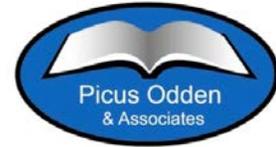




Memo



To: Kristy Michel, Donna Gunning, Stakeholder Advisory Committee Members

From: The Augenblick, Palaich and Associates and Picus Odden and Associates Research Team

Date: November 23, 2015

Subject: Response to questions raised during the October 13 Stakeholder Advisory Group meeting regarding the *Geographic Cost of Education Adjustment for Maryland* preliminary report

Following the Maryland Stakeholder Advisory Group meeting in October, the study team was asked to consider several issues related to the choice of approaches for estimating a revised Geographic Cost of Education Index (GCEI) for Maryland's school districts. The options were to recommend updating the current hedonic index that was computed in 2002 (and updated but not used in 2009), modifying the current hedonic index, or recommending an alternative method. The study team has recommended use of a Comparable Wage Index (CWI) because it is more straightforward to compute, can be recalculated on an annual basis using existing data bases (enhancing its accuracy in adjusting for actual geographic cost differences), and is currently favored by economists and others who construct geographic cost indexes for education. A discussion of these alternatives follows.

Hedonic Index

As the GCEI report indicates, use of these indexes has fallen out of favor with economists due to a combination of issues surrounding the complexity of computing such indexes and reasonable disagreement over the variables that should be included in estimating such an index. Because of these concerns, the study team recommended following common practice in other states with geographic cost indexes and adopting a CWI.

The study team needs to point out that if Maryland wishes to continue to estimate a hedonic index, all of the data needed for recalculation would have to be provided in a usable format no later than January 15, 2016. Moreover, as pointed out in the 2009 estimation of the GCEI for Maryland, there are substantial differences in the index computations for each district over time, so one would expect an index computed in 2016 to look quite different from the current GCEI based on the 2002 study.

CWI

Members of the Stakeholder Advisory Group asked for more information on how a CWI is computed. A (CWI) is calculated by measuring the variation in non-teacher wages across localities. Specifically, the model measures the average difference in wages after accounting for individual characteristics that may also impact wages, such as gender, age, education, industry, and occupation. CWIs therefore account for the impacts of both cost of living and area amenities for similar workers in different geographic locations. The assumption is that workers who are similar to teachers in terms of their levels of education, their training, and their job responsibilities will have similar preferences as teachers. For

example, if non-teacher workers in professional occupations with similar characteristics to teaching who work in the City of Baltimore are paid, on average, 10 percent more than similar non-teacher workers in the City of Cumberland, then the CWI would suggest Baltimore City Public Schools should receive 10 percent more revenue for teacher salaries than Allegany County Public Schools where the City of Cumberland is located.

The CWI approach to estimate geographic cost differences for school districts has gained favor with economists since the Maryland CGEI was computed in 2002. As described in the report, this method is more straightforward to estimate, and can be updated on an annual basis using existing databases. The data used comes from the United States Census Bureau’s American Community Survey (ACS), which replaced the long form of the decennial Census. Given the way data are reported in the ACS, a CWI can be computed for geographic areas broken down in one of two ways: Combined Statistical Areas, (CSA) and Public Use Microdata Areas (PUMAs). The boundaries of CSAs are based on commuting patterns and are intended to capture regional labor markets. However, they are of limited use in Maryland because two-thirds of the districts are located in one CSA (which means there would be one effective geographic cost index for 16 of the 24 counties), and because three of the school districts are not located in any CSA (and are not necessarily located in the same part of Maryland). Moreover, CSAs can, and do, cross state borders, so areas outside of Maryland would be included in any CSA-level analysis.

PUMAs are generally subsets of CSAs, but can include areas that are not in CSAs. Because they are based on population, PUMAs are usually smaller than CSAs and there are more PUMAs in a given state than CSAs. Thus, they provide the refinement needed to calculate a more refined geographic index corresponding more closely to Maryland’s 24 school districts. The State’s 24 districts are located in 16 separate PUMAs, all of which could be used to generate the CWI index.

The tables below show how Maryland school districts are assigned to CSAs and PUMAs. Table 1 shows Maryland’s districts by the CSA to which they are assigned. Table 2 shows the PUMA to which each district is assigned.

Table 1: Maryland Districts by CSA

CSA	Maryland Districts
Philadelphia-Reading-Camden, PA-NJ-DE-MD	Cecil
Washington-Baltimore-Arlington, DC-MD-VA-WV-PA	Anne Arundel, Baltimore, Carroll, Harford, Howard, Queen Anne’s, Baltimore City, St. Mary’s, Dorchester, Talbot, Washington, Frederick, Montgomery, Calvert, Charles, Prince George’s,
Cumberland, MD-WV	Allegany
Salisbury, MD-DE	Somerset, Wicomico, Worcester
Not in a CSA	Garrett, Kent, Caroline

Table 2: Maryland Districts by PUMA

PUMA	Maryland Districts
100	Allegany, Garrett
200	Washington
300	Frederick
400	Carroll
700	Cecil
1300	Caroline, Dorchester, Kent, Queen
1400	Somerset, Wicomico, Worcester
1500	Calvert, St. Mary's
1600	Charles
1001-1007	Montgomery
1101-1107	Prince George's
1201-1204	Anne Arundel
501-506	Baltimore
601-602	Harford
801-806	Baltimore City
901-902	Howard

Status

At the present time, the research team is awaiting a decision as to which index to compute for the Maryland GCEI. It is important to note that regardless of which index is selected, there are likely to be substantial changes in the index value assigned to each county/district, and subsequent redistribution of state equalization resources to the districts.