Economic Outlook
Consumers continue to drive growth in economic activity

Contributions to Real Gross Domestic Product (GDP)
Annualized Change over the Prior Quarter

Employment growth continues, but will slow further as the labor market tightens

Year-over-Year Change in Nonfarm Employment

Source: U.S. Bureau of Labor Statistics. Seasonally adjusted. Colorado nonfarm employment estimates include estimates of revisions expected by Legislative Council Staff as a part of the annual rebenchmark process.
Wages will continue to rise as labor shortages in many industries persist, constraining business growth and profits.

Real Average Hourly Earnings
2019 Dollars

Manufacturing activity remains in contractionary territory and business activity has slowed.

Institute for Supply Management Indices

Diffusion Index

Source: Institute for Supply Management.
A strong dollar makes imports cheaper, but exports more expensive

Trade Weighted U.S. Dollar
Index of the Dollar to Foreign Currencies

U.S. Exports
Millions of Dollars

Source: Federal Reserve Board of Governors & Bureau of Economic Analysis (balance of payments basis). Seasonally adjusted.
Inflationary pressures remain fairly subdued

CPI-U Inflation, U.S. City Average
Year-over-Year Change in Prices

November 2019 over November 2018

- Headline: 2.0%
- Core: 2.3%
- Energy: -0.6%
- Food: 2.0%
- Housing: 2.9%
- Apparel: -1.6%
- Transportation: -0.1%
- Medical Care: 4.2%
- Recreation: 1.9%
- Education: 2.2%
- Other: 2.4%

Source: U.S. Census Bureau. Seasonally adjusted.
Crude oil prices remain subdued by strong supply, weaker demand

West Texas Intermediate Crude Oil Price
Dollars per Barrel

Crude Oil Production
Millions of Barrels per Month

Source: Energy Information Administration. Average weekly prices through December 13, 2019.

Economic Outlook

U.S. and Colorado economic growth will continue, but at slower rates

• Labor markets will tighten further, constricting business growth and profits with higher wages
• Inflationary pressures will remain subdued on slower global economic demand for goods and slowing housing costs
• Energy, manufacturing, and export industry activity expected to remain soft into 2020

Recessionary risk for 2020 has eased, but risk remains elevated for the forecast period.
General Fund Budget Outlook
Ongoing shifts in taxpayer behavior and slowing economic growth are expected to drive General Fund revenue growth.

**Gross General Fund Revenue**

**Billions of Dollars**

**Change Relative to September Expectations**

- **FY 2019-20:** $-10.9M
- **FY 2020-21:** $+166.1M

**Year-over-Year Growth**

- 2011-12: 7.2%
- 2012-13: 14.1%
- 2013-14: 4.1%
- 2014-15:
- 2015-16:
- 2016-17:
- 2017-18:
- 2018-19:
- 2019-20:
- 2020-21:
- 2021-22:

Source: Colorado Office of the State Controller and Legislative Council Staff December 2019 forecast.
TABOR Outlook
Revenue Subject to TABOR
Dollars in Billions

Expected TABOR Surpluses

Referendum C Cap

TABOR Limit Base

Referendum C
Five-Year Timeout Period

Source: Colorado Office of the State Controller and Legislative Council Staff December 2019 forecast.
TABOR surplus revenue is set aside in the year in which a surplus occurs to pay refunds in the following budget year.

Expected TABOR Refunds & General Fund Budget Impacts
Dollars in Millions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Refunded in Fiscal Year:</td>
<td>2019-20</td>
<td>2020-21</td>
<td>2021-22</td>
<td>2022-23</td>
</tr>
</tbody>
</table>

Source: Colorado Office of the State Controller and Legislative Council Staff December 2019 forecast.
*This amount includes $0.1 million in underrefunds from the FY 2014-15 surplus.
Changes relative to September: +$120.5 million

The change is attributable to a new assumption for the FY 2018-19 year-end balance based on the Basic Financial Statements. This amount will be updated with the release of the CAFR.
Current Year | FY 2019-20 General Fund Reserve
Dollars in Millions

<table>
<thead>
<tr>
<th>September 2019 Forecast</th>
<th>December 2019 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>$871.1M 8.3% Reserve</td>
<td>$871.3M 8.8% Reserve</td>
</tr>
<tr>
<td>$121.6M Surplus</td>
<td>$184.0M Required Reserve</td>
</tr>
</tbody>
</table>

Changes relative to September: +$62.3 million

Higher beginning balance (carried over from FY 2018-19)

Higher TABOR refund obligation: Increased cash funds revenue expectations (+51.5M)

Small adjustments to appropriations, transfer amounts

Source: Legislative Council Staff forecasts based on current law.
Next Year | FY 2020-21 Budget Outlook Scenarios

Amounts above or below the required 7.25% reserve.
Incorporates the revenue forecast, current law transfers, rebates and expenditures, TABOR refund obligations, and the reserve requirement.

Hold FY 2019-20
Appropriations Constant

Source: Legislative Council Staff December 2019 forecast.
*2020 population and inflation projections. **Appropriations growth over the past two economic expansions.
Risks to the Forecast

Upside Risks for FY 2019-20

- Ongoing shifts in taxpayer behavior with federal tax law changes
- Taxation of out-of-state (including online) sales tax collections

How Much Do We Know About FY 2019-20?
Available General Fund Collections Data as a Share of Total Fiscal Year Collections*

*Six-year average of actual collections data, FY 2013-14 to FY 2018-19.
Risks to the Forecast

Elevated downside risk for FY 2020-21 and FY 2021-22

• Slower growth as the economic expansion matures
• Leading indicators improved some, but still flashing warning signs

In the current TABOR refund situation…

• The TABOR limit will constrain revenue growth
• Upside surprises mean larger TABOR refunds
• Higher than expected cash fund revenue will increase General Fund budgetary pressures
TABOR Refunds are refunded from General Funds

In a TABOR surplus situation...

General Fund dollars in = General Fund dollars out

TABOR Limit

Amount available for the General Fund Budget

General Funds

Cash Funds

TABOR Refunds
TABOR Refunds are refunded from General Funds

In a TABOR surplus situation...

Cash Fund dollars in = General Fund dollars out
Severance Taxes Are Noisy

Dollars in Millions

Source: Legislative Council Staff calculations base on the December 2019 forecast.
Severance Taxes Are Noisy

Dollars in Millions

Net Severance Tax Revenue

Source: Office of the State Controller and Legislative Council Staff December 2019 forecast (f).
K-12 Enrollment Forecast
# K-12 Public School Enrollment

*Full-Time Equivalent (FTE) Students*

<table>
<thead>
<tr>
<th>Region</th>
<th>Actual 2019-20</th>
<th>Percent Change*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro Denver</td>
<td>494,190</td>
<td>3.2%</td>
</tr>
<tr>
<td>Northern</td>
<td>91,722</td>
<td>4.8%</td>
</tr>
<tr>
<td>Colorado Springs</td>
<td>124,019</td>
<td>4.7%</td>
</tr>
<tr>
<td>Pueblo</td>
<td>33,370</td>
<td>4.0%</td>
</tr>
<tr>
<td>Eastern Plains</td>
<td>26,898</td>
<td>4.4%</td>
</tr>
<tr>
<td>San Luis Valley</td>
<td>7,414</td>
<td>2.8%</td>
</tr>
<tr>
<td>Mountain</td>
<td>25,489</td>
<td>2.6%</td>
</tr>
<tr>
<td>Southwest Mountain</td>
<td>13,589</td>
<td>4.1%</td>
</tr>
<tr>
<td>Western</td>
<td>51,909</td>
<td>3.3%</td>
</tr>
<tr>
<td><strong>Statewide Total</strong></td>
<td><strong>868,597</strong></td>
<td><strong>3.6%</strong></td>
</tr>
</tbody>
</table>

Source: Colorado Department of Education and Legislative Council Staff December 2019 forecast.

*Percent change from 2018-19, when kindergarten students were counted as 0.5 FTE.
Total K-12 Enrollment

Total Enrollment if Kindergarten = 1.0 FTE

Actual Total Enrollment

Before Full-Day Kindergarten

After Full-Day Kindergarten

Source: Colorado Department of Education and Legislative Council Staff December 2019 forecast (f).

*Prior to 2019-20, kindergarten students were counted as 0.5 FTE.
# K-12 Public School Enrollment

*Full-Time Equivalent (FTE) Students*

<table>
<thead>
<tr>
<th>Region</th>
<th>Actual 2019-20</th>
<th>Percent Change*</th>
<th>Estimated 2020-21</th>
<th>Percent Change</th>
<th>Estimated 2021-22</th>
<th>Percent Change</th>
<th>Average Growth**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro Denver</td>
<td>494,190</td>
<td>3.2%</td>
<td>491,985</td>
<td>-0.4%</td>
<td>490,832</td>
<td>-0.2%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Northern</td>
<td>91,722</td>
<td>4.8%</td>
<td>93,069</td>
<td>1.5%</td>
<td>93,690</td>
<td>0.7%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Colorado Springs</td>
<td>124,019</td>
<td>4.7%</td>
<td>125,051</td>
<td>0.8%</td>
<td>125,791</td>
<td>0.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Pueblo</td>
<td>33,370</td>
<td>4.0%</td>
<td>33,139</td>
<td>-0.7%</td>
<td>32,809</td>
<td>-1.0%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Eastern Plains</td>
<td>26,898</td>
<td>4.4%</td>
<td>27,188</td>
<td>1.1%</td>
<td>27,456</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>San Luis Valley</td>
<td>7,414</td>
<td>2.8%</td>
<td>7,489</td>
<td>1.0%</td>
<td>7,545</td>
<td>0.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Mountain</td>
<td>25,489</td>
<td>2.6%</td>
<td>25,368</td>
<td>-0.5%</td>
<td>25,272</td>
<td>-0.4%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Southwest Mountain</td>
<td>13,589</td>
<td>4.1%</td>
<td>13,615</td>
<td>0.2%</td>
<td>13,680</td>
<td>0.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Western</td>
<td>51,909</td>
<td>3.3%</td>
<td>52,002</td>
<td>0.2%</td>
<td>52,064</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Statewide Total</strong></td>
<td>868,597</td>
<td>3.6%</td>
<td>868,907</td>
<td>0.0%</td>
<td>869,138</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: Colorado Department of Education and Legislative Council Staff December 2019 forecast.

*Percent change from 2018-19, when kindergarten students were counted as 0.5 FTE.*

**Compound average annual growth rate between 2019-20 and 2021-22.*
Assessed Valuation Forecast
Assessed Values in Colorado

Dollars in Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Assessed Value</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$91.6</td>
<td>3.3%</td>
</tr>
<tr>
<td>2015</td>
<td>$105.3</td>
<td>15.0%</td>
</tr>
<tr>
<td>2016</td>
<td>$101.4</td>
<td>-3.7%</td>
</tr>
<tr>
<td>2017</td>
<td>$111.6</td>
<td>10.1%</td>
</tr>
<tr>
<td>2018</td>
<td>$115.9</td>
<td>3.8%</td>
</tr>
<tr>
<td>2019</td>
<td>$135.6</td>
<td>17.0%</td>
</tr>
<tr>
<td>2020f</td>
<td>$140.1</td>
<td>3.4%</td>
</tr>
<tr>
<td>2021f</td>
<td>$152.2</td>
<td>8.6%</td>
</tr>
<tr>
<td>2022f</td>
<td>$155.1</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Source: Colorado Division of Property Taxation and Legislative Council Staff December 2019 forecast (f).
Comparison of Median Home Values

Source: Zillow Zestimate, value of typical home.
Comparison of Median Home Values

Source: Zillow Zestimate, Value of typical home.
Change in Total Assessed Values by School District
2020 to 2021

Source: Colorado Legislative Council Staff December 2019 Forecast.
Residential Market Value

Residential Assessment Rate

Residential Assessment Rate 2019 & 2020

= 7.15%

Residential Assessment Rate 2021 & 2022

= 7.13%
But the forecast is not without risks

West Texas Intermediate (WTI) Crude Oil Price

Historic Price

Upper bound 95% Confidence Interval $90.52

Forecast WTI $59.50

Lower bound 95% Confidence Interval $31.68

What does the price of oil mean for the RAR?

<table>
<thead>
<tr>
<th></th>
<th>Baseline*</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implied Price of Oil, Dec 2020</td>
<td>$59.50</td>
<td>$50.50</td>
<td>$68.50</td>
</tr>
<tr>
<td>RAR</td>
<td>7.13%</td>
<td>7.00%</td>
<td>7.15%</td>
</tr>
<tr>
<td>Change in 2021 AV from baseline</td>
<td>$0</td>
<td>-$2.7 billion</td>
<td>$1.6 billion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.7%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

*Legislative Council Staff December 2019 forecast.
RAR = Residential assessment rate.
School Finance Outlook
Changes Under House Bill 19-1262
FY 2019-20 Cost of Full-Day Kindergarten Implementation

*Dollars in Millions*

<table>
<thead>
<tr>
<th>Utilization</th>
<th>Funded Pupil Count</th>
<th>Total Program</th>
<th>State Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>25,896</td>
<td>$220.6</td>
<td>$213.2</td>
</tr>
<tr>
<td>95%</td>
<td>24,702</td>
<td>$210.3</td>
<td>$202.9</td>
</tr>
<tr>
<td>90%</td>
<td>23,508</td>
<td>$200.0</td>
<td>$192.7</td>
</tr>
<tr>
<td>85%</td>
<td>22,367</td>
<td>$190.2</td>
<td>$182.9</td>
</tr>
</tbody>
</table>

Estimated

Actual

23,803 $204.2 $198.3
Change in Expectations for FY 2019-20 School Finance Funding
Dollars in Millions

Current Law Appropriation
BS Factor: $572 million

December 2019 Expectations
The General Assembly’s Choices Range From:

- Hold at $572 million
- Increase to $581 million

Current Law Appropriation

<table>
<thead>
<tr>
<th>State Aid</th>
<th>Local Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,620</td>
<td>$2,966</td>
</tr>
</tbody>
</table>

December 2019 Expectations

<table>
<thead>
<tr>
<th>State Aid</th>
<th>Local Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,629</td>
<td>$2,977</td>
</tr>
</tbody>
</table>

The General Assembly’s Choices Range From:

- Hold at $572 million
- Increase to $581 million

Source: Legislative Council Staff December 2019 forecast.
Year-over-Year Change in School Finance Funding
FY 2019-20 to FY 2020-21
Dollars in Millions

Local Share

State Aid

FY 2019-20

$4,629

$2,977

FY 2020-21

$4,707

$3,054

State Aid*

+$78 million

Source: Legislative Council Staff December 2019 forecast.

*Assumes a constant Budget Stabilization Factor.
Implications for Balancing General Fund (GF) and State Education Fund (SEF) Contributions in 2020-21

- $9M required increase in 2019-20; $78M increase in state aid requirement in 2020-21 year-over-year reduces flexibility.

- Increasing 2019-20 SEF spending by $9M implies $15 million (0.4%) GF increase in 20-21.

- Increasing BS Factor by $9M implies $3 million (0.1%) GF decrease in 2020-21.
Adult Corrections Population Forecast
The prison population is down 2.7 percent since February

Source: Department of Corrections, Office of Planning and Analysis. Monthly data.
Case filings are down, and so are admissions

Case Filings Trends
FY 2015-16: +12.8 percent
FY 2016-17: +12.0 percent
FY 2017-18: +5.6 percent
FY 2018-19: +3.0 percent
FY 2019-20: -4.3 percent (FYTD)

New Court Commitments
FY 2016-17: +11.7 percent
FY 2017-18: +8.3 percent
FY 2018-19: +0.7 percent
FY 2019-20: -10.3 percent (FYTD)

Source: Office of the State Court Administrator (case filings) and Department of Corrections, Office of Planning and Analysis (new court commitments). Monthly data; both series shown as six-month moving averages.
Trend in commitments has reduced inmate expectations

Adult Inmate Population Forecasts as of June 30

Source: Department of Corrections and Legislative Council Staff December 2019 forecast.
Forecast uncertainty remains elevated

- This forecast always contains (bidirectional) error
  - Current year forecast error averages about 1.7 percent, or 328 inmates
  - Budget year forecast error is about 2.1 percent, or 413 inmates

- Trajectory of new court commitments is most important determinant of forecast accuracy

- Other risks include:
  - Implementation of SB 19-143
  - More parole board members and judges
  - Supreme Court decision in *Allman v. People*
  - Termination of Denver Community Corrections contracts

Source: Legislative Council Staff December 2019 forecast.
Parole caseload growth will continue

Adult Parole Caseload Forecasts as of June 30

Source: Department of Corrections and Legislative Council Staff December 2019 forecast.
Juvenile Corrections Population Forecast
All DYS Populations are Falling

Average Daily Populations through FY 2021-22

New court commitments to DYS decreased **29.1 percent** during FY 2018-19

Source: CDHS Division of Youth Services and *Legislative Council Staff December 2019 forecast.
Questions?

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www.leg.colorado.gov/lcs