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Report on the Comparable Wage Index Component of Illinois' Evidence-Based Funding Formula

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Introduction

- The Evidence-Based Funding Formula passage in 2017 was celebrated as **"a historic step toward equity and ensuring every student gets the resources they need** for academic excellence and postsecondary success," with **fairness and equity as key values** for the new formula.
  - Each individual component of the EBF contributes to these values in different ways.
    - One such component included in the EBF is a regionalization factor to account for differences in cost across jurisdictions within the state, with the statute specifically requiring a **Comparable Wage Index, or CWI, to be the index type used** to determine each district's regionalization factor in the formula.
- Per 105 ILCS 5/18-8.15(a)(4), "In the fourth and subsequent years of Evidence-Based Funding implementation, the State Superintendent shall **re-determine the CWI using a similar methodology to that identified in the Texas A&M University study,** with adjustments made no less frequently than once every 5 years."
- This report explores the regionalization approaches implemented by other states, the current availability of alternative CWI data sets, an analysis of regionalization factor outcomes when applying those alternatives, and **ultimately a set of criteria to evaluate those alternatives with an accompanying recommendation**.

Scope of Work & Recommendation

- **Identifies available alternative wage index or indices**, that comply with 105 ILCS 5/18-8.15(a)(4), for the Illinois State Board to consider using as the wage regionalization cost factor in the agency's Evidence-Based Funding (EBF) calculations beginning is Fiscal Year 2025.
- Completes **analysis and sample calculations** to confirm that the comparable wages indexes comply with 105 ILCS 5/18-15(a)(4).
- Makes **recommendations on which alternative wage index or indices meet statutory requirements and are eligible to be used for the purposes of Evidence-based Funding (EBF) calculations** beginning in FY 2025, including the rationale for the recommendations.
- **Reviews and reports on the legislative intent** regarding CWI per Public Act 100-0465, including a summary of how the 2013 data from Texas A&M was chosen at the time.
- **Analyzes and reports whether another data set existed** at the time Evidence-Based Funding for Student Success Act (Public Act 100-0465) became effective on August 31, 2017.
- Researches **other state funding formulas to determine if any regionalization factor** is used in calculations and report on such findings.

Afton Recommendations:

- ISBE should explore the creation of an **Illinois-specific CWI,** and
- **Evaluate that resulting index data set alongside the other options** discussed in this report.
- Until that more complete evaluation can take place, ISBE should **continue with the status quo CWI data set** for use in the EBF regionalization calculation.

Findings: Other state funding formula regionalization approaches

Index Type	Description	States that Utilize
Comparable Wage Index (CWI)	A CWI measures regional variations in the price that school districts must pay to attract high quality teachers by **observing regional variations in the salaries of comparable professionals who are not teachers**. It is based on the premise that all types of workers—not just teachers—demand a higher salary where the price of a home is high, the climate is inhospitable, or the closest hospital is many miles away.	Illinois Florida Massachusetts Missouri New Jersey New York Virginia
Cost of Living Index (CLI)	CLIs are constructed by **tabulating the cost of a specified collection of goods and services used by consumers in each community** in a method called the "market-basket" approach. Differences among communities in the cost of a basket of consumer goods and services capture differences in the cost of living.	Colorado Wyoming
Hedonic Wage Index (HWI)	A HWI uses data on teacher compensation and statistical technique to estimate how much more or less it costs each school district to recruit and employ equivalent school personnel. **Researchers use regression analysis to divide the observed variation in teacher salaries** into that which is attributable to factors within the discretion of local school districts (such as teacher demographics, teaching assignments, and the length of the school year) and that which is attributable to factors outside of school district control (such as the local cost of living).	Alaska Maine Maryland Texas Wyoming

Source: Options for Updating Wyoming's Regional Cost Adjustment (wyoleg.gov)

Findings: The Comparable Wage Index for Teachers (CWIFT)

- The **NCES CWI cited by statute has not been formally updated since 2005,** with the original researcher updating the set through 2013.
- **NCES made a new CWI measure available afterward**, referred to as the Comparable Wage Index For Teachers, or CWIFT.
- Initially released with data from 2013 through 2015, and subsequently updated with data from 2016, 2017, 2018, 2019, and 2021. **The 2021 version is the most recently available index version** at the writing of this report.
- Although the data used for the initial CWIFT dates to 2015, the CWIFT's accompanying technical paper indicates that it was **published by NCES after the EBF passage date of August 31, 2017, and therefore was not publicly available for use in the formula at that time.**
- **Currently, the CWIFT is the only identified publicly available alternative CWI data set** that could be used in Illinois' EBF formula for the purpose of regionalization.

Source: American Community Survey Comparable Wage Index for Teachers (ACS-CWIFT) (ed.gov)

Findings: Definitional Compliance Tests

- **Illinois statute requires the use of a CWI** for regionalization. Specifically, the statute language lays out three definitional criteria by which to evaluate each data set or approach for compliance and use in the formula. Reconstructed as questions, those three criteria are:
  1. Is the approach and/or data set a **regional cost differentiation metric**?
  2. Does the approach and/or data set **measure systemic, regional variations in the salaries of college graduates who are not educators**?
  3. Does the approach and/or data set **utilize a methodology similar to that identified in the Texas A&M University Study**?
- The four approaches and data sets that this report evaluates are the status quo CWI (data sets through 2013); the CWIFT (data sets through 2021), a CLI, and an HWI.
  - **On the first definitional test, all four meet the criterion**, as all four are regional cost differentiation metrics.
  - The second definitional test is a core identity component of a comparable wage index that differentiates it from other approaches; as a result, **the CWI and the CWIFT meet the second criterion, while CLIs and HWIs each approach regionalization measurements differently and therefore do not meet the criterion.**

Findings: Definitional Compliance Test on Similarity

- The **statute language does not specify how to evaluate the third definitional test**, used to determine if the methodology of a data set is similar to the Texas A&M University Study that produced the original CWI. **Importantly, the statute language requires methodologies to be similar, and not identical.**
- **Methodology similarity exists on a spectrum**, with methodologies placed on the spectrum as **closer to the original CWI methodology, as the CWIFT is**, or farther from the original CWI methodology, as CLIs and HWIs are.
- **There may be meaningful enough differences between methodologies that are close on the similarity spectrum** to warrant further evaluation against a broader set of criteria.
- While close on the similarity spectrum, **there are some notable differences** between the CWIFT and the original CWI:
  - On data source methodology, **the CWIFT uses data from the American Community Survey (ACS)**, which produced more specificity in the data set.
  - In a more recent difference, **the three most recent but non-sequential years of available data** (2018, 2019, and 2021) were used to create the 2021 CWIFT data sets, due to the unavailability of 2020 data owing to the COVID-19 pandemic.

Options and Criteria

- There are **four data set options that ISBE could pursue** for use in the EBF formula regionalization factor:
  1. The CWI data from 2013 (status quo)
  2. The most recently available CWIFT district data (currently 2021)
  3. The most recently available CWIFT county data (currently 2021)
  4. A to-be-created Illinois-specific CWI data set
- There are **five criteria to arrive at a recommendation** for the path forward:
  1. Availability: Is the data set currently available for use in the EBF formula?
  2. Completeness: Does the data set have a value for each of the districts in the EBF formula?
  3. Recency: Is the data set produced from the most recently available data?
  4. Update Regularity: Is the data set updated on a regular basis?
  5. EBF Formula Alignment: Does the data set produce results that align with the fairness and equity intents of the EBF formula?

Evaluation

Criteria	1) CWI data from 2013 (status quo)	2) Most recently available CWIFT district data	3) Most recently available CWIFT county data	4) To be created Illinois specific CWI data set
1) Availability	Yes	Yes	Yes	TBD
2) Completeness	Yes	No	Yes	TBD
3) Recency	2013	2021	2021	TBD
4) Updated Regularly	No longer updated	Annually with data through 2021; unclear on future updates	Annually with data through 2021; unclear on future updates	TBD
5) EBF Formula Alignment	Unclear	Unclear	Unclear	TBD

Findings: CWIFT District & County Data Set Analysis

	2013 CWI (Status Quo)	2021 CWIFT (District Data)	2021 CWIFT (County Data)
Average	1.4381	0.9282	0.9280
Median	1.4083	0.9090	0.9090
Min	1.1678	0.6578	0.7640
Max	1.6525	1.1425	1.0810

2013 CWI to 2021 CWIFT District Data: Regionalization Factor Change Overview	
Average Change	0.0042
Median Change	0.0000
Greatest Negative Change	-0.0293
Greatest Positive Change	0.1237

2013 CWI to 2021 CWIFT County Data: Regionalization Factor Change Overview	
Average Change	0.0046
Median Change	0.0000
Greatest Negative Change	-0.0164
Greatest Positive Change	0.1195

There appears to be a **general norming downward when comparing the 2013 CWI to each of the 2021 CWIFT data sets**, but this shift **does not have a uniform or overall downward effect** on districts' resulting regionalization factors.

When comparing the **regionalization factor output** from these shifts, districts on average again see an increase (<0.005) in their regionalization factor, with the median change at 0. There is a range of changes, **with some districts seeing a decrease and others an increase**.

Findings: CWIFT District & County Data Set: Low-Income Analysis

When comparing districts according to their FY24 proportion of low-income enrollment, **those with a higher proportion of low-income students (higher needs districts) tend to see decreases** in a shift from the CWI to CWIFT **district and county** data **more than those with a lower proportion of low-income students (lower needs districts).**

CWIFT 2021 District Data Set

Districts who increased 2021 CWIFT District Data	
Count over 80% Low-Income (n=20)	6 (30.0%)
Count over 50% Low-Income (n=228)	47 (20.6%)

Districts who decreased 2021 CWIFT District Data	
Count over 80% Low-Income (n=20)	13 (65.0%)
Count over 50% Low-Income (n=228)	105 (46.1%)

Districts who stayed the same 2021 CWIFT District Data	
Count over 80% Low-Income (n=20)	1 (5.0%)
Count over 50% Low-Income (n=228)	76 (33.3%)

CWIFT 2021 County Data Set

Districts who increased 2021 CWIFT County Data	
Count over 80% Low-Income (n=20)	6 (30.0%)
Count over 50% Low-Income (n=228)	49 (21.5%)

Districts who decreased 2021 CWIFT County Data	
Count over 80% Low-Income (n=20)	13 (65.0%)
Count over 50% Low-Income (n=228)	103 (45.2%)

Districts who stayed the same 2021 CWIFT County Data	
Count over 80% Low-Income (n=20)	1 (5.0%)
Count over 50% Low-Income (n=228)	76 (33.3%)

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Appendix



Further detail on other state funding formula regionalization factors

State	Description	Resources
Massachusetts	The wage adjustment factor (WAF) gives a district credit for having higher school costs if it is located in a geographic area where average wages are higher than in other areas of the state. The wage factor is calculated using the **latest available average wage data supplied by the state's Department of Employment.** The factor reflects a town's own average but is more weighted to the average of the labor market area (LMA) where the town is located. There are real differences in these averages, which represent the combined total for all industries both private and public.	School Finance Chapter 70
Missouri	Dollar Value Modifier (DVM) is an amount which represents an index of the relative purchasing power of a dollar based on regional wage ratios. **Districts in areas with higher wage rates** receive additional funding.	School Funding Formula
Florida	The Florida Price Level Index (FPLI) was established by the Legislature as the basis for the District Cost Differential (DCD) in the Florida Education Finance Program (FEFP). The FPLI is a comparable wage index representing the relative cost of personnel among Florida's school districts. The FPLI is based on data for **hundreds of occupations across Florida's 67 counties collected by the Florida Department of Economic Opportunity's Bureau of Workforce Statistics** and Economic Research as part of the U.S. Bureau of Labor Statistics' Occupational Employment and Wage Statistics survey (OEWS). Table 1 presents the 2022 FPLI, along with the 2021 and 2020 indices.	The Florida Price Level Index
New Jersey	The Geographic Cost Adjustment (GCA) is used to account for cost differences across New Jersey. Each district's adequacy budget is first calculated based on mean salaries and the average cost of other resources. The GCA is then applied to each district's adequacy budget to account for the **variation in salaries between counties**.	Geographic Cost Adjustment
New York	Regional Cost Index (RCI): The regional cost index, calculated by the State Education Department, is generated following a wage-based methodology. It is based on median salaries in 59 professional occupations (excluding education-related ones). Index values range from 1.000 for North Country/Mohawk Valley counties to 1.425 for New York City and Long Island. The regional cost indices are based on a **Regents' study of median salaries for 59 professional, non-teaching occupations** in nine labor force regions.	2023-24 Description of New York State Executive Budget Recommendations for Elementary and Secondary Ed
Virginia	The Composite Index determines a school division's ability to pay education costs fundamental to the Commonwealth's Standards of Quality (SOQ) with local funds. The Composite Index is calculated using three indicators of a locality's ability to pay **(1) True value of real property (weighted 50 percent), (2) Adjusted gross income (weighted 40 percent), (3) Taxable retail sales (weighted 10 percent)**. Each locality's index is adjusted to maintain an overall statewide local share of 45 percent and an overall state share of 55 percent.	Composite Index of Local Ability to Pay