

3. How does the cost-of-living in Arkansas and surrounding states effect the value of Arkansas teacher salaries?

Comparable Wage Index Data from SREB/Contiguous States

State	CWI_2004	FY05-06 Avg Teacher Salary	Comparative Salary
Alabama	1.0802	\$40,347	\$37,351
Arkansas	1.0107	\$42,931	\$42,477
Delaware	1.247	\$35,874	\$28,768
Florida	1.1212	\$42,702	\$38,086
Georgia	1.2172	\$48,246	\$39,637
Kentucky	1.0893	\$46,095	\$42,316
Louisiana	1.0727	\$36,420	\$33,952
Maryland	1.3164	\$54,333	\$41,274
Mississippi	1.0192	\$40,096	\$39,341
Missouri*	1.1069	\$42,083	\$38,019
North Carolina	1.1705	\$43,913	\$37,516
Oklahoma South Carolina	1.1077	\$43,123	\$38,930
Tennessee	1.1348	\$42,537	\$37,484
Texas	1.2253	\$41,501	\$33,870
Virginia West Virginia	1.3103	\$47,310	\$36,106
	1.045	\$39,583	\$37,878

* Missouri is not an SREB state but is contiguous.

CWI Source: Taylor, L.L., and Fowler, W.J., Jr. (2006). "A Comparable Wage Approach to Geographic Cost Adjustment (NCES 2006-321). U.S. Department of Education. Washington, D.C.: National Center for Education Statistics.

Teacher Salary Source: Phone survey and web page review by BLR staff.

The Comparable Wage Index (CWI) used for the table above was developed by the National Center for Education Statistics. The basic premise of a CWI is that all types of workers--including teachers--demand higher wages in areas with a higher cost of living. The CWI reflects regional variations in the salaries of college graduates who are not educators. Then the CWI can be used to measure the uncontrollable component of variations in the wages paid to educators. A state's CWI is a weighted average of the local wages within its borders.

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4. How do teacher salaries in Arkansas compare to other professions with similar educational requirements within the state?

Selected 2005 Data from the Bureau of Labor Statistics for Arkansas

Profession	Salary
Civil Engineers	\$59,220
Computer Programmers	\$56,630
Loan Officers	\$51,180
Foresters	\$48,070
Insurance Underwriter	\$46,640
Accountants & Auditors	\$46,610
Librarians	\$41,600
Mental Health Counselors	\$41,190
Editors	\$41,080
Technical Writers	\$39,590
Secondary School Teachers*	\$39,470
Curators	\$37,870
Social Workers	\$37,600
Marriage and Family Therapists	\$36,730
Surveyor	\$36,610
Electrician	\$36,420
Interior Designers	\$32,900
Appraisers & Assessors	\$30,430
Licensed Practical Nurse	\$30,000
Preschool Teachers	\$18,600

Full report (51 pages) is available for review.

*K-12 Teacher Salary was \$41,489 according to the 2004-05 Annual Statistical Report produced by the Arkansas Department of Education.

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5. What factor in school district finance most influences teacher salaries?

Regression Analyses of Teacher Salaries

Project Summary

A collection of statistical data for each school district was compared to the 2004-05 district average teacher salary. The full dataset is included in Appendix 1. The most significant variable was the Pupil/Teacher ratio, which accounted for 38% of the disparity in teacher salaries during 2004-05. To state this in another way, districts with more pupils per teacher are able to pay higher teacher salaries. The pupil to teacher ratio is an efficiency measure. It has some relation to district size but it doesn't correlate perfectly. Some districts with large average daily membership (ADM) have low pupil to teacher ratios and some small districts have higher pupil to teacher ratios. Some examples include:

District	ADM/Rank	Pupil/Teach.Ratio/Rank	Avg. Teacher Sal./Rank
Texarkana	4,392.54- 18	13.08-135	\$36,201-191
Pine Bluff	5,677.69- 13	11.56-220	\$34,809-221
Palestine-Wheatley	620.25-186	17.20- 2	\$37,166-164
Quitman	585.18-192	16.40- 6	\$41,724- 42

Method Used for Analyses

To identify the significant predictors of teacher salaries for the fiscal year of 2004-05, correlations between potential predictors were examined to determine redundancy. The SPSS analysis is included in Appendix 2. Redundancy essentially means two or more predictors are measuring the same influence on salaries. To confirm these correlation analyses, formal tests of redundancy (tolerance and variance inflation factor) were made. These various diagnostic tests clearly indicated that nine predictors were redundant: 1) Total Debt Per ADM, 2) Value of 1 Mill per Student, 3) Actual Debt Payment, 4) Total Assessed Valuation for 2005, 5) Debt Mills Required, 6) Value of Excess Mills, 7) Total Debt Payment 2005-06, 8) 2005 Total Mills, and 9) Total Excess Mills Over URT.

Findings

Removing the redundant predictors, left the following 5 predictors for consideration in the regression analysis: 1) Pupil/Teacher Ratio, 2) 3rd Quarter ADM 2004-05, 3) Value of Excess Debt Mills per ADM, 4) Debt Service Funding Support, and 5) Excess Debt Mills. The most significant predictor in the regression analysis was the Pupil/Teacher ratio, and it accounted for 38% of the variance in teacher salaries during 2004-05. The only other significant predictor was 3rd Quarter ADM, and it accounted for an additional 21% of the variance in salaries for teachers. Together, these two predictors account for 59% of the variance in teacher salaries.

Additional Consideration

To address concerns about removing redundant predictors, an analysis was done with all predictors considered. The results were nearly identical to those reported above. The same two significant predictors were identified, and the amounts of variance accounted for by each predictor are almost exactly the same as reported above.