ECONOMIC OUTLOOK
STEADY BUT SLOWING GROWTH

Chris Akers
State Demography Office
November 2, 2018
OVERVIEW

- Global Growth Softening
- U.S. Economic Overview
- Colorado 2017 Economic Review
- Projections highlights Colorado and Counties
GLOBAL ECONOMIC CONDITIONS

• International Monetary Fund revised projected global growth rates for ‘18 & ‘19 down in October by 0.2 percentage points to 3.7%

• Expansion less balanced... some major economies may have peaked

• Trade measures, slowing working-age population and lackluster productivity advances acting as constraints

• U.S. Economic Momentum is strong

Source: IMF October 2018 World Economic Outlook
U.S. Nonfarm Employment (Seasonally Adjusted)

Millions of Jobs

96 months - Oct 2010 to Sept 2018

53 Months

Source: Current Employment Statistics (BLS)
U.S. Total Nonfarm Employment Growth 2010 to 2020
(Annual Percent Change)

Source: Current Employment Statistics (BLS) 2011-17,
Moody’s Analytics 2018-20 Forecast
Real GDP % Change from Prior Year

Source: BEA & Moody’s Analytics Current Baseline Forecast
STRONG GROWTH FADES BEGINNING IN 2020

• Tax Cuts & Jobs Act provided stimulus in 2018 boosted GDP ~1% and US Employment by ~700K (0.5%)

• Stimulus continues into 2019 largely offsetting tariffs, but Interest Rates continue to rise & become drag

• In 2020, stimulus from tax cuts are done & Interest Rates should plateau higher than ’19 increasing borrowing costs (+ trade war risk)
Colorado vs. U.S. Unemployment Rates '10-'18,
Seasonally Adjusted
Unemployment rate, 12-month change in the unemployment rate, and number of unemployed in September 2018, by state, seasonally adjusted

Source: Local Area Unemployment Statistics (BLS/LAUS)
COMPARING WAGES IN CO TO U.S.

Percentage Change in Annual Wage Colorado vs. United States

- United States
- Colorado

Source: Bureau of Labor Statistics (QCEW)
COMPARING INFLATION IN CO TO U.S.

Consumer Price Index (CPI)
1st Half Year Average 1990 to 2018
Denver-Aurora-Lakewood vs. United States

Source: Bureau of Labor Statistics
Consumer Price Index 1/2 year % change Over-the-Year

- U.S. All Urban
- Denver-Aurora-Lakewood

Source: Bureau of Labor Statistics
Employment Growth Since Sept. 2010 - U.S. vs. CO

# Fastest Growing States since 2010

<table>
<thead>
<tr>
<th>State</th>
<th>Total Employment (9/18)</th>
<th>Absolute Job Growth from 9/10</th>
<th>Percentage Growth from 9/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utah</td>
<td>1,527,900</td>
<td>343,900</td>
<td>29%</td>
</tr>
<tr>
<td>Nevada</td>
<td>1,348,000</td>
<td>281,500</td>
<td>25%</td>
</tr>
<tr>
<td>Colorado</td>
<td>2,748,100</td>
<td>528,500</td>
<td>24%</td>
</tr>
<tr>
<td>Florida</td>
<td>8,842,400</td>
<td>1,676,200</td>
<td>23%</td>
</tr>
<tr>
<td>Idaho</td>
<td>738,900</td>
<td>137,500</td>
<td>23%</td>
</tr>
<tr>
<td>Texas</td>
<td>12,638,500</td>
<td>2,248,600</td>
<td>22%</td>
</tr>
<tr>
<td>Washington</td>
<td>3,444,500</td>
<td>611,500</td>
<td>22%</td>
</tr>
<tr>
<td>Arizona</td>
<td>2,876,600</td>
<td>503,800</td>
<td>21%</td>
</tr>
<tr>
<td>California</td>
<td>17,202,900</td>
<td>2,920,500</td>
<td>20%</td>
</tr>
<tr>
<td>Oregon</td>
<td>1,922,600</td>
<td>320,700</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Top 10</strong></td>
<td><strong>53,336,500</strong></td>
<td><strong>9,572,200</strong></td>
<td><strong>21.9%</strong></td>
</tr>
<tr>
<td>United States</td>
<td>149,500,000</td>
<td>19,135,000</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

**SDO Total Estimated Jobs Series**

Comprehensive in Scope - combines various data sources to provide “full picture”

How they’re computed:

**Wage & Salary** employment from BEA from 2016 x QCEW growth rates from 2017

+ **Proprietors** from Census Non-Employer Stats (NES)
+ Ag Workers 150+ days/year (Census of Agriculture)
+ Railroad (USRR Retirement Board)

= Total Estimated Jobs (3,309,400 in ‘17)

Annual Employment Change

- 2011: 1.7%
- 2012: 2.0%
- 2013: 2.6%
- 2014: 3.2%
- 2015: 3.2%
- 2016: 2.2%
- 2017: 2.4%
- 2018P: 2.3%
- 2019F: 2.2%
- 2020F: 1.5%

Source: SDO Total Estimated Jobs & 2018 Forecast
Colorado 2017 Annual Employment Change by Industry & Wage

Low Wage ($22,100-$41,100), Mid Wage ($46,900 - $62,600), High Wage ($69,500 - $148,800)

Low Wage (39 to 73% Avg. Annual Wage (AAW)), Mid Wage (82 to 110% of AAW), High Wage (122 to 261% of AAW)
Colorado 2017 Annual Change in Proprietor Employment

- Transportation & warehousing: 8,000
- Professional & Tech. services: 1,600
- Construction: 2,400
- Real estate: 3,200
- Arts, Entertainment & Rec.: 1,000
- Admin & Waste: 800
- Other services: 600
- Accommod. & Food: 500
- Retail Trade: 400
- Information: 300
- Agriculture: 200
- Health Services: 200
- Education: 100
- Manufacturing: 100
- Finance activities: 100
- Wholesale trade: 100
- Mining: 100

Proprietor Employment Change = 16,300 or 3.2%
Proprietors Share of Employment by Industry (2017)

Real estate: 514,100 Proprietors comprised 15.5% of SDO Total Estimated Jobs

Agriculture
Arts, Entertainment & Rec.
Other services
Professional & Tech. services
Transport. & Warehousing
Construction
Education
Admin & Waste
Total
Retail Trade
Finance activities
Mining
Health Services
Information
Wholesale trade
Manufacturing
Utilities
Accommodation & Food

0.0% 10.0% 20.0% 30.0% 40.0% 50.0% 60.0%
Colorado Employment Change by Industry from 2008 to 2017

- Health Services
- Professional and Tech. services
- Accommodation and food
- State Government
- Transportation and warehousing
- Local Government
- Other services
- Arts, Entertainment & Rec
- Retail Trade
- Private Education
- Admin and waste
- Real estate
- Management of companies
- Agriculture
- Finance activities
- Wholesale trade
- Federal Government
- Construction
- Manufacturing
- Utilities
- Mining
- Information

Total employment change = 381,300

<table>
<thead>
<tr>
<th>Employment Change from 2008-17 by Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Wage ($22,100 - $41,100)</td>
</tr>
<tr>
<td>Mid Wage ($46,900 - $62,600)</td>
</tr>
<tr>
<td>High Wage ($69,500 - $148,800)</td>
</tr>
<tr>
<td>37%</td>
</tr>
<tr>
<td>42%</td>
</tr>
<tr>
<td>19%</td>
</tr>
</tbody>
</table>

Low Wage (39 to 73% Avg. Annual Wage (AAW)), Mid Wage (82 to 110% of AAW), High Wage (122 to 261% of AAW)
Industry Growth Rates from 2008 to 2017
Colorado Growth Rate Less U.S. Growth Rate

State Government
Management of Companies
Transportation & Warehousing
Private Education
Other Services
Local Government
Agriculture
Arts, Entertainment & Rec.
Real Estate
Manufacturing
Wholesale Trade
Total
Professional & Tech. Services
Health Services
Financial Activities
Construction
Accommodation and Food
Retail Trade
Mining
Information
Utilities
Federal Government
Admin & waste

-10% -5% 0% 5% 10% 15% 20% 25% 30%
EMPLOYMENT FORECAST
ECONOMIC FORECAST APPROACH

Base Industries (Economic Drivers)
• Traditional Basic
  • Agriculture, Mining, Manufacturing, Government (Federal & State)
• Regional & National Services
  • Professional & Business Services, Education & Health, Finance/Real Estate
• Tourism
  • Accommodations & Restaurants, 2\textsuperscript{nd} Homes, Retail, Transportation
• Household Jobs
  • Retiree-Generated, Federal Transfers, Investment Income, Commuting

Base Industry Jobs Create Local Resident Service Jobs
Combined, the two classifications constitute the economic forecast model
SDO Employment 2000 to 2040

Colorado 2018 Employment Forecast

Total Job Growth = **1.1 Million**
Average Annual Gain = **47,700** or **1.26% CAGR**

Total Jobs in Millions

- 2000: 2.5
- 2020: 3.5
- 2040: 4.4

Recession (2008-2010)

**Graph:**
- **Total Jobs Forecast**
- **Recession**

**Legend:**
- **Blue:** Recession
- **Red:** Total Jobs Forecast

**X-axis:**
- 2000 to 2040

**Y-axis:**
- Total Jobs, in Millions

**Note:**
- This graph shows the projected employment growth in Colorado from 2000 to 2040, with a total job growth of 1.1 million, an average annual gain of 47,700, or a 1.26% Compound Annual Growth Rate (CAGR).
COLORADO VS. UNITED STATES ANNUAL JOB CHANGE 2018-2040

Employment Change (%) by Year 2018-40 Forecast

-0.5%  0.0%  0.5%  1.0%  1.5%  2.0%  2.5%

2018  2020  2022  2024  2026  2028  2030  2032  2034  2036  2038  2040

Colorado  United States
FORECAST - TRENDS

• Slower job growth through 2021 as U.S. growth rate slows and # of leavers (retirees) increases.

• Increase in Household Jobs - those supported by spending of Retirees and Investment / Unearned Income

• Front-Range (+ Mesa, Garfield & La Plata) location of 91% of projected employment growth due to diversified Economic Base

• Local Resident Services jobs will expand to meet the needs of a growing population
Thank You!

https://demography.dola.colorado.gov/

Chris.Akers@state.co.us

303-864-7751