# Analysis of School Finance Equity and Local Wealth Measures in Maryland

Prepared for
The Maryland State Department of Education

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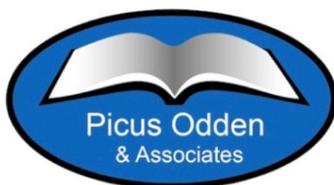
*The Maryland General Assembly enacted Chapter 288, Acts of 2002 – the Bridge to Excellence in Public Schools Act, which established new primary State education aid formulas based on adequacy cost studies using the professional judgment and successful schools method and other education finance analyses that were conducted in 2000 and 2001 under the purview of the Commission on Education Finance, Equity and Excellence. State funding to implement the Bridge to Excellence Act was phased-in over six years, reaching full implementation in fiscal 2008. Chapter 288 required a follow up study of the adequacy of education funding in the State to be undertaken approximately 10 years after its enactment. The study must include, at a minimum, adequacy cost studies that identify a base funding level for students without special needs and per pupil weights for students with special needs to be applied to the base funding level, and an analysis of the effects of concentrations of poverty on adequacy targets. The adequacy cost study will be based on the Maryland College and Career-Ready Standards (MCCRS) adopted by the State Board of Education and include two years of results from new State assessments aligned with the standards, which are scheduled to be administered beginning in the 2014-2015 school year.*

*There are several additional components mandated to be included in the study. These components include evaluations of: the impact of school size, the Supplemental Grants program, the use of Free and Reduced Price Meal eligibility as the proxy for identifying economic disadvantage, the federal Community Eligibility Program in Maryland, prekindergarten services and funding, the current wealth calculation, and the impact of increasing and decreasing enrollments on local school systems. The study must also include an update of the Maryland Geographic Cost of Education Index.*

*Augenblick, Palaich and Associates, in partnership with Picus Odden and Associates and the Maryland Equity Project at the University of Maryland, will submit a final report to the State no later than October 31, 2016.*

This report, required under Section 3.2.3.3 of the Request for Proposals (R00R4402342) provides an analysis of the school finance equity found in Maryland's current school funding formulas and offers further analysis of alternative wealth measures for distribution of state aid to local school districts.

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## Executive Summary

This paper was prepared by the staff of Picus Odden & Associates (POA) to address Section 3.2.3.3 of the Request for Proposals (R00R4402342). It provides an analysis of the school finance equity of Maryland's current school funding formulas and offers further analysis of alternative wealth measures for distribution of state aid to local school districts. There are two chapters: the first evaluates the fiscal neutrality and equity of school funding in Maryland, while the second addresses a series of issues pertaining to the measurement of wealth or fiscal capacity of Maryland school districts.

### *School Finance Equity*

The study team conducted a traditional longitudinal school finance equity analysis of Maryland school district funding. The equity analysis focuses on three main issues: the extent to which education revenues are related to measures of district fiscal capacity, the equality of education revenues and expenditures per pupil across districts, and the extent to which differences in education funding relate to student needs. The statistics used can be divided into two categories: those that measure the fiscal neutrality of the system, i.e. the degree to which revenues and expenditures are related to local measures of fiscal capacity, and those that measure the equality (equity) of per pupil revenues and expenditures across school districts in the State. The analysis shows that there is a relationship between wealth and funding in Maryland, but that the relationship has decreased over time. Thus, the system became more fiscally neutral over the years covered by the study.

The equality of revenues in Maryland generally improved over the years covered in the study, with the exception that unweighted per pupil spending became less equitable in the lower half of the funding distribution. Moreover, the inequities in the system relate to student needs to some extent. The vertical equity of funding in the Maryland school funding system (using standard rather than Maryland pupil weights) is slightly better than the horizontal equity.

### *School District Fiscal Capacity*

Maryland currently measures the fiscal capacity of school districts using a combination of property values and net taxable income. The study team's analysis describes the way these measures are combined to provide state aid to districts in inverse relationship to their fiscal capacity. The study team considered the way property is currently assessed in Maryland, concluding that the three-year reappraisal process is a reasonable compromise between the expense of annual reappraisals and the dis-equalizing potential of longer assessment cycles.

One issue that has recently surfaced in Maryland is the use of tax increment financing to boost economic development. The tax incentives provided to businesses reduce local school district revenues, but not the measure of a district's fiscal capacity, leading to potential hardship (less state aid) if the tax exemptions are large. The study team recommends that a portion of the assessed value effectively lost through this process also be subtracted from the measure of wealth used to determine the fiscal capacity of school districts so districts' equalization funding is related to what they actually raise through property taxes and not the assessed value of the district before the tax incentives were implemented.

Maryland uses net taxable income as part of its measure of fiscal capacity. The study team provides an analysis of this measure and suggests that the income component be changed from an additive approach that is currently used by the state (net taxable income is added to the measure of property value) to a multiplicative measure that adjusts property value by the ratio of a district's net taxable income to the state average net taxable income. The study team also suggests that the state slowly move from the current approach of measuring income in both September and November with districts receiving the larger amount of aid generated by the two measures, to only using the November measure. The study team recognizes the changes to when net taxable income is measured and how it is incorporated into local wealth have substantial implications for impacted districts and suggests a five-year implementation.

The study team ends the second chapter with a discussion of how other states in the region address fiscal capacity issues.

# Contents

# Chapter 1: Equity Analysis of Maryland's Excellence in Public Schools Funding System

## Introduction

As requested by the Maryland legislature, this chapter of the report presents an equity analysis of school district revenues and expenditures using traditional school finance equity statistics. The goal of the report is to ascertain how well the Maryland school finance system meets equity standards in the field of school finance. The statistics can be divided into two categories: those that measure the fiscal neutrality of the system, i.e. the degree to which revenues and expenditures are related to local measures of fiscal capacity, and those that measure the equality (equity) of per pupil revenues and expenditures across school districts in the State. Odden and Picus[1] describe the most common approaches for measuring fiscal neutrality and equal spending. This chapter uses those approaches to measure how well the Maryland school funding system has met the goals of fiscal neutrality and equity. Appendices A1 to A9 of this document contain tables that display all of the equity statistics calculated for Maryland over the years included in this evaluation.

## Approaches to School Finance Equity

There are two approaches to assessing school finance equity: fiscal neutrality and equity, defined as equality of expenditures or revenue.

### *Fiscal Neutrality*

Fiscal neutrality is the concept that there should not be a relationship between the wealth of a community and the amount of money spent on public education in that community. This concept relates to the idea that all children deserve a high quality education regardless of where they live. Generally, however, analyses show that wealthier communities tend to spend more money on education than less wealthy communities. In an analysis of fiscal neutrality, the stronger the relationship between measures of fiscal capacity and levels of revenues or expenditures, the less fiscal neutrality and, therefore, the more inequity present in the system.

Assessing the degree of fiscal neutrality entails analyzing the relationship between measures of per pupil revenues and expenditures and measures of fiscal capacity (wealth). Traditionally, school finance scholars measured fiscal capacity using per pupil property values, since many states fund their schools primarily from property tax collections. Recently, however, scholars have recognized that this metric can inaccurately categorize communities with high levels of property value but low levels of income. This concern has led scholars to add the consideration of income level as a fiscal capacity measure to supplement the property value measure.

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[1] Odden, A.R. and Picus, L.O. (2014). *School Finance:  A Policy Perspective, 5th ed*. New York, NY:  McGraw-Hill

Fiscal neutrality is measured using two statistics, the correlation coefficient and elasticity. The correlation coefficient indicates the degree to which there is a linear relationship between two variables where an increase in one variable is associated with an increase in the other, or vice versa. The coefficient ranges in value between negative and positive 1, with a value close to 1 indicating a strong positive relationship. In school finance, for example, typically as property wealth increases, so do revenues per pupil, which would be a strong positive relationship. A correlation coefficient close to zero indicates that there is little or no linear relationship between the two variables. For fiscal neutrality, the ideal value of the correlation coefficient is zero, but the generally accepted standard for this statistic is 0.5 or less.[2]

Elasticity indicates the magnitude or policy significance of the relationship between fiscal capacity and revenues or expenditures. For example, the two could be strongly related, but a ten-fold increase in property wealth might only result in a small increase in revenues. In such a situation, the magnitude of the relationship would be of little policy significance. In contrast, the relationship between wealth and revenues would be of strong policy significance if a small change in wealth led to a large difference in revenues.

Technically, the elasticity indicates the percent change in the outcome variable (revenues or expenditures per pupil) relative to the same percent change in the measure of fiscal capacity (per pupil property valuation or local wealth). The elasticity of a school funding system usually ranges in value from zero to any positive number, although the elasticity can also be negative. An elasticity of 1.0 indicates that revenues increase at the same percentage rate as the wealth measure. Elasticities above 1.0 indicate that spending increases in percentage terms at a higher rate than property wealth, so a 10 percent increase in property wealth results in a higher than 10 percent increase in revenues or expenditures per pupil. Conversely, elasticities below 1.0 indicate that revenues or expenditures per pupil do not increase at the same percentage rate as local property wealth.

When interpreting the elasticity values, the goal of horizontal equity is for each child in the State to be funded at the same level. Therefore, the ideal elasticity value is 0.0, which indicates that school spending did not rise as community wealth rose. However, it is unlikely that elasticity would exactly equal 0.0, as typically schools located in areas with more wealth tend to receive greater funding per pupil. Because of this, wealth elasticity is considered equitable if it is less than or equal to 0.10,[3] because at such a value, per pupil spending rose with wealth, but at a very slow rate.[4]

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[2] The +0.50 figure implies that a negative correlation would be acceptable at any value. Many scholars argue that it would be equitable for lower wealth districts to receive more funding than high wealth districts because low wealth districts tend to have students with greater needs. However, negative correlations between wealth and per pupil spending are rare in school finance because wealthier districts tend to receive more revenues and have higher expenditures per pupil than poorer districts. Therefore, for practical purposes, the range of acceptable correlations is 0.00 to 0.50.

[3] Odden and Picus, 2014.

[4] In theory, the elasticity could be negative, but this occurs very rarely.

The elasticity between revenues per pupil and property wealth per pupil is calculated using the slope of the linear regression of revenues on wealth. The elasticity is the slope of the relationship multiplied by the ratio of the mean value of property wealth per pupil to the mean value of revenues per pupil.

It is important to assess the correlation coefficient and elasticity jointly. If the correlation is high and the elasticity is low, a strong relationship exists between wealth and spending, but the relationship is not of policy importance. On the other hand, if the correlation is low and the elasticity is high, the relationship between wealth and spending might have policy significance, even though it is a weak relationship. If both the correlation coefficient and elasticity are high, fiscal neutrality does not exist because wealth and spending are linked and the magnitude of the link is strong. Fiscal neutrality is achieved if the value of the correlation coefficient is below 0.50 for correlation and elasticity is less than 0.10. However, these benchmark standards are very strict measures that few states meet. Instead, a review of the fiscal neutrality and equity statistics should focus on how close the measures are to the standards and how the values have changed over time.

### *Revenue/Spending Equality*

In addition to fiscal neutrality, a second important equity concept is measuring the equality of per pupil spending across the State's school districts. Spending equality can be considered in two ways, both of which examine the equity of per pupil spending in districts across the State but have a different approach to students with special needs (i.e. free and reduced price meals (FARMs) students, English language learner (ELL) students, and students with disabilities). Horizontal equity does not consider the higher cost of educating students with special needs, while vertical equity uses weighted student counts to account for the higher cost of educating students with special needs.

The study team uses three statistics to examine horizontal equity: the coefficient of variation (CV), the McLoone Index, and the Verstegen Index. The CV is the standard deviation of per pupil revenues or expenditures divided by their mean value. This measure provides information about the degree to which per pupil spending is distributed around the mean value, or the range of per pupil spending. The standard for the CV is less than or equal to 0.10, with the ideal value being 0.0.[5] Lower CV values indicate that per pupil spending is very close to the mean, while larger CV values indicate larger per pupil spending ranges.

The McLoone and Verstegen Indexes consider only part of the revenue or spending distributions. The McLoone Index only uses data from the bottom half of the revenue or spending distribution. It is calculated by dividing the mean per pupil spending value for the lower half of the distribution by the median spending in the state. If the same amount were spent on every child, the McLoone Index would have a value of 1.0, with the standard being 0.95.[6]

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[5] Odden and Picus, 2014.
[6] Ibid.

Conversely, the Verstegen Index considers the top half of the revenue or spending distribution. The Verstegen Index is calculated by dividing the mean per pupil spending value of the upper half of the distribution by the median spending in the State. Again, if the same amount was spent on every child, those figures would be equal, so the ideal value of the Verstegen Index is 1.0 and the standard is 1.05.[7]

The McLoone and Verstegen Indices should be interpreted together to determine the overall level of equity in the top and bottom halves of the funding distribution. The McLoone Index informs us regarding the level of equity in the bottom half of the distribution, while the Verstegen Index informs us regarding the level of equity in the top half of the distribution. The McLoone Index often is closer to the standard than the Verstegen Index, because many states focus more on raising the revenues of low wealth districts than on equalizing wealthier districts. However, sometimes the results are similar for both halves of the distribution, when the objective of the state is to make revenues more equitable across the board.

The equity analysis of revenues and expenditures across Maryland school districts is based on an analysis of horizontal and vertical equity. The report assesses horizontal equity using unweighted student counts that are not weighted for students with special needs and vertical equity by using pupil counts weighted for students with special needs.

## Data Used in Analysis

A variety of data were used to conduct the equity analysis: revenue measures, expenditure measures, student counts, and measures of fiscal capacity. All data came from the annual Selected Finance Data (SFD) reports Parts 1 and 2 (available 2002-2013), with the exception of the data used to weight students, which came from LEA Special Population Counts (available 2006-2013). All data were provided by the Maryland State Department of Education (MSDE). The following sections discuss the issues related to the data used in this equity analysis.

### *Revenue and Expenditure Measures*

The report uses two revenue measures and one expenditure measure for the equity analysis. The first revenue measure is called "revenues," which consists of the current revenues from all sources[8] from the categories local appropriation, local other, state and federal less regular and special education transportation. The second revenue measure is labeled "revenues not federal," which is the revenues measure excluding funds from the federal category. The "expenditures" measure consists of current expenditures minus transportation expenditures. Transportation revenues and spending were removed from all measures because they vary greatly depending on the geography of a district but do not directly relate to educating children.

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[7] Odden and Picus, 2014.
[8] All data were provided via the MSDE's annual Selected Financial Data reports.

## *Student Counts and Weights*

The base student counts came from the pupils belonging category (in which half-time prekindergarten pupils are expressed in full-time equivalents in arriving at per pupil costs). The category of students with special needs includes students in special education, ELL students, and FARMs students, from the district special population counts data referenced above.

This analysis uses "standard weights" and "Maryland weights." Standard weights are weights similar to commonly used student weights found in other adequacy studies and used for adjusting student counts to provide additional funding for students with special needs. The study team will be calculating Maryland specific weights in the course of the Maryland adequacy study next year. Since those weights are not yet available, the standard weights are used for this study. Maryland weights are those currently used by the State to increase funding for students with special needs. These weights are summarized below in Table 1.1. The weighted figures are available only from 2006-2013 because the student counts used to compute the weights came from the district Special Population Counts datasets, which were only provided for those years.

The implications of using these three weighting systems in the current study are as follows. The unweighted student counts provide a picture of the equity of the system when the differing educational needs of students are not taken into account (horizontal equity). The advantage of this approach is it enables one to easily compare the extent to which school districts across the state receive the same amount of funding when local and state sources are combined. The disadvantage of this approach rests in the caveat that it does not consider the educational needs of the students. One could argue that a district with more needs than other districts in the state should not receive funding equal to the other districts, but should receive more funding than other districts to enable it to meet the greater needs of its students. When applied to a horizontal equity framework, additional funding for students with special needs reduces the horizontal equity of a state's funding system. By counting students with special needs as more than one student (weighting) and then comparing the equity of the weighted pupil count, we are able to get a measure of the equity of the system when student need is taken into account (vertical equity).

The unweighted approach calculates per pupil values by adding all funding from local and state sources (other than capital, transportation, and food service) and dividing by the number of unweighted students. Changing the student count by including the weights allows a crude estimate of what the base funding per student would be if the state did not provide additional funding for students with special needs (in Maryland this is accomplished via the special needs student weights). In many states (including Maryland, as will be seen below), when students are weighted, the equity of the system declines. This is because the equity statistics cannot distinguish between the extra funding generated by the student weights and base funding. The additional dollars generated by the weights result in equity statistics that make the funding system appear less equitable. As discussed in more detail below, the combination of the base money and the weighted money leads Maryland to have a funding system with a solid level of horizontal equity, but the system is somewhat less equitable when the Maryland weights are applied.

This could be a result of imperfect measurement of the appropriate weights rather than a flaw in the overall equity of the system.

Standard weights have similar implications to Maryland weights in that they attempt to account for student needs. The study team decided to use the standard weights because the values of the Maryland weights are very different than the weights found in most research studies of the magnitude of weights. As mentioned above, Maryland specific weights will be calculated as part of the adequacy study next year. Since those weights are not yet available, the study team used the standard weights as the next best alternative.

**Table 1.1: Weights Used in Computing Vertical Equity Statistics**

| Category | Maryland Weight | Standard Weight |
|---|---|---|
| Special Education | 0.74 | 1.00 |
| FARMS | 0.97 | 0.25 |
| ELL | 0.99 | 0.25 |

Source: Maryland State Department of Education

### *Fiscal Capacity Measures*

The analysis uses two measures of fiscal capacity, both of which came from the Selected Financial Data (SFD) reports provided by MSDE. The first measure is assessed valuation, which is the taxable assessable base at the county level. The second is total local wealth, which includes "net taxable income, real and public utility property assessments for state purposes, and 50 percent of personal property assessments for county purposes.[9]

# Results

This section contains the results of the equity analysis. Excel was used to compute the equity statistics while a more advanced statistical program, JMP, was used to compute the fiscal neutrality results. Variable names are written in bold in the text that follows. The report displays a selection of equity statistics that illustrate the findings. Tables with the complete results can be found in Appendix A.

### *Fiscal Neutrality*

This section provides the results of the two equity measures of fiscal neutrality discussed above in the "Approaches to School Equality" section: correlation coefficient and wealth elasticity.

In Maryland, there is a positive correlation between **Revenues not Federal** and **Total Local Wealth**, regardless of the student weighting used and the year examined. Many of these correlation coefficients are above the benchmark correlation coefficient standard of 0.50, especially when computed using student weights. Two important relationships can be seen in Figure 1.1. First, the correlation was higher for weighted pupils than for unweighted pupils, with the highest correlations found using Maryland

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[9] From the SFD, Part 1, Table 9.

weights. Second, fiscal neutrality, as measured by the correlation between **Total Local Wealth** and **Revenues not Federal**, improved during the examined time period, particularly after FY 2011.

**Figure 1.1: Correlation Between Per Pupil *Revenues not Federal* and Per Pupil *Total Local Wealth*: FY 2002 – FY 2013\***
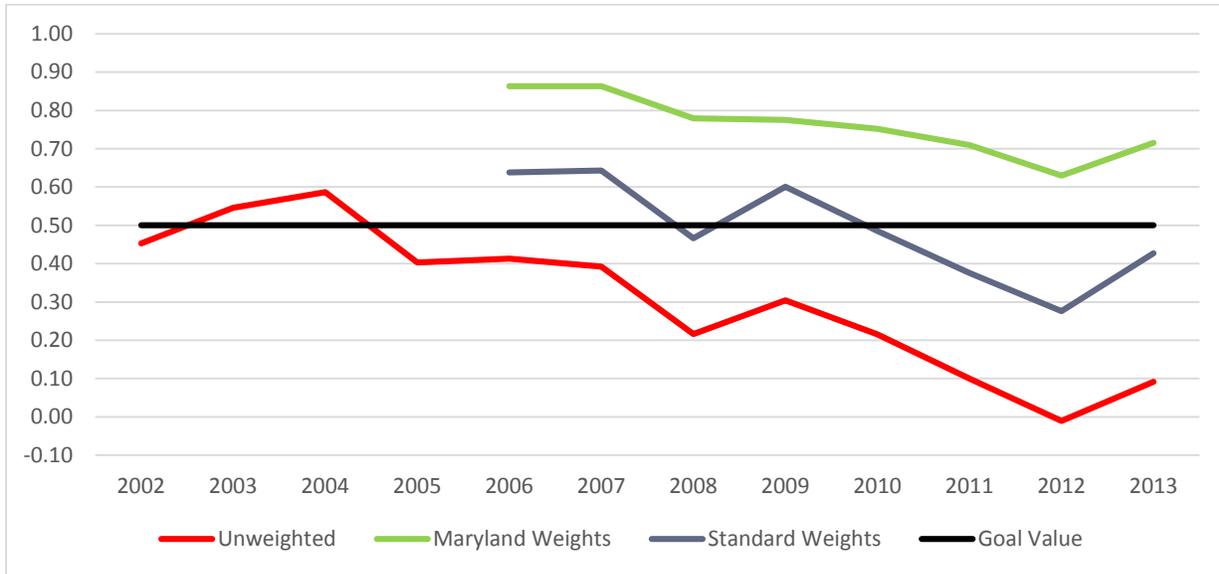


\*Lower values indicate greater fiscal neutrality.
Source: Maryland State Department of Education and POA

When looking at the relationship between **Revenues** and **Total Local Wealth**, the correlation coefficients are similar, though slightly lower overall, as shown in Figure 1.2. The coefficients often are higher than the standard of 0.50, though the values declined over time through 2012. The difference between these correlations and the correlations with **Revenues not Federal** was expected as federal funds such as Title I funds tend to reduce the correlation between wealth and revenues.

**Figure 1.2: Correlation Between Per Pupil *Revenues* and Per Pupil *Total Local Wealth*: FY 2002 – FY 2013***
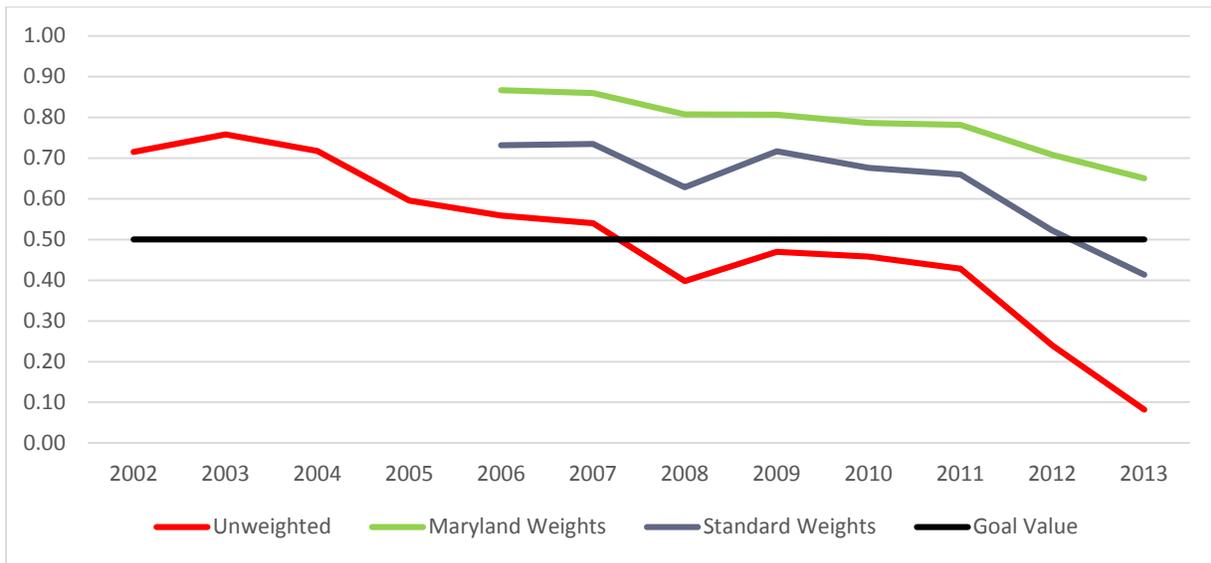


*Lower values indicate greater fiscal neutrality.
Source: Maryland State Department of Education and POA

Figure 1.3 shows that the relationship between **Expenditures** and **Total Local Wealth** is virtually identical to that of **Revenues** and **Total Local Wealth**.

**Figure 1.3: Correlation Between Per Pupil *Expenditures* and Per Pupil *Total Local Wealth*: FY 2002 – FY 2013***
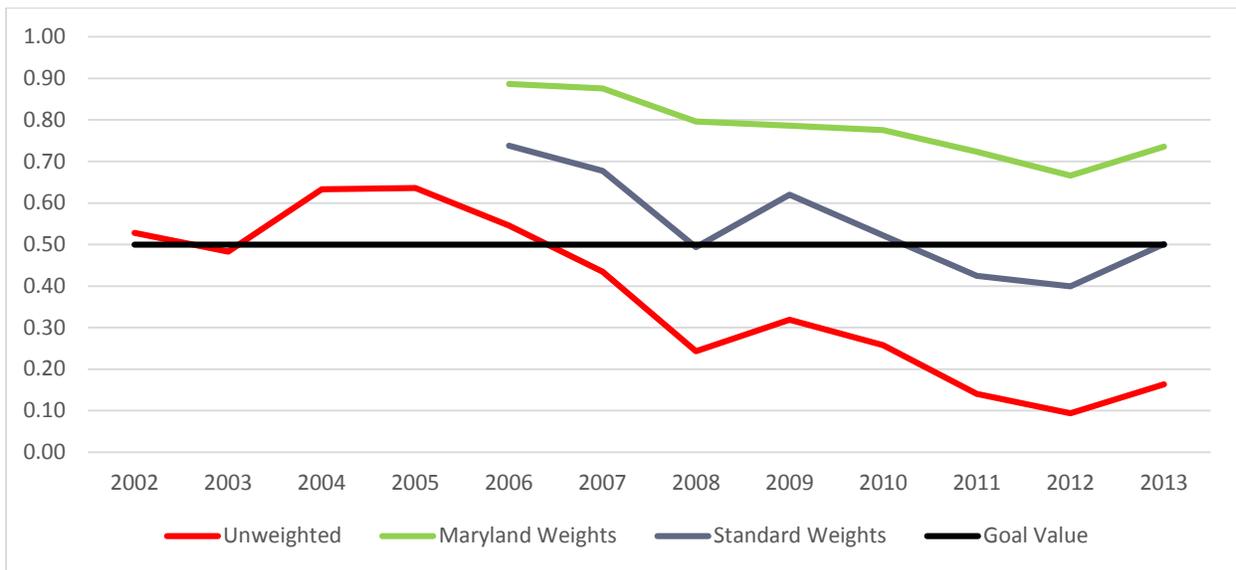


*Lower values indicate greater fiscal neutrality.
Source: Maryland State Department of Education and POA

Two other implications are apparent from the Figures 1.1 through 1.3. First, the impact of weighting for students with special needs leads to an increase in the correlation coefficient. This indicates that the funding provided to students with special needs tends to move the system toward fiscal neutrality.[10] Second, despite the first finding, the fiscal neutrality improved gradually during the years of the study. The exception to the move towards fiscal neutrality over time was the 2013 projections that included federal funding, which may be the result of decreasing federal funding introduced during the Great Recession.

Figures 1.4 through 1.6 show that the relationships remain the same when **Assessed Valuation** only is the measure of wealth. This makes sense because **Total Local Wealth** and **Assessed Valuation** are strongly correlated, with coefficients in the range of 0.98 to 0.99.

**Figure 1.4: Correlation Between Per Pupil *Revenues not Federal* and Per Pupil *Assessed Valuation*: FY 2002 – FY 2013***
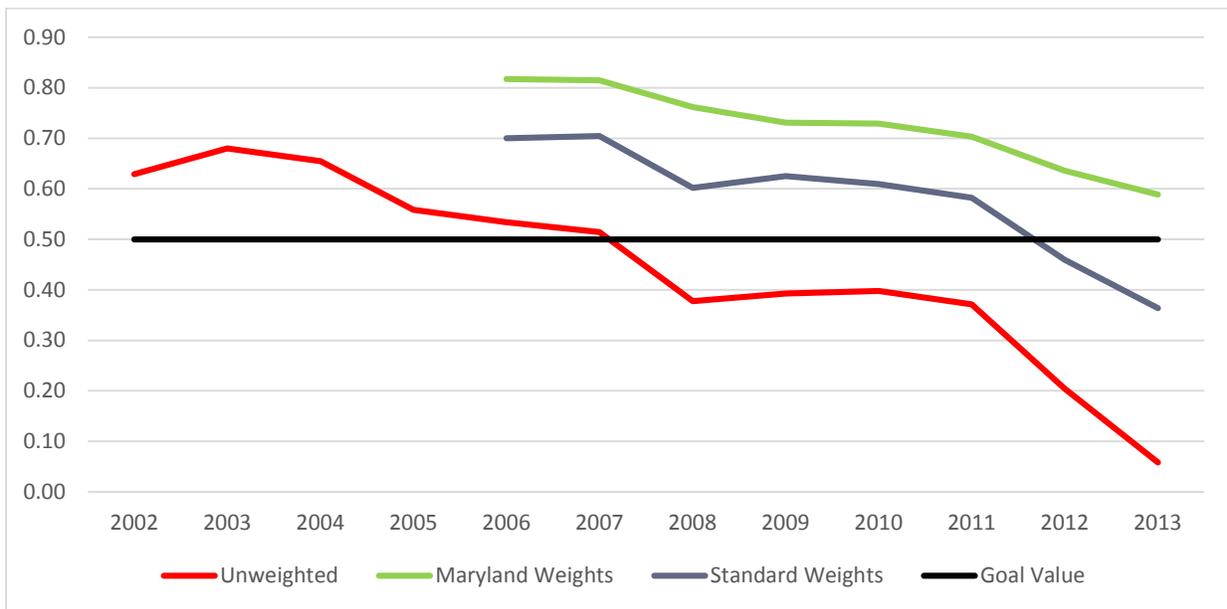


*Lower values indicate greater fiscal neutrality.
Source: Maryland State Department of Education and POA

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[10] This point may seem counter-intuitive at first glance. The funding for all calculations included weighted students in the numerator, which increases funding based on the level of additional education needs of students. The unweighted student counts do not have the weights in the denominator, but the weighted student counts do. The weights in the numerator and denominator essentially cancel, yielding a rough estimate of funding without the weighted funds. Since fiscal neutrality is better for unweighted students, it indicates that the weighted *funding* equalizes overall funding, thereby improving fiscal neutrality.

**Figure 1.5: Correlation Between Per Pupil *Revenues* and Per Pupil *Assessed Valuation*: FY 2002 – FY 2013\***
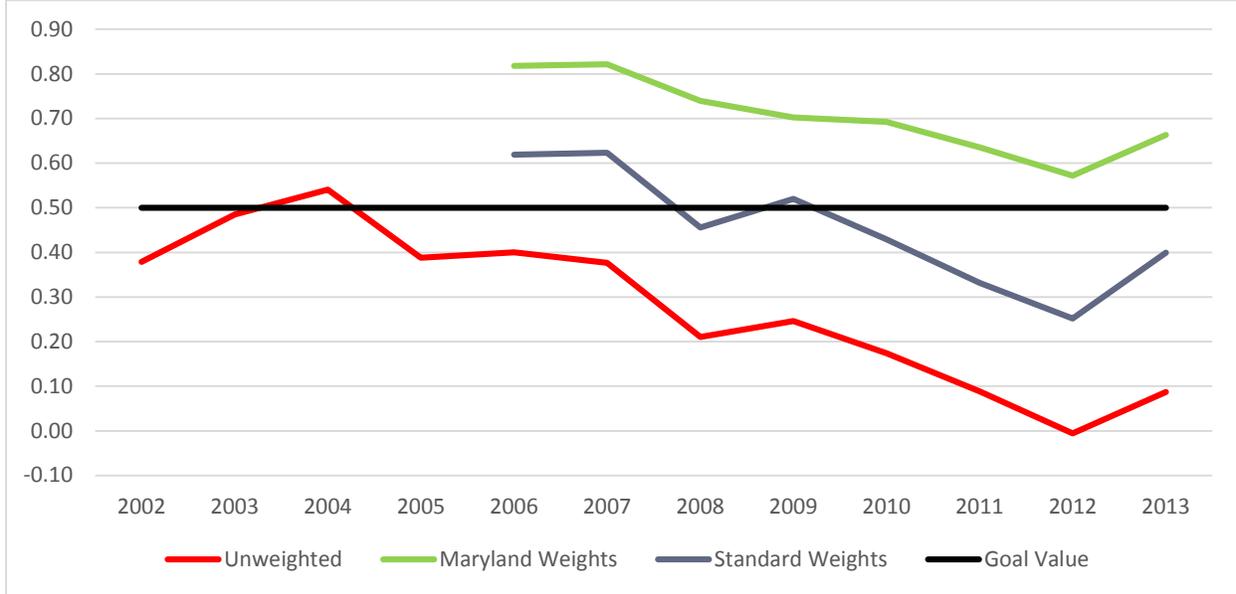


*Lower values indicate greater fiscal neutrality.
Source: Maryland State Department of Education and POA

**Figure 1.6: Correlation Between Per Pupil *Expenditures* and Per Pupil *Assessed Valuation*: FY 2002 – FY 2013\***
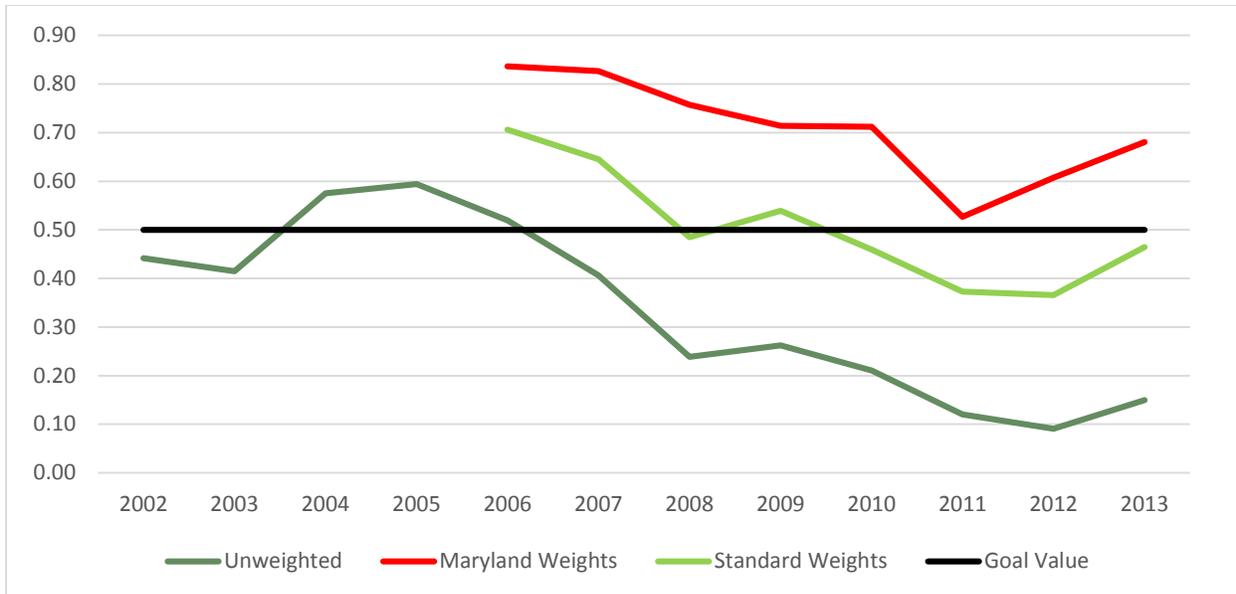


*Lower values indicate greater fiscal neutrality.
Source: Maryland State Department of Education and POA

In summary, the correlation between wealth and revenues and expenditures was at a higher than desirable level in 2002 but improved over the years of the study, moving below the benchmark of 0.50 and towards the desired level of 0.0. The values are consistently closer to fiscal neutrality when students

were unweighted than when they were weighted to indicate greater student need, indicating that additional funding for students with special needs tends to make funding more fiscally neutral and suggesting that the weights may not perfectly represent real costs.

Figures 1.7 through 1.12 display the wealth elasticity of the Maryland school finance system between FY 2002 and FY 2013. The figures set forth the variables in the same order as the corresponding correlation figures.

Using the elasticity benchmark standard of 0.1, Figures 1.7 through 1.12 show that Maryland school funding has high elasticity for all revenue and expenditure measures in the early years covered in this study. The values decreased consistently over time, with the elasticity values falling below the standard except for student counts weighted with the Maryland weights. These results suggest that the elasticity of the Maryland school finance system has improved over time to a generally acceptable level and likely would appear more fiscally neutral if Maryland's formula weights were more in line with weights used in the literature and in other states.

**Figure 1.7: Elasticity of Per Pupil *Revenues not Federal* and Per Pupil *Total Local Wealth*: FY 2002 – FY 2013\***
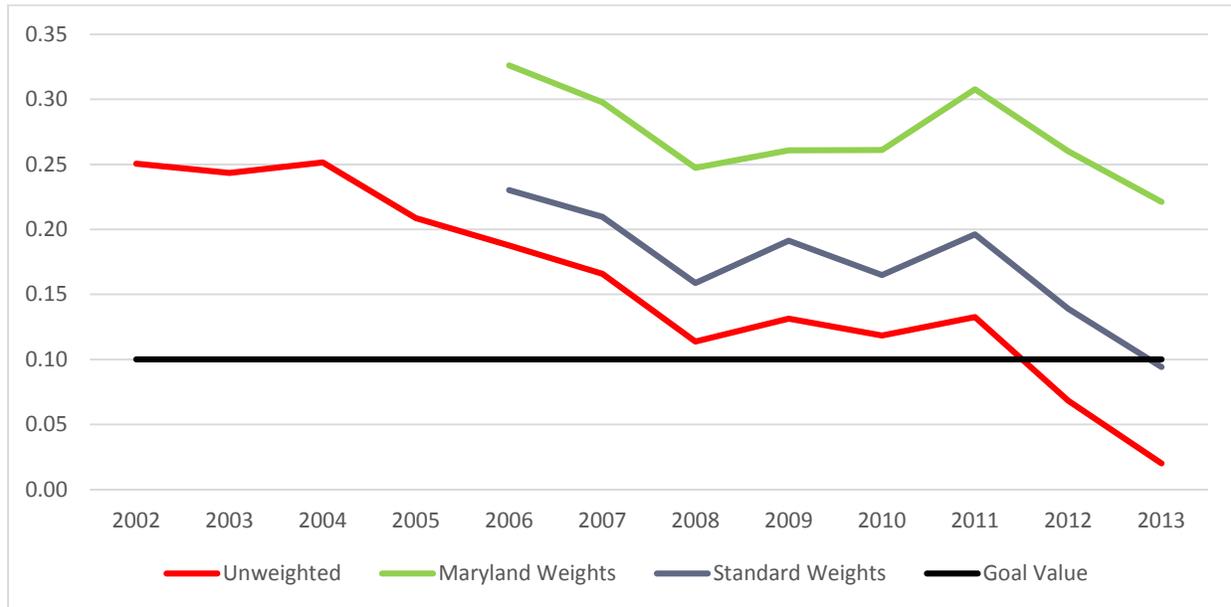


\*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.8: Elasticity of Per Pupil *Revenues* and Per Pupil *Total Local Wealth*: FY 2002 – FY 2013\***
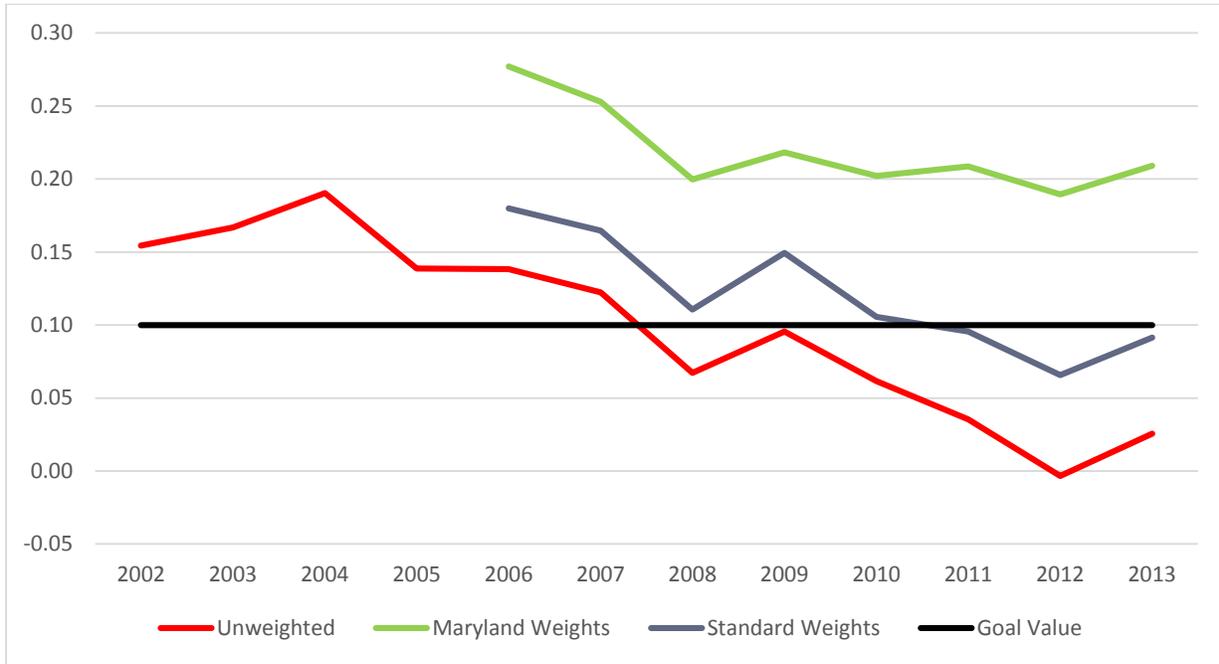


\*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.9: Elasticity of Per Pupil *Expenditures* and Per Pupil *Total Local Wealth*: FY 2002 – FY 2013\***



\*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.10: Elasticity of Per Pupil *Revenues not Federal* and Per Pupil *Assessed Valuation*: FY 2002 – FY 2013\***
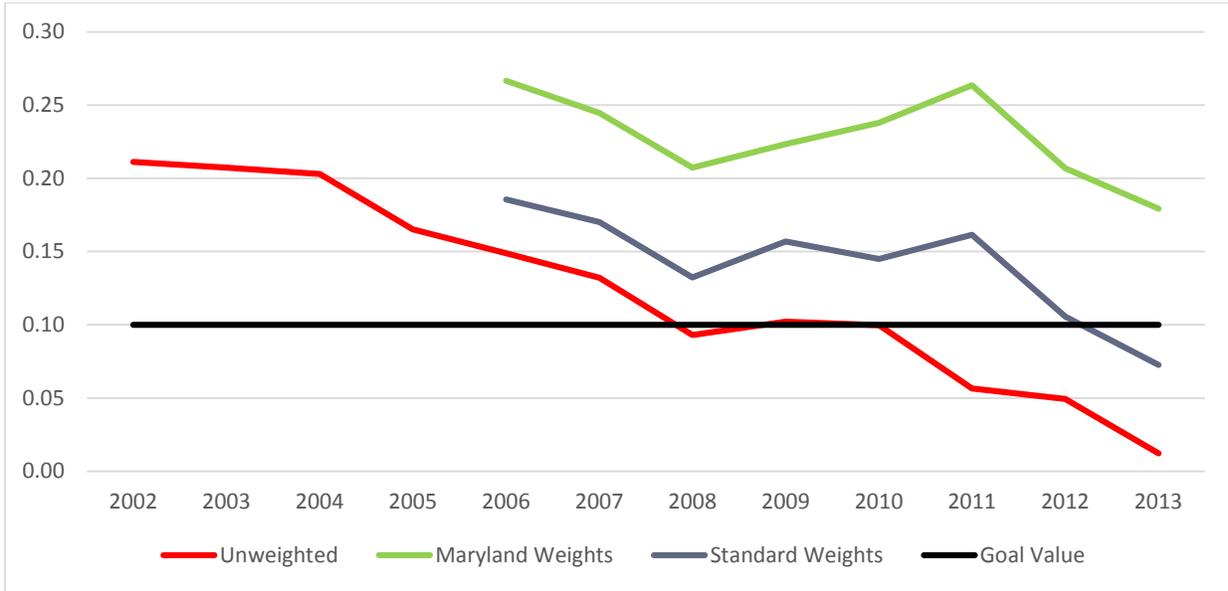


\*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.11: Elasticity of Per Pupil *Revenues* and Per Pupil *Assessed Valuation*: FY 2002 – FY 2013\***
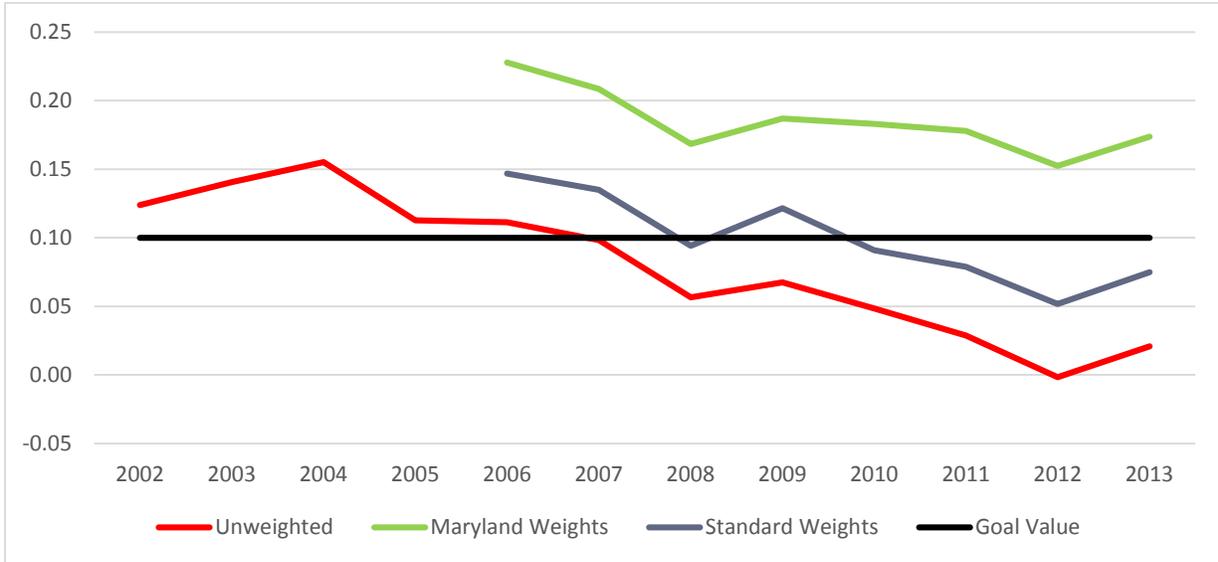


\*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.12: Elasticity of Per Pupil *Expenditures* and Per Pupil *Assessed Valuation*: FY 2002 – FY 2013***
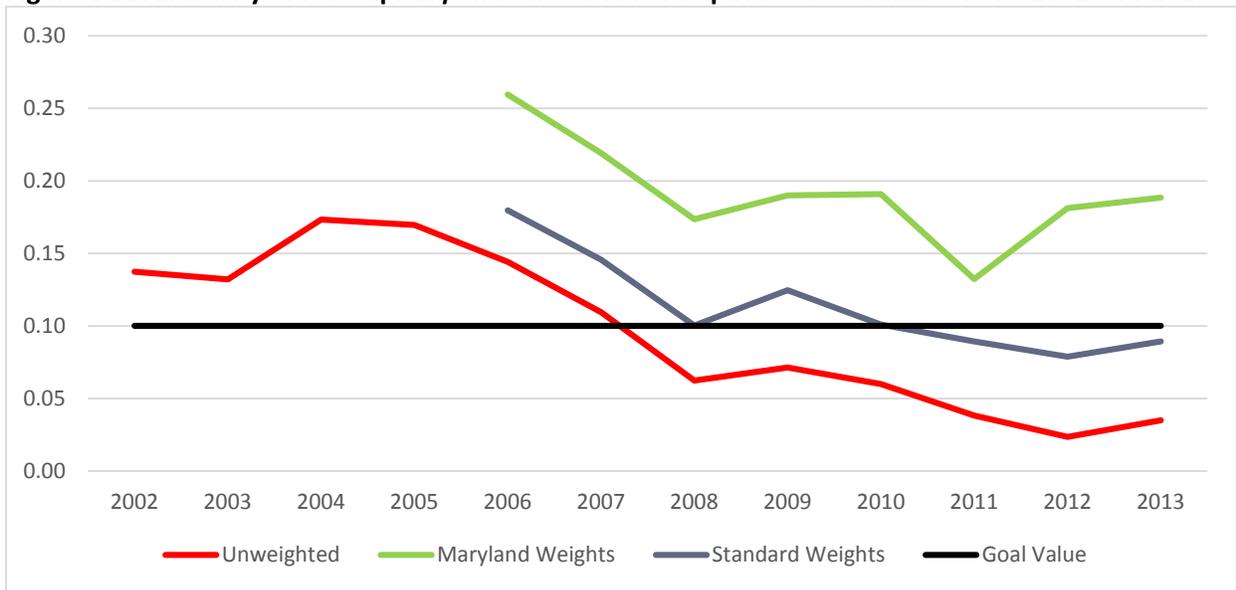


*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

The results of the fiscal neutrality analysis are similar for both correlation and elasticity. Both measures are further from fiscal neutrality than desirable in the early years of the study, but improved over time to meet the standards when students are unweighted or weighted using the standard weights. Both measures are closest to fiscal neutrality when students are unweighted and further from fiscal neutrality when students are weighted using Maryland weights.

In order to better understand the impact of Maryland's weighting system, the study team ranked each school district by per pupil **Revenues not Federal** (1 = lowest per pupil revenues; 24 = highest per pupil revenues), both without student weights and with Maryland student weights, for each year in the study. Figure 1.13 shows the results of these rankings for the four school districts with the most pupils belonging in 2013. As can be seen from the figure, the weighted and unweighted rankings are similar for Baltimore County (generally slightly above average revenues) and Montgomery County (high revenues). In contrast, both Baltimore City and Prince George's County ranked high when students were not weighted, but low when students were weighted. Baltimore City is a very low wealth district (by either measure) and Prince George's County is a below average wealth district, so their Maryland weighted rankings were similar to where they would be ranked by wealth. The results for these two districts explain a good amount of the difference in fiscal neutrality when students are weighted versus when they are unweighted. In effect, the Baltimore City and Prince George's County school districts would receive low levels of state and local revenues if the Maryland weights for students with special needs were not included in the formula, but receive high levels of revenues because of the funding they receive for the large number of high need students they educate.

**Figure 1.13: Ranking of Districts by Per Pupil *Revenues not Federal*: FY 2006 – FY 2013**
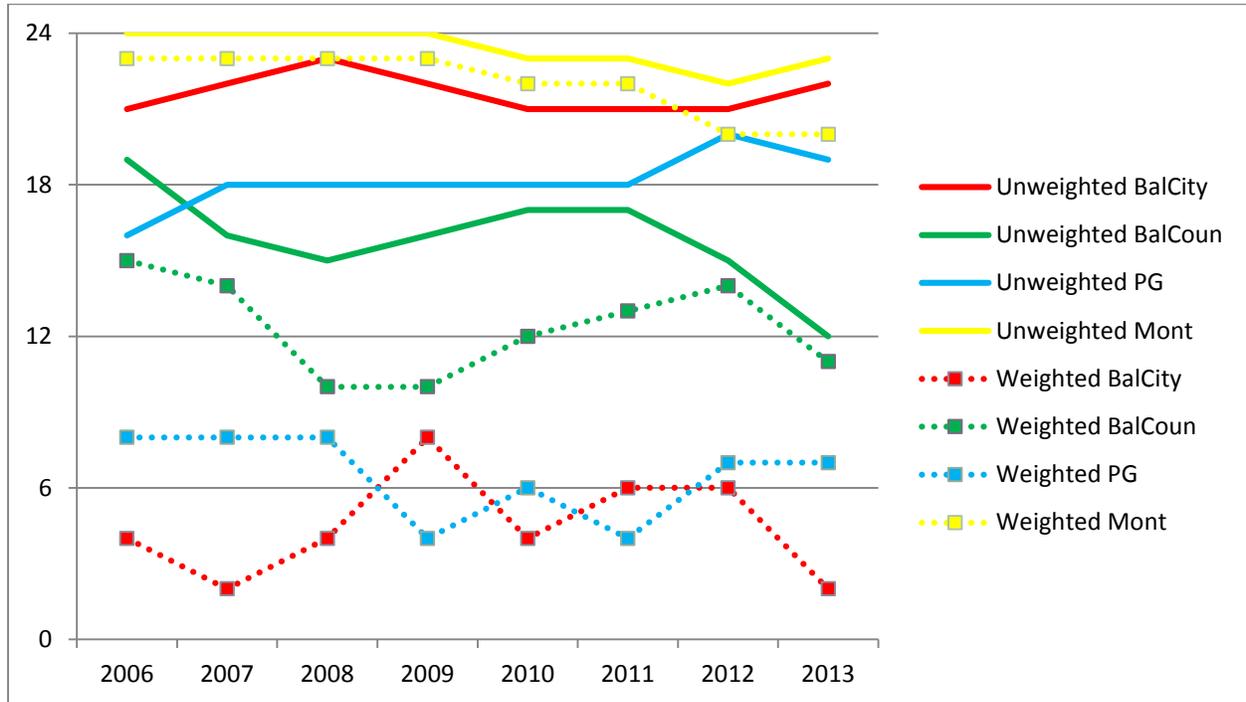


Source: Maryland State Department of Education and POA

## *Revenue and Spending Equality*

In addition to the principle of fiscal neutrality explored in the previous section, a second important equity concept is measuring the equality of per pupil spending across the State's school districts. This section describes findings regarding the equality of spending across Maryland school districts, using both horizontal and vertical equity, as described above. To facilitate the analysis of the equality of spending of the Maryland funding system, three of the equity statistics are displayed below in graphic form: the coefficient of variation (CV), the McLoone Index, and Verstegen Index.

### Measures of Revenue/Expenditure Equality

This section of the equity analysis provides assessments of revenue and expenditure equality.

*Coefficient of variation:* Figures 1.14 through 1.16 display the coefficient of variation for each of the outcome variables for unweighted and weighted student counts from FY 2002 to FY 2013, respectively. As discussed earlier, Odden and Picus[11] suggest a benchmark of 0.10 for assessing the revenue equality of a state's school finance system, with values of 0.10 or below indicating a high level of equity. Each of the figures shows similar results to the fiscal neutrality figures, above. The CV in Maryland is slightly above the standard in the early years of the study but improves over time. Maryland's funding system eventually meets the 0.10 standard for all three outcome variables when students are unweighted or weighted using standard weights, but is slightly above the standard when Maryland weights are used.

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[11] Odden and Picus, 2014.

An interesting point to note is the CV generally is lower when students are standard weighted, rather than unweighted. This point will be discussed further later in this section.

**Figure 1.14: Coefficient of Variation for Per Pupil *Revenues not Federal* Revenues: FY 2002 – FY 2013\***
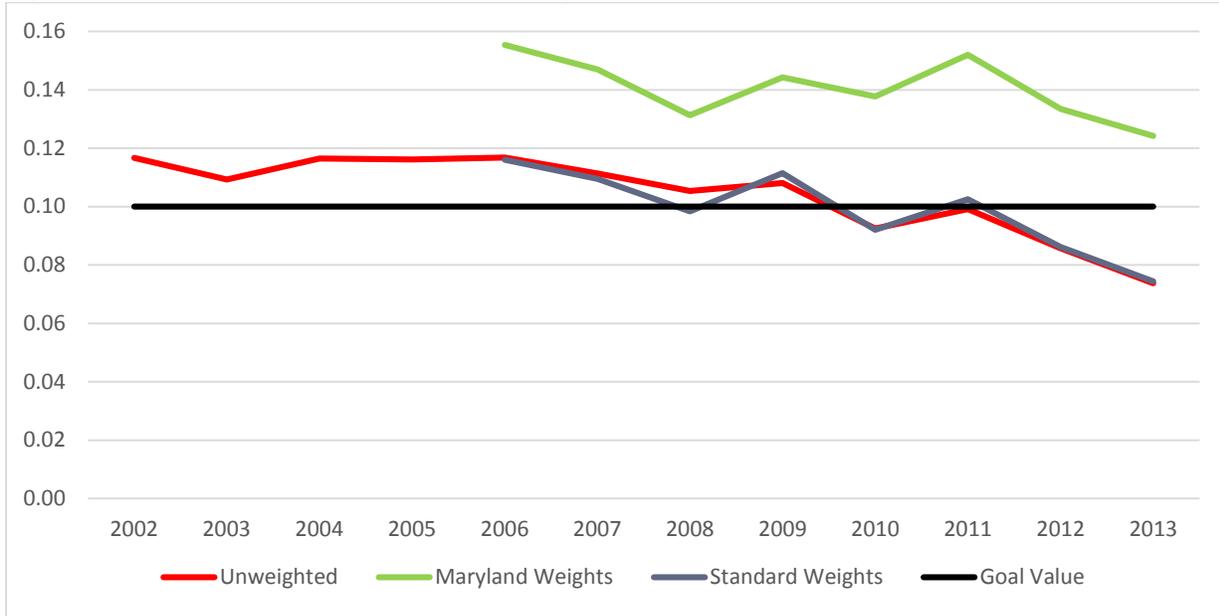


*A coefficient of variation of less than 0.10 is preferred.

Source: Maryland State Department of Education and POA

**Figure 1.15: Coefficient of Variation for Per Pupil Revenues: FY 2002 – FY 2013\***
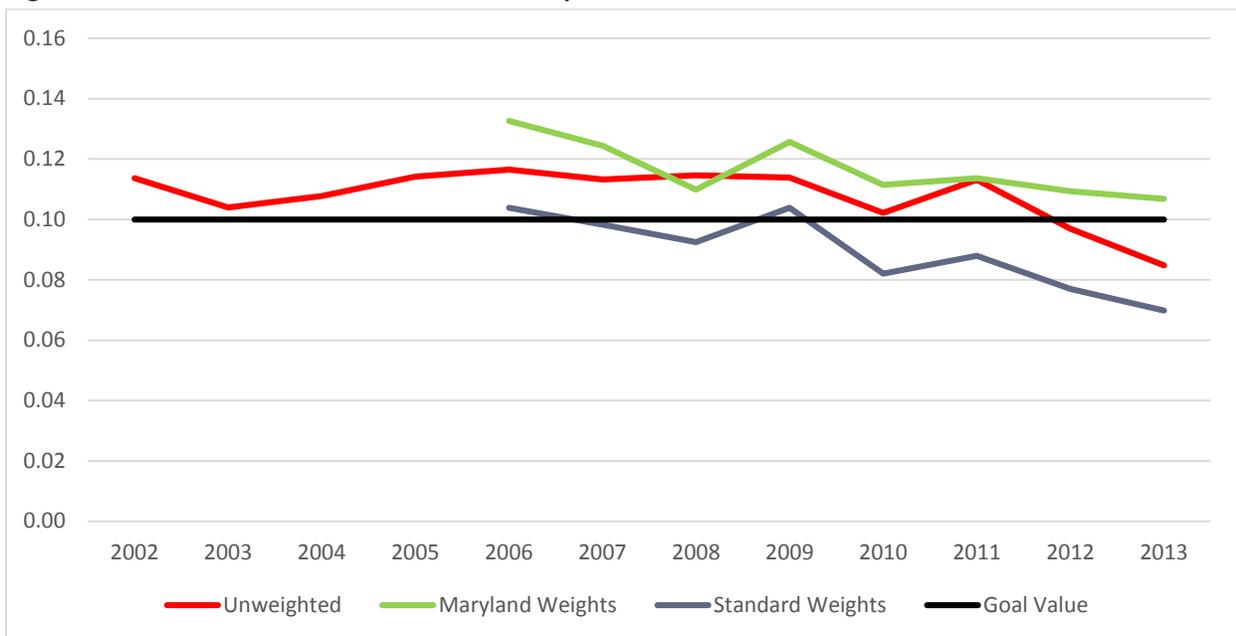


*An elasticity value of less than 0.10 is preferred.

Source: Maryland State Department of Education and POA

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**Figure 1.16: Coefficient of Variation for Per Pupil Expenditures: FY 2002 – FY 2013\***
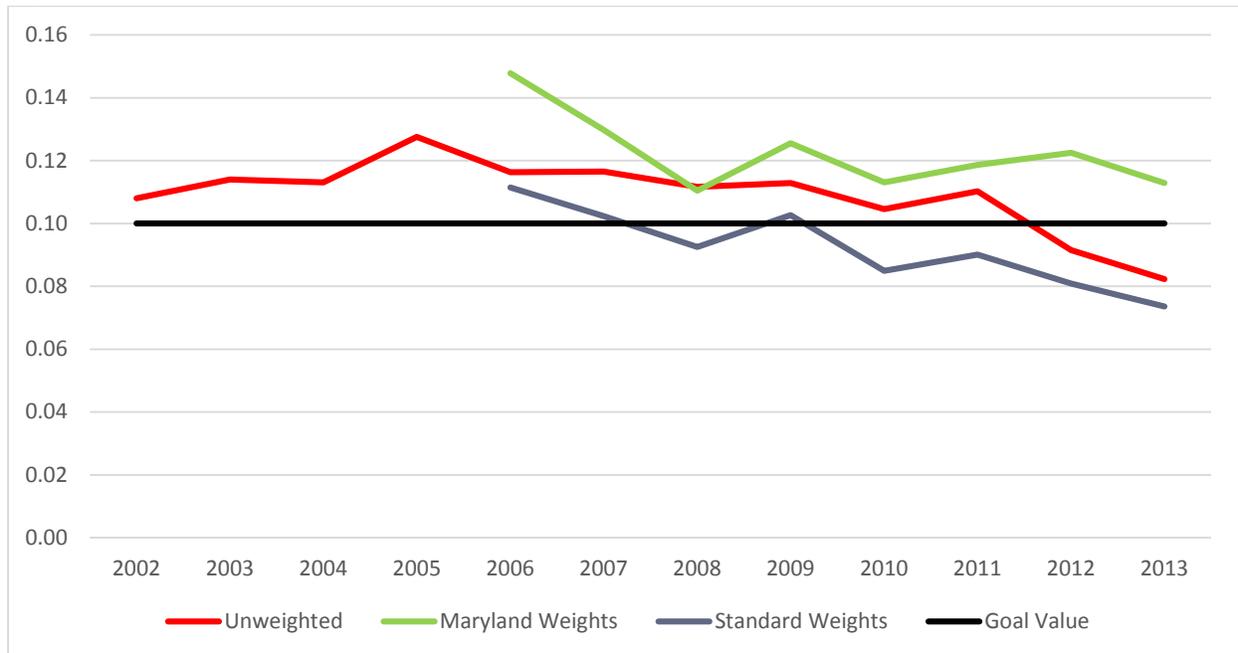


*An elasticity value of less than 0.10 is preferred.
Source: Maryland State Department of Education and POA

## *McLoone Index*

Figures 1.17 through 1.19 display the values of the McLoone Index for FY 2002 through FY 2013. Odden and Picus[12] suggest a benchmark of 0.95 (1.00 being ideal) for the McLoone Index. The higher the value of the McLoone Index, the greater equity exists among districts in the bottom half of the revenue distribution.

Figures 1.17 through 1.19 show similar results for each of the three outcome variables, but the results differ depending on the student weights. The McLoone Index for unweighted students starts below the standard in 2002, rises above it briefly, then dips below the standard in more recent years. When students are weighted using standard weights, the Maryland school finance system is almost always above the McLoone benchmark of 0.95. When Maryland weights are used, the McLoone Index initially is well below the standard of 0.95 in 2002, but rises over time to be close to or above the standard by 2013. The interesting result of the McLoone Index analysis is that inequities in the bottom half of the distribution increase over time when considering unweighted students, decrease (improve) when considering Maryland weights, and generally meet the standard across the study when standard weights are used.

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[12] Odden and Picus, 2014.

**Figure 1.17: McLoone Index for Per Pupil *Revenues not Federal* Revenues: FY 2002 – FY 2013***
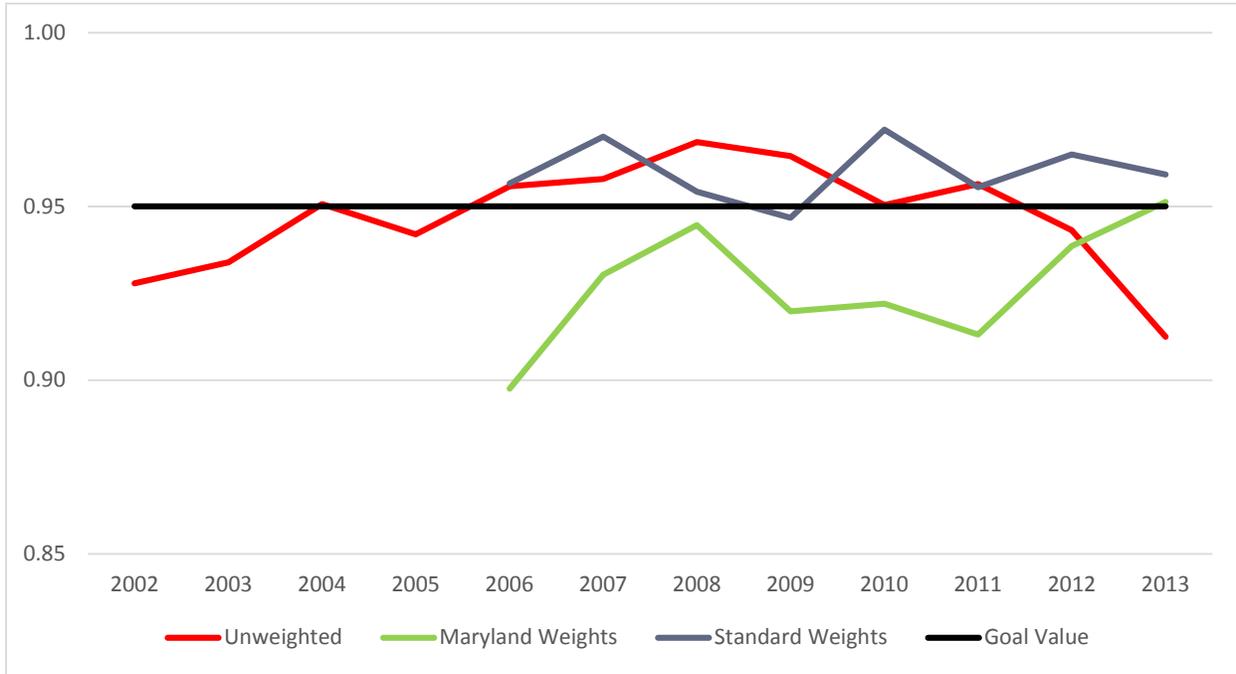


*A McLoone Index of greater than 0.95 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.18: McLoone Index for Per Pupil Revenues: FY 2002 – FY 2013***
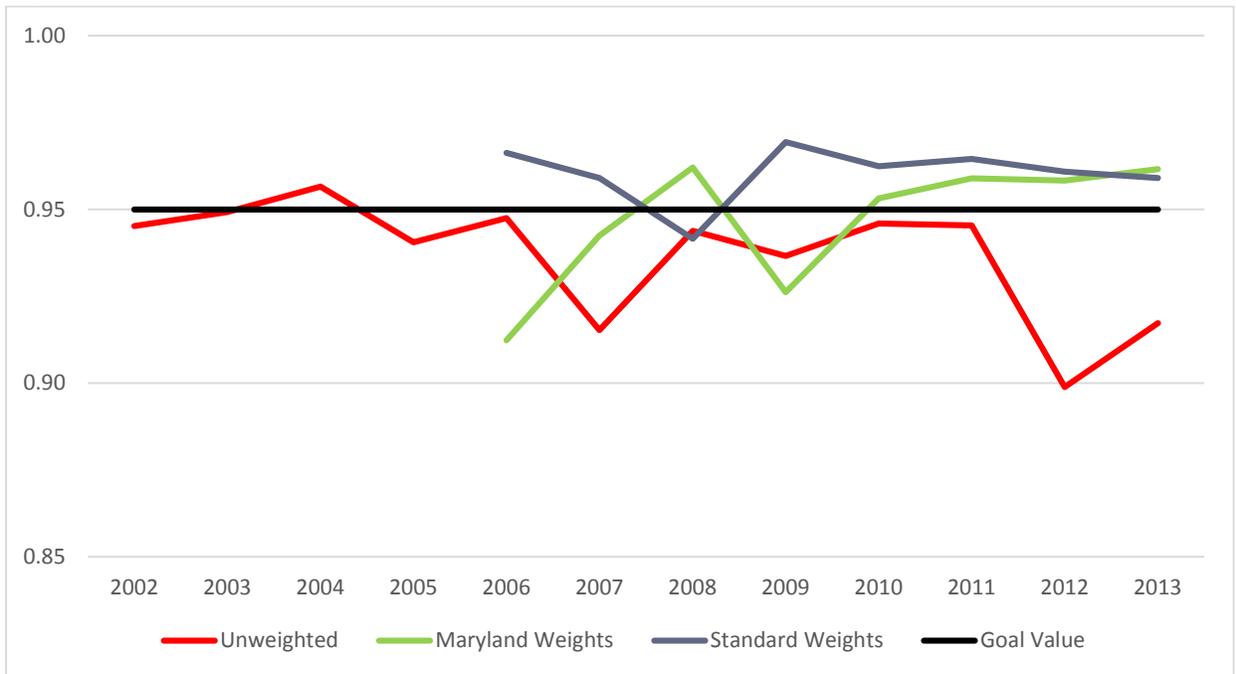


*A McLoone Index of greater than 0.95 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.19: McLoone Index for Per Pupil Expenditures: FY 2002 – FY 2013\***
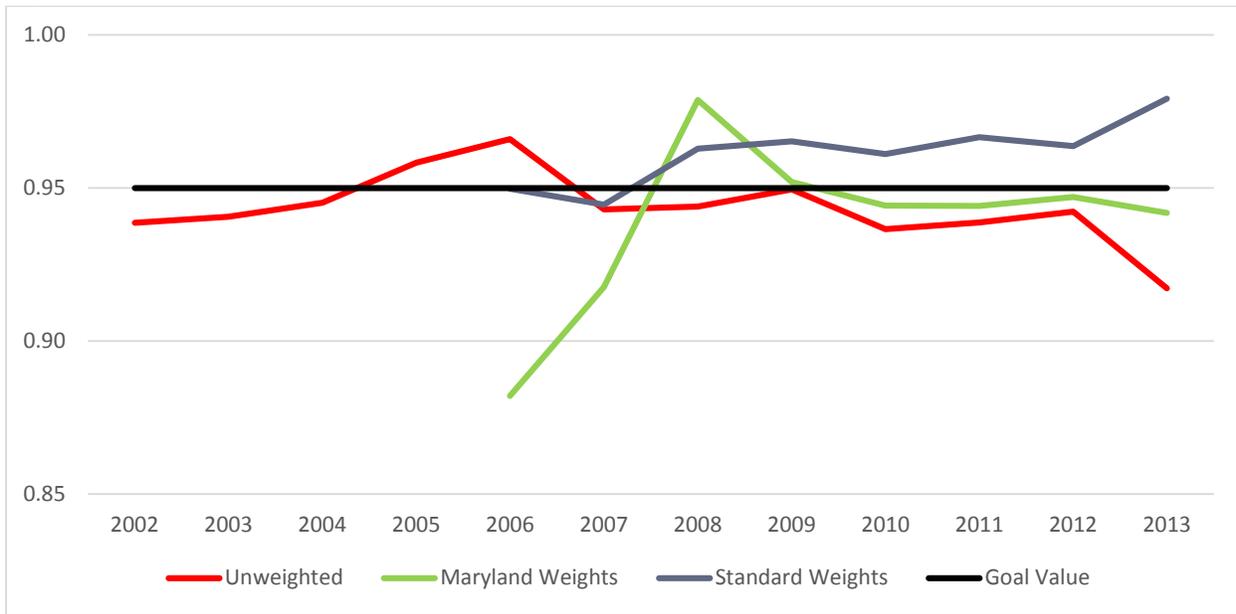


*A McLoone Index of greater than 0.95 is preferred.
Source: Maryland State Department of Education and POA

### *Verstegen Index*

Figures 1.20 through 1.22 display the values of the Verstegen Index for each year of the analysis. Odden and Picus[13] suggest a benchmark of 1.05 (1.00 being ideal) for the Verstegen Index, which would indicate substantial equity across districts in the top half of the revenue distribution. Figures 1.20 through 1.22 show that the Maryland school finance system rarely meets this benchmark. However, the values for both unweighted students and Standard weighted students improve over time and approach the standard in the later years of the study. The values for Maryland weighted students remain relatively constant over time at the highest or most inequitable Verstegen Index value.

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[13] Odden and Picus, 2014.

**Figure 1.20: Verstegen Index for Per Pupil *Revenues not Federal* Revenues: FY 2002 – FY 2013**
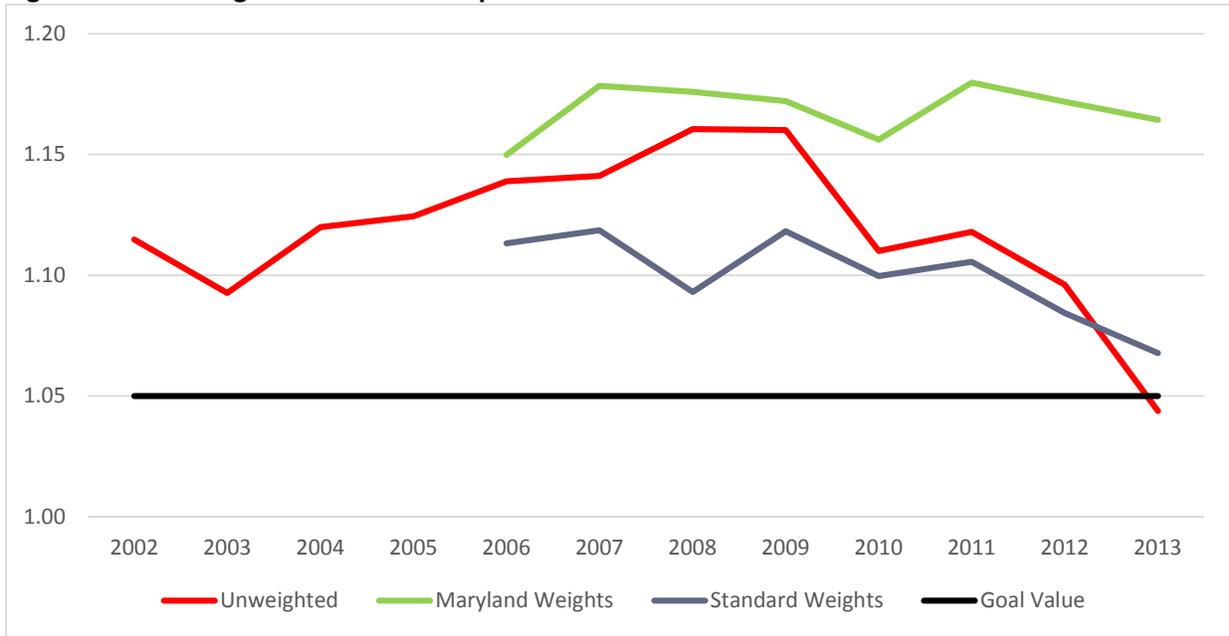


*A Verstegen Index of less than 1.05 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.21: Verstegen Index for Per Pupil Revenues: FY 2002 – FY 2013**
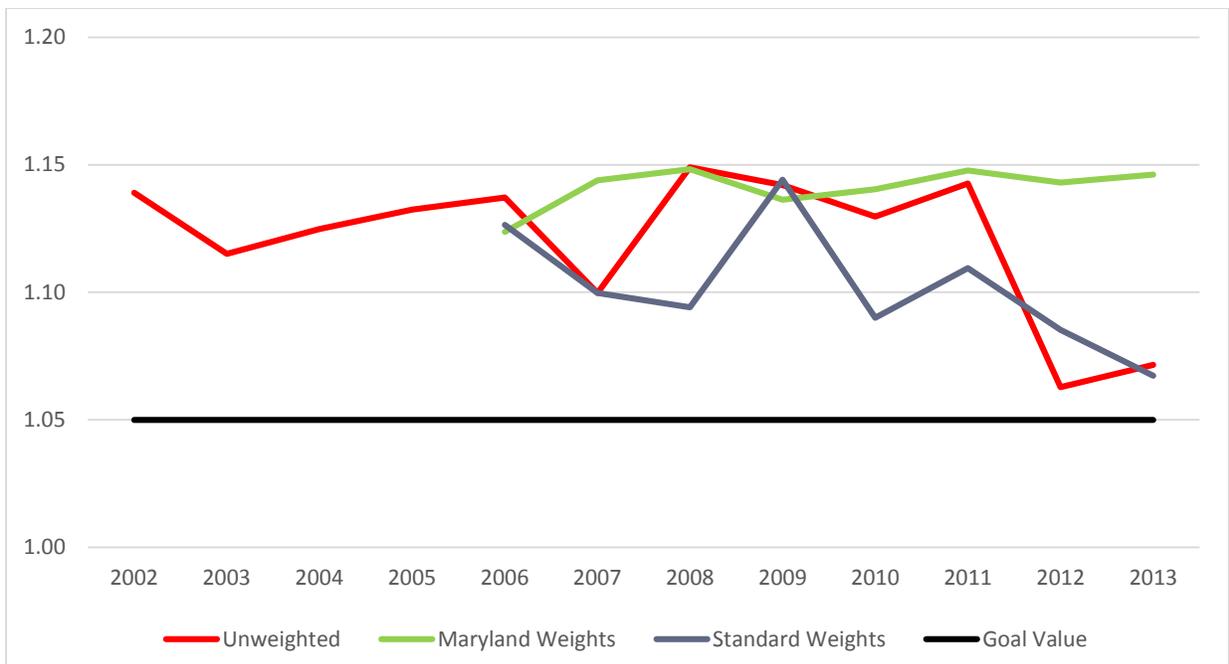


*A Verstegen Index of less than 1.05 is preferred.
Source: Maryland State Department of Education and POA

**Figure 1.22: Verstegen Index for Per Pupil Expenditures: FY 2002 – FY 2013\***
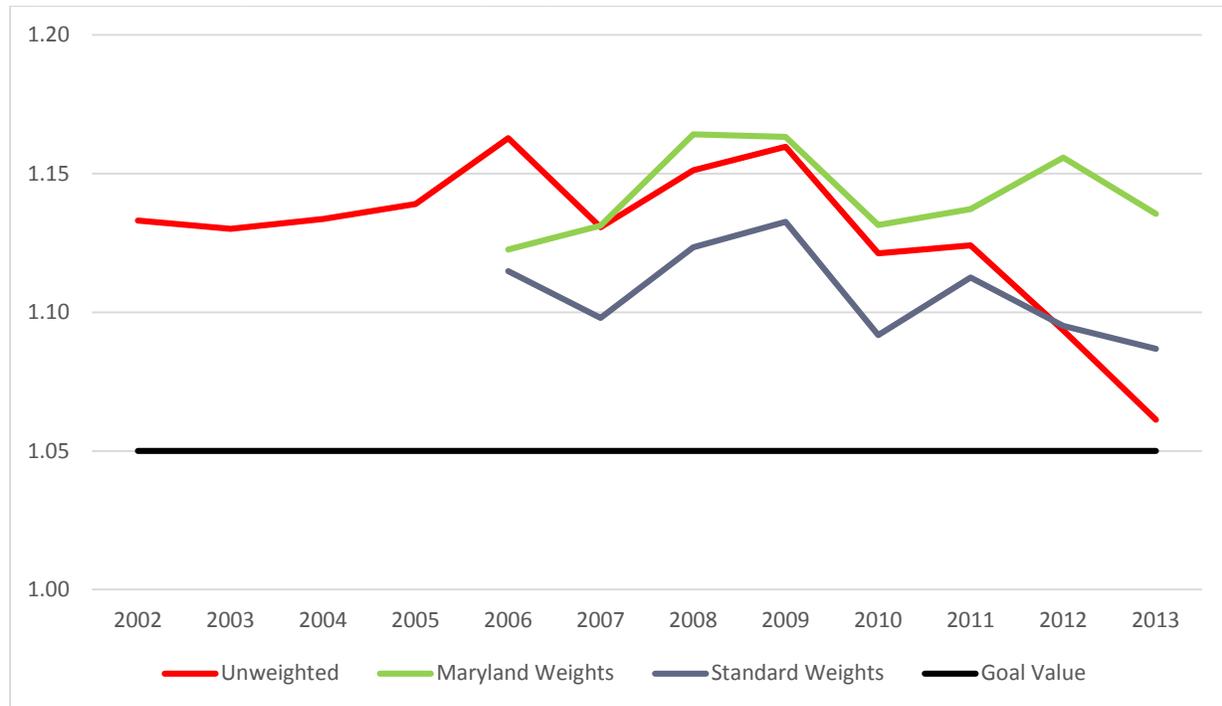


\*A Verstegen Index of less than 1.05 is preferred.
Source: Maryland State Department of Education and POA

A comparison of Figures 1.17 through 1.22 shows that the inequities that exist in per pupil revenues are similar for both types of revenues and for expenditures, but differ based on student weighting. For unweighted students, the inequities were greater in the top half of the distribution around 2002, but the inequities shifted over time to be more pronounced in the lower half of the distribution.

For Maryland weighted students, the inequities are found in both halves of the distribution around 2006, though inequity was slightly higher in the upper half. Over time, the level of equity in the lower half of the distribution improved markedly, while the inequities in the upper half of the distribution remained roughly constant. This change means that when considering Maryland weighted students, the majority of the inequities are found in the upper half of the distribution – in the higher revenue and expenditure per pupil districts – in the most recent years of the study.

For Standard weighted students, the results are essentially the opposite of those for Maryland weighted students. The bottom half of the distribution meets the equity standard throughout the years of the study, while the upper half improves to nearly meet the standard by 2013. Therefore, in the early years of the study, around 2006, the majority of the inequities are found in the upper half of the distribution, but the inequities are reduced and distributed more evenly in the more recent years of the study.

Overall, Figures 1.14 through 1.22 suggest that the Maryland school funding system comes quite close to meeting the spending equality benchmarks suggested by Odden and Picus.[14] The system was slightly stronger in terms of vertical equity than horizontal equity when Standard student weights were used,

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[14] Odden and Picus, 2014.

demonstrated by the facts that the CV was similar, though slightly lower, for Standard weighted students than for unweighted students; the McLoone Index was closer to 1.0 for Standard weighted students, especially in the last years of the study; and the Verstegen Index was similar for the two types of students. The equity results are worst when student counts used Maryland weights.

## *Summary*

Overall, two patterns consistently emerge from the equity analysis of the Maryland school funding system. First, the system's fiscal neutrality and revenue and expenditure equality improved over time and eventually met (or very nearly met) all of the strict benchmarks established by Odden and Picus,[15] especially when considering vertical equity using standard weights for students. There was less improvement when considering vertical equity using Maryland's existing weights. The equity results are consistent using multiple measures of both fiscal capacity (total **Local Wealth** and **Assessed Valuation**) and equity objects (**Revenues not Federal**; **Revenues**; and **Expenditures**).

The second important pattern relates to similarities and differences in the results of the fiscal neutrality and equity analyses. The key similarities are the generally improving results over time, the similarity of outcomes across the various equity objects, and the generally worse results when counting students using Maryland weights. The level of vertical equity resulting from additional funding generated by the weights for special needs students will depend on the adequacy and magnitude of the weights used. This explains the different equity results found when using student counts based on more standard weights and the existing Maryland weights. The key difference is the fact that the system is more fiscally neutral when not weighting students, but more equitable when weighting students using standard weights.

Though the equity of the Maryland school funding system improves over time and performs reasonably equitably in the most recent years, the results are obtained by an unusual process, which merits further discussion. The Maryland weights differ greatly from the standard weights and provide substantial additional funding to districts with high numbers of students with special needs. When this funding for students with special needs is provided to the districts, the system is more equitable.

The analysis using Maryland weights counts higher need students as greater than one student, which essentially removes the impact of the weights and shows what funding would be like without the weights (because in this calculation per pupil revenues are both multiplied and divided by the Maryland weighted pupil counts). The results including Maryland weights prove to be the least fiscally neutral and the least equitable.

Putting these results together, the Maryland school finance system started from an inequitable base in 2002, in which low wealth districts with high numbers of students with special needs received relatively low levels of funding. The use of very high weights directed funding to those districts, which led to the system being relatively equitable when considering horizontal equity and vertical equity using standard student weights. The results ended up being reasonably equitable, but this type of system makes it difficult to make logical improvements to the system. Instead of the funding methods used, it would be preferable to start from an equitable base and then provide additional funding for students with special needs in a more systematic manner.

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[15] Ibid.

The final point regarding what the study team has referred to as the difficulty in making logical improvements to the system will be easier to understand after the adequacy study has been completed next year. Nevertheless, the study team will explain the issues in order to provide transparency. In an ideal funding system, each school district would receive a base amount of per pupil funding equal to the amount the district needs to provide an adequate education to the "typical" child. Horizontal equity would be very strong with regard to the base amount because the adequacy amount would be substantially the same across the state. In addition to the base amount, each district would receive additional funding based on the amount of additional resources needed to educate children who research shows are more costly to educate. Essentially, these children fall in the categories of children for whom Maryland provides weighted funding.

In Maryland, there does not appear to be a consistent base level of funding across the state nor does the base level in any district necessarily relate to the adequacy amount. Districts with higher wealth may provide a larger local contribution at a lower tax effort than lower wealth districts, potentially leading to inequities. In addition, the Maryland weights are much different than the weights suggested by many research studies and districts are not required to provide a local match to the state aid generated by the formulas for students with special needs (although the state provides an incentive for lower wealth districts to increase their local effort through the Guaranteed Tax Base aid program).[16] It is the opinion of the study team that it would be easier to make adjustments to the type of system presented in the previous paragraph than to Maryland's current system.

The preceding point should not overly detract from the primary finding that the Maryland funding system became far more equitable over the period of time covered by this study. That result is very commendable and the state deserves credit for the improvement.

## Summary of Results

The equity analysis focuses on three main issues: the extent to which education revenues are related to measures of district fiscal capacity, the equality of education revenues and expenditures per pupil across districts, and the extent to which differences in education funding relate to the number of special needs students. The analysis shows that there is a relationship between wealth and funding in Maryland, but that the relationship has decreased over time. Thus, the system became more fiscally neutral over the years covered by the study.

The equality of revenues in Maryland generally improved over the years covered in the study, with the exception that unweighted spending became less equitable in the lower half of the funding distribution. Moreover, the inequities in the system are somewhat related to student needs. The vertical equity of funding in the Maryland school funding system (using standard weights) is slightly better than the horizontal equity.

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[16] State aid for students with special needs is determined by the following general formula: (the appropriate student weight x foundation amount x 50% [average state share] x number of eligible pupils) / (local wealth per pupil / statewide wealth per pupil). Districts with lower than average wealth per pupil receive a larger share of the revenue through state aid but there is no requirement that the local jurisdiction (counties and the City of Baltimore) provide the remaining local share.

# Chapter 2: Wealth Measures and Property Tax Issues

## Introduction

This chapter addresses the issue of how a district's wealth is measured for school funding purposes. There are six sections to this chapter. The first describes how Maryland's current funding system defines a district's fiscal capacity, with the largest single component being property wealth. Consequently, the second section considers how Maryland assesses district property wealth, discusses the frequency with which property values are reassessed, and describes the impact of the timing of reassessment on school district revenues. The third section addresses issues of property tax exemptions for economic development. The fourth section reviews taxable income, describing how it can be included in measures of fiscal capacity, the best approach to doing so, and how other states use income in the measure of school district fiscal capacity. Maryland currently uses a measure of net taxable income in the measure of fiscal capacity and measures district income at two points in time. Section five describes the potential impact of using only one of the two income measures in the funding formula. Section six concludes with a description of how several states within Maryland's geographic region handle these issues related to measuring district fiscal capacity.

In preparing this paper, the study team studied Maryland's current and past school funding policies, as well as relevant data from national and state educational organizations and various peer reviewed academic sources. The study team also considered the approaches used in other states for similar school finance issues.

## Maryland's Current Approach to School District Fiscal Capacity

In the 2014-15 fiscal year, approximately 75 percent of state aid to public schools in Maryland was distributed to districts based on their fiscal capacity.[17] The state uses four factors in determining a district's fiscal capacity:

1. Personal property, including railroad and utility operating personal property as well as business personal property;
2. Real property, including all current property as well as new construction;
3. Railroad operating real property; and
4. Income, defined in statute as net taxable income (NTI) based on tax returns filed on or before September $1^{St}$ and November $1^{st}$.

Maryland then employs the following formula to determine a district's relative fiscal capacity:
(Total personal property x 50 percent) + (Total real property values x 40 percent) + (100 percent of public utilities' assessable base) + (100 percent of net taxable income) = total district fiscal capacity.

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[17] Maryland State Department of Education, "Aid to Education," page 25. Accessed on the web August 1, 2015: http://mgaleg.maryland.gov/pubs/budgetfiscal/2015fy-budget-docs-operating-R00A02-MSDE-Aid-to-Education.pdf

A district's total wealth is then divided by its "full-time equivalent enrollment" to arrive at its per pupil fiscal capacity or wealth for the purposes of the school finance formula.

The following sections describe various components of these measures and how changes in each affect the distribution of state and local resources to Maryland's 24 school districts.

## Maryland Property Value Assessment

Property taxes are a core component of a school district's funding. Equalizing district fiscal capacity is important to ensure taxpayers have equal levels of funding for equal tax efforts. The first step in equalizing the fiscal capacity of school districts is accurately measuring the property wealth of each district. This section reviews Maryland's current calculations of property values in its school funding formula and frequency of assessing and reassessing property. The report then contrasts Maryland's policies with other states' assessment and tax policies to consider possible alternative methods for calculating a school district's property wealth.

Because state funding to school districts in any given year is finite, any component in school funding formulas, such as property assessment and reassessment, that benefits one group of districts will almost always negatively impact other districts. Less frequent reassessment benefits school districts with property value increases above the state average, while annual reassessment favors districts whose property values grow at a rate slower than the state average.

Table 2.1 provides an example of two hypothetical school districts, both of which have $20 million in total taxable property values. District "A" is in a high growth section of the state where property values increase at an annual rate of ten percent, whereas district "B" is in a section of the state where property values only increase at a rate of one percent annually. If the state reassessed property on an annual basis, after just one year, district B's property values would be $1.8 million (8.2 percent) lower than district A's. With lower property values, district B would be deemed to have less fiscal capacity and receive a higher amount of state funding than district A. However, if the state only reassessed property every five years, then for that five year period district A and B would be deemed to have the same property values and would receive the same proportion of funding from the state.

**Table 2.1: Property Reassessment Example**

|  | School District "A" | School District "B" | Difference In Value |
|---|---|---|---|
| **Annual Growth Rate** | 10% | 1% |  |
| **Property Value – Year 1** | $20,000,000 | $20,000,000 | $0 |
| **Property Value - Year 2** | $22,000,000 | $20,200,000 | $1,800,000 |
| **Property Value - Year 3** | $24,200,000 | $20,402,000 | $3,798,000 |
| **Property Value - Year 4** | $26,620,000 | $20,606,020 | $6,013,980 |
| **Property Value - Year 5** | $29,282,000 | $20,812,080 | $8,469,920 |

Source: POA

## *How Other States Reassess Property*

A 2013 study by the Lincoln Institute of Land Policy[18] reviewed all fifty states' policies on property reassessment and found that while most states reassess on an annual basis, policies on the frequency of reassessment can vary fairly dramatically. This is shown in Table 2.2, which indicates how many states have each assessment schedule. Three states (Alabama, Delaware, and New York) have no fixed schedule for property reassessment. In Delaware, there are some districts that have not reassessed their property for over 30 years. For a more detailed description of state reassessment policies see Appendix B.

**Table 2.2: State Property Reassessment Policies**

| Reassessment Period | Number of States |
|---|---|
| Annually | 18 |
| Every Two Years | 3 |
| Every Three Years | 2 |
| Every Four Years | 3 |
| Every Five Years | 5 |
| Every Six Years | 2 |
| At Least Every Four Years | 1 |
| At Least Every Five Years | 3 |
| At Least Every Six Years | 1 |
| At Least Every Eight Years | 1 |
| Varies | 7 |
| No Fixed Schedule | 3 |
| When there is a change in ownership | 1 |

Source: Lincoln Institute of Land Policy

The challenge with annual reassessment of property is that the process is very expensive, yet as Table 2.1 shows, less frequent reassessment of property has important distributional effects. The study team's recommendation is for Maryland to continue to reassess property on a relatively frequent timeline of three years or less to ensure taxable property values most closely match the actual market value of property.

## Policies That Impact Property Wealth

This section of the paper addresses taxation policies, including tax increment financing, and how they can impact the state's school funding formula.

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[18] *Significant Features of the Property Tax.* Lincoln Institute of Land Policy and George Washington Institute of Public Policy. Accessed on August 20, 2015: http://www.lincolninst.edu/subcenters/significant-features-property-tax/Report_State_Summaries.aspx

## Current Maryland Practices

Approximately 75 percent of Maryland's school funding is distributed to school districts based on their relative wealth. As stated above, Maryland's school funding formula counts district real and personal property wealth as about two-thirds of district fiscal capacity, reassessed every three years. Thus, state policy decisions on how property wealth is calculated can produce large financial impacts on school districts. Currently, all school districts in the state are dependent on their county, or in the case of Baltimore City school district, on their city, for their local revenue. This means that measurement of the fiscal capacity of a district is actually a measurement of the fiscal capacity of the county or city on which the district is dependent for its local revenue. The state uses both real and personal property when calculating a district's fiscal capacity, but real property accounts for about 65 percent of a district's relative wealth while personal property accounts for only about 2.6 percent. The state requires local taxing authorities to reassess real property every three years. Property is assessed based on an estimate of the current market value of the property as determined by the Maryland Department of Assessment and Taxation.

State law exempts certain types of property owned by religious, fraternal or educational organizations from local property taxes. In addition, property that is owned by the local, state and federal governments is also exempted from the local property tax base. These exempted property values are not used when calculating a school district's property wealth. However, private property that has been exempted in whole or in part by a local taxing authority through the use of a program such as Tax-Increment Financing (TIF) or payment-in-lieu-of-taxes (PILOT) is still counted towards a district's property wealth even though it does not generate school district revenues at the same rate as if it were fully taxed. The decision to count exempted property in the state's wealth calculation has impacted the local revenue available to school districts in the state. For example, It has been estimated that the Baltimore City school district lost millions of dollars in school funding for the 2015-16 school year because the State's policy to count exempted private property in the calculation of a district's wealth.[19]

The next portion of this section of the paper contextualizes Maryland's practice of determining local district property wealth with other state's policies on measuring property wealth when determining a district's fiscal capacity. As background, it first discusses dependent versus independent school districts, then the issue of tax increment financing and the impact on the measure of property wealth.

## Financially Dependent vs. Independent School Districts

There are two types of school districts in this country: independent districts that have the ability to raise their own revenue through local taxation and dependent districts that must rely on another entity for their local revenue. Most dependent districts rely on their county or city for local revenue, but some districts are dependent on their state or even on other school districts to raise local revenue for them. According to the United States Census, nearly 90 percent of the just over 14,000 school districts[20] in this country during the 2012-13 school year had independent taxing authority. Maryland, along with Alaska, Hawaii, and North Carolina, is one of just four states with all dependent school districts. In 30 states, all of the districts are independent and in the remaining 16 states, there is a mix of dependent and

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[19] "*Baltimore's development boom leads to loss in school aid*", The Baltimore Sun. February 7, 2015. Accessed on the web, July 30, 2015: http://www.baltimoresun.com/news/maryland/education/bs-md-ci-school-funds-20150205-story.html#page=1.

[20] In addition to school districts, the Census Bureau includes county/regional districts and community college districts in its counts.

independent school districts. Dependent districts are often removed from most, if not all, taxing decisions, meaning a dependent district may not have the ability to make decisions about exempting property from taxation. This means the city or county in which dependent districts are located may exempt certain property from taxation which would both lower the revenue available for the district but also count the value of that exempt property as part of their fiscal capacity.

## *Tax Increment Financing and School Funding*
In Maryland there are several state and local property tax policies that have the potential to impact how a school district's property tax base is calculated for school funding purposes. One tax exemption program with the potential to impact school funding is Tax Increment Financing authorities (TIF). TIFs can be used by local taxing authorities to provide subsidies for economic development programs in local communities. A TIF district allows for the use of future gains in taxes to pay for current economic development projects, which means that the city or county in which the TIF district is located will have property values on which it is not collecting taxes. A 2008 study found that 49 states currently allow local taxing authorities to make use of some form of TIF districts – the only exception was Arizona.[21] Of those 49 states, only ten states mandate that school districts have some say over the TIF process. Delaware, Kansas, Nebraska, New York, and Utah require permission from a school district board before a TIF program may be authorized. Colorado, Iowa, and Ohio require that school districts must be consulted or be allowed to review a TIF program before it can be issued. Only Kentucky and Washington specifically state that TIF programs cannot be used to reduce school district tax revenues.

States are in a difficult position with TIFs and the determination of district fiscal capacity. If a state continues to count the value of-exempted property in their calculation of a district's fiscal capacity, the district will receive reduced state funding for a decision in which the district had no part. However, if the state does not count property that has been exempted by a TIF, then it may encourage the growth of TIF districts in the state, leading to an increasing state subsidy of local economic development decisions.

Illinois provides an example of the potential effects of exempting property within TIF districts from the state's calculation of relative wealth. In Illinois, each dollar of property exempted by a TIF reduces the fiscal capacity of the district by a dollar, increasing its share of state education aid funding. A 2011 study found that the city of Chicago has widely employed TIFs as an economic development tool and 30 percent of the city's taxable property is now within a TIF district. Because state policy exempts this property from the calculation of a district's fiscal capacity, "Illinois taxpayers on the whole are paying for usage of TIF as an economic development tool in Chicago."[22]

## *Ohio's Solution*
To address these problems, the State of Ohio currently exempts 65 percent of property in a TIF from the calculation of a district's fiscal capacity. This means that if a school district has $10 million in property exempted by a TIF district, it will only have $3.5 million of that property counted as part of their ability to pay. No existing research defines the perfect policy for addressing TIFs, measuring school district property wealth, and school funding. However, policies like Ohio's are an attempt to soften the financial blow that a school district might face from property exempted by a TIF without making the program too

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[21] *TIF State-By-State Report Database,* Council of Development Finance Agencies. December, 2008. Accessed on the web, July 20, 2015: http://www.cdfa.net/cdfa/tifmap.nsf/index.html.

[22] Bruno, Robert and Alison Dickson, *Tax Increment Financing and Chicago Public Schools: A New Approach to Comprehending a Complex Relationship*, University of Illinois. December, 2011. Page 15.

generous and thus over incentivizing the use of these programs. Appendix C contains a list of states that allow school district input into tax increment authorities' decisions.

*Conclusion*

TIFs and other programs that exempt property from full taxation are a frequently used tool to enhance economic development that will benefit a local school district and state over time. However, the way a state uses the effective reduced property value in measuring the fiscal capacity of school districts can reduce district funding. At present in Maryland, tax exemptions provided for economic development do not change the measured fiscal capacity of a school district, but they reduce actual revenues. If Maryland allowed districts to reduce their fiscal capacity amount by the full valuation of property exempted for economic development purposes, it could create an incentive to over utilize these measures at the expense of the rest of the state. The study team recommends Maryland adopt a solution similar to the Ohio system, where a portion of a tax exemption is used to reduce the district's fiscal capacity and a portion is used to reduce the property wealth of the district. Since in the long run both the district and state will theoretically benefit from enhanced economic development, this approach allows all three entities – the district, the municipality, and the state – to share both the costs and the potential benefits over time.

# Using Income in the Measure of Fiscal Capacity

As shown earlier in this study, the state of Maryland's school funding system has become more fiscally neutral over the years. However, the state's funding system is not completely fiscally neutral. In other words, high-wealth districts still spend more per pupil than low-wealth districts. One way to move districts to even greater fiscal neutrality is to adjust the way that the school funding system determines a district's fiscal capacity.

Using income as part of the fiscal capacity measure provides a more comprehensive measure of a district's fiscal capacity and, if appropriately included with property wealth, can redirect state funding to districts with below-average household income. As discussed further below, 42 states use property values as the only measure of a district's fiscal capacity or ability to pay for schools from local sources. Maryland and seven other states have adopted additional fiscal capacity measures to supplement property values. These typically rely on some measure of income to be included, along with property wealth, in the measure of fiscal capacity.

Maryland's school funding formula includes net taxable income (NTI) as a measure of a district's fiscal capacity because county governments raise revenue through local income taxes. The state requires county governments to set an income tax rate of between 1.0 percent and 3.2 percent of an individual's net taxable income. In 2015 county income tax rates ranged from 1.25 percent (Worcester County) to the maximum rate of 3.2 percent (Howard, Montgomery, Prince George's, and Wicomico counties, and Baltimore City).[23] Because Maryland allows local counties to tax both property and income, the state's school funding formula adds a district's property wealth and NTI together when determining a district's fiscal capacity. However, including income in a district's measure of local wealth may also serve to improve the equity of a state's school finance system.

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[23] "*Maryland Withholding Tax Facts, January 2015-December 2015*", Comptroller of Maryland. Accessed on the web, September 19, 2015: http://taxes.marylandtaxes.com/Resource_Library/Tax_Publications/Tax_Facts/Withholding_Tax_Facts/Withholding_tax_facts_2015.pdf.

## *An Alternative Way of Including Income*

Research has shown that whether or not local units of government have the ability to tax income, household income impacts a school district's expenditure decisions. Because of this some states have included income in their measure of a districts' fiscal capacity even though they do not have a local option income tax. However, states have found that they have not always seen the net funding distribution change that was anticipated when they included income as a measure of a district's fiscal capacity. The approach used to include income in the measurement of local school district wealth has substantive implications for the distribution of local and state funding among districts and in some cases results in different equalization impacts than intended.

Adding a measure of income to property values may result in unintended consequences such as a lesser impact on fiscal equity than anticipated. One way to ensure that an income factor works to the benefit of low-income districts is to use it as a *multiplier* to property values. If the income component of a state's fiscal capacity measure is the ratio of a district's income to the state average, a high income district will have a ratio larger than 1.0 and low income district will have a ratio less than 1.0. When the multiplicative (ratio) income factor is multiplied by the district's property wealth per pupil to determine a district's local funding capacity, it will raise the relative fiscal capacity of a high-income district and decrease the relative fiscal capacity of a low-income district. In the case of a district with household income below the state average, the impact would lower the fiscal capacity measure and increase the share of total funding provided by the state.

## *How Would the Multiplicative Method Work in Maryland?*

Maryland currently uses income as an additive element in its formula for determining a district's fiscal capacity. That is, the NTI amount is added to the property value component of total wealth for each district. Calvert County offers a good example for understanding how a multiplicative income factor would change the wealth measures in Maryland school districts. Calvert's average property wealth per student is almost equal to that of the state average at 100.03 percent. However, the county's average net taxable income per student is below the state average. The district's September and November net taxable income (NTI) amounts are only 90.71 percent and 85.22 percent of the state average, respectively. Using the state's current additive method, the district's September wealth measure is 97.04 percent of the state average and the November wealth measure is 94.85 percent of the state average. Use of a multiplicative method would reduce Calvert's September and November wealth levels to 90.74 percent and 85.25 percent of the state averages respectively, increasing the share of education revenues funded by the state with either the September or November income calculation, and shifting resources from counties with NTI above the state average to counties with NTI below the state average. For example under the state's current system Montgomery County's wealth measure using November NTI is 42.46 percent above the state average. If the state moved to a multiplicative income measure Montgomery County's total wealth measure would jump to 105.59 percent above the state average. This change would result in a significant decrease in state aid to Montgomery County and other districts that have incomes above the state average.

Table 2.3 provides this data for all 24 districts in the state.

**Table 2.3: Using Income as an Additive or Multiplicative Factor**

| County | Wealth Measure as a Percentage of the State Average | | | |
|---|---|---|---|---|
| | Income as an Additive Factor (Current System) | | Income as a Multiplicative Factor | |
| | September NTI | November NTI | September NTI | November NTI |
| **Allegany** | 62.28% | 60.30% | 40.50% | 36.71% |
| **Anne Arundel** | 124.07% | 122.94% | 150.96% | 147.56% |
| **Baltimore City** | 59.39% | 59.02% | 36.07% | 35.27% |
| **Baltimore County** | 98.28% | 100.78% | 102.25% | 107.47% |
| **Calvert** | 97.04% | 94.85% | 90.74% | 85.25% |
| **Caroline** | 59.08% | 57.33% | 32.77% | 30.13% |
| **Carroll** | 95.23% | 92.81% | 95.18% | 87.82% |
| **Cecil** | 79.77% | 77.68% | 62.10% | 57.58% |
| **Charles** | 80.66% | 78.45% | 65.04% | 59.94% |
| **Dorchester** | 73.01% | 71.34% | 47.46% | 44.94% |
| **Frederick** | 86.01% | 84.79% | 77.36% | 73.69% |
| **Garrett** | 126.56% | 122.55% | 109.90% | 102.48% |
| **Harford** | 94.47% | 92.13% | 92.20% | 85.38% |
| **Howard** | 112.91% | 112.52% | 133.16% | 130.58% |
| **Kent** | 163.99% | 164.35% | 217.05% | 229.74% |
| **Montgomery** | 138.27% | 142.46% | 188.10% | 205.59% |
| **Prince George's** | 78.37% | 76.30% | 61.02% | 56.44% |
| **Queen Anne's** | 117.59% | 115.73% | 123.55% | 119.95% |
| **Somerset** | 59.89% | 58.36% | 31.03% | 29.18% |
| **St. Mary's** | 90.12% | 87.55% | 82.12% | 75.36% |
| **Talbot** | 204.89% | 209.98% | 303.49% | 362.28% |
| **Washington** | 71.36% | 69.67% | 50.69% | 47.29% |

| Wicomico | 57.20% | 55.74% | 34.20% | 31.57% |
| Worcester | 231.30% | 224.43% | 280.58% | 271.50% |

Source: Calculated from Maryland State Department of Education data

### *States with Alternative Fiscal Capacity Measures in the School Funding System*

As part of this analysis, the study team identified the eight states that use a fiscal capacity factor in addition to property values. The study team identified the following alternative fiscal capacity measures used by states:

- **Income**: Four states (Connecticut, Massachusetts, New Jersey, and New York) measure a district's ability to pay based 50 percent on property values and 50 percent on income;
- **Retail Sales**: Tennessee uses a district's property tax base as 50 percent of their fiscal capacity measure and sales tax base as 50 percent;
- **Income and Retail Sales**: Virginia uses three measures: property tax base (50 percent), income tax base (40 percent) and sales tax base (10 percent);
- **Low-Income Students**: Rhode Island uses a combination of property values (50 percent) and the relative percentage of students eligible for free and reduced price meals in grades prekindergarten to grade five (50 percent)[24]; and
- **Multiple Measures**: Maryland uses a combination of real and personal property values, net taxable income and the public utilities assessable base.

In sum, seven states (Connecticut, Massachusetts, Maryland, New Jersey, New York, Rhode Island, and Virginia) use some form of income as an element in the measure of a district's fiscal capacity. None of these seven states made use of a multiplicative income factor. In each case an income factor is added to the property wealth measure. Table 2.4 summarizes the alternative fiscal capacity measures used by other states.

**Table 2.4: States that Measure Fiscal Capacity with Factors in Addition to Property Wealth**

| State | Property | Income | Other |
|---|---|---|---|
| Connecticut | Property Value 90% | Median Income 10% | |
| Maryland[25] | Real Property Personal Property | Total taxable Income | Public Utilities Assessable Base |

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[24] Using low-income students, as part of the fiscal capacity measure is essentially an income based measure.

[25] Maryland uses the following formula to determine a district's relative wealth: (Total real property values x 40 percent) + (total personal property x 50 percent) + (100 percent of public utilities' assessable base) + (100 percent of net taxable income) = total district wealth.

| State | Property | Income | Other |
|---|---|---|---|
| **Massachusetts** | Property Value 50% | Aggregate personal income 50% | |
| **New Jersey** | Based on both property values and property tax rates 50% | Based on Aggregate income and income tax rates 50% | |
| **New York** | Property Value 50% | Adjusted Gross Income 50% | |
| **Rhode Island** | Property Value 50% | | Percentage of students eligible for Free/Reduced lunch in grades prekindergarten to grade 6 compared to the state average 50% |
| **Tennessee** | Property Tax Base 50% | | Sales Tax Base 50% |
| **Virginia** | Property Tax Base 50% | Income Tax Base 40% | Sales Tax Base 10% |

Source: All data are derived from state education agency publications or from state legislation

### *Conclusion*

This analysis of alternative measures of school district fiscal capacity shows the importance of including a measure of income in a school funding formula to better capture the ability of homeowners to pay property taxes. Maryland should continue to include income in the measure of fiscal capacity. If a goal of the State is to target additional funding to low-income districts (as measured by NTI) it could shift to a multiplicative income measure. The exact impact of adopting the multiplicative approach cannot be assessed until all of the results of the adequacy study can be examined, including the recommended per pupil base funding amount and weights for students with special needs. The multiplicative approach can also be developed in such a way as to avoid variation in NTI from unduly influencing a district's final total wealth calculation (given that NTI makes up only about one-third of total wealth state wide). By adopting the multiplicative approach Maryland may be able to improve education funding equity among districts but will also likely see a reduction in state funding for high-NTI districts in the State.

## Timing of the Measurement of Net Taxable Income

As described above, Maryland includes NTI in its measure of fiscal capacity for school funding. At the present time, the fiscal capacity calculation considers measures of NTI on September 1 and November 1 of the prior year. This approach was most recently revised by HB 229 in 2013, which requires a district's aid be based on the NTI that provides it with the most state aid.

The growing number of tax returns filed by the October 15 tax extension deadline prompted moving from a September 1 to November 1 measure of NTI. Using November data enhances the accuracy of the NTI measure and hence the fiscal capacity of each district. Because tax returns filed closer to the extension deadline of October 15 tend to be from higher income individuals, the impact of the later date is to make already high-income (and thus high fiscal capacity) districts even wealthier. Table 2.9 shows

the difference in state direct aid to districts using the two measures. Column 1 shows the state aid districts are expected to receive in 2015-16 if the September measure is used and column 2 shows the aid each district would receive if the November NTI were used. The table shows that 17 of the 24 districts get more state aid using the November measure, while three (Baltimore County, Kent, and Montgomery) lose aid. Two school districts (Worcester and Talbot) see no change in their aid whether the September or November NTI amounts are used. This is due to the fact that there are minimum funding guarantees within the state's funding formula.

The total direct state aid varies by approximately $22 million, with three districts losing nearly $37 million and the 17 gainers seeing an increase totaling more than $59 million. The table also shows that almost all of the loss is borne by Baltimore County and Montgomery County, as Kent's loss of state direct aid is only $24,000.

The challenge facing the state is that moving to the November NTI computation without the hold harmless currently in place would have the effect of removing nearly $37 million in revenues from two school districts – Baltimore County and Montgomery County. The hold harmless is helpful in maintaining at least existing levels of aid to those districts. Column 6 of Table 2.5 shows the impact of delaying the entire increase in aid to the districts that gain revenue. Column 6 displays the 40 percent allocation that is in current law. This phase-in will move to 60 percent in 2017, 80 percent in 2018, and will be fully phased-in for 2019.[26] The phase-in process simply slows down the growth in revenue for the districts that gain resources, reducing the necessary state appropriation, but does not address the question of how to support the districts that would lose funding absent the hold harmless.

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[26] Budget Reconciliation and Finance Act of 2015. Accessed on the web, October 5, 2015: http://mgaleg.maryland.gov/2015RS/chapters_noln/Ch_489_hb0072E.pdf

**Table 2.5: Net Taxable Income Adjustment: Major Education Aids – Fiscal 2016**

| County | Wealth Adjusted Major State Aids | | | | | |
|---|---|---|---|---|---|---|
| | 1<br>September<br>NTI | 2<br>November<br>NTI | 3<br>Difference | 4<br>Greater of<br>Sept. & Nov. | 5<br>Difference<br>v. Sept. | 6<br>40% Phase-<br>In |
| Allegany | 69,303,578 | 71,172,909 | 1,869,331 | 71,172,909 | 1,869,331 | 747,732 |
| Anne Arundel | 304,421,478 | 307,454,436 | 3,032,958 | 307,454,436 | 3,032,958 | 1,213,183 |
| Baltimore City | 826,324,690 | 827,459,399 | 1,134,709 | 827,459,399 | 1,134,709 | 453,884 |
| Baltimore | 568,890,559 | 553,347,116 | -15,543,443 | 568,890,559 | - | - |
| Calvert | 71,400,926 | 72,794,400 | 1,393,474 | 72,794,400 | 1,393,474 | 557,390 |
| Caroline | 45,061,767 | 46,016,863 | 955,096 | 46,016,863 | 955,096 | 382,038 |
| Carroll | 116,903,256 | 119,449,656 | 2,546,400 | 119,449,656 | 2,546,400 | 1,018,560 |
| Cecil | 91,874,040 | 94,443,354 | 2,569,314 | 94,443,354 | 2,569,314 | 1,027,726 |
| Charles | 146,710,994 | 151,256,348 | 4,545,354 | 151,256,348 | 4,545,354 | 1,818,142 |
| Dorchester | 34,541,708 | 35,214,406 | 672,698 | 35,214,406 | 672,698 | 269,079 |
| Frederick | 212,736,380 | 214,729,825 | 1,993,445 | 214,729,825 | 1,993,445 | 797,378 |
| Garrett | 15,049,283 | 15,567,254 | 517,971 | 15,567,254 | 517,971 | 207,188 |
| Harford | 182,326,653 | 186,105,763 | 3,779,110 | 186,105,763 | 3,779,110 | 1,511,644 |
| Howard | 206,287,969 | 207,000,122 | 712,153 | 207,000,122 | 712,153 | 284,861 |
| Kent | 5,827,170 | 5,802,576 | -24,594 | 5,827,170 | - | - |
| Montgomery | 573,501,007 | 551,621,684 | -21,879,323 | 573,501,007 | - | - |
| Prince George's | 946,112,832 | 971,217,059 | 25,104,227 | 971,217,059 | 25,104,227 | 10,041,691 |
| Queen Anne's | 29,272,142 | 29,761,578 | 489,436 | 29,761,578 | 489,436 | 195,774 |
| St. Mary's | 87,394,891 | 89,369,837 | 1,974,946 | 89,369,837 | 1,974,946 | 789,978 |
| Somerset | 25,715,734 | 26,243,450 | 527,716 | 26,243,450 | 527,716 | 211,086 |
| Talbot | 11,197,801 | 11,197,801 | 0 | 11,197,801 | - | - |
| Washington | 154,257,724 | 157,632,743 | 3,375,019 | 157,632,743 | 3,375,019 | 1,350,008 |
| Wicomico | 126,121,519 | 128,481,685 | 2,360,166 | 128,481,685 | 2,360,166 | 944,066 |
| Worcester | 16,021,417 | 16,021,417 | 0 | 16,021,417 | - | - |
| Total | 4,867,255,518 | 4,889,361,681 | 22,106,163 | 4,926,809,041 | 59,553,523 | 23,821,409 |

Source: Maryland State Department of Education, Office of Finance and Administration

The study team recommends that the State move toward using the more accurate November NTI measure, but continue the hold harmless provisions for the three districts that are held harmless, reducing the difference in the two aid computations by 20 percent per year until state aid is based entirely on the November NTI.

## How Other States within the Region Address these Three Major Fiscal Capacity Issues

This study reviewed school funding systems in Maryland's region of the country including Delaware, New Jersey, New York, Pennsylvania, Virginia, and West Virginia to determine how these states addressed the school funding issues discussed above: use of an income factor, including or excluding TIF exempted property in the property wealth measure, and frequency of reassessment. Four of the states make use of foundation formulas for distributing education funding to school districts that are similar to the formula that Maryland uses. The exceptions are Delaware and Pennsylvania. Delaware's funding system makes use of both a foundation formula and a "position allocation formula" which distributes funding to districts based on the number of teaching and administrative positions the state determines each district requires. Pennsylvania uses a "hold harmless" system to distribute funds to schools. This type of a funding system distributes funds to districts based on the amount of funding that the district received in the previous year, regardless of any changes in the district's student population or in its relative wealth.

As Table 2.6 shows, all of the states except Pennsylvania use property values as at least part of the measure for a district's fiscal capacity. In three of those states – Delaware, New Jersey, and Virginia – the state does not remove TIF exempted property from their calculation of a district's property wealth. West Virginia specifically states in statute that TIF exempted property must be included when calculating a district's fiscal capacity. New York is the only one of these six states that allows for some TIF exempted property to be excluded when calculating a districts relative wealth.

**Table 2.6: Comparative State School Funding Policies**

| State | Funding Formula | How is a District's Fiscal Capacity Defined | How is Exempted TIF Property Treated |
|---|---|---|---|
| **Delaware** | Mixed formula | Assessed valuation of Real Property | TIF property is included in the calculation of a district's fiscal capacity. |
| **New Jersey** | Foundation formula | Based 50 percent on property values and property tax rates and 50 percent on aggregate income and income tax rates. | TIF property is included in the calculation of a district's fiscal capacity. |
| **New York** | Foundation formula | Based 50 percent on property values and 50 percent on adjusted gross income. | Exempts certain exempted TIF property from the calculation of a district's fiscal capacity. |

| State | Funding Formula | How is a District's Fiscal Capacity Defined | How is Exempted TIF Property Treated |
|---|---|---|---|
| **Pennsylvania** | Hold harmless | NA | NA |
| **Virginia** | Foundation formula | Based 50 percent on property Tax Base and 50 percent on income tax base | TIF property is included in the calculation of a district's fiscal capacity. |
| **West Virginia** | Foundation formula | Property values | TIF property is included in the calculation of a district's fiscal capacity. |

Source: All data are derived from state education agency publications or from state legislation

## Conclusion

This section of the chapter summarized the school funding policies of six states that generally surround Maryland. The data show that four of the districts use a foundation formula, similar to Maryland's approach, while three rely on a measure of income as part of the measure of fiscal capacity. In terms of the treatment of tax exemptions for TIF districts, four of the states do not make provision for exempting TIF property from the measure of fiscal capacity, while one state exempts some TIF property from the fiscal capacity measure. Pennsylvania has a unique funding system whereby fiscal capacity is not considered in school funding.

Overall, the study team recommends that Maryland maintain the general structure of the existing school funding system, although the study team recommends the State exempt part of the assessed value in a TIF district from the measure of fiscal capacity. The study team recommends continuing to include income in the measure of fiscal capacity and relying on the November 1 measure of NTI, rather than the greater of the September 1 or November 1 measures. The study team would also suggest considering the adoption of the multiplicative approach to including income in the measure of district fiscal capacity to more closely align state aid with measures of homeowner ability to pay the local share of education costs. However, the details of how the multiplicative approach could be structured, or its full impact on districts cannot be determined until a new per pupil base amount and weights for special needs students are determined next year. Finally, the study team suggests that given the potential fiscal consequences of shifting to the November 1 NTI date and the change to a multiplicative approach of incorporating NTI into the total wealth calculation, both should be phased-in over a three to five year period to help impacted districts manage the transition.

## Appendix A

**Table A.1 Equity and Fiscal Neutrality Statistics for Revenues, Unweighted Students**

| Measure | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | $8,635 | $9,001 | $9,423 | $10,142 | $10,843 | $11,858 | $12,951 | $13,807 | $13,892 | $14,320 | $13,939 | $14,045 |
| Median | $8,286 | $8,721 | $9,055 | $9,785 | $10,402 | $11,769 | $12,377 | $13,285 | $13,386 | $13,717 | $14,211 | $14,125 |
| SD | $981 | $935 | $1,016 | $1,158 | $1,263 | $1,342 | $1,484 | $1,573 | $1,419 | $1,620 | $1,351 | $1,191 |
| Range | $3,092 | $3,449 | $3,497 | $3,549 | $3,761 | $4,384 | $4,927 | $4,819 | $4,609 | $5,658 | $5,447 | $4,854 |
| Federal Range | $2,867 | $2,815 | $3,086 | $3,396 | $3,456 | $3,840 | $4,319 | $4,463 | $4,272 | $5,412 | $4,364 | $3,449 |
| Range Ratio | 0.39 | 0.36 | 0.38 | 0.39 | 0.37 | 0.38 | 0.38 | 0.37 | 0.36 | 0.44 | 0.36 | 0.28 |
| CV | 0.11 | 0.10 | 0.11 | 0.11 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.11 | 0.10 | 0.08 |
| McLoone | 0.95 | 0.95 | 0.96 | 0.94 | 0.95 | 0.92 | 0.94 | 0.94 | 0.95 | 0.95 | 0.90 | 0.92 |
| Verstegen | 1.14 | 1.12 | 1.12 | 1.13 | 1.14 | 1.10 | 1.15 | 1.14 | 1.13 | 1.14 | 1.06 | 1.07 |
| Correlation PP Wealth | 0.45 | 0.55 | 0.59 | 0.40 | 0.41 | 0.39 | 0.22 | 0.30 | 0.22 | 0.10 | -0.01 | 0.09 |
| Elasticity PP Wealth | 0.15 | 0.17 | 0.19 | 0.14 | 0.14 | 0.12 | 0.07 | 0.10 | 0.06 | 0.04 | 0.00 | 0.03 |
| Correlation PP Valuation | 0.38 | 0.48 | 0.54 | 0.39 | 0.40 | 0.38 | 0.21 | 0.25 | 0.17 | 0.09 | -0.01 | 0.09 |
| Elasticity PP Valuation | 0.12 | 0.14 | 0.16 | 0.11 | 0.11 | 0.10 | 0.06 | 0.07 | 0.05 | 0.03 | 0.00 | 0.02 |
| Coefficient Wealth | 0.0051 | 0.0054 | 0.0064 | 0.0048 | 0.0048 | 0.0041 | 0.0022 | 0.0029 | 0.0017 | 0.0010 | -0.0001 | 0.0008 |
| Coefficient Valuation | 0.0026 | 0.0030 | 0.0032 | 0.0023 | 0.0022 | 0.0018 | 0.0010 | 0.0010 | 0.0007 | 0.0004 | 0.0000 | 0.0004 |
| PP Wealth | $261,994 | $275,470 | $282,133 | $293,671 | $314,197 | $351,813 | $391,601 | $460,481 | $506,437 | $518,733 | $492,494 | $471,489 |
| PP Valuation | $408,593 | $423,674 | $453,837 | $498,533 | $557,665 | $654,719 | $764,147 | $892,510 | $948,148 | $924,763 | $836,358 | $794,460 |

Source: Maryland State Department of Education and POA

**Table A.2 Equity and Fiscal Neutrality Statistics for Revenues not Federal, Unweighted Students**

| Measure | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | $7,997 | $8,309 | $8,739 | $9,369 | $10,068 | $11,051 | $12,112 | $12,972 | $12,828 | $12,806 | $12,935 | $12,841 |
| Median | $7,830 | $8,200 | $8,442 | $9,068 | $9,614 | $10,530 | $11,378 | $12,211 | $12,452 | $12,347 | $12,686 | $13,128 |
| SD | $933 | $908 | $1,018 | $1,088 | $1,176 | $1,231 | $1,276 | $1,402 | $1,187 | $1,271 | $1,109 | $947 |
| Range | $3,523 | $3,193 | $3,437 | $3,723 | $4,112 | $4,356 | $4,238 | $4,498 | $4,207 | $4,383 | $4,455 | $4,460 |
| Federal Range | $2,912 | $3,174 | $3,293 | $3,479 | $3,451 | $3,899 | $3,596 | $3,991 | $3,565 | $3,582 | $3,005 | $2,665 |
| Range Ratio | 0.42 | 0.46 | 0.44 | 0.44 | 0.39 | 0.41 | 0.34 | 0.35 | 0.32 | 0.32 | 0.27 | 0.23 |
| CV | 0.12 | 0.11 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.09 | 0.10 | 0.09 | 0.07 |
| McLoone | 0.93 | 0.93 | 0.95 | 0.94 | 0.96 | 0.96 | 0.97 | 0.96 | 0.95 | 0.96 | 0.94 | 0.91 |
| Verstegen | 1.11 | 1.09 | 1.12 | 1.12 | 1.14 | 1.14 | 1.16 | 1.16 | 1.11 | 1.12 | 1.10 | 1.04 |
| Correlation PP Wealth | 0.72 | 0.76 | 0.72 | 0.60 | 0.56 | 0.54 | 0.40 | 0.47 | 0.46 | 0.43 | 0.24 | 0.08 |
| Elasticity PP Wealth | 0.25 | 0.24 | 0.25 | 0.21 | 0.19 | 0.17 | 0.11 | 0.13 | 0.12 | 0.13 | 0.07 | 0.02 |
| Correlation PP Valuation | 0.63 | 0.68 | 0.65 | 0.56 | 0.53 | 0.51 | 0.38 | 0.39 | 0.40 | 0.37 | 0.20 | 0.06 |
| Elasticity PP Valuation | 0.21 | 0.21 | 0.20 | 0.17 | 0.15 | 0.13 | 0.09 | 0.10 | 0.10 | 0.06 | 0.05 | 0.01 |
| Coefficient Wealth | 0.0076 | 0.0073 | 0.0078 | 0.0067 | 0.0060 | 0.0052 | 0.0035 | 0.0037 | 0.0030 | 0.0033 | 0.0018 | 0.0005 |
| Coefficient Valuation | 0.0041 | 0.0041 | 0.0039 | 0.0031 | 0.0027 | 0.0022 | 0.0015 | 0.0015 | 0.0013 | 0.0008 | 0.0008 | 0.0002 |
| PP Wealth | $261,994 | $275,470 | $282,133 | $293,671 | $314,197 | $351,813 | $391,601 | $460,481 | $506,437 | $518,733 | $492,494 | $471,489 |
| PP Valuation | $408,593 | $423,674 | $453,837 | $498,533 | $557,665 | $654,719 | $764,147 | $892,510 | $948,148 | $924,763 | $836,358 | $794,460 |

Source: Maryland State Department of Education and POA

**Table A.3 Equity and Fiscal Neutrality Statistics for Expenditures, Unweighted Students**

| Measure | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | $8,283 | $8,677 | $8,978 | $9,561 | $10,302 | $11,311 | $12,419 | $13,202 | $13,570 | $13,638 | $13,161 | $13,350 |
| Median | $7,996 | $8,381 | $8,638 | $9,117 | $9,678 | $10,909 | $11,855 | $12,517 | $13,188 | $13,222 | $12,930 | $13,495 |
| SD | $895 | $989 | $1,016 | $1,219 | $1,199 | $1,318 | $1,387 | $1,491 | $1,419 | $1,503 | $1,204 | $1,099 |
| Range | $2,905 | $3,258 | $3,382 | $3,537 | $3,761 | $4,307 | $4,497 | $4,633 | $4,630 | $5,270 | $4,963 | $4,649 |
| Federal Range | $2,655 | $2,868 | $3,053 | $3,353 | $3,518 | $3,741 | $3,819 | $4,186 | $4,013 | $4,856 | $3,844 | $3,031 |
| Range Ratio | 0.37 | 0.39 | 0.39 | 0.41 | 0.39 | 0.39 | 0.36 | 0.37 | 0.34 | 0.41 | 0.33 | 0.25 |
| CV | 0.11 | 0.11 | 0.11 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.10 | 0.11 | 0.09 | 0.08 |
| McLoone | 0.94 | 0.94 | 0.95 | 0.96 | 0.97 | 0.94 | 0.94 | 0.95 | 0.94 | 0.94 | 0.94 | 0.92 |
| Verstegen | 1.13 | 1.13 | 1.13 | 1.14 | 1.16 | 1.13 | 1.15 | 1.16 | 1.12 | 1.12 | 1.09 | 1.06 |
| Correlation PP Wealth | 0.53 | 0.48 | 0.63 | 0.64 | 0.55 | 0.43 | 0.24 | 0.32 | 0.26 | 0.14 | 0.09 | 0.16 |
| Elasticity PP Wealth | 0.17 | 0.16 | 0.22 | 0.22 | 0.18 | 0.14 | 0.07 | 0.09 | 0.08 | 0.05 | 0.03 | 0.04 |
| Correlation PP Valuation | 0.44 | 0.41 | 0.57 | 0.59 | 0.52 | 0.41 | 0.24 | 0.26 | 0.21 | 0.12 | 0.09 | 0.15 |
| Elasticity PP Valuation | 0.14 | 0.13 | 0.17 | 0.17 | 0.14 | 0.11 | 0.06 | 0.07 | 0.06 | 0.04 | 0.02 | 0.03 |
| Coefficient Wealth | 0.0054 | 0.0051 | 0.0069 | 0.0070 | 0.0060 | 0.0045 | 0.0023 | 0.0027 | 0.0020 | 0.0013 | 0.0008 | 0.0013 |
| Coefficient Valuation | 0.0028 | 0.0027 | 0.0034 | 0.0033 | 0.0027 | 0.0019 | 0.0010 | 0.0011 | 0.0009 | 0.0006 | 0.0004 | 0.0006 |
| PP Wealth | $261,994 | $275,470 | $282,133 | $293,671 | $314,197 | $351,813 | $391,601 | $460,481 | $506,437 | $518,733 | $492,494 | $471,489 |
| PP Valuation | $408,593 | $423,674 | $453,837 | $498,533 | $557,665 | $654,719 | $764,147 | $892,510 | $948,148 | $924,763 | $836,358 | $794,460 |

Source: Maryland State Department of Education and POA

**Table A.4 Equity and Fiscal Neutrality Statistics for Revenues, Maryland Weighted Students**

| Measure | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Mean | $7,490 | $7,990 | $8,774 | $9,125 | $9,133 | $9,146 | $8,859 | $8,949 |
| Median | $7,357 | $7,664 | $8,316 | $8,849 | $8,725 | $8,683 | $8,432 | $8,491 |
| SD | $993 | $994 | $964 | $1,147 | $1,018 | $1,039 | $968 | $956 |
| Range | $3,818 | $3,727 | $3,734 | $4,531 | $4,431 | $4,537 | $4,245 | $4,128 |
| Federal Range | $2,473 | $2,611 | $2,451 | $2,997 | $2,608 | $2,777 | $2,526 | $2,354 |
| Range Ratio | 0.38 | 0.38 | 0.32 | 0.39 | 0.32 | 0.35 | 0.32 | 0.29 |
| CV | 0.13 | 0.12 | 0.11 | 0.13 | 0.11 | 0.11 | 0.11 | 0.11 |
| McLoone | 0.91 | 0.94 | 0.96 | 0.93 | 0.95 | 0.96 | 0.96 | 0.96 |
| Verstegen | 1.12 | 1.14 | 1.15 | 1.14 | 1.14 | 1.15 | 1.14 | 1.15 |
| Correlation PP Wealth | 0.86 | 0.86 | 0.78 | 0.78 | 0.75 | 0.71 | 0.63 | 0.72 |
| Elasticity PP Wealth | 0.28 | 0.25 | 0.20 | 0.22 | 0.20 | 0.21 | 0.19 | 0.21 |
| Correlation PP Valuation | 0.82 | 0.82 | 0.74 | 0.70 | 0.69 | 0.64 | 0.57 | 0.66 |
| Elasticity PP Valuation | 0.23 | 0.21 | 0.17 | 0.19 | 0.18 | 0.18 | 0.15 | 0.17 |
| Coefficient Wealth | 0.0096 | 0.0085 | 0.0066 | 0.0065 | 0.0055 | 0.0058 | 0.0054 | 0.0062 |
| Coefficient Valuation | 0.0044 | 0.0038 | 0.0029 | 0.0029 | 0.0027 | 0.0028 | 0.0025 | 0.0031 |
| PP Wealth | $217,043 | $237,059 | $265,320 | $304,336 | $332,953 | $331,307 | $313,007 | $300,405 |
| PP Valuation | $385,227 | $441,163 | $517,730 | $589,868 | $623,353 | $590,633 | $531,552 | $506,183 |

Source: Maryland State Department of Education and POA

**Table A.5 Equity and Fiscal Neutrality Statistics for Revenues not Federal, Maryland Weighted Students**

| Measure | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Mean | $6,955 | $7,447 | $8,206 | $8,573 | $8,434 | $8,179 | $8,221 | $8,181 |
| Median | $6,794 | $7,063 | $7,740 | $8,197 | $8,116 | $7,816 | $7,791 | $7,734 |
| SD | $1,081 | $1,095 | $1,077 | $1,237 | $1,162 | $1,243 | $1,097 | $1,016 |
| Range | $4,159 | $3,993 | $4,051 | $4,809 | $4,806 | $4,931 | $4,690 | $4,554 |
| Federal Range | $2,801 | $2,988 | $2,674 | $2,985 | $2,874 | $2,779 | $2,573 | $2,718 |
| Range Ratio | 0.49 | 0.49 | 0.38 | 0.41 | 0.41 | 0.40 | 0.36 | 0.39 |
| CV | 0.16 | 0.15 | 0.13 | 0.14 | 0.14 | 0.15 | 0.13 | 0.12 |
| McLoone | 0.90 | 0.93 | 0.94 | 0.92 | 0.92 | 0.91 | 0.94 | 0.95 |
| Verstegen | 1.15 | 1.18 | 1.18 | 1.17 | 1.16 | 1.18 | 1.17 | 1.16 |
| Correlation PP Wealth | 0.87 | 0.86 | 0.81 | 0.81 | 0.79 | 0.78 | 0.71 | 0.65 |
| Elasticity PP Wealth | 0.33 | 0.30 | 0.25 | 0.26 | 0.26 | 0.31 | 0.26 | 0.22 |
| Correlation PP Valuation | 0.82 | 0.81 | 0.76 | 0.73 | 0.73 | 0.70 | 0.64 | 0.59 |
| Elasticity PP Valuation | 0.27 | 0.24 | 0.21 | 0.22 | 0.24 | 0.26 | 0.21 | 0.18 |
| Coefficient Wealth | 0.0104 | 0.0094 | 0.0077 | 0.0073 | 0.0066 | 0.0076 | 0.0068 | 0.0060 |
| Coefficient Valuation | 0.0048 | 0.0041 | 0.0033 | 0.0032 | 0.0032 | 0.0037 | 0.0032 | 0.0029 |
| PP Wealth | $217,043 | $237,059 | $265,320 | $304,336 | $332,953 | $331,307 | $313,007 | $300,405 |
| PP Valuation | $385,227 | $441,163 | $517,730 | $589,868 | $623,353 | $590,633 | $531,552 | $506,183 |

Source: Maryland State Department of Education and POA

**Table A.6 Equity and Fiscal Neutrality Statistics for Expenditures, Maryland Weighted Students**

| Measure | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Mean | $7,116 | $7,621 | $8,414 | $8,725 | $8,922 | $8,710 | $8,365 | $8,506 |
| Median | $7,099 | $7,439 | $7,853 | $8,250 | $8,596 | $8,370 | $7,955 | $8,189 |
| SD | $1,052 | $989 | $930 | $1,095 | $1,009 | $1,034 | $1,025 | $960 |
| Range | $3,727 | $3,645 | $3,920 | $4,672 | $4,371 | $4,520 | $4,183 | $4,075 |
| Federal Range | $2,720 | $2,486 | $2,346 | $2,650 | $2,443 | $2,748 | $2,965 | $2,412 |
| Range Ratio | 0.45 | 0.37 | 0.32 | 0.35 | 0.31 | 0.36 | 0.42 | 0.32 |
| CV | 0.15 | 0.13 | 0.11 | 0.13 | 0.11 | 0.12 | 0.12 | 0.11 |
| McLoone | 0.88 | 0.92 | 0.98 | 0.95 | 0.94 | 0.94 | 0.95 | 0.94 |
| Verstegen | 1.12 | 1.13 | 1.16 | 1.16 | 1.13 | 1.14 | 1.16 | 1.14 |
| Correlation PP Wealth | 0.89 | 0.88 | 0.80 | 0.79 | 0.78 | 0.72 | 0.67 | 0.74 |
| Elasticity PP Wealth | 0.32 | 0.27 | 0.21 | 0.22 | 0.21 | 0.22 | 0.22 | 0.23 |
| Correlation PP Valuation | 0.84 | 0.83 | 0.76 | 0.71 | 0.71 | 0.53 | 0.61 | 0.68 |
| Elasticity PP Valuation | 0.26 | 0.22 | 0.17 | 0.19 | 0.19 | 0.13 | 0.18 | 0.19 |
| Coefficient Wealth | 0.0104 | 0.0086 | 0.0065 | 0.0063 | 0.0057 | 0.0058 | 0.0060 | 0.0064 |
| Coefficient Valuation | 0.0048 | 0.0038 | 0.0028 | 0.0028 | 0.0027 | 0.0020 | 0.0029 | 0.0032 |
| PP Wealth | $217,043 | $237,059 | $265,320 | $304,336 | $332,953 | $331,307 | $313,007 | $300,405 |
| PP Valuation | $385,227 | $441,163 | $517,730 | $589,868 | $623,353 | $590,633 | $531,552 | $506,183 |

Source: Maryland State Department of Education and POA

**Table A.7 Equity and Fiscal Neutrality Statistics for Revenues, Standard Weighted Students**

| Measure | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Mean | $8,927 | $9,659 | $10,594 | $11,078 | $11,288 | $11,520 | $11,208 | $11,349 |
| Median | $8,531 | $9,383 | $10,408 | $10,483 | $11,000 | $11,109 | $10,955 | $11,202 |
| SD | $928 | $949 | $979 | $1,151 | $926 | $1,013 | $863 | $792 |
| Range | $3,255 | $3,352 | $3,228 | $3,773 | $3,505 | $3,736 | $3,812 | $3,535 |
| Federal Range | $2,831 | $3,016 | $2,886 | $3,058 | $3,119 | $3,198 | $3,170 | $2,908 |
| Range Ratio | 0.36 | 0.36 | 0.31 | 0.31 | 0.31 | 0.32 | 0.33 | 0.29 |
| CV | 0.10 | 0.10 | 0.09 | 0.10 | 0.08 | 0.09 | 0.08 | 0.07 |
| McLoone | 0.97 | 0.96 | 0.94 | 0.97 | 0.96 | 0.96 | 0.96 | 0.96 |
| Verstegen | 1.13 | 1.10 | 1.09 | 1.14 | 1.09 | 1.11 | 1.09 | 1.07 |
| Correlation PP Wealth | 0.64 | 0.64 | 0.47 | 0.60 | 0.49 | 0.38 | 0.28 | 0.43 |
| Elasticity PP Wealth | 0.18 | 0.16 | 0.11 | 0.15 | 0.11 | 0.10 | 0.07 | 0.09 |
| Correlation PP Valuation | 0.62 | 0.62 | 0.46 | 0.52 | 0.43 | 0.33 | 0.25 | 0.40 |
| Elasticity PP Valuation | 0.15 | 0.14 | 0.09 | 0.12 | 0.09 | 0.08 | 0.05 | 0.07 |
| Coefficient Wealth | 0.0062 | 0.0055 | 0.0037 | 0.0045 | 0.0029 | 0.0026 | 0.0019 | 0.0027 |
| Coefficient Valuation | 0.0029 | 0.0024 | 0.0016 | 0.0019 | 0.0013 | 0.0012 | 0.0009 | 0.0013 |
| PP Wealth | $258,673 | $286,581 | $320,345 | $369,464 | $411,525 | $417,303 | $395,988 | $380,962 |
| PP Valuation | $459,117 | $533,325 | $625,103 | $716,101 | $770,453 | $743,940 | $672,470 | $641,921 |

Source: Maryland State Department of Education and POA

**Table A.8 Equity and Fiscal Neutrality Statistics for Revenues not Federal, Standard Weighted Students**

| Measure | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Mean | $8,289 | $9,002 | $9,908 | $10,408 | $10,424 | $10,302 | $10,400 | $10,375 |
| Median | $8,009 | $8,620 | $9,679 | $10,081 | $10,063 | $9,997 | $10,151 | $10,238 |
| SD | $962 | $986 | $975 | $1,160 | $960 | $1,056 | $897 | $772 |
| Range | $3,529 | $3,522 | $3,435 | $3,917 | $3,941 | $4,111 | $3,916 | $4,294 |
| Federal Range | $2,901 | $3,089 | $2,991 | $3,284 | $3,356 | $3,586 | $3,662 | $3,051 |
| Range Ratio | 0.40 | 0.40 | 0.34 | 0.36 | 0.36 | 0.40 | 0.41 | 0.32 |
| CV | 0.12 | 0.11 | 0.10 | 0.11 | 0.09 | 0.10 | 0.09 | 0.07 |
| McLoone | 0.96 | 0.97 | 0.95 | 0.95 | 0.97 | 0.96 | 0.96 | 0.96 |
| Verstegen | 1.11 | 1.12 | 1.09 | 1.12 | 1.10 | 1.11 | 1.08 | 1.07 |
| Correlation PP Wealth | 0.73 | 0.74 | 0.63 | 0.72 | 0.68 | 0.66 | 0.52 | 0.41 |
| Elasticity PP Wealth | 0.23 | 0.21 | 0.16 | 0.19 | 0.16 | 0.20 | 0.14 | 0.09 |
| Correlation PP Valuation | 0.70 | 0.70 | 0.60 | 0.63 | 0.61 | 0.58 | 0.46 | 0.36 |
| Elasticity PP Valuation | 0.19 | 0.17 | 0.13 | 0.16 | 0.15 | 0.16 | 0.11 | 0.07 |
| Coefficient Wealth | 0.0074 | 0.0066 | 0.0049 | 0.0054 | 0.0042 | 0.0048 | 0.0037 | 0.0026 |
| Coefficient Valuation | 0.0034 | 0.0029 | 0.0021 | 0.0023 | 0.0020 | 0.0022 | 0.0016 | 0.0012 |
| PP Wealth | $258,673 | $286,581 | $320,345 | $369,464 | $411,525 | $417,303 | $395,988 | $380,962 |
| PP Valuation | $459,117 | $533,325 | $625,103 | $716,101 | $770,453 | $743,940 | $672,470 | $641,921 |

Source: Maryland State Department of Education and POA

**Table A.9 Equity and Fiscal Neutrality Statistics for Expenditures, Standard weighted Students**

| Measure | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Mean | $8,481 | $9,214 | $10,159 | $10,592 | $11,027 | $10,971 | $10,582 | $10,787 |
| Median | $8,216 | $9,022 | $9,739 | $10,098 | $10,743 | $10,553 | $10,280 | $10,443 |
| SD | $945 | $943 | $940 | $1,087 | $937 | $988 | $856 | $794 |
| Range | $3,248 | $3,364 | $3,341 | $3,752 | $3,403 | $3,646 | $3,642 | $3,469 |
| Federal Range | $2,788 | $3,074 | $2,787 | $3,082 | $2,891 | $3,123 | $3,125 | $2,737 |
| Range Ratio | 0.37 | 0.39 | 0.31 | 0.33 | 0.30 | 0.32 | 0.34 | 0.28 |
| CV | 0.11 | 0.10 | 0.09 | 0.10 | 0.08 | 0.09 | 0.08 | 0.07 |
| McLoone | 0.95 | 0.94 | 0.96 | 0.97 | 0.96 | 0.97 | 0.96 | 0.98 |
| Verstegen | 1.11 | 1.10 | 1.12 | 1.13 | 1.09 | 1.11 | 1.10 | 1.09 |
| Correlation PP Wealth | 0.74 | 0.68 | 0.49 | 0.62 | 0.52 | 0.42 | 0.40 | 0.50 |
| Elasticity PP Wealth | 0.22 | 0.18 | 0.12 | 0.15 | 0.12 | 0.11 | 0.10 | 0.11 |
| Correlation PP Valuation | 0.71 | 0.64 | 0.48 | 0.54 | 0.46 | 0.37 | 0.37 | 0.46 |
| Elasticity PP Valuation | 0.18 | 0.15 | 0.10 | 0.12 | 0.10 | 0.09 | 0.08 | 0.09 |
| Coefficient Wealth | 0.0073 | 0.0058 | 0.0037 | 0.0044 | 0.0032 | 0.0029 | 0.0027 | 0.0031 |
| Coefficient Valuation | 0.0033 | 0.0025 | 0.0016 | 0.0018 | 0.0014 | 0.0013 | 0.0012 | 0.0015 |
| PP Wealth | $258,673 | $286,581 | $320,345 | $369,464 | $411,525 | $417,303 | $395,988 | $380,962 |
| PP Valuation | $459,117 | $533,325 | $625,103 | $716,101 | $770,453 | $743,940 | $672,470 | $641,921 |

Source: Maryland State Department of Education and POA

# Appendix B

**Table B1: Frequency of Property Tax Reassessments**

| State | Frequency of Property Tax Reassessments |
|---|---|
| Alabama | No fixed schedule |
| Alaska | Properties are revalued on locally determined cycles not to exceed 6 years. |
| Arizona | The assessor may use the same valuation for up to 3 years. |
| Arkansas | Each county must reappraise all real property every 3 or 5 years, when the revaluation cycle last occurred. For example, any county that completed a revaluation cycle between 2002 and 2004 may revalue all property at a minimum of once every 5 years. Moreover, a county that is on a 3 year revaluation cycle may be placed into a 5 year revaluation cycle depending on the growth in property values from the time of the previous revaluation |
| California | Most real property is revalued upon a change in ownership or upon completion of new construction. |
| Colorado | 2 years |
| Connecticut | At least once every 5 years. |
| Delaware | No fixed schedule. |
| Florida | Every year. |
| Georgia | Every year. |
| Hawaii | Every year. |
| Idaho | Every 5 years. |
| Illinois | Every 4 years (3 years in Cook County) |
| Indiana | Every 5 years. |
| Iowa | 2 years |
| Kansas | Every year. |
| Kentucky | Every year. |
| Louisiana | At least once every 4 years. |
| Maine | More than 5 years but within 10 years. |
| Maryland | Every 3 years. |
| Massachusetts | Every year. |
| Michigan | Every year. |
| Minnesota | Every 5 years. |
| Mississippi | Every year. |
| Missouri | 2 years |
| Montana | Every 6 years. |
| Nebraska | Every 6 years. |
| Nevada | Every 5 years. |
| New Hampshire | At least once every 5 years - municipalities over 10,000 can do it annually. |
| New Jersey | Every year. |
| New Mexico | Every year. |
| New York | No fixed schedule |
| North Carolina | At least once every 8 years. |
| North Dakota | Every year. |

| State | Frequency of Property Tax Reassessments |
|---|---|
| Ohio | At least once every 6 years. |
| Oklahoma | Every year. |
| Oregon | Every year. |
| Pennsylvania | Every 4 years. |
| Rhode Island | More than 5 years. |
| South Carolina | Every 5 years. |
| South Dakota | Every year. |
| Tennessee | 4, 5 or 6 years. |
| Texas | Every 3 years. |
| Utah | Every year. |
| Vermont | Every year. |
| Virginia | Every 2 years in cities, though cities with populations of 30,000 or less may opt to have re-assessments either annually or every 4 years. Every 4 years in counties, though counties with populations of 50,000 or less and Augusta County may opt to have re-assessments every 1, 2, 5, or 6 years. |
| Washington | Every 4 years. |
| West Virginia | Every year. |
| Wisconsin | At least once every 5 years. |
| Wyoming | Every year. |

Source: *Significant Features of the Property Tax.* Lincoln Institute of Land Policy and George Washington Institute of Public Policy. Accessed on August 20, 2015: http://www.lincolninst.edu/subcenters/significant-features-property-tax/Report_State_Summaries.aspx.

## Appendix C

**Table D1: State Policies That Allow for District Input for Tax Increment Authorities**

| State | Policy |
|---|---|
| Colorado | A school district must be consulted before the TIF can be issued. |
| Delaware | TIFs can only be activated with the approval of the local school board. |
| Iowa | Provide notice and consultation with all impacted taxing entities – including school districts. |
| Kansas | TIFs can only be activated with approval of the local school board. |
| Kentucky | School districts cannot pledge funding toward a TIF. |
| Nebraska | TIFs can only be activated with the approval of the local school board. |
| New York | All taxing districts – including school districts – must provide approval. |
| Ohio | School districts are provided periodic reviews. |
| Utah | TIFs can only be activated with the approval of the local school board. |
| Washington | TIFs cannot include taxes levied by school districts. |

Source: *Council of Development Finance Agencies,* Accessed on July 30, 2015:
http://www.cdfa.net/cdfa/tifmap.nsf/index.html