STAFF BUDGET BRIEFING
FY 2023-24

STATUTORY GENERAL FUND RESERVE

JBC WORKING DOCUMENT - SUBJECT TO CHANGE
STAFF RECOMMENDATION DOES NOT REPRESENT COMMITTEE DECISION

PREPARED BY:
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Over the summer, the chair of the Joint Budget Committee (Rep. McCluskie) requested that the JBC Staff analyze the statutory General Fund reserve requirement, including defining the purpose of the reserve (i.e., what are we saving for) and the adequacy of the reserve. There were concerns from the legislature as a whole and from within the JBC that the reserve might be too high, needlessly tying up resources that could be used for other purposes, and a perceived lack of clarity and consensus on the goals for the reserve. Analysis by the JBC staff suggests increasing the reserve would provide value.

SUMMARY

1 The JBC should be wary of reducing the 15.0 percent statutory General Fund reserve and should look for opportunities to build a larger reserve.
   a. Colorado’s General Fund reserve buffers the ongoing operations of Colorado state government in a recession.
   b. Based on a “stress test” compiled with data from JBC Staff and Legislative Council Staff economists, the current 15.0 percent reserve would be insufficient to carry the state budget through more than one year of an economic downturn. JBC staff’s analysis suggests that substantially more than this could be needed to weather a typical downturn that lasts 3-4 years.
   c. Outside organizations recommend higher reserves, including:
      i. The Government Finance Officers Association recommends that governments reserve two months of general operating revenue or expenditures (16.7 percent).
      ii. Moody Analytic’s efforts to “stress-test” Colorado and other states in September 2022 projects that a moderate recession in Colorado would result in a fiscal shock of 19.1 percent of revenue, including both the impact of revenue declines and Medicaid spending increases.

2 The Governor and JBC Staff have previously recommended creating a formal rainy day fund, and the Governor again references a “future” rainy day fund in his budget submission. JBC Staff continues to support this idea.

3 Our real life experience during COVID demonstrated the extraordinary challenges of managing a sharp decline in revenues without adequate reserves.

4 The federal government has played an important role in the past (and particularly during the COVID-19 Recession) in assisting states in managing cyclical budget pressures. However, the scope and timing of this assistance has varied. While it is reasonable to expect some help, the State also bears responsibility for protecting its own fiscal house.

5 A primary concern looking forward is how to add budget stability over the longer term. The current 15.0 percent reserve exists due to extraordinary economic conditions. Looking forward, we believe that the General Assembly must contemplate how it will be able to rebuild significant reserves once the current reserve is depleted.
DISCUSSION

STATUTORY RESERVE REQUIREMENT
Statutes require the General Assembly to reserve an amount of General Fund equal to at least 15.0 percent of General Fund appropriations.¹ For FY 2022-23, the required reserve is $2,028.8 million, if the General Assembly approves the placeholder for supplemental appropriations that was proposed by the Governor on November 1. The size of Colorado's reserve as a percentage of appropriations has varied substantially over time.

The reserve requirement is calculated based on appropriations and does not take into account other General Fund obligations such as transfers, rebates and expenditures, or the TABOR refund. Unlike most states, Colorado's reserve is retained as an unrestricted balance in the General Fund rather than set aside in a separate fund, which often leads to pedantic footnotes in national reports comparing state reserves and occasionally to confusion about or misrepresentation of Colorado's reserves.²

Section 24-75-201.5, C.R.S., requires that “Whenever the revenue estimate for the current fiscal year indicates that the general fund expenditures for such fiscal year based on appropriations then in effect will result in the use of one-half or more of the [statutory General Fund reserve], the governor shall formulate a plan for reducing such general fund expenditures so that said reserve, as of the close of the fiscal year, will be at least one-half of the [statutory reserve amount]...” The Governor is required to "promptly" report the plan to the General Assembly and "promptly" implement it. The potentially imprecise statutory language regarding the timing of reducing expenditures is a function of historic disagreements between the executive branch and legislative branch.

PURPOSE OF THE RESERVE
The purpose of the reserve is to mitigate the budgetary impact of declines in revenues. There is no legislative declaration describing the purpose of the reserve,³ but it is clear from the statutory context and the historic utilization that this is the function of the reserve. In the event of an unexpected decline in revenues, the statutes allow the Governor to spend from the reserve until projections indicate that half the reserve will be expended. Thus, part of the function of the reserve is to address potential forecast error.

In practice, the General Assembly has frequently adjusted the reserve as part of the response to projected declines in revenue, so an inferred function of the reserve is to lessen the need for, or at least the urgency of, budget reductions when revenues are expected to decline. The statutory General Fund reserve buys time for revenues to recover and/or for budget saving policy changes to take effect.

¹ Pursuant to Section 24-75-201.1(1)(d)(XXIII), C.R.S., for FY 2022-23 and each fiscal year thereafter, “unrestricted general fund year-end balances must be retained as a reserve” equal to “fifteen percent of the amount appropriated for expenditure from the general fund for that fiscal year”.
² Colorado appears to be the only State without a formal rainy day fund, although the General Fund reserve does serve a similar function. https://www.nesl.org/research/fiscal-policy/rainy-day-funds.aspx
³ There was some legislative declaration language in the same section of statute as the statutory General Fund reserve, but not in the same subsection. Section 24-75-201.1, C.R.S., deals with a number of restrictions on General Fund appropriations and the statutory General Fund reserve is described in subsection (1)(d)(XVII). From 2000-2008 a subsection (4) dealt with appropriations for school construction and included legislative declaration language describing the General Assembly's commitment, such as this text added by H.B. 02-1349: "the General Assembly recognizes the importance of assisting school districts in providing safe, adequate, and necessary buildings and classrooms for school children". The subsection (4) was repealed in 2008 by the Building Excellent Schools Today Act.
In the graphic below, most decreases in the statutory General Fund reserve clearly align with recessions.4

The General Assembly has frequently reduced the statutory General Fund reserve as part of the response to projected declines in revenue.

Since FY 1993-94, the General Assembly has not decreased the statutory General Fund reserve requirement for a reason other than a projected decrease in revenues.5

The modern statutory General Fund reserve is not intended to address disasters unrelated to economic conditions or revenue shortfalls. Rather, Section 24-33.5-706 (4), C.R.S., states the legislative intent that money required during a disaster first be paid from money regularly appropriated to state and local agencies. If these existing resources prove insufficient, the Governor may make money available from the Disaster Emergency Fund, which consists of money appropriated by the General Assembly, transferred by the Governor from other appropriations, and reimbursements for previous state expenditures from the Fund. In addition, the TABOR amendment, Article X, Section 20 of the State Constitution, created a separate reserve (equal to 3.0 percent of the revenue limit) for declared emergencies unrelated to economic conditions, revenue shortfalls, or salary and benefit increases.

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4 There are anomalies in FY 1988-89 and FY 2015-16. The JBC staff was unable to determine definitively what happened in FY 1988-89, but in FY 2015-16 mid-year projections predicted a decrease in revenue from the assumptions used for the original appropriation.

5 In some cases, most notably the COVID-19 recession, the projected decrease in revenues did not materialize. The JBC staff did not comprehensively review the history of the reserve prior to FY 1993-94, but did notice that in FY 1991-92 the reserve was reduced from 4.0 percent to 3.0 percent and the additional General Fund made available was designated to address prison overcrowding. In more recent times, all uses of the reserve have been reserved for real or projected revenue shortfalls.
**Recession Scenario**

To visualize the impact of the current statutory General Fund reserve requirement, we modeled a scenario that assumes a 17 percent decline in General Fund revenues from FY 2022-23 to FY 2024-25. As described further below, this mirrors the level of revenue decline experienced in the recessions of 2001 and 2009. The scenario assumes that the General Assembly adopts the Governor's request, including out-year costs. It also builds into the out-year the same assumptions about ongoing costs for compensation and provider rates as the General Fund overview. In addition to these costs, the scenario includes increases for new budget pressures associated with a downturn in the economy. The scenario is summarized in the table below with each of the changes highlighted in yellow and described in subsections following the table.

The bottom line is that in a deep recession even a 15.0 percent reserve would be insufficient to maintain expenditures through two years, and a recovery to peak revenues typically takes four years.

### Recession Scenario

Based on General Fund Overview as of November 9, 2022

<table>
<thead>
<tr>
<th>LCS September 2022 Forecast ($ millions)</th>
<th>FY 21-22</th>
<th>FY 22-23</th>
<th>FY 23-24</th>
<th>FY 24-25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Fund Available</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Beginning Reserve</td>
<td>$3,181.5</td>
<td>$3,144.6</td>
<td>$2,002.1</td>
<td>$1,227.6</td>
</tr>
<tr>
<td>2 Gross General Fund Revenue</td>
<td>17,697.9</td>
<td>17,291.1</td>
<td>17,626.3</td>
<td>17,805.9</td>
</tr>
<tr>
<td>3 Recession scenario - adjustment to revenue</td>
<td>0.0</td>
<td>0.0</td>
<td>(2,364.4)</td>
<td>(3,368.7)</td>
</tr>
<tr>
<td>4 Transfers In From Other Funds</td>
<td>59.5</td>
<td>25.1</td>
<td>27.3</td>
<td>26.2</td>
</tr>
<tr>
<td>5 Total General Fund Available</td>
<td>$20,939.0</td>
<td>$20,460.8</td>
<td>$17,291.3</td>
<td>$15,691.0</td>
</tr>
<tr>
<td><strong>General Fund Obligations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Appropriations subject to statutory reserve requirement</td>
<td>$12,031.2</td>
<td>$13,472.2</td>
<td>$14,660.1</td>
<td>$15,347.7</td>
</tr>
<tr>
<td>7 Recession scenario - new obligations</td>
<td>0.0</td>
<td>0.0</td>
<td>163.7</td>
<td>422.2</td>
</tr>
<tr>
<td>8 Rebates and Expenditures</td>
<td>149.6</td>
<td>145.3</td>
<td>144.6</td>
<td>143.8</td>
</tr>
<tr>
<td>9 Recession scenario - Homestead exemption</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>163.6</td>
</tr>
<tr>
<td>10 TABOR Refund Obligations</td>
<td>3,734.6</td>
<td>2,971.4</td>
<td>1,852.5</td>
<td>1,452.0</td>
</tr>
<tr>
<td>11 Recession scenario - adjustment to TABOR refund</td>
<td>0.0</td>
<td>0.0</td>
<td>(1,852.5)</td>
<td>(1,452.0)</td>
</tr>
<tr>
<td>12 Transfers Out and Other Diversions</td>
<td>1,879.0</td>
<td>1,869.6</td>
<td>1,095.2</td>
<td>1,062.1</td>
</tr>
<tr>
<td>13 Total General Fund Obligations</td>
<td>$17,794.4</td>
<td>$18,458.7</td>
<td>$16,063.7</td>
<td>$17,139.4</td>
</tr>
</tbody>
</table>

**Recession Scenario - Adjustment to Revenue**

The scenario assumes peak revenue in FY 2022-23 declines by 17 percent over two years, which is comparable to recent recessions. The table shows the change relative to the LCS September 2022 Forecast, which projected increases in revenues in FY 2023-24 and FY 2024-25. Alternatively, the JBC could think about this in terms of reductions from the peak revenue in FY 2022-23 of $2,029.1 million in FY 2023-24 and $2,853.9 million in FY 2024-25.

Following the 2001 Recession (March 2001 – November 2001) state General Fund revenues decreased from peak to trough by 16.7 percent from $6,552.4 million to $5,457.1 million. Similarly, during the Great Recession (December 2007 – June 2009) state General Fund revenues decreased from peak to
General Fund revenues declined 17% from peak to trough following both the 2001 Recession (03-2001 to 11-2001) and Great Recession (12-2007 to 05-2009) and remained below peak revenue for four fiscal years.

For the COVID-19 Recession (February 2020 – April 2020) the forecasts by both Legislative Council Staff and the Office of State Planning and Budgeting projected steep declines in General Fund revenues, but even more quickly. In previous recessions the peak revenue was in the year the recession started and the revenue trough occurred two fiscal years later, but LCS and OSPB were projecting revenue in the year the recession started would be below the prior year and the trough would occur a full fiscal year faster. Ultimately, the projected decline in revenue did not occur, which could be attributed to a variety of factors, including federal intervention in the economy. However, these were the projections that the Joint Budget Committee used to balance the budget. The level of reserves available to address the decline in revenues (7.25 percent at the beginning of the fiscal year) had a profound impact on the deliberations.

For context on how quickly the budget environment was changing during the COVID-19 recession, the table below shows the changes in the revenue forecasts from September 2019 to May 2020. It is interesting to note that the cumulative decreases in the revenue projections from September 2019 to May 2020 of 16.4% for LCS and 16.2% for OSPB look very similar to the actual peak to trough reductions in revenue experienced in the 2001 Recession and Great Recession of just under 17 percent.
### Change in Projections of Gross General Fund Revenues from September 2019 to May 2020 ($ Millions)

<table>
<thead>
<tr>
<th></th>
<th>FY 2019-20</th>
<th>FY 2020-21</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LCS</td>
<td>OSPB</td>
<td>LCS</td>
</tr>
<tr>
<td>September 2019</td>
<td>$12,953.5</td>
<td>$13,096.4</td>
<td>$26,262.5</td>
</tr>
<tr>
<td>December 2020</td>
<td>12,942.7</td>
<td>13,009.4</td>
<td>26,417.8</td>
</tr>
<tr>
<td>March 2020</td>
<td>12,546.6</td>
<td>12,713.2</td>
<td>25,271.7</td>
</tr>
<tr>
<td>May 2020</td>
<td>11,653.8</td>
<td>11,630.1</td>
<td>21,960.4</td>
</tr>
<tr>
<td>Decrease from September 2019 to May 2020</td>
<td>($1,299.70)</td>
<td>($1,466.30)</td>
<td>($4,302.1)</td>
</tr>
<tr>
<td>Percent Decrease</td>
<td>-10.0%</td>
<td>-11.2%</td>
<td>-16.4%</td>
</tr>
</tbody>
</table>

"LCS" refers to the Colorado Legislative Council Staff's *Economic and Revenue Forecast*.  
"OSPB" refers to the Governor's Office of State Planning and Budgeting's *Colorado Economic and Fiscal Outlook*.

### Recession Scenario - New Obligations

In a recessionary environment, the costs associated with some government services increase. The General Assembly has varying degrees of discretion in deciding whether to fund these increased costs, but there are policy trade-offs associated with not funding them. The model above incorporates the following assumed budgeted increases.

<table>
<thead>
<tr>
<th></th>
<th>FY 23-24</th>
<th>FY 24-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid/CHP+ Enrollment</td>
<td>$97.9</td>
<td>$195.8</td>
</tr>
<tr>
<td>Higher Education Enrollment</td>
<td>$40.1</td>
<td>$139.6</td>
</tr>
<tr>
<td>K12 At-risk</td>
<td>$19.6</td>
<td>$74.6</td>
</tr>
<tr>
<td>PERA</td>
<td>$6.1</td>
<td>$12.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$163.7</strong></td>
<td><strong>$422.2</strong></td>
</tr>
</tbody>
</table>

Key assumptions include:

- Medicaid and CHP+ enrollment will increase consistent with the growth observed in connection with the 2001 recession.
- There is no federal support or intervention to help states address these costs, although the federal government has provided relief in prior recessions.
- There is an increase for higher education consistent with typical enrollment increases during recessions as unemployed and underemployed workers retrain and people delay entry into the job market. This is consistent with modeling in other states, although Colorado has historically sharply cut higher education, rather than increasing it, in prior recessions.
- K12 enrollment is not likely to change significantly during a recession, but the number of children identified as at-risk of failing or dropping out will increase, driving an increase in school finance costs, if all other variables remain constant, including maintaining the Budget Stabilization Factor.
- PERA investments will not meet goals, triggering statutory increases in the state contribution.

More information on the assumptions used to estimate the counter-cyclical budget pressure can be found in Appendix A.

### Recession Scenario - Homestead Exemption

The state's reimbursement to local governments for the homestead exemption is normally paid as a TABOR refund mechanism, but in the recession scenario there is no TABOR surplus so the cost
becomes a General Fund obligation the next fiscal year. The homestead exemption provides a property tax break to qualifying seniors and veterans with a disability and surviving spouses. The state pays local governments for lost revenue as a result of the homestead exemption. The total shown in the table includes an adjustment for the voter-approved expansion of the homestead exemption to Gold Star spouses pursuant to Amendment E.

**Recession Scenario – Adjustment to TABOR Refund**

Based on the recession scenario revenue projection, there would be no TABOR refund obligation in FY 2023-24 of FY 2024-25. It is critical to note that this recession scenario is rosier than it could be because the LCS September 2022 Forecast projected unusually large TABOR surpluses. The first thing to go when revenues decline is the TABOR refund. In the recession scenario, revenues had to fall below the forecasted TABOR surpluses of $1,852.5 million in FY 2023-24 and $1,452.0 million in FY 2024-25 before there was any impact on the operating budget.

The TABOR surplus acts as a shadow reserve. The TABOR surplus is not intended or designed to be a reserve but, nevertheless, carrying a large TABOR surplus has the effect of protecting the state budget from a recession.

How is a TABOR surplus like a reserve?

- A TABOR surplus acts as a cushion against declining revenue. Revenue would need to decrease below a threshold before it would impact the budget (the Ref C limit plus the homestead exemption).
- There is a fiscal rule that governs contributions to the TABOR surplus, i.e. when revenue exceeds the Ref C limit.

How is a TABOR surplus not like a reserve?

- If you don't spend a reserve, the money is there the next year, but if you don't spend the TABOR surplus, all the money gets refunded to the taxpayers and you start the next year from zero.
- There are no rules or policy actions required for accessing the TABOR surplus. If revenues fall, the decrease comes from the TABOR surplus before impacting the budget. In contrast, the legislature could choose to take policy actions, such as cutting appropriations, before tapping a reserve.

Long-term the TABOR surplus is expected to increase, which could be good news for the stability of the state budget. The Referendum C cap is based on inflation and population but state revenues are driven primarily by income taxes that tend to change with personal income and population. Historically, personal income has grown faster than inflation. It might not happen in the current high inflation environment, but given enough time and no policy interventions, the TABOR surplus is expected to grow. As the TABOR surplus grows, it provides a larger buffer before any potential downturn in revenues would impact appropriations.

However, as the TABOR surplus grows so does the pressure to reduce taxes or request permission from the voters to retain excess revenue for specific purposes. Why collect money only to refund it to taxpayers? The most recent election included both types of measures, such as Proposition 121 to reduce the state income tax and Proposition 123 to retain some of the TABOR surplus for housing initiatives. The role of the TABOR surplus in protecting the state budget from a recession is often overlooked with these types of measures. For example, in the Ballot Information Book (Blue Book)
the arguments against Proposition 123 to provide funding for housing initiatives did not mention how reducing the TABOR surplus would reduce the cushion before a revenue decrease impacts the state budget.

State efforts to retain a portion of the TABOR surplus typically outline specific plans for how the money would be used. It is hard to imagine how a proposal would be received to keep a portion of the TABOR surplus for the purpose of not spending it but, rather, holding it in reserve. However, a proposal of that type could provide significant protection for the state budget.

By restricting the growth of government, the TABOR limit reduces the risk that in good economic times the state might create new ongoing obligations that are unsustainable. However, by requiring that any excess revenue be refunded to taxpayers, TABOR constrains the ability of the state during good economic times to set aside excess money for the inevitable declines in revenue that result from cyclical economic downturns.

**RECESSION SCENARIO - FISCAL YEAR-END GENERAL FUND RESERVE**

In the recession scenario the current 15.0 percent statutory General Fund reserve would be sufficient to allow the state to get through one fiscal year of an economic downturn with no changes to appropriations or increases in revenue, but by the second year the fiscal year-end General Fund reserve would be a negative $1,448.4 million.

It is unadvisable and unrealistic to assume the General Assembly would continue spending without modifications when revenues are projected to decrease. The reserve is only one part of the tools available to the General Assembly to respond to a recession. However, this recession scenario hopefully helps conceptualize how much time the current 15.0 percent reserve is buying.

In fact, dipping into the statutory General Fund reserve is historically one of the last tools used by the legislature when balancing the budget in response to a recession. Utah developed a "fiscal tool kit"\(^6\) to show how as the severity of an economic downturn increases the responses by the legislature and the value at risk increases. Utah's terminology and tools are somewhat different than Colorado's but the visual is still useful in illustrating how accessing the budgetary reserves is typically one of the last steps. For Colorado, we might talk about things like accelerated spending from severance taxes or tobacco revenues rather than calling it "Cashflow Management" or spending the balance in the Controlled Maintenance Trust Fund rather than accessing "Working Rainy Day Funds" or financing more of K12 from the State Education Fund rather than accessing "Operating Reserves".

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The recession scenario is showing not just the effect of the historically high 15.0 percent reserve but also the impact of unusually high projected TABOR surpluses. The projected TABOR surpluses as a percent of General Fund appropriations are 12.6 percent in FY 2023-24 and 9.5 percent in FY 2024-25. If the statutory General Fund reserve is combined with the TABOR surplus, it is equivalent to a total reserve in FY 2023-24 of 27.6 percent.

It is important to note that in each of the last three recessions it took four years before General Fund revenues recovered to the pre-recession peak.

**Better Fiscal Management – Now and in the Future**

**Establishing a Formal Rainy Day Fund**

In March 2021, Director Kampman recommended that the General Assembly establish an “Extended Recession Recovery Account” to provide a buffer during multi-year recessions, consistent with a proposal presented in 2019. The JBC did not move forward with this initiative in 2019 or 2021. However, staff continues to believe that such a fund should be considered.

A 2019 bill draft, proposed by the Governor and the State Treasurer, proposed that the General Assembly establish a new reserve that would better equip the State to budget and maintain essential services during economic recessions. The JBC authorized OLLS and JBC staff to work with staff from OSPB and the State Treasurer’s office to draft legislation to establish a longer-term reserve account intended to be available to cover the second, third, and potentially fourth years of the next recession.

The resulting legislative proposal included provisions to:

- establish a new Extended Recession Recovery Account (ERRA) within the General Fund that is separate from the statutory General Fund reserve;

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• create a mechanism to establish and replenish this reserve using a portion (70 percent) of annual General Fund reversions;
• place a cap on the balance of the ERRA account (25 percent of prior year General Fund revenues), and limit or eliminate annual transfers of General Fund reversions when this cap is reached;
• allow the money in ERRA to constitute a portion or all of the State Emergency Reserve; and
• limit the General Assembly’s ability to appropriate money from ERRA to certain economic circumstances.
  o the General Assembly may appropriate from ERRA a fiscal year in which General Fund revenues decline by at least 5.0 percent (based on the Legislative Council Staff revenue forecast);
  o in the next fiscal year, the General Assembly may appropriate from ERRA again as long as General Fund revenues decline at least 3.0 percent; and
  o in fiscal years three and four, the General Assembly may appropriate from ERRA as long as GF revenues remain below pre-recession levels.

Such a fund would have two other positive impacts:
• A longer-term reserve would assist the State in managing cash flow throughout the fiscal year, avoiding a potential negative cash balance in the General Fund (which occurred on June 30, 2020). This longer-term reserve would provide a real cash reserve, while the existing General Fund reserve can be subject to accrual-related adjustments such as the large receivable that was booked for FY 2019-20 for taxes that were paid in July rather than April.
• A well-funded “rainy day fund” generally results in a better bond rating for a state.

**BEST PRACTICE: RAINY DAY FUNDS, STRESS TESTING, PROVISIONS FOR REBUILDING RESERVES**

Government finance experts, think tanks, and budget officers’ associations consistently express support for:
• Rainy day/budget stabilization/reserve funds
• Budget stress testing
• Establishing procedures for rebuilding reserves

**PEW CHARITABLE TRUSTS**

Between March and August of 2021, the Pew Charitable Trusts produced four memos for the Executive Branch designed to assist Colorado in long term budget planning.⁸ Some useful observations from some of these are described below.

• Colorado has unusually high revenue volatility, supporting the need for reserves to help temper the variation. A March 12, 2021 memo from Josh Goodman, Airlie Loiaconi, and Dana Westgren explored Colorado’s revenue trends from income, sales, and fuel taxes from 1993 to 2017 and the deviation from Colorado’s long term trend. Pew concluded that Colorado has the tenth highest level of revenue volatility among the states. The chart below shows the extent to which growth fell above or below the long-term trend line and the degree of deviation following the 2001 recession and the Great Recession.

• As noted in the memo, had Colorado budgeted to its long-term trend, “reserves of 11% would have covered the full budget gap of any single-year drop in Colorado revenue growth and 17% would have covered any two-year recession period.”

• An August 20, 2021 memo from Jen Janson at Pew provided recommendations for budget “stress testing” and offered examples from other states. The memo identifies 14 other states that conduct “stress testing” of various kinds.

• The above memos also provide multiple examples of states that have established rules for accessing reserves and for rebuilding reserves following downturns.

• Director Kampman provided an in depth review of some of the work by Pew and other entities in this area in a memo presented to the JBC in March 2021. This memo may be accessed here: https://leg.colorado.gov/sites/default/files/reserve-03-25-21.pdf

MOODY’S ANALYTICS
In September 2022, Moody’s Analytics released “Stress-Testing States: Looking Toward the Next Recession”

Moody’s analysis focuses on only two metrics related to fiscal shocks: revenue loss and Medicaid increases. For Colorado, it projects that a moderate recession scenario will drive a decline of 15.0 percent in revenue ($2.1 billion) and a Medicaid spending increase of $4.1 percent ($584 million) resulting in a total fiscal shock of $2.7 billion or 19.1 percent of revenue. Moody’s concludes that Colorado reserves are sufficient to weather a moderate recession, based on a comparison with the

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9 https://www.economy.com/getlocal?q=a7a91e91-cad1-447d-a03f-cd48e8edaa21&app=eccafile
National Association of State Budget Officers (NASBO) report that Colorado’s total balance/rainy day fund reserves as of the end of FY 2021 were 22.2 percent of General Fund revenues.

Moody’s recommends that states:
- “…continue to focus on the distinction between rainy-day funds and total balances”, clarifying amounts that are set aside for fiscal downturns.
- Develop plans for how they will use their rainy day funds and reserves when the business cycle turns. It applauds the increasing number of states that implement stress-testing as part of their normal budget processes.

**GOVERNMENT FINANCE OFFICERS ASSOCIATION**

The Government Finance Officers Association (GFOA) recommends "that general-purpose governments, regardless of size, maintain unrestricted budgetary fund balance in their general fund of no less than two months of regular general fund operating revenues or regular general fund operating expenditures.” The GFOA goes on to say that the choice of revenues or expenses as an index should be based on what is more predictable and that a government may need to adjust from this reference point based on factors such as the volatility of revenues and expenditures, perceived exposure to one-time outlays, the availability of resources from other funds, and potential impacts on bond ratings and the cost of borrowing.

This GFOA recommendation for two months of reserves translates to a reserve of 16.7 percent, compared to Colorado’s current statutory General Fund reserve of 15.0 percent.

**MORE EVIDENCE SUPPORTING BUDGET STABILIZATION FUNDS: COLORADO’S REAL LIFE STRESS TESTS**

**FY 2019-20 AND FY 2020-21**

As previously described, the estimated General Fund revenue for FY 2019-20 and FY 2020-21 combined decreased by $4.3 billion, or more than 16 percent, between the September 2019 revenue forecast and May 2020 revenue forecast. Normally, revenue forecasts are prepared quarterly but in May 2020 the Legislative Council Staff and the Office of State Planning and Budgeting prepared special emergency forecasts to try to account for the economic impact of the COVID–19 pandemic.

The projected two-year decrease in revenues was the largest in the last 25 years, exceeding the projected revenue decreases during the Great Recession (December 2007 – June 2009) and the 2001 Recession (March 2001 - November 2001).

In the September 2019 forecast LCS projected the Fiscal Year-end General Fund Reserve would be above 8.3 percent of appropriations, which was higher than the statutory requirement in effect at the time of 7.25 percent. Also, LCS was projecting TABOR surpluses of $411.3 million over FY 2019-20 and FY 2020-21. The projected surpluses were eliminated in future forecasts.

It is instructive to review the strategies used by the General Assembly to close the revenue shortfall to understand both what is at stake in an economic downturn and what the General Assembly considered achievable in program reductions. For detailed information on FY 2019-20 and FY 2020-

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10 https://www.gfoa.org/materials/fund-balance-guidelines-for-the-general-fund
21 appropriations, see the FY 2020-21 Appropriations Report. Some of these actions for FY 2019-20 and FY 2020-21 included:

- $494.9 million accessed by reducing the General Fund reserve in FY 2019-20 from 7.25 percent to 3.07 percent, with an additional reserve reduction to 2.86 percent for FY 2020-21.
- $504.4 million transferred to the General Fund from other funds.
- $99.0 million in other General Fund revenue increases such as adjustments to tax expenditures.
- $174.3 million net reduced in mid-year adjustments to FY 2019-20 appropriations.
- $1.15 billion reduced in substantive bills and $746.6 million reduced in the Long Bill. This incorporated a range of different types of reductions, some of which offset other increases. These included:
  - Large reductions in the Departments of Education and Higher Education that were substantially offset by allocations by the Governor of federal Coronavirus Relief Funds, including over $450.0 million in the Department of Higher Education and over $550.0 million in the Department of Education.
  - Large reductions in the Department of Health Care Policy and Financing due to an additional 6.2% federal match for Medicaid that continues to result in net savings of approximately $100 million General Fund per quarter during the federal public health emergency.
  - A temporary use of $161.0 million from the Hospital Provider Fee to offset the need for General Fund in the Department of Health Care Policy and Financing.
  - Temporary suspension of $201.5 million in direct distributions to PERA for unfunded pension obligations.
  - 5.0 percent personal services base reductions.
  - 1.0 percent community provider rate reductions.
- In addition, the General Assembly did not implement increases for staff salary and benefits and avoided most capital construction that had originally been included in the budget request based on the September 2019 forecast. For FY 2020-21 the Governor had requested General Fund appropriations increases of $474.2 million, based on the September 2019 forecast, but the General Assembly ultimately reduced appropriations below the FY 2019-20 level. JBC staff’s first step in helping the JBC to balance the budget was to recommend that the Committee reverse almost all decisions made in February and March 2020 to increase appropriations.

In sum, faced with a budget crisis, the JBC and General Assembly eliminated budget increases, reduced the General Fund reserve, transferred money from other cash funds to the General Fund and took other revenue enhancement measures. After that, the General Assembly had no options but steep budget reductions. General Fund appropriations for FY 2020-21 dropped from a requested $12.6 billion in November 2019 to a final $10.7 billion at the end of the 2020 legislative session—a decline of 15.0 percent. Federal support helped make these reductions manageable and federal stimulus helped restore the economy and General Fund revenues. However, it’s worth contemplating what Colorado services would have looked like without so much federal support.

**Higher Education as the “Balancing Wheel”**
The General Fund revenue declines projected during the COVID-19 pandemic did not, in the end, materialize. However, Colorado has managed prior recessions, and a significant part of the solution

11 https://leg.colorado.gov/sites/default/files/fy20-21apprept_0.pdf
has been budget reductions. From a JBC Staff perspective, occasional revenue reductions can be helpful, as they focus attention on the services that are most important and force the General Assembly to consider which of the programs they have created are less valuable. However, a large part of the State’s budget is inflexible. It is tied to health care services, prisons, mental hospitals, schools, and a range of other essential services, and the State’s ability to make reductions in these areas is severely constrained. One of the only areas in which it is able to make reduction is higher education, and thus higher education is a key tool for balancing the budget.

As reflected in the chart below:

- State support for higher education is driven heavily by the availability of state revenue. Thus, the State typically cuts funding steeply during recessions and increases funding when the budget is strong.
- However, enrollment is generally counter-cyclical and thus increases at exactly the point the State reduces the budget.
- Federal intervention has helped prop up the budget for all of the recent recessions. However, during the Great Recession, federal support ended far before state revenue recovered.

Some legislators may be comfortable with cutting support for higher education. However, it is worth asking: is this really a desirable pattern for funding any kind of service?
THE COVID ECONOMY PROVIDED A UNIQUELY LARGE RESERVE
The 15.0 percent General Fund reserve currently in statute is far higher than any prior reserve. It has been achieved as a result of a unique combination of factors:

- Projected steep declines in revenue in May 2020, which led the General Assembly to take dramatic steps to balance the budget. This included cutting over $1.9 billion out of State General Fund appropriations for FY 2020-21 alone.

- Following large infusions of federal dollars to stimulate the economy, actual state General Fund revenue proved resilient. General Fund revenue in FY 2019-20 and FY 2020-21 never declined below the level in FY 2018-19. Instead, revenue continued to climb and was above the TABOR Referendum C cap by FY 2021-22.

- Funding for programs was restored in FY 2021-22, but the one-time reductions in FY 2020-21 were not. The combination of low expenditures in FY 2020-21 and high revenue allowed for the development of a large General Fund reserve.

Because of the above pattern, Colorado—like most other states—found itself in a remarkably strong fiscal position at the end of FY 2020-21. As state revenues remain steady, it has been able to retain these reserves and direct additional one-time General Fund to other activities. The reserves place Colorado in an unusually strong position heading into the next recession, whenever that occurs.

But what happens after that? As demonstrated in the recessionary scenario above, Colorado is likely to exhaust its reserves relatively quickly. It has not had a reserve of the current scale in recent memory (and possibly ever). Will it ever be able to rebuild a reserve of that magnitude?

Many states have provisions for rebuilding their reserves that enable money received in excess of budgeted amounts to be used, at least in part, to replenish reserves. In Colorado, this mechanism can only work if budgeted expenditures are below the TABOR Referendum C cap. If budgeted expenditures are at the TABOR Referendum C cap, any excess revenue is returned to voters the next year. There is no opportunity to retain the funds to promote budget stability.

As previously recommended by Director Kampman, Colorado can direct some General Fund reversions into a Rainy Day Fund, but the scale of such reversions is quite variable and unlikely to rebuild a 15.0 percent reserve on a reasonable timeframe.

Could a provision for replenishing reserves be built into a future measure that asks voters to allow the State to retain revenue? Staff thinks it is unlikely that the General Assembly, advocates, and citizens will be able to muster enthusiasm for a stand-alone referred measure that asks the voters if the General Assembly can retain money for a Rainy Day Fund. However, perhaps such a provision could be built into a larger measure that asks voters to allow the State to retain money for various purposes.

BETTING ON FEDERAL FUNDS
In each of the last three recessions the federal government intervened in both the economy and the state budget to varying degrees. In response to the COVID-19 recession the federal government provided direct relief to state budgets in the form of an increase in the federal match rate for Medicaid resulting in net savings of approximately $100 million General Fund per quarter for the duration of the federal public health emergency, as well as grants to address COVID-related costs. In addition, the federal government took measures to stimulate the economy, which improved the projection of
state tax revenues. Examples of these stimulus measures include individual stimulus checks, the Paycheck Protection Program (PPP) loans, and infrastructure grants to state and local governments.

Not accounting for federal intervention in a recession could result in a larger state reserve. If federal intervention then materializes, the state would have needlessly tied up money in reserves that could have been used for other purposes. Based on the recession scenario described above, the JBC staff is not overly worried about the General Assembly setting a reserve requirement that would be too high.

If the General Assembly bets on federal intervention when setting the reserve and then that federal intervention is not forthcoming, it could result in a reserve that is insufficient. There are several reasons to believe the federal government might not respond with further stimulus funding in another recession:

- The federal government is actively implementing measures to slow the economy to curb inflation.
- Many federal policy makers perceive recent federal stimulus spending in response to the COVID-19 recession as contributing, in varying degrees, to the current high inflation.
- Recent changes in the federal political balance and leadership may have altered the appetite of federal policy makers for additional stimulus spending.

CHOOSE THE RIGHT INDEX FOR THE RESERVE

The statutory General Fund reserve is currently indexed to a percentage of General Fund appropriations. The theory is that as General Fund appropriations change the reserve needed to protect those appropriations from revenue volatility also changes.

A nuance of this structure is that the required reserve does not change with increases in other General Fund obligations that are not appropriations, such as transfers or rebates and expenditures. This could be problematic if the General Assembly wants to reserve money to mitigate the impacts on these other expenditures in a recession.

There are no strict rules regarding when money is transferred versus appropriated and the decisions made in bills sometimes appear idiosyncratic to the sponsor or drafter. Many transfers are set up as one-time, which might be an indicator that the transfer is for a one-time need that could be rolled back or delayed in a recession. For example, some transfers for capital construction might be eliminated, delayed, or refinanced in a recession. On the other hand, the General Assembly also annually makes one-time transfers for controlled maintenance and other critical capital needs that the General Assembly might want to protect in a recession with an increase in the reserve.

- One possible solution would be to index the reserve to a broader set of General Fund obligations that includes transfers and rebates and expenditures.
- Another possible solution would be for the General Assembly to be more strategic and intentional about when it makes transfers versus appropriations and primarily reserve transfers for one-time obligations that could be scaled back in a recession.
- Some states index their reserve levels to revenues, rather than obligations. Colorado could consider switching to an index based on General Fund revenues or the Referendum C cap.
COMMUNICATING THE NEED FOR A RESERVE.
What is, perhaps, missing from the current legislative discourse regarding the reserve is a pithy metaphor for what the reserve accomplishes. Such a metaphor could, potentially, help the legislature build consensus around the correct size of the reserve. For example, popular media recommendations regarding personal finance savings are often expressed in terms of months (such as, keep cash reserves equal to two months of your expenditures) as a way to visualize how much time a person could go after losing their job before needing new revenue, cutting expenses, or dipping into longer-term assets. Individuals can then adjust from the rule of thumb based on circumstances such as whether their job is more or less volatile or how long they expect it to take to find alternate employment.

The Government Finance Officers Association (GFOA) appears to mimic this time-based approach to describing an appropriate reserve when it recommends, "that general-purpose governments, regardless of size, maintain unrestricted budgetary fund balance in their general fund of no less than two months of regular general fund operating revenues or regular general fund operating expenditures."\(^{12}\) This GFOA recommendation for two months of reserves translates to a reserve of 16.7 percent, compared to Colorado's current statutory General Fund reserve of 15.0 percent.

Unfortunately, the GFOA recommendation is not quite as vivid an image as the personal finance recommendation, because governments are not usually at risk of being laid off and forced to cobble together resources until they can find a new job. Nevertheless, referencing the recommendation from a credible organization like the GFOA might be a more compelling way to describe and defend the size of the reserve than something like, "the reserve is as high as politically possible".

Ultimately, an effective metaphor to describe the purpose of the statutory General Fund reserve is tied to the size of the reserve. The way to describe the impact of a 15.0 percent reserve might be very different from the way to describe a 4.0 percent reserve or a 16.7 percent reserve. However, the GFOA "two month" rule may provide a helpful communication tool if the General Assembly is willing to preserve reserves at this level.

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APPENDIX A
RECESSION SCENARIO – NEW OBLIGATIONS

In a recessionary environment, the costs associated with some government services increase. The General Assembly has varying degrees of discretion in deciding whether to fund these increased costs, but there are policy trade-offs associated with not funding them.

<table>
<thead>
<tr>
<th>Counter-cyclical Budget Pressure</th>
<th>FY 23-24</th>
<th>FY 24-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid/CHP+ Enrollment</td>
<td>$97.9</td>
<td>$195.8</td>
</tr>
<tr>
<td>Higher Ed Enrollment</td>
<td>$40.1</td>
<td>$139.6</td>
</tr>
<tr>
<td>K12 At-risk</td>
<td>$19.6</td>
<td>$74.6</td>
</tr>
<tr>
<td>PERA</td>
<td>$6.1</td>
<td>$12.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$163.7</strong></td>
<td><strong>$422.2</strong></td>
</tr>
</tbody>
</table>

Key assumptions include:

- Medicaid and CHP+ enrollment will increase consistent with the growth observed in connection with the 2001 recession.
- There is no federal support or intervention to help states address these costs, although the federal government has provided relief in prior recessions.
- There is an increase for higher education consistent with typical enrollment increases during recessions as unemployed and underemployed workers retrain and people delay entry into the job market. This is consistent with modeling in other states, although Colorado has historically sharply cut higher education, rather than increasing it, in prior recessions.
- K12 enrollment is not likely to change significantly during a recession, but the number of children identified as at-risk of failing or dropping out will increase, driving an increase in school finance costs, if all other variables remain constant, including maintaining the Budget Stabilization Factor.
- PERA investments will not meet goals, triggering statutory increases in the state contribution.

MEDICAID/CHP+ ENROLLMENT
The biggest expected increase in costs during a recession, and the hardest to contain, is driven by increases in Medicaid and CHP+ (Children’s Basic Health Plan) enrollment as income levels decrease and more people qualify. To contain costs, the General Assembly would most likely need to reduce eligibility, reduce benefits, and/or reduce provider reimbursement rates. There are a few other strategies the General Assembly could employ, such as measures that save money by improving health outcomes, but these typically take longer to implement. The ability of states to reduce eligibility, benefits, and provider rates are constrained by parameters of the federal Medicaid program, but there are options available. For example, during the COVID-19 recession the General Assembly decreased the Medicaid dental benefit by imposing a lower annual cap on services. Similarly, the General Assembly reduced a wide variety of provider rates.

The increases described in the table assume Medicaid and CHP+ enrollment grow similar to the rates observed with the 2001 recession. Enrollment data from the Great Recession is skewed by the simultaneous implementation of eligibility expansions associated with the Affordable Care Act (ACA) and data from the COVID-19 recession is skewed by a federal policy providing continuous eligibility for people through the duration of the federal public health emergency regardless of subsequent
changes in income. The estimated General Fund impact is driven by serving children and by serving families with income up to 69 percent of the federal poverty guidelines. Services for families with income above 69 percent of the federal poverty guidelines and for adults without dependent children are financed with 90 percent federal funds, pursuant to the ACA, and 10 percent from the hospital provider fee. The estimate assumes enrollment of the elderly and people with disabilities does not change significantly due to a recession.

The General Fund share of total costs assumes no federal intervention. The federal government increased the federal match rates for Medicaid and CHP+ in connection with the 2001 recession, Great Recession, and COVID-19 recession. If that happened again, it could mitigate these costs or even provide net General Fund savings for the state. The COVID-19 increase in the federal match rate combined with the continuous eligibility requirement during the federal public health emergency is resulting in net savings of approximately $100 million per quarter for Colorado.

**Higher Education Enrollment**

During recessions enrollment in higher education tends to increase as people look to upgrade their skills after a job loss or underemployment and people delay entry into a tough job market. Based on discussions with other western state fiscal officers and the PEW Charitable Trust, other states typically include increased costs for higher education when developing scenarios to "stress test" reserves. However, in recent decades, the General Assembly has reduced funding for higher education during recessions, rather than increasing it, with the expectation that institutions will make up the difference with student tuition revenue and, in some cases, federal support.

In FY 2020-21, General Fund for the Department was cut 45.7 percent. Between FY 2007-08 and FY 2011-12, state General Fund support was cut by 16.6 percent. Between FY 2001-02 and FY 2004-05, state General Fund support was cut 21.3 percent.

Conversely, enrollment in postsecondary education tends to increase during economic downturns, because people often pursue education and training when they cannot obtain employment. Between FY 2007-08 and FY 2011-12, higher education enrollment among Colorado resident students increased by 18.1 percent, reflecting the impact of the Great Recession. Similarly, resident enrollment between FY 2000-01 and FY 2004-05 increased 16.7 percent. The response to the COVID-19 pandemic was different, possibly due to the rapid rebound in employment, as well as pandemic-related disruptions in educational services. Enrollment declined sharply in FY 2020-21, by 4.4 percent, and has continued to decline at a slower rate since that time. Nonetheless, past experience suggests that if unemployment increases, higher education enrollment will increase again.

A number of states that set aside reserves for economic downturns include reserves to address enrollment increases in postsecondary education. However, in Colorado simply avoiding large reductions in postsecondary funding would be a significant positive step. Recent state funding decisions have focused on supporting fixed institutional costs, rather than on adjusting funding for enrollment. In keeping with this approach, staff would suggest that reserves for higher education focus primarily on avoiding cuts. If desired, some additional funding could be set aside to address demand for financial aid and workforce training, both of which increase during a recession.

The estimate in the table assumes enrollment increases similar to the Great Recession and that the General Assembly maintains the current General Fund per student full-time equivalent (SFTE), which
is at an all-time high. Whether to fund this increase is a discretionary decision by the General Assembly, but not funding it would likely result in increased student tuition at a time when students and families might be challenged to afford additional costs. In the past the General Assembly has decided to reduce higher education funding during recessions, rather than increasing it, but those decisions might have been informed by the level of reserve.

**K12 AT-RISK**

Although enrollment in K12 is not expected to change significantly during a recession, the number of children at risk of failing or dropping out is likely to increase and that would drive an increase in the school finance formula. The estimate in the table assumes the General Assembly holds the budget stabilization factor constant, the number of students at-risk increases consistent with the Great Recession, and all other variables in the school finance formula remain constant.

A recession that impacts property values could also increase K12 costs. However, there is so much lag between when property values change and when those changes impact the school finance formula that the JBC staff did not attempt to estimate a change in costs for this scenario.

Whether to fund the increase in K12 costs for children at-risk would be a discretionary decision by the General Assembly and the decision might be informed by the available reserve. Not funding it would likely result in a larger budget stabilization factor. Based on discussions with other western state fiscal officers and the PEW Charitable Trust, other states do not typically include an adjustment to K12 costs when developing scenarios to "stress test" reserves. However, Colorado has constitutional requirements related to K12 funding that are not common in other states.

**PERA (PUBLIC EMPLOYEES RETIREMENT ASSOCIATION)**

During a recession the return on investment for pension plans tends to decrease, putting pressure on the long-term stability of the pension plans. Ideally, payments into the pension plan, investments, and benefits are managed with a long-term horizon that takes into account business cycles and variable returns. Historically, Colorado has not increased contributions to PERA during recessions to compensate for lower investment returns. However, the state has periodically revisited the pension plan and made adjustments to both contributions and benefits. These adjustments might not be tied directly to recessions, but recessions are contributing factors. Based on discussions with other western state fiscal officers and the PEW Charitable Trust, other states typically take into account pension obligations when developing scenarios to "stress test" reserves.

Senate Bill 18-200 included provisions to eliminate the unfunded liability of the Public Employees Retirement Association. The law included provisions that increased the employer contribution from 10.14 percent to 10.4 percent and the employee contribution from 8.0 percent to 10.0 percent by the end of FY 2020-21. It then provided that, depending upon PERA’s financial status:

- Employee contributions could be increased by up to 0.5 percent per year to a maximum of an additional 2.0 percent (total of 12.0 percent).
- Employer contributions could be increased by up to 0.5 percent per year up to a maximum of an additional 2.0 percent (total of 12.4 percent).
- Retiree COLA’s could be decreased by up to 0.25 percent per year down to a maximum of a 0.5 percent COLA.
As of July 1, 2022, PERA employee contributions were 11.0 percent, employer contributions were 11.4 percent, and the retiree COLA was 1.0 percent. Thus, based on current law, the State’s PERA obligations over two years could increase by a total of 1.0 percent for the employer contribution or approximately $21.8 million total funds, including $12.2 million General Fund, per year. The General Assembly might also face some pressure to provide additional funding to cover the employee contribution and a higher retiree COLA, but such a choice would be discretionary.