

Alternative Data Sources for the Nevada Cost of Education Index

Identified by Members of the Commission on School Funding

Distributed during the January 14, 2022 meeting

Current areas of concern – Wage Data Source

- The five-year period of the American Community Survey (ACS) data collection complicates the effort to provide real-time demographic characteristics and wage levels, and, therefore, does not reflect current economic dynamics.
- Low sample rates (5%)
- Geographical grouping – 11 county aggregation
 - Including Storey being grouped incorrectly
 - Average weekly wages in Eureka County are the highest of the 17 Nevada counties, whereas wages paid in Lincoln County are 2.5 times lower; the model makes no distinction of these differences.

Current areas of concern – Cost of Goods

- By limiting the index to just the Goods component, the analysis does not consider the differences in the cost of housing purchases or rents, energy, or health care across the regions
- Regional Price Parity (RPP) data is only available for MSAs, metro areas, and non-metro areas. As a result, smaller counties in Nevada are again aggregated into a larger group, losing their individual cost-driving characteristics in the process

Current areas of concern - outcomes

- Outcomes of the NCEI do not match other recognized regional comparisons available, such as
 - ❑ US Bureau of Economic Analysis' Regional Price Parities (RPP), which is a comparison of cost-of-living by region.
 - ❑ Governor's Office of Economic Development (GOED) statistics comparing wages by region.

GOED Public Location Comparison

- GOED publishes comparative data for employers, including average annual wages for the private sector, which shows higher wages in Washoe.
- Website URL: <https://goed.nv.gov/why-nevada/data-portal/>

< BACK TO LOCATION SELECTOR Location Comparison Report

Economic profile		Las Vegas MSA	Reno MSA
Population	[1]	2.3M	481.3K
Establishment-Based Employment	[2]	988.7K	251.5K
Labor Force	[3]	1.1M	264.2K
Unemployment Rate	[4]	6.3%	2.9%
Average Annual Wage - Private	[5]	\$53.3K	\$57.6K
Average Annual Wage - Manufacturing	[6]	\$58.9K	\$75.0K
Per Capita Personal Income	[7]	\$51.2K	\$66.1K
Economic Development			
Workers Compensation Cost (per \$100 in Payroll)	[8]	\$1.18	\$1.18
Payroll Tax	[9]	1.48%	1.48%
Unemployment Insurance Tax (Max Rate)	[10]	5.4%	5.4%
Corporate Income Tax Rate (Highest Bracket)	[11]	0.00%	0.00%
Individual Income Tax Rate (Highest Bracket)	[12]	0.00%	0.00%
Sales Tax Rate (State Minimum)	[13]	6.85%	6.85%
Property Tax Rate	[14]	0.66%	0.66%
Office Market Avg. Asking Rents PSF	[15]	\$2.11	\$1.66
Industrial Market Avg. Asking Rents PSF	[16]	\$0.71	\$0.38
Commercial Electric Rates (Per kWh)	[17]	\$0.076	\$0.076
Industrial Electric Rates (Per kWh)	[18]	\$0.056	\$0.056
Commercial Natural Gas Rates (Per 1000 cu.ft.)	[19]	\$7.25	\$7.25
Industrial Natural Gas Rates (Per 1000 cu.ft.)	[20]	\$6.00	\$6.00
Cost of Living Index	[21]	102.5	104.1

US Bureau of Economic Analysis RPP Data

- Regional Price Parities (RPP) “measure the differences in price levels across states and metropolitan areas for a given year and are expressed as a percentage of the overall national price level”.
- The RPP for all items includes housing, services and goods.
- Once again, the Reno MSA is the highest.

MARPP Regional Price Parities by MSA				
(index)				
Bureau of Economic Analysis				
Metropolitan Statistical Area				
GeoFips	GeoName	LineCode	Description	2020
16180	Carson City, NV (Metropolitan Statistical Area)	1	RPPs: All items	96.124
16180	Carson City, NV (Metropolitan Statistical Area)	2	RPPs: Goods	96.284
16180	Carson City, NV (Metropolitan Statistical Area)	3	RPPs: Services: Housing	98.743
16180	Carson City, NV (Metropolitan Statistical Area)	4	RPPs: Services: Utilities	96.920
16180	Carson City, NV (Metropolitan Statistical Area)	5	RPPs: Services: Other	94.785
29820	Las Vegas-Henderson-Paradise, NV (Metropolitan Statistical Area)	1	RPPs: All items	97.164
29820	Las Vegas-Henderson-Paradise, NV (Metropolitan Statistical Area)	2	RPPs: Goods	96.284
29820	Las Vegas-Henderson-Paradise, NV (Metropolitan Statistical Area)	3	RPPs: Services: Housing	105.181
29820	Las Vegas-Henderson-Paradise, NV (Metropolitan Statistical Area)	4	RPPs: Services: Utilities	96.675
29820	Las Vegas-Henderson-Paradise, NV (Metropolitan Statistical Area)	5	RPPs: Services: Other	94.785
39900	Reno, NV (Metropolitan Statistical Area)	1	RPPs: All items	98.944
39900	Reno, NV (Metropolitan Statistical Area)	2	RPPs: Goods	96.284
39900	Reno, NV (Metropolitan Statistical Area)	3	RPPs: Services: Housing	118.163
39900	Reno, NV (Metropolitan Statistical Area)	4	RPPs: Services: Utilities	96.787
39900	Reno, NV (Metropolitan Statistical Area)	5	RPPs: Services: Other	94.785
32999	Nevada (Nonmetropolitan Portion)	1	RPPs: All items	92.731
32999	Nevada (Nonmetropolitan Portion)	2	RPPs: Goods	96.284
32999	Nevada (Nonmetropolitan Portion)	3	RPPs: Services: Housing	81.202
32999	Nevada (Nonmetropolitan Portion)	4	RPPs: Services: Utilities	96.728
32999	Nevada (Nonmetropolitan Portion)	5	RPPs: Services: Other	94.785

Potential Solutions

- Use of individual county wage data, as made available by DETR in the Quarterly Census Employment and Wages (QCEW)
 - ❑ Updated quarterly
 - ❑ Complete data set – not survey data
- Use of a pure cost-of-living factor like Regional Price Parity data
 - ❑ Would include costs of services (majority of purchases), utilities and rent to provide a complete picture of the cost differences between individual counties

DETR Quarterly Census of Employment and Wages (QCEW)

- DETR reports on all wages and number of jobs by industry and county, including the average weekly wages. This can be sorted and filtered to exclude industries.
- URL: <https://www.nevadaworkforce.com/Home/DS-Results-QCEW2>

Employment and Wages by Industry - QCEW

← Undo → Redo ⏪ Revert 🔄 Refresh ⏸ Pause 🔗 Share 📄 Download

Industry Employment and Wages - QCEW

State: Area Type: Area: Year: Period Type: Period: Industry Level: Industry Code & Title: Ownership:

Area	Year	Period	Industry Code & Title	Ownership	# of Establishments	Average Employment	Month 1 Employment	Month 2 Employment	Month 3 Employment	Average Weekly Wages	Total Wages
Nevada	2021	2nd Quarter	000000 -Total, All Industries	Total of all types	93,258	1,335,620	1,316,982	1,336,877	1,353,000	\$1,106	\$19,212,037,758
Nevada	2021	2nd Quarter	000000 -Total, All Industries	Federal Government	367	20,847	20,694	20,901	20,945	\$1,591	\$431,156,739
Nevada	2021	2nd Quarter	000000 -Total, All Industries	State Government	630	33,839	33,853	33,899	33,765	\$1,216	\$534,787,074
Nevada	2021	2nd Quarter	000000 -Total, All Industries	Local Government	403	99,205	98,888	99,081	99,647	\$1,188	\$1,532,652,683
Nevada	2021	2nd Quarter	000000 -Total, All Industries	Private	91,858	1,181,729	1,163,547	1,182,996	1,198,643	\$1,088	\$16,713,441,262
Nevada	2021	2nd Quarter	1011 -Natural Resources and Mining	Total of all types	596	20,015	19,923	19,940	20,182	\$1,685	\$438,502,783

Comparison of ACS-based NCEI versus DETR QCEW Data

	NCEI	QCEW Wage Index
Data Set	Sampled data from American Community Survey (ACS) - 5% of population	Entire universe of wage data collected by State DETR.
Geographic Breakdown	Divides state into four regions. Only Clark and Washoe are available on a single-county basis.	Available for each of the 17 counties
Frequency of Updates	ACS survey data is available annually. The model can only be updated by contracting with APA or an alternative economist.	Quarterly
Data Lag	At least two years	6 months
Level of Complexity	High	Easy to moderate
Requires outside assistance to update?	Yes	Not necessarily
Level of Transparency	Calculations are made by a private consulting firm and are not publicly available.	Source data is publicly available on DETR's website.
Ability to Control on Other Variables	Shows non-controllable wage differences (age, race, experience, etc.)	Focuses on industry wages only, does not account for non-controllable wage differences