



AUGENBLICK,
PALAICH AND
ASSOCIATES

Presentation to the Stakeholder Advisory Group March 9, 2015

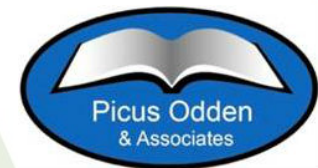
Justin Silverstein & Simon Workman, APA

William Glenn, Virginia Tech, POA

Bob Schoch, Education Finance Decisions

Gail Sunderman, Maryland Equity Project, University of Maryland

Annapolis, MD



Today's Presentation

- Progress reports on the following studies:
 - Adequacy study
 - Professional Judgment
 - Evidence-Based
 - Successful Schools
 - Case studies of high performing schools
 - Wealth/Equity study
 - Enrollment Change study
 - Prekindergarten Services/Funding study
- Q & A



Adequacy of Funding Studies

Professional Judgment

Evidence-Based

Successful Schools

Justin Silverstein, APA Consulting

Adequacy Studies

- Analyzing PK-12 funding adequacy in Maryland using three approaches:
 - Professional Judgment
 - Evidence-Based
 - Successful Districts/Schools
- Timeline consists of:
 - Interim/progress report due June 30, 2015
 - Draft final report due September 30, 2016
 - Final report and recommendations October 31, 2016

Professional Judgment

- Purpose is to estimate adequate per student base funding amount and weights for students with special needs
- Brings together Maryland educators to identify the resources needed for schools and districts to be successful meeting Maryland standards

Professional Judgment

- The main components of the PJ study include:
 - A literature review of the research and best practices to guide panelists in their work
 - Recruiting and conducting panels of state educators
 - Modeling base cost and weights based on Maryland cost factors and resources identified by the panels

PJ Panels

- Work on preparing literature review and other materials for panels has started
- Panels will be held starting this fall through early 2016
- Include:
 - Assembling 5 progressive levels of panels to identify the resources needed in schools and districts in Maryland
 - 4 school level panels
 - 2 special needs panels
 - 1 district central office panel
 - 1 district chief financial officer panel
 - 1 final state wide panel
- Currently working with MSDE to identify panelists

Modeling Results

- Initial cost model using 2013-14 data will be developed during winter/spring 2015
- Final model using 2014-15 data and reflecting input from CFO and state-level panels completed summer 2016
- Recommendations on base cost and weights will be incorporated into the draft final and final adequacy reports due in fall 2016

Evidence-Based Approach

- Purpose is to estimate adequate per student base funding amount and weights for students with special needs
- Utilizes model whose components are derived from evidence from research results and best practices
- Consists of the following three steps:
 - Develop initial model from research and preliminary data analysis and understanding of Maryland context (student need, state standards, costs)
 - Conduct review of model by 4 state-based practitioner panels
 - ensures strong Maryland perspective
 - Estimate values for base funding and weights

Initial Model Development

- In the process of ongoing literature review of research findings and best practices – this is ongoing
- Reviewing state standards/performance expectations
- Collecting and preparing key data such as district cost data (e.g. compensation and technology prices), district expenditures and student demographics
- Will incorporate case study findings as appropriate when available in summer 2015

Review by Practitioner Panels

- Working with MSDE on developing panel participant selection criteria and process
- Four panels will be conducted in different regions of the state in late June
- Feedback from panels will inform revisions to model, ensure model reflects particulars of Maryland context

Estimating Base Cost and Weights

- Preliminary model will estimate per student base cost and weights in summer 2015 using 2012-13 or 2013-14 cost data
- Final model will re-estimate base cost and weights using 2014-15 data in summer 2016

Successful Schools Approach

- Purpose is to estimate spending levels of schools that are successful under current state standards
- Only addresses per student base amount, not additional resources needed to serve students with special needs
- Because state has few districts, analysis will be conducted at school level – will require collecting school level spending data from districts

Successful Schools Approach

- Three primary components to study:
 - Identify successful schools using data-based criteria
 - Collect school-level expenditure data on these schools from their districts
 - Analyze expenditure data to estimate a per student base cost
- Base cost estimate will consist of 3 iterations, 1) using MSA/HSA performance data, 2 & 3) using first and then second year of PARCC data

School Selection

- School selection is beginning now
- Expect to select up to 70 to 90 schools
 - 59 schools were selected in 2001 study
- Selecting schools using these four performance categories:
 1. High performing
 2. High growth
 3. Reduced achievement gap between low-income and more affluent students
 4. Improved performance of minority, low-income, English learner and/or special education students

School Selection Criteria

- High Performing:
 - Elementary Schools
 - 6 years of Proficient or Advanced of 93% or greater
 - Middle Schools
 - 3 years of Proficient or Advanced of 90% or greater
 - High Schools
 - 6 years of Proficient or Advanced of 90% or greater
- High Growth
 - 6 year overall growth of greater than 50%

School Selection Criteria

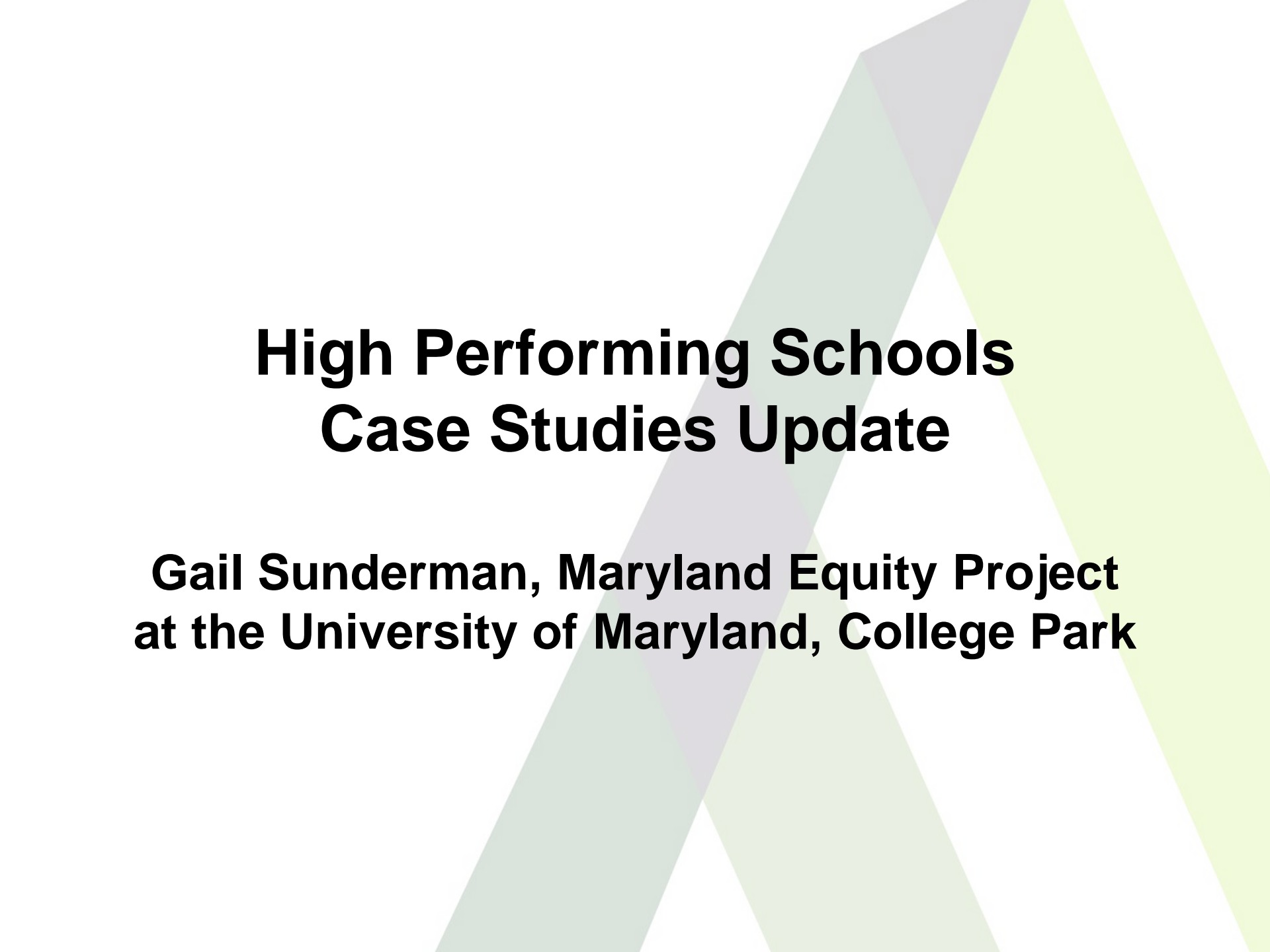
- Reduced Poverty
 - Reduced gap of FARMS to all students by 2 STD over 6 years (approximately 14 percentage points)
- Growth for Minority/Poverty/LEP/Special Ed.:
 - At least 50% growth for at least 2 of the subgroups over 6 years
- Additional selection criteria:
 - All schools in high growth, reduced poverty and high subgroup growth performance categories must have an overall performance level of 80% or more of students achieving proficient or better

School Selection Criteria

- The composite scores of schools (for MSA only) must not have decreased by more than 1 STD between 2012 and 2014 to ensure continued high performance under new state standards
- Update to PARCC results
 - When 2015 and 2016 PARCC results are available, the initial schools selected will be re-evaluated based on their PARCC results. Schools with significantly worse performance under PARCC will be eliminated from the sample used to determine the final base cost amount in summer 2016

School Expenditure Data Collection

- School level expenditures for selected schools must be collected directly from districts
- Work has started on developing data collection tool or protocol
 - Will be vetted by panel of district CFOs this winter
 - Possibly web-based
- Collection of FY 2014-15 expenditure data will take place during fall/early winter of 2015



High Performing Schools Case Studies Update

**Gail Sunderman, Maryland Equity Project
at the University of Maryland, College Park**

Case Studies

- Purpose of the case studies is to:
 - Inform the Evidence Based (EB) and other adequacy studies
 - Compare educational strategies and resource needs of the case study schools to those in the EB model and adjust the model if warranted
 - Provide detailed information about cost differentials among schools
- Case studies conducted in 12 schools

Selection Criteria

- For both the case studies of high performing schools and the successful schools adequacy study we are using the same 4 general performance categories:
 - High performing
 - Notable improvements in achievement
 - Reduced achievement gap between low-income and more affluent students
 - Improved performance of minority, low-income, English learner and/or special education students

Schools by Performance Group

- High performing
 - 2 elementary, 1 high school
- Notable improvements in achievement (growth)
 - 1 elementary, 1 middle, 1 high school
- Reduced achievement gap between low-income and more affluent students
 - 1 elementary, 1 middle school
- Improved performance of subgroups
 - 2 elementary, 1 middle, 1 high school

Characteristics of Schools Summary

- Location – schools located across 9 counties (37.5%)
- 12 schools selected:
 - 6 elementary – enrollment range: 250 - 675
 - 4 middle schools – enrollment range: 400 - 900
 - 2 high schools – enrollment range: 850 – 1,300
- FARMS – 40% - 86%
- ELL – 0% - 32%
- SPED – 0% - 19%

Characteristics of Schools – Race/Ethnicity

- White enrollment – 90% - 0%
 - 10 schools with some white students
- Black enrollment – 86% - 0%
 - 11 schools with some black students
- Latino enrollment – 58% - 0%
 - 11 schools with some Latino students
- Asian enrollment – 34% - 0%
 - 10 schools with some Asian students

Status of Case Studies

- All schools selected
- 2 site visits completed in October, 2014
- 9 site visits completed in January/February 2015
- 1 site visit remaining
- Researchers in process of analyzing the data and writing case reports
- Cross-case analysis in fall of 2015
- Final reports incorporated into adequacy study report



Wealth/Equity Study

**Bill Glenn, Picus Odden & Associates
and Virginia Tech University**

Wealth/Equity Study

- Purpose: To assess the equity of Maryland's school finance system and evaluate the method by which local wealth is determined – including the current use of Net Taxable Income
- Major study components:
 - Data collection
 - Equity analysis
 - Horizontal
 - Vertical
 - Fiscal Neutrality
 - Longitudinal statistical analysis
 - Analysis of changes to Net Taxable Income calculation

Data Collection

- For the equity study component:
 - Data requested from Maryland State Department of Education
 - Most of the data have been received, still need:
 - Student subgroup counts for vertical equity analysis
 - Some data for 2005
 - Using expenditure and revenue data for the years 2002 to 2013

Horizontal Equity Analysis

- Horizontal equity
 - Analysis without adjusting for student need factors
 - Total revenues and expenditures
 - Adjusted for transportation, food service, etc.
 - Partially complete
 - Needs: some data components for 2005

Vertical Equity Analysis

- Vertical equity
 - Analysis including adjustments for student need factors
 - Total revenues and expenditures
 - Adjusted for transportation, food service, etc.
 - Prepared, but not started
 - Most data same as for horizontal equity study
 - Need better data on student counts (have FARMs, need SPED, ELL)

Fiscal Neutrality Analysis

- Fiscal Neutrality
 - Relationship between wealth and revenues/expenditures
 - Partially completed, except where missing data from horizontal equity study

Longitudinal Analysis

- Based on findings of the equity analysis
- Will be completed for all equity statistics over the 10 year study period - 2002 to 2013
- This will allow us to assess trends in equity over time

Local Wealth Analysis

- Process for determining state and local share of school revenues was modified in 2013 to allow for the use of an alternative certified Net Taxable Income amount
- Overall goal is 50% state revenue, 50% from local resources
- State aid is inversely related to local wealth

Measure of Local Wealth

- Local wealth is the sum of Net Taxable Income + 40% of real property assessable value + 50% of personal assessable property value + 100% of public utilities assessable value

Net Taxable Income

- Per the changes enacted in HB 229 in 2013, Net Taxable Income is the greater of the certified amount on September 1 or November 1
 - Purpose of the change is to include income from returns filed by October 15 (not captured by Sept. 1 measure)
 - For many counties this will result in greater state aid
 - It will also redistribute some state aid among counties
 - Additional aid is phased in over five years
 - Governor has proposed a one year delay in phase-in of the additional aid

Wealth Analysis Issues

- Impact of change in Net Taxable Income on distribution of state aid to school districts
- Maryland uses an additive formula to combine income and property wealth
 - Many states that include income now use a multiplicative formula
- Maryland includes personal property in local wealth
 - Many states have moved to using only real property

Other Issues

- Local Property is assessed every three years so assessed value may not accurately reflect current property values
- If property tax exemptions are granted, the additional assessed value is included in the measure of local wealth for computing state aid, but revenues are not available to the district

Components of the Wealth Analysis

- Description of the current funding system
 - Measures of wealth
 - Distributional impact on districts
 - Estimated impact of one-year delay in implementation of new measure of Net Taxable Income
- Comparison with local wealth measures in other states
- Conceptual analysis of additive v. multiplicative income factors in measurement of local wealth
- Consideration of alternative assessment practices (general analysis)

Recommendations and Reporting

- Recommendations derived for our analyses and the final report are due September 30, 2015



Enrollment Change Study

Bob Schoch, Education Finance Decisions

Enrollment Change Study

- The purpose of the changing enrollment study is to assess the impact of enrollment changes on district finances, including transportation costs
- The study components consist of:
 - Analyzing the impacts on district operating costs
 - Analyzing the impacts on district transportation costs
 - Identifying and modeling the factors impacting these costs
 - Developing recommendations
 - The final report is due June 30, 2015

Data Collection

- In process of collecting data from MSDE on enrollment, student transportation, operating expenditures, and school systems
- Conducting a literature review on impacts of changing enrollment and reviews of available studies from other states.
 - Reviewing Maryland Planning Department Public School Enrollment Projections report (2014), particularly impact of declining birth rates
- Later this winter we will be collecting additional data on operations and transportation practices from local school systems via survey and/or interviews with selected systems

Analysis of Enrollment Change on District Operating Costs

- In the process of conducting analyses of enrollment change and its relationship to:
 - District/school operating costs
 - The cost implications of changing enrollments for key areas of operations such as staffing, technology, and fixed versus variable costs.
 - The cost implications of changing enrollments on facilities costs

Analysis of Enrollment Change on Transportation Costs

- Beginning analyses of enrollment change and its relationships to transportation elements, including:
 - Enrollment and ridership trends
 - Transportation expenditures
 - Annual and multi-year changes in amounts and percent
 - Transportation operating trends
 - Effects of enrollment changes on transportation costs
 - Operation of state funding formula for transportation
 - Impacts of cost and enrollment changes

Enrollment Change Model

- Will begin developing a model for modeling fiscal impact of decisions related to changing enrollments later this winter/spring. Will examine:
 - Increasing and decreasing enrollments
 - Urban and rural settings
 - Elementary and secondary schools

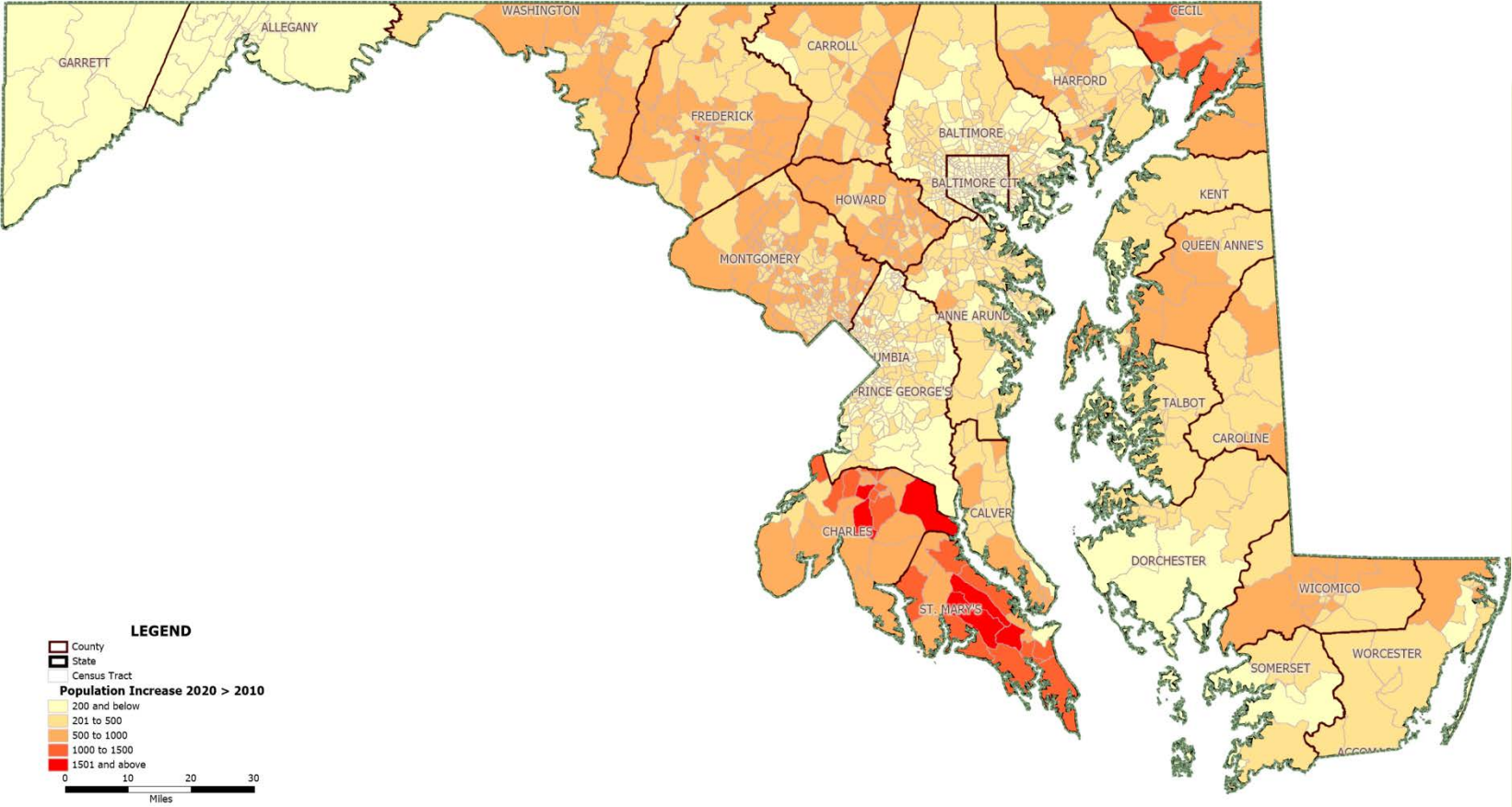
Review of Key Factors Influencing Costs

- Will begin comprehensive review of key factors influencing costs later this winter/spring, including:
 - Identifying the critical aspects of local school systems' operational practices and their relation to operations and transportation costs
 - Benchmarking operations from several Maryland local school systems with national best practices databases

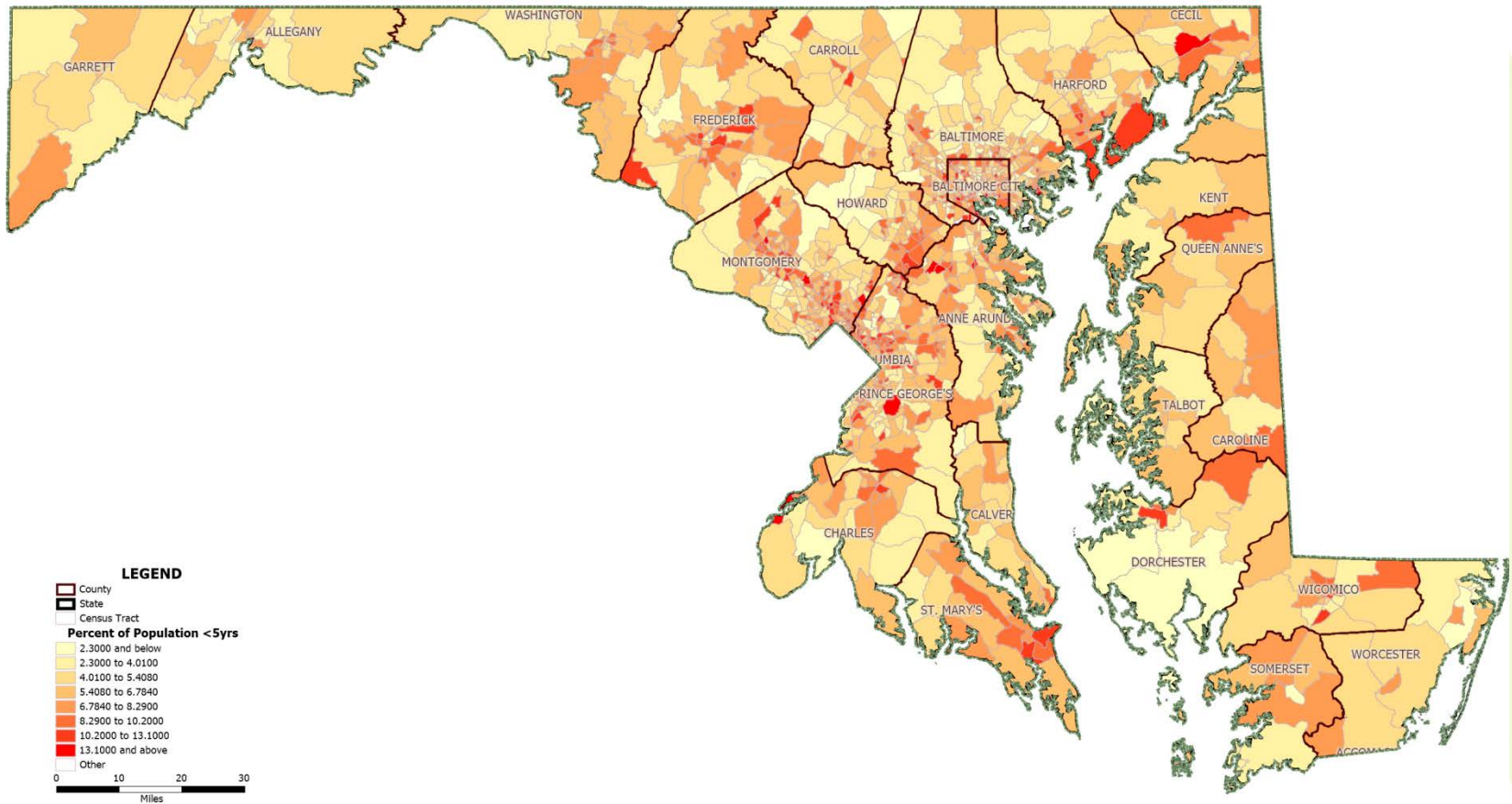
Recommendations and Reporting

- Recommendations will focus on:
 - Potential adjustments to the state funding formula for:
 - Compensating for significant enrollment changes where appropriate
 - Providing incentives for developing more efficient local operations, responding to changes in enrollments, and enhancing equity of funding
 - Opportunities for local school systems to improve the efficiency of school operations, transportation operations and other district processes
- Reporting
 - Final report on the impact of enrollment changes due June 30, 2015

Population Projections-2020

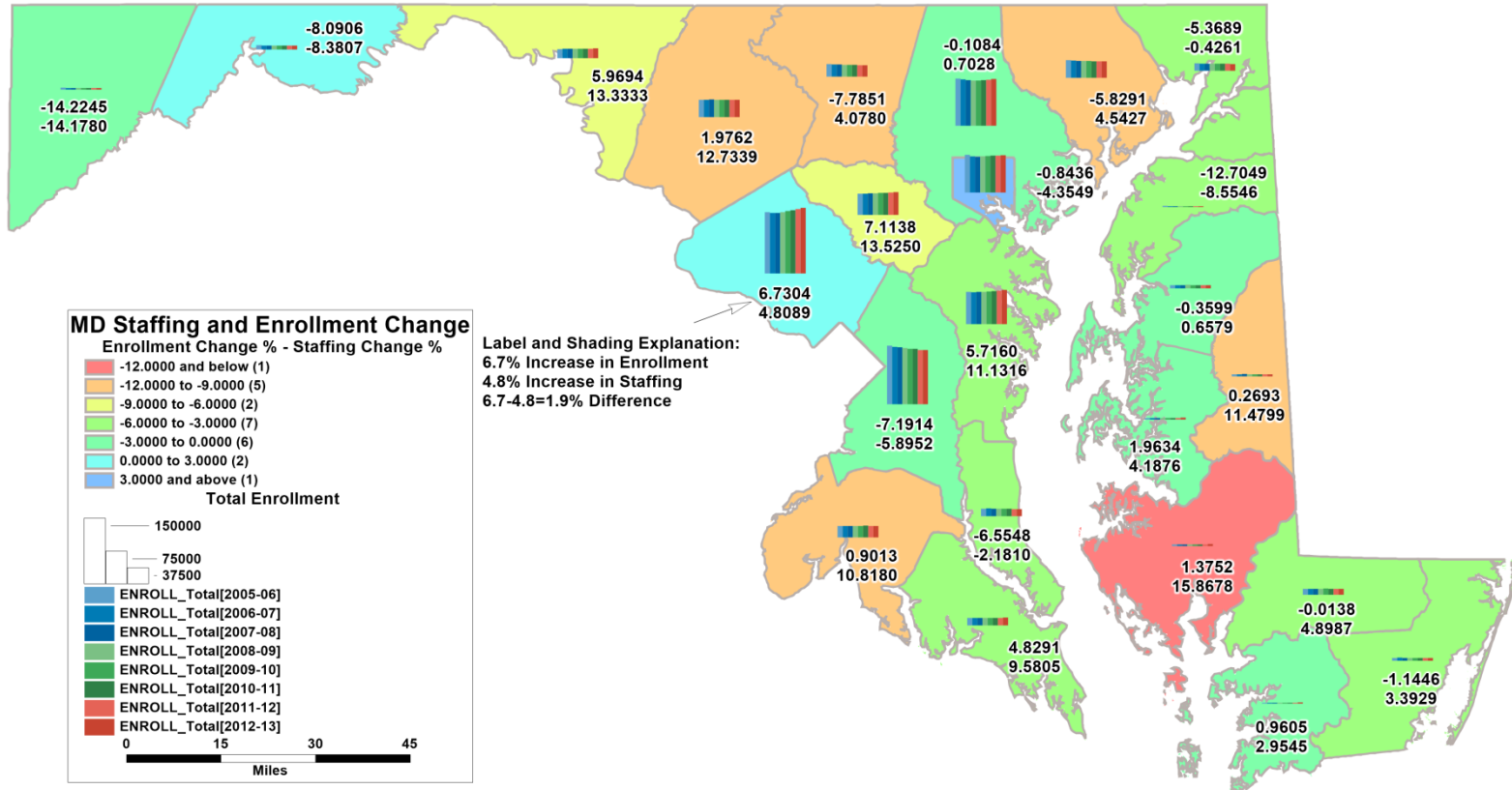


Future Students not in School System Yet



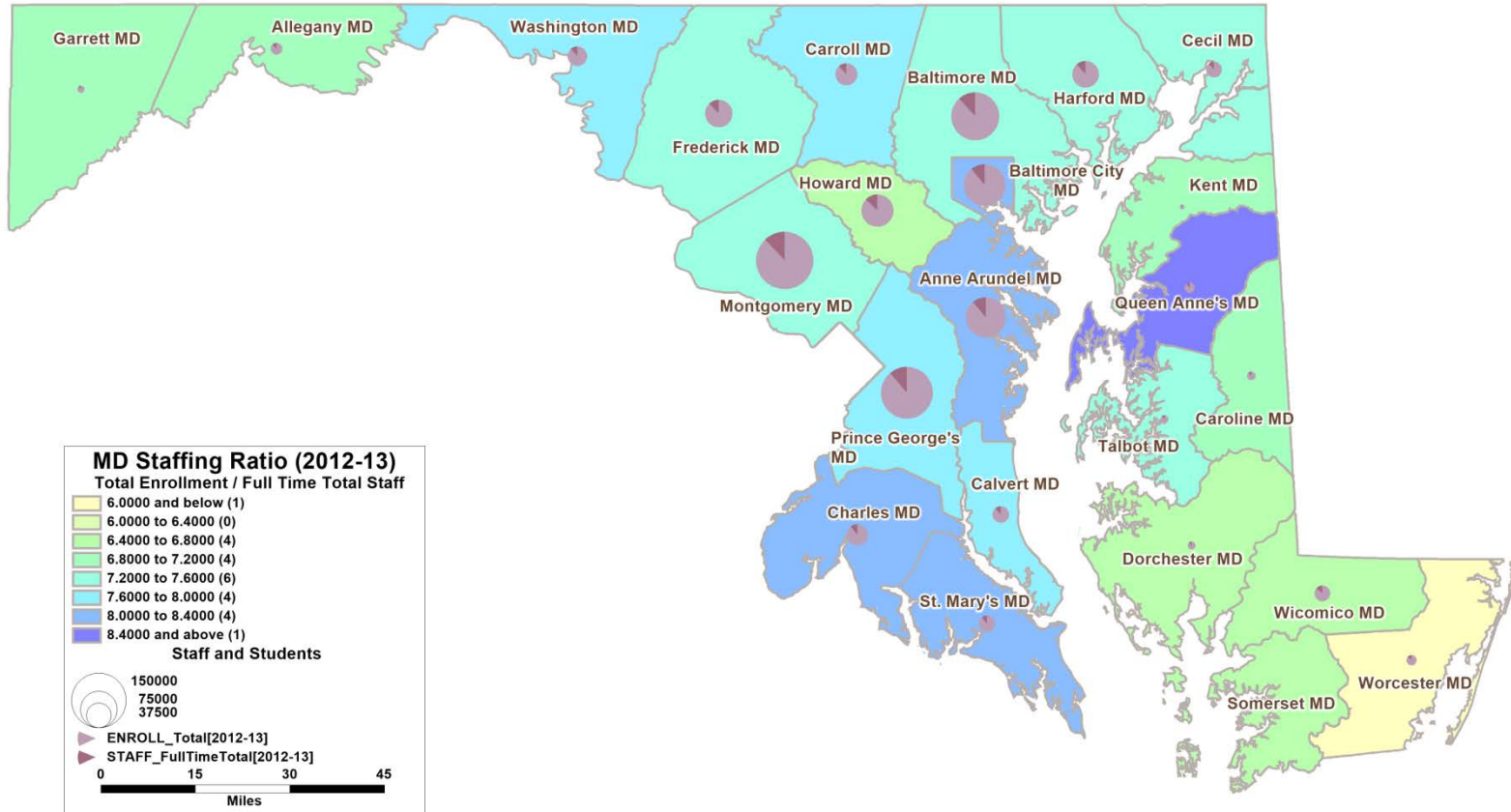
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Enrollment and Staffing Percentage Change

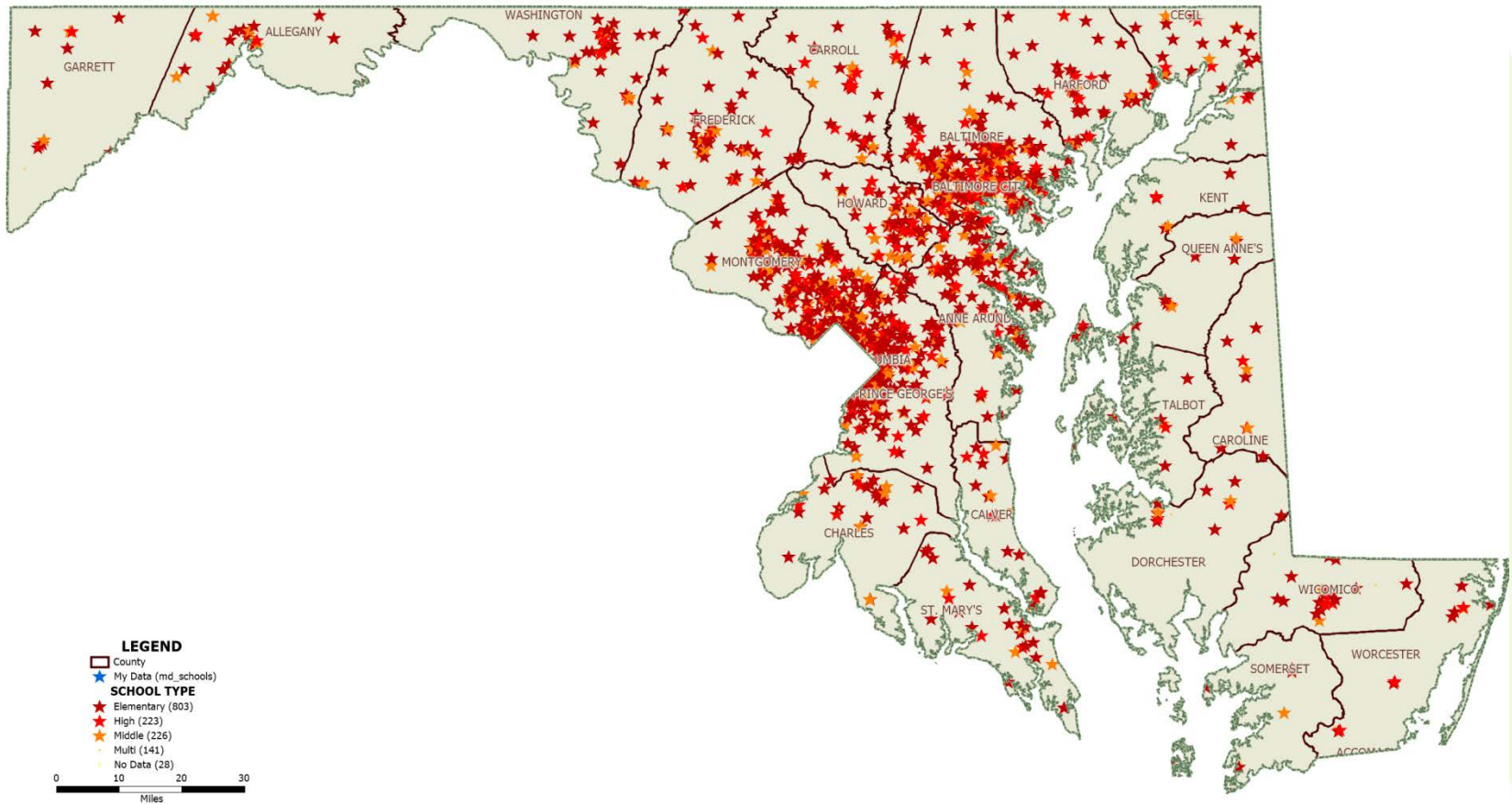


*Formula: $100 * \left(\frac{ENROLL_Total[2012-13]}{ENROLL_Total[2005-06]} - 1 \right)$
 $100 * \left(\frac{STAFF_FullTimeTotal[2012-13]}{STAFF_FullTimeTotal[2005-06]} - 1 \right)$

Staffing Ratios

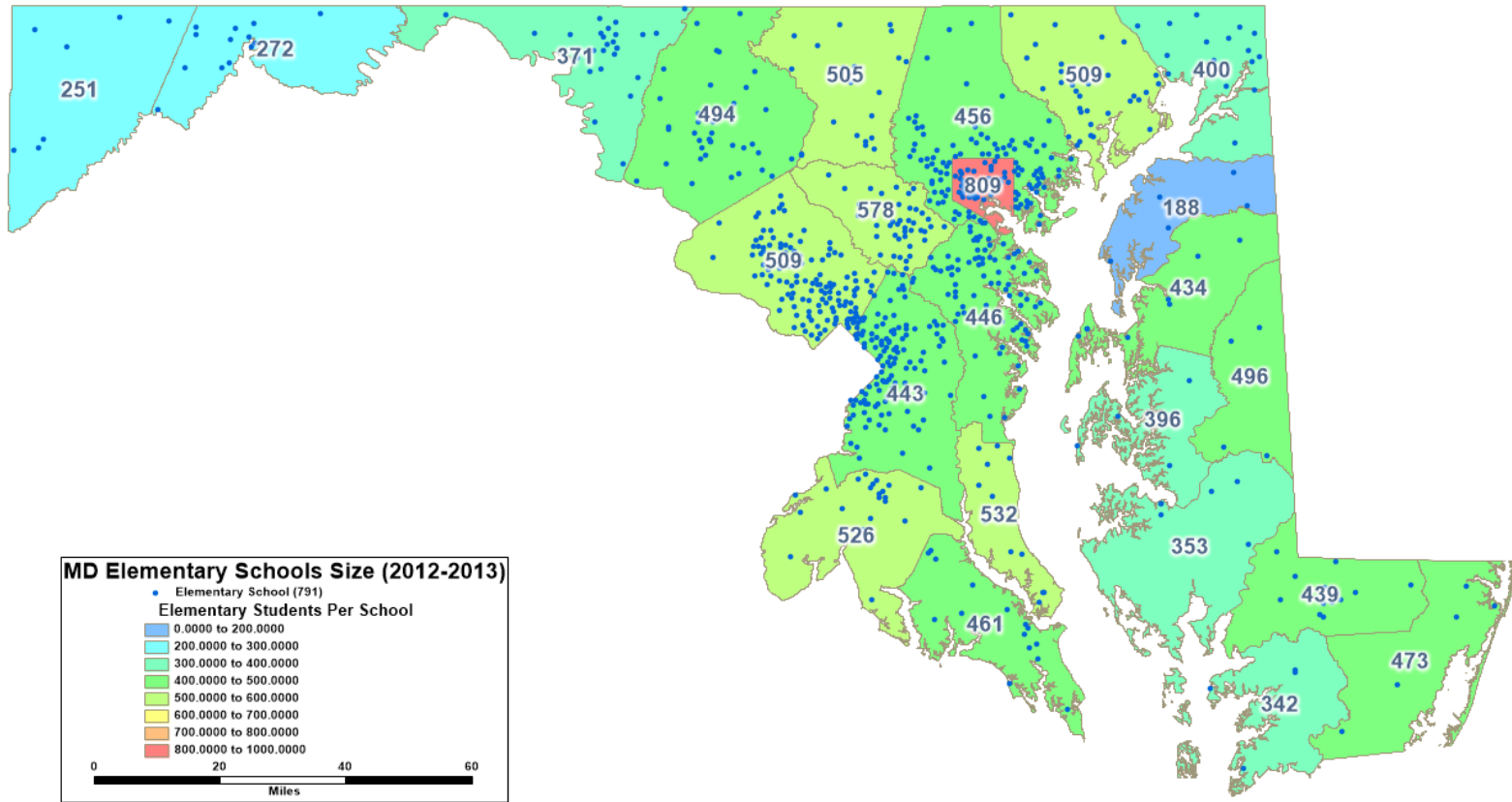


School Locations-Population Density and Sparsity

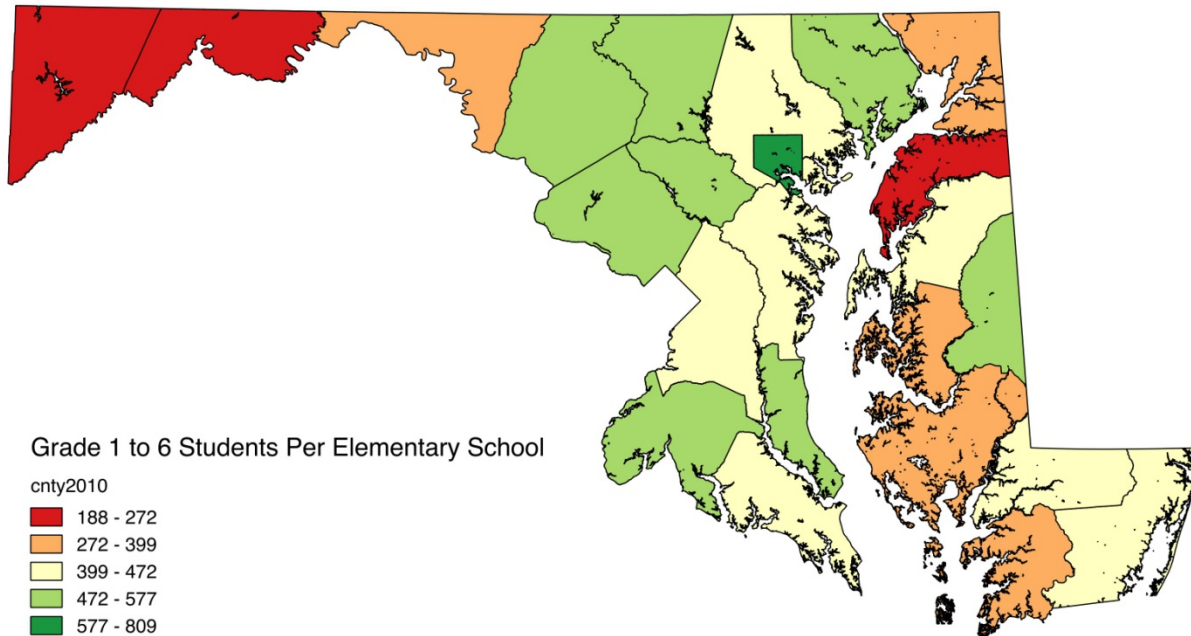


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Elementary School Sizes



Elementary School Size and Diseconomies of Scale Due to Sparsity





Prekindergarten Services and Funding Study

Simon Workman, APA Consulting

Prekindergarten Services and Funding Study

- The purpose of this study is to:
 - Evaluate the existing prekindergarten services provided in Maryland, including enrollment, capacity, and quality
 - Analyze the current funding streams that support Pre-K in Maryland
 - Estimate the costs and benefits of providing universal Pre-K services in Maryland:
 - How much additional capacity is required?
 - How much funding is required? What are the potential sources?
 - What is the impact on capacity and funding requirements to serve 4-year-olds or to serve 3- and 4-year-olds?
 - What is the return on investment of providing universal Pre-K services?
- Final report is due September 30, 2015

Prekindergarten Services and Funding Study

- The key components of the study consist of:
 - Assessing current capacity and quality of Pre-K services
 - Analyzing the quality distribution
 - Maryland EXCELS
 - Accreditations
 - Analyzing Pre-K funding streams – federal, state, local, private
 - Making comparisons to similar states
 - Enrollment, funding, quality
 - Similar based on ECE system, geography, population

Prekindergarten Services and Funding Study

- Conducting a cost-benefit analysis:
 - Focusing on Return on Investment of Pre-K
 - Methodology based in national research studies, adapted to local MD context
- Modeling system-wide Return on Investment:
 - Cost of quality, using Maryland EXCELS as measure of quality, calculate cost per child at different settings
 - Estimate costs and benefits of providing Pre-K
 - Steps to universal; impact of 3 year olds and 4 year olds
- Making recommendations

Activities

- Data collection – currently engaged in collection of data on capacity, quality, funding, and spending
 - State data request
 - Review of websites, collection of additional data
 - Ongoing through the winter
- Developing understanding of Maryland system
 - Attended Maryland Early Childhood Care and Education Research Forum, January 2015
 - Met ECE leaders
 - Gained deeper understanding of Maryland ECE context
 - Gathered ideas for state comparisons
 - Heard about lessons learned from Boston Public Schools Oklahoma and West Virginia; their experiences and challenges implementing universal Pre-K
 - Reinforced importance of quality to return on investment

Activities

- Data analysis and state comparisons - through spring 2015
- Develop cost-benefit analysis model and model return on investment (ROI) - spring and summer 2015
 - Includes literature review on best ROI practices and models
 - Begin gathering Maryland specific data for ROI analysis
- Recommendations and reporting
 - Final report due September 30, 2015



Questions?