

## **NEVADA'S MINING INDUSTRY**

PERCEPTIONS AND REALITIES

2017





Applied Analysis conducted its 6<sup>th</sup> annual survey of mining businesses on behalf of the Nevada Mining Association; we also focused on women in the mining industry during another survey, which wrapped up in the beginning of this year.

From the survey results, it is clear that there are some potential misconceptions relating to Nevada's economy, the mining industry and the benefits mining brings to the state of Nevada.

### Realities

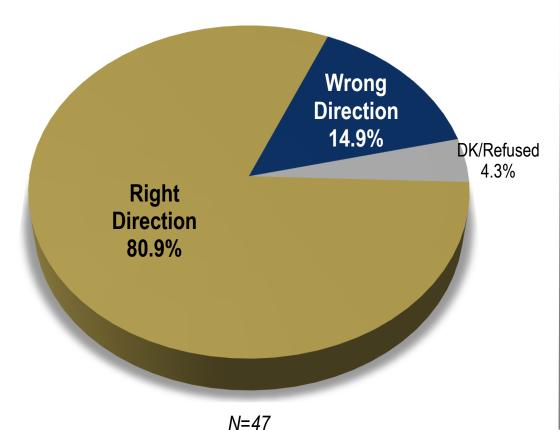
Nevada is today among the healthiest and most productive economies in the United States. It leads the nation in population growth, employment growth and personal income growth.

Nevada's mining industry remains an important element of the State's economic success in and out of its rural communities. The industry comprises a relatively small share of the State's employment, but features two of the ten highest assessed taxpayers.





Do you believe the <u>national economy</u> is generally headed in the right direction or the wrong direction?



## Reality

U.S. Employment August 2017 TTM Avg.

145.8 M Currently at Peak

U.S. Real GDP Q2 2017 \$17.0 T
Currently at Peak

U.S. Corporate Profits
Before Tax; Q2 2017

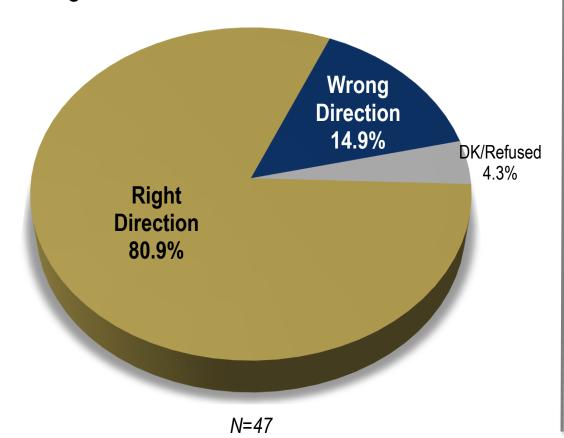
\$2.3 T

Source: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Federal Reserve Bank of St. Louis





Do you believe the <u>national economy</u> is generally headed in the right direction or the wrong direction?



### Reality

U.S. Employment TTM Aug. '16 vs. Aug. '17



U.S. Real GDP Q2 2016 vs. Q2 2017



U.S. Corporate Profits +6.7%
Q2 2016 vs. Q2 2017

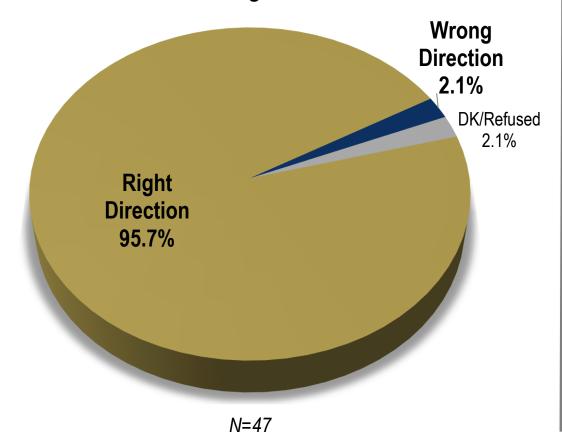
Source: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Federal Reserve Bank of St. Louis







What about the <u>Nevada economy</u>? Would you say it is generally heading in the right direction or the wrong direction?



Reality

Nevada Population 2016

2.9 M Currently at Peak

Nevada Employment July 2017 TTM Avg.

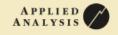
1.3 M
Currently at Peak

Nevada GDP 2016

\$147.5 B
Currently at Peak

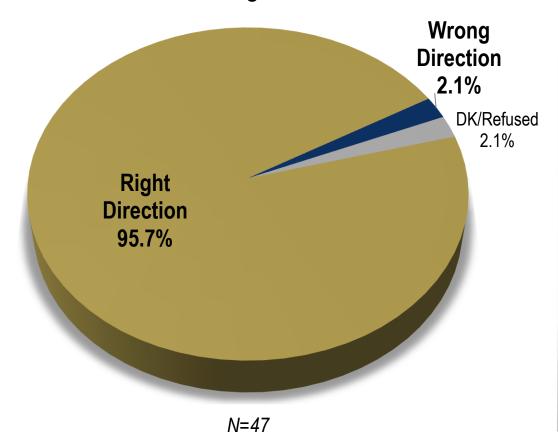
Source: U.S. Census Bureau; U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis







What about the <u>Nevada economy</u>? Would you say it is generally heading in the right direction or the wrong direction?



### Reality

Nevada Population 2015 vs. 2016



Nevada Employment TTM July '16 vs. July '17

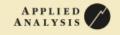


Nevada GDP 2015 vs. 2016



Source: U.S. Census Bureau; U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis

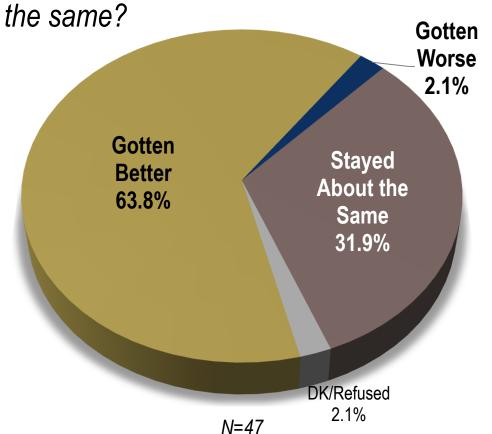




## **Present Perception**



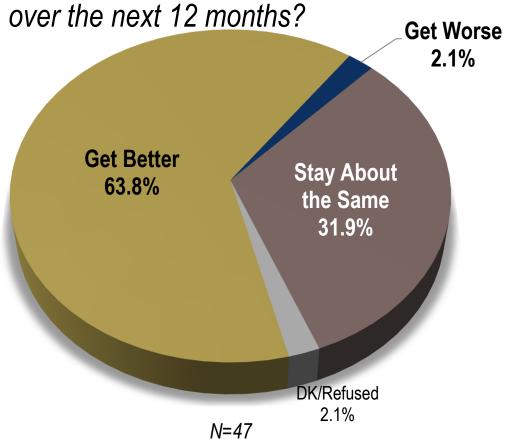
Thinking back <u>over the past year</u>, would you say the <u>business environment in Nevada</u> has gotten better, gotten worse or stayed about



## **Future Perception**



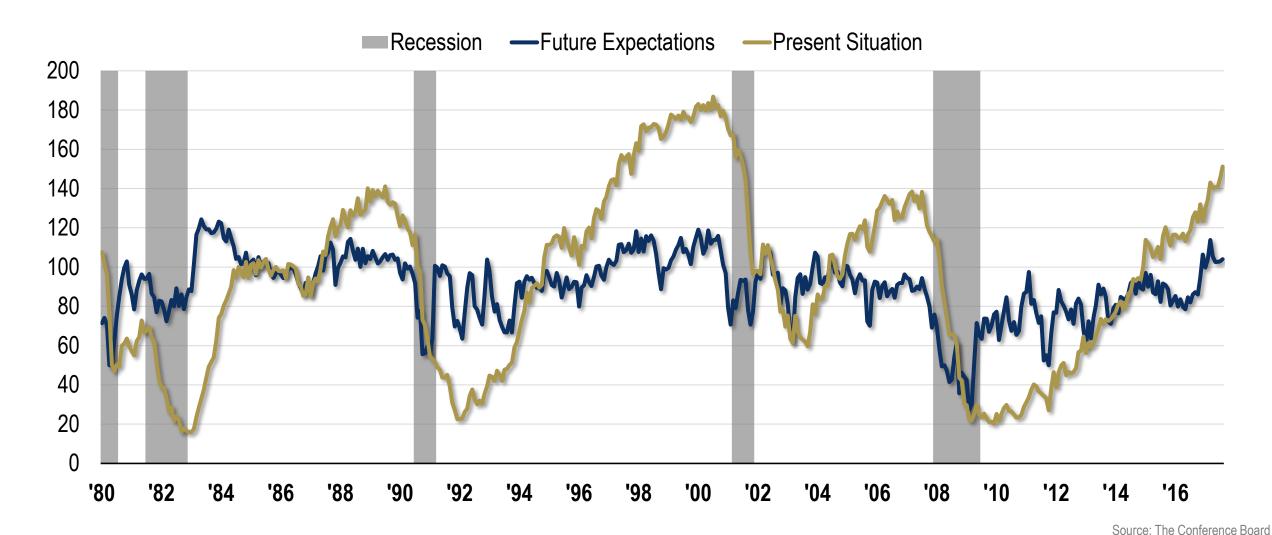
Thinking about the <u>future</u>, do you expect the <u>business environment in Nevada</u> to get better, get worse or stay about the same







## **Reality: Consumer Confidence**

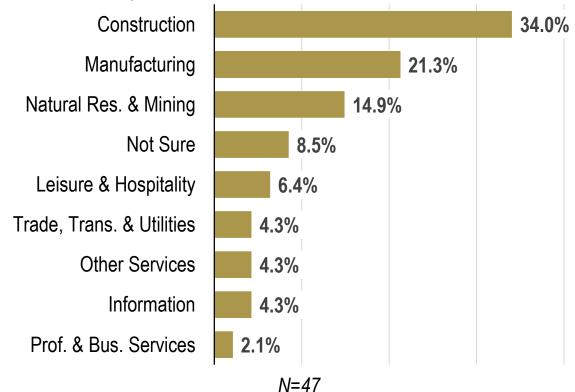






Assuming the number of jobs in Nevada increases in the next 12 months, which sector do you think will add the most

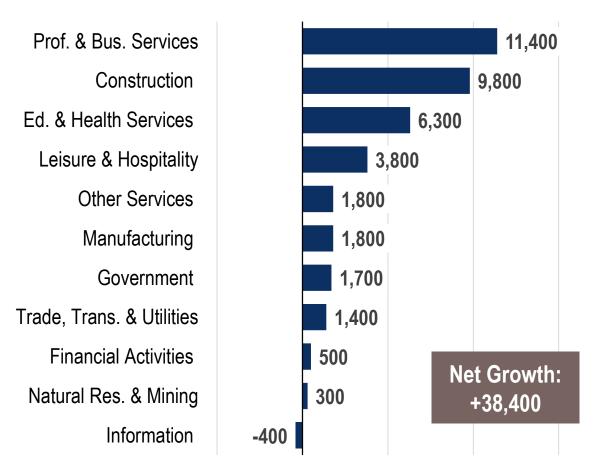
employees?



## Reality

#### **Nevada YoY Employment Growth**

Past 12 Months













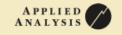


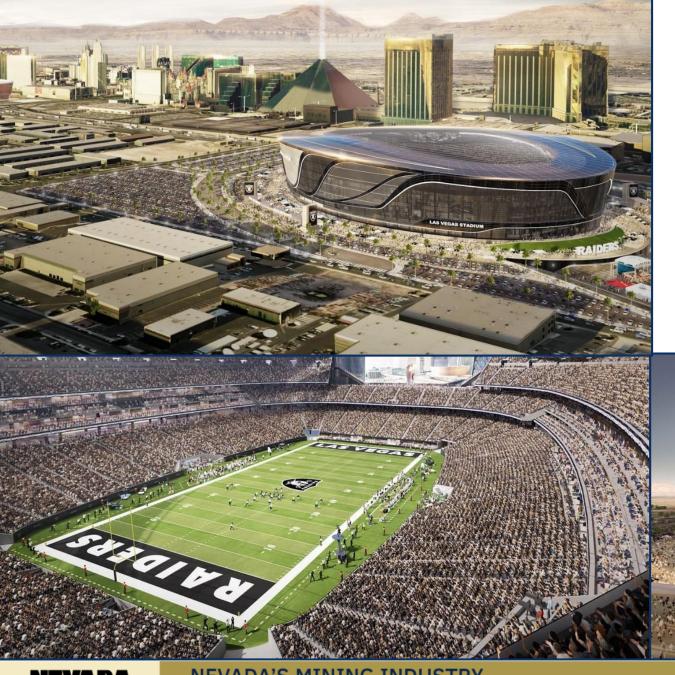
## **Resorts World Las Vegas**

- > \$4.0 Billion
- ➤ Under Construction
- > Expected Completion: 2020









## Las Vegas Stadium

- > \$1.9 Billion
- > Planned
- > 65,000 seats
- > Future home of the LV Raiders
- ➤ Est. Completion: Q3 2020







## **Wynn Paradise Park**

- > \$1.5 Billion
- > Planned
- > 38-Acre lagoon
- > Expected Completion: Early-2019











## **Vegas Extreme Park**

- > \$800 Million, 90 acres
- > Planned
- Projected start: Late 2017
- ➤ All-in-one Action & Lifestyle Sports and Entertainment Complex



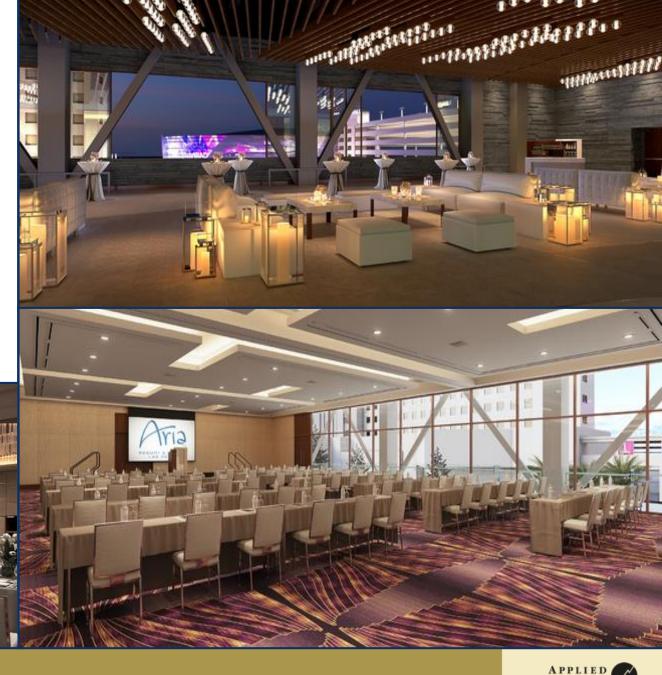




## **ARIA Convention Center Expansion**

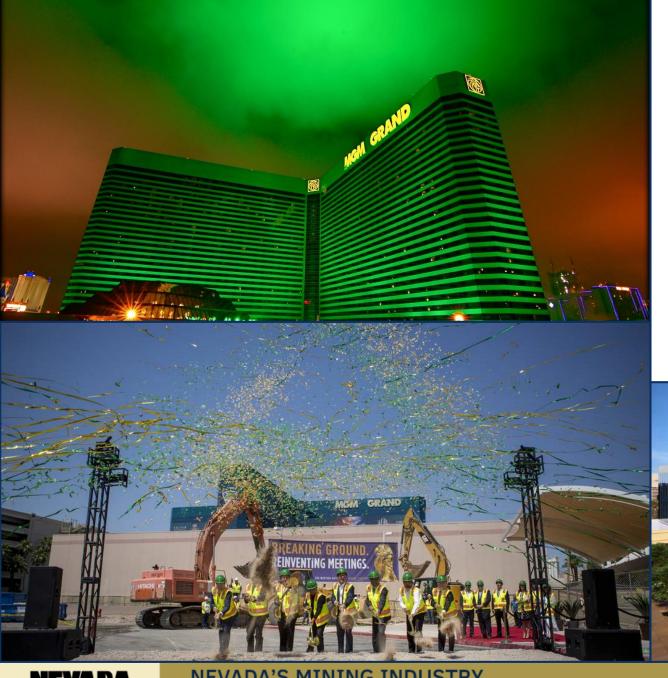
- > \$154 Million
- ➤ Under construction
- > Expected completion: Feb. 2018











# MGM Grand Convention Center Expansion

- > \$130 Million
- ➤ Under construction
- > Expected Completion: 2018



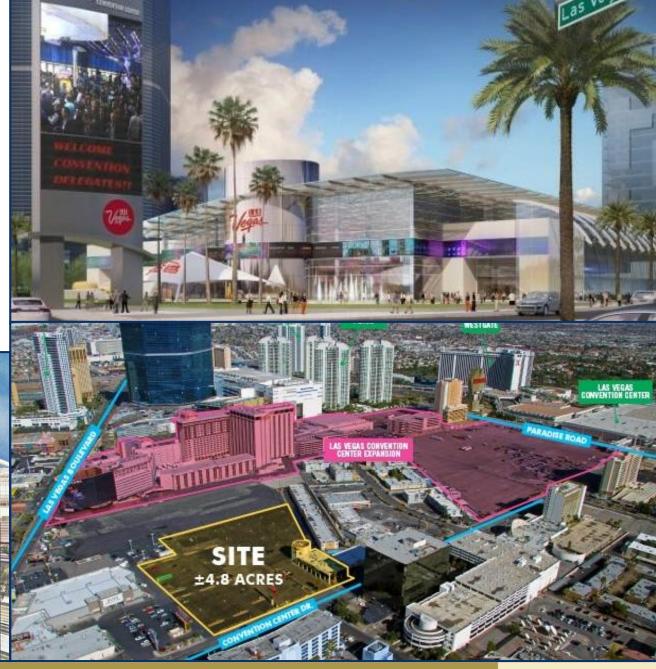




# **Convention Center District Expansion**

- > \$1.4 Billion
- > Planned
- > Est. Completion: 2022











# Monorail Extension to Mandalay Bay

- > \$100 Million
- > Planned
- > Expected Completion: 2019









## **Switch Tahoe Reno**<br/>**Industrial Center**

- > \$3.0 Billion
- Under Construction
- ➤ Phase 2
- > Est. Completion: 2025







## West 2<sup>nd</sup> District

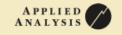
(Downtown Redevelopment Project)

- ➤\$1.2 Billion
- **≻**Planned
- ➤ 17-Acre Multi-Building
- ➤ Est. Completion: 2026











"Google has become the latest bigname tenant at the 100,000-acre
Tahoe Reno Industrial Center.

Documents filed to the Storey County recorder on Friday show 1,200 acres of land was sold for \$26.1 million."

-- Las Vegas Sun, 4/17/17





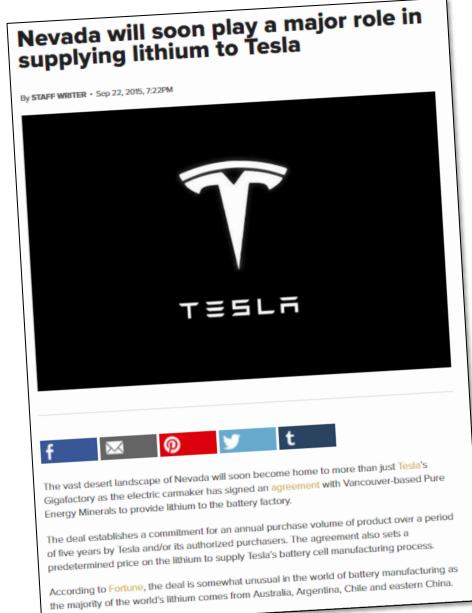
## **Tesla's Gigafactory**

- > \$5.4 Billion
- ➤ Under Construction

> Est. Completion: 2020 (Phase 2)







"The vast desert landscape of Nevada will soon become home to more than just Tesla's Gigafactory as the electric carmaker has signed an agreement with Vancouver-based Pure Energy Minerals to provide lithium to the battery factory." -- Mining Global, 9/22/15





## Trending: Is Lithium Rush the new Gold?

What are the prospects for 21st century wonder metal lithium? 14:25:26 Apr 2016



share +

Lithium may be present in all of us but it seems like the Nevada desert is where a new metal rush is

The soft, silver-white metal belonging to the alkali metal group has traces in all organisms. The element serves no apparent vital biological function, since animals and plants survive in good health without it. though non-vital functions have not been ruled out.

But its many and varied other applications appear to be what has several companies, such as **Sienna** Resources (CVE:SIE), and Enertopia Corp (OTCMKTS:ENRT, CNSX:TOP) taking a major interest in it. Meanwhile, Tesla Motors (NASDAQ:TSLA) in partnership with Panasonic is building a "gigafactory"

And let us not forget news on Monday that a rise in global demand and limited sources convinced Crystal Peak Minerals Inc. (OTCQX.CPMMF) to consider entering the lithium market. Read more here

Lithium and its compounds have several industrial applications, including heat-resistant glass and ceramics, lithium grease lubricants, flux additives for iron, steel and aluminium production, lithium batteries, and lithium-ion batteries. These uses account for more than three quarters of lithium

Sienna announced last week that it had acquired the Esmeralda project in Clayton Valley, Nevada, which is prospective for lithium, and plans to start operations shortly. Read more here

Sienna shares, which had been trundling along at around C\$0.02 until the end of January have since soared to a recent peak of C\$0.17 after its Esmeralda news.

"Lithium may be present in all of us but it seems like the Nevada desert is where a new metal rush is beginning to turn into a stampede."

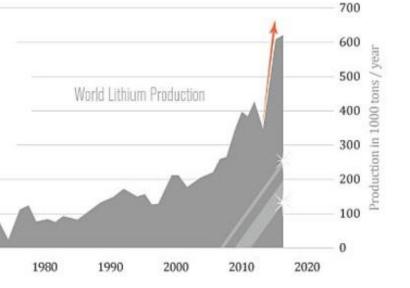
-- Proactiveinvestors, 4/26/17





## The Lithium Market

Soaring demand for the light metal has meant that the global lithium supply chain has had to grow nearly exponentially to keep up





1940

Renewable Energy Storage

1930

(Wind and Solar)



1970



**Electric Vehicles** 

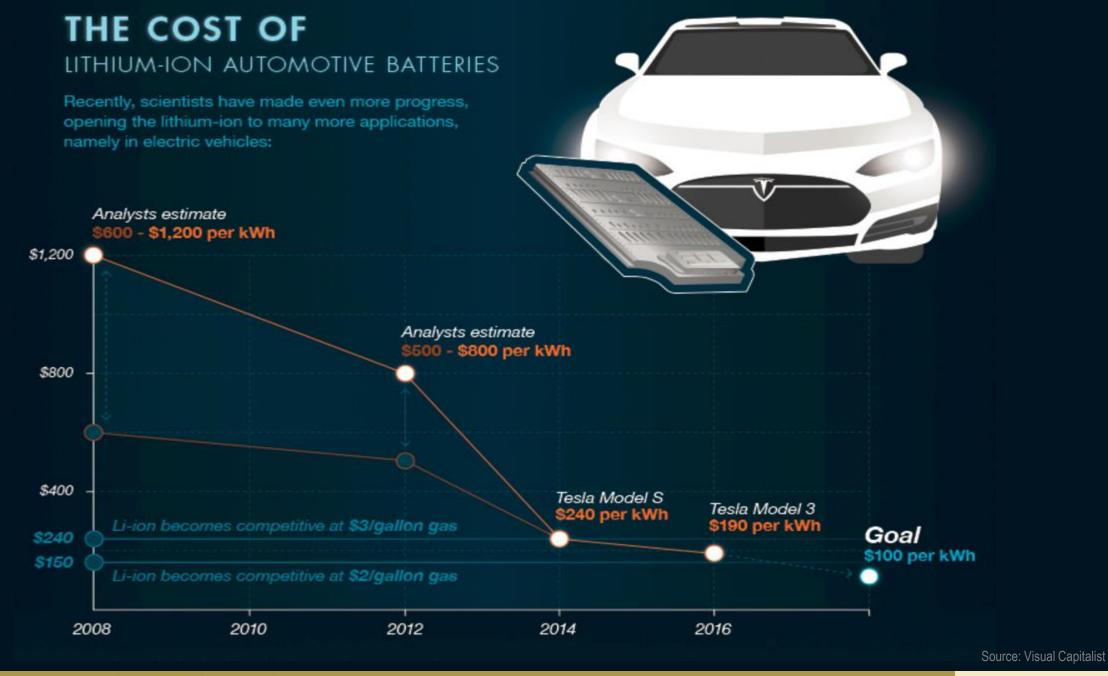
The 'Lithium Hub' in
Nevada has the only
producing lithium mine
in the U.S. (the
Rockwood Mine in
Clayton Valley, NV) and
is nearby the Tesla
Gigafactory facility

Source: Mining Global



1920

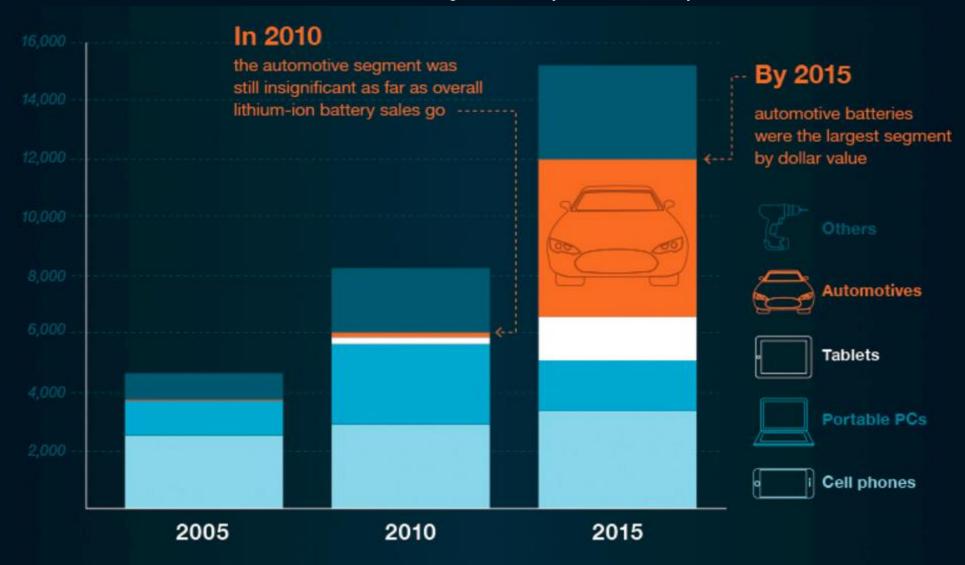








#### **Li-ion Battery Sales (in millions)**



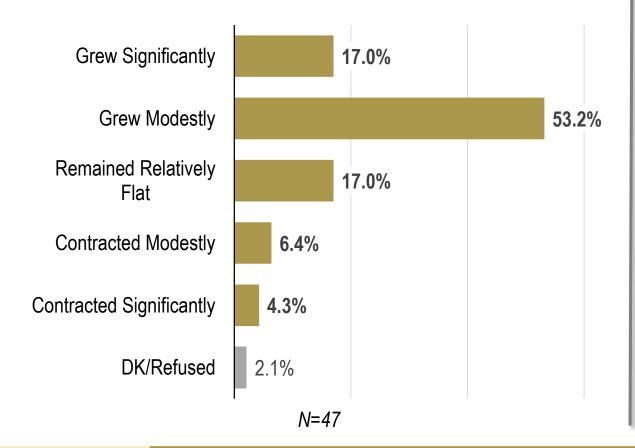




Source: Visual Capitalist



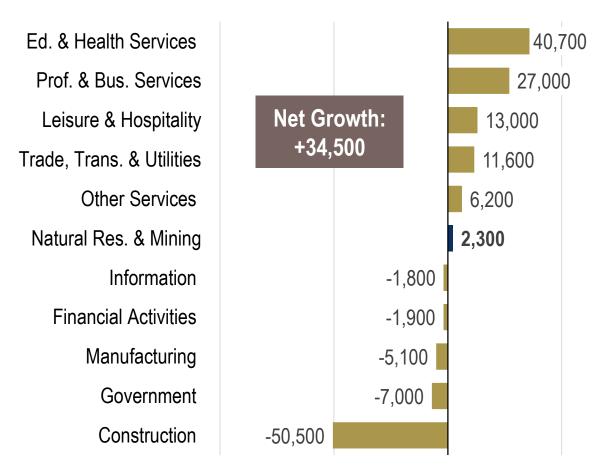
Overall, how did your business generally perform during the economic recovery (the 2010 to 2015 timeframe)?



## Reality

#### **Nevada Employment Growth**

**Pre-Recession to Present** 



Source: U.S. Bureau of Labor Statistics





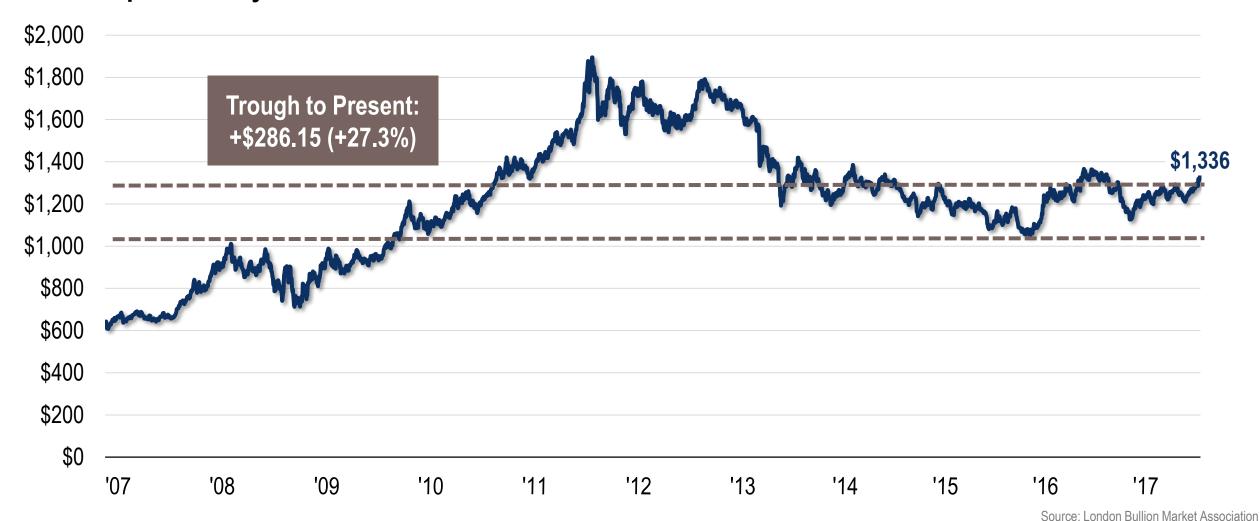
# Price of Gold USD per Troy Ounce







# Price of Gold USD per Troy Ounce







# Price of Silver USD per Troy Ounce







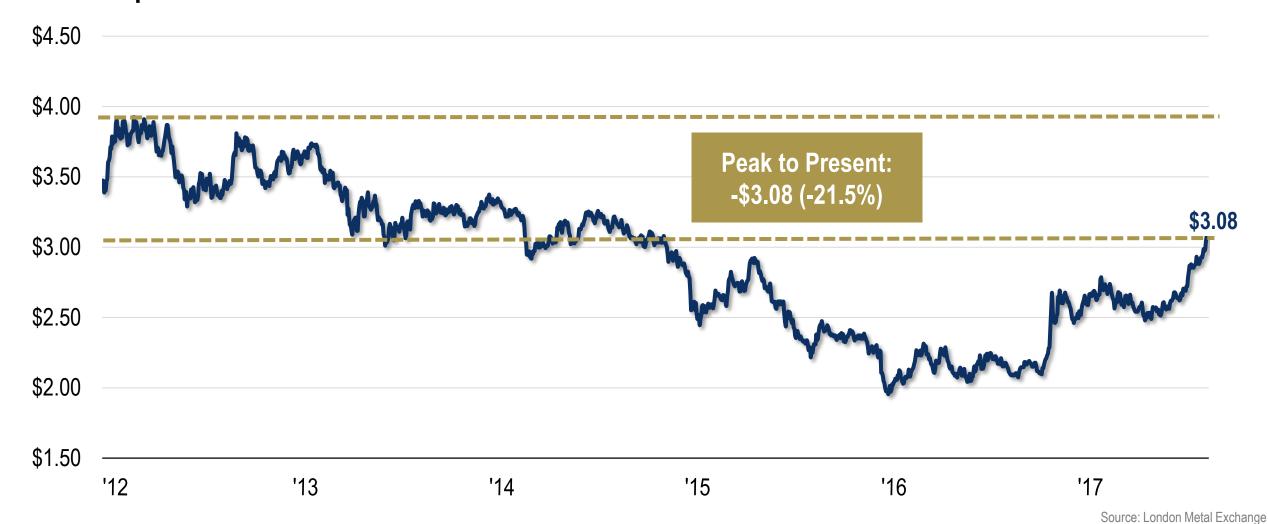
# Price of Silver USD per Troy Ounce







# Price of Copper USD per Pound







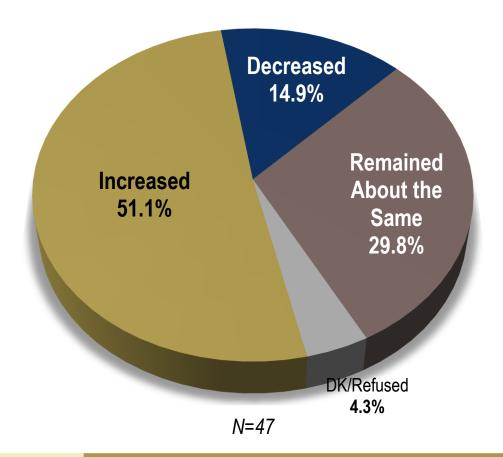
# Price of Copper USD per Pound







In the past 12 months, have your business revenues or sales increased, decreased or remained about the same?



## Reality

Private Businesses

79,981

Total Wages
Q1 2017 TTM Total

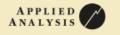
\$153.4 B
Currently at Peak

Taxable Retail Sales
June 2017 TTM Total

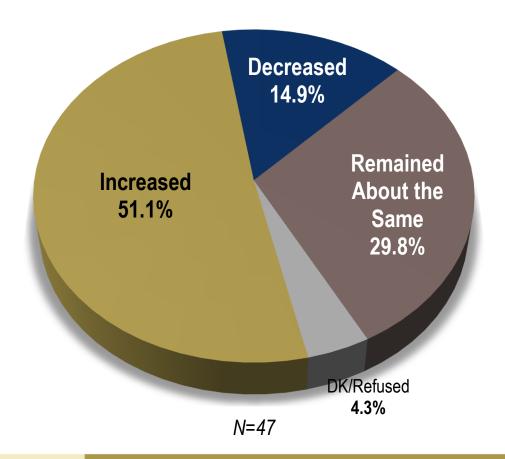
\$56.6 B Currently at Peak

Source: U.S. Bureau of Labor Statistics; Nevada Department of Taxation





In the past 12 months, have your business revenues or sales increased, decreased or remained about the same?



### Reality

Private Businesses Q1 2016 vs. Q1 2017



Total Wages
TTM: Q1 '16 vs. Q1 '17



Taxable Retail Sales TTM: June '16 vs. June '17



Source: U.S. Bureau of Labor Statistics; Nevada Department of Taxation







## **Future Company Expectations**

**Business Revenues** or Sales

**68.1%** 

**V** 0.0%

29.8%

? 2.1%

Number of Employees

**53.2%** 

**V** 0.0%

46.8%

2 0.0%

**Business's Profitability** 

**51.1%** 





? 6.4%



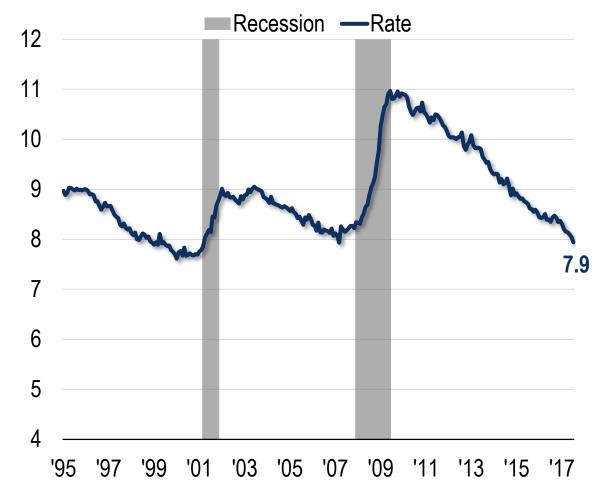


Which of the following challenges do you face as a business today? N=210

CHALLENGE	SHARE
Hiring/Retaining Quality Employees	14.8%
Healthcare/Obamacare	10.5%
Government/Legislation	10.5%
Costs of Running the Business	10.5%
Attracting/Retaining Customers/Competition	10.0%
Taxes	8.6%
Economic Uncertainty	7.1%
Expanding Business Operations/Product Lines	6.2%
Time Management	5.7%
Financial Stability/Cash Flow	4.8%
Cybersecurity	3.3%
Availability of Credit/Financing	3.3%
Managing Growth/Dealing with Unexpected Growth	2.4%
Changes in Technology	2.4%

## Reality

#### **Non-Employment Index**

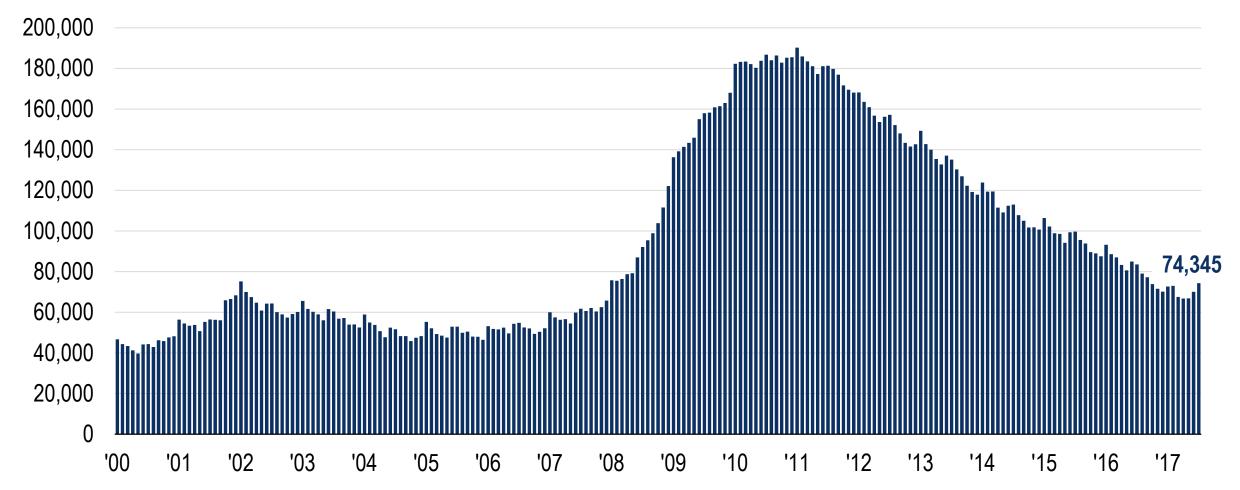


Source: Federal Reserve Bank of St. Louis





## **Nevada's Unemployment**



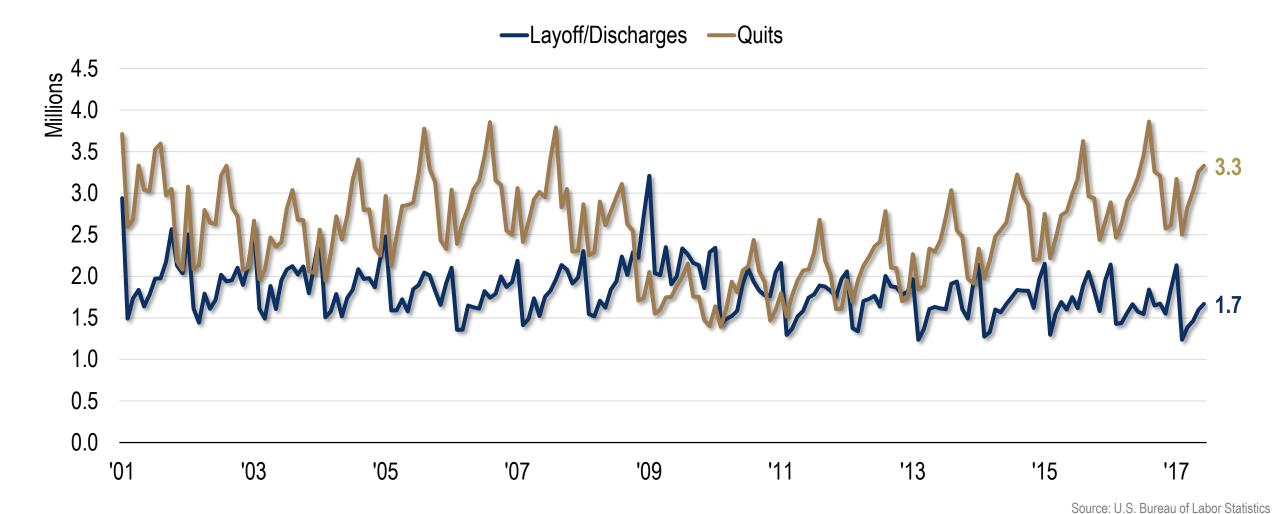






### **United States Job Market**

## Layoff/Discharges vs. Quits







### **United States Job Market**

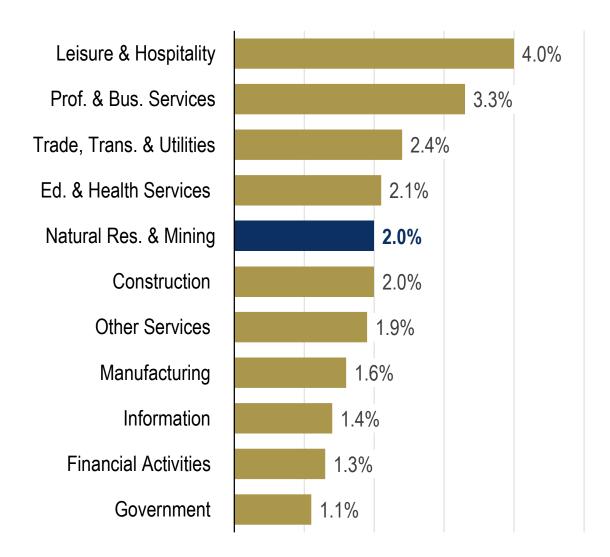
## Unemployment Level vs. Job Openings



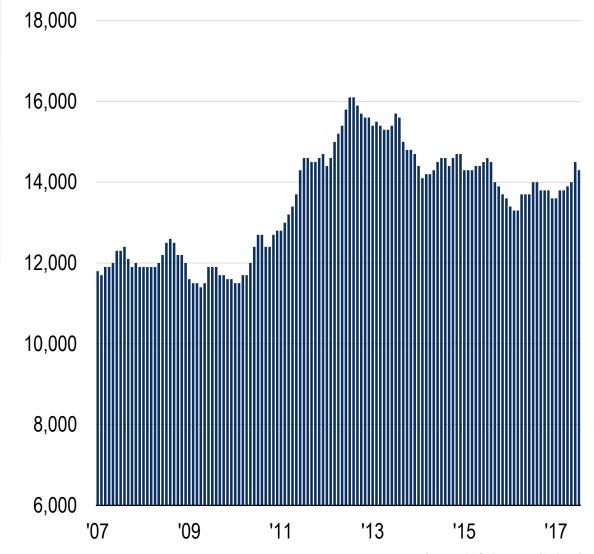




## **U.S. Job Quit Rate by Sector**



## **Nevada Mining Employment**

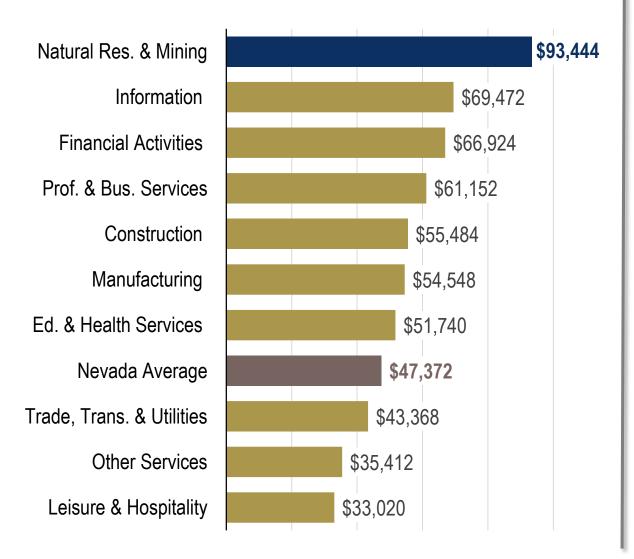




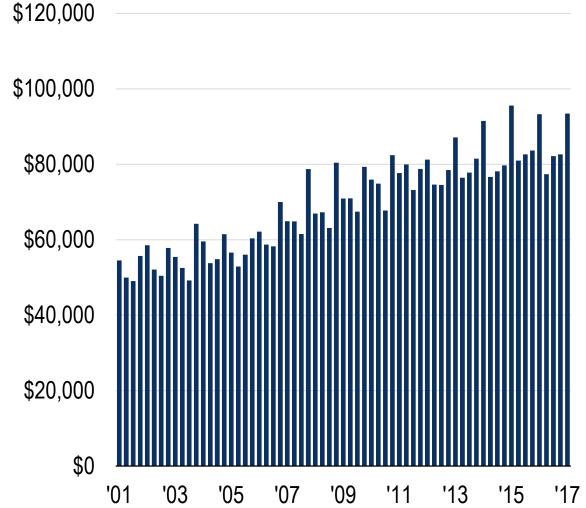




## **NV Annual Wage by Sector**



## **NV Mining Annual Wage**

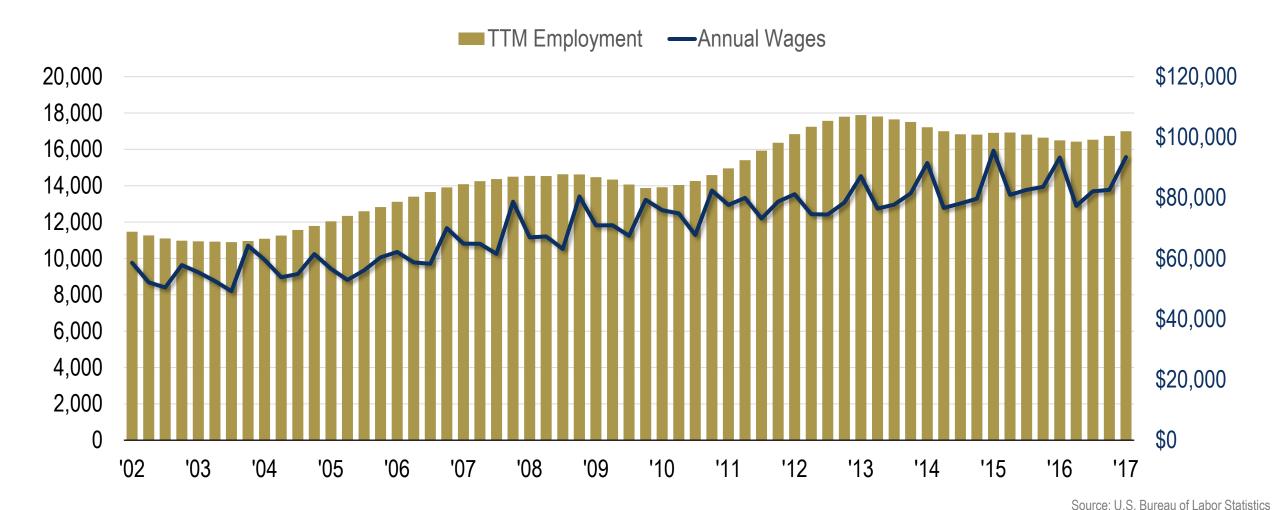


Source: U.S. Bureau of Labor Statistics





## Nevada Mining Employment vs. Mining Wages







Women Are Underrepresented in the Mining Industry



### Reality

Share of Females In Nevada

49.9%

Share of Female Employees in Nevada

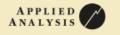
46.4%

Share of Female Mining Employees

13.0%

Source: U.S. Census Bureau; NvMA 2016 Member Survey Regarding Women in the Company





Women Are Underrepresented in the Mining Industry



### Reality

Percent of Female Workers in Field Operations

58.6%

Share of Managers that are Female

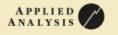
11.2%

Share of Board Members that are Female

14.9%

Source: NvMA 2016 Member Survey Regarding Women in the Company





## Barriers that Women Face in the Mining Industry



## How to Attract More Women



Source: NvMA 2016 Member Survey Regarding Women in the Company







What is the single most important challenge you face as a business today?  $_{N=47}$ 

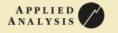
CHALLENGE	SHARE
Government/Legislation	27.7%
Attracting/Retaining Customers/Competition	19.1%
Hiring/Retaining Quality Employees	12.8%
Economic Uncertainty	10.6%
Expanding Business Operations/Product Lines	8.5%
Availability of Credit/Financing	6.4%
Costs of Running the Business	4.3%
Taxes	4.3%
Managing Growth/Dealing with Unexpected Growth	4.3%
Time Management	2.1%

## Reality

### **Government Regulation Impacts**

- Lengthy Permit Processing
  - Avg. time for new mine in U.S. is 7-10 years
- Approval from local, county, state and federal governments are required to begin a new project
- Over three dozen federal environmental laws and regulations impact mining
  - National Environmental Policy Act (NEPA)
  - Clean Air Act
  - Federal Land Policy and Management Act
  - Clean Water Act and Safe Drinking Water Act
  - Endangered Species Act PROCEDURE





## Commentary: Interior's new sage grouse protection efforts welcomed



Earlier this month Interior Secretary Ryan Zinke ordered the implementation of recommendations from a team that reviewed the previous administration's draconian land use restrictions under the guise of protecting greater sage grouse. The team — which included officials from Interior, Fish and Wildlife Service, Bureau of Land Management, U.S. Geological Survey, the U.S. Forest Service and representatives from the 11 affected states — called for lifting certain restrictions that impacted economic activity without actually affecting sage grouse populations.

Montana native Zinke's 55-page order echoed criticisms that were included in various lawsuits brought by several states, including Nevada. Zinke's order says the changes are not one-size-fits-all, the very words used by Nevada Attorney General Adam Laxalt a year ago about litigation he had filed to block the land use restrictions.

"Nevada's lawsuit accused the various federal land agencies of violating the law and ignoring scientific evidence when it concocted a 341-page pronouncement in 2015 that 10 million acres of public land in 16 Western states — nearly a third of that in Nevada — would be taken out of consideration for future mining claims."

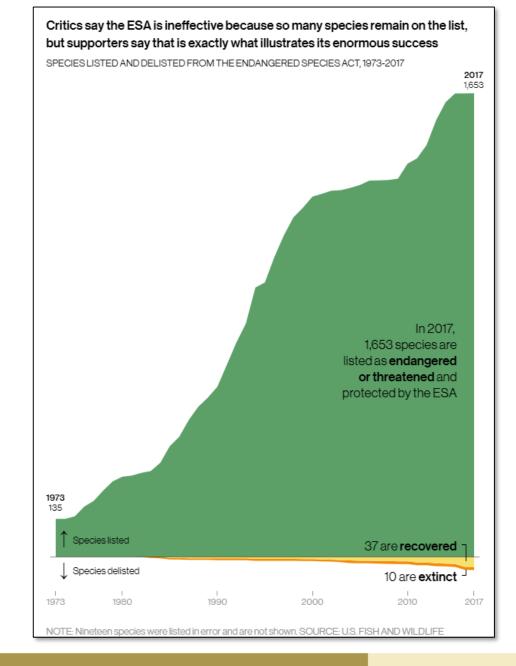
-- Elko Daily Free Press, 8/23/17



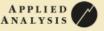


"One of the proposals to change the ESA, introduced in April 2017 by Senator Dean Heller, a Nevada Republican, would require any decision to protect a species to 'be made only with the consent of the Governor of each state in which the endangered or threatened species is present'."

-- National Geographic, 5/19/17









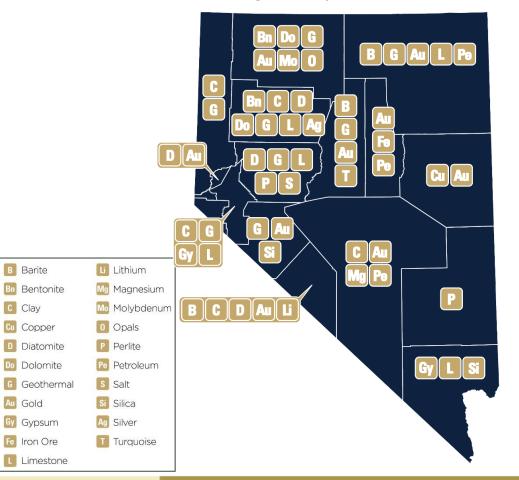
## Risks and/or Challenges Facing the Mining Industry

	PRIOR	CURRENT	FUTURE
MINING RISK/CHALLENGE	PERSPECTIVE	MEAN RISK	PERSPECTIVE
Access to Qualified Workforce		3.82	
Change in U.S. Government/Regulatory Policies on the Industry		3.68	
Change in Nevada Government/Regulatory Policies on the Industry		3.47	
Monetary Policies (Impact on Inflation/Gold Prices)		3.46	
Change in Fiscal (Tax) Policies		3.23	
Employment and Workplace Safety (from Injury)		3.23	
Protecting the Environment (Sustainability)		3.09	
Access to Capital and/or Financing for Operations		3.05	
Cost of Equipment and/or Capital Purchases		3.00	
Change in Other Nations Government/Regulatory Policies on the Industry		2.90	
Climate Change Impact on Energy Usage/Demand		2.67	
Employee Diversity		2.26	
Workplace Security (Limiting Access from Outsiders)		2.20	





Nevada's Mining Industry is an Isolated Sector Affecting Only Rural Communities



## Reality

Direct Mining
Employment in NV

10,800

Indirect Mining Employment in NV

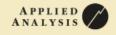
8,502

Induced Mining Employment in NV

10,451

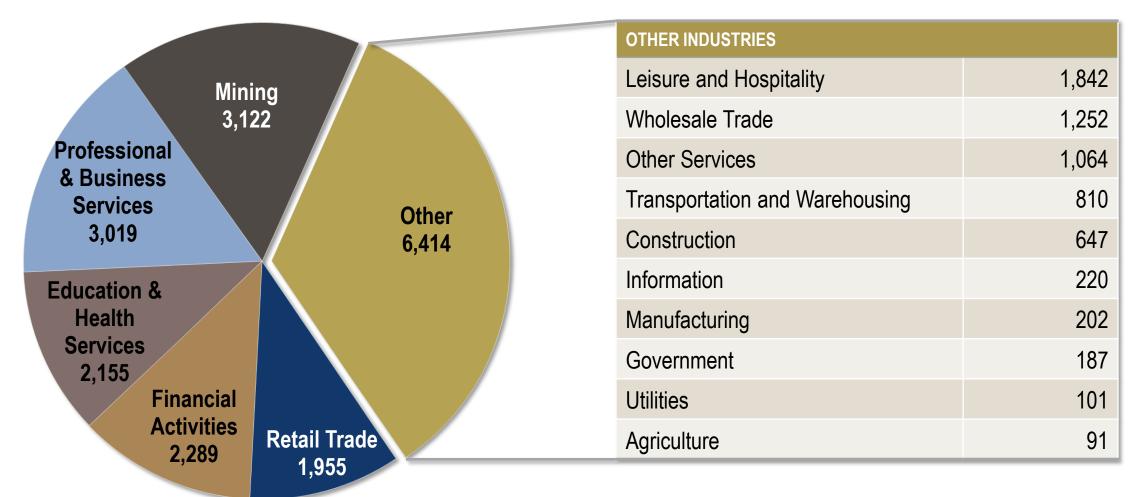
Source: United States Bureau of Labor Statistics; IMPLAN; Applied Analysis





## **Nevada Employment by Sector**

### Indirect and Induced Job-Years



Source: United States Bureau of Labor Statistics; IMPLAN; Applied Analysis









### Reno-Tahoe International Airport



#### **Nevada Mining Documentary Video Series**





Nevada Mining: From Pickaxe to GPS



Nevada Mining: Our Wealth of Minerals

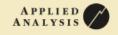


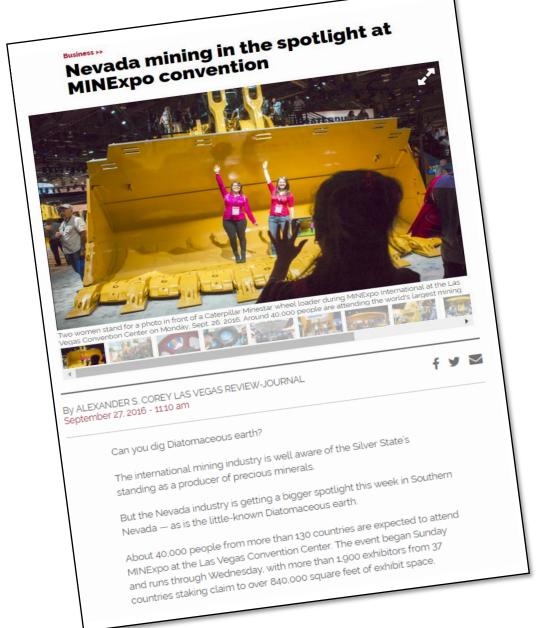
Nevada Mining: Modern Prospecting



Nevada Mining: Dollars Sense and the Bottom Line







"Nevada industry is getting a bigger spotlight this week in Southern Nevada — as is the little-known Diatomaceous earth. About 40,000 people from more than 130 countries are expected to attend MINExpo at the Las Vegas Convention Center."

-- Las Vegas Review-Journal, 9/27/16







Thornton, Gov. Brian Sandoval, President Kelvin Dushnisky and Sen. Aaron Ford participate in the ribbon-cutting ceremony for Barrick's global IT operations center in Henderson on Friday. Greenspun is CEO, publisher and editor of Greenspun Media Group.

By Daniel Rothberg (contact)

Friday, Sept. 25, 2015 | 6:15 p.m.

Nevada's mining deposits attracted Barrick Gold Corp. to the state years ago.

Barrick Gold Ribbon Cutting

"Nevada's mining deposits attracted Barrick Gold Corp. to the state years ago. But a modern resource technology — made Southern Nevada stand out to the company as it searched for a home for its global IT operations and corporate affairs hub."

-- Las Vegas Sun, 9/25/16





## Mining Does Not Pay Its Fair Share in Nevada

Is mining paying its fair share in the state of Nevada?

By Mark Robison, March 16, 2013











Barrick Gold's Ruby Hill mine is in Eureka County. Gold is selling for about \$1,600 per ounce. (Photo provided by Deon Reynolds)

The claim is often made that Nevada's mining industry isn't paying enough in taxes.

Toward that end, a bill before the Legislature called Senate Joint Resolution 15 is up for debate again. It would remove from the state's constitution a provision creating a separate tax on mining.

## Reality

1.1%

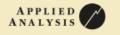
Mining and Logging
Share of Employment in Nevada

4.2%

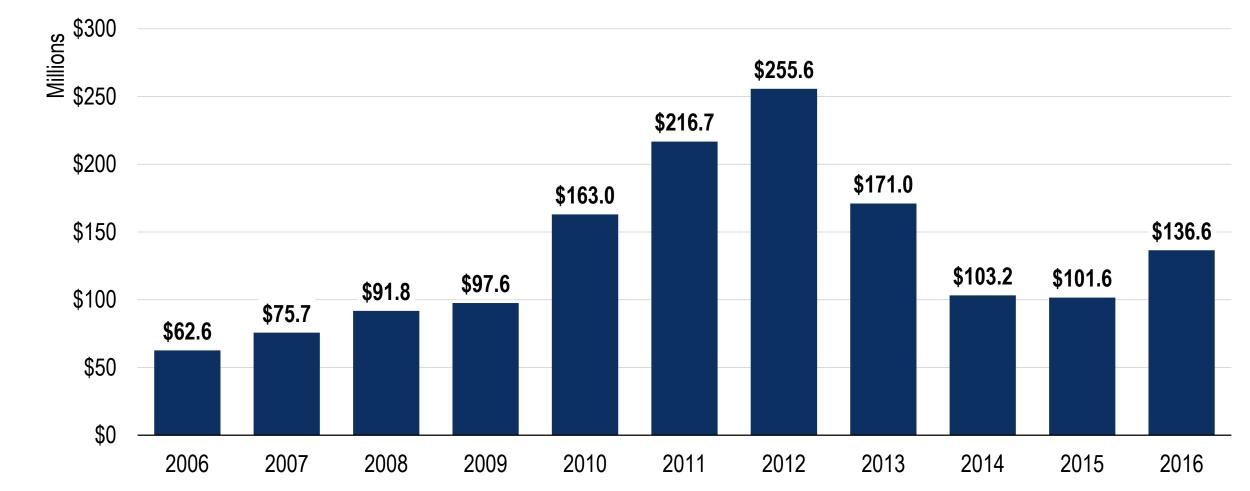
Taxes Generated for the State General Fund

Source: U.S. Bureau of Labor Statistics





## Net Proceeds of Minerals and Royalties Paid by Nevada Mining Industry

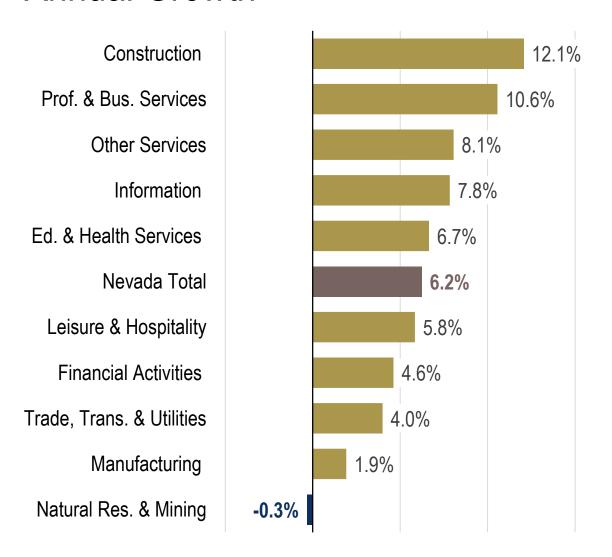




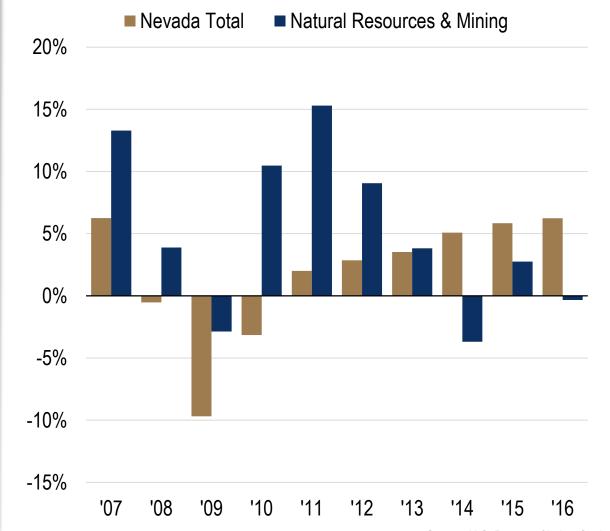




### Salary & Wages by Sector Annual Growth



## Total vs. Mining Salary & Wages Annual Growth

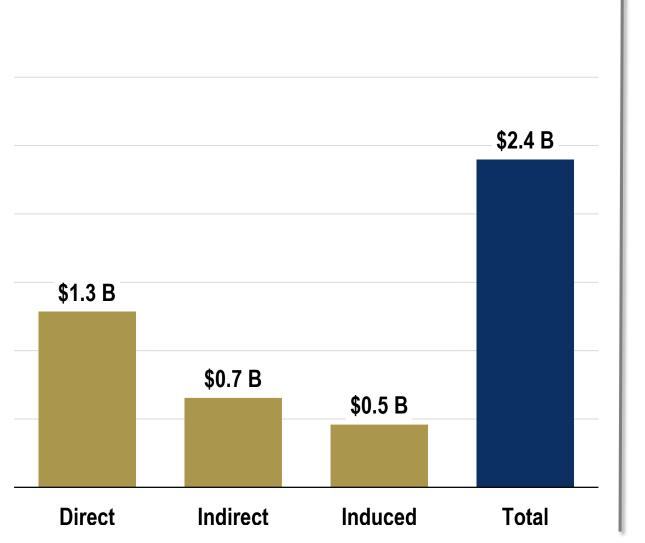


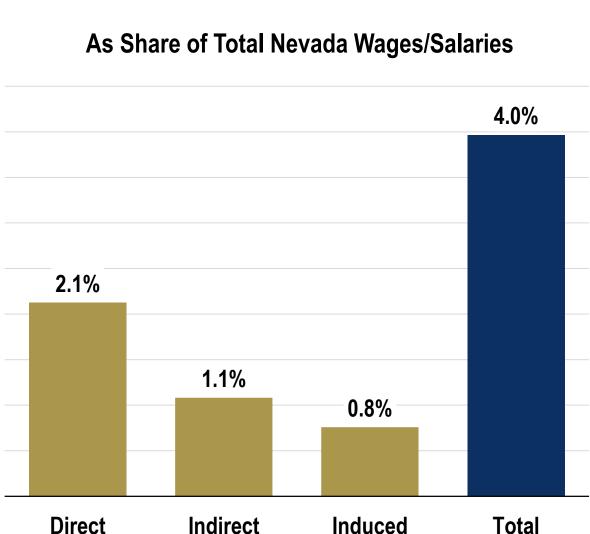
Source: U.S. Bureau of Labor Statistics





## Wage/Salary Impacts for Nevada Mining Industry Operations 2016



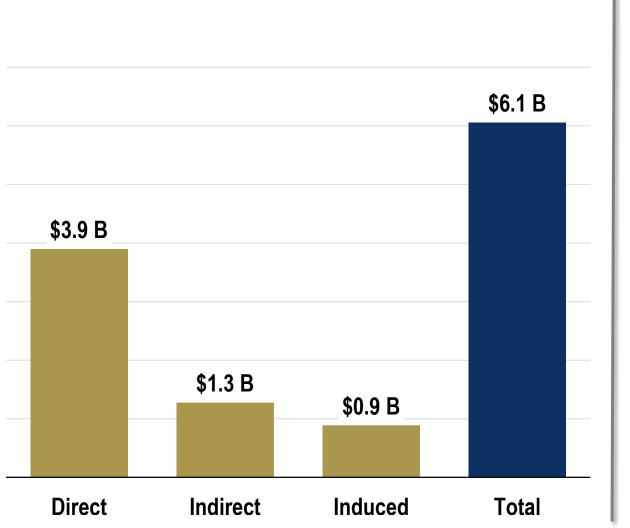


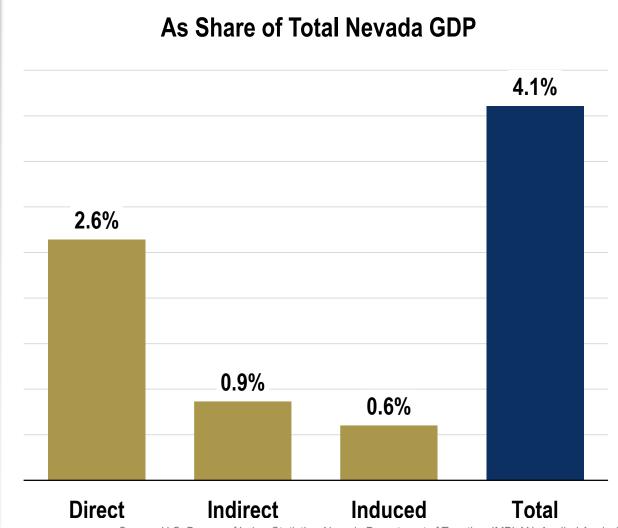






## Value-Added Impacts for Nevada Mining Industry Operations 2016



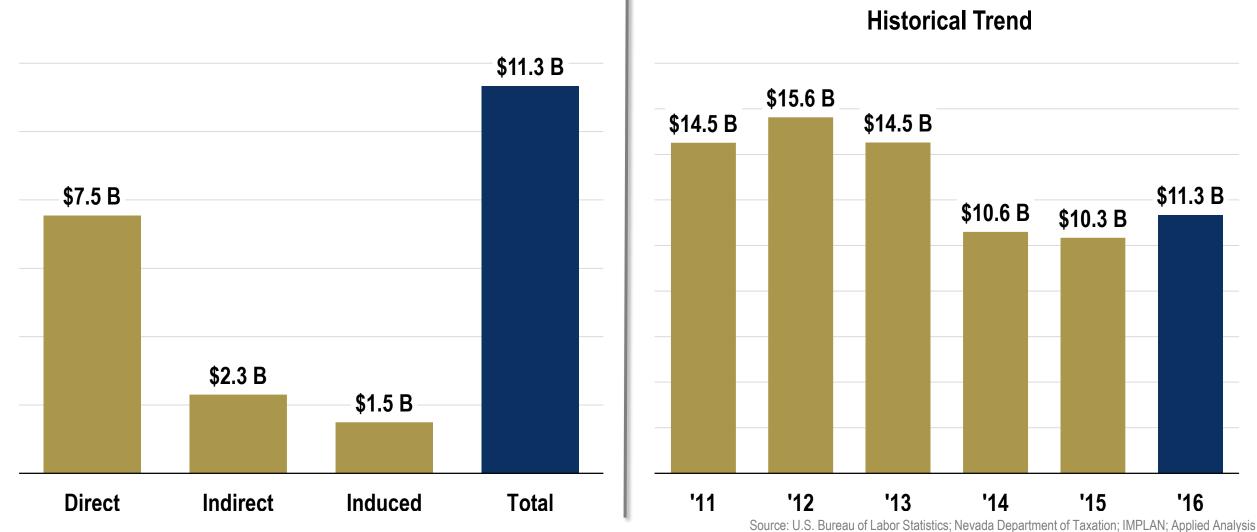


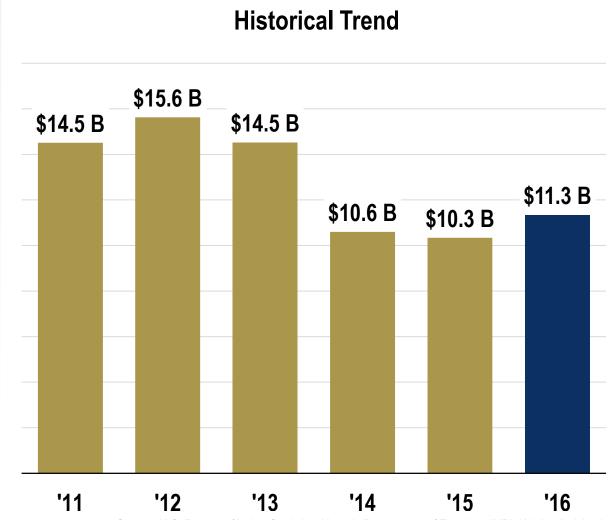






## **Economic Output for Nevada Mining Industry Operations** 2016









## Mining Benefits From Loopholes in Nevada's Tax Law

#### ARTICLE, 10. - Taxation.

Section 1. Uniform and equal rate of assessment and taxation; valuation of property; exceptions and exemptions; inheritance and personal income taxes prohibited. [Effective through November 26, 2018, and after that date unless the provisions of Senate Joint Resolution No. 13 (2015) are agreed to and passed by the 2017 Legislature and approved and ratified by the voters at the 2018 General Election.]

1. The Legislature shall provide by law for a uniform and equal rate of assessment and taxation, and shall prescribe such regulations as shall secure a just valuation for taxation of all property, real, personal and possessory, except mines and mining claims, which shall be assessed and taxed only as provided in Section 5 of this Article.

#### Sec. 5. Tax on proceeds of minerals; appropriation to counties; apportionment; assessment and taxation of mines.

1. The legislature shall provide by law for a tax upon the net proceeds of all minerals, including oil, gas and other hydrocarbons, extracted in this state, at a rate not to exceed 5 percent of the net proceeds. No other tax may be imposed upon a mineral or its proceeds until the identity of the proceeds as such is lost.

2. The legislature shall appropriate to each county that sum which would be produced by levying a tax upon the entire amount of the net proceeds taxed in each taxing district in the county at the rate levied in that district upon the assessed valuation of real property. The total amount so appropriated to each county must be apportioned among the respective governmental units and districts within it, including the county itself and the school district, in the same proportion as they share in the total taxes collected on property according to value.

3. Each patented mine or mining claim must be assessed and taxed as other real property is assessed and taxed, except that no value may be attributed to any mineral known or believed to underlie it, and no value may be attributed to the surface of a mine or claim if one hundred dollars' worth of labor has been actually performed on the mine or claim during the year preceding the assessment.

## Reality

Mines Pay Every Tax That Other Businesses Pay

Pays a Higher Business Tax Rate on Payroll (2.0%)

Pays a Higher Effective Property Tax Rate on Minerals (Which Are Property)





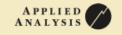
Mining Industry Takes Gold From Nevada and Gives Nothing Back



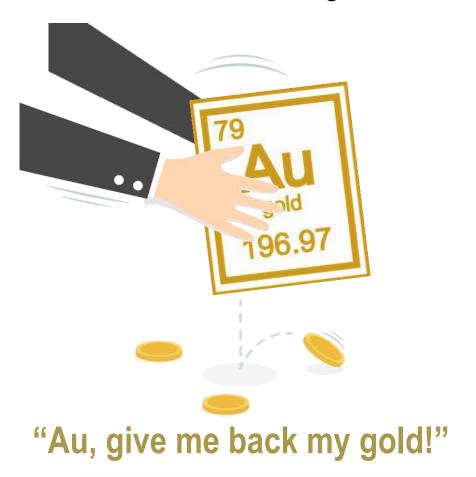
## Reality

- Barrick Gold is partnering with Cisco and Great Basin College to bring free digital education to employees and local-Nevadans
- Barrick purchases good and services from more than 500 Nevada-based business
- Partners with the Public Education Foundation in Nevada
- Western Shoshone Scholarship Foundation
  - Granted over \$2.8 million for over 1,250 scholarships
- Operation Bravo
- Volunteer Hours





Mining Industry Takes Gold From Nevada and Gives Nothing Back



## Reality

- Internships
- The Newmont Legacy Fund
  - Distributed a total of \$2.44 million to northern Nevada nonprofit organizations in 2016
- Mining and Faith Reflections Initiative
- Mine Tours
  - NvMA's self-guided virtual tour of Newmont's Twin Creeks gold mine
- Klondex Mines Ltd. transferred the deed for more than 3,200 acres to be returned to Western Shoshone tribe

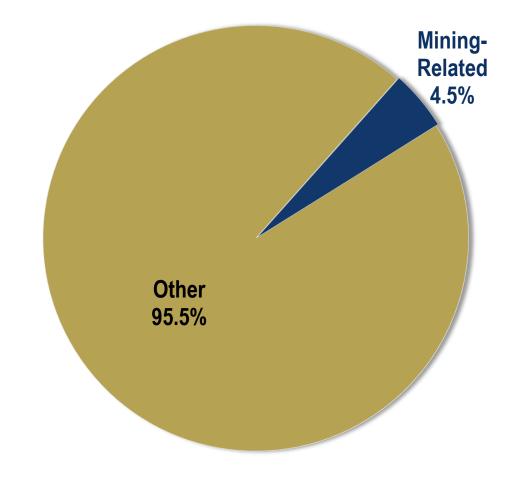




## **Ten Highest Assessed Taxpayers**

RANK	TAXPAYER NAME	TOTAL
1	MGM Resorts International	\$3,587 Million
2	NV Energy (1,4)	\$2,721 Million
3	Caesars Entertainment	\$1,931 Million
4	Las Vegas Sands Corporation	\$972 Million
5	Wynn Resorts Limited	\$927 Million
6	Station Casinos Inc.	\$706 Million
7	BARRICK MINING (2,4)	\$667 MILLION
8	NEWMONT MINING (3,4)	\$662 MILLION
8	Ruby Pipeline, LLC	\$458 Million
10	Nevada Property 1, LLC	\$382 Million
	Total	\$13,012 Million

## Roll Assessed Value by Class









Mining Should Have a Diminished Role in the "New Nevada"



## Reality

Girl Scout Motto:
"Make New Friends
and Keep the Old..."





## Perception vs. Reality







# "All our knowledge has its origins in our perceptions."

-- Leonardo Da Vinci









## **NEVADA'S MINING INDUSTRY**

PERCEPTIONS AND REALITIES

2017



