

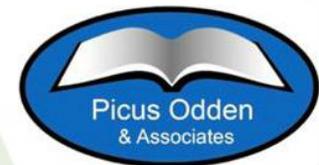


AUGENBLICK,
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Presentation to the Stakeholder Advisory Group December 9, 2014

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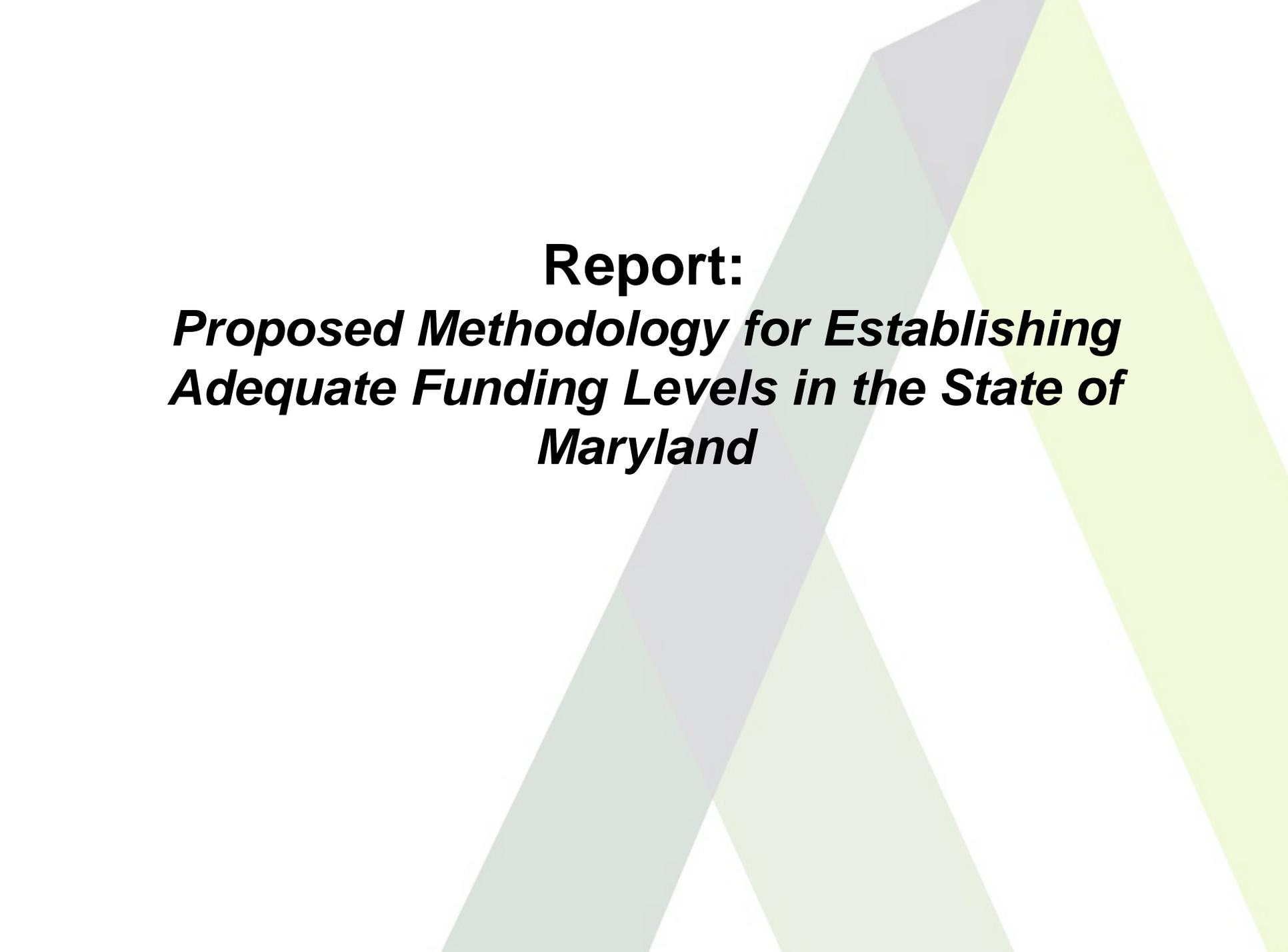


Today's Presentation

- Briefing on reports submitted in November
 - *Proposed Methodology for Establishing Adequate Funding Levels in the State of Maryland*
 - *Preliminary Impact of School Size Report*
- Overview of materials for professional judgment panels for the PJ and EB adequacy studies
- Case study school selection process, update on case study progress
- Successful schools adequacy study school selection process, proposed criteria

Today's Presentation

- Overview of evaluation study of alternative methods for identifying/counting economically disadvantaged students
- Q & A



Report:
***Proposed Methodology for Establishing
Adequate Funding Levels in the State of
Maryland***

Methodology from Proposal

- APA and partners proposed using three approaches to estimating adequacy in Maryland:
 - Evidence-based (EB)
 - Professional judgment (PJ)
 - Successful districts/schools (SSD)

Methodology from Proposal

- Evidence-based approach
 - Uses results of research, best practices, and case studies to identify elements of prototypical schools at each level (Elementary, MS, HS) and district central office functions
 - Convenes 4 panels of educators to review prototypes and recommend adjustments for Maryland standards and context
 - Identifies base cost amount and student weights

Methodology from Proposal

- Professional judgment approach
 - Assemble 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
 - Working with MSDE to identify and recruit participants
 - Identifies base cost and student weights

Methodology from Proposal

- Successful schools approach
 - Will identify successful schools using criteria similar to case study selection process
 - Use MSA/HSA data for main analysis, review results when PARCC becomes available in 2015 & 2016
 - Because state has few districts, analysis will be conducted at school level – will require collecting school spending data from districts
 - Used to identify per student base funding amount

Methodology from Proposal

- Case studies of 12 high performing schools will be used to inform the EB approach and several other required studies as to:
 - The Maryland context
 - Effective practices currently in use in the state
 - The cost structures of effective schools in the state
 - Staffing
 - Time
 - Materials and technology

Avenues of Input into Proposed Methodology

- Since study proposal was submitted in April, APA has received input on the study from the following sources:
 - Maryland state staff from MSDE, Department of Budget & Management and Legislative Services
 - The Stakeholder Advisory group
 - APA report reviewing state adequacy studies since 2003

Methodological Areas Impacted

- Input received fell into four general categories:
 - The appropriate assessment data to use for selecting high performing schools for the case studies and the successful schools analysis;
 - The makeup of the practitioner panels used in the evidence-based and professional judgment studies;
 - Assessing the impact of increasing concentrations of poverty on resource needs; and
 - Other best practices identified in the review of past adequacy studies

Appropriate Assessment Data

- Proposal suggested using latest 6 years of state assessment data for selecting schools for case studies and successful schools adequacy study
- MSDE advised that MSA was not well aligned with new standards adopted for 2012-13 (lesser effect on HSA) and recommended against using MSA data beyond 2011-12
- Change in method:
 - Use 2006-07 to 2011-12 MSA data for initial selection
 - Analyze relative performance on 2013-14 MSA, exclude schools with larger drop off (more than 1 standard deviation)

Appropriate Assessment Data

- Because there was less impact on HSA scores, most recent 6 years of HSA data were used (2007-08 to 2012-13)
- Schools' relative performance will again be assessed when 2014-15 & 2015-16 PARCC data become available, schools with larger decreases will be excluded from successful schools analysis (will likely use same greater than 1 standard deviation benchmark)

Include Science Assessment Data

- Proposal suggested selecting schools based on math and reading assessment performance
- Because state has adopted Next Generation Science Standards, it was necessary to include achievement in science as part of criteria for school selections
- Change in method:
 - School selection performance data request was modified to include 5th & 8th grade science scores on MSA and biology scores on HSA

Makeup of PJ Panels: Selecting Participants

- In our proposal, PJ panels are used in both the PJ and EB approaches
- In past studies, the study team has selected panel participants by seeking nominations from various sources, typically state education associations, of highly accomplished educators
- Change in method:
 - Maryland has an existing pool of highly accomplished, state vetted Master Teachers from which to draw teachers
 - A similar process that seeks nominations of highly qualified staff from districts will be used for identifying other participants for the panels

Makeup of PJ Panels: Technology Specialists

- As proposed, APA typically only includes technology specialists on its school level panels. POA does not include them in their 4 review panels.
- The Stakeholder Advisory Group recommended including a technology expert on the district panel because most technology specialists in the state are employed at the district level
- Change in method:
 - APA will include a technology specialist on its district panel. POA will include technology specialists on all 4 of its review panels.

Assessing the Impact of Concentrations of Poverty

- In both the PJ and EB approaches, the method for estimating resources for students in poverty has consisted of 1) identifying a set of interventions, 2) costing these interventions out, and 3) then applying on a per student basis, often as a weight
- The same per student amount or weight is typically applied regardless of poverty concentrations in a district or school

Assessing the Impact of Concentrations of Poverty

- The RFP requires (and the Stakeholder Group has requested) that we conduct an analysis of if/how greater concentrations of poverty affect the adequacy estimate
- Change in method:
 - We will conduct a review of the literature to specifically assess whether recommending a variable weight for students in poverty based on concentration level is warranted

Best Practices Identified in Adequacy Study Review Report

- Our earlier report on prior adequacy studies identified the following best practices:
 - A clear focus on improvement of student performance
 - The potential value of case studies
 - The importance of state policy makers and local stakeholders in the process
 - Combining multiple methods in each study
 - Being selective in identifying professional judgment panels participants
 - Employing multiple professional judgment panels
 - Accurately representing the cost of employee benefits in the analysis

Best Practices Identified in Adequacy Study Review Report

- As proposed, we believe the study incorporates all but the last best practice
- Change in Method:
 - We will explore with MSDE, an approach for ensuring accurate estimates of the cost of fringe benefits, especially health insurance costs, which may often be underestimated



Report:
Preliminary Impact of School Size Report

Impacts of School Size Report

- This report focuses on:
 - Impacts of schools size on achievement and funding
 - Models of smaller schools/learning environments
- Provides updates to:
 - Maryland LEA school size policies
 - Other state's school size policies
 - Impacts of local capacity and zoning ordinances

Effects of School Size

The Literature

- The literature on student outcomes is mixed, but suggests:
 - School size may be an enabler of higher performance, but not a primary driver. Other conditions *must* accompany smaller size to positively impact student outcomes
 - Smaller schools' impact is greatest for low income and other special needs students

Effects of School Size

The Literature

- Smaller schools also appear to:
 - Positively influence school climate. Research suggests smaller schools nurture deeper, more personal relationships among staff, students and families
 - Have better attendance rates and fewer discipline problems
 - Encourage broader participation in extracurricular activities, although the range of activities may be more limited
 - Cultivate greater educator, family and student satisfaction

Effects of School Size

The Literature

- The financial impact of smaller schools is also somewhat mixed, however the research suggests:
 - The impact of school size on efficiency is “U” shaped – very small schools and very large schools cost more per pupil to operate, greatest efficiencies are somewhere in the middle
 - While smaller schools may be more costly, they may also produce higher outcomes, leading to a favorable cost/benefit relationship

Models for Creating Smaller Schools

- Based on research suggesting the advantages of smaller learning environments, funders such as the U.S. Department of Education and the Gates Foundation drove the development of alternative models of small schools during the 1990s and early 2000s
- The most common models are summarized in the following slides. These categories were developed by Cotton (2001)

Models for Creating Smaller Schools

- School within a School/School within a Building:
 - Locates several small schools within a single building
 - The school within a school model has a single building administrator or principal responsible for the entire campus
 - The school within a building model has multiple principals, each of whom is autonomous

Models for Creating Smaller Schools

- Smaller Learning Communities:
 - Consist of individual learning units within a larger school
 - Teachers and students are scheduled together and typically share common areas of the school for holding classes

Models for Creating Smaller Schools

- Career Academies:
 - Provide a specialized, focused curriculum that supports career exploration and preparation
 - These programs seek to develop a shared community with common long-term goals and interests
 - Have become increasingly popular over past decade

Models for Creating Smaller Schools

- Autonomous Small Schools:
 - Is a small, freestanding school with independent governance and budget control, such as a charter school
 - Autonomous schools are also able to independently select their teachers, and in some cases, students
 - Maryland LEAs have experimented with autonomous small schools, namely in Baltimore City where a contract was awarded to Edison Schools to manage a number of small schools in need of reform

Models for Creating Smaller Schools

- Alternative Schools:
 - Designed to serve students who have not been successful in traditional school settings
 - Offer students more flexibility in their program of study and/or class schedule
 - These schools may be physically located within another school or in a separate building

Models for Creating Smaller Schools

- Magnet Schools or Theme-Based Schools
 - Provide a curriculum and school activities designed around a particular area of study or theme
 - Seek to build a learning community around shared interests and experiences focused on a particular subject
 - All classes are taught using the school's subject focus, such as STEM
 - Several Maryland LEAs have magnet schools, including foreign language immersion schools

Update on School Size Policies Nationally and in Maryland

- Nationally, have identified only two states with explicit school size guidelines: Arizona and North Carolina
- Surveying 19 of 24 districts in Maryland, have confirmed 10 districts with a school size policy

School Type	Range of Maximum School Sizes	Median
Elementary School	550-750	647
Middle School	700-1,200	875
High School	1,200-1,695	1,500

Zoning and Adequate Public Facilities Ordinances

- To date, have reviewed Adequate Public Facilities Ordinances in Maryland
 - Have identified 14 counties with such ordinances
 - Purpose is to ensure that adequate infrastructure is planned for and constructed in conjunction with new housing developments
 - Ordinances in Maryland generally include minimum capacity requirements and required timelines for construction (for example, school space meeting minimum capacity requirements must be constructed within three years of development)

Areas of Further Study for Final Report

- Model the effects of smaller school size on operating and construction funding in Maryland
- Provide a more in-depth analysis of the effects of schools size on school climate and student outcomes
- Analyze the impacts of school attendance boundaries on school size
- Explore examples of alternative models for smaller schools nationally and in Maryland

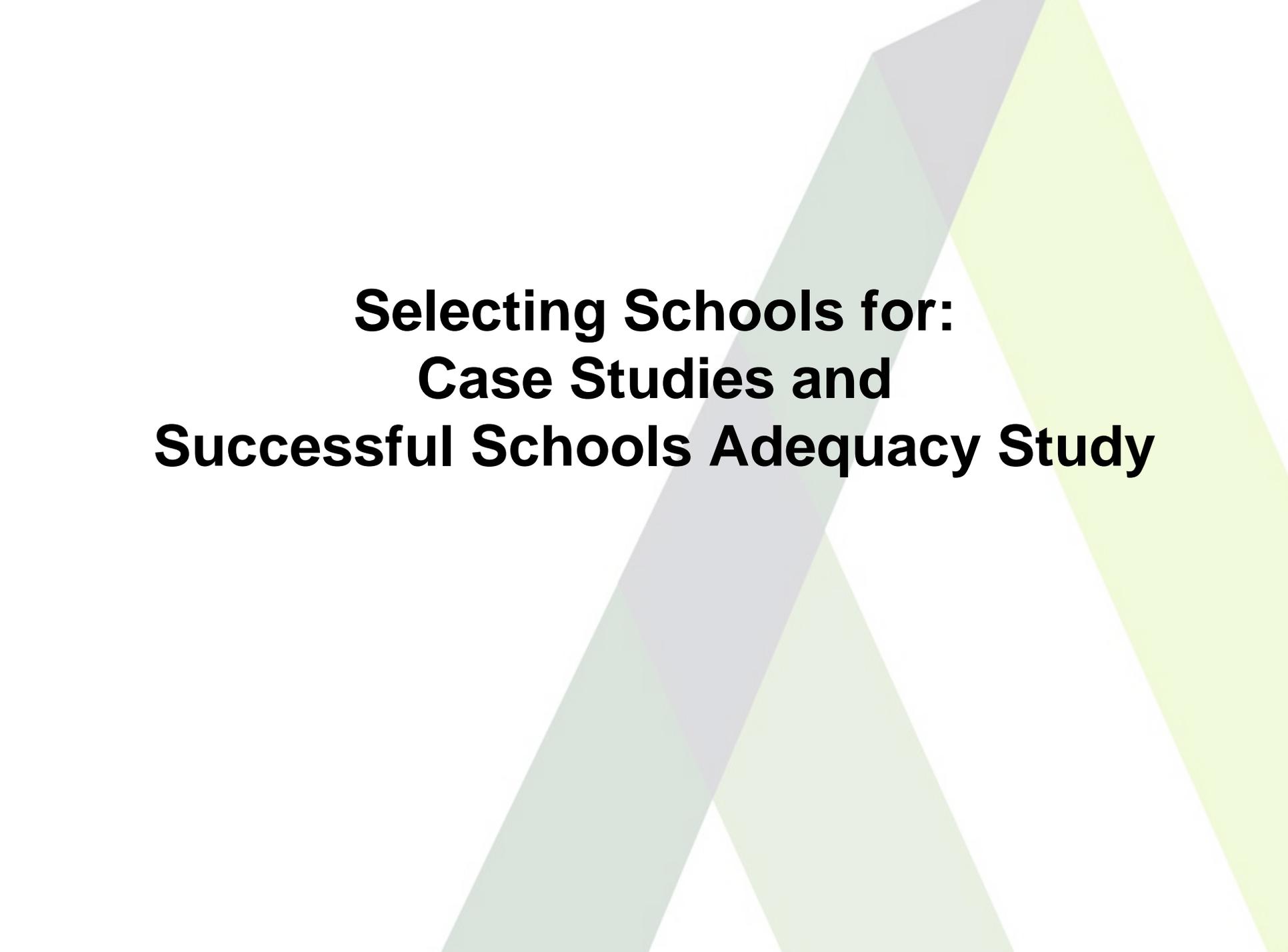
Areas of Further Study for Final Report

- Analyze the relationship between school size and extracurricular activities in Maryland
- Identify drivers of the variation in capital spending among districts in Maryland, including zoning and other ordinances
- Make recommendations for optimal school sizes in Maryland



Professional Judgment Panel Materials

(Please see handouts)



**Selecting Schools for:
Case Studies and
Successful Schools Adequacy Study**

Selection Criteria

- For both the case studies of high performing schools and the successful schools adequacy study we are using the same four general performance categories:
 1. High performing (Attainment)
 2. Notable improvements in achievement (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

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
- Will conduct case studies in a total of 12 schools

Selection Criteria: Case Studies

- Driven by data, hope to provide balanced selections across school levels and geographically
- Calculated composite scores of proficient and advanced (P & A) encompassing all subjects for:
 - All students in the school
 - FARMS, ELL, Special education
 - Asian/White, Other minorities
- Subjects consisted of reading, math & science on MSA, English, algebra & biology on HSA

Selection Criteria: Case Studies

- Specific Criteria:
 - Overall high performing schools:
 - 90% or greater P & A on state assessments over 6 year period (2007-2012 MSA, 2008-2013 HSA)
 - Less than 1 standard deviation (STD) fall off between 2012 and 2014 (MSA – elementary and middle schools only)
 - Minimum FARMs percentage of about 40%, and/or significant ELL or minority student population
 - Exclude schools with specialized programs or entrance requirements

Selection Criteria: Case Studies

- Specific Criteria:
 - High growth schools:
 - Overall growth over 6 year period (2007-2012 MSA, 2008-2013 HSA) of at least 50% or greater P & A on state assessments for all students
 - 2011-12 P & A of at least 60% for all students
 - Less than 1 standard deviation (STD) fall off between 2012 and 2014 (MSA – elementary and middle schools only)
 - No schools with very small programs or entrance requirements

Selection Criteria: Case Studies

- Reduced achievement gap between low income and more affluent students:
 - Reduced gap over 6 year period by at least 2 STDs
 - 2011-12 P & A of at least 60% for all students
 - Less than 1 standard deviation (STD) fall off between 2012 and 2014 (MSA – elementary and middle schools only)
 - At least moderate FARMs concentration
 - No schools with very small programs or entrance requirements

Selection Criteria: Case Studies

- Improving achievement of low income, ELL and special education students:
 - Growth for at least 2 of the 4 subgroups of at least 50% over 6 year period
 - 2011-12 P & A of at least 60% for all students
 - Less than 1 standard deviation (STD) fall off between 2012 and 2014 (MSA – elementary and middle schools only)
 - No schools with very small programs or entrance requirements

Status of Case Studies

- Two schools selected and studied on Oct. 28:
 - Chadwick Elementary, Baltimore Co. (high perf.)
 - Chillum Elementary, Prince George's Co. (high growth)
- Training of Maryland Equity Project researchers held on Oct. 29th
- Selection of remaining 10 schools nearly completed

Case Study Training

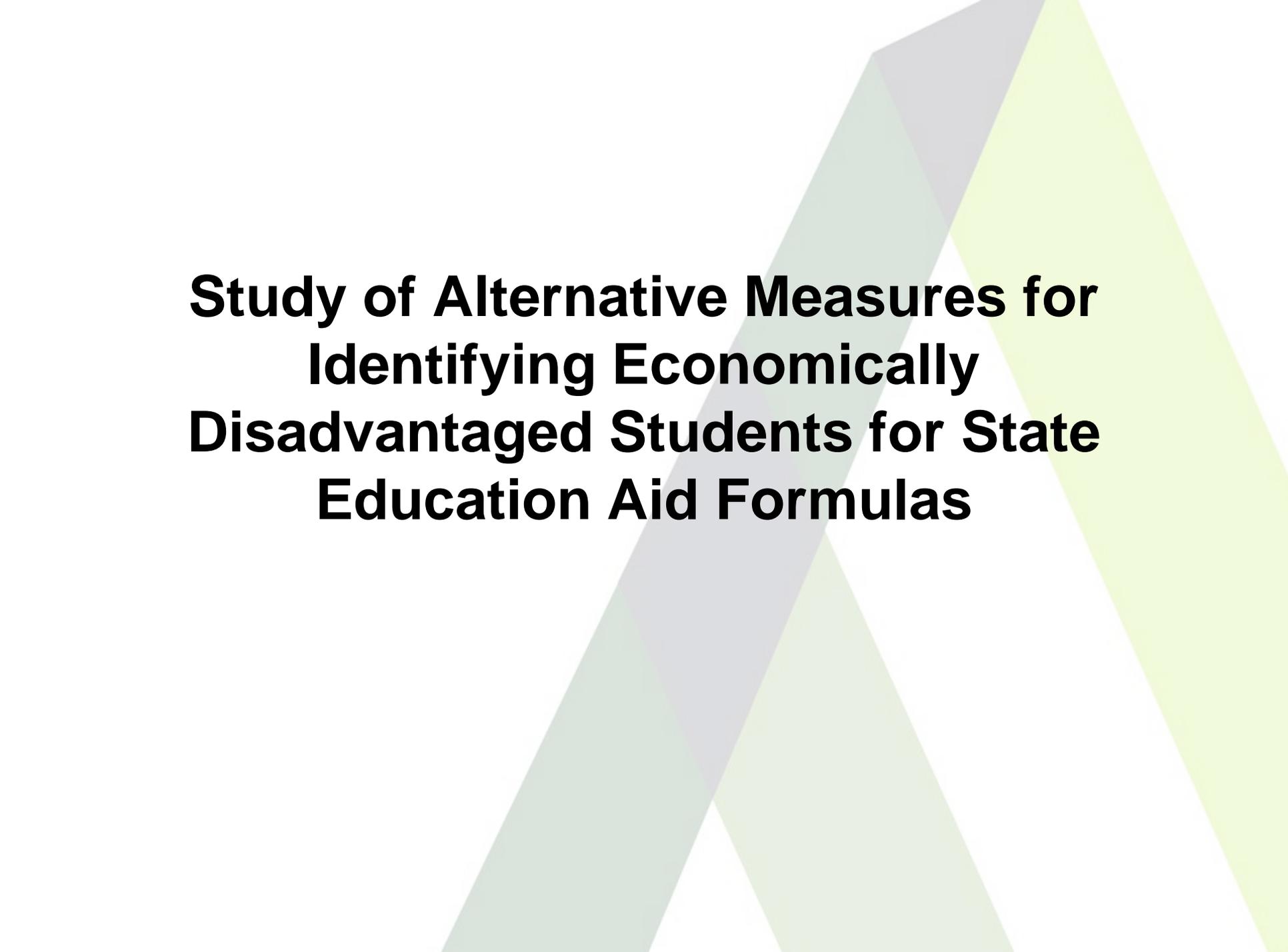
- Overview of larger adequacy study
- Review of the EB Improvement Model
- Review of the case study research questions
 - How do Maryland's schools improve performance?
- Purpose of school visits
 - Inform EB and other related studies
 - Compare strategies and resource needs of Maryland schools to those in EB model
- Scheduling process for school visits
- Case study write up protocol

Selection Criteria: Successful Schools

- Expect to select up to 70 or 75 schools for the successful schools adequacy study
 - 59 schools were selected in 2001 study
- Case study selection criteria will be used with some differences:
 - Lower or no requirement for special needs student concentrations for overall high performing schools
 - Growth and achievement gap criteria will likely include a higher absolute minimum performance level (for example 80% rather than 60%)

Selection Process: Successful Schools

- Initial selection based on 2007-2012 (MSA)/2008-2013 (HSA) assessment data
 - Retain maximum decrease from 2012 to 2014 of 1 STD for elementary and middle schools
- Initial cost analysis will be conducted using schools selected using these data
- When 2015 and 2016 PARCC data become available, will average the 2 scores and remove schools with more than 1 STD decrease between 2012 and the averaged PARCC scores, then rerun analysis



**Study of Alternative Measures for
Identifying Economically
Disadvantaged Students for State
Education Aid Formulas**

Research Questions:

Evaluate the impact of the Community Eligibility Provision on state aid formulas and examine alternatives to the number of students eligible for free and reduced price meal (FRPM) for identifying economically disadvantaged students

This study will consist of two parts:

- Assess the potential costs of the Community Eligibility Provision of the Healthy, Hunger-Free Kids Act (HHFKA) on school funding formulas driven by FRPM counts
- Explore alternative measures to the use of FRPM counts as a proxy for economic disadvantage
 - State currently uses the count of students eligible for FRPM

Current Funding for Economically Disadvantaged Students

- Current primary and secondary education funding includes targeted state aid for economically disadvantaged students
- This funding is determined by providing an additional weighting of .97 of the per student foundation amount for students eligible for the federal free and reduced price lunch program
- For the 2014-15 school year this equals \$6,654 per eligible student, with on average half paid by the state (\$3,327) + foundation amount of \$6,860

Community Eligibility Provision

- Under CEP, schools use alternative indicators to identify who qualifies to participate in National School Lunch Program (NSLP) and School Breakfast Program (SBP)
- Schools qualify for CEP if 40% or more of their students are homeless, are migrant, live in foster care, participate in Head Start or live in households that participate in the Supplemental Nutritional Assistance Program (SNAP)/food stamps, the Temporary Cash Assistance for Needy Families (TANF) or the Food Distribution Program on Indian Reservations (FDPIR)

Possible Implications

- CEP does not provide a direct count of FRPM students, complicating school funding formulas based on FRPM counts
- School funding formulas based on FRPM counts require proxies to estimate those counts (national recommendation is 1.6 times the CEP eligible population)
- Using an alternative proxy may increase or decrease the amount of funding school districts receive through state funding

Preliminary Findings

- 371 schools in Maryland were eligible to participate in CEP this year, covering 216,800 students
- Only 6 schools actually participated
- 1,067 schools were not eligible, however 259,038 students still received FRPM benefits under standard eligibility
- A 1.6 proxy overestimates FRPM eligibility in some districts and underestimates in others

Next Steps

- Clarify how MSDE identified CEP eligibility in 2013 and 2014
- Clarify proposed procedures for estimating FRPM students in CEP schools
- Examine different proxies (ratios) associated with estimating FRPM enrollments in CEP schools
- Estimate costs associated with different proxies

Alternative Measures

- Review of literature regarding strengths and weakness of current measures of low income
- Review of state funding formulas that include additional funding for schools with higher enrollments of students from low income families

Preliminary Findings

Literature:

- FRPM most widely used indicator of low income in education and much education-related research
- Schools with similar FRPM enrollments may have very dissimilar levels of family income
- Administrative advantages to using alternative measures, such as those proposed by CEP
- Measures based on participation in federal programs may lead to under counts of children in poverty
- Concentration of low-income families has a disproportionate effect on student outcomes

Preliminary Findings

State Funding Formulas:

- A minimum of 37 states include some form of “at-risk” funding
- 15 states use FRPM enrollments solely to determine funding
- Three states restrict calculations to the free meal program
- Six states use FRPM along with additional factors, such as English Language Learner enrollments
- The remaining 12 use a range of alternative indicators, including achievement levels, Title I status, student mobility, foster home participants, single parent households, parents without high school degree, and households participating in federal nutritional programs (SNAP/food stamps)

Next Steps

- Continue review of literature
- Continue review of state funding formulas
- Develop list of alternative measures, including an assessment of the strengths and weaknesses of each



Questions?