AUGENBLICK, PALAICH AND ASSOCIATES

September 2, 2022

Dear Nevada Department of Education staff,

This memo is intended to provide an update on APA's opinion of the use of the Nevada Cost of Education Index (NCEI) proposed by APA, or a similar approach.

Background on the Development of the NCEI

For background, APA through its work with the Commission, developed the NCEI as a composite factor to address regional cost differences based upon two elements:

- A wage measure – the Comparative Wage Index (CWI) – for the percentage of district funding spent on wages (72 percent), and
- A cost of goods measure – based upon Bureau of Economic Analysis (BEA) regional price parities (RPPs) "goods" Index – for the remaining non-wage portion of district funding (28 percent).

The CWI used regional differences in non-educator wages and is based on the recognition that if in a given region wages in comparable professions are higher, then teacher wages will also have to be higher. It is **not** a cost-of-living measure, but instead, it measures the cost of attracting staff due to a variety of community factors. The CWI calculates the regional differences by taking raw data and then using regression analysis to control for any differences attributable to worker characteristics, such as experience, gender, ethnicity, and hours per week worked. Occupation areas and education can also be factors that are controlled for. In Nevada, feedback from stakeholders and the Commission suggested that the CWI should be based upon all occupations/industry areas and for all education levels, instead of restricting it to comparable professional occupations that require a BA or higher, and the calculation of the CWI was adjusted accordingly. The resulting comparable wage was then compared to statewide average to create an index figure.

The non-wage portion of the NCEI was calculated based upon the Bureau of Economic Analysis (BEA) Regional Price Parities (RPPs), subcomponent for "goods" to represent the regional cost differences in school districts associated with purchasing goods.

APA recommended that the NCEI only be applied as a positive, meaning a floor of 1.0 was set for the adjustment to not reduce funding for districts that may have a lower CWI than the average.

Use of Regional Cost Adjustments in Other States

Three primary types of indices can be used to make a regional, or geographic, cost adjustment:

- Cost-of-Living Index (COL). Usually created by determining the cost for a given set of goods — often termed a "market basket" — in different locations.
- Hedonic Wage Index. Uses regression analysis to predict wages by dividing the variation in *actual* wages across districts into spending that is and is not within control of the districts.
- Comparable Wage Index (CWI). Uses regional differences in non-educator wages based on the recognition that if wages in comparable professions are higher in a given region, then teacher wages will also have to be higher.

Twelve states use some type of regional cost adjustments, with two states use COL indexes (Colorado and Wyoming, as one of its two alternate approaches), five states use hedonic indexes (Alaska, Maine, Maryland, Texas and Wyoming, as the second of its two approaches), six states use CWIs (Florida, Massachusetts, Missouri, New Jersey, New York and Virginia). Of the different types of approaches, CWIs are the most common. However, as APA has noted before, regional cost adjustments are not used in many states in total.

In APA's experience, adding or updating a regional cost adjustment is politically difficult, and in many states that chose to implement them, they are not regularly updated and can quickly become outdated, meaning they are not an accurate representation of the cost differences between districts. Though APA has examined the use of regional cost adjustments in much of its work across the country, few states have chosen to utilize such adjustments or if they have, have failed to consistently update such adjustments.

Challenges in using a Regional Cost Adjustment in Nevada

The availability of data is the biggest challenge to using a regional cost adjustment in Nevada. The CWI is based on individual level wage information using the public use microdata area (PUMA) data in the American Community Survey (ACS). PUMAs are county areas with at least 100,000 residents, as such many counties in Nevada are too small to be considered independently, so CWI figures could only be calculated for: (1) Storey, Carson City, Lyon, and Douglas collectively; (2) Washoe, (3) Clark and (4) the rest of the state. Similarly, the Bureau of Economic Analysis produces its RPP index for: (1) Carson City, (2) Reno, (3) Las Vegas-Henderson-Paradise, and then (4) non-metropolitan Nevada, and not individual communities. This creates an issue in Nevada where very few of the districts have a unique NCEI factor, and many districts are pooled together.

Other available data sources considered, such as the Nevada Department of Employment, Training and Rehabilitation, (DETR) do collect information for individual communities, but do not collect comparable data to that commonly used in CWI analysis including not collecting individual level data. As a result, no regression analysis can be conducted to take that raw data and create "apples to apples" comparisons by controlling for wage differences attributable to worker characteristics. Further, data collected for very small communities can be less reliable given the small population size and therefore can result in increased volatility in results.

A final challenge that was observed during our work with the Commission was a lack of agreement about what a regional cost adjustment (and specifically the use of the CWI within the NCEI) should measure and be able to address. In Commission discussions and public comment, it was clear that many were looking for the NCEI to address the high cost-of-living faced by some communities and the overall adequacy of educator salaries. Current school finance research recommends using a CWI as the most appropriate method of measuring wage-based cost differences as it isolates cost differences attributable to regional variations and is not influenced by current district practices. As noted above, The CWI is not a cost-of-living adjustment and is not intended to provide additional funding for such places if the wage data suggests that these communities can still attract staff *in spite of* having a higher cost-of-living based upon comparable wages in the community. A regional cost adjustment also cannot address whether salary levels are adequate, but instead measures the relative difference between communities.

APA's Recommendation

It is the opinion of APA that while the NCEI reflects the best available approach to accounting for cost differences in Nevada and is in line with best practice research in the field of school finance, the limitations of available data and lack of agreement in the state about the "best" source of data and what a regional cost adjustment should measure make its use difficult. Confidence in the approach will be further undermined if data that is not well aligned with the data commonly used for such adjustments is utilized and substantial changes are seen in the results. Additionally, changes in the differential range between districts (highest and lowest adjustment), and if the adjustment is applied in the negative to reduce funding to districts, will likely increase discontent with the adjustment. In APA's most recent iteration of the adjustment, we proposed applying it only when positive, making the NCEI amount to only a 3% increase in funding for some districts, a rather small impact overall and a small differential range between districts.

Situating the challenges of implementing the NCEI in Nevada within the larger context of the limited use of these types of adjustments nationally, and the political difficulties APA has seen in other states regarding their use, APA would support the NCEI being eliminated from the state's funding formula at this time.

Sincerely,

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