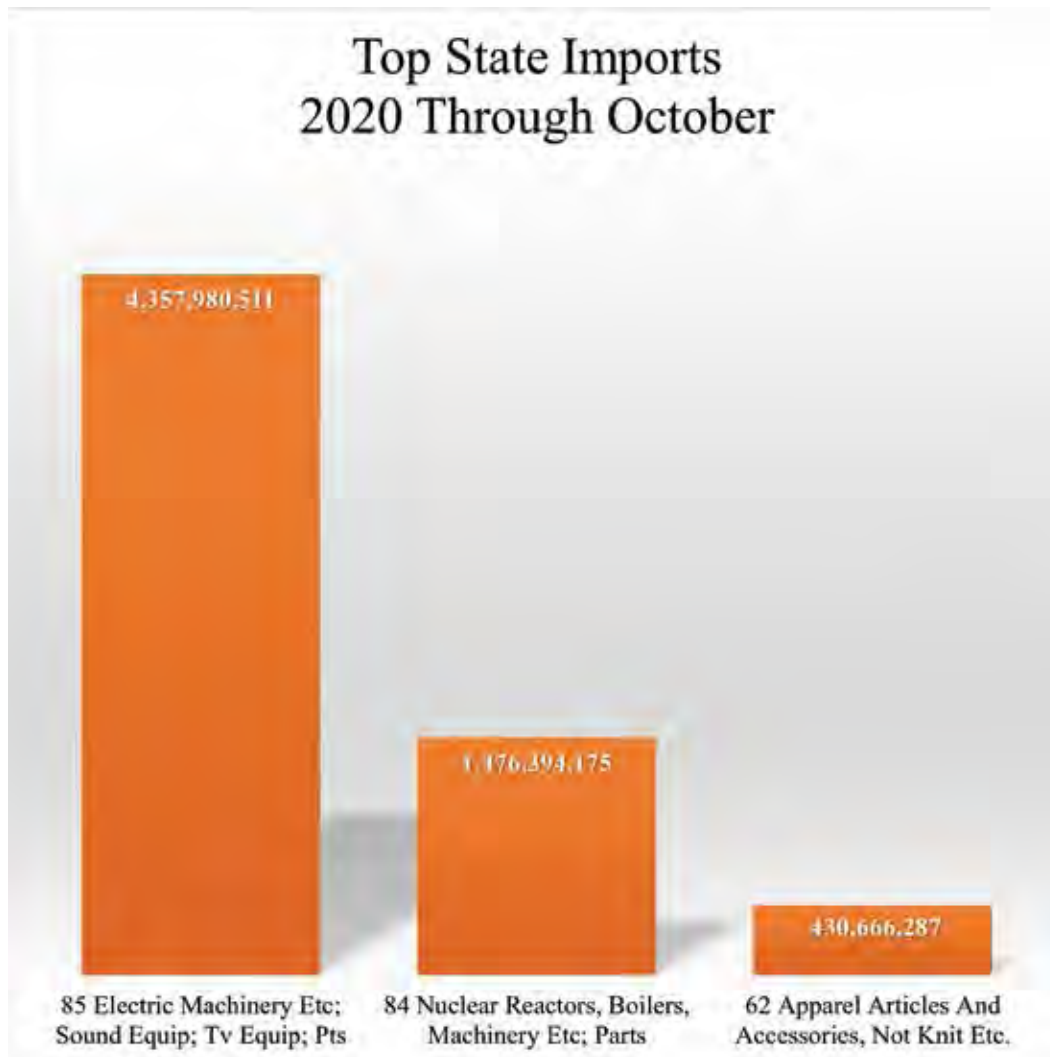


International Trade Division CONTINUED

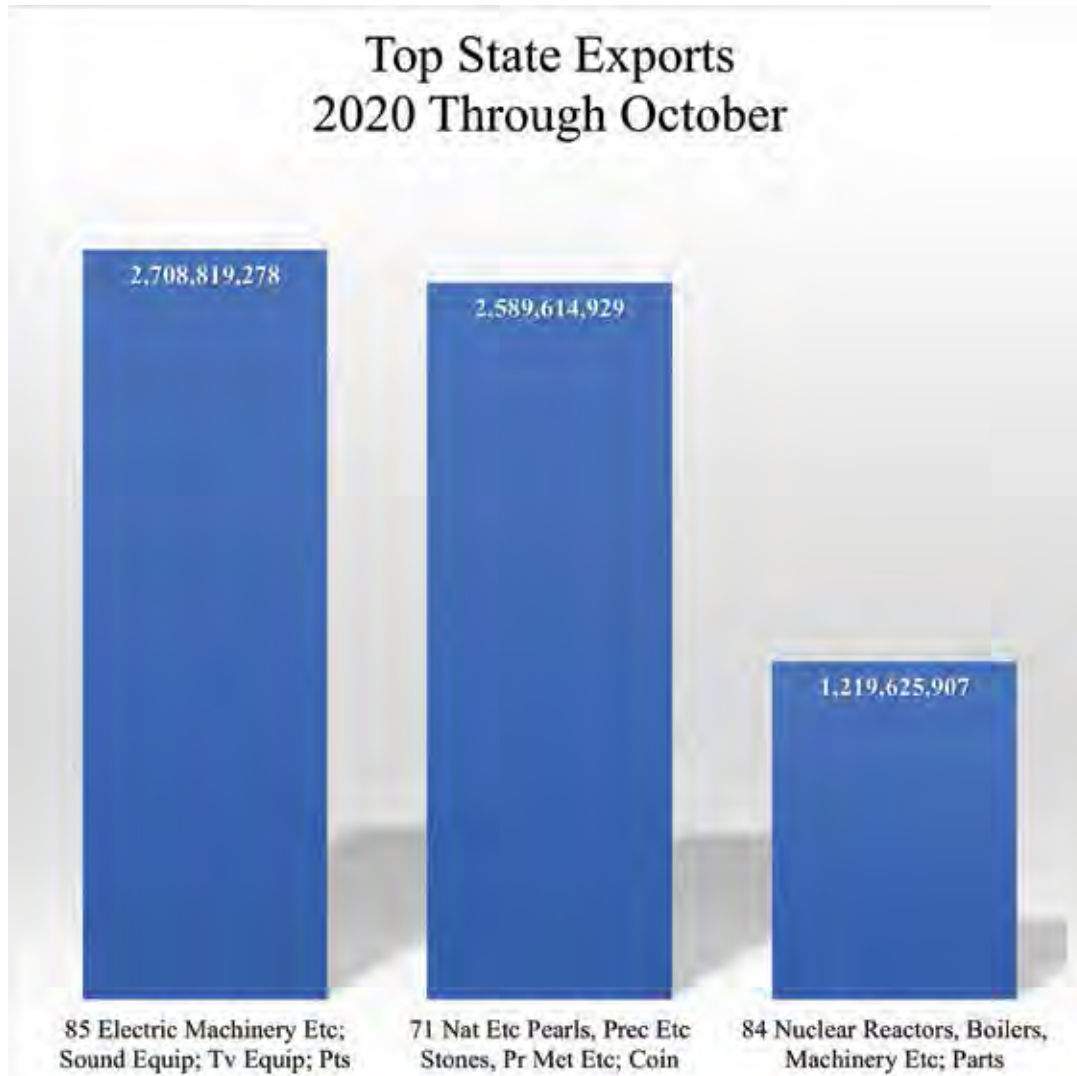
TOP GLOBAL EXPORT AND IMPORT CLUSTERS TO NEVADA

The total value of Nevada exports amounted to **\$8,647,808,755** for 2020 through October. Of that, HS code 85, **“Electric Machinery Etc; Sound Equip; Tv Equip; Pts”** accounted for the largest portion with HS code 71 **“Nat Etc Pearls, Prec Etc Stones, Pr Met Etc; Coin”** being a close second. The total value of Nevada imports amounted to **\$10,645,757,275** for the same time period. Of that, HS code 85, **“Electric Machinery Etc; Sound Equip; Tv Equip; Pts”** makes up the largest portion of the top three with HS code 84, **“Nuclear reactors, Boilers, Machinery Etc.; Pts”** being second at almost \$3 billion less.

Top State Imports 2020 through October

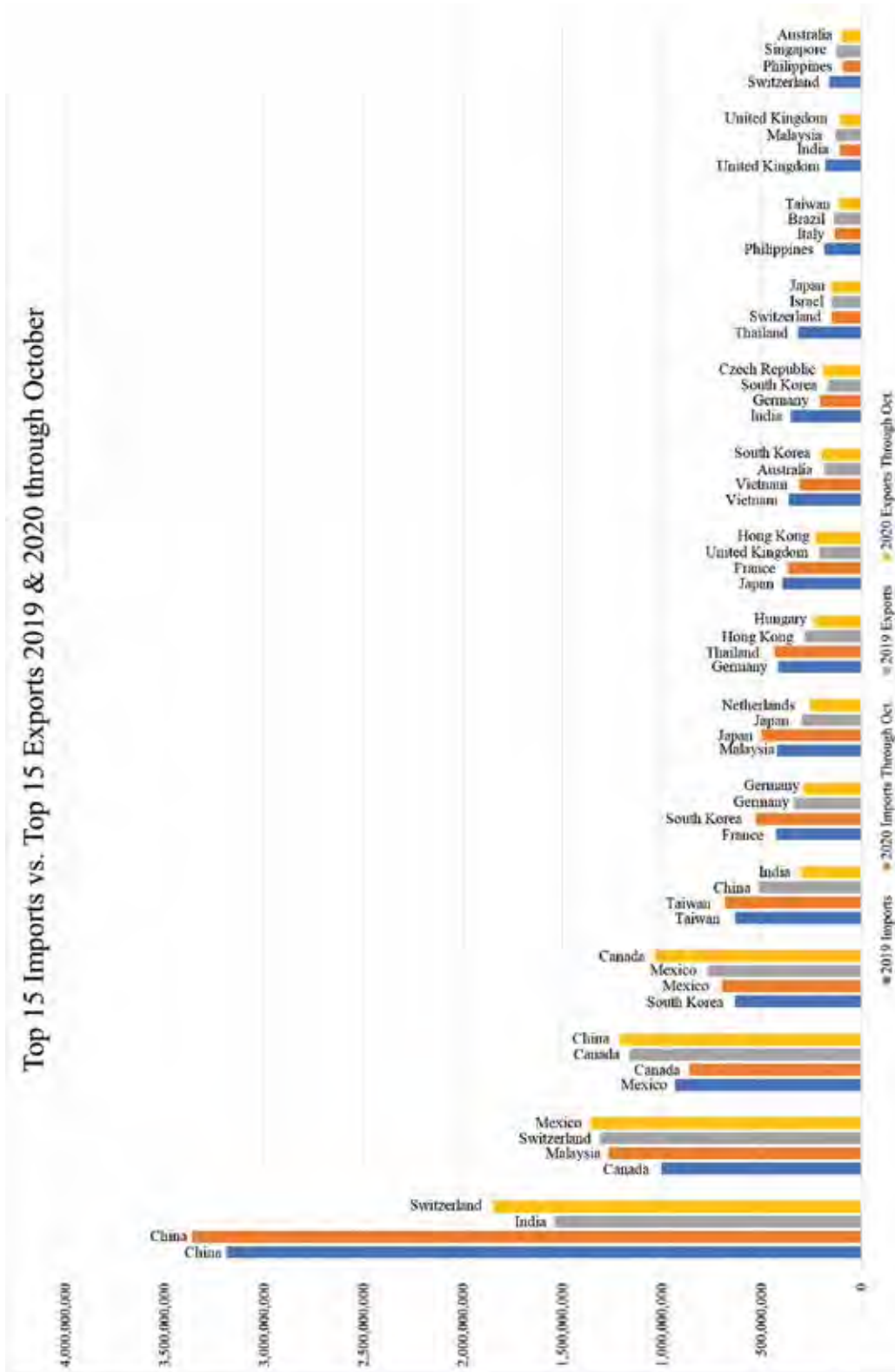


Top State Exports 2020 through October



International Trade Division CONTINUED

Top 15 Imports Vs. Top 15 Exports 2019 \$ 2020 through October



For more information about the U.S. Census Bureau's collection of import and export statistics, please visit: <https://www.census.gov/foreign-trade/guide/sec2.html#services>

Top Trade Partners

In 2020, through October, Nevada's top three export countries have been Switzerland, Mexico, and China. The total value of exports to these countries amounted to approximately \$4.4 billion. In the same time period, Nevada's top three import countries have been China, Malaysia, and Canada.

TOP TEN NEVADA EXPORT COUNTRIES (IN DOLLARS)



TOP TEN NEVADA IMPORT COUNTRIES (IN DOLLARS)



Health Industry Report



2020 was extremely focused on innovation and research.

BUSINESS RECRUITMENT & EXPANSION

From 2019 to 2020 GOED partnered with various organizations in the state including:

- EDAWN and New Deantronics to enhance workforce pipelines with UNR and UNLV Schools of Engineering to grow the medical device manufacturer in Reno-Sparks.
- Vegas PBS and TECHImpact to customize a ‘blended’ workforce training program to recruit underemployed, older experienced workers for the CVS Health Specialty Pharmacy Call Center, which began service delivery in early 2020.
- Door-to-Door Health, a Nevada-piloted primary care medical services company dedicated to Medicaid, Medicare and underserved populations.
- Southern Nevada Regional Housing Authority (SNRHA) to pilot services to its residents, linking primary care medical services to those that are underserved and in need of a primary care medical home.
- Ready Responders, a Nevada-piloted mobile primary care medical services company dedicated to the Medicaid, Medicare and underserved populations.
- City of Las Vegas to pilot services to residents, linking primary care medical services to those that are underserved and in need of a primary care medical home. Las Vegas, Ward 5 is the area that will be heavily focused to meet the demand for primary care medical services.

INNOVATION AND RESEARCH

2020 was extremely focused on innovation and research. GOED worked with UNLV’s Office of Economic Development and Small Business Development Center to secure and host the 21st Annual Health and Human Services Small Business Program Conference. Due to Covid-19, the conference was postponed and will subsequently be offered virtually by the National Institutes of Health.

GOED is serving on the Advisory Committee on Medicaid Innovation (ACMI), which is an advisory committee that serves in an advisory capacity to make annual recommendations to the Director of the Department of Health and Human Services (DHHS). All members of ACMI are appointed by the Nevada Director of DHHS for a two-year term.

GOED is also serving on the Southern Nevada Forum to determine regional priorities for the upcoming legislative session, including higher education, economic development and workforce, health care, and good governance. Priorities are developed by subcommittees, chaired by Southern Nevada legislators in a bipartisan manner, in each of these major priority areas, and legislation develops from these priorities.



In addition, GOED is proud to be working with members of the Patient Protection Commission, created by Senate Bill 544, to systematically review issues related to the health care needs of Nevada residents and the accessibility, affordability, and quality of health care.

STRATEGIC PLANNING AND IMPLEMENTATION

CITY OF ELY

Working with the Governor's Office of Science Innovation and Technology (OSIT) and the CEO of the William Bee Ririe Hospital in Ely to establish a high-tech medical simulation center. This center will be utilized to train registered nurses (RN), under the Great Basin RN curriculum through a new partnership. The center will also assist other allied health professionals in their basic life services training, in addition to other telehealth training opportunities to grow and train health professionals local to the Ely community.

CITY OF CARSON CITY

Working with OSIT to fund and expand the Western Nevada College EMS/Paramedic and Nursing programs to double its training capacity. These highly sought-after fields will now have a wider pipeline to address a waitlist of students, as well as the community shortage.

CITY OF LAS VEGAS

Working continuously with city officials to implement **The HUNDRED Plan**, a community-led approach to revitalize the Historic Westside through the development of housing, local business, jobs, education, hospitality, food security, health care and cultural pride.

CITY OF NORTH LAS VEGAS

Working with the executive leadership of the City of North Las Vegas to expand Southern Nevada's veteran hospital campus to provide additional primary and specialized medical services to treat chronic illness and cancer, while also promoting wellness and disease prevention.



GOED Health Industry Report CONTINUED

GOED was invited to join the Nevada Healthcare Advisory Committee hosted by Congressman Steven Horsford. This Committee was established to provide technical assistance on the development of federal legislation to address the lowering of prescription drug costs. The legislation being drafted, **H.R. 3**, will assist Nevadans with capped drug prices pre-negotiated directly with drug companies, in addition to a new \$2,000 out-of-pocket limit on prescription drug costs for Medicare beneficiaries and ultimately, to all Nevadans regardless of the medical plans they are subscribed to.



COVID RESPONSE

GOED, in partnership with Nevada Partners, chaired the **'West Las Vegas Promise Neighborhood Healthy Children, Families & Communities' Pillar,** addressing the development of systemic solutions; positive trends in health indicators, social development programs, economic investment in education, public policy and decision-making and the expansion of access to quality healthcare. To date, the Health Pillar has conducted numerous community outreach events, providing mental health consultations, health screenings, COVID-19 testing, and the distribution of free groceries and meals to families in need.

GOED was also recruited to join the **Immunize Nevada Flu and Covid-19 Task Force** and initiated a partnership between Immunize Nevada and Nevada Partners. The goal of the combined efforts was to both continue providing Covid-19 testing and flu shots in a series of community outreach events throughout southern Nevada.

Lastly, GOED partnered with the **Office of Minority Health, All of Us Research Program** to increase the number of clinical trials in support of Covid-19 research in Nevada. The clinical program is designed to help speed up medical research in the development of a vaccine and or therapeutics by utilizing individual patterns for study and their impact. Many Nevada stakeholders are leading in this statewide effort.

Minority & Business Support



We offer assistance to entrepreneurs and existing businesses that may face challenges in expanding.

STRENGTHENING AND SERVING the minority business community is a priority for the Governor's Office of Economic Development (GOED). We strive to provide universal assistance to the business community recognizing the difficulties that minority businesses may face in establishing, maintaining and expanding their businesses.

Outreach to minority and underserved communities includes partnering with minority business groups to aid in underserved areas throughout Nevada. We offer assistance to entrepreneurs and existing businesses that may face challenges in expanding.

Participating in the various cultural and business events hosted by the multiple ethnic chambers is very important to GOED, as this allows us to build the relationships needed to advance an exchange of information and ideas.



GOED WAS PLEASED TO ATTEND THE ASIAN CHAMBER OF COMMERCE 2020 CHINESE NEW YEAR CELEBRATION

In January and February 2020, GOED did a series of presentations to diverse community groups and educators, such as College of Southern Nevada, to share what resources are available and to introduce the GOED team to students and organizations seeking to learn more about economic development resources available.

Minority & Business Support CONTINUED



DEPUTY KRIS SANCHEZ SPEAKING TO DIVERSITY IN BUSINESS CLASS AT CSN, JANUARY 2020

In October 2020, the Latin Chamber of Commerce offered their facilities to be the site of the announcement of the Pandemic Emergency Technical Support (PETS) grant. This event helped promote the information to minority communities statewide and was part of the reason that the PETS grant was so successful in reaching so many businesses in need. Minority and business support efforts in GOED have seen a marked increase during 2020. GOED strives to continue to build on the connectivity and programs that have worked to ensure our small businesses in the minority communities continue to have every tool available to help them succeed.

GOVERNOR SISOLAK AT LATIN CHAMBER OF COMMERCE ANNOUNCING PETS GRANT

Disadvantaged Business Enterprise (DBE) receive supportive services from the various divisions that GOED operates. Efforts are ongoing in creating outreach programs to serve underserved business communities. Services available include:



- Procurement Technical Assistance Center (PTAC) offers one-on-one client assistance to DBE's in the government procurement process.
- Valley Center Opportunity Zones (VCOZ), funded by GOED, is a successful program represented by the Latin and Urban Chambers of Commerce. This program administers funds through grant assistance to small businesses located in underserved areas.
- Southern Nevada Enterprise Community NV AB385 | 2019 | 80th Legislature AN ACT relating to tax credits; revising provisions governing the duties of the Southern Nevada Enterprise Community Board; requiring the Executive Director of the Office of Economic Development to meet with the Board to discuss and collaborate on topics related to the economic development of the Southern Nevada Enterprise Community and its surrounding areas; and providing other matters properly relating thereto.
- State Trade Expansion Program (STEP) grant. This SBA funded grant is administered through GOED to assist small businesses that are seeking to expand their business internationally. The STEP grant has been granted to many minority businesses including allowing those businesses to enter the international marketplace. The STEP grant funding helps with translations services and other communication efforts for non-English speakers.
- Portal access email – this email allows a direct response to underserved communities who contact the Governor through GOED with questions, need for assistance in seeking assistance dealing with business questions and or grants. This portal has been especially helpful for Spanish speakers who may have limited resources to contact for information.
- Minority and DBE's seeking information and assistance with their small business are encouraged to contact GOED for help in navigating resources and opportunities available in Nevada.

Nevada Climate Initiative



More than 75 percent of climate survey respondents in Nevada indicated they are ‘very concerned’ about climate change

AT THE END OF 2020, the Nevada Climate Initiative, spearheaded by The Department of Conservation & Natural Resources and the Governor’s Office of Energy, released its State Climate Strategy. <https://climateaction.nv.gov/news/nevada-climate-initiative-releases-state-climate-strategy/>

“The Governor’s Office of Economic Development has identified climate change as one of the most significant threats, and opportunities, facing the state’s economy,” said Michael Brown, Executive Director, Governor’s Office of Economic Development. “By employing strategic and targeted approaches to climate-resilient economic development, innovation, and workforce training, climate change action can generate more and better jobs, optimize educational and workforce pipelines, and improve the state’s economic resilience.”

STATE CLIMATE STRATEGY HIGHLIGHTS

- More than 75 percent of climate survey respondents in Nevada indicated they are ‘very concerned’ about climate change, with drought, wildfire, air quality, and extreme heat among the topics of greatest concern.
- The State Climate Strategy applies a robust framework for evaluating 17 climate mitigation policies against four key metrics: GHG emissions-reduction potential, climate justice, economic implications, and implementation feasibility.
- Low-income communities, people of color, and indigenous populations have disproportionately borne the burden of the impacts of climate change. Reconciling and addressing environmental justice concerns is a common thread throughout the State Climate Strategy.
- **Climate action and economic development activities in Nevada are intrinsically linked and can be strategically integrated to achieve their respective goals.**
- Nevada’s 2019 greenhouse gas emissions inventory shows that, without climate action, the state will fall 4 percent short of the 2025 goal and 19 percent short of the 2030 emissions reductions goal. By meeting the state’s emission reduction targets, Nevada would prevent between \$172 and \$786 million in economic damages by 2030 and up to \$4 billion by 2050.



- Given the complexities of climate change, multiple issues must be considered together to develop a catalog of climate-related policies, programs, and plans that are harmonized within and across different levels of governance and economic sectors. Establishing a robust climate governance structure with clear processes and related authorities to reduce emissions and manage the cascading impacts of climate change will position Nevada to navigate the challenges and opportunities ahead.



The Strategy was developed using the best available science, combined with robust input from thousands of Nevadans through a series of listening sessions on a range of climate topics, a statewide climate survey, discussions with local government leaders, and more. The Strategy is just the beginning of future climate action in Nevada. As a living document, the Strategy will be adapted and updated as the impacts of climate change



Nevada's Plan for Recovery & Resilience

The Future Beyond the Pandemic

Nevada's Plan for Recovery & Resilience

Prepared by **SRI International**, in collaboration with RCG Economics and Brookings Mountain West

NEVADA
GOVERNOR'S
OFFICE OF
ECONOMIC
DEVELOPMENT



December 2020

SRI International®

Authors

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Note

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About this Report

Nevada's Plan for Recovery and Resilience constitutes a high-level agenda for all of Nevada, including its urban and rural regions, and is designed to coordinate the actions of a broad set of public and private partners. The report contains the following components:

An **economic forecast** from RCG Economics on the situation expected for Nevada—GDP and employment—in the Fall of 2021.



A **series of immediate actions**, in which GOED plays a leadership role, to shelter and prepare for recovery in key components of Nevada's economy.



A **set of visionary strategies**, firmly grounded in Nevada's underlying assets, that will accelerate the growth and diversification of the state's economy.



An **inventory of necessary capabilities** that must be developed or upgraded in order to realize the vision.



Vision

| *A diverse, innovative, and sustainable economy*

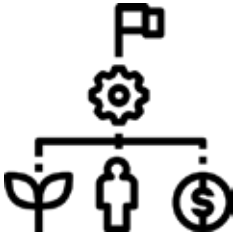
Mission

| *Good jobs today, better jobs tomorrow*

Executive Summary

Priority Areas for Immediate Intervention

GOED has targeted a variety of coordination, information, and leadership challenges in order to accelerate immediate recovery.



Resources for People and Businesses



Business Support and Expansion



Workforce for the Next Economy



New Technology Businesses



Data and Integrated Planning for Decision-Making

Executive Summary Visionary Strategies and Initiatives

GOED works with stakeholders to pursue visionary policies that set Nevada apart for the future.



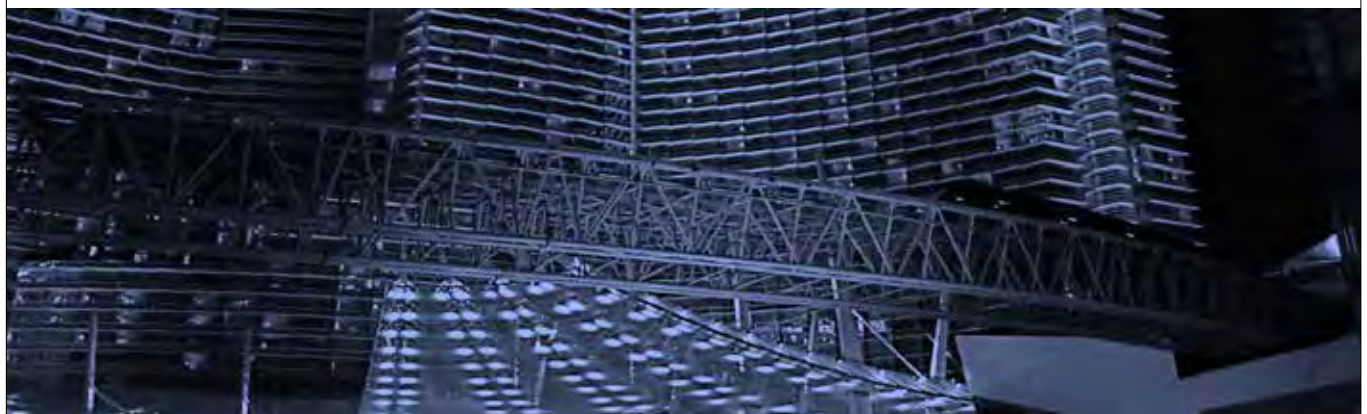
Regionally Designed Industrial Clusters

- 1 Develop New Approaches to Cluster Identification and Development
- 2 Integrate into Regional and Global Value Chains
- 3 Enable Further Diversification of Southern Nevada's Economy



Statewide Integration and Connectivity

- 1 Integrate and Expand Capabilities between Northern and Southern Nevada
- 2 Expand Broadband Accessibility





Technology Driven
Development

- 1 Establish Southern Nevada as a World Data Hub
- 2 Recruit Automation and Digital Technologies Firms
- 3 Enable Technology-Based Entrepreneurship



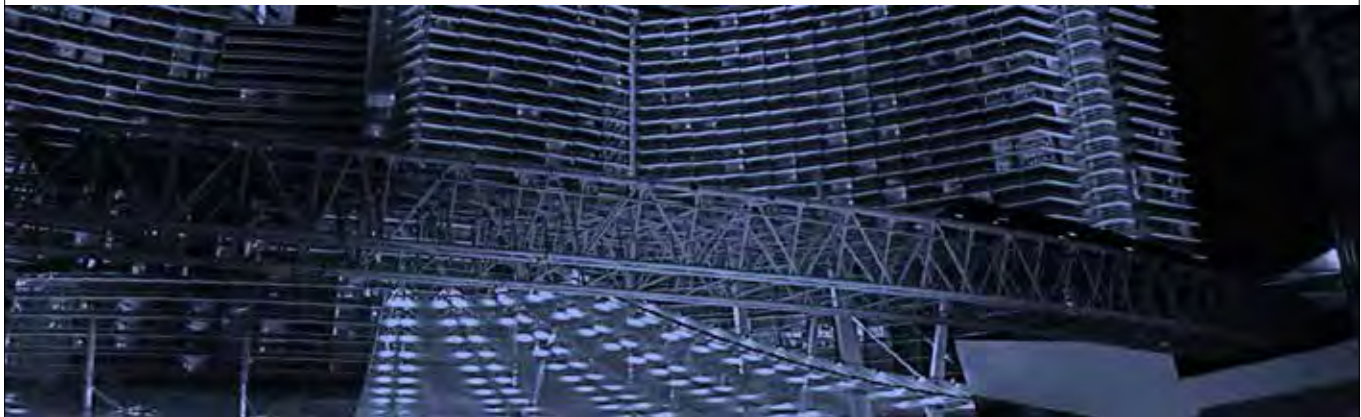
Responsible and Sustainable
Growth

- 1 Lead the Global Development of Energy Storage Supply Chains
- 2 Transition to a Low-Carbon, Low-Emission Economy
- 3 Transition to a Water-Wise Economy



Comprehensive Placemaking

- 1 Remove Barriers to Increased Healthcare Access across Nevada
- 2 Encourage Purposeful Residential Zoning and Development
- 3 Increase Engagement with Outdoors for Business and Leisure
- 4 Support Entrepreneurship in Digital Arts and Esports



Executive Summary

Capabilities to Realize the Vision

Nevada will need to build or rebuild key financial and institutional capabilities and develop realistic statutory actions.



Fund the State Infrastructure Bank



Establish a Sovereign Wealth Fund



Establish the Nevada Innovation Fund



Establish an Office for
Micro-, Small-, and
Medium-Sized Enterprises



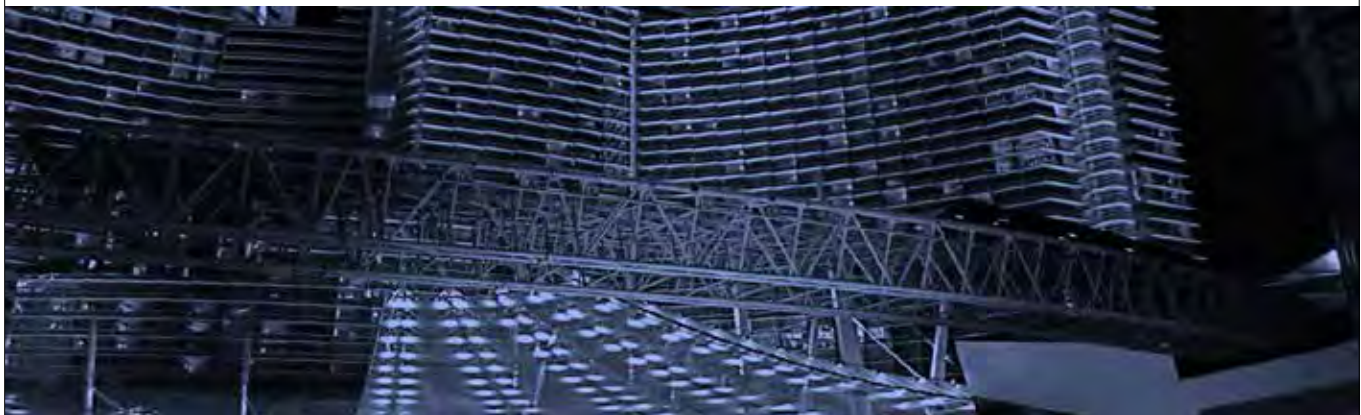
Grow Nevada's Community
Banking Network


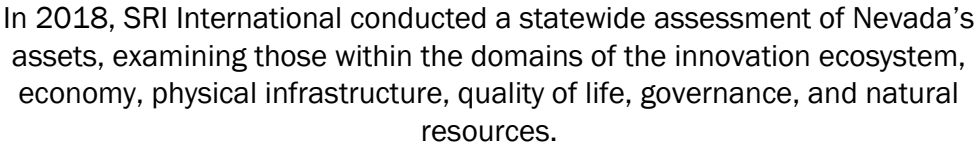


Modernize Public Policy
and Governance



Reinvent Nevada's
Workforce Institutions



Executive SummaryNevada's AssetsInnovation Ecosystem and Economy

In 2018, SRI International conducted a statewide assessment of Nevada's assets, examining those within the domains of the innovation ecosystem, economy, physical infrastructure, quality of life, governance, and natural resources.

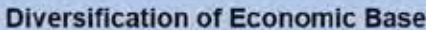


Innovation Ecosystem

- + Entrepreneurial and risk-taking population
- Coordination lacking among the state's innovation ecosystem



Economy



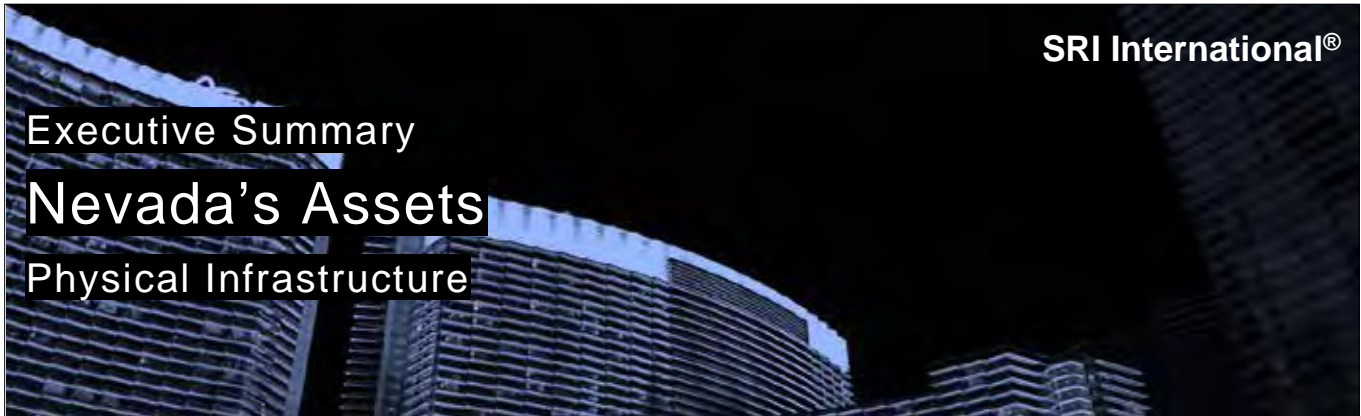
Diversification of Economic Base

- + Shift from tourism and gaming toward high-skill industries
- Many jobs added in lower-skill elements of high-skill industries



Skilled Workforce Attraction/Retention

- + Attraction of many historically underrepresented occupations
- Highly education spouses unable to find jobs in some areas



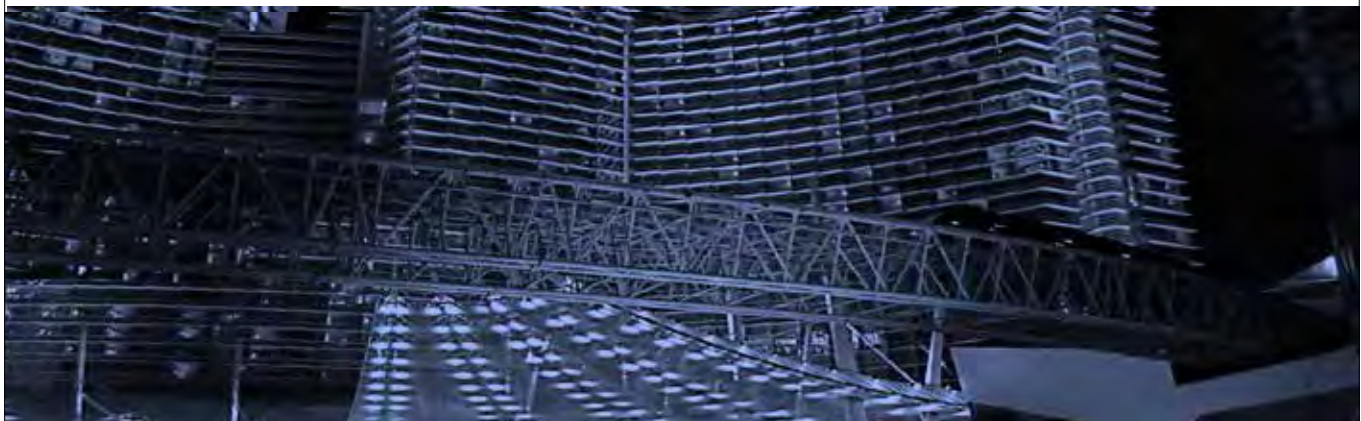
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Executive Summary

Nevada's Assets

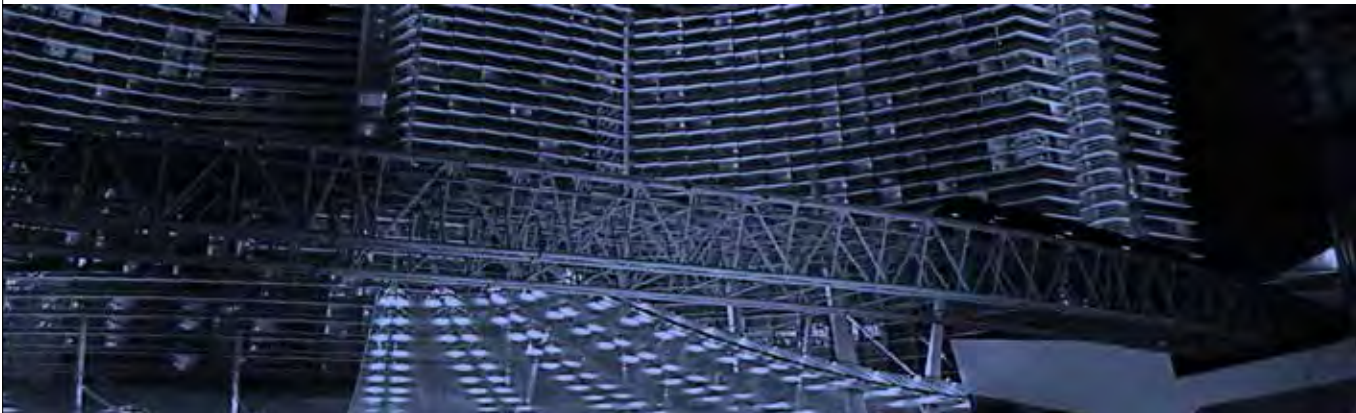
Physical Infrastructure

Physical Infrastructure	
Energy	Broadband
<ul style="list-style-type: none"> + Significant renewable energy integration into electrical grid - Dependent on imports for fuel to meet energy needs 	<ul style="list-style-type: none"> + Strong connectivity and high speeds in metropolitan areas - Weak connectivity and lack of redundancy in rural communities
Transportation	Housing
<ul style="list-style-type: none"> + Strong air and road connectivity in major metropolitan areas - Lack of consistent funding for roads that require significant repairs 	<ul style="list-style-type: none"> + New home builds increasing throughout the state - New homebuyers increasingly priced out in metropolitan areas



Executive Summary
Nevada's Assets
Quality of Life

Quality of Life	
Health	Safety
<ul style="list-style-type: none">+ Positioned for significant growth in healthcare- Continuing shortage of medical professionals	<ul style="list-style-type: none">+ Significant progress in reducing property and violent crime- Crime still pervasive in many communities
Education	Recreation
<ul style="list-style-type: none">+ K-12 education system contains strong models of academic excellence- Islands of excellence challenged by pervasive underfunding and overcrowding	<ul style="list-style-type: none">+ Plenty of open land for exploration and outdoor recreation- Ability to attract families harmed by an incomplete image of the state ("Sin City")



Executive Summary

Nevada's Assets

Governance

Governance	
Institutional Assets	Taxation
<ul style="list-style-type: none">+ Responsive state and local offices for economic development- Weak enterprise technologies and limited financial capacity	<ul style="list-style-type: none">+ Low-tax environment attractive to business- Low-tax environment limiting to investments that could attract businesses
Business-Friendly Environment	
<ul style="list-style-type: none">+ Easy access to decisionmakers- Tax abatements not meeting the needs of technology companies- Limited banking sector	

Executive Summary

Nevada's Assets

Natural Resources

Natural Resources	
Land	Minerals
<ul style="list-style-type: none">+ Majority of the state's land is open to the public for recreation- Extensive federal land ownership problematic for expanding cities and land usage	<ul style="list-style-type: none">+ Lithium a new opportunity for the state's mining industry- Mining industry and its technology not well-understood
Water	
<ul style="list-style-type: none">+ Experienced in conservation efforts to save water- Current water resources threatened by rapid growth	



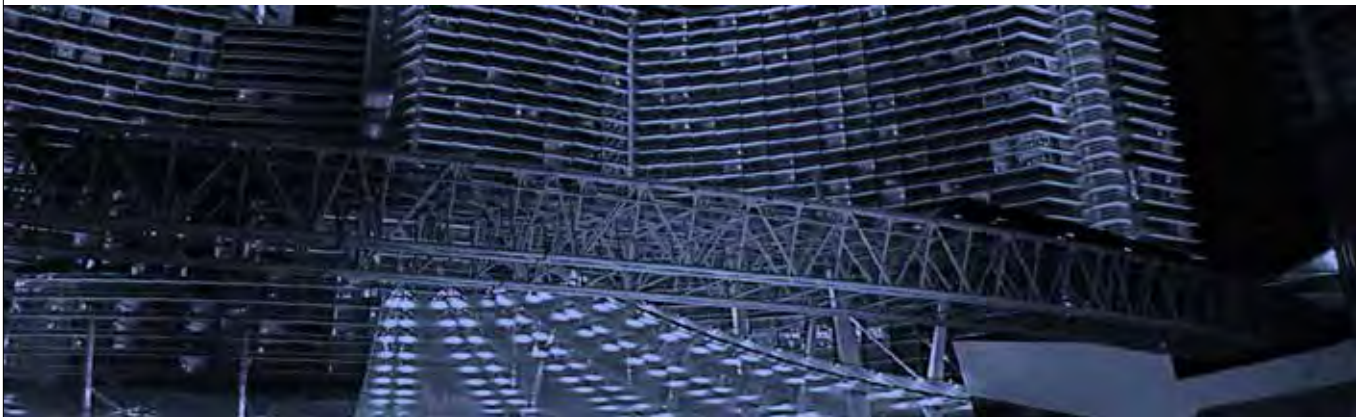
Executive Summary

SWOT Analysis

Strengths

The SWOT analysis highlights sources of strength and weakness that may be addressed, opportunities to be realized, and dangers and difficulties to be avoided.

Strength		
Culture & Quality of Life	Industry	Innovation
<ul style="list-style-type: none"> ▪ Enterprising migrants ▪ Frontier spirit ▪ Artists, musicians, and performers ▪ Outdoor enthusiasts 	<ul style="list-style-type: none"> ▪ Increasing diversification ▪ Value-chain opportunities 	<ul style="list-style-type: none"> ▪ Connections to the West Coast ▪ Low barriers for new businesses ▪ Pervasive small business ethic
Governance	Infrastructure	Workforce & Education
<ul style="list-style-type: none"> ▪ Low taxes and regulation ▪ "Small state" advantage 	<ul style="list-style-type: none"> ▪ Inexpensive energy ▪ Increasing use of renewable energy ▪ Advanced water management ▪ Urban connectivity ▪ Stable environment 	<ul style="list-style-type: none"> ▪ Established models of success ▪ Workforce Innovations for a New Nevada (WINN) and other career and technical education (CTE) booster programs

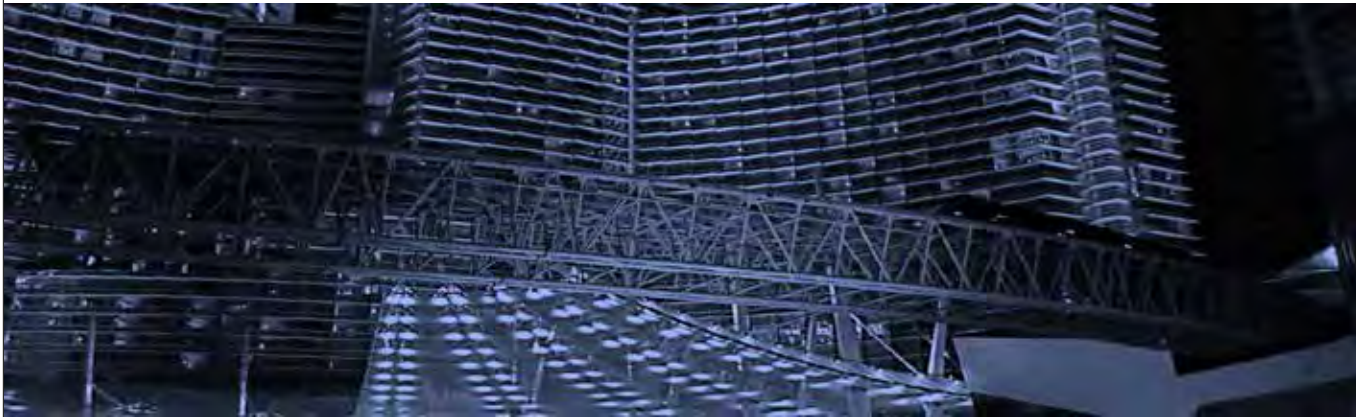


Executive Summary

SWOT Analysis

Weaknesses

Weakness		
Culture & Quality of Life	Industry	Innovation
<ul style="list-style-type: none"> Housing affordability Low trust in government institutions Lack of collaboration Poor health indicators Harsh desert climate 	<ul style="list-style-type: none"> Persistently low wages 	<ul style="list-style-type: none"> Immature mentor networks Lack of early-stage funding Underutilized tools and programs Weak connections to research institutions
Governance	Infrastructure	Workforce & Education
<ul style="list-style-type: none"> Tax abatements Property tax limitations Economic development collaboration 	<ul style="list-style-type: none"> Energy market uncertainty Water rights Rural broadband connectivity Congestion in suburban and urban areas Federal land ownership 	<ul style="list-style-type: none"> Weak institutional performance Lack of K-12 and higher education funding Low educational attainment Poor career guidance for mid-skill workers Shortages in building and other skilled trades





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Executive Summary

SWOT Analysis

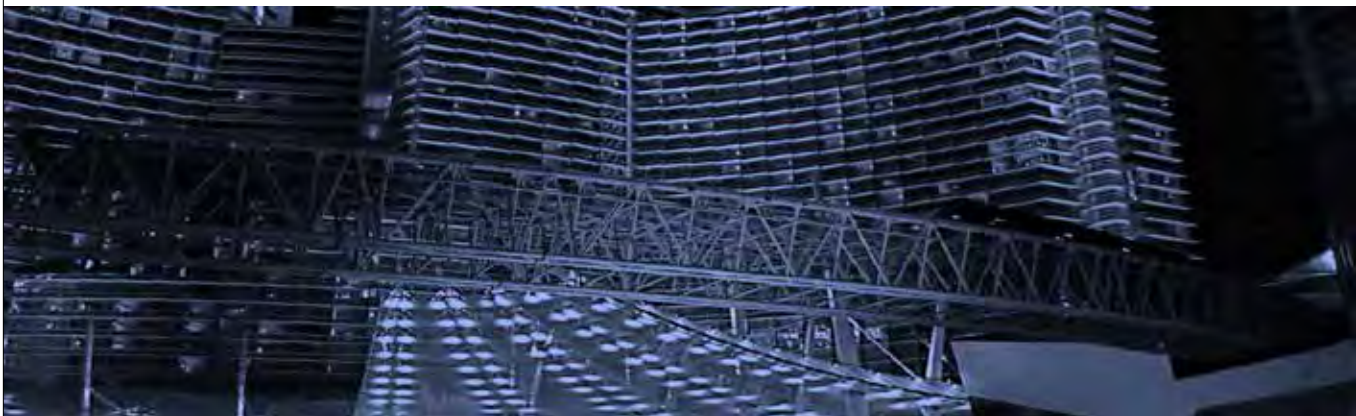
Opportunities and Threats

Opportunity

- Access to West Coast networks
- Access to Mountain West markets
- Las Vegas world brand
- Opportunities for mining diversification
- Testbed for new technologies
- Mobile Millennials and Generation Z
- West Coast costs and congestion

Threat

- Impact of climate change
- Exposure to economic cycles
- Uncertain federal policies
- Competition from Mountain West states
- Costs and congestion





Nevada's Plan for Recovery & Resilience

Overview

The Future Beyond the Pandemic

Photo Courtesy of Bob Wick/BLM/Flickr

Overview

The report that follows contains the following components:

- An economic forecast from RCG Economics on the situation expected for Nevada—GDP and employment—in the fall of 2021 (subject to all the present uncertainties faced by Nevada and the country as a whole).
- A series of immediate actions, in which GOED plays a leadership role, to shelter and prepare for recovery key components of Nevada's economy. The particular focus is on "Main Street" and small and medium sized businesses.
- A set of visionary strategies, firmly grounded in Nevada's underlying assets, that will accelerate the diversification of the state's economy and the transition towards technology intensive and skill intensive employment.
- An inventory of necessary capabilities that must be developed or upgraded in order to realize the vision of a diversified, innovative, and sustainable economy.

The report constitutes an agenda for the whole state, urban and rural, for which GOED plays a critical coordinating role. However, GOED operates only as a partner with other stakeholders, within each region and across the state. As the SWOT analysis above suggests, policy fragmentation is an

enduring challenge for Nevada. The plan is designed to address this challenge directly by providing a high-level agenda that will coordinate the actions of a broad set of partners, public and private.

Over the last 10 years, Nevada has made significant strides in recovering from the Great Recession of the late 2000s, exceeding expectations and growing new industries that provide opportunities for all Nevadans. This is in no small part due to the statewide economic development strategic plan released in 2011, *Moving Nevada Forward: A Plan for Excellence in Economic Development*, and the supporting 2011 assessment by Brookings Institution and SRI International entitled *Unify. Regionalize. Diversify: An Economic Development Agenda for Nevada*, both of which aimed to modernize the state's approach to economic development and lift it out of the Great Recession.

Under the direction of this plan and the leadership of the Governor's Office of Economic Development (GOED), Nevada has made significant progress in diversifying its economy. However, the COVID-19 pandemic has put an extraordinary strain on public health and economic systems, in Nevada and around the world, and brought about another recession. Once again, Nevada is uniquely exposed. The state's economy is historically procyclical, and the impact of the pandemic on travel and hospitality worsens this exposure.

While recommendations for social distancing and stay-at-home orders have been highly effective at limiting the spread of the virus and saving lives, the impact on consumer spending has been severe. In particular, the leisure and hospitality industries have experienced unprecedented contraction, with most resorts and venues closed for many weeks, and workers facing prolonged uncertainty.

The reality is that some of Nevada's workers will not return to the same job that they had before the COVID-19 pandemic—either because of business closure, lack of customers, or drop in demand for certain industries. Small- and medium-sized businesses have been especially hard hit, and their losses will delay a strong recovery. On the other hand, other industry sectors will see growth as Nevada and the nation recover from the economic impact.

Economic activity over the next 18 to 24 months will require close collaboration between the state's employers and state and local government to ensure that the gradual lifting of pandemic restrictions does not lead to an uncontrolled increase in COVID-19 cases. In addition, state and local leaders must understand the challenges the state will face in the medium term. As with the Great Recession, consumer confidence—which sustains travel, hospitality, and entertainment—will be slow to return no matter what political leaders say. Fostering this confidence will require a visible change in business practices.

*Nevada needs an economic Dunkirk:
Economic development initiatives and
workforce programs must rescue businesses
and workers immediately by mobilizing all
available state and private sector resources.*

In order to support this reopening, GOED will work with stakeholders, elected officials, business organizations, workers, and employers to target immediate recovery and long-term resilience. As Nevada's leaders begin to reopen the state's economy, GOED's actions should serve the immediate needs of business in order to accelerate the reopening in line with the public health response. At the same time, GOED will start to map key changes for the future for which business will need to be prepared.

In short, GOED will target **immediate recovery** and **long-term resilience**. This plan, along with immediate and long-term efforts to recover and reimagine Nevada’s economy, will be completed through collaborative efforts between state and local leaders, stakeholders from the business community, higher education, and workers. Importantly, with an ongoing pandemic, there can be no “return to normal” or economic recovery without a public health recovery.

Immediate Recovery

The reopening will be driven by the reasonable urgency of businesses trying to get back on their feet. A variety of coordination, information, and leadership challenges are being addressed to make it as fast and smooth as possible, and GOED has a critical role to play in meeting these challenges.

Long-Term Resilience

Once reopening has occurred, the “new normal” will be different. State and local government has a special responsibility to support business under these changed conditions, as well as a responsibility to design and pursue policies that set Nevada apart for the medium term.



Nevada's Plan for Recovery & Resilience

Economic Forecast

The Future Beyond the Pandemic

Photo Courtesy of Trevor Bexon/Flickr

Economic Forecast

The plan that follows is grounded in a high-level 12- to 24-month economic and fiscal analysis and projection for the state of Nevada and its two metropolitan statistical areas (MSAs) based on three economic/fiscal scenarios and projections: Best, Most Likely, and Worst Case. (Tables depicting these projections not included below are made available in Appendix D). Several datasets were utilized to generate the model's results, including:

- Total employment
- Initial unemployment claims
- Visitor volume
- Taxable retail sales
- U-3 (headline) unemployment rate and workforce participation rate
- Sales and use tax collections
- Aggregation of other relevant tax revenues

Results

In this section, RCG Economics presents and discusses its forecast results for this study's selected indicators. The discussion here is also focused on how the forecasts relate to the assumptions used

in their formulation (assumptions outlined below). For a deeper discussion of these assumptions and how the forecasts were produced, please see *Methodology*. The indicators discussed in this section relate to:

- Gross domestic product (GDP)
- Employment
- Unemployment
- Visitor volume
- Taxable sales
- Property tax
- Gaming tax
- Room tax
- Sales & use tax
- Consolidated tax
- Modified business tax
- Marijuana excise taxes

RCG has developed three forecast scenarios for each indicator. They are listed below, based on RCG's research. Additionally, the study discusses and compares the forecast results against a no-pandemic scenario—a hypothetical forecast that assumes that the COVID-19 pandemic did not occur:

- No Pandemic
- Worst Case
- Most Likely Case
- Best Case

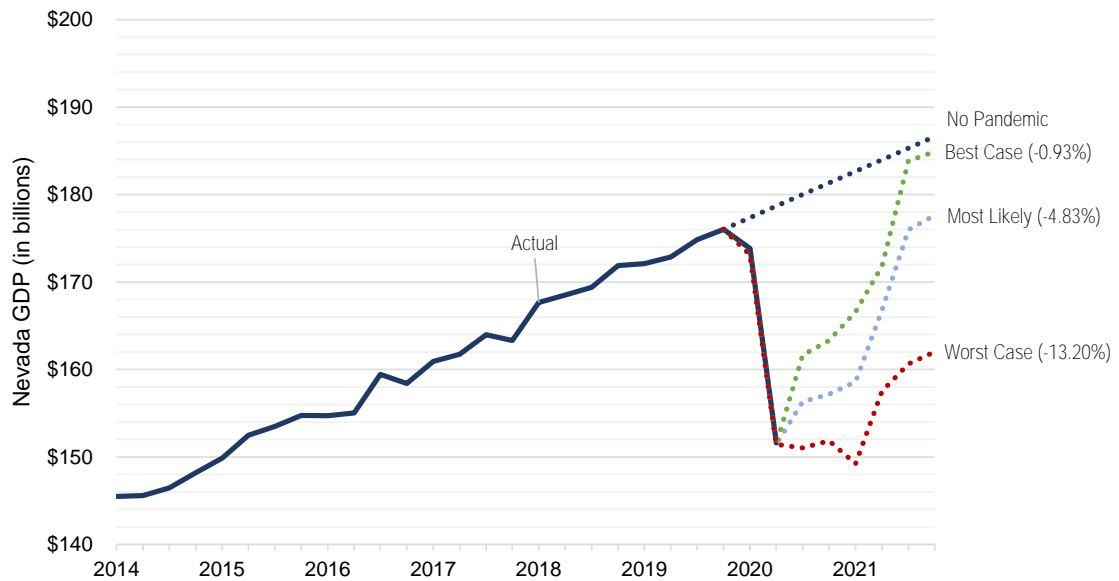
GDP

Total GDP

The Most Likely scenario of RCG's Nevada GDP model is based on a 12.5% decline in Q2 2020 compared to Q1 2020. This large drop is not surprising considering that Nevada has been hit hard by the pandemic compared to most other states because of its largely tourism-driven economy,¹ especially the Las Vegas MSA. The statewide economic lockdown in the early months of the pandemic especially affected the tourism industry (about 23% of the state's economy²). Seasonally adjusted jobs in the industry dropped by 43%, or by 152,800 jobs from 356,400 to 203,600, between April 2019 and April 2020 as result of the lockdown that began on March 17. By June, the industry had regained 90,200 of the jobs lost in April.

The COVID-19 Pandemic Severely Impacts GDP Growth in Nevada

Figure 1: Nevada Real GDP Forecasts, by Scenario, 2014 to 2021. Source: RCG Economics and U.S. Bureau of Economic Analysis.



Note: Data are in 2020 U.S. Dollars. The solid blue line (“actual”) represents historical GDP data from Q1 2014 to Q2 2020. The dotted dark blue line provides the results of the authors’ no-pandemic scenario, a forecast that assumes that the pandemic had never occurred. The dotted light blue line provides the results from the study’s Most Likely case scenario, the most likely outcome based on the authors’ research. The dotted green line represents the Best-Case scenario. In this case, the factors included in the model generally see relatively optimistic outcomes. The dotted red line shows the Worst-Case scenario, in which the model’s factors were given relatively poor outcomes. Data in parentheses represent the forecasted change in GDP from the expected GDP under the no-pandemic scenario in Q4 2021. Forecasted GDP change by sector can be found in Table 1.

In the Most Likely scenario, by the end of 2021, it is expected that the state’s GDP will be \$177.6 billion (in 2020 dollars), or 4.8% less than what it hypothetically would have been had the pandemic not occurred. However, in the Worst Case, it is projected that Nevada GDP could fall to as low as \$162.0 billion, similar to the state’s GDP in Q2 2017. This represents a 13.2% loss in GDP compared to the no-pandemic scenario. Such a drop in GDP would significantly impact the state’s economy. It would potentially take years, possibly a decade³ or more, for the economy to return to its pre-pandemic growth path.

On the other hand, the Best-Case scenario projects that the pandemic does not ravage the state’s economy. In this scenario, state GDP in Q4 2021 is projected to be \$185.0 billion, or only 0.9% below the no-pandemic scenario. In this case, Nevada’s economy would be able to recover from the COVID-19 pandemic in a relatively short period of time.

For the Best-Case scenario to actually occur, Nevada (like other states) would require the federal government to provide an additional tranche of virus-related financial relief, including continued and substantive unemployment benefits to workers, direct aid to states and local governments,

additional paycheck protection program dollars to small businesses and, at some point, large-scale infrastructure investments.⁴ This would require the federal government to add several trillion dollars to the national debt but would likely protect the U.S. economy from a continued free-fall⁵ and accelerate its recovery⁶ from possibly decades to a few years. Such a scenario would also require the severity of COVID-19 in Fall and Winter 2020 to remain constant relative to the summer months. This will allow governments to continue to reopen the economy more fully and safely and lessen consumer fears and uncertainty about leaving their homes and self-quarantining. However, based on the experiences of New England in early-2020 and southern Brazil in mid-2020, this is not a given.

The Worst-Case scenario for the state assumes a series of negative events to happen. First, COVID-19 hospitalizations and deaths in the state would increase, such that the Las Vegas metropolitan area would potentially look like New York City in March 2020: almost overwhelmed by infections. This would likely trigger a second lockdown. It is suspected that this would also heighten fears relative to COVID-19 and lead to higher levels of sheltering in place, compounding the effects of a potential lockdown. The Worst-Case scenario also assumes a continued deadlock on Capitol Hill and no further enhanced federal unemployment insurance benefits to workers. The continued absence of these benefits would represent a significant loss of personal income and, therefore, potential GDP.⁷ On the positive side, a potential political stalemate of this order would be unlikely—even in an election year—should COVID-19 deaths spike nationwide. Other factors, such as the Paycheck Protection Program, were included in the scenario assumptions and are described in greater detail in the *Methodology* section.

In the Most Likely scenario, it is assumed that Q4 2020 will experience a minor surge in COVID-19 deaths. In this case, Nevada will probably return to Governor Sisolak’s Phase 1 guidelines for three months but not experience a full lockdown, also referred to as Phase 0. It is assumed that the preference by a large share of Nevada residents to shelter in place will remain relatively unchanged compared to Summer 2020 levels and will again decline further in Spring 2021. This also assumes that the COVID-19 vaccine will be widely manufactured and distributed at an affordable price by the middle of 2021. Should the Most Likely scenario evolve, the economic forecast for Nevada will look a lot more like the Best-Case scenario than the Worst-Case scenario.

Forecasts for the MSAs have not been included in this analysis because the Nevada sub-state data for the most recent year appear to have problems. The Reno-Sparks MSA shows negative growth, which does not appear accurate. According to GOED, the issue stemmed from certain accounts being recorded as located in the Las Vegas MSA, while the activity actually took place in the Reno-Sparks MSA.⁸

Sector GDP

In terms of GDP by sector, a range of various outcomes was found that can be seen in the following tables. Accommodation and Food Services shows the widest possible range of outcomes at the end of 2021, from 3.2% less than the No-Pandemic scenario in the Best Case to 37.3% less in the Worst Case. The Most Likely scenario shows a 15.7% change. Table 1 provides the forecasted change for selected sectors of Nevada’s economy based upon the expected growth under the No-Pandemic scenario. As can be seen, though Accommodation and Food Services experiences the largest variation in possible outcomes, Arts, Entertainment, and Recreation, which represents a significant portion of Nevada’s economy, also demonstrates high levels of variation between the best and worst cases.

The Most Likely Scenario Forecasts a Moderate Reduction in Most Sectors, but Sharp Contractions Remain for Nevada's Dominant Sectors

Table 1: Forecasted Change in Sector GDP in Q4 2021 Compared to Expected Growth Under No-Pandemic Scenario. Source: RCG Economics.

Sector	Best Case	Most Likely	Worst Case
Accommodation and Food Services	-3.2%	-15.7%	-37.3%
Arts, Entertainment, and Recreation	-4.3%	-20.4%	-46.3%
Construction	-0.3%	-1.3%	-3.7%
Healthcare and Social Assistance	-1.2%	-5.9%	-15.3%
Professional, Scientific, and Technical Services	-0.7%	-3.8%	-10.0%
Total GDP	-0.9%	-4.8%	-13.2%

Taxable Sales

For taxable sales, the three geographies analyzed showed similar outcomes at the end of 2021 (see Table 2). Statewide, the Worst-Case forecast shows a drop in taxable sales of about 18%, worse than the drop in Washoe County (3.6%) but not as severe as the drop in Clark County (25.4%). In the Most Likely scenario, however, the drops are much less severe for Nevada (6.6%), Clark County (10.1%), and Washoe County (1.4%), though still notable, particularly for Clark County. In the Best Case, neither Nevada, Clark County, nor Washoe County experience a drop in taxable sales greater than 2.1%.

Washoe County's Reduced Dependence on Tourism and Entertainment Softens the Comparative Impact of the Pandemic on the Region's Taxable Sales

Table 2: Forecasted Change in Taxable Sales in Q4 2021 Compared to Expected Taxable Sales Under No-Pandemic Scenario. Source: RCG Economics.

Geography	Best Case	Most Likely	Worst Case
Nevada	-1.4%	-6.6%	-17.9%
Clark County, NV	-2.0%	-10.1%	-25.4%
Washoe County, NV	-0.3%	-1.4%	-3.6%

Employment

The results for employment show outcomes for 2021 that look much like those for taxable sales. In this case, the Las Vegas MSA would fare worse than the Reno-Sparks MSA in each case. In the Worst-Case scenario, the state would experience a 14.7% decline relative to the No-Pandemic case. The Las Vegas MSA would see an 18.0% drop and the Reno-Sparks MSA an 11.6% drop. In the Most Likely scenario, the regions ranged from a drop of 4.4% to 7.0%. Table 3 below provides an overview of the changes in employment for each of the three geographies.

Forecasted Changes in Employment Demonstrate the Comparative Resiliency of Northern Nevada’s Economy Compared to Other Regions of the State

Table 3: Forecasted Change in Employment in Q4 2021 Compared to Expected Employment Under No-Pandemic Scenario. Source: RCG Economics.

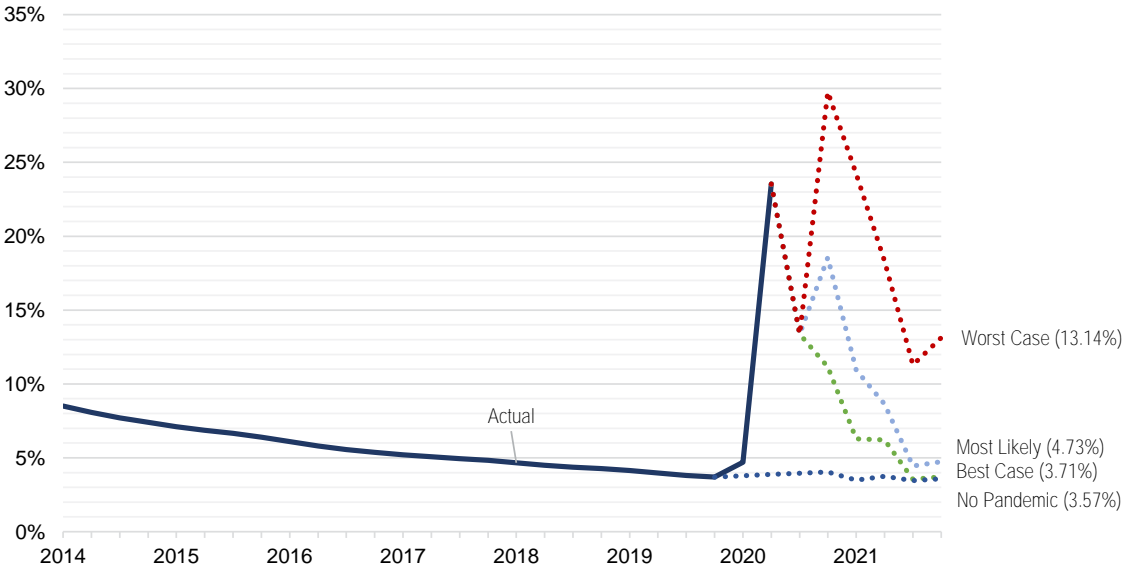
Geography	Best Case	Most Likely	Worst Case
Nevada	-1.1%	-5.7%	-14.7%
Las Vegas MSA	-1.4%	-7.0%	-17.9%
Reno-Sparks MSA	-0.9%	-4.4%	-11.6%

Headline Unemployment Rate

With respect to the unemployment rates, the limitations of the model are more visible. However, the results still provide a reasonable look at the relative effects of the possible outcomes. While the No-Pandemic and Best-Case scenarios show extremely low unemployment rates of around 3.5% for Nevada, the Most Likely case shows that unemployment is expected to be about one to one and a half points higher (Figure 2). The Worst-Case unemployment rates range between 6.0% for the Reno-Sparks MSA to 15.1% for the Las Vegas MSA.

Nevada’s Unemployment Rate Varies Drastically Based upon the Scenario

Figure 2: Forecasted Nevada Unemployment Rate. Source: RCG Economics. Note: Data in parentheses represent the forecasted unemployment rate in Q4 2021.



Unemployment Claims

Initial unemployment claims for Nevada in the Worst Case (about 120,800) are close to three times higher than in the Best Case (about 47,300), while the Most Likely case (about 63,700) is only

marginally worse than the Best Case. Relative to continuing claims, the results look fairly reasonable. The Best-Case estimates monthly average claims of around 27,600, while the Most Likely case is about three times higher (about 103,900). Continuing claims for the Worst Case are about 10 times greater (about 267,500) than in the Best Case.

The Impact of the Pandemic Will Likely Continue to Suppress Statewide Employment through the End of 2021

Table 4: Forecasted Change in Initial and Continuing Unemployment Claims in Q4 2021 Compared to Expected Claims Under No-Pandemic Scenario. Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Nevada Initial Unemployment Claims	+3,250	+63,700	+76,800
Nevada Continuing Unemployment Claims	+18,200	+94,500	+258,100

Visitor Volume

Estimates show a significant hit to visitor volume in every scenario. The Best-Case scenario would be least impacted by the pandemic, experiencing a 7.0% hit to visitation compared to the No-Pandemic scenario. The Most Likely scenario sees a drop of 32.7%, while the Worst Case suggests a 71.5% drop. This is plausible considering that visitation dropped 99.0% year-over-year in April during lockdown.

Methodology

In this section, medical and economic background information about COVID-19 is discussed. Certain biological traits of this virus directly affect the inputs of the economic analysis herein and are, therefore, important to be discussed in some detail.

Novel Coronavirus and Economic Shutdown

On December 31, 2019, Chinese authorities informed the World Health Organization (WHO) of an outbreak of pneumonia of unknown origin in Wuhan, Hubei Province.⁹ In March 2020, the WHO concluded that the rapidity and breadth of the spread of this disease constituted a global pandemic.¹⁰ This disease is named COVID-19 based on established naming conventions. It is caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), a novel coronavirus.¹¹ As of July 2020, it appears that a newer, more virulent strain of SARS-CoV-2 has replaced the original virus and become the dominant strain circulating around the world.¹²

Following the WHO's declaration of the pandemic, as well as the closure of several school districts across the country in the preceding days,¹³ the economic dominos immediately started falling. The result was an economic downturn without precedent in modern times.¹⁴

In the United States, the private sector initiated a series of events that quickly escalated into state-level shutdown orders. States all over the country began shutting down non-essential businesses.¹⁵ On March 19, California became the first to issue a statewide shutdown order.¹⁶

In Nevada, on March 10—a day before the WHO's declaration—MGM Resorts International (MGM) announced that it would be shutting down their Strip buffets within days.¹⁷ A few days later, on March 15, MGM also announced that it would be shutting down all of its Las Vegas properties on

March 17.¹⁸ On March 17, Nevada Governor Steve Sisolak announced the closure of all non-essential businesses, including hotel-casino resorts.¹⁹ The Governor extended these closures and issued a stay-at-home order on April 1.²⁰

A timeline of major governmental declarations relevant to Nevada COVID-19 policy, according to the Nevada Independent²¹ and Nevada Health Response²² as well as other sources where noted, is provided in the appendix.

Information on SARS-CoV-2

There is building evidence that COVID-19 may be a vascular disease with respiratory symptoms rather than a respiratory disease.²³ This helps explain why the disease can cause widespread blood clotting as well as damage in other parts of the body.²⁴

According to the U.S. Centers for Disease Control and Prevention (CDC), the virus is mainly spread via the exchange of contaminated respiratory droplets in close quarters.²⁵ Furthermore, the WHO has stated that the virus appears to be airborne, meaning that it can linger in small droplets over long periods and still infect people.²⁶ Additionally, Dr Roger Shapiro of the CDC and Harvard T.H. Chan School of Public Health said that the virus is easier to spread indoors than outdoors.²⁷

Infections appear to be driven by people showing mild,²⁸ unnoticed symptoms,²⁹ which include the majority of those infected.³⁰ Additionally, they may be contagious prior to showing symptoms.³¹ One major means of virus spread appears to be through “super-spreader events.” According to Scientific American, “between 10 and 20% of infected people are responsible for 80% of the coronavirus’s spread.”³²

Mortality rates published thus far compare deaths to confirmed cases, but this does not produce precise measurements of real mortality rates because it is unknown how many people have actually been infected, as most cases are mild and do not require medical attention. However, it is clear that older people are at a vastly higher risk of death than younger people. The CDC reported that 8 out of 10 deaths related to COVID-19 occur in people aged 65 years and older. Additionally, the CDC has also found that the rate of hospitalizations of those aged 85+ is more than 150 times greater than for the least hospitalized age group, 5- to 17-year-olds.

It is possible that recovery from COVID-19 only confers partial immunity or no immunity at all, meaning that someone can be re-infected with the disease after some period.^{33,34} Additionally, there may be life-long complications from secondary effects of COVID-19.³⁵ These possibilities have helped stoke fears regarding the virus, even given the apparent relatively low mortality rate.³⁶

Despite the low fatality risks, it is important to note that the coronavirus is still dangerous, especially to older people, in part because we know so little about it. What we do know, however, is that the COVID-19 pandemic is already the fourth deadliest event in U.S. history compared to wars and previous pandemics.

These fears at an individual level can be understood by a well-known branch of economic theory. “Cumulative prospect theory,” predicts that people tend to overweight probabilities associated with unlikely negative outcomes. As a result, many people who face a small risk of death from COVID-19 assign a greater subjective assessment of their health risk. The same theory is applicable to financial risks as well, which helps to explain some of the backlash to the state-level shutdown orders.

Exaggerated fears of the risk to an individual's health, especially if generally shared across the country, will weigh heavily on the economy until widespread, effective vaccinations have occurred.

Mitigating the Outbreak

Government Strategies

The main goal of government policies thus far appears to be reducing or eliminating the spread of COVID-19 through public policy interventions until the availability of a safe and effective vaccine.³⁷ However, whether the state can attain this goal is questionable.

For example, contact tracing is a form of surveillance likely to face resistance in adoption. There are several methods of accomplishing this, but technology-based methods require residents to install an application on their phones. The app tracks all those who have come near another person with the app installed. When someone tests positive for a disease, the contact tracing app notifies any individual that came into proximity to that person. Ideally, persons notified will practice heightened social distancing for some time and get tested for the disease. However, contact tracing must be adopted by about 60% of a population to be effective. As of mid-April, the most-used contact tracing app is in Iceland and even they had only achieved a 40% adoption rate.³⁸ Additionally, the success of such a program relies on quick and accurate viral testing, which is not yet available.³⁹

Policies of this kind will not be widely enacted before widespread vaccination becomes available. For this reason, RCG will assume that mitigation policies will have a very limited impact.

Individual Actions

Despite the difficulties in mitigating the effects of the virus on the economy, reducing the spread of the virus may be enabled by the widespread use of masks. Recent studies suggest that there is likely a connection between widespread use of masks and lower levels of virus spread.^{40 41}

YouGov polling has found that countries with high rates of mask adoption generally are correlated with lower levels of spread.⁴² In Asia, China, India, and Singapore all have mask adoption rates of over 80%, as do France, Italy, and Spain in Europe. Germany is slightly behind at over 60%.

Unfortunately, wearing masks has become politicized in the United States.⁴³ Nevertheless, there may be change coming, President-elect Biden will encourage the wearing of masks for 100 days following his inauguration.

Current State of the Pandemic

The major determinants regarding the future economic situation in the United States and Nevada in the wake of the pandemic are COVID-19 case load and deaths. Comparing the most recent data on infections and deaths across nations, states, and over time within the United States and Nevada

better informs the assumptions within the model. This report offers used in the model that describe the Best-Case, Most Likely, and Worst-Case outcomes relative to the Nevada economy.

COVID-19 Statistics

In this section, various statistics concerning COVID-19 are analyzed, comparing the United States to other nations as well as comparing Nevada to other states. A timeline of pandemic-related interventions and milestones can be found in Appendix B. A discussion of the pandemic's implications for Nevada's state and local economies within the model can be found in Appendix F.

Among all countries, the United States is ranked eighth in cases per 100,000 as of August 31. This is made worse when considering that five out of the top 10 nations are essentially high-density city-states, such as Qatar, Bahrain, and San Marino. Since then, the virus has spread quickly and largely unimpeded.

The United States also leads the world in total deaths. In terms of deaths per 100,000 persons, the United States was 11th globally. At the end of August, among high-population countries, the United States had the fourth highest death toll per 100,000 in the world, 56 deaths per 100,000. This rate compared poorly relative to countries like Germany (11 deaths per 100,000 persons), Japan (1.0) and South Korea (0.6), one of the first countries hit by COVID-19. By any measure, the United States has done a poor job responding to the pandemic compared to other nations, and it has negatively affected the economy, according to officials at the Federal Reserve.⁴⁴

At the state-level, relative to case load, Nevada appears to be middle-of-the-pack. However, as a state with a moderately-sized population, that does not convey much information. The states are better compared per 100,000 persons. In this case, caseloads in Nevada appear to be among the fastest growing, and Nevada is one of the worst-performing states overall as well. As of August, Nevada sits at ninth out of 52, including Washington D.C. and Puerto Rico.

Regarding COVID-19-related deaths, at the end of August Nevada was 21st out of 52 states and territories in terms of deaths per 100,000, just in the upper half of the rankings. The country's hardest hit region has been the Northeast. New Jersey and New York are the hardest hit states with Massachusetts and Connecticut ranking third and fourth. The first state outside of this region, Louisiana, was fifth.

Generally, the data relative to the United States and Nevada indicate that as of August, the United States is doing a poor job of containing the pandemic compared to other countries, while at the state-level, Nevada is doing a mediocre job of containing the virus compared to other states. However, luckily, despite the high rate of spread of the disease, Nevada has been thus far spared from a relatively high death toll.

Additionally, there has been some evidence that people have been heeding mitigation advice. One study showed that infection rates fell dramatically after an initial surge in regions all over the world.⁴⁵



Nevada's Plan for Recovery & Resilience

Priority Areas for Intervention

The Future Beyond the Pandemic

Photo Courtesy of Richle Bednarski, BLM Nevada, and TravelNevada/Flickr

Priority Areas for Intervention

The COVID-19 pandemic and its effect on Nevada's economy has required swift action by GOED and supporting organizations and agencies. At a high level, GOED has focused its interventions within five broad priority areas, which can be found below. Importantly, GOED's response to the pandemic does not occur within a vacuum. Other state agencies, such as the Department of Business and Industry and local government organizations, provide support within these functional areas and, in some instances, lead their own interventions where relevant.



Resources for People and Businesses

Modernize Nevada's financial, technological, and administrative capabilities.

Immediate recovery: GOED must actively support any Nevada agency that is part of the flow down of federal funds. It will be necessary for all businesses, especially small- and medium-sized enterprises (SMEs), to receive guidance and advocacy assistance to secure the funding they need to keep employees on the roster. Capacity has been increased at the state's career centers to help process individuals' unemployment claims. Gig workers and other independent contractors (a significant population in Southern Nevada) who can participate in programs that can be confusing. Direct support for SMEs through federal loan programs is also critical—an important lever for reducing the unequal economic impact of the crisis.

Longer-term resilience: 31% of Nevadans are unbanked or underbanked, according to a 2017 FDIC report. Without a bank account, it is difficult for individuals to receive stimulus checks and other government assistance. In the medium term, there is a role for public action to build an appropriate financial infrastructure for workers that will help shelter them from future shocks. This could take a variety of forms, including a one-stop public assistance program with digital accounts and mobile payments (TANF, WIC, unemployment payments, and other benefits could be integrated into one system). Success in this area is contingent on success with initiatives targeting connectivity and the digital divide, addressed below.

Specific areas of interest for GOED and supporting organizations could include:

- 1 Update and integrate all state administrative and financial systems, including payment systems to residents such as UI, TANF, WIC, Medicaid, etc. (see below for longer-term initiatives in this policy area).
- 2 Build a community banking network. Community banks were essential to the success of the PPP program. Community banks with \$10 billion or less in assets made about 40 percent of the overall number and value of PPP loans.
- 3 Employ a “Buy Nevada” tactic in which local purchases are steered toward local firms when possible.

Business Support and Expansion

Increase support for entrepreneurship and micro-, small-, and medium-sized enterprises (MSMEs) and investment in new technology applications. Review of target sectors, onshoring, foreign investment attraction, and export opportunities.

Immediate recovery: While large corporate enterprises can develop protocols for operating within the context of the new normal, main street businesses (MSMEs) will need guidance on the protocols and practices required to operate under these new conditions. They will need guidance on how to use open spaces, enforce social distancing, and expand onsite sanitary capabilities. This guidance will be accompanied by onsite training of incumbent workers.

Longer-term resilience: GOED should take deliberate steps to attract greater levels of foreign direct investment to Nevada, while supporting the emergence of export-oriented industries throughout the state. International trade and foreign direct investments drive Nevada's competitiveness, contribute to productivity growth, create jobs and exports, support R&D activities, and fuel innovation. International companies broaden the state's economy and make it more resilient, adding prosperity to workers and communities and investing in workforce training solutions across the state.

Specific areas of interest for GOED and supporting organizations could include:

- 1 Open business recovery centers within the network of Nevada's Small Business Development Centers. (See the next section regarding new institutional arrangements in support of small business.)
- 2 Increase funding for technology-based entrepreneurship and provide targeted support for technology-based firms in automation and digital technologies.
- 3 Develop an ecosystem that enables more entrepreneurship, commercialization, and new business creation, with renewed focus on digital arts and outdoor recreation.
- 4 Promote international trade and export assistance programs to increase the number of exporters, new market exports, and global supply penetration, especially among rural and women-, veteran-, and minority-owned MSMEs.

- 5 Identify gaps in support for minority- and woman-owned small businesses and opportunities to increase their establishment and growth.
- 6 Increase efforts to attract U.S. and foreign businesses to Nevada, particularly those in high-growth and technology-intensive industries.
- 7 Streamline and centralize the oversight of Nevada’s small businesses, with clear direction for ancillary support organizations in preserving, establishing, and expanding Nevada’s businesses.

Workforce for the New Normal and Beyond

Full implementation and expansion of existing workforce initiatives.

Immediate recovery: GOED should play a leadership role in the transformation of occupational licensing constraints in critical areas, including the recognition of qualifications from other states. Based on real-time labor market data, GOED will support state colleges in recruiting and graduating students in areas of need. In spite of the general downturn, there will be sectors experiencing high demand that will need newly trained workers (including sectors beyond health services).

Longer-term resilience: In order to accelerate workforce adjustment and preparation in critical areas, GOED should support the design of compressed health services curricula and other curricula for skills in short supply. The entire workforce pipeline should be reworked so that workers from hospitality can be fed into public health and other needed fields, with an emphasis on competencies and skills rather than formal credentials.

Specific areas of interest for GOED and supporting organizations could include:

- 1 Radically expand health services programs at all levels.
- 2 Integrate workforce programs with business needs.
- 3 Allow community colleges to develop accelerated training programs for employers continuing or resuming operations.
- 4 Broaden training providers to reach disadvantaged populations and apply new technologies through the Nevada State Library by leveraging Nevada’s Education Stabilization Fund-Reimagine Workforce Preparation (ESF-RWP) grant.
- 5 Protect funding streams for in-demand and growing occupations’ academic programs at Nevada’s four-year institutions.
- 6 Accelerate the use of “badges,” competence bundling, and credit aggregation in building workforce skills.
- 7 Provide incentives to U.S. citizens who work remotely to relocate to Nevada, as well as for startup founders doing all or most of their business online.

New Technology Businesses

Review and redesign Nevada's approach to retention and business development that provides wrap-around support to technology adoption by MSMEs.

Immediate recovery: The state will identify the most appropriate technologies and formulate plans for deployment at an extraordinary scale by state and local government. It will provide guidance to Nevada businesses looking for reliable information on useful technologies.

Longer-term resilience: If Nevada succeeds in mobilizing technologies at scale, it will have laid the groundwork for repositioning the state in the national and world marketplace. Consumers may be reluctant to travel at present, but the desire for recreation will endure. Nevada can be the recreational haven of the future, fortified by best-in-class measures in public health. Nevada's regional economic development authorities will continue to recruit companies to Nevada to strengthen the healthcare system.

Specific areas of interest for GOED and supporting organizations could include:

- 1 Support the development of websites and e-commerce capabilities for MSMEs to expand opportunities for business-to-business and business-to-consumer e-commerce transactions.
- 2 Aggregate and share vendor information for contactless and online payment systems.
- 3 Support the increased use of sensors and other technologies for security and safety.
- 4 Introduce and promote new digital instruments to enable exporting by Nevada's MSMEs.
- 5 Foster connections and collaboration with local and international stakeholders to prioritize balanced long-term growth and sustainable economic development.

Data and Integrated Planning for Decision-Making

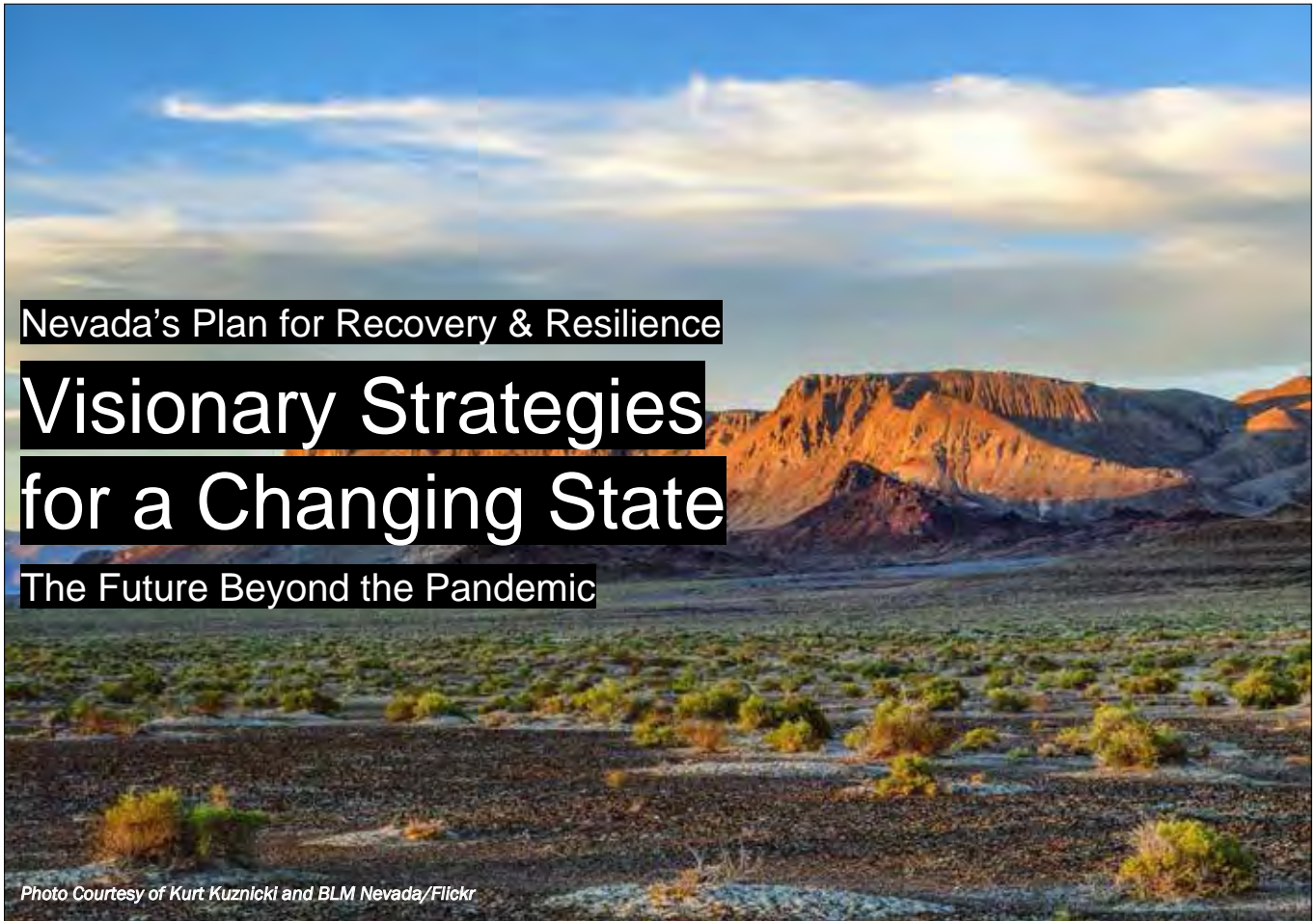
Nevada must complete the transition to smart government at the state and local level.

Immediate recovery: Any decisions made on reopening Nevada's economy must be based on all available data and as part of integrated state-wide plans. Coordination, collection, and sharing data is a critical role for GOED. In particular, GOED will be responsible for integrating public health data with economic data and proposed infrastructure initiatives within a single state framework. This will enable GOED to provide reliable advice to Nevada's businesses and workforce institutions.

Longer-term resilience: Confidence in Nevada's future economy will depend more than ever on complete, transparent information that integrates public health, economic, and workforce data. GOED will own this responsibility and become the one-stop data hub for the state with an emphasis on the credible communication of information regarding the health of the state's economy and society. In addition, GOED will give the Regional Development Authorities (RDA) access to data from EMSI (see the bullet below).

Specific areas of interest for GOED and supporting organizations could include:

- 1 Integrate regional infrastructure initiatives within overall state financial and planning framework.
- 2 Provide access to real-time labor market Information using EMSI data via Nevada's regional development authorities.



Nevada's Plan for Recovery & Resilience

Visionary Strategies for a Changing State

The Future Beyond the Pandemic

Photo Courtesy of Kurt Kuznicki and BLM Nevada/Flickr

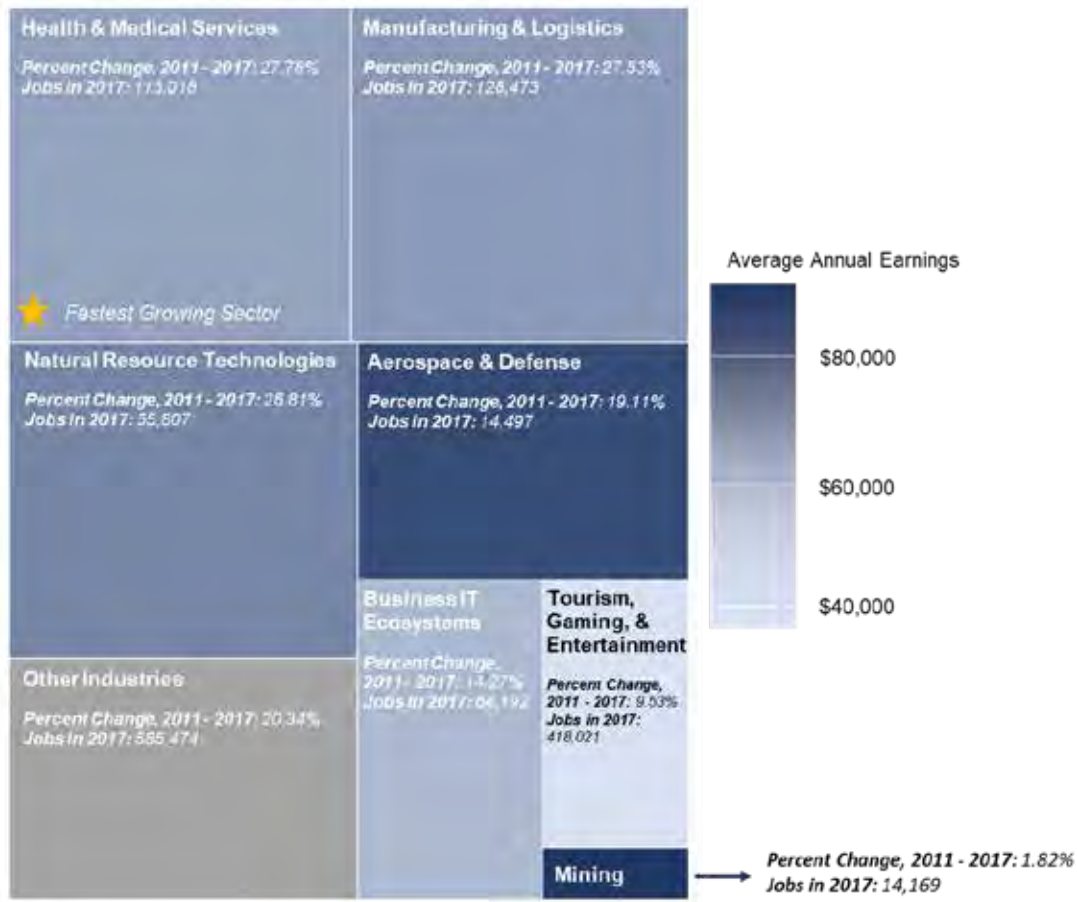
Nevada at the Crossroads

As the immediate actions contained in the recovery and resilience plan are implemented, state leaders must turn their attention to strategic initiatives that ensure Nevada's economic and social resilience into the future. Whatever the timeline for recovery, both in public health and in the economy, Nevada must immediately begin pursuit of these strategies. Only in this way can the state ensure a complete recovery and shape its future growth toward a more resilient and high-value future.

Once again, the state is at a crossroads, especially Southern Nevada. After the Great Recession, new industries grew more quickly in the North and the South than the legacy sectors.

Nevada’s Economy Has Seen Considerable Growth in New and Emerging Industries

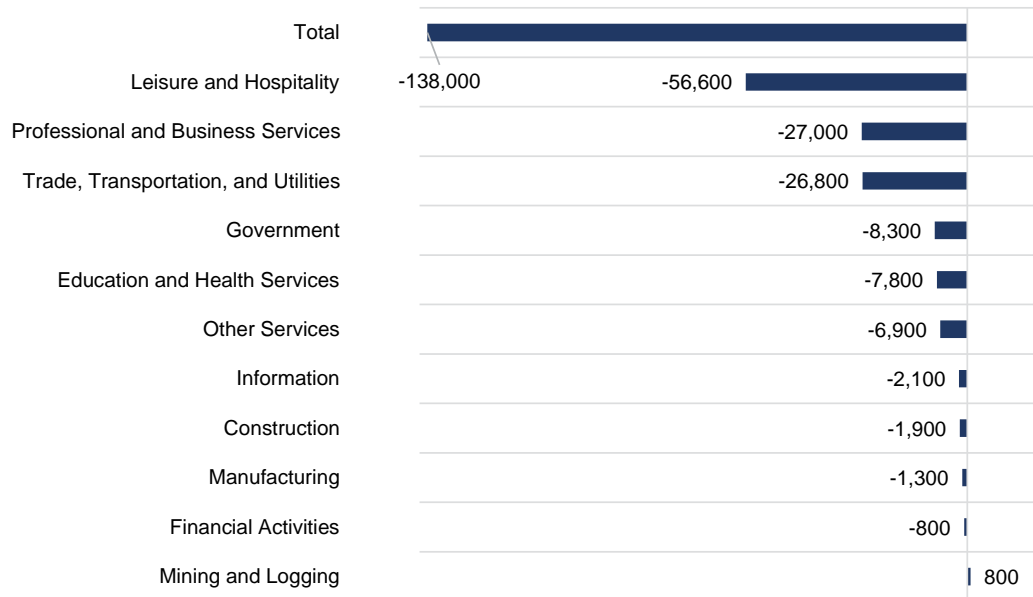
Figure 3: The Changing Industries of Nevada’s Economy, 2011 to 2017. Source: EMSI and GOED.



But diversification takes time. The two sidebars below discussing the changing economies of urban and rural Nevada demonstrate the progress that has been made in Northern, Southern, and rural Nevada. While Northern and rural Nevada are beginning to show signs of well-diversified regional economies, Southern Nevada began from a small base, and the present crisis came too soon for the benefits of any nascent diversification to be properly felt. These changes are not negated by the crisis but rather accelerated by it. As Figure 4 below indicates, advanced manufacturing, logistics, health services, clean tech, and information technology proved to be resilient when the downturn came and will be the foundation for the future. The strategies outlined below will underpin growth in these areas. This section is followed by a section on the imperative for building and modernizing the institutions and capabilities that will be necessary to secure the future of the state for the long run.

Statewide Job Loss Remains Concentrated in Nevada's Service Industries

Figure 4: Nevada Job Change, by Industry, July 2019 to July 2020.



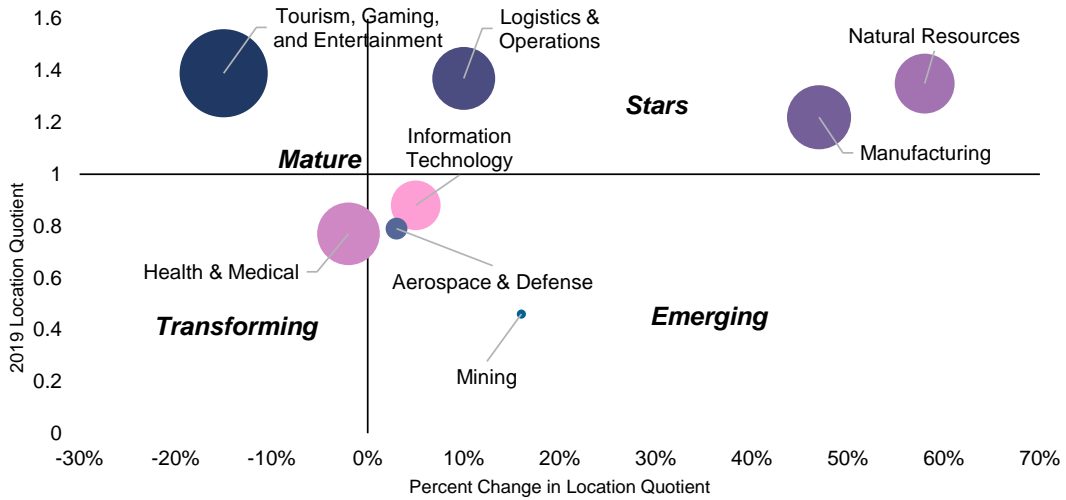
Urban Nevada

Figure 5 and Figure 6 below visualize the location quotient for selected industries and how they have changed between 2010 and 2019 in Northern and Southern Nevada, respectively. As shown, Northern Nevada has seen greater growth in new sectors, particularly Manufacturing and Logistics & Operations, that have worked to diversify the region's economy. In Southern Nevada, however, Tourism & Gaming continues to dominate the region's economy. While other sectors have grown over the last decade, they have yet to grow to resemble a significant portion of Southern Nevada's economy. This is likely a critical component of the comparatively lower impact of the pandemic recession in Northern Nevada than in Southern Nevada. However, the large number of industries that fall into the "emerging" category demonstrate that the region shows promise for future diversification efforts.

Location Quotients (LQ) allow an area's distribution of employment by industry, ownership, and size to be compared to the national average. If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the nation. An LQ greater than 1 indicates an industry with a greater share of the local area employment than is the case nationwide. For example, Las Vegas will have an LQ greater than 1 in the Leisure and Hospitality industry because this industry makes up a larger share of the Las Vegas employment total than it does for the nation as a whole.

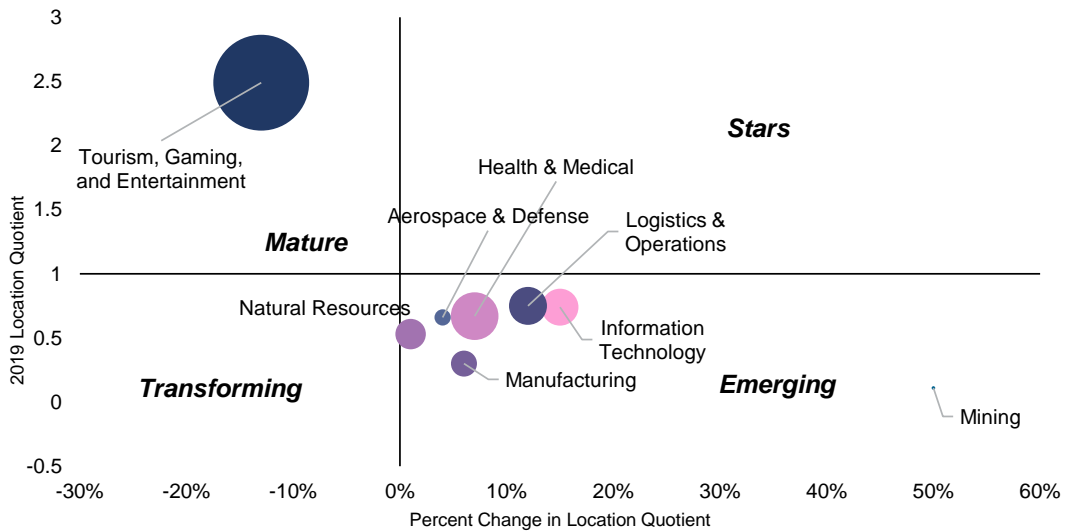
Northern Nevada Has Been Comparatively Successful at Growing New Industries

Figure 5: Percent Change in Location Quotient for Selected Industries in Northern Nevada, 2010 to 2019. Source: GOED.



Southern Nevada Has Seen New Industries Emerge, but Diversification Remains Nascent

Figure 6: Percent Change in Location Quotient for Selected Industries in Southern Nevada, 2010 to 2019. Source: GOED.

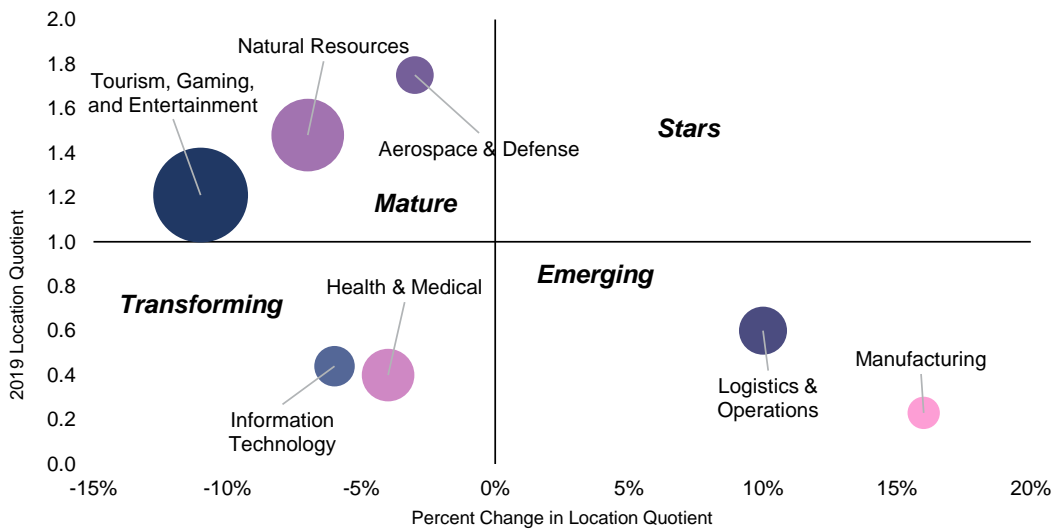


Rural Nevada

Figure 7 and Figure 8 below provide an overview of the industries that comprise rural Nevada's economy. As shown, rural Nevada's economy is notably more diverse than Southern Nevada's economy, though it does remain dependent on industries that typically respond aggressively to economic shocks, particularly Tourism, Gaming, and Entertainment and Natural Resources. However, more stable industries, such as Logistics & Operations and Manufacturing, have begun emerging in the rural economy, providing greater and more consistent employment opportunities to those with post-high school training but perhaps less than a traditional four-year degree. Figure 8, however, shows just how much the mining industry has grown in rural Nevada. While the location quotient for most of rural Nevada's industries range from 0.0 to 2.0, the region's mining industry faces a location quotient of over 40.0, far outweighing the location quotient of industries that have traditionally dominated Nevada's economy, such as Tourism, Gaming, and Entertainment, which has a location quotient of just 1.2 in rural Nevada.

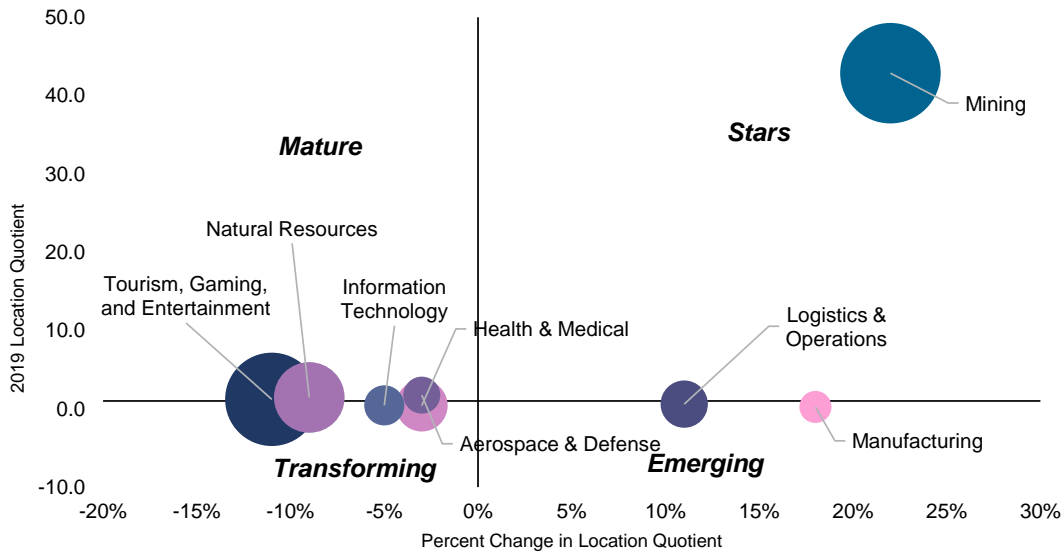
A Healthy Mix of Industries Form Rural Nevada's Economy

Figure 7: Percent Change in Location Quotient for Selected Industries in Rural Nevada, Excluding Mining, 2010 to 2019. Source: GOED.



For Rural Nevada, Mining Has Become an Undeniable Engine in the Regional Economy

Figure 8: Percent Change in Location Quotient for Selected Industries in Rural Nevada, Including Mining, 2010 to 2019. Source: GOED.



Nevada’s New Economic Geography: The “Three Nevadas”

Nevada is geographically well-situated between three vibrant economic partners: California, Arizona, and Utah. Each of these states exchanges people, goods, and ideas with Nevada. Despite having a population of just over 3 million, Nevada sits at the center of a trade region that exceeds 53 million residents, a region that exceeds in both population and GDP such nations as South Korea (pop. 51.8 million) and Spain (pop 47.3 million).

According to the U.S. Census Bureau, Nevada’s two largest metropolitan areas—Las Vegas MSA (pop. 2,266,715) and Reno-Sparks MSA (pop.475,642)—join in the two largest urban complexes (or “megapolitan areas”⁴⁶) in the western half of the United States. Las Vegas is part of the “Southwest Triangle megapolitan cluster,” which includes Southern California and Arizona’s “Sun Corridor” megapolitan area (Phoenix and Tucson).⁴⁷ Together these regions now contain about 34 million people and form the second most populous megapolitan cluster behind the “Northeast Megalopolis.” Reno lies at the eastern edge of the Sierra-Pacific megapolitan area, which includes the Bay Area and Sacramento metros. The Sierra-Pacific region includes about 13 million residents.

Likewise, Elko, a micropolitan area with 54,463 residents in 2018, maintains extensive economic and trade relations with megapolitan areas in the Mountain West. Elko and much of eastern Nevada connect to the “Wasatch Range” (Salt Lake City) and “Front Range” (Denver) megapolitan areas. By 2020, the regions together contained over seven million residents. Nevada is privileged in that its logistics, tourism, technology, and resources industries are embedded in the western United States—a geographically broad but extensively urbanized and fast-growing region that maintains some of the most innovative and export-driven regional economies in the developed world.

Figure 9 below shows what Brookings Mountain West at UNLV terms “The Three Nevadas.” The three zones identified show the approximate area of economic interdependence that links Nevada to California, Arizona, and Utah. Las Vegas falls within a sphere that extends from California’s Central Coast to the Mexican border with Arizona. Reno’s economic sphere incorporates much of Northern California. Elko’s shared economic space stretches across Utah to Colorado’s Front Range.

Each of Nevada’s Regions Remains Well-Positioned to Megapolitan Areas Throughout the Western United States

Figure 9: Nevada’s Megapolitan Clusters. Source: Robert E. Lang and Jaewon Lim, Brookings Mountain West–UNLV, 2020.



These megapolitan areas exhibit an economic integration either approaching or equal to what the U.S. Census Bureau defines as “combined statistical areas” (or CSAs). Being a CSA is significant in that it shows urban space has achieved high levels of economic integration centered on commuting patterns. Nevada is becoming more connected with its neighboring states via a myriad of economic functions. Tech transfers from the Bay Area to metro Reno have transformed Northern Nevada. Las Vegas shares a wide array of trade, patents, highway, air links, and now direct labor markets with California and Arizona. Gold mined in central Nevada is processed in Utah and often managed from Colorado. Nevada’s most important economic opportunities lie in deepening its ties to adjacent megapolitan areas. The state can induce both corporate relocation and skilled labor migration from the greater Southwest. Nevada maintains lower costs, less regulation, and less tax burden, especially when compared to California.

Even before the pandemic, technology allowed an increasing share of workers to live in one region while performing jobs in other metropolitan areas. Distance commuting, beginning in many tech and sales sectors, made megapolitan geography possible. Flexible workspaces, where an employee needs to physically be present at a common job location once a week, or even once a month, allowed workers to commute from 50 or more miles away from their actual office. This is especially true for many gig-economy jobs in tech, media, and R&D-intensive sectors.

Nevada, linking to and lying between the largest megapolitan areas in the West, is well positioned to benefit from an explosion in distance commuting as virtual workspaces become the norm following COVID-19. Consider that a tech worker in Silicon Valley can now live at Lake Tahoe and still check in at the “office” every day. Perhaps such a worker needs to attend a sales or all-staff meeting every few weeks and thus cannot simply move to Alaska or Hawaii. Northern Nevada is a lower cost, less congested alternative to the Bay Area, but maintains highway and air connections back to California so that one can physically be present in San Jose or San Francisco on any given day. Likewise, Southern Nevada maintains extensive surface and air links to California and offers commuters large, amenity-rich master-planned communities.

Given Nevada’s urban geography, which connects the state to large-scale metropolitan systems in California and Arizona, surface transportation improvements between Las Vegas and Reno have a lower priority from the point of view of the workforce. The value from improving this connection is related to the completion of an integrated logistics network across the region, which will involve rail links rather than road and/or air (the complete rail right-of-way is still available). When it comes to the workforce, Nevada must double down on accessing California and Arizona, and in the case of Elko, the Mountain West and Northwest Megapolitan areas.

Visionary Strategies

Strategic initiatives to ensure medium-term prosperity have been organized into the following five categories and are discussed in the relevant sections below:

- Regionally Designed Industrial Clusters
- Statewide Integration and Connectivity
- Technology-Driven Development
- Responsible and Sustainable Growth
- Comprehensive Placemaking

Regionally Designed Industrial Clusters

The impact of the Great Recession on Nevada’s economy alerted state policymakers to the need for economic diversification. Prior to the economic crisis, Nevada’s primary urban areas may have been classified as “company towns,” where local economies were overdependent upon a few employers in a single industry for economic growth. The policy response following the Great Recession called for a state-led pursuance of key industries on which Nevada could capitalize for new, stable growth. Growth in new and emerging industries has been notable, with advanced manufacturing, transportation and logistics, and healthcare emerging as strong contenders in Nevada’s economy.

The economic crisis spurred by the COVID-19 pandemic has once again drawn attention to the need for economic diversification. Developments in the world economy, such as the push for more localized production and value chains, represent opportunities for Nevada. Businesses will push for

proximate, smart supplier networks. Given its close location to the West Coast, this new imperative will drive new investment toward the state. This investment will tend to be technology- and skill-intensive, paying good wages to a properly prepared workforce.

In order to make the most of these opportunities and build on Nevada's unique geographical advantages, the recommendations below include a variety of necessary infrastructure investments. None can be done in a day or in a week, but even ambitious infrastructure programs will help the state quickly recover from the crisis, as well as lay the foundations for a new, resilient, economy in the future. The impact of this crisis will be felt for many months, perhaps several years. Furthermore, there will be no return to the world as it was in February 2020. Business travel and business meetings are now based on a wholly new technological infrastructure. Consumers' attitudes regarding entertainment and recreation have undergone a significant shift. The structure of the workplace has changed forever for millions of white-collar workers.

Design New Approaches to Cluster Identification and Development

Economic diversification has evolved differently in Nevada's various regions. In Northern Nevada, gaming, tourism, and hospitality gave way more completely to new industries following the Great Recession, particularly advanced manufacturing. In Southern Nevada, the dominance of the leisure sector is more pronounced, but the local economy has seen the emergence of data centers and logistics and transportation as promising avenues for future growth, among others. This growth will be accelerated by the present crisis. Southern Nevada is at the same fork in the road faced by Northern Nevada ten years ago. Its future will remain distinctive, and the legacy sectors of hospitality and entertainment will remain strong—Vegas will remain Vegas. But the region needs accelerated growth in other areas—including health services, logistics, and clean tech—alongside this world-class entertainment cluster if the region is to be diverse, prosperous, and resilient in the future.

The capabilities of Nevada's regional development authorities (RDAs) have been made clear in recent years and represent a valuable resource for future diversification efforts. As RDA staff are embedded in their local communities, RDAs are well-positioned to identify and pursue promising industries for their respective regional economies. There remains a role for GOED to ensure the RDAs pursue a unified approach to diversification and that competing priorities are minimized. Likewise, at the state level, attention should be focused on integrating regional cluster strategies with a high-level economic diversification strategic plan that enables Nevada's regions to establish, grow, and mature industries that diversify the state's economy.

Specific areas of interest include:

- **Develop Regionally Specific Industry Plans.** Enable RDAs to use their extensive knowledge of local capabilities to devise locally relevant clusters as part of a Comprehensive Economic Development Strategy (CEDS) that represent unique paths to economic success for each region.

Integrate into Regional and Global Value Chains

The global economic crisis spurred by the COVID-19 pandemic has strained the production and distribution of critical goods. In the first several weeks of the pandemic, supplies of personal protective equipment (PPE) were very low, threatening the ability of front-line workers to address local outbreaks of the disease. While the private sector has mobilized to produce many of these necessities in the short-term, the disruption of supply chains has urged state and national governments to regionalize, rather than globalize, the production of many goods.

The “reshoring” of production to the United States presents Nevada with the opportunity to grow its nascent advanced manufacturing sector while integrating further into the regional economy of the western United States. The low cost of doing business in the state makes it an attractive destination for manufacturers who want to invest and produce in the United States and export globally but do not want to pay the typical cost of doing business on the West Coast. Likewise, Nevada remains an attractive destination for the “next-shoring” of the technology-intensive industries that comprise Industry 4.0. Nevada’s proximity to major urban areas with large consumer populations throughout the western United States increases its attractiveness for advanced and technology manufacturing.

Specific areas of interest include:

- **Fortify Nevada’s Small Business Community.** Building job-creation capacity through entrepreneurship and SMEs by empowering them with the tools they need to restore trade and promote supply chain resiliency.
- **Modernize Nevada’s Economy through Foreign Direct Investment.** Attract foreign direct investment by building on existing international investors recruit foreign companies interested in key Nevada sectors.
- **Globalize Nevada Businesses.** Reinforcing state international trade programs to help local businesses start or expand their exports in the global marketplace.
- **Export Nevada’s Knowledge Capital.** Strengthening relations with foreign partners to develop platforms for sharing challenges and best practices across technology and innovation domains, including water-tech, autonomous systems, advanced manufacturing, and logistics.

Enable Further Diversification of Southern Nevada’s Economy

The leisure and hospitality industry continue to be prominent throughout Southern Nevada. The 2011 Brookings/SRI report identified opportunities for Las Vegas to diversify within this tourism core in areas such as live entertainment and e-sports. Beyond this foundation the region has also attracted other medium- and high-tech industries and sectors with potential for further development, notably logistics and advanced manufacturing. Future growth in these industries, however, is contingent upon the communities of Southern Nevada being able to meet the needs of employers in these industries. Considerable work continues to be done at the state and local level on workforce development, but there remains a need for further industry-specific infrastructure development throughout Southern Nevada.

Meeting the needs of new industry clusters requires a suitable workforce and an enabling environment for going to scale.

Industries such as logistics and advanced manufacturing require medium- and large-scale infrastructure assets to establish a presence and grow. Developments like the APEX Industrial Park in northern Clark County have significantly expanded the region’s capacity for manufacturing and logistics, and at least one study found the industrial park capable of creating around 20,000 direct jobs and up to

56,000 induced jobs throughout Southern Nevada. However, the same report found that adequate infrastructure remains a challenge for growth at APEX, and the lack of integrated transport options for employees and goods limits the opportunities for additional industrial development at the site. ⁴⁸

Aside from the APEX Industrial Park in northern Clark County, there remains opportunity for additional development in other areas of Southern Nevada, where logistics and advanced manufacturing may be developed concurrently and capitalized on for regional growth. Areas of southern Clark County have received increased levels of interest for numerous projects, including the

proposed second airport for the Las Vegas metro area, a manufacturing and business park, and other mixed-use developments. The establishment of an advanced manufacturing park and smart logistics hub in southern Clark County would contribute to the long-term vision for this area of Southern Nevada and position the region as a major producer and distributor of goods in the western United States.

Southern Nevada also demonstrates significant potential for next-generation transportation services. In recent years, the Boring Company and Virgin's Hyperloop have established a presence in the region to test and, in the case of the Boring Company, deploy innovative transportation technologies. The high development and deployment costs associated with transportation infrastructure projects means that Southern Nevada currently holds a distinct competitive advantage over other regions of the United States because the region has already demonstrated an ability to deploy these technologies in real-world settings. Capitalizing on the region's first-mover advantage will enable Southern Nevada to establish itself as a world leader in the development of innovative transportation technologies.

Specific areas of interest include:

- **Establish an Advanced Manufacturing and Logistics Hub.** Promoting the creation of industrial clusters with innovation programs and intermodal logistics capabilities.
- **Expand Air Passenger and Cargo Capabilities.** Creating a major global trade and passenger hub in the inland Southwest.
- **Grow Nevada's Professional Sports Industry.** Strengthening Nevada's sports sector including professional teams' infrastructure, sports medicine, and healthcare; investing in sports tourism to drive employment and increase the "per capita" contribution of the sports sector in the state economy.
- **Cement Southern Nevada's status as a transportation technology testbed.** Attracting additional transportation technology companies to Southern Nevada and enabling further testing and deployment throughout the region.

Statewide Integration and Connectivity

Nevada's geographic proximity to major western markets makes it a competitive destination for U.S. manufacturers. Likewise, the strong air connectivity between Reno-Sparks and Las Vegas and many domestic and international destinations has enabled the continued development of the state's leisure and hospitality industries. However, intrastate connectivity continues to be a challenge for Nevadan residents and businesses. While Northern and Southern Nevada are well-connected to other urban markets throughout the West, there remains a notable dearth of infrastructure between Northern and Southern Nevada, in both the eastern and western portions of the state.

The benefit of further infrastructure investment is twofold: increased rail and truck connectivity bolsters Nevada's opportunity to serve as a major transit hub for the western United States, and the development of this infrastructure represents opportunities for short-, medium-, and long-term employment in construction and transportation industries. Additionally, increased roadway connections between northern and Southern Nevada provide a more affordable alternative for intrastate transportation to businesses and residents of these respective regions. This means that there exist tremendous opportunities for employment today while making transformational infrastructure investments that will set Nevada on a new path in the future. Further development of Nevada's infrastructure assets will support the emergence and growth of new industries.

Integrate and Expand Capabilities between Northern and Southern Nevada

With the help of GOED and federal policies, Northern and Southern Nevada have successfully capitalized on their respective strengths to develop new industries and sectors, such as Opportunity Zones. However, a continued lack of connectivity between Nevada’s principal urban areas, as well as between the large metro and micropolitan areas like Las Vegas and Elko, remains an obstacle for the state’s economic diversification ambitions, particularly the growth of the transportation and logistics industry. Both regions have sought to develop this industry—as well as others that are dependent upon strong regional and national connections, such as advanced manufacturing—independently, rather than through a coordinated approach. Likewise, the missing connections between the northern and southern portions of the state have contributed to the “missing middle” of western Nevada, where economic opportunity has remained a consistent barrier for many of the region’s residents.

Connecting northern and Southern Nevada with one another and the communities that lay between them is a necessity for the state’s residents and businesses. Much work has been conducted to identify opportunities for roadway expansion between Reno-Sparks and Las Vegas. The Intermountain West Corridor Study was completed in 2014 to outline the extension of Interstate 11 (I-11) from southern Las Vegas to Phoenix, Arizona, and subsequent proposals have been made to extend the I-11 corridor north to Reno-Sparks, connecting Nevada’s two primary urban areas and connecting Las Vegas with I-80.⁴⁹ Expansion of I-11 should be seen beyond passenger transportation but also as the major infrastructure investment in the emerging Southwest Triangle Megaregion (see Appendix A regarding Nevada’s unique geographic advantages), which is on the trajectory to be one of the most economically strong American regions (but it is the only one without the interstate system between two of three major metropolitan areas: Las Vegas and Phoenix; major freight movement is going through Texas and California omitting Las Vegas).

Aside from highway expansion, opportunity exists for development of rail lines, both freight and passenger, that connect northern and Southern Nevada, as well as the rural and frontier communities of western Nevada. Establishing multi-modal facilities in the Reno-Sparks and Las Vegas metro areas would provide anchors for future freight and passenger roadways and railways and create opportunities for industrial development in underserved western Nevada communities. In Northern Nevada, the creation of the Innovation Park at Tahoe-Reno Industrial Center, led by Blockchains, LLC, represents an opportunity to centralize medium- and high-tech manufacturing in the Reno-Sparks area while increasing regional and national rail connectivity. This connectivity would allow the communities between Las Vegas and Reno-Sparks to participate in the development of Nevada’s western frontier.

Specific areas of interest include:

- **Develop the Fernley Multi-Modal Hub.** Expanding manufacturing and logistics opportunities for Northern Nevada and intra-state connectivity.
- **Establish Logistics and Manufacturing Parks in Northern and Southern Nevada.** Supporting the development of competitive manufacturing and logistics industries throughout the state.

Expand Broadband Accessibility

Access to high-speed, reliable broadband internet service is required for the “digital prosperity”⁵⁰ of our economy, educational systems, healthcare services, and state and local governments. Nevada’s leaders face an enormous challenge. Too few people and communities have access to quality broadband technology: “If broadband is essential infrastructure, then regulation and public policy

should support every American community having equitable access to broadband and the skills necessary to use it.”⁵¹

For rural communities, broadband may be the only viable solution to the delivery of healthcare and educational services. For instance, Pennsylvania launched a broadband initiative with a focus on rural communities, with Governor Wolf noting: “The critical need for high-speed Internet has become clear in light of our efforts to mitigate the spread of COVID-19, as more families work and learn from home, businesses operate online services and patients access medical care through telehealth.”⁵²

Broadband access often varies by income, race, and remoteness. In the case of Nevada, the “Las Vegas-Henderson-Paradise MSA” has the highest rank of broadband access in the Mountain West. However, 13.7% of the area’s population maintain low broadband subscription rates.⁵³ Access in the state’s rural communities remains limited by the physical absence of the networks needed to support broadband.⁵⁴

Access to broadband is essential to remote education and distance learning. School leaders and elected officials are searching for resources to provide broadband access to those who need it. Even in the state’s most urbanized county, the Clark County School District (CCSD) estimates that as many as 40% of students require assistance to gain adequate internet services.⁵⁵

To help address these challenges, Attorney General Aaron Ford recently announced the launch of T-Mobile’s “Project 10 Million” to offer broadband access for educational needs. The program provides “qualifying student households with access to broadband products and internet services before the start of the 2020-2021 school year.”⁵⁶

Technology-Driven Development

Nevada has long been a place where industry-shaping technologies are unveiled to a global audience. In recent years, the state has pushed further, facilitating the deployment and scaling of new and emerging technologies, such as unmanned aerial systems (UAS) and autonomous vehicles, and demonstrating their applicability in real-world scenarios. Since the Great Recession, Northern Nevada has managed to attract a number of high-profile technology companies, including Panasonic and Tesla, that have enabled economic diversification and provided new employment opportunities for regional residents. Southern Nevada has also attracted technology firms, such as Switch and Hyperloop One, that have worked to diversify the local economy. Other developments, such as the formulation of the water innovations research and commercialization organization WaterStart, have established Nevada as a thought leader in certain growing technology fields.

Work remains to be done, however, to place technology at the center of Nevada’s economy. While new technologies are used throughout Nevada’s industries, Nevada has struggled to become a producer and developer of technologies. Recent progress has been made in Southern Nevada to enable the development of new and innovative technologies in the region’s dominant industries—gaming, hospitality, and entertainment—through the creation of industry-specific accelerators, like Black Fire Innovation. Expanding the opportunities for technology development and deployment in globally-critical sectors—such as manufacturing, energy, and logistics—will fortify Nevada’s economy and place it among key producers of technology.

Investor and mentorship networks for technology-focused startups are relatively underdeveloped in Las Vegas compared to the other metro areas in the country. The COVID-19 impact on co-working and other startup support organizations is high compared to other sectors of the economy, creating an even greater need to strengthen Nevada’s startup ecosystem, in partnership with Nevadan

organizations like StartUpNV as well as external ones. A good example is the Innovation District designation by the City of Las Vegas and the launch of the International Innovation Center (IIC). The International Innovation Center will be a hub for the development of new and emerging technologies (IoT, artificial intelligence, virtual and augmented reality, cybersecurity, water science and advance mobile data) and house local and international startups and established companies.

Establish Southern Nevada as a World Data Hub

Since the Great Recession, Southern Nevada has successfully attracted several firms to establish data centers in the region, most notably Switch and Google. Due to its climate conditions and the low risk for natural disasters, Southern Nevada remains one of the most competitive locations in the United States for data centers. Factors such as available land parcels, energy stability and availability, and the availability of a skilled workforce, are particularly important for the data sector. According to research by the industrial real estate firm CBRE, Southern Nevada ranks competitively among other metropolitan areas for construction and land costs and is middle-of-the-road for labor costs.⁵⁷

Data centers are a catalyst for a wide range of qualitative economic benefits and are attractive assets to Foreign Direct Investment (FDI) in related industries. Data centers and the wider digital ecosystem stimulate growth through knowledge spillovers. Tech-focused FDIs are also considered a major driver of knowledge spillover through labor mobility, market competition, and market transactions with local companies.

Power costs in Las Vegas, however, remain above average for comparative metropolitan areas.⁵⁸ One way to address the comparatively higher power costs in Southern Nevada is to increase the deployment of renewable energy sources; a 2018 study by the Association for Computer Operations Management (AFCOM) found that nearly 42% of companies that use data centers had either already deployed renewable energy sources or were intending to do so in the next year. Of those companies investing in renewables alongside their data centers, 60% indicated that renewables would help the financial bottom line of the data centers.⁵⁹

The increasing attractiveness of Southern Nevada to technology companies, particularly those looking to establish data centers in the region, heightens the need for a qualified workforce that can meet the needs of these employers. A 2018 report by AFCOM identified the top job types that are needed for a strong data center workforce, including cloud, facilities, and center technicians; operations and controls engineers; and program managers.⁶⁰ Each of these career pathways requires highly technical training, much of which is done at the post-secondary level. To position itself for exponentially greater growth in the data center industry, Southern Nevada must pursue education and training programs in these fields at the Clark County School District (CCSD), as well as the region's two- and four-year higher education institutes.

Building out 5G networks and closing other digital divides (like broadband access), Nevada can position itself as the "Data Capital of the Mountain West." With the presence of Switch and Google taking a lead, Nevada can claim a leadership position in data storage and become a world-renowned cluster in that business category.⁶¹

Specific areas of interest include:

- **Facilitate the Deployment of Renewables for Industry.** Accelerating the transition to a low-carbon economy by supporting the private sector's adoption of resource-saving technologies.

- **Support the Development of Data Center Training Programs.** Facilitating the growth of Nevada's skilled technical workforce by expanding training opportunities for middle- and high-skill and -wage occupations at the state's two- and four-year higher education institutions.

Recruit Automation and Digital Technologies Firms

The COVID-19 pandemic has accelerated the transition toward greater automation and digitization of many routine, and some non-routine, tasks. As these technologies mature beyond the laboratory, companies will be looking for opportunities to deploy their innovations in a real-world context. Nevada has demonstrated its openness to being a testbed for autonomous technologies; Reno-Sparks' metro region is home to UNR-led "Living Lab" for autonomous vehicle technologies, while Southern Nevada is host to the Nevada Institute for Autonomous Systems (NIAS) and is an FAA-designated proving ground for unmanned aerial systems, one of a handful in the United States. Such designations will be a valuable feature of the state for companies operating in this space.

The recruitment of automation and digital technologies firms also builds upon the state's push to integrate advanced manufacturing capabilities into the economy. Advanced manufacturing requires cutting-edge equipment and systems, such as those produced by automation and digital technologies firms. Clustering the producers and users of these technologies together creates critical mass in the local economy and incentivizes other firms to relocate to the area.

Specific areas of interest include:

- **Establish an Advanced Manufacturing Applied Research Center Housed Jointly between the University of Nevada Reno and Truckee Meadows Community College.** This will support the development of human and knowledge capital in the advanced manufacturing arena to accelerate the growth of Nevada's advanced manufacturing industry.

Enable Technology-Based Entrepreneurship

Entrepreneurship has been a key focus of Nevada's recovery from the Great Recession. According to the Kauffman Foundation's Indicators of Entrepreneurship, in 2019 Nevada ranked 15th out of all U.S. states and Washington, D.C. in the percent of population that started a new business, indicating the highly entrepreneurial spirit of Nevadans. However, the data also reveal that the rate at which Nevadans start new businesses has steadily fallen since 2016 and remains well below 2012 levels. Slightly offsetting this decrease in the rate of new entrepreneurs is the increasing number of jobs created by the average Nevadan startup; since 2010, the average number of jobs created by a Nevadan startup has increased from roughly 4.8 to about 6.4, a 31% increase, ranking Nevada sixth in the United States for startup job creation. Likewise, an increasing share of startups in Nevada are formed by choice (82.62%), rather than necessity, though the state remains below the U.S. average and ranks 40th overall.⁶²

While the above data indicate that Nevada has proven adept at fostering entrepreneurship throughout the state, much of the state's business creation activity remains concentrated in retail and other service-oriented sectors. There is an important distinction to be made: though "entrepreneurship" may be interpreted as any new business creation, there is a difference between "small business entrepreneurship" and "startup entrepreneurship." Many newly formed retail and service-oriented businesses would likely be classified as small businesses rather than startups due to their primary focus on local markets and limited interest in scaling nationally or globally. Startups, however, intend to create a new industry or disrupt an existing industry, frequently on an

international scale. To do this, many startups spend significant capital on research for a new product or service, often not seeing positive revenue for years.⁶³

Encouraging growth in technology-driven entrepreneurship calls for a more intentional approach to entrepreneurship-supportive policies. Due to their focus on developing new products or services, startups require access to knowledge capital and competencies within certain technical domains. Outside of the software space, startups looking to develop new products or services can also be capital-intensive (e.g., in energy or transportation), requiring consistent access to funding sources over longer stretches of time. Mentorship from successful startup founders, as well as venture capitalists, are also valuable resources for those looking to establish technology-intensive startups.

Unfortunately, the COVID-19 pandemic has had a negative impact on startups and small businesses. Globally, 41% of startups are threatened because of the COVID-19 pandemic, and Nevada is not exempt from that statistic.⁶⁴ The responsibility of preserving startup companies falls on governments and their willingness to mitigate the impacts through grants, loans, deferring costs, payroll support, and other measures to alleviate investment uncertainty. At the state and local level, it is important to understand the pain points faced by local technology entrepreneurs when forming and scaling their firms. State and local leaders have been effective at doing this for larger tech companies—such as Apple, Tesla, and Google—enabling the firms to establish a presence in northern and Southern Nevada. A different suite of policies and initiatives will be necessary for enabling technology entrepreneurs to sustain their success.

Specific areas of interest include:

- **Establish a Statewide Network of Angel Investors.** Convening Nevada-based investors to support emerging start-ups throughout the state.
- **Support Collaboration with Private and Non-Profit Tech Accelerators.** Expanding the state's collaborations with organizations that provide support to Nevada's entrepreneurs, such as the North Las Vegas Innovation Collective.
- **Conduct a Study of Missing Tech Ecosystem Components.** Identifying the shortcomings of Nevada's current tech ecosystem to enable more effective tech-centric policies and programming.
- **Close Funding Gaps by Creating a Statewide Seed Fund.** Accelerating the growth of Nevadan start-ups by providing direct support to entrepreneurs operating in key sectors of the economy.
- **Design a Cohesive Strategy to Enhance the Existing Nevada Global Business Recruiting Platform.** Positioning Nevada as an ultra-competitive soft-landing region for high-growth technology startups from around the world.
- **Create Mechanisms to Identify, Match, and Support a Wide Pool of Mentors.** Establishing a cohort of mentors that can provide guidance and assistance to Nevada's entrepreneurs.
- **Create a Diverse Innovation Ecosystem.** Enabling the growth of women and minorities in STEM fields.

Responsible and Sustainable Growth

Nevada has consistently demonstrated a dedication for embracing sustainability as it develops and diversifies its economy. Since March 2019, the state has been a signatory of the U.S. Climate Alliance, which commits the state to a reduction in greenhouse gas emissions of over 25% by 2025. Not only has the state looked to reduce its impact on the environment to mitigate its contribution to climate change, but Nevada has also viewed sustainability as an economic opportunity on which it

can capitalize. According to the U.S. Climate Alliance, member states created more than 133,000 jobs in clean energy between 2016 and 2019, bringing the total employment in clean energy in these states to more than 2.1 million. Of the 25 member states, Nevada experienced the most significant growth in clean energy jobs, witnessing a 45.5% increase in clean energy employment between 2016 and 2019.⁶⁵

Nevada is well-positioned to maintain growth in the clean and green economy. As electric vehicles become more commonplace throughout the world, and as renewables achieve further integration within national electric grids, the need for energy storage solutions will increase significantly. Nevada has the opportunity to place itself at the center of energy storage supply chains, in large part due to its enormous reserves of lithium. There is also potential for Nevada to export its expertise in water conservation and management, for which the state has become internationally renowned. It will be critical for state and local agencies to facilitate the actions of key players in these areas so that utilities, transportation networks, and consumers can move rapidly toward a sustainable future.

Lead the Global Development of Energy Storage Supply Chains

Mining has long been a significant component of Nevada's economy, and the discovery of large lithium deposits in Northern and Central Nevada positions the state to be a global leader in lithium production. Lithium plays a critical role in many new and emerging technologies, especially those concerned with energy storage for electric vehicles and electric grids. The mining of lithium provides a catalyst for Nevada to develop a new component of its mining industry that is intimately connected to the global value chains in technology development and production. Likewise, the processing of other critical materials and minerals beyond lithium that are key to U.S.-based technology production and development would position Nevada well within the national security apparatus, securing the state as a key component of U.S. technology supremacy.

Nevada is currently well-positioned for this transition. The opening of Tesla's Gigafactory in Northern Nevada served as a critical first step in realizing the state's role in global energy storage supply chains. However, despite Nevada's significant known and probable lithium reserves, Tesla is forced to import lithium from outside of the United States for inclusion in their batteries.⁶⁶ Development of Nevada's lithium sector not only closes a critical gap in Nevada's energy storage production, but also enables Nevada to become a net exporter of lithium. In fact, the expected yield of Thacker Pass, the region of Northern Nevada that is proposed for lithium mining, may potentially fulfill 25% of today's global demand for lithium, once the proposed mining development reaches full capacity.⁶⁷

Specific areas of interest include:

- **Accelerate the Convergence of In-State Lithium Mining and Production.** Enabling the centralization of lithium procurement and refinement within the state of Nevada.
- **Solidify Nevada's Role in the Global Energy Storage Supply Chain.** Growing Nevada's lithium operations to position the state as a key player in the global energy storage supply chain.

Transition to a Low-Carbon, Low-Emission Economy

Nevada's Climate Strategy has committed to a reduction in greenhouse gas emissions of over 28% by 2025 and net-zero (near zero) by 2050.⁶⁸ The state has made progress on this goal through several recent developments, including widespread solar energy deployment and electric vehicle adoption. The state's energy provider, NV Energy, remains committed to further usage of renewable energy technologies and adopting a greater variety of renewable energy sources. It has partnered with higher education institutions throughout the state, providing million-dollar grants to the

University of Nevada, Reno (UNR) and the University of Nevada, Las Vegas (UNLV) to develop a geothermal studies program (UNR) and a renewable energy studies program with an emphasis on solar energy (UNLV).

In recent years, NV Energy has also begun harnessing emerging technologies—including drones—to monitor Nevada’s energy transmission network and identify potential fire threats. In deploying renewable energy technologies in the state’s energy infrastructure network, however, NV Energy has faced challenges. Before making an investment in renewable energy infrastructure, the proposed project is assessed by the Public Utilities Commission of Nevada (PUCN) using a cost-of-service-based framework, which does not take into consideration many of the current values held by energy infrastructure stakeholders, such as reducing carbon emissions. However, PUCN is obligated to use the cost-of-service framework by historic public statutes, making it difficult for the regulator to assess proposed investments according to newer standards tied to green energy. A scorecard approach—for example, one that examines the number of jobs created by a proposed project and the expected carbon reduction—would better enable NV Energy to flexibly integrate renewables into the state’s energy network.

Specific areas of interest include:

- **Evaluate PUCN’s Investment Review Framework.** Re-evaluating PUCN’s cost-of-service approach and integrated resource planning process for reviewing energy infrastructure investments to identify areas for modernization, such as moving toward a performance-based approach, that enable the use of new metrics for investment assessments.
- **Expand Nevada’s Electric Vehicle Charging Network.** Partnering with Nevada’s energy providers to significantly expand the state’s electric vehicle charging network to enable greater adoption of electric vehicles.
- **Build research capacity across UNR, UNLV, and the Desert Research Institute in renewable energy.** Reaffirming Nevada’s commitment to excellence and leadership in renewable energy by supporting research in key areas of renewable energy technologies.

Transition to Water-Wise Economy

The climatic conditions to which Nevada has long been accustomed have required the state to be innovative in how it exploits its water resources. Local governments, particularly in Southern Nevada, have incentivized residents to forego the typical greenery that is common in many suburban developments in favor of drought-tolerant landscaping that is more typical of the state’s mostly desert climate. Initiatives such as these have helped to increase the resiliency of Nevada’s communities, while also creating new opportunities in the development of water conservation technologies.

The foundation of WaterStart in 2013 served as a catalyst for the emergence of Nevada’s water conservation expertise. Through the commercialization assistance provided by WaterStart, Nevada has attracted companies developing key technologies to conserve water resources. Scaling these technologies—not only throughout the state, but also across the United States and internationally—represents a significant opportunity for Nevada to achieve a water-wise economy and grow an economic sector that is sure to be in demand as the consequences of climate change are felt across the globe.

Specific areas of interest include:

- **Bring smart meter pilot program to scale statewide.** Determine how to scale smart meter pilot program across the state.
- **Study Northern Nevada Development Authority's (NNDA) effluent water proposal.** Lift potential constraints on future industrial and residential development
- **Expand WaterStart's water-tech company recruitment.** Recruit into the existing water-tech cluster through the attraction of WaterStart programs and partnerships.

Comprehensive Placemaking

Nevada has experienced some of the nation's most rapid population growth over the last decade. While much of the growth is concentrated in the state's two major urban areas, Reno-Sparks and Las Vegas, the growing opportunity for remote work due to the COVID-19 pandemic opens much of Nevada's frontier to a new class of digitally- and geographically connected worker. Workers that were once constrained to urban and suburban localities due to their proximity to business now have the opportunity to relocate to areas that are more affordable and offer a better lifestyle. Nevada's connectivity, particularly via air travel, and low cost of living make it a competitive destination for these workers.

To fully capitalize on the new geographies for living and working brought about by the COVID-19 pandemic, a clear understanding of Nevada's communities is necessary. Mapping the benefits and challenges of living in Nevada's communities will help determine where interventions are necessary to ensure Nevada can meet the needs of a vibrant, diverse population. Some pain points, such as healthcare access, have been identified previously and remain imperative, especially during a pandemic. Other areas of interest, like placemaking, are newer but comprise an integral component of defining what it means to be a community in Nevada.

Remove Barriers to Healthcare Access across Nevada

Timely access to quality healthcare has been a consistent obstacle for many Nevada residents that has worsened due to the COVID-19 pandemic. According to the Association of American Medical Colleges' (AAMC) State Physician Workforce Data Report, Nevada ranks 45th in the nation for the number of active physicians per 100,000 residents. The data are worse for the number of active primary care physicians and active general surgeons in the state, where Nevada ranks 48th and 50th, respectively. Around 27% of Nevada's active physicians are international medical graduates, the eighth highest rate in the United States, indicating an intense need to recruit medical professionals to the state.⁶⁹ In Nevada's urban regions, a lower-than-average number of primary care physicians means that many Nevadans face long wait times when seeking medical care. In Nevada's rural communities, long wait times are compounded by a lack of local options, requiring residents to drive to more urbanized areas of the state for medical procedures.

While Nevada has struggled to develop home-grown healthcare talent, much progress has been made on this front in recent years, notably through the establishment of the University of Nevada, Las Vegas (UNLV) School of Medicine, as well as the formation of several nursing programs at the state's two- and four-year colleges. According to AAMC's data, of those physicians who completed their graduate medical education (GME) in Nevada, about 55% chose to practice in the state, ranking Nevada sixth in the United States for graduate medical student retention. However, Nevada again ranks poorly (44th in the nation) for the number of medical residents and fellows enrolled in accredited programs. Additionally, of all the active physicians in Nevada, slightly more (17 percent) received their GME in California, not Nevada (14 percent).⁷⁰ As Nevada is clearly successful at

retaining physicians who complete their GME in Nevada, further expanding opportunities for medical students to complete their residencies in Nevada may better enable the state to grow its healthcare workforce.

The COVID-19 pandemic has demonstrated the need for an adequate healthcare workforce in the state's localities. It has also illuminated the need for a greater diversity of healthcare access points aside from physical healthcare facilities, encouraging medical professionals to meet patients where they are located. By minimizing the need for individuals to physically go to see a medical professional, Nevada can reduce the strain on the state's healthcare industry and increase the total number of patients a physician can see. Telehealth has become an area for growth within the healthcare industry, enabling individuals to access medical expertise for non-emergency conditions from their homes. Assembly Bill 292 (2015) enabled greater development of telehealth services in Nevada, and the COVID-19 pandemic has necessitated a dramatic increase in the use of telemedicine.⁷¹ Increasing the opportunity for telehealth throughout Nevada, particularly in the state's rural and frontier communities, requires investments in the state's digital infrastructure, especially broadband connectivity.

Specific areas of interest include:

- **Expand Opportunities for Residency Programs at Nevada's Hospitals.** Reduce the shortage of medical professionals by recruiting newly graduated physicians to Nevada's hospitals.
- **Expand Broadband Access in Nevada's Rural and Frontier Communities.** Based on Project ECHO, expand the capacity of health professionals to treat disease via telehealth.
- **Address Low Medicaid Reimbursement Rates.**⁷² Encourage the establishment of more hospitals by raising reimbursement rates.
- **Join the Enhanced Licensure Compact.** Eliminate barriers to mobility for medical professionals.

Encourage Purposeful Residential and Commercial Zoning and Development

Nevada's housing market has recovered significantly from the pain inflicted by the Great Recession. As the state has continued to attract new residents at a record pace, new construction of mostly single-family homes has risen to accommodate this growth. Home prices also rose as the state exited the recession. According to the Lied Center for Real Estate at UNLV, whereas the average new single-family home in Southern Nevada sold for around \$300,000 in June 2014, the price had risen 35% to \$463,000 in June 2020. A similar trend has been observed in the Reno-Sparks area, where the average new single-family home price rose 40% from \$325,900 to \$546,670 between June 2014 and June 2020.⁷³ There has clearly been a shift in builder preference for more lucrative, high-end homes in Nevada's two primary urban areas.

The increase in pricing of new single-family homes is further compounded by the increase in pricing of existing single-family homes during the same period—44% to \$365,000 in Southern Nevada and 50% to \$502,000 in Northern Nevada. Across-the-board increases in the price of home ownership contribute to the polarization of local housing markets, where median earners are faced with fewer affordable options and are forced to compete for a smaller amount of housing stock, which can drive prices further.

It is important that Nevada's urban, suburban, and rural communities meet the needs of a socioeconomically diverse population. This may require a more comprehensive approach to zoning and planning in Nevada's communities, where residential, commercial, and retail spaces are co-located to enable further population growth without inundating existing transportation infrastructure.

Likewise, ensuring that affordable housing options are integrated into future residential development plans allows for a greater diversity of individuals to engage in Nevada's communities.

The situation for commercial property is especially challenging because of the shortage of sites of the appropriate size. Indeed, a recent study sees land rather than water as the principal constraint on the development of Clark County in the years ahead. The region is projected to require about 14,100 acres of developable employment land to meet the needs of the expected economic and job growth by 2035. Given that only 9,100 acres are available that are optimal for development, there is the possibility of a 5,000-acre shortfall by 2035.⁷⁴

Specific areas of interest include:

- **Lobby for the Southern Nevada Public Land Management Act (SNPLMA)** Immediately and aggressively pursue changes to federal law to release additional space for development.

Expand the Outdoor Recreation Economy

The COVID-19 pandemic has encouraged individuals to engage with their local and regional outdoor amenities. According to the U.S. Department of Agriculture Forest Service, this renewed attention in the American outdoors as a result of stay-at-home orders and restrictions on indoor entertainment is built upon a trend that has been growing in the United States since the late 1990s. On a national scale, outdoor recreation has grown to a \$646 billion industry that directly employs more than six million people.⁷⁵

While the "recreation economy" has long been present in Nevada, COVID-19 has reinvigorated interest in the state's outdoor assets. Prior to the pandemic, the Nevada outdoor recreation economy directly employed 87,000 workers, generating nearly \$13 billion in consumer spending, \$4 billion in wages and salaries, and over \$1 billion in state and local tax revenue.⁷⁶ Nevada has taken steps to recognize the potential the outdoor recreation economy represents for the state, notably through the creation of the Nevada Division of Outdoor Recreation (NDOR) in 2019.⁷⁷

Continued development of the state's outdoor recreation portfolio can increase the quality of life for residents of Nevada's urban areas by providing opportunities for outdoor exploration while increasing economic opportunity for residents of Nevada's rural communities. Housed within the Department of Conservation and Natural Resources, NDOR will also ensure that the growth of this industry does not come at the expense of the health of Nevada's public lands.

Specific areas of interest include:

- **Expand the scope of the Statewide Comprehensive Outdoor Recreation Plan.** Coordinate outdoor recreation infrastructure planning and implementation with small business development in rural communities.

Support Entrepreneurship in Digital Arts and Esports

Entertainment has been an integral component of Nevada's economy. As creative content has increasingly become digital and easier to consume without requiring individuals to travel to one particular destination, a shift toward becoming a hub for digital arts creation provides local creatives the opportunity to produce and share their works to a broader audience.

Entrepreneurship in the digital arts goes beyond the creation of digitized art. Indeed, emerging areas like game design are also a significant area of growth in Nevada, especially in Southern Nevada. The emergence of esports as the new frontier in gaming and digital entertainment will allow for a new

class of digital artist. Access to resources, such as game design studios and equipment, will enable entrepreneurs in this space to hone their skills and develop industry-leading games in Nevada. The presence of the gaming industry throughout the state provides these entrepreneurs with a built-in test bed for their games and the potential to scale beyond the state.

Specific areas of interest include:

- **Create a Digital Arts Studio in Southern Nevada.** Within the UNLV innovation district provide the infrastructure necessary for digitizing the performing arts



Nevada's Plan for Recovery & Resilience

Capabilities to Realize the Vision

The Future Beyond the Pandemic

Capabilities to Realize the Vision

In order to realize these strategies for the future, Nevada will need to build or rebuild key financial and institutional capabilities and develop realistic statutory actions. The capacity of the state and its associated institutions is stretched to the limits by the current crisis. Nevadans have preferred a low-capacity state government, dispersed over three cities. But Nevadans cannot prosper in the future without accepting the need to invest in real management and financial capabilities. This does not necessarily mean a large government, rather it calls for an effective government. To be effective, systems must be modernized, and institutions reformed. Such initiatives would include those listed below:

- Fully fund the state infrastructure bank.
- Establish a sovereign wealth fund.
- Reinvent a Knowledge Fund and build a network of innovation and evergreen venture funds.
- Establish a single state office in support of Micro-, Small-, and Medium-Enterprises (MSME).
- Grow Nevada's community banking network
- Modernize Nevada's fragmented administrative systems.
- Redesign governance and funding mechanisms for the community college system, such as through the academic enterprise model.

Fund the State Infrastructure Bank

Nevada needs to make significant investments in infrastructure if it is to keep growing its economy. However, the state's ability to raise money is more limited than that of most states; for example, Nevada's state constitution bans toll roads. In response to these challenges Nevada lawmakers passed AB 399. This measure, commonly known as the "infrastructure bank bill," created the framework for the Nevada State Infrastructure Bank in order to fund roads, bridges, and other projects across the state. Such an institution not only allows the state to mobilize its own ability to borrow but provides an institutional environment ready to respond to federal infrastructure initiatives. Such initiatives, although much talked about, have not yet materialized.

However, as the scenarios laid out at the beginning of this report indicate, recovery from this crisis may take a long time. Capital will be cheap, labor will be available, and it will be vital to complete the capital projects discussed in the section above if the state's economy is going to grow in new, more resilient directions.

The first order of business in building Nevada's capabilities for the future is to capitalize the bank, which at present is an empty shell. This could be achieved in a variety of ways, but seed funding from the state employee's retirement plan could be a viable path (although CARES act funding may also be a possibility if constraints on the use of that funding allow). Given the list of projects already identified across the state with a high ROI it would be easy to then obtain other investors in the bank.

Establish a Sovereign Wealth Fund

Sovereign Wealth Funds (SWF) are often used to smooth out public-sector revenues by calling on savings obtained from taxing natural resources (mitigating the necessity of funding substantial rainy-day funds out of general fund revenues). There are many examples of SWFs in the United States and around the world (see the list of U.S. states with sovereign wealth funds in Appendix C). Some states obtain modest revenues, although they can be vital in a crisis. New Mexico was able to shore up many small businesses early in the present crisis by calling on its SWF. Other states can use them in transformational ways: The University of Texas benefits from a Permanent University Fund that now exceeds \$20 billion.

Nevada has several possible sources of revenue from which to draw in order to fill the fund. More important at this stage is to set in place an institution that was truly independent and transparent (many models exist). Voters may have reservations about revenue that disappears into the general fund. A sovereign wealth fund tasked by statute with supporting applied research for business and workforce development would increase the confidence of the voters that the revenues were being invested in the state's future (a model could be the Golden Leaf Foundation in North Carolina).

Establish the Nevada Innovation Fund

Nevada's Knowledge Fund has recorded some high-profile successes in innovation and entrepreneurship. However, Knowledge Fund investments to date have mainly established sustainable research infrastructures and conduits of access for private companies to Nevada's three main research institutions. This approach has provided research services and a talent pool to industry and helped to support projects in obtaining federal research grants (DARPA, NIH).

However, a changed mindset is required at the universities. Such a fund is not best thought of as an opportunity to build capacity. It is an opportunity to fuel business-based innovation in partnership with universities. A Nevada Innovation Fund, a new vision in this space, would make investments

targeting tech commercialization, spin-out company formation, and monetization of IP from research institutions; it would also support the growth of entrepreneurial ecosystems (up to and including direct support of tech companies).

Such a fund could work in at least four ways:

- **Innovation Capacity Building:** Grant funding for applied R&D infrastructure and projects at Nevada System of Higher Education (NSHE) (similar to Knowledge Fund projects). Emphasis on university/private industry partnerships, such as the Nevada Health and Bioscience Asset Corporation at UNLV.
- **Innovation Transfer:** Grant funding for technology transfer projects at NSHE and private companies through Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) matching program (Focus on Technology Readiness Level [TRL] 3 – 6)
- **Innovation Acceleration:** Grant funding to accelerate innovation for private early-stage Nevada tech companies to help them scale (best practice: USTAR TAP). Creation of acceleration and venture building programs through collaboration with outside organizations (e.g., Rainmaking – UNLV). Support for Entrepreneurial Service Organizations (ESOs) to include mentoring, networking, entrepreneurial training for private entity or university researcher.
- **Innovation Ventures Seed Funding:** Through non-profit Nevada Battle Born Growth Escalator, Inc. (NBBGE). Assistance with creation of Independent Commercialization Entity to offer NSHE path to effective formation of spin-out companies while providing investors with clarity of ownership structure. Equity-based investment to early-stage companies with high potential to scale (through NBBGEI). Focus should be on NIF/KF project linked spin-outs.

Establish an Office for Micro-, Small-, and Medium-Sized Enterprises (MSME) within GOED

Support for MSME is especially important for a state like Nevada. The state is home to an enterprising population known for pursuing gig work alongside regular employment, lifestyle entrepreneurship or businesses (in the arts and outdoor recreation), or opportunities available from family-run businesses (especially valuable to recent immigrants). In short, MSMEs are a source of economic dynamism and often an important step on the economic ladder for immigrants and other disadvantaged populations.

However, responsibility for state policy towards MSMEs is spread across three parts of state government: The Department of Business & Industry (B&I), GOED, and the Nevada System of Higher Education (NSHE) through its Small Business Development Centers (SBDC). As a result, there is limited coordination and conflicting communication, with no single office or leader charged with owning all of the issues of importance to this sector.

Self-Employment Assistance (SEA) is an example of the kind of initiative such an office could coordinate. Five states — Delaware, Mississippi, New Hampshire, New York, and Oregon — have implemented this federal program that facilitates small-business startups. States that opt in can pay dislocated workers a weekly SEA allowance—the same amount that an individual would receive in unemployment benefits—with the individual encouraged to work full-time on his or her new venture instead of seeking a job. SEA also supports a wrap-around infrastructure through which participating individuals receive entrepreneurial training, business counseling, and technical assistance.⁷⁸

In the last legislative session, the Lt. Governor proposed an Ombudsman in her office to troubleshoot small business issues. This is a move in the right direction but could be amplified by moving the small business function from B&I to GOED. With the Lt. Governor serving on the board of GOED, this could create a working group and point of contact for small business inside GOED, led by the Lt. Governor, that addressed the present fragmentation of policy.

Grow Nevada's Community Banking Network

Community banks were essential to the success of the Paycheck Protection Program (PPP) in the present crisis. It was designed in a way that made community banks integral to its success. \$525 billion was distributed in the four months from April through August and Community banks with \$10 billion or less in assets made about 40 percent of the overall number and value of PPP loans. But Nevada is grossly underserved by community banks, and as a result was relatively slow to benefit from the PPP.⁷⁹

Community banks are small, but they play a big role in local economies. A community bank is a bank which has specialized knowledge of their local community and their customers and base credit decisions on local knowledge and information obtained through long-term relationships. They receive deposits from sources within a town or city and lend that money to local businesses to create balance within that economy. Because community banks consider history and reputation of their customers when making decisions, they invest themselves in their customer's success and offer assistance, training, and support beyond that of national institutions.

Such banks can take many forms, both private and not-for-profit. Most are certified by the federal government and are eligible for government support (through the federal CDFI Fund) as well as private funding. Nevada's regional leaders should mobilize partnerships of key regional institutions in support of their formation. This will enrich the ecosystem in which MSMEs operate and help ensure their success.

Modernize Public Policy and Governance

Introduction

As individuals, families, businesses, schools, and communities across Nevada work to recover from the public health and economic devastation brought about by the COVID-19 pandemic, elected officials have an opportunity to enact a series of reforms to modernize state government. These efforts should address structural deficiencies in government operations and policy issues including workforce, economic development, and taxation. For example, the Nevada Governor's Office of Science, Innovation & Technology (OSIT) should be empowered to establish enterprise-wide information technology systems (comparable to initiatives in Utah and Colorado). It is a given that Nevada is behind in adapting technology for the delivery of government. By contrast, Arizona implemented a cloud-based management system that ends the "reliance on paper, outdated procedures and decentralized management [that] can hamstring a state's ability to disperse and track funds."⁸⁰

The COVID-19 pandemic demonstrated that states must operate in a 21st century technological environment. State employees require basic infrastructure to perform their duties. Laptop computers without cameras are not a budget savings measure if state workers cannot participate effectively in virtual meetings. Requiring paper copies of standard forms, accepting fax copies but not pdf documents, and being unable to respond to email inquiries is unacceptable.

Nevada's efforts to manage federal stimulus funds, to administer healthcare and social services (most notably unemployment insurance), and to conduct legislative operations during the summer 2020 legislative special sessions demonstrate that relying on antiquated technology and outdated policies and procedures fail to serve the state.

Federal Funds

The state faces a period of austerity in its finance system, making it critical for state agencies to become more sophisticated in securing federal funds to support important services and ongoing policy priorities. Budget and policy decisions should be strategic and not reactionary to fiscal deficits. Where cuts need to be made, it must be done in a way that ensures the state does not lose matching federal funds. Nevada has recently taken steps to improve its acquisition and management of federal grants. When the state fails to pursue federal resources, the funds are distributed to other regions, placing Nevada further behind its peers.

Local and state leaders across the nation are accessing federal programs and developing public-private partnerships to bring resources to their communities. The Brookings Institution highlighted a sampling of innovative programs that engage idle restaurants, explore online job recruiting tools, including new "apps," apply federal grants and public-private partnerships to help small businesses, and champion racial and social equity measures among others.⁸¹

Boards and Commissions

Nevada relies on boards and commissions with statewide responsibilities to oversee many government and economic sectors. Despite their importance, these bodies often do not reflect the state's current population distribution and operate with antiquated charges that reflect a smaller, more homogenous, and rural-oriented state.

For example, based upon an executive branch audit, Governor Sisolak's administration found that many of the state's occupational boards were misaligned and underperforming. Utah and Colorado have created a division of occupational licensing within their departments of commerce, a model suitable for B&I to follow. One benefit is easing the transfer of credentials for trailing spouses, often an obstacle to recruiting professionals to Nevada where both partners work. This suggests that these boards and commissions require additional reforms and greater oversight to improve performance and representation.

Two recently created boards and commissions demonstrate state government adapting to changes in economic and social needs. The Cannabis Compliance Board focuses on marijuana policy and regulation in a manner similar to Nevada's Gaming Control Board.⁸² The Patient Protection Commission recently voted to focus its work "on healthcare issues facing the state, including workforce development, COVID-19 response, and telehealth."⁸³ The body is even authorized to bring bill drafts directly to the legislature.

These two new entities can serve as models for a review and modernization of existing Nevada boards and commissions. Such a review may identify and recommend the creation, dissolution, or merging of existing boards or commissions.

Taxation

Nevada's system of tax and finance rests on a narrow base, in particular on a single industry, tourism. This leaves the larger Nevada economy vulnerable to economic disruptions, such as the downturn brought about by the COVID-19 pandemic. During the first three months of the pandemic,

Nevada lost 250,000 jobs. In April 2020 alone, visitation dropped 97.3%.⁸⁴ To this end, a Legislative Study Commission or similar body could explore alternative revenue sources designed to broaden the tax base in order to limit volatility in revenues and ensure that the base tracks future change in the economy.

Another element to consider in the state's system of taxation is to draw on regional economic activity to support local services and infrastructure investments. The concept of regional taxes is not new. In Nevada, any consideration of regional taxes must reflect the state's economic geography. Mining, to a large extent, takes place in rural Nevada, while gaming and live entertainment concentrate in Southern Nevada. The introduction of legalized cannabis generated new state and local tax revenue and also raised conversations about its geographic allocation.

Mining is treated as a regional tax, with a portion of revenues reserved for the localities where the resource is located. A similar carve out of the live entertainment tax to support local services and infrastructure, reflecting the concentration of industry and associated costs, would parallel the current tax arrangement for mining in rural Nevada.

Reinvent Nevada's Workforce Institutions

The sections below highlight governance, funding, and workforce development as it relates to the state's higher education system. Options are considered for reforms to integrate innovation and workforce assets to help grow and diversify the state's economy.

Governance and Administration for Workforce Institutions

Nevada's regional institutions need active, locally recruited advisory boards with representation from sector industries that are within the campuses' service areas. These boards will be able to work directly with leadership to develop and assess campus policies, priorities, and performance. Aligning these institutions with regional constituencies will position the campuses to develop partnerships with local industry and governments. Examples from across the country demonstrate the benefits for workforce development and economic diversification that result from locally focused college governance.

Funding

The ideas presented below are designed to more effectively align resources to support the campuses' differing constituencies and missions, particularly as they relate to economic development.

Implemented in 2013, the current formula used to distribute operational funding to the teaching institutions places these colleges at a disadvantage as they compete against the universities for a finite resource. In order to address these shortcomings, the state should develop separate formulas for the universities and colleges that reflect these institutions' differing missions, service areas, and student needs. Resources should be dedicated to students who are Pell-grant eligible and first-generation attendees to support their onboarding, advising, and mentoring. Furthermore, credentials, certificates, and other competency-based curricula should be fully rewarded under the formula for workforce institutions.

The non-alignment between Nevada's colleges and the mix of degrees and certificates awarded also has implications for accessing federal resources. Truckee Meadows Community College (TMCC) most comports with the federal government's definition of a community college, although that was truer several years ago than today as the school expands its four-year programs. As a consequence, TMCC

was the primary intake for federal workforce training funds during the Obama administration. Yet, the campus serves a region with just 16% of the state's population. Out of the \$2 billion in Trade Adjustment Assistance Community College and Career Training (TAACCCT) grants awarded nationally between 2011 and 2014 by the U.S. Department of Labor, Nevada received less than \$24 million.

Nevada needs genuine community colleges based in their communities. Nevada should redefine College of Southern Nevada (CSN), TMCC, and Western Nevada College (WNC) to align with the federal government's definition of a two-year college. These colleges should focus on articulation, certification, remediation, stackable credentials and work-place learning. They should serve as the principal institutions for public-private workforce development collaborations. In the recovery from the current economic crisis, the federal government may fund workforce development and retraining initiatives as it did during the Great Recession. Nevada would be much better positioned to receive federal resources with three IPEDS-defined two-year colleges.

Conversely, Great Basin College (GBC), which offers bachelor's degrees in both arts and sciences, a degree portfolio consistent with a four-year school, should be reclassified as such. GBC should be elevated to a full four-year institution and place the Elko micropolitan area on a par with its regional peers, such as Durango, Colorado and Clovis, New Mexico—both of which maintain four-year institutions that also offer limited graduate education. Elko lies at the center of an enormous rural space where the most proximate four-year college is the University of Utah, 230 miles away. The lack of human capital in the area creates an over-reliance on mining, leaving the Elko area vulnerable to market swings in gold prices. Just as Las Vegas' economic health is over reliant on a single industry, the same is true for many remote communities.

Reimagining Nevada's Research Universities

The first step in better connecting higher education and industry requires transitioning from the current "state-controlled" university structure to an "academic enterprise" model as exemplified by Arizona State University (ASU) (see Table 7 in Appendix C for a more detailed description). Academic enterprise institutions, such as ASU, focus on "social transformation." A hallmark of this approach is public-private partnerships that attract external resources for infrastructure investments and research initiatives. ASU vastly expanded its physical plant by offering private firms access to its nonprofit tax status in exchange for developing facilities that are shared with partners. For instance, State Farm's western headquarters was built on land leased to it by ASU and thus qualifies for property tax exemptions. In exchange, ASU receives academic space and funding, including a \$30 million donation for its career development program.

Nevada's universities should pursue ASU-style, public-private partnerships with multiple industrial and private collaborations in order to expand their research and teaching capacities in an era of very restricted state resources. UNLV began switching to this approach in 2019 to develop its medical education building via a non-profit development corporation. While this particular project was developed in partnership with local philanthropy, it nonetheless establishes a flexible method for using external resources to build what previously would have been a mostly state-funded and state-controlled building. The answer to the prospect of limited state support in the future is to engage multiple stakeholders, including local governments, with common interest in constructing academic facilities that will sustain applied technology and startup enterprises.

Appendix A: References for Nevada's New Economic Geography

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Appendix B: Timeline of Nevada COVID-19-Related Major Events

- March 11: WHO declares a pandemic.
- March 13: President Trump announces a national state of emergency.
- March 15: Governor Sisolak issues Directive closing schools and non-essential government facilities as well as ordering essential government services to transition to online and phone services to the greatest extent possible.
- March 18: Governor Sisolak issues Directive 002 closing nonessential businesses statewide, including Strip resorts.
- March 22: Governor Sisolak announces new COVID-19 response task force.
- March 24: Governor Sisolak issues Directive 007 limiting indoor and outdoor gatherings to 10 people.
- March 27: President Trump signs the CARES Act.⁸⁵
- March 29: Governor Sisolak issues Directive 008, a statewide moratorium on residential and commercial evictions.
- April 1: Governor Sisolak issues Directive 010, extending previous orders as well as enacting a statewide stay-at-home order.
- April 1: Governor Sisolak issues Directive 012 activating the Nevada National Guard to assist with the state's response to the COVID-19 pandemic.
- April 4: Federal government approves Nevada's request for a major disaster declaration, paving the way for federal financial assistance.
- April 8: Governor Sisolak issues Directive 013, extending the statewide shutdown order to golf courses and religious establishments.
- April 21: Governor Sisolak announces framework for reopening the state, largely following White House guidelines.
- April 29: Governor Sisolak issues Directive 016 to extend the stay-at-home order while some certain restrictions lifted.
- April 30: Governor Sisolak releases "Nevada United Roadmap to Recovery" amid plan to reopen state economy under "Phase 1" restrictions.
- May 7: Governor Sisolak issues Directive 018 enacting Phase 1 of the economy reopening plans.
- May 11: Governor Sisolak declares a fiscal emergency.
- May 18: Interim Finance Committee transfers \$401 M balance of rainy-day fund to the state general fund.⁸⁶
- May 28: Governor Sisolak issues Directive 021 enacting Phase 2 of the economy reopening plans.
- June 10: Governor Sisolak issues Directive 023 to ease restrictions on youth sports and to empower local governments to increase restrictions to limit the spread of COVID-19 as they see necessary.
- June 22: State releases "Nevada COVID-19 Outbreak Management Strategy and Concept of Operations" to develop an operations surge strategy to prevent the spread of COVID-19.
- June 24: Governor Sisolak issues Directive 024 mandating the use of masks in public spaces.
- June 25: Governor Sisolak issues Directive 025 easing restrictions on evictions.
- July 8: Governor Sisolak convenes a special session of the Nevada Legislature to address the state budget.⁸⁷

- July 10: Governor Sisolak issues Directive 027, which reverts bars that serve food in counties with elevated levels of disease transmission to Phase 1 and again shuts bars that do not serve food.
- July 21: Clark County School District announces most classes will be held online to start the fall 2020 semester.⁸⁸
- July 28: Governor Sisolak issues Directive 028 to provide guidelines to county school districts on the reopening of schools.
- July 31: Governor Sisolak convenes a second special session of the Nevada Legislature to address several issues.⁸⁹

Appendix C: Supplemental Tables

Table 5: Variables Used for RCG Economics' Analysis

Variable	Geography
Industry-Level GDP	Nevada
Taxable Retail Sales	Nevada, Clark County, Washoe County
Total Nonfarm Employment	Nevada, Las Vegas MSA, Reno-Sparks MSA
Unemployment Rate	Nevada, Las Vegas MSA, Reno-Sparks MSA
Unemployment Insurance Claims	Nevada
Visitor Volume	Nevada, Las Vegas MSA, Reno-Sparks MSA
Property Tax	Nevada, Local Government & School Districts
Room Tax	Nevada, Local Tourism, Clark County School District
Gaming Tax	Nevada, Clark County, Washoe County
Sales & Use Tax	Nevada, Clark County, Washoe County
Consolidated Tax	Nevada, Clark County, Washoe County
Modified Business Tax Collections	Nevada
Marijuana Tax Collections	Nevada

Table 6: Sample of U.S. States with Sovereign Wealth Funds and Their Characteristics.

State	Fund	Funding Source	Funding Purpose	Value
Texas	Permanent School Fund	Sale of public lands	Education	\$46.5B (2019)
	Permanent University Fund	Rents on public lands Resource rents	Education	\$24.0B (2020)
Alaska	Alaska Permanent Fund	Resource rents	Dividends for residents	\$55B (2016)
New Mexico	New Mexico State Investment Council	Resource rents Tax revenue Appropriations	Education Health Infrastructure General fund	\$23.6B (2018)
Wyoming	Wyoming Permanent / Endowment Funds	Resource rents Tax revenue Sale of public lands Rents on public lands Appropriations	Education Public institutions Worker compensation General fund	\$22.7B (2020)
North Dakota	North Dakota Legacy Fund	Resource rents	General fund	\$7.3B (2020)
Alabama	Alabama Trust Fund	Resource rents	Infrastructure Local government Land conservation Senior services General fund	\$3.1B (2020)
Utah	State School Fund	Sale of public lands Rents on public lands Resource rents	Education	\$2.3B (2020)

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SRI International

Oregon	Oregon Common School Fund	Sale of public lands Rents on public lands Resource rents	Education	\$1.5B (2019)
Louisiana	Louisiana Education Quality Trust Fund	Resource rents	Education	\$1.5B (2020)
Montana	Coal Severance Tax Trust Fund	Resource rents	Economic development Education General fund Infrastructure Land conservation	\$1.1B (2020)
	Public School Trust	Sale of public lands Rents on public lands Resource rents	Education	\$0.7B (2019)
West Virginia	West Virginia Future Fund	Resource rents	Education Workforce development Economic development Infrastructure	\$0.1B (2019) (projected)
Idaho	Endowment Fund Investment Board	Sale of public lands Rents on public lands Resource rents	Education	\$2.2B (2020)

Note:

The New Mexico State Investment Council is comprised of four sovereign wealth funds: Land Grant Permanent Fund (1912), Severance Tax Permanent Fund (1973), Tobacco Settlement Permanent Fund (2000), and Water Trust Fund (2006).

The Wyoming Permanent / Endowment Funds is comprised of eight investible funds: Permanent Wyoming Mineral Trust Fund, Permanent Lands Fund, Hathaway Scholarship Endowment Fund, Excellence in Higher Education Endowment Fund, Workers Compensation Fund, Legislative Stabilization Reserve Account, Pool A, and State Agency Pool.

Table 7: Dominant and Emerging Institutional Logics in Higher Education. Adapted from: Michael M. Crow and Kyle Whitman. 2019 "Rethinking Academic Entrepreneurship: University Governance and the Emergence of the Academic Enterprise." Public Administration Review, Vol. 80. No. 3(511-515).

	Academy (Stanford U.)	Academic Bureaucracy (U. of Nevada System)	Market (U. of Phoenix)	Academic Enterprise (Arizona State U.)
Animating Purpose	Enlightenment of individual students	Organizational preservation	Profit maximization for owners and shareholders	Social transformation
Path to Achieving Public Value	Immersive instruction	Achievement of state-specified goals	Efficiency and cost reduction	Connecting instruction to knowledge generation at society-impacting scale

	Academy (Stanford U.)	Academic Bureaucracy (U. of Nevada System)	Market (U. of Phoenix)	Academic Enterprise (Arizona State U.)
Assumptions of Faculty	Self-governing professionals	Bureaucrats responding to rules	Commodity labor; faculty not entrepreneurial	Knowledge entrepreneurs
Assumptions of Management	Management drawn from and blended with faculty	Traditional public managers distinct from faculty	Professional management distinct from faculty and acting entrepreneurially	Management drawn from and blended with faculty but acting entrepreneurially
Accountability Mechanisms	Faculty and management professionalism	Audits, public reporting, standardized testing	Student choice, standardized testing	Demonstrated economic and social progress
Primary Funding Mechanisms	Enrollment funding from state, endowments	Enrollment funding from state	Vouchers, performance-based funding from state	Diverse; institutional entrepreneurship
Organizational Scale of Impact	Individual or groups of individuals	Community or state	Indeterminate, any scale from which profit can be derived	Social scale with possible national and global reach

Appendix D: Forecasted Impact of COVID-19 on Nevada State & Local Taxes

Property Tax

Regarding the tax estimates, because the distributions between the state and sub-state levels are stable, and in some cases (see *Methodology* section) calculated as a fixed share of the state-level revenues, the trends are very similar.

The Property Tax estimates show relatively small hits to total state and local collections, from about 1% to 5% based on the scenario compared to No-Pandemic. This appears reasonable based on the continued strength of the housing market nationally and in the state.

Table 8: Forecasted Change in Property Taxes in Q4 2021 Compared to Expected Property Taxes Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Nevada	-\$40.4	-\$76.6	-\$140.3
Local Government & School Districts	-\$38.2	-\$72.4	-\$132.8

Gaming Tax

As the Gaming Tax is heavily dependent on visitation, these revenues are highly vulnerable during the pandemic. Relative to the No-Pandemic case the Worst Case would see drops in Gaming Tax collections of up to almost 3.7% in 2021. The Most Likely scenario predicts a 2.0% drop and the Best Case a 1.1% drop.

Table 9: Forecasted Change in Gaming Taxes in Q4 2021 Compared to Expected Gaming Taxes Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Nevada	-\$7.6	-\$14.4	-\$26.5
Clark County	-\$6.5	-\$12.4	-\$22.7
Washoe County	-\$0.6	-\$1.1	-\$2.0

Room Tax

Estimates on the Room Tax show potential drops of 3.2% to 11.0% relative to the No-Pandemic case in 2021. The Most Likely scenario suggests a 6.0% decline in collections compared to what they would have been had the pandemic not occurred.

Table 10: Forecasted Change in Room Taxes in Q4 2021 Compared to Expected Room Taxes Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Nevada	-\$10.3	-\$19.5	-\$35.7
Clark County School District	-\$3.2	-\$6.0	-\$11.0
Local Tourism	-\$0.3	-\$0.7	-\$1.2

Sales & Use Tax (SUT)

The SUT revenues are estimated to experience hits of 2.8% (Best Case), 5.0% (Most Likely) and 8.7% (Worst Case) in 2021 relative to the No-Pandemic case. These would be significant impacts to state and local coffers as the SUT is the largest revenue generator. Additionally, it is possible that enhanced Unemployment Insurance (UI) benefits and the direct pandemic payouts are inflating the model outputs because they no longer benefit households. For this reason, these estimates may be overly optimistic in every scenario.

Table 11: Forecasted Change in Sales & Use Taxes in Q4 2021 Compared to Expected Sales & Use Taxes Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Nevada	-\$156.5	-\$276.7	-\$485.1
Clark County	-\$113.2	-\$200.1	-\$350.8
Washoe County	-\$20.7	-\$36.7	-\$64.3

Consolidated Tax (CTX)

The same limitations that exist regarding the SUT apply to the CTX. Even with this possible overestimation, the CTX is still expected to experience declines in 2021 of 3.2% (Best Case), 16.0% (Most Likely) and 36.4% (Worst Case). It makes sense that these drops are greater in magnitude than for the SUT because CTX revenues are largely dependent on spending that is easier to cut out of a household's budget, like cigarettes and alcoholic beverages.

Table 12: Forecasted Change in Consolidated Taxes in Q4 2021 Compared to Expected Consolidated Taxes Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Nevada	-\$18.8	-\$95.4	-\$217.0
Clark County	-\$5.4	-\$27.2	-\$62.0
Washoe County	-\$0.3	-\$0.7	-\$1.2

Modified Business Tax (MBT)

The MBT is a state-level payroll tax. With lower levels of employment, it is expected that these revenues would be diminished as well. According to the model results, these declines in 2021 relative to the No-Pandemic case would amount to about 4.8% in the Best Case, 9.0% in the Most Likely scenario and 16.0% in the Worst Case.

Table 13: Forecasted Change in Modified Business Tax in Q4 2021 Compared to Expected Modified Business Tax Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Modified Business Tax	-\$36.1	-\$67.7	-\$120.1

Marijuana Taxes

The Marijuana Taxes, the last collections estimated under the model discussed below, are expected to take hits similar to those of the MBT (by coincidence). In the Best Case, we expect a drop of about 4.2% compared to the No-Pandemic case. In the Most Likely scenario, that drop would be about 8.0% percent while in the Worst Case we estimate a 14.5% drop.

Table 14: Forecasted Change in Nevada Marijuana Taxes in Q4 2021 Compared to Expected Nevada Marijuana Taxes Under No-Pandemic Scenario (in Millions). Source: RCG Economics.

	Best Case	Most Likely	Worst Case
Marijuana Tax	-\$4.7	-\$9.0	-\$16.5

Appendix E: Economic Model Design

Modeling the economic situation relative to the pandemic is a difficult task. First, basic univariate methods are likely to fail because the pandemic presents an economic shift. Second, there are simply not enough data to forecast economic variables analytically in a multivariate model. There are several variables that are helpful to the model, but not enough post-pandemic observations to estimate the variables' coefficients with any certainty. Another complication is that psychological/behavioral and sociological effects are driving much of the response to the pandemic and associated economic outcomes. That makes it even more difficult to measure and predict. For this reason, RCG chose to take a less rigidly statistical approach to modeling economic outcomes relative to the pandemic. The model is based on applying what we think are reasonable assumptions, backed by data and the economic and medical literature, relative to certain drivers that shift a baseline level of GDP. The purpose of this section is to describe these assumptions based on the sources cited throughout the study.

The model that drives the study's results has been performed in a series of steps. The first step defines the scenarios based on certain driver variables. Those variables are driven by assumptions that underlie three scenarios. Next, these variables are used to drive decreases to a baseline GDP forecast that assumes the pandemic never occurred. Finally, the finalized GDP forecast has been used to forecast various indicators of interest.

Based on the information discussed below, three scenarios were created for the Nevada economic forecasts produced in the study, in addition to a hypothetical fourth "no-pandemic" scenario, the baseline GDP forecast. These scenarios should provide a reasonable range of economic outcomes to make more informed decisions relative to the Nevada economy over the course of the next several quarters. The scenarios are:

- No Pandemic
- Best Case
- Most Likely Case
- Worst Case

As the name suggests, the no-pandemic scenario assumes that the pandemic never occurred. The Worst-Case scenario reflects a pessimistic view of the economic effects stemming from COVID-19. The Most Likely scenario represents a most likely outcome, based on the research discussed, while the Best-Case scenario presents an optimistic view.

Basing this model on a baseline forecast that assumes that the pandemic did not occur carried the implied assumption that the structure of the post-pandemic economy changed only relative to factors directly caused by the pandemic. This means that if the economy returns to normal today (i.e., COVID-19 is cured and everybody returns to work), GDP will return to its pre-pandemic level and trend. This may not have been an ideal assumption but based on the economy's initial bounce back after the lockdown, it appears to be a reasonable assumption over the short term.

The forecast horizon of the study is from approximately Q2 2020 to Q4 2021, depending on when the most recent data have been released for each indicator.

GDP Model

No-Pandemic GDP Forecasts

As discussed above, to project inflation-adjusted (“real”) GDP and other indicators into the future, RCG required a baseline real GDP forecast for the regional total. RCG has produced forecasts by sector as well, which is discussed below. These baseline forecasts, in 2012 dollars, estimated Nevada’s real GDP assuming the Covid-19 pandemic had not occurred (see Figure III-19). These have been compared to the actual values of GDP that did occur in 2020. This has been done to later apply certain “change” factors to the baselines that arrive at the actual values thus far and then to project those “change” factors to forecast future GDP. The model includes natural economic growth because the baseline forecast is in real terms and captured the growth trend in the series since 2014.

The GDP data have been obtained from the Bureau of Economic Analysis (BEA). To produce the baseline GDP forecast, RCG has employed the Seasonal Autoregressive Integrated Moving Average (SARIMA) method.⁹⁰ A version of the Hyndman-Khandakar algorithm⁹¹ is used to produce initial results and then several variations of the models were then run in order to choose a reasonable set of findings. These findings have been double-checked using several visual and analytical tests.⁹²

Setting Up Scenarios

After estimating baseline, no-pandemic GDP, RCG continued estimating GDP under the three scenarios (Worst Case, Most Likely and Best Case). These scenarios have been developed based on the baseline GDP forecasts and three variables:

- Phase effects
- Self-isolation effects
- Unemployment insurance

The discussion below describes how the three factors have been used relative to the No-Pandemic GDP case to produce the results discussed in the previous section. It should be noted that there is also uncertainty around public policy options. Each potential new future policy will make it more difficult to model the impacts.

Length of Pandemic

Before discussing the three main effects, it is necessary to discuss the assumptions regarding the duration of the pandemic. We assume that both phasing and self-isolation will end based on the time to widespread vaccination or the time to herd immunity, whichever will occur first. According to Dr. Fauci, the economy will not return to normal—as it was before COVID-19—until there is a vaccine.⁹³ In terms of time to achieving herd immunity, it is too early to estimate when that might happen. Based on the studies discussed above, there is too much uncertainty in what share of the population has been infected already. Additionally, the concept of herd immunity may not apply to a novel virus. Per Dr. Michael Osterholm, an epidemiologist at the University of Minnesota, it is possible that neither natural disease nor vaccine provide long-term immunity. If this were to be the case, then COVID-19 could be around for decades and simply become something that humans must survive.⁹⁴ However, because this possibility lies outside of the time horizon of the study, it is not included in the model.

According to the New York Times, there were over 126 vaccines in development at the end of August.⁹⁵ However, even if a vaccine were ready today, it will take time to produce and distribute, although pre-purchased vaccines may help speed distribution.⁹⁶ Wealthy countries will likely hoard doses to inoculate their populations before exporting vaccines.⁹⁷ In the case of the United States,

this will speed vaccination relative to poorer nations. Another possible problem is that the global supply chain may not be up to the task of quickly distributing a vaccine worldwide. This could be an issue if U.S. firms are unsuccessful in their efforts to develop a vaccine.⁹⁸ Still, in light of these variables, according to USA Today's pandemic science panel, a vaccine should reach widespread attainability by mid-2021. However, according to Science, only about 50% of Americans plan to get the vaccine when it becomes available, with another 25% still unsure.⁹⁹

Relative to the research discussed, in the Worst-Case scenario, RCG has assumed that no vaccine will be discovered before 2022, resulting in a prolonged economic emergency. In the Most Likely scenario, widespread availability of a vaccine in July 2021 is assumed. In the Best-Case scenario, availability will occur in April 2021.

Phase Effects

Phase effects refer to negative modifiers to GDP that will be caused by government-mandated business lockdowns. These lockdowns shutter businesses and effectively halt economic activity. They appear to help limit the spread of COVID-19.¹⁰⁰ RCG produced a timeline of the phased lockdowns based on Governor Sisolak's state of emergency directives. The governor has since stated that he plans on moving away from a "phased" system of lockdowns.¹⁰¹ However, because the phases in this model have been used as a vehicle to develop a rate of active jobs in Nevada, rather than directly employ the phases as variables, our methodology in this regard should be appropriate.

There have been five official phases of reopening described by the state government. We refer to these phases as: Phase 0, Phase 1, Phase 2, Phase 3, and Phase 4, ranging from lockdown to back-to-normal. These phases have been intended to be rolled out based on certain milestones relative to COVID-19 caseloads. However, the New York Times reported that few states that had planned to lift their lockdowns or had already done so by early May had met the White House guidelines for reopening.¹⁰² Nevada was in this group, as are most states.¹⁰³

RCG uses definitions herein for the lockdown phases' inactive jobs, by industry, from GOED. This information reflected which sectors' businesses could remain open during each phase. Phase 0 referred to a total lockdown. Only those businesses deemed "essential" could remain open. RCG employed the GOED definitions to estimate weighted averages for the share of active workers in each two-digit NAICS¹⁰⁴ industry. In Phase 0, businesses accounting for slightly more than 70% of workers could remain open.¹⁰⁵ In every successive phase, more businesses will likely be able to open. Phase 4 represented a "normal" economy—no mandated business closures, meaning after the pandemic has ended. Additionally, RCG added a sixth phase to the mix. Through the July 10, 2020 Directive 027, the Governor declared that bars and taverns not licensed to serve food may only offer pick-up and delivery service. RCG assumes that these establishments will not open at all based on this restriction and referred to this altered version of Phase 2 as Phase 1.5.

The following explanation provided a sample of the method employed relative to the phasing. In the case of Phase 0, there will likely be a significant dampening effect on GDP. About 30% of jobs will be potentially inactive during Phase 0 (this is a lower-bound for the share of active jobs because not all locked down businesses will potentially lay-off all their workers). Research has shown that every one percent decline in GDP correlates to about a one percentage-point increase in the unemployment rate.¹⁰⁶ Assuming that a one percentage-point increase in the unemployment rate roughly corresponds to a one percent decline in nonfarm jobs, there should be a 1:1 relationship between percent change in jobs and percent change in GDP.¹⁰⁷ However, because this represents a lower-bound and there is wiggle room in this particular analysis since RCG had to manually estimate

variable effects—an unavoidable drawback to the problem of a lack of data—we applied a 25% modifier to the 30% change in jobs to obtain the change in GDP. This has resulted in an approximately eight percent dampening effect relative to the no-pandemic forecasted GDP on days where Nevada was in Phase 0 lockdown. We have repeated this method for each phase and estimated a weighted average of this effect based on the number of days that each phase will potentially be in effect over the course of a quarter.

Following the steps above, RCG designed three scenarios for future phasing to correspond to the model's three scenarios (see Table III-2). The phase timelines concerning historical data have been produced based on the Governor's directive dates. The three scenario future timelines have been based on research discussed above. Reopening the economy will be an iterative process. In fact, large events, such as concerts, nightclubs, bars, and sporting events, may not reopen to the public until fall 2021.¹⁰⁸

In the Worst-Case scenario, it is assumed that infections, hospitalizations, and deaths will surge in the fall through early spring, leading to another Phase 0 lockdown, then reopen to Phase 1.5, before reverting back to Phase 0 lockdowns in fall 2021, as the scenario assumes no vaccine prior to 2022. In the Most Likely scenario, it is assumed that there will be a minor surge of cases in the fall and winter of 2020, resulting in the state moving back into Phase 1. The state will likely return to Phase 2 in February. We assume that widespread vaccine availability will occur in July 2021 and, with it, a return to Phase 4. In the Best-Case scenario, it is assumed that the state will move to a Phase 3 reopening in December 2020, with widespread vaccination and Phase 4 following in April 2021.

Self-Isolation Effects

The second effect included in the model is the “self-isolation” effect. People are generally risk averse, which should lead to an increased propensity to shelter at home for many people, which is independent of government-mandated lockdowns. This self-isolation is most likely to lead to a reduction in spending that negatively affects GDP. In short, lockdowns take away the ability for people to participate in the economy, whereas, with self-isolation, people choose to limit their activity in the economy.¹⁰⁹ It is expected that over the course of the pandemic, self-isolation will likely pose the bigger cumulative threat to economic growth.

In calibrating the model, three timelines (one for each scenario) are assumed relative to the effects of self-isolation on the economy (see Table III-3). These dampening effects represent percentages of lost economic activity starting as of certain dates. For example, relative to the Most Likely scenario, RCG assumes a dampening effect of 0.1 starting in mid-March. The 0.1 effect refers to a 10% decline in GDP relative to the No-Pandemic baseline.

RCG has arrived at a dampening effect of 10% by trial and error. Based on the phasing effects discussed above and the effects of unemployment benefits discussed below, a 10% dampening effect due to self-isolation best fit the data, relative to Q1 2020.

There is a complication that could elongate this downward pressure on the economy. There is evidence suggesting that even if an effective vaccine were to be released in the middle of 2021, many people will decline vaccination. This is likely to cause the pandemic to go on longer than anticipated. A pair of recent polls, one by Pew Research¹¹⁰ and one by the Associated Press,¹¹¹ show that approximately 50 percent of Americans definitely plan on getting vaccinated and about 75% say that they will probably get vaccinated. That is close to the currently assumed threshold of 70% that the Mayo Clinic has reported as necessary to stem the spread of the virus.¹¹² It is very possible that

due to low rates of vaccination, the virus continues to spread and to dampen economic growth due to continued self-isolation among vulnerable populations, particularly the elderly.

Additionally, any vaccine created is likely to produce less than 100% immunity. This could limit the severity of the disease but possibly not the spread. Dr. Drew Weissman of the University of Pennsylvania told Fortune that “if the best COVID-19 vaccine is only 50 percent effective, that’s still to me a great vaccine.”¹¹³ While a 50%-effective vaccine will do much to stem COVID-19, the continuing transmission will likely lead to a lengthening in people’s fear of the virus and, therefore, a longer-lasting propensity to self-isolate.

Based on the above, in the Worst-Case scenario, RCG assumes a 10% hit to GDP through September, then rising to 15% in the fall and lasting throughout the forecast horizon in this scenario. In the Most Likely scenario, we assume that this effect decreased to 7.5% in April but will then increase to 10 percent in October, before returning to 7.5% in the spring. It will then decline to five percent with the introduction of the vaccine in July 2021 through the remainder of the year. In the Best-Case scenario, RCG assumes that the self-isolation effect decreased to five percent in April and will go to one percent in July 2021 through the end of 2021.

In general, in the Worst-Case scenario, RCG assumes that self-isolation will increase due to heightened fears of venturing outside caused by hypothetically increased deaths in the fall. In the Most Likely scenario, RCG assumes a slight increase in self-isolation in the fall and winter due to a modest increase in deaths, but then returning to Summer 2020 levels. We also assume that some propensities to self-isolate will remain after widespread distribution of a vaccine because polls show that many people are not planning vaccinations right away. This will likely lead to lingering infections and, therefore, fear of infection. In the Best-Case scenario, we assume a small amount of lingering fear starting in the summer due to only small levels of continuing transmission of COVID-19 following an April vaccine.¹¹⁴

Unemployment Insurance

The third major variable in the model is unemployment insurance. With the large number of unemployed workers in the state, a significant portion of personal income comes from these payments. There are two components: state UI and federal UI. The federal UI is meant to enhance state UI benefits and hold households over during the pandemic.

To estimate these funds, RCG has collected data from the Nevada Department of Employment, Training and Rehabilitation (DETR) on the number of unemployment claims as well as the payment amounts. RCG then made various assumptions about the number of unemployed persons that will be receiving these benefits as well as the amounts they are likely to receive through the end of 2021. We assume there will be no change to the weekly historical claim payment, which was \$369 per week in July 2020.¹¹⁵ Again, there are three scenarios describing these outcomes. All dollar amounts are in 2020 dollars to match our GDP forecast.

First, RCG developed assumptions relative to the number of unemployed persons collecting UI benefits. Generally, we assume that the number of those receiving benefits will remain at the levels of the most current data, about 301,500 claims per month in the state.¹¹⁶ This will continue until widespread distribution of a vaccine, at which time people should start finding employment again. This assumes that the labor market is in steady state as of July 2020. Then, because all of these levels are relative to a baseline GDP, it is necessary to subtract the standard unemployment benefits that will occur in normal times. We then assume that the number of those accepting UI benefits will decline linearly until reaching the levels estimated for the end of 2021 in the three scenarios (see

Table III-4). This assumes that the number of workers at the end of 2021 controls in part for the speed of the recovery. We also have assumed that people will go back to work when called in or upon finding a new job, which should happen in a timely manner despite receiving UI benefits.¹¹⁷

For the Worst-Case scenario, because RCG assumes that there will be no vaccine available before the end of 2021, total persons receiving UI benefits remained at their August level throughout the forecast horizon. In the Most Likely scenario, RCG assumes total UI claims will drop to 100,000 average monthly claimants by the end of 2021. This assumes that the state will regain about two-thirds of its jobs relative to August 2020, equivalent to approximately an eight or nine percent unemployment rate. In the Best Case, we assume that unemployment claims will return to 20,000 monthly claimants, approximately their pre-recession levels.

Relative to the amount of the UI benefits, RCG assumes that the state UI benefits will remain unchanged compared to what they had been in July 2020. For the federal enhanced UI benefits, which may have started for some as early as late March,¹¹⁸ RCG used a different set of assumptions for each scenario (see Table III-5). In the Worst Case, we assume that gridlock in Washington, D.C. will continue to keep new enhanced benefits from taking effect.¹¹⁹ Recent reports indicate that lawmakers may strike a deal in September or that they may not do so until the next Congress begins. To account for this uncertainty, RCG assumes a 50-50 split in the chances of each possibility and picked a date in the middle. We have also assumed that these enhanced funds will decrease to \$200 per week in January with benefits coming to an end in June 2021. In the Best-Case scenario, we have assumed that enhanced benefits will resume at \$600 per week on September 13, declining to \$400 per week in January 2021 and continuing through the end of 2021.

Those UI benefits should also continue to benefit the economy through the “multiplier effect,” which accounts for future spending of those same monies. To account for this effect, we applied a multiplier of 1.29, based on household-spending-induced effects in the most recent IMPLAN input-output¹²⁰ model for Clark County.

Model Limitations

The purpose of the model is to capture the major outcomes of various behaviors and policies to produce reasonable estimates of GDP through 2021. RCG believes that the model is successful in this respect. However, there are factors at play that are only implicitly included or, in some cases, left out altogether.

One major limitation of this model is discussed above. Because there are not enough data available, RCG estimates the outcomes of the model manually. At the time of writing, there is only one state-level data point collected relative to the pandemic. Therefore, there is more than one solution to the hypothetical econometric formula estimated.

In the case of federal stimulus stemming from the CARES Act, some policies are included implicitly, while others have explicitly not been included. For example, RCG did not include the \$1,200 direct individual stimulus. Data on the personal saving rate show that saving in April spiked to an unprecedented 33.5%.¹²¹ This suggests that households are aware of the possibility of dire financial outcomes over the course of the pandemic and are putting aside funds to hold them over if necessary. In fact, a recent Forbes analysis has found that as much as 40% of households are saving all the funds they received from the one-time payment.¹²² Money saved today is money spent tomorrow, so to speak. Therefore, because RCG assumes that all UI benefits will be spent immediately, we chose to be conservative with respect to the stimulus checks and assume that none of it will be immediately spent. We think this is a reasonable assumption because in our Most Likely

and Best-Case scenarios, UI funds amount to far more than the stimulus checks and, there is still so little information available about how all of these funds have been used. This assumption linking UI to the stimulus should offset changes in the saving rate.

In the case of the Paycheck Protection Program (“PPP”)—a program that dispenses loans meant to incentivize small businesses to keep their workers¹²³—those funds have not been included in the model explicitly. However, because RCG used assumptions relative to the number of unemployed workers in the model, we did make implicit assumptions regarding the program.

There are several other provisions in the CARES Act. However, we assume that they will have relatively little effect on GDP. Furthermore, by definition, business-to-business transactions do not directly affect GDP.¹²⁴ Of course, these transactions do affect GDP indirectly. Still, we assume that there will be no major disruptions to business aside from those related to the pandemic.

Another limitation stemmed from lag effects caused by the economic crisis. For example, as spending declines, future revenues to the state and municipalities should decline as well. The secondary effects of these declines on future GDP is difficult to estimate in terms of both magnitude and timing and have not been included in the model.

The final major limitation is tourism, a major component of the Nevada economy, particularly Southern Nevada. The Great Recession showed that tourism demand in Las Vegas lags economic growth nationwide,¹²⁵ especially relative to California. Economic research suggests that is generally true for North America.¹²⁶ This lag effect is not included in the model explicitly, though it is considered relative to the model’s final UI claim levels in Q4 2021.

GDP Forecast Results

As of this August, there was only one data point for state-level GDP available that included the pandemic with which to calibrate our model. For this reason, we have been able to obtain an estimate within a fraction of a percent of the actual Q1 2020 GDP estimate for Nevada. However, because our methodology is straightforward and contains two scenarios capturing the most extreme outcomes as well as a most likely scenario, we believe that the results provided herein represent a reasonable set of outcomes for Nevada GDP through 2021. Nevertheless, as more data come in, RCG could revisit the underlying assumptions and update the forecast. The Q2 2020 state-level GDP data are scheduled for release in early October 2020.¹²⁷

Indicator Models

In addition to the forecast of real GDP, RCG has also produced projections for a set of economic and fiscal indicators for Nevada, the Las Vegas Metropolitan Statistical Area (MSA) and the Reno-Sparks MSA. In this section, RCG describes the data and methodology used to develop these additional forecasts. A number of metrics were used to develop these forecasts, including tax collection and unemployment statistics, among others. A full list of the used metrics and their corresponding geographic availability (i.e., state, local, or jurisdictional) is available in Appendix A.

RCG has employed a single method to forecast the indicators to maintain conformity and consistency across the measures.¹²⁸ RCG used the ARIMA with Exogenous Input (“ARIMAX”) model.¹²⁹ This model forecasts an indicator based on its relationship with outside variables. In this case, RCG has used real GDP, as forecasted above, as the exogenous input.¹³⁰ We expect GDP to be a good explanatory variable because GDP is generally a function of various economic indicators. Therefore, it should move together with or inversely relative to those indicators. The model enables us to measure how

real GDP moves with each of the Indicators in the past, and then uses the real GDP forecast above to predict how the indicators should change over the forecast horizon.

In terms of the dates that have been analyzed and forecasted, a difference between this analysis and the above GDP forecast is that RCG forecasts the series starting with the most recent historical data rather than the last 2019 data point to improve forecasting results (i.e., fewer forecasted data points lead to more precision and accuracy).

A limitation of this model is that in certain cases, because of the extreme circumstances of the pandemic, economic data have been outside of typical ranges. With no historical data on these types of swings, the model may overweight or underweight these swings in some cases. However, this situation is unavoidable regardless of the model type and, furthermore, RCG is comfortable that the results are generally reasonable. A second limitation, that at times can compound with the previous limitation, is that because RCG used a single indicator as the exogenous input, the results of certain forecasts might not necessarily match the original assumptions.

Rather than run the model on each geographic subset, RCG has run the model on total Nevada revenues and uses the average share of the subsets relative to the state data since 2014 to calculate those series' values. This is reasonable to do because the shares do not change significantly over that time frame. For each indicator, we have produced results for the same four scenarios as for GDP. Data for the model have been aggregated annually for all tax indicators and quarterly for all economic indicators. GDP sector results have been reported in 2020 dollars. All other monies are reported on a nominal (non-inflation adjusted) basis.

The data for the indicators come from various sources. RCG has identified and used the sources that show the most complete accounting of each tax, even if those sources provide less detailed information at the sub-state level. We have done this to get the best estimates of total collections. State totals generally reflect total collections in the state rather than the state's share of a tax. All tax results are presented in fiscal years, while economic indicators are presented as quarterly.

Monthly data on employment and unemployment came from the Bureau of Labor Statistics.

Visitor data herein are sourced from the visitor and convention authorities of the Las Vegas and Reno-Sparks areas. We combined these to represent Nevada visitors. These monthly data do not account for total Nevada visitation, but cover about 90 percent. Data for Nevada visitation had not been updated in nearly a year and the Nevada Department of Tourism and Cultural Affairs has suggested basing our estimates on these updated regional aggregates.

RCG has also collected data on the Property Tax (also referred to as the "Ad Valorem Tax") and Room Tax from the Nevada Legislative Counsel Bureau ("NLCB"). The NLCB does not break down collections by geography. Instead, they show allocations to the major revenue recipients aggregated by type, so in the case of the Property Tax: Nevada and Local Government & School Districts. For the Room Tax, the breakdown includes Nevada, Local Tourism and CCSD.

Another tax series that has been collected is the Gaming Tax. Those annual data come from the Nevada Gaming Control Board and cover the state and largest counties. The data include gaming properties with annual revenues of at least \$1 million, so it does not capture all of the tax revenues, but it does capture approximately 90 percent.

Taxable sales (monthly) modified business tax revenue (quarterly), marijuana taxes revenues (monthly), SUT (monthly) and CTX (monthly) data come from the Nevada Department of Taxation. Results are presented annually. Due to the way that many of these revenue sources are collected

and distributed, it is not feasible to separate them all by county. However, RCG has separated them locally to the extent practical. For taxable sales, we have produced forecasts for Clark and Washoe counties in addition to the state. The modified business tax (“MBT”) is collected by the state and put into the state’s general fund. Therefore, while counties and municipalities benefit, they do so based on the many formulas that are used to distribute those funds. Regarding marijuana revenues (derived from a retail excise tax and a wholesale excise tax), we have performed an analysis at the state level only. Sub-state data have only been published for one year at the time of writing and it is not feasible to run an analysis on so few data, particularly when there are not enough data to perform the state-level analysis, as discussed above.

The SUT and CTX data are provided herein for each county as well as the state. RCG has analyzed these for Nevada, Clark County and Washoe County. Both taxes are comprised of several components. The SUT includes the state sales tax, the Local School Support Tax (“LSST”), Supplemental City-County Relief Tax (“SCCRT”), Basic City-County Relief Tax (“BCCRT”) and county-level option taxes. The CTX is comprised of the Liquor Tax, Cigarette Tax, Real Property Transfer Tax (“RPTT”) and Government Services Tax (“GST”). RCG has summed the various taxes together for each geography to obtain the totals for the two taxes at each level. As a note, RPTT data are not broken down by county, so the county-level results do not include that tax. Certain SUTs are reported with CTX data. Those had to be separated. These data have been obtained from the Nevada Department of Taxation’s (“Taxation”) “Statistical” and “Consolidated Tax” reports and aggregated by fiscal year and region.

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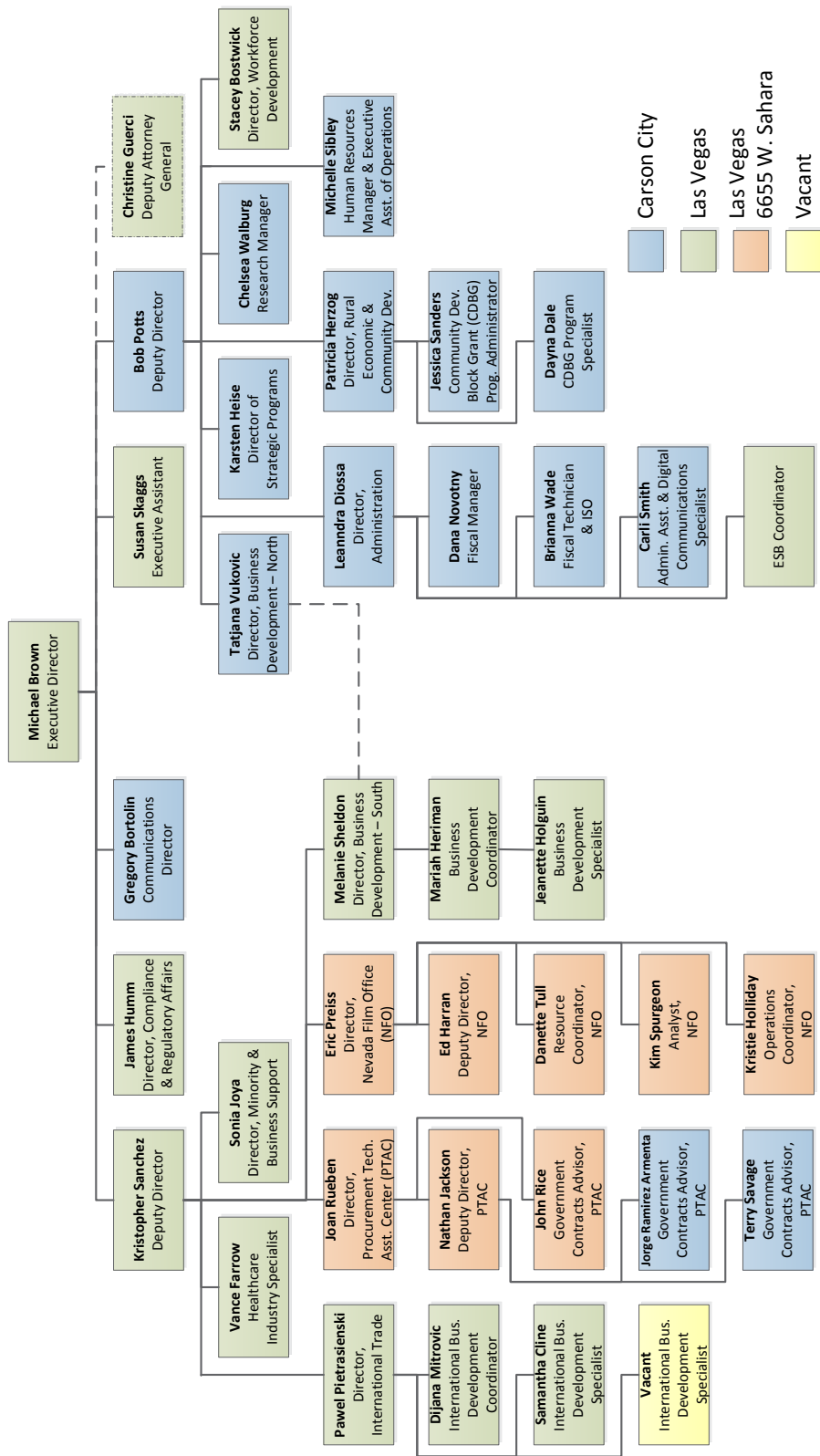
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128. A second simpler method has been used to estimate future marijuana revenues. This is because the ARIMAX model failed. There are two reasons for this. First, the marijuana market has yet to reach equilibrium because more consumers have been moving from the black market to the legal market. This introduced an outside factor into the formula that RCG has attempted to estimate. However, there are not enough data because the marijuana excise taxes are relatively new, which is the second and more important reason the model had issues. Collections began in July 2017 (FY 2018). Instead, RCG has applied the Nevada GDP growth rate to marijuana revenues and applied an extra assumed factor of four percent and two percent for the two years of the forecast, respectively.
129. As above, RCG has tested the model inputs and outputs for each indicator to ensure that the data are stationary, and the output residuals are not auto-correlated and are normally distributed.
130. "An exogenous variable is a factor in causal modeling or causal system whose value is independent from the states of other variables in the system." (From "The SAGE Encyclopedia of Social Science Research Methods," by Daniel Little, 2004.) While this assumption is not strictly true as GDP and employment affect each other, RCG believes it is a weak assumption over the forecast horizon.

GOED's Organizational Charts



Nevada Governor's Office of
ECONOMIC DEVELOPMENT

12/7/20



GOED Board Members

Governor Steve Sisolak
 Lieutenant Governor Kate Marshall
 Secretary of State Barbara Cegavske
 Dr. Weldon Havins
 Mr. Alex Dixon
 Mr. James Barrett
 Dr. Dana Bennett
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GOED

Business Development

Autonomous Systems

Nevada Film Office

Strategic Programs

Healthcare Industry

Workforce Development

International Trade Division

Rural Programs

Procurement Outreach Technical Assistance (PTAC)

Administration

Research

Communication

RDA PARTNERS

» Las Vegas Global Economic Alliance (LVGEA)
 » Economic Development Authority of Western Nevada (EDAWN)
 » Northern Nevada Development Authority (NNDA)
 » Northeast Nevada Regional Development Authority (NNRDA)
 » Lincoln Economic Development Association (LEDA)
 » Southwest Central Regional Economic Development Authority (SWCREDA)
 » Highway 95

REGIONAL PARTNERS

» Clark County Economic Development
 » Carson City Economic Development
 » White Pine Community & Economic Development
 » Douglas County Economic & Vitality Department
 » Storey County Economic Development
 » Western Nevada Development District
 » Churchill County Economic Development
 » Humboldt Development Authority

MUNICIPAL PARTNERS

» Las Vegas Economic and Urban Development Department
 » City Of Henderson Economic Development
 » City of North Las Vegas Economic Development
 » Laughlin Economic Development Corporation
 » Mesquite Region Economic Development
 » Community Development Department of Boulder City
 » Fernley Department of Community and Economic Development
 » Sparks Economic Development
 » Reno Redevelopment Agency
 » Yerington Economic Development
 » Fernley Department of Economic Development
 » Downtown Vegas Alliance

CHAMBER PARTNERS

» Austin Chamber of Commerce
 » Battle Mountain Chamber of Commerce
 » Beatty Chamber of Commerce
 » Boulder City Chamber of Commerce
 » Carson City Area Chamber of Commerce
 » Carson Valley Chamber of Commerce
 » Carson Valley Visitors Authority
 » Dayton Area Chamber of Commerce
 » Elko Area Chamber of Commerce
 » Fallon Chamber of Commerce
 » Goldfield Chamber of Commerce
 » Las Vegas Asian Chamber of Commerce
 » Las Vegas Chamber of Commerce
 » Lamoine Chamber of Commerce
 » Laughlin Chamber of Commerce
 » Lincoln County Nevada (LCAT)

STATE AGENCY PARTNERS

» Nevada Department of Taxation
 » Nevada Department of Business of Business & Industry
 » Nevada Secretary of State's Office
 » Nevada Department of Employment, Training & Rehabilitation (DETR)
 » Nevada System of Higher Education (NSHE)
 » Nevada Department of Transportation (NDOT)
 » Governor's Office of Workforce Innovation (OWINN)
 » Governor's Office of Science, Innovation & Technology (OSIT)
 » Nevada Governor's Office of Energy Protection
 » Colorado River Commission of Nevada
 » Legislative Counsel Bureau Nevada

OTHER AGENCY PARTNERS

» County Assessors' Offices
 » Waterstart
 » Nevada Industry Excellence (NVIE)
 » Small Business Development Center (SBDC) Nevada
 » StartUp NV
 » Adam's Hub
 » Entrepreneur's Assembly
 » Ozmen Center for Entrepreneurship
 » Northern Nevada International Center
 » Nevada World Trade Council (NEWTRAC)
 » Las Vegas and Reno Export Assistance Centers (EAC)
 » Nevada District Export Council (DEC)
 » Western U.S. Agricultural Trade Association (WUSATA)

EDUCATION AND WORKFORCE DEVELOPMENT PARTNERS

» Nevada School Districts
 » University of Reno Center (UNR) University of Las Vegas (UNLV)
 » College of Southern Nevada (CSN) Great Basin College
 » Truckee Meadows Community College
 » Western Nevada College
 » Nevada State College
 » Desert Research Institute (DRI)
 » Workforce Connections
 » Nevada Works

UTILITY PARTNERS

» NV Energy Economic Development
 » Southwest Gas
 » Southern Nevada Water Authority
 » Truckee Meadows Water Authority

About GOED

The Nevada Governor's Office of Economic Development (GOED) was created during the 2011 Session of the Nevada Legislature through a collaboration of the Nevada Governor's Office and the Leadership of the Nevada State Senate and State Assembly (Authority: NRS 231).

VISION

A vibrant, innovative, and sustainable economy with high-paying jobs for Nevadans.

MISSION

High-quality jobs for Nevadans.

Objectives, as identified in the first State Plan for Economic Development are:

- Establish a cohesive economic development operating system.
- Increase opportunity through education and workforce development.
- Catalyze innovation in core and emerging industries.
- Advance targeted sectors and opportunities in the region.
- Expand global engagement.

Nevada Governor's Office of

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