Executive Summary

Colorado seeks to provide additional funding for districts with high local costs of living. It does so by applying what is effectively a sliding-scale weight to the base amount before other adjustments are applied. The weight is composed of two factors that taken together adjust a district's program funding for cost of living, but only the proportion of funding that is expected to be spent on personnel. All districts receive some additional funding through this adjustment, but those districts with the highest cost of living (the costs of housing, goods, and services) receive the greatest additional support. This cost-of-living adjustment has a significant impact on the funding calculation. It is responsible for approximately 15% of formula funding on its own—the largest single factor in the formula.

Colorado's current calculation attempts to provide the resources necessary to pay teachers, sending more money to school districts in high-cost areas. The policy assumes, in essence, that higher cost areas need to pay teachers more to allow them to live in the communities in which they teach, thereby increasing retention. However, it does not account for the fact that high-cost areas tend to more easily recruit staff, while rural areas (which tend to have lower costs of living) face significant challenges when it comes to teacher attraction and retention, and therefore may need equal resources to provide competitive salaries. An additional consideration regarding cost-of-living adjustments is that they tend to send increased state funds to areas with higher salaries and tax bases, which could more easily raise local funds through tax-levy overrides, thereby diluting the effect of the "equalization" that state dollars in part attempt to provide.

If the legislature wishes to address these concerns, it could take one of a few pathways. It could limit the amount of money that flows through the cost-of-living adjustment by restricting eligibility to especially high-cost districts and/or reducing the top cost-of-living factor. It could also rethink the cost factors that are addressed in the formula; rather than the costs of goods, services, and housing, the state could instead focus on the resource needs associated with recruitment and retention in varied communities, not just those experienced by high-cost areas. The state could make the factor one that is funded outside of the formula with a required local match, or eliminate the current CLF in favor of investing more in supporting districts with different resource challenges—like urbanicity and rurality.

On the mathematical side of things, the state's placement of the cost-of-living adjustment at the beginning of the formula calculation—as a multiplier applied to the base amount before further adjustments are made—means that it plays a singularly large role in the computation of total program funding. An at-risk student (or any student) drives more state revenue to a district with a large adjustment versus that same student in a smaller, less wealthy community. The state may decide to maintain this structure, but if the legislature aimed to diminish the factor's strength, the cost-of-living adjustment could be handled in the same stage as other weights, so that the same base amount is used for cost of living, at-risk students, and any other student-based weights in the formula. This would align priorities of system versus student need, where student need is currently receiving less priority in the formula.

A few other states do adjust school district funding for cost of living, but the general trend is toward the opposite direction. The state of Texas recently discarded of a long-standing adjustment in their formula, for instance, in their most recent legislative session (2019).

I. Colorado's current system of funding for district cost of living

Colorado seeks to provide additional funding for districts with high local costs of living. It does so by applying what is effectively a sliding-scale weight to the base amount ($6,769, FY19) before other adjustments are applied. The weight is composed of two factors: the Cost of Living Factor (CLF) and the Personnel Costs Factor (PCF). Together, these factors are used to adjust a district's program funding for cost of living, but only the proportion of that funding that is expected to be spent on personnel.

Every two years, the state's Legislative Council does a survey that allows it to set the CLF for each district. The CLF is intended to reflect the impact that cost of living may have on teacher salaries; districts with a higher cost of living (the costs of housing, goods, and services) are assigned a larger CLF. In the 2018–19 school year, CLFs ranged from 1.013 to 1.65. Districts also have individually assigned PCFs based on enrollment size and historical data. PCFs are meant to estimate the proportion of district expenses that are for employee salaries and benefits. In 2018–19, PCFs ranged from 0.7992 to 0.9050. Larger districts are expected to spend more of their program funding on staff costs and therefore have higher PCFs.

Mathematically, the adjustment can be expressed as follows:

$$\left(\text{Base Amount} \times \text{CLF} \times \text{PCF}\right) + \left(\text{Base Amount} \times \left(1 - \text{PCF}\right)\right)$$

Effectively, this equation multiplies the portion of the base amount that is expected to be spent on personnel by the cost of living factor, and leaves the remainder of the base amount unadjusted for cost of living. (This reflects the assumption that cost of living affects personnel costs, but not non-personnel costs.) The end result of this equation is a modified base amount that is then adjusted for district size to produce the district's ultimate base amount.

This cost-of-living adjustment has a significant impact on the funding calculation. It is responsible for approximately 15% of formula funding on its own—the largest single factor in the formula, and more than triple the funding that is distributed through the at-risk weight for economically disadvantaged students. In addition, because the formula is structured such that this factor is applied first, before either the size factor or any student-based weights, its effects are felt throughout the formula. The same size factor will translate into more funding in a district with a high CLF, and the same at-risk weight produces less money in a low-CLF district. Said differently, in addition to increasing the base amount for each student, the COLA serves to send more state money for a low-income student to a high-income area than it does to fund the same low-income student living in a lower-income area.

II. Assessing Colorado's current policy

Responsiveness to district cost factors

Colorado's current approach to addressing differences in district cost of living has a logical foundation. Many education commentators point out that staff salaries make up the majority of school district spending, and salaries must be reasonably aligned to the local cost of living if districts are to attract the staff they need. Within this limited scope, it is reasonable to conclude that the cost of living in the district will impact district budgets and may need accounting for in state education funding policies.

An important question, however, is whether cost of living actually captures the attraction and retention challenges facing disparate communities. Rural districts often have lower costs of living, for instance, yet still struggle to fill teacher vacancies and retain staff. Additionally, many areas with high cost of living are high-cost in part because they are attractive places to live; districts may have an easier time recruiting staff precisely because they are in these communities. The mechanism currently in place could be interpreted as an incentive for teachers to leave communities that are already cost-burdened by vacancies and churn, prioritizing "cost of living" in dense areas over the "cost of leaving" faced by less-wealthy, rural districts.

See Figure 1 (next page), which shows how the U.S. Census classifies the urbanicity of districts compared against their CLFs. It is clear that the cost-of-living adjustment favors cities and suburbs over rural areas, underlining the concern that it may intensify rural districts' staff recruitment challenges. In fact the two outliers (on the right), Telluride and Aspen, are exceptions that largely prove the rule regarding district wealth and means.

In addition to rurality concerns, there is broad consensus among researchers and policymakers that students from low-income backgrounds need additional support to succeed in school. Because of this, some point to equity concerns related to cost-of-living adjustments as they relate to education funding. Cost of living tends to be higher in wealthier areas, where school districts serve fewer disadvantaged students. The effect is a boost in funding for wealthy communities, and more state dollars sent to districts where there is less student need. This is often the case in Colorado, as we can see by looking at districts' CLFs, plotted against their percentage of students receiving free lunch. Figure 2 shows how this adjustment provides less support to districts where students have more resource-intensive needs, with a downward-sloping correlation from left (lower CLF, higher FRL) to right (higher CLF, lower FRL).

Fig. 1: Cost of Living Factor by District's Census Urbanicity Classification

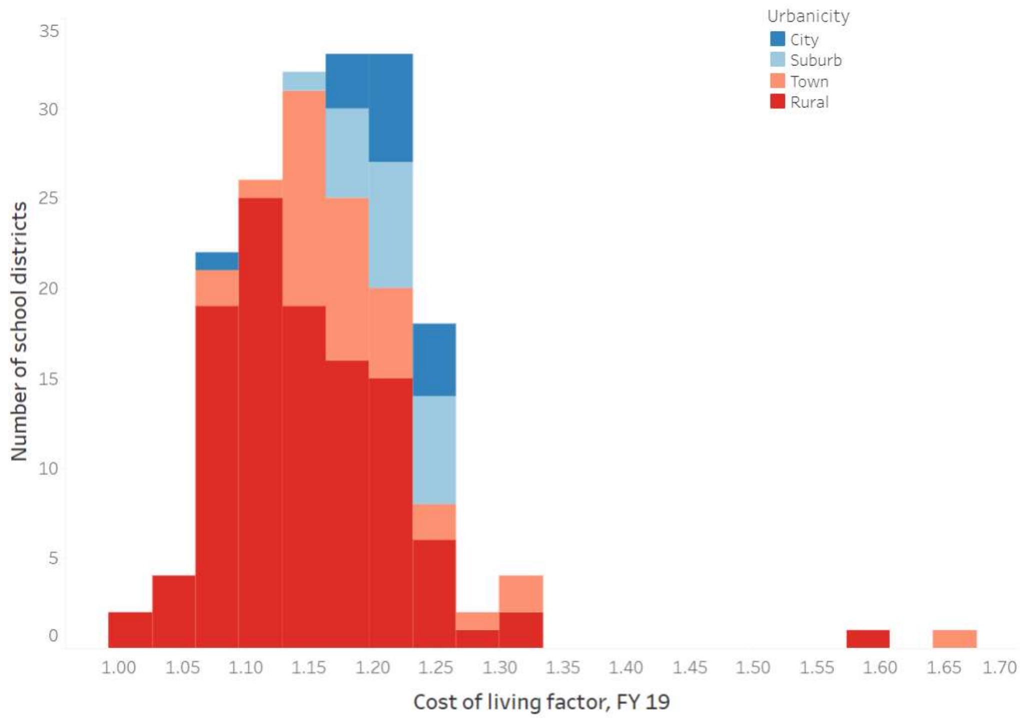
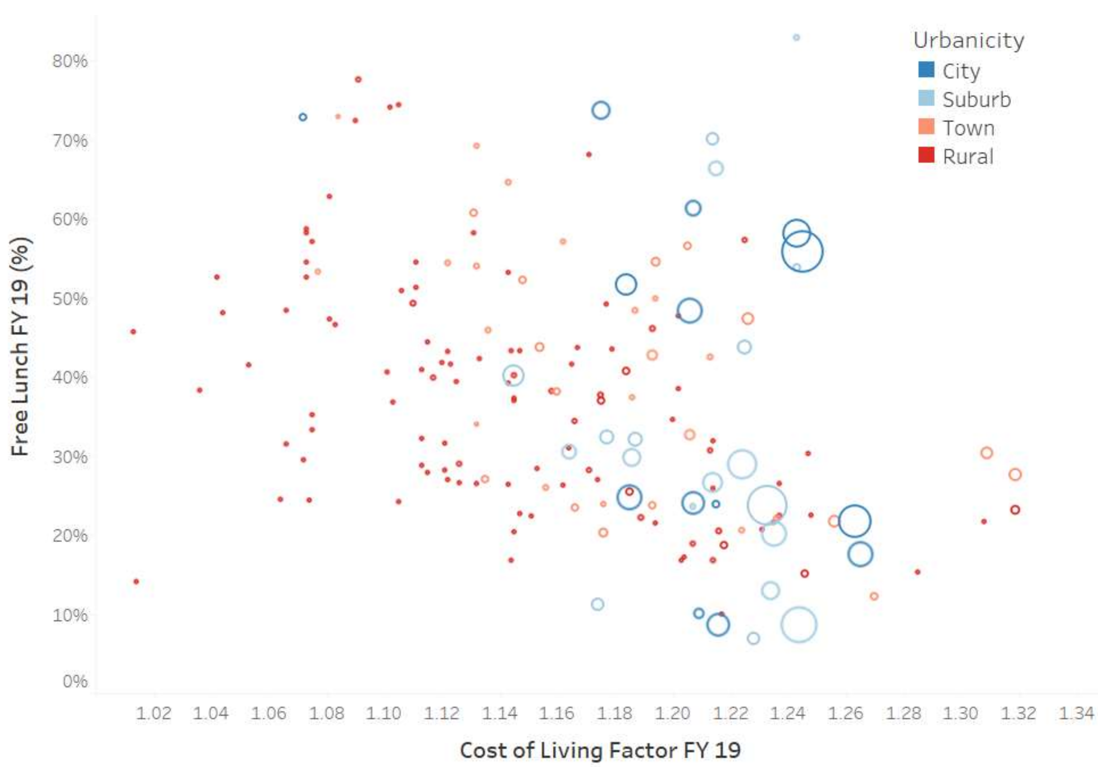


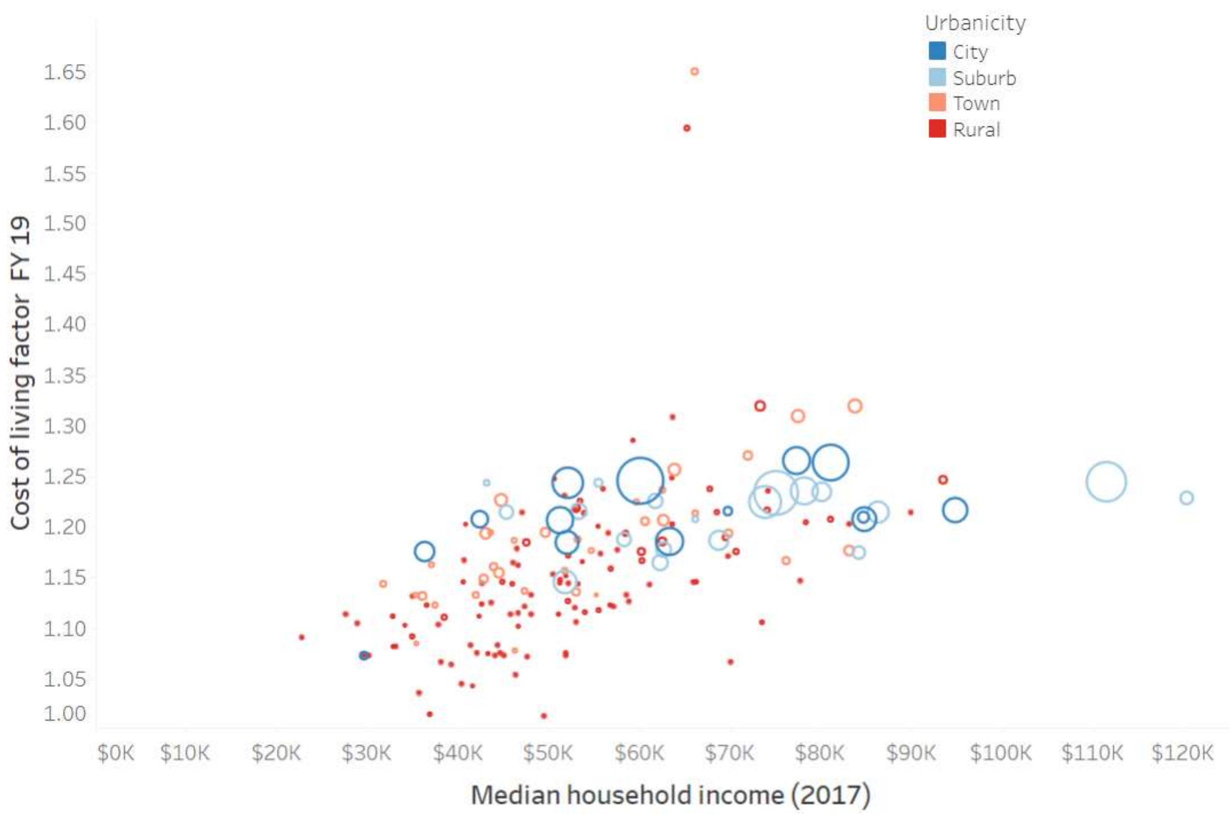
Fig. 2: Cost of Living Factor by Rate of Participation in Free Lunch
(Districts with CLF < 1.34)



Responsiveness to local revenue-raising capacity

One important consideration is whether the relevant policy directs state funding to districts that need the assistance—that is, those that have the greatest trouble raising local dollars. Districts where the cost of living is higher tend to have both higher earning residents and higher property values, increasing both the likelihood of a successful mill levy override and the value of the associated millage. Figure 3 shows the relationship between the CLF and districts' median household incomes: Districts receiving the largest boost from the CLF are, on the whole, those that are already quite well off. (The state's two highest-CLF districts by far are Aspen and Telluride.)

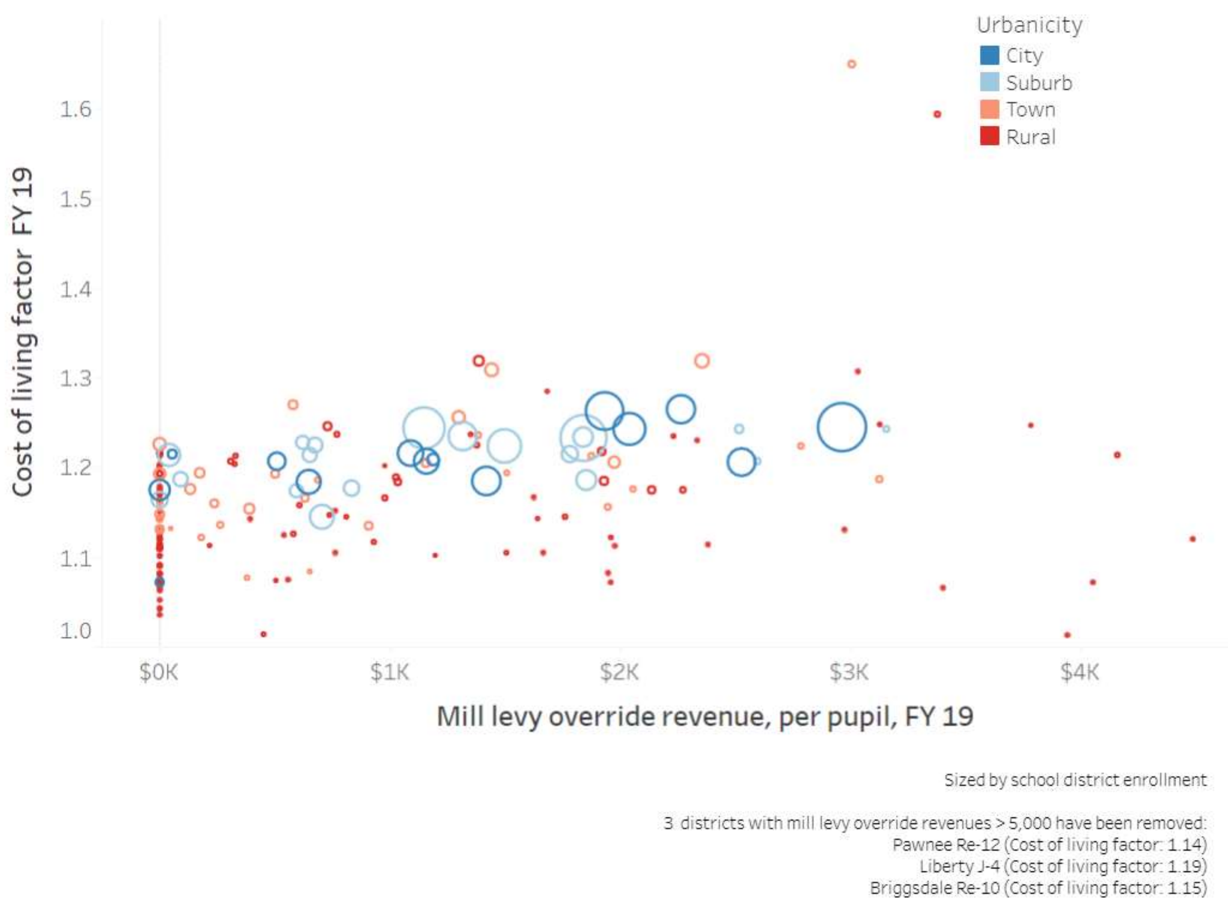
Fig. 3: Cost of Living Factor by Median Household Income



Of course, not all property tax dollars are raised from individual homeowners. When considering a district's revenue-raising capacity, it is important to look at the whole picture. Urban areas, for instance, tend to have commercial or industrial tax bases that may support school taxes better than towns and outer-ring suburbs with primarily residential property.

We have seen that Colorado's cost-of-living adjustment is tilted towards urban areas. But to determine the relationship between the factor and local funds more directly, Figure 4 shows the correlation between the CLF and districts' override revenues per pupil.

Fig. 4: Cost of Living Factor by Mill Levy Override Revenue Per Pupil



Though there is some variation among very small districts, the overall trend is a positive relationship between higher adjustments and greater override revenues. This raises the question of whether these dollars are being utilized as efficiently as they could be, given other priorities and the limited education budget.

Role of the cost-of-living adjustment in the total program funding calculation

The cost of living adjustment (including both the CLF and the PCF) is applied to the base amount before further adjustments are made, and therefore, plays an outsized role in the computation of total program funding. This is especially clear in the effect it has on the at-risk weight. Because the base amount is adjusted for cost of living and size factor before the at-risk weight is applied, the amount of funding generated by each at-risk student is influenced by these factors as well. As a consequence, at-risk students in low-cost-of-living districts receive measurably less supplemental funding from the state than they would if they lived in higher-cost-of-living (and therefore, more affluent) districts.

III. Policy options for cost-of-living funding in Colorado

Responsiveness to district cost factors and to local revenue-raising capacity

The state's current cost-of-living adjustment targets areas where the cost of housing, goods, and services are high. As a result, it sends more funding to urban and suburban areas than to rural ones, and gives a great deal of support to districts with lower numbers of needy students. Additionally, the present policy has the effect of sending more revenue to districts with higher income levels and more money per pupil raised through override mills. This suggests that the districts receiving the most state support through the CLF also have the greatest ability to raise revenue locally. These issues may prompt consideration of a few alternatives.

1) If the legislature remains committed to a cost-of-living adjustment, it could maintain the same policy, and attempt to address any questions of revenue-raising capacity separately (either in a separate area of the formula, or outside the formula completely). In doing so, the formula will still reflect the legislature's commitment to providing some funding for district characteristics, rather than a purely student-based model.

   This approach would have the advantage of avoiding any needed legislative changes to the CLF itself and would continue to provide more funding to districts where a higher salary is required to support a teacher living in the district. However, this approach continues to send additional personnel funds to districts that likely have an easier time attracting staff, and to school systems whose students have less resource-intensive needs relative to their peers. It also places the cost-of-living adjustment at cross-purposes with the size factor, which provides additional funding largely to rural districts, and the at-risk adjustment, which seeks to support students from low-income households.

2) Another option would be to preserve the overall policy approach, but to reduce the amount of revenue flowing through the cost-of-living adjustment, which currently takes up nearly 15% of formula funding—an unusually high percentage. This could be achieved by providing cost-of-living increases only to districts with particularly high costs of living rather than all districts, and/or reducing the top CLF to limit the amount of money funneled through this allocation.

   In order to implement this change, the legislature would need to change the cost-of-living calculation described in Colo. Rev. Stat. § 22-54-104.

   This direction has the advantage of allowing the state to continue to support districts where teachers' salaries must be higher to meet local costs of living, while also reconsidering the degree of priority assigned to this support and freeing up funds to invest in other elements of the formula that the state wishes to assign greater importance. Additionally, given the current correlation of CLFs with lower rates of student disadvantage and high yields from override mills, if the state were to limit the strength of the factor, it would increase the responsiveness of the formula to student need and local revenue. The chief disadvantage of taking this approach is that, given the size of the cost-of-living adjustment, many districts have become accustomed to receiving a significant amount of funding through it, and any change will require a fair amount of transition planning. Additionally, while it diminishes the equity concerns associated with the CLF, it does not eliminate them.

3) A third option would be to eliminate or replace the current cost-of-living adjustment. Because the cost-of-living survey currently focuses on the costs of goods, services, and housing, affluent districts tend to receive more support than needier districts, and rural districts are disadvantaged. The state could place more emphasis on other factors, such as the challenges associated with sparsity and the costs of educating needier students, and eliminate the current CLF in favor of investing more in supporting districts with those resource challenges.

In order to implement this change, the legislature would need to modify the cost-of-living calculation from Colo. Rev. Stat. § 22-54-104, and either add new formula elements to Article 54 of state code or increase the revenues allocated to other existing elements.

This approach would refocus state funding on cost drivers that are tied closer to student need. It avoids the problem of the CLF worsening inequities by sending additional funding to districts with relatively ample local funds. It also keeps the state from expending a substantial amount of funding on an allocation that works at cross-purposes with other elements of the formula: the size factor and the at-risk allocation. Because such a large percentage of funding is currently allocated through this factor, however, the major downside of this approach is political viability and the length of time it would take to phase-in the proposal in a way that is fair to all districts. Re-allocating dollars to other areas of the formula would diminish (or eliminate) the impact on some high-need districts, but without a long-term period of adjustment the size of the change may be too large for some districts to reasonably handle.

Role of the cost-of-living adjustment in the total program funding calculation

The cost-of-living adjustment currently inflates the base amount before other weights and factors are applied. As a result, those other factors—most notably, the at-risk weight—reflect and amplify the CLF. There are two possible approaches when considering this aspect of the policy.

1) The state could maintain its current formula structure. This would be appropriate if the goal is to differentiate support for all elements of a district's program, including its support for students with special needs, based on district cost of living.

This approach has the advantage of avoiding any statutory adjustments or changes to district budgets. It also may serve the state's goals, if the intention is to provide more funding for low-income students and English-language learners in wealthy or large districts.

2) Another option is to change the placement of the adjustment in the formula. Rather than use the CLF and PCF to increase the base amount before applying further factors and weights, which magnifies the effect of this adjustment through the rest of the formula, the state could handle the cost-of-living adjustment in the same stage as other weights, such that the same base amount is being adjusted for cost of living, at-risk students, and any other student-based weights that might be in the formula.

In order to implement this change, the legislature would need to change the cost-of-living calculation described in Colo. Rev. Stat. § 22-54-104.

This approach has the benefit of making the formula calculation simpler and more transparent, since it is clearer what the base is to which other weights are applied. It also has the benefit of greater equity, in that the any at-risk student would be supported with the same supplemental allocation regardless of their district's cost of living. The main downside is the same as other changes to the factor: because the adjustment currently drives such a large portion of formula funding, changing the positioning of the calculation in the formula would require careful balancing of priorities and would likely require several years of phase-in time.

IV. Funding for cost of living in other states

There are a number of states whose funding systems include adjustments for cost of living, though it is by no means as common as adjustments for other district conditions, such as diseconomies of scale or concentrations of poverty. In fact, only 10 states currently include any sort of adjustment for cost of living, and all states that still maintain cost of living adjustments fund schools with a higher share of local dollars than Colorado, which yields a lesser COLA impact of on overall education resources.

The cost-of-living adjustments that do exist sometimes focus specifically on salary costs. States making use of this approach include:

- Tennessee, which increases funding in districts where average wages in nongovernmental occupations exceeds the state average.
- Missouri, which uses a formula that compares regional wages to the state median wage to calculate districts' funding.

- New Jersey, which uses salary data taken from the U.S. Census Bureau's American Community Survey to adjust districts' funding.

Another approach occasionally taken is to use a national or regional consumer price index. Florida uses a three-year average of the Florida Price Level Index for the county in its formula to account for differences in cost across districts.

The general trend learns toward the elimination of these adjustments, however. Until the 2019 legislative session, the Texas school funding formula included a cost-of-education index, which used data including district size, teacher salaries in neighboring districts, and the number of low-income students served. In 2018, the state's Commission on Public School Finance recommended eliminating the adjustment, saying that biennial recalculations were not enough to ensure accuracy, and that "[commission members] believe allocating funding based on student need takes priority over allocating funding to regions based on variances in the cost of living." The legislature eliminated the index in 2019.

V. Conclusion

Colorado's cost-of-living adjustment provides additional funding for districts where the costs of housing, goods, and services are higher. The calculation is geared towards supporting these districts with their personnel costs.

There are three areas in which Colorado might consider alternative policy approaches: The responsiveness of the adjustment to district costs; the local revenue-raising ability of recipient districts; and the way in which this adjustment affects the total formula calculation.

With regard to the first two areas of concern, the state could consider reducing the amount of money that flows through the cost-of-living adjustment by limiting eligibility to especially high-cost districts and reducing the top CLF. A more sweeping solution would be to eliminate the current CLF in favor of investing more in supporting districts with other resource challenges.

When it comes to the role played by the cost-of-living adjustment in the total formula calculation, the state may choose to maintain this structure. An alternative approach would be to handle the cost-of-living adjustment in the same stage as other weights, such that the same base amount is being adjusted for cost of living, at-risk students, and any other student-based weights that might be in the formula.