

# REVIEW OF PROPOSED NEVADA SCHOOL FUNDING REGIONAL COST ADJUSTMENT (RCA) FORMULA

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**Nevada  
RCA  
Review**



**Proposed RCA**

**Comparable  
Wage Index**

**Cost of Living/RPP**

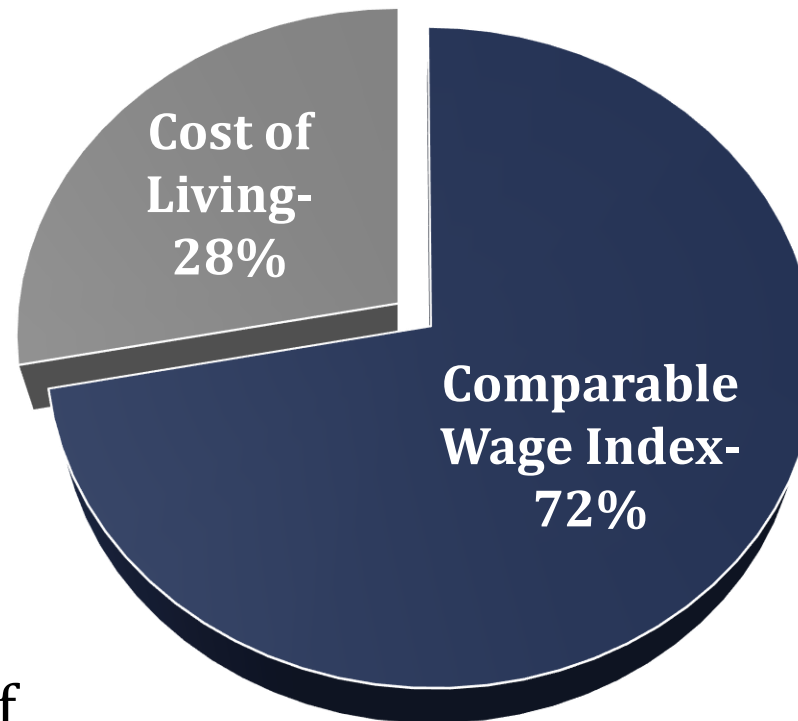
**Recommendation**

- **Augenblick, Palaich and Associates Consulting (APA)**
  - Regional Cost Adjustment factor for Nevada's school districts
  - Reviewed three common geographic cost adjustment methodologies
    - Cost of Living (COL)
    - Hedonic Wage Index (HWI)
    - Comparable Wage Index (CWI)

# Nevada Cost of Education Index (NCEI)

## Cost Of Living Index (COL)

- Regional Price Parities (RPP) index by Bureau of Economic Analysis (BEA)
- “Goods” component of the RPP only



## Comparable Wage Index (CWI)

- Developed for four regions in Nevada
- Based on data for all workers, regardless of industry and education

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## Overview

- Estimates regional differences in wages by comparing wages for professions similar to teachers in terms of occupation and education
  - Attempts to arrive at non-controllable differences in wages across areas
  - Based on “proxy” wages, not actual teacher wages
  - Regression-based model controlling for education and occupation, age, gender, hours worked, race/ethnicity, and other characteristics

# Structural Limitations

- Model must properly align labor markets with school districts
  - Example: Storey County depends on Washoe County for labor supply, thus Washoe County economics impact Storey County wages
  - Difficult to do in non-metropolitan regions
- Attractiveness and differences between school districts are not considered
  - all school districts within the same study region and across all regions are treated the same

# Data Limitations

- Based on 5-Year Public Use Microdata Sample (PUMS) database from US Census Bureau
  - Example: 2018 5-Year database includes data from 2014 to 2018
  - Data lag (2015-2019 is latest available) and the five-year spread further complicates the effort to provide real-time demographic characteristics and wage levels
    - Does not reflect current economic dynamics, especially in rapidly changing markets
- Very low sample rates (5% of population)
  - Unique economic and demographic characteristics may not be represented



# Geographic Limitations

- 5-Year PUM Areas consist of areas with 100,000 or more persons
  - Four geographic regions
    1. Clark County
    2. Washoe County
    3. Storey, Carson City, Douglas, and Lyon counties
    4. Remainder of State
- Remainder of State includes 11 counties, from Arizona to Oregon
  - Diverse economies and economic anomalies are aggregated, assigning same values to all communities within this region in a one-size-fits-all approach

## Geographic Limitations (cont.)

- Model assumes same
  - **access to the labor pool**
    - Churchill County, located less than an hour's drive from Reno and Lander County (isolated)
  - **attractiveness and cost of living**
    - Eureka County (88% are employed in the Mining industry) and Lincoln County (no major industry and wages 2.5 times lower than Eureka's)
  - **housing cost impact on wages**
    - Lyon (existing home price of \$310,000), Carson City (existing home price of \$380,000), and Douglas (existing home price of \$549,000) counties

# APA Model Adjustments

- The purpose of a CWI is to estimate only geographic differences in wages across regions
- Proposed Nevada CWI removes industry and education controls
  - Resulting model captures geographic **and other** differences in wages
    - Original CWI compares accountant to accountant wages across region
    - Nevada CWI compares accountant to doctor and waitress wages
  - Example: The difference in average wage in Eureka County of \$2,010 and Lincoln County of \$807 is due not only to geographic differences between the counties, but also due to industry mix differences
    - 88% of employees in Eureka County are mining employees with higher than average wages, while no significant industry exists in Lincoln County



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# Regional Price Parity Index (RPP)

- APA recommends Goods only RPP
  - Index also provides Services-Rent, Services-Other, and All Items options
  - Goods option does not consider cost of homes or rent, energy, majority of health care, etc.

Component	Goods	Services
Rents	0.00%	100.00%
Food	55.72%	44.28%
Transportation	62.54%	37.46%
Housing	37.96%	62.04%
Recreation	44.68%	55.32%
Education	17.69%	82.31%
Other	51.61%	48.39%
Apparel	100.00%	0.00%
Medical	23.02%	76.98%

- Data lag-2019 is latest data available
- Lack of geographic flexibility
  - Only available for metro areas, requiring aggregation of Nevada's 13 non-metro counties

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# Conclusion

- Proposed NCEI is based on
  - lagging data
  - aggregate of multiple districts/ labor markets
  - no control for industry and education factors
  - structural assumptions, which can be inaccurate
- CWI is complicated to update, difficult to understand, and comes with multiple limitations especially in a state with numerous smaller and highly diverse counties and labor markets
- The proposed NCEI does not accurately represent geographic cost differences between Nevada school districts
  - Will lead to more financial inequity between Nevada school districts than it solves

Comparable Wage Hedonic Index-	
Index-7	5
Florida	Texas
Illinois	Alaska
Missouri	Maryland
New Jersey	Wyoming
New York	Maine
Massachusetts	
Virginia	
	Cost of Living-2
	Colorado
	Wyoming

# Recommendation

- If an RCA is desired, it is recommended to be temporarily set to 1.0 for all districts until a more accurate methodology for the State can be developed
- New methodology should be based on current data, represent individual school districts and labor markets, and utilize data from comparable industries
  - Historical and frequently updated wage data and occupation metrics at the county level is available from local resources such as DETR
  - State economists who have access to current and confidential employment and wage information at the local level should be consulted