

Application of the Comparable Wage Index for Teachers (CWIFT) to School District Education Finance Data

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Overview of the Comparable Wage Index for Teachers (CWIFT)

- CWIFT is designed to measure uncontrollable differences in the purchasing power of school districts.
- CWIFT uses three years of data from the American Community Survey (ACS) to estimate regional variations in the earnings of college-educated workers who are not educators after controlling for differences in job-related and demographic characteristics.
- Workers demand higher wages in areas where the cost of living is high or desirable local amenities (good climate, low crime, access to beaches or museums) are lacking.
- CWIFT should only be applied to labor costs of college-educated workers and assumes that these populations are comparable to other college-educated workers with respect to their tastes for amenities and cost of living.
- Data are available for 2015 through 2019 at the state, county, and LEA levels.
- Data for 2021 will be available in summer 2023.

Purpose of the Study

To demonstrate the application of the CWIFT to education finance data and investigate the possible impacts of its application on research and policy studies.

Research Questions:

1. How does applying the CWIFT to school district finance data impact state- and national-level differences in school district spending?
2. How does application of the CWIFT change current expenditures per pupil by the urbanicity categories of rural, town, suburbs, and urban areas and by the size of the district?
3. How does the application of the CWIFT impact the difference between current expenditures per pupil in high poverty districts versus low poverty districts?
4. How does application of the CWIFT change the relationship between current expenditures per pupil and outputs that are influenced by purchasing power such as class size, average teacher salary, and number of support staff?

Data Included in the Study

- CWIFT 2018 local education agency and county estimates
- FY 19 School District Finance Survey (F-33)
- School Year 2018-19 Common Core of Data Local Education Agency Universe Survey
- 2018 Small Area Income and Poverty Estimates (SAIPE) school district and county estimates
- 2018-19 School District Boundaries Survey
- School year 2018-19 State of Vermont Education System Governance Boundaries

Formula for Calculating Adjusted Current Expenditures

$$TCURELSC_{dgy} = SelectedSalaries_{dy} / CWIFT_{dg(y-1)} + (TCURELSC_{dy} - SelectedSalaries_{dy})$$

Selected Salaries = sum of

Z33 – Instruction salaries

V11 – Pupil support salaries

V13 – Instructional staff support salaries

V15 – General administration salaries

V17 – School administration salaries

V37 – Business/central/other support salaries

d = school district or local education agency

g = specific geographic area

y = fiscal year of data

TCURELSC = total current expenditures

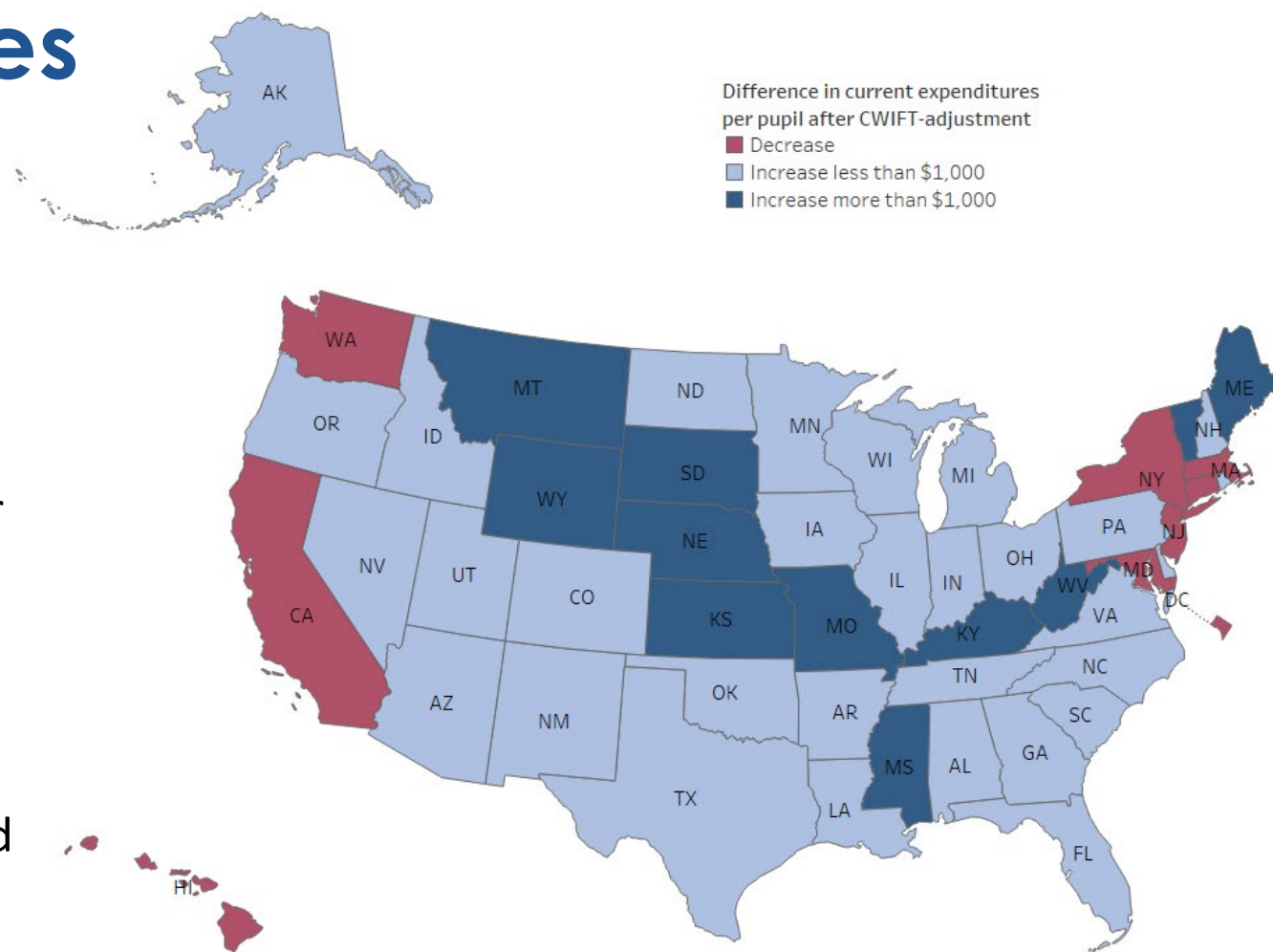
$CWIFT_{dg}$ = LEA-specific index value

Unadjusted salaries are for operation and maintenance, student transportation, and food services.

Besides salaries and wages, current expenditures include expenditures for employee benefits, purchased services, supplies, and other.

State-level differences in spending

- Unadjusted current expenditures per pupil ranged from \$7,979 in Idaho to \$25,155 in New York.
- CWIFT-adjusted current expenditures per pupil ranged from \$8,482 in Utah to \$24,792 in New York.
- All 9 states where the CWIFT-adjustment resulted in a decrease to current expenditures per pupil had an unadjusted state average that was greater than the mean.



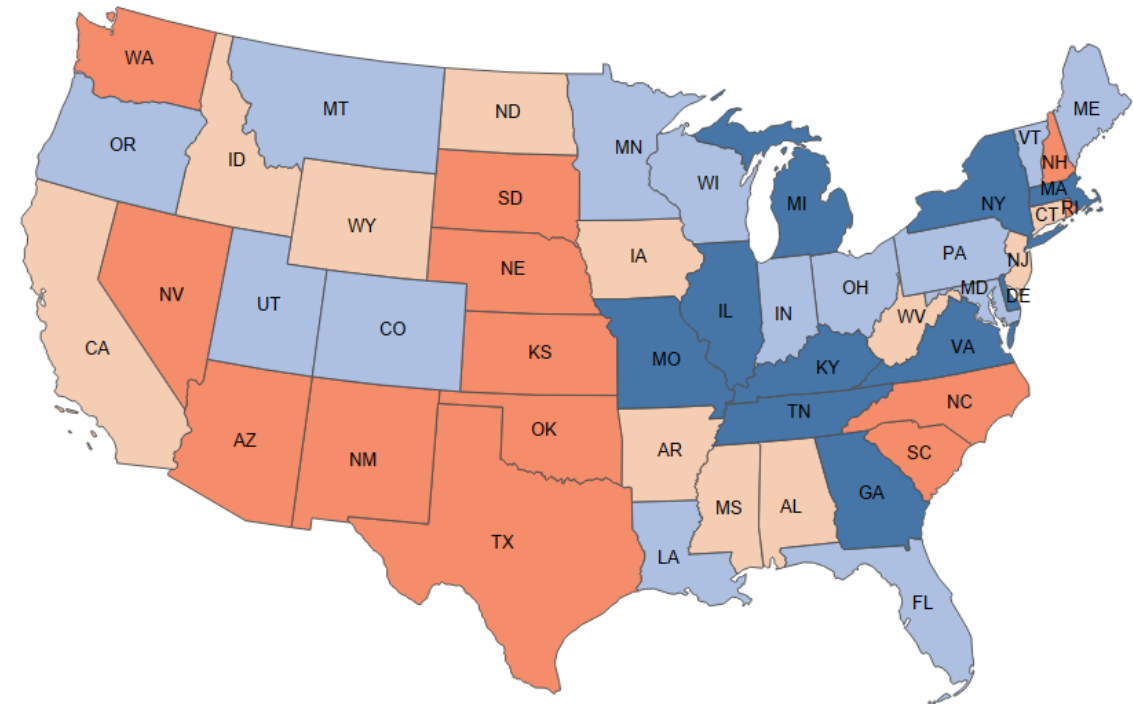
District-level differences in spending



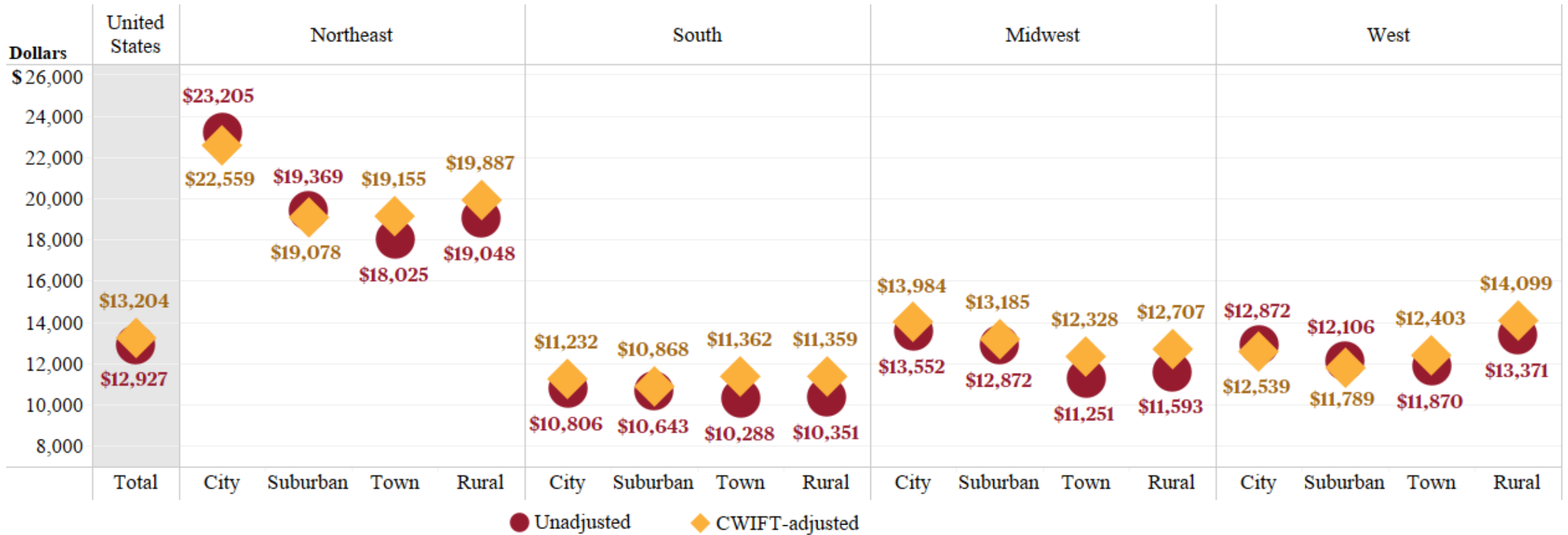
Percent change in the coefficient of variation of current expenditures per pupil after CWIFT-adjustment: FY 19

- Decreased 5 percent or more
- Decreased less than 5 percent
- Increased less than 5 percent
- Increased 5 percent or more

- Coefficient of variation is used to measure disparity between districts within a state. (Ratio of standard deviation to the mean)
- Unadjusted differences in current expenditures per pupil ranged from 0.071 in Maryland to 0.532 in California.
- Real disparity in spending increased by 5 percent or more in 14 states, increased by less than 5 percent in 11 states, decreased by less than 5 percent in 14 states, and decreased 5 percent or more in 10 states.

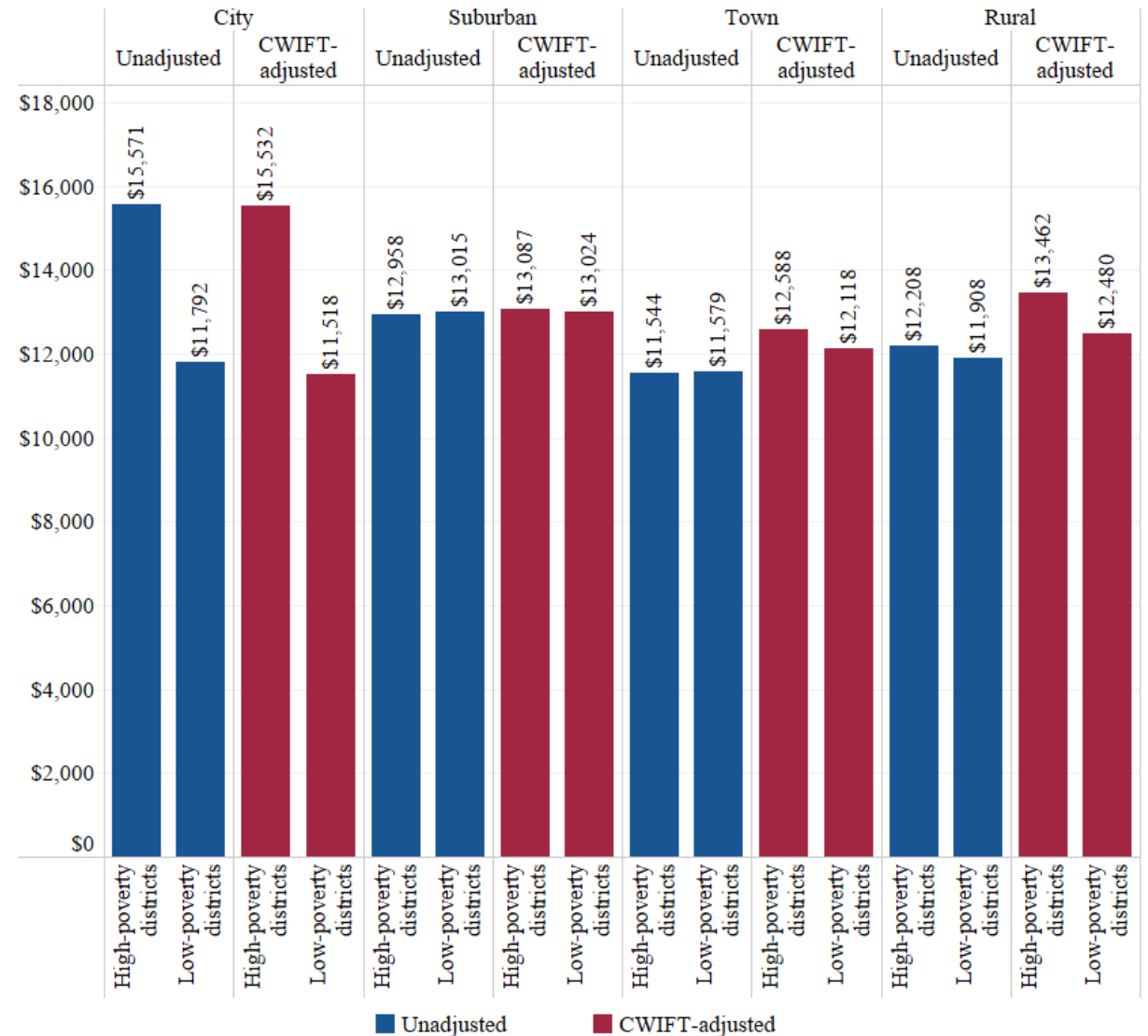


Differences in spending by locale



Differences by locale and high-poverty or low-poverty status

- In cities and rural areas, high-poverty districts spend more per pupil than low-poverty districts, and the CWIFT-adjustment increases the difference.
- In suburban areas and towns, high-poverty districts spend slightly less than low-poverty districts. After the CWIFT-adjustment, high-poverty districts spend more.



Conclusions and Next Steps

- Regional price differences complicate comparisons of spending and our perceptions of equality in resource allocation.
- The CWIFT can help us to measure the real value of inequalities in spending patterns.
- CWIFT accounts only for geographic differences in labor costs and amenities and does not account for differences in student populations such as special needs, English proficiency, or socioeconomic status.
- Additional research is needed to determine the feasibility of applying CWIFT to employee benefits and purchased services.
- Additional research is needed to determine the feasibility of combining the use of the CWIFT with inflation indices for longitudinal research.

For more information

Comparable Wage Index for Teachers (CWIFT):

<https://nces.ed.gov/programs/edge/Economic/TeacherWage>

School District Finance Survey (F-33)

<https://nces.ed.gov/edfin/>

<https://www.census.gov/programs-surveys/school-finances.html>

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