Case Studies of High Performing and Improving Schools
Cross Case Analysis

Prepared for
The Maryland State Department of Education
Study of Adequacy of Funding for Education in the State of Maryland

By

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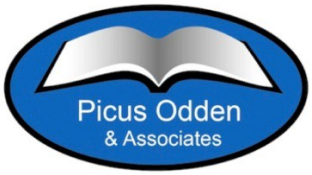
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Introduction

Between October 2014 and March 2015, Picus Odden & Associates (POA) together with the Maryland Equity Project (MEP) conducted 12 case studies of high performing and improving schools in Maryland. These case studies were intended to inform several adequacy study components about successful school improvement programs and strategies, and the staffing costs of these programs and strategies. The studies investigated the programs and strategies effective in raising the achievement levels of all students, especially students from poverty, minority, and non-English speaking backgrounds. One goal of the case studies was to see if the school improvement strategies in Maryland differed from the evidence-based (EB) model and required changes or augmentation of the model. As this chapter shows, the cases showed that such changes are not warranted. Write-ups of the 12 individual case studies are provided in separate reports.

Selection of Case Study Schools

Case study schools were selected on the basis of their performance on Maryland state assessments. For elementary and middle schools, performance data were taken from the Maryland School Assessment (MSA) tests. For high schools, achievement data were taken from High School Assessment (HSA) tests. The primary metric used was the percentage of students who scored proficient or advanced in each school. This same metric is also being used to select schools for the successful schools/districts adequacy study, although some modifications are being made to the criteria for that study.

In the interest of selecting schools to represent a range of performance (e.g. status versus growth over time), the research team selected schools from the following four performance categories:

- High Performing: These are schools with a very high percentage of students achieving at the proficient or advanced levels. Specifically, to be selected in this category at least 90 percent of all students in a school had to achieve proficient or better over a six-year period.
- High Growth: Schools selected in this category had to achieve at least 50 percent growth over the six-year period. That is, the percentage of students scoring proficient or advanced on the test had to increase by at least 50 percent between the first year and the sixth (for example from 50 percent to 75 percent). These schools were also required to have at least 60 percent of all students achieving proficient or above in the most recent year of data used.
- Reducing the Poverty Gap: In this category, the research team was interested in selecting schools that were successful in significantly reducing the achievement gap between low-income students – those identified as eligible for the federal free and reduced-price meals (FARMS) program – and all students in the school.[1] The research team used a benchmark of a 2 standard deviation decrease in the achievement gap (approximately 14 percentage points) over 6 years. These schools were also required to have at least 60 percent of all students achieving proficient or above in the most recent year of data used.

[1] The data would not allow for comparison between FARM and non-FARM students.

- High Growth for Student Groups. Schools in this category were selected on the basis of how well they had improved achievement for ethnic/minority, FARMS, English language learner (ELL), and special education students. The specific criteria for selecting these schools were at least 50 percent growth for at least two of the subgroups. These schools were also required to have at least 60 percent of all students achieving proficient or above in the most recent year of data used.

The selection process used MSA assessment data from 2007 to 2012 and HSA assessment data from 2008 to 2013. More recent MSA data were not used because Maryland adopted its Common Core-based College and Career-Ready Standards, effective beginning in the 2013-14 school year. Because new assessments were not yet available, the State continued to use the MSA and HSA, though these assessments were not fully aligned with the new standards. This resulted in a decline in MSA and HSA scores across the state. For this reason, upon the recommendation of the Maryland State Department of Education (MSDE), 2013 and 2014 MSA data were not included in the initial selection of elementary schools. Because there was less of an impact on HSA scores than the MSA scores, the research team was able to use the 2013 HSA data in the selection process for high schools. HSA data for 2014 were not available at the time the case study schools were selected.

As a check to assess whether schools that were high-performing through 2012 continued to perform at a high level, the research team applied one more performance criteria when selecting elementary and middle schools. The MSA scores for 2012 and 2014 were compared, and if the 2014 score decreased by more than one standard deviation, the school was eliminated from the sample.

Finally, the research team wanted to ensure that the selected schools were successful with all students. The research team analyzed schools' student demographics and selected schools with higher concentrations of free and reduced-price meals (FARM)-eligible students, English language learner (ELL) students, special education students, and ethnic/minority students. Though the research team did not use specific benchmarks across the board – which would have been especially challenging at the high school level – schools with at least 50 percent FARM-eligible students, 50 percent ethnic/minority students, 10 percent ELL students, and 15 percent special education students were preferred.

Assessment Data

The MSDE provided the research team with school-level files of assessment scores, disaggregated by student groups (ethnic/minority, FARM -eligible, ELL, and special education) for the years 2006-2012 (MSA) and 2008-2013 (HSA).

These files were also disaggregated by grade level and subject. The MSA included scores for reading, math and science. Depending on the grade, the HSA included scores for English, algebra and biology. To simplify comparisons across schools, the research team calculated a set of composite scores for each school by aggregating all of the scores by grade and subject into a single all subjects/all grades score for each student group within each school. The final composite scores used to select schools consisted of a FARM composite, ELL composite, special education composite, and an aggregated all students composite.

School Selections

Twelve schools were selected, with approval from the MSDE, for inclusion in the case studies. The MSDE approved two of the twelve schools in October 2014 so that site visits could be used as part of the researcher training in the case study method described below. The MSDE approved the remaining 10 schools in December 2014, and the research team then contacted those schools to schedule site visits between January and March 2015. The goal was to include three schools in each of the four performance categories. However, one school in the Reducing the Poverty Gap category could not be scheduled. As a result, the final selection consists of two Reducing the Poverty Gap schools and four High-Growth for Student Groups schools (school assignments to each category appear in Table 1 below).

The twelve schools selected included the following:

1. Bel Air Elementary, Allegany County
2. Chadwick Elementary, Baltimore County
3. Chillum Elementary, Prince George's County
4. Fairmont Heights High, Prince George's County
5. James H. Harrison Elementary, Prince George's County
6. North Frederick Elementary, Frederick County
7. North Hagerstown High, Washington County
8. Parkland Middle, Montgomery County
9. Patterson Park Public Charter, Baltimore City
10. Redland Middle, Montgomery County
11. Somerset Intermediate, Somerset County
12. Wiley H. Bates Middle, Anne Arundel County.

Table 1 provides a summary of each schools' demographic characteristics. The percentage of students eligible for FARM ranged from 40 to 85 percent, with seven schools having a rate above 50 percent. The minority percentage (non-Asian/non-White) ranged from three to 97 percent, with nine schools above 50 percent and six schools above 80 percent. The percentage of students who were ELL ranged from 10 to 32 percent, with four schools having less than five ELL students. Special education rates ranged from six to 18 percent for 11 of the schools. One school with several programs for students with disabilities had a rate of 32 percent.

Table 1: Characteristics of Case Study Schools

School (County)	Enrollment	FARMS	ELL	Percent Minority	Special Education	Performance Category
Chillum Elementary (Prince George's)	274	85%	32%	97%	6%	High-Growth
Parkland Middle (Montgomery)	883	52%	10%	87%	10%	High-Growth
Somerset Intermediate (Somerset)	409	76%	<=5	56%	18%	High-Growth
Bel Air Elementary (Allegany)	216	48%	<=5	3%	16.7%	High-Performing
Chadwick Elementary (Baltimore)	548	81%	21%	98%	9%	High-Performing
North Hagerstown High (Washington)	1,280	49%	<=5	41%	10%	High-Performing
James H. Harrison Elementary (Prince George's)	330	70%	16%	94%	32%	High-Growth for Student Groups
Patterson Park Public Charter (Baltimore City)	670	80%	18%	87%	12%	High-Growth for Student Groups
Wiley H. Bates Middle (Anne Arundel)	800	46%	10%	53%	9%	High-Growth for Student Groups
Fairmont Heights High (Prince George's)	837	65%	<=5	97%	16%	High-Growth for Student Groups
North Frederick Elementary (Frederick)	590	47%	14%	41%	6%	Reducing the Poverty Gap
Redland Middle (Montgomery)	545	40%	11%	67%	11%	Reducing the Poverty Gap

Case Study Training and Site Visits

On October 29, 2014, POA conducted a training session on the school case study methodology with the MEP staff and graduate students who were going to lead the site visits. The training focused on the link between the EB funding model elements, the components of the theory of school improvement embedded in the EB approach, and the key aspects of the protocol that structured the interviews and data collection in each of the case study schools.

In conjunction with the case study training, the first two site visits were completed on October 28, 2015. Both elementary schools were approved as site visit schools by the MSDE. Scheduling for the remaining 10 site visits occurred in January, with site visits taking place between January 2015 and March 2015. Some schools were visited twice or rescheduled because of inclement weather. Because one of the selected schools did not provide permission to conduct a visit, another site was selected and approved in late February 2015 and visited in March.

Before each case site visit, a request was sent to each school to provide documents for the case researchers to review before the site visit. To reduce the burden on school staff, only documents in an electronic form that could be sent via email were requested. These documents included site school improvement plan, descriptions of the curriculum and instructional approaches, daily and weekly bell schedules, a listing of all staff, and any other document the school thought would be useful as background for the case researchers. Materials on the schools' websites, when available, were also reviewed prior to the site visit. While the documents received from the schools varied, generally the materials helped the case researchers understand the context of the school and its overall curriculum and instructional approach before conducting the interviews.

The school site visits consisted of multiple interviews with individual school administrators and teachers or with small teacher focus groups. An interview with the principal was typically scheduled during the first 90 minutes of each visit. This was followed by interviews with lead teachers; classroom teachers emphasizing math, reading/English/language arts/writing, and science; instructional coaches; and other key staff providing instruction in special education, Response to Intervention Tier 2 interventions, and ELL. Teacher interviews were conducted during their student-free periods. The actual types and numbers of teachers interviewed and the length of interviews varied by school and each school's schedule.

Following each site visit, the case researchers drafted a case study report summarizing the information learned from the document review and site interviews. Case study write-ups followed a similar order:

- School demographics
- School achievement data
- School staffing

- Curriculum and instructional program, focusing on reading, mathematics and if possible science, and including organization of teachers into collaborative groups (if done by the school), use of instructional coaches, and nature of data-based decision making
- Interventions for students struggling to achieve to standards
- Short cycle assessments
- Professional development
- School culture.

Each case study report then underwent a rigorous internal review that followed the following process:

- Case study researchers produced an initial draft report;
- Senior POA and MEP staff reviewed the initial draft;
- Case study researchers revised the draft based on feedback and resubmitted it for review;
- A Draft case study document was sent to the school principal for review and comment;
- Staff revised the draft incorporating the principal's comments
- The revised draft was reviewed internally; and
- A final draft submitted to APA for review, and then to the MSDE for final review.

Cross Case Analysis

The final step of the case study process is the cross case analysis, designed to identify common themes and findings across the 12 school sites. Although each case study provides Maryland educators with information about successful strategies schools are using to boost student performance, reduce gaps in performance between and among various subgroups of students, and/or to maintain high performance levels, the focus of this cross case analysis is on the resource needs of the strategies implemented by these 12 schools.

The remainder of the cross case analysis is organized into the following sections:

- Overall commonalities among the case study schools.
- Staffing and class size.
- Collaborative learning teams.
- Interim, short-cycle assessments.
- Extra help for struggling students.
- Alignment with the elements of the EB model.

Overall Case School Commonalities

As should be clear from the way the schools were selected, the cases emphasized strategies that impacted student performance in reading/English/language arts and mathematics, and in a few cases science. Thus, the cases did not address other, potentially important outcomes nor how they were produced. Further, many of the topics included in the case write-ups do not entail resources or specific staffing needs. This cross-case analysis, thus, first summarizes many of these latter strategies.

Nearly all schools had specific goals focused on improving student performance in reading and math. Several schools specifically had goals to reduce achievement gaps linked to student sociodemographics. The goals helped schools set their priorities for time and resources, and provided guidance for how to expend energy.

Most schools were in the process of adopting new instructional materials in both reading and math, largely due to the shift in focus to the State's new Common Core-aligned Maryland Career and College Ready Standards. Furthermore, many schools had previously modified their curriculum and instructional programs as part of their overall strategies that resulted in the performance successes made over the past several years. On the other hand, there were no commonalities in terms of the specific curriculum and instructional programs adopted, except for a greater focus on phonemic awareness, phonics, vocabulary, and fluency in the elementary reading programs. Every school was aligning its current curriculum program to new county school system guidelines, including using many new formative assessments provided by its county education offices.

There also were movements to clarify a more common approach to instructional practice. This resulted both from actions in teacher collaborative groups, where instructional strategies and interventions were discussed and assessed, and in the broader ongoing activities of the faculties to identify what pedagogical practices worked in their schools.

The schools had a density of instructional leadership, provided by principals as well as teacher leaders. Teachers coordinated grade-level collaborative teams and in a few instances school-wide curriculum teams, and were involved in school-wide teams that developed individual education programs for students with disabilities.

School cultures were characterized by school-wide and individual accountability. Administrators and teachers in the case study schools viewed their success in terms of the impact of their strategies on student academic achievement. If high levels of achievement were maintained, if overall levels of achievement improved notably, and if achievement gaps diminished, the administrators and faculties concluded it was largely due to their instructional efforts. If achievement did not produce these results, the attitude was to go back to the drawing boards and revise their instructional approaches.

Finally, given the sample size, it was not possible to determine if the specific improvement strategies for maintaining high levels of performance, for producing large gains in performance, or for reducing achievement gaps linked to poverty or minority status differed. But a review of all cases does not indicate that such differences existed. All schools had goals focused on a) improving their curriculum and

instructional programs, b) identifying the most effective instructional practices, c) organizing teachers into collaborative work teams that used student data to plan instruction and interventions, d) providing a variety of extra help services to students struggling to learn to standards, e) engaging both administrators and teachers in instructional leadership, and f) creating a cohesive and collaborative culture in which school staff took responsibility for the results of their actions on student achievement.

Last, most schools took teacher quality very seriously. Indeed, when asked how the schools had produced their impressive results, several principals (and teachers) immediately said, "Teacher talent." These schools often partnered with local teacher training institutions and/or tried to hire only individuals who had student taught or otherwise had worked in the school in some capacity so their skills and work habits, and degree to which they fit into the school culture, were known.

Staffing and Class Size

The largest component of school costs is teacher staffing. Teacher staffing is largely determined by the core[2] class size and the number of electives offered by the school. The combination of these two figures reflects, in part, the school schedule and the opportunities for grade- or subject-alike teachers to be provided common planning time in order to engage in collaborate work. This section of the cross-case discusses these issues and their connections.

Table 2 provides the data on core class sizes and the number of elective teachers as a percentage of the number of core teachers. The table also includes data on the grade levels served, the number of students in the school, and the percent of FARM students in the school. Core class sizes varied from a low of 19 (for an art integration magnet school in Anne Arundel County) to a high of 27 for a middle school in Montgomery County.

The five elementary schools serving prekindergarten to grade five had core class sizes that varied from 20 to 25. The one prekindergarten to grade eight school had core class sizes of 25. An interesting feature of these core class sizes is that teachers in many of the schools commented that the small class size was an important factor in the schools' successes, even though none of the core class sizes in these schools dipped below 20. It should also be noted that the largest class sizes among these six schools were in the schools with the highest percentage of FARM students. By contrast, the EB model provides average elementary school class sizes of 17.3, which would reduce class sizes for all schools and also significantly reduce class sizes for the highest poverty schools.

[2] For the purposes of this report, core courses consist of English/language arts, mathematics, science, social studies, and foreign languages.

Table 2: School Core Class Size and Electives

School	Grades	Students	Percent FARM	Core Class Size	Percent Elective Teachers
Bel Air	PreK-5	216	48	22	25
Chadwick	PreK-5	548	81	23	17
Chillum	PreK-5	274	85	25	11
North Frederick	PreK-5	590	47	22	25
James H. Harrison	Prek-5	220*	70	20	20
Patterson Park	PreK-8	670	80	25	22
Wiley H. Bates Performing arts integration	6-8	800	46	19	34* 2 45 min planning
Parkland	6-8	883	52	26	38
Redland	6-8	545	40	27	38
Somerset	6-7	409	76	20	35
Fairmont Heights	9-12	837	65	25	43
North Hagerstown	9-12	1280	49	24	28

*Harrison also has 110 additional students in county-wide special education programs located at the school with separate staffing.

The middle school core class sizes were 19 (for an art integration magnet school in Anne Arundel County), 20, 26, and 27, while the two high schools had core class sizes of 24 and 25. Except for the magnet school and the core class sizes of 20 in Somerset Intermediate, these class sizes are closer to the 25 provided by the EB model for secondary schools than the class sized found in the elementary schools.

Elective teachers as a percent of core teachers ranged from 11 to 43 percent, but these figures are best analyzed by level of school – elementary versus secondary. Elective teachers as a percent of core teachers for the elementary (prekindergarten to grade five) schools ranged from 11 to 25 percent, with 22 percent for Patterson Park - a prekindergarten to grade eight school combining elementary and middle school levels. Under the EB model a six period schedule would require elective teachers at the rate of 20 percent of core teachers, assuming class sizes of core and elective classes were the same. This type of organization would then allow principals to schedule grade alike teachers with common planning time so they could engage in collaborate work. All of these six elementary schools adopted this strategy, but it was more of a challenge in Chillum with the smallest elective teacher allocation. Chadwick created time for teacher collaborative work with its less than 20 percent elective teacher allocation by

sometimes having elective classes larger than core classes. The research team would argue that the 25 percent of elective teachers in North Frederick could be reduced to just 20 percent.

The elective teacher allocation for the middle and high schools requires more discussion. According to the EB model a seven period day with teachers providing instruction for five periods would require a 40 percent elective teacher allocation over core teachers. Two of the middle schools have 38 percent elective teachers and one of the high schools has 43 percent elective teachers. A block-schedule of four 90-minute blocks, in which teachers provide instruction for three blocks, requires a 33 1/3 percent elective teacher allocation over core teachers according to the EB model. Two of the middle schools have approximately this percentage. Finally, a six period schedule requires only a 20 percent elective teacher allocation under the EB model. North Hagerstown had moved to a six period schedule so its elective teacher allocation more reflects this schedule. But at 28 percent, the percentage of elective teachers also indicates that it provides a somewhat higher percentage of electives, and as a result elective classes are likely to be somewhat smaller than core class sizes.

The EB model provides a 20 percent elective teacher allocation for middle schools and a 33 1/3 percent elective teacher allocation for high schools. These numbers are below what most of the case study middle schools have and different from the two high schools, one of which has a seven period schedule and the other a six period schedule.

All schools – elementary, intermediate, middle, and high – however, managed to carve out time for significant amounts of teacher collaborative work, a practice that research suggests is critical to each school's ability to boost student performance and reduce achievement gaps. North Hagerstown had recently reverted to a six period schedule (from a block schedule used during the time of its performance gains) and would be able to restore the block schedule if it had the 33 1/3 percent elective teacher allocation provided by the EB model.

Collaborative Learning Teams

As noted above, one of the key factors for all schools was the ability for multiple teacher teams to meet during the regular school day. There were multiple purposes for these team meetings. One focus was analyzing student assessment data to determine the appropriate interventions for students struggling to meet academic standards. A second and related activity was to monitor teachers who had been given assessments to determine whether the interventions were working. A third purpose was to plan instructional lessons for standards-based curriculum units that all teachers would teach simultaneously. And then after giving the same end-of-unit test, the teams would meet to discuss results.

In order for these collaborative activities to occur, teachers needed common, pupil-free time during the regular school day to meet. This time was only possible if the school had an appropriate mix of core and elective teachers, and if the principal organized all teachers in ways that the right teachers – grade alike and/or course/subject alike – had free time during the same period of the day so the team meetings could occur. As Table 2 indicates, all schools with the exception of Chillum and North Hagerstown had sufficient elective teachers to organize the school schedule so that teacher collaborative teams could

meet multiple times during the week. The schools, moreover, adopted many different approaches for these team meetings. One school expanded the school day by 30 minutes to allow for both a 45-minute individual planning period and a 45-minute team collaborative period. The key was that all but two of the schools had a sufficient mix of core and elective teaches to allow for the scheduling of collaborative team time. Under the EB model, all schools would be provided a sufficient mix of core and elective teachers so that principals could create school schedules that provided ample time for collaborative teacher work teams to meet multiple times each week.

Interim, Short-Cycle Assessments

Each school case identified several different types of short cycle, interim assessments that schools and collaborative teacher teams used throughout the school year. Though each school used a different mix of such assessments, they needed the resources to acquire the combination that they did use. Schools used many assessments beyond the State's accountability tests. The schools used benchmark assessments, usually given in the fall, January, and spring to monitor overall student performance during the year and progress towards achieving the desired proficiency levels. The schools also used various combinations of screener and diagnostic assessments, including DIBELS, the screener portions of the NWEA MAP assessments, and Renaissance Learning STAR Enterprise assessments. AIMSWEB was another assessment used by some schools. Nearly all schools used "formative" assessments that had been developed by their County education office as the systems transitioned to Maryland's new State standards.

It should be noted that the EB model provides a separate allocation for schools to purchase their chosen battery of short cycle, interim assessments. Without such assessments, the collaborative teacher teams would not have the information needed to plan effective instructional strategies and practices or to assess the effectiveness of those strategies.

Extra Help for Struggling Students

As each school case indicated, all schools had a range of extra help strategies for students struggling to meet proficiency standards. Most elementary schools had tutors to provide such extra help. These tutors were often called reading or math experts. Further, elementary schools had a mix of push-in as well as pull-out supports that included not only reading and math support experts, but also ELL and special education teachers. Several schools also offered extended day and summer school programming. Many elementary schools also had a 30-minute time block every day for interventions (and enrichment for students not needing interventions). Several elementary schools had specific computer-based programs that provided students with extra drills for math facts and reading fundamentals, including phonics as well as vocabulary. Finally, several elementary schools had bolstered pupil support systems related to the non-academic issues students face.

Most of the elementary schools studied also had a prekindergarten program. A number of the elementary schools claimed that early interventions, including prekindergarten programs, small class sizes (in the upper teens or low twenties) in the early elementary years, tutoring for students struggling in math and/or reading, and flexible student grouping combined to get more students performing at

proficiency levels and reduced the percentage of students labeled with a disability and needing an Individual Education Program (IEP).

Secondary schools provided less individual tutoring but most provided some tutoring. Secondary schools more often provided "second" periods of math or reading to help students struggling to meet standards. Some secondary schools offered semester length courses for students struggling in some core area, such as reading or mathematics. These are largely "no cost" strategies as the extra course or class substituted for an elective. In a few cases, though, these additional courses or classes had fewer numbers of students so did require additional resources.

Some high schools provided additional counseling to struggling students, underscoring the need for additional pupil support staff, which the EB model provides. Many secondary schools also offered extended day academic extra support, which required additional resources. Finally, most secondary schools also had behavior programs which entailed some staff as well as professional development for teachers.

The cases were not designed to quantify the level of such extra support, but it seemed the EB model would provide a sufficient level of extra help staffing to financially support the mix and level of extra help services the case study schools provided, including the additional non-academic pupil supports that many schools – both elementary and secondary – provided.

Alignment with the Elements of the EB Model

The case study schools' strategies for improving student achievement and reducing the achievement gaps linked to poverty or minority status were highly aligned with the strategies embedded in the EB funding model. The research team did not find any schools whose strategies dramatically differed from the EB model nor did it find elements that would necessitate a change in the EB formulas or ratios. As noted earlier, there were differences across schools. For example, schools did not use the same reading or math curriculum materials, nor the same instructional materials in high schools. So while there were consistencies in the overall strategies, there were also differences in the specifics of the various strategies as determined by local context and the county education systems of each individual school. The research team did not find any schools that used technology as a core of its improvement strategies. If it had however, the EB model's allocation for school-based computer technologies would likely be sufficient for such technology needs.

Summary

During the late fall and early winter, 12 schools were studied to identify their school improvement strategies, the degree to which those strategies were aligned with the strategies embedded in the EB model, as well as whether the school structures and strategies identified by the research team suggested a change in the formulas or ratios used in the EB model. Schools selected represented four categories of performance: high performance, high growth, reducing the poverty gap, and high growth for student sub-groups. The schools were selected from all regions of the state.

In general, the improvement strategies in these schools were parallel to those of the EB model. The schools had goals focused on improving student performance in reading and math, and often also goals to reduce achievement gaps. To accomplish those goals, the schools revised their curriculum and instructional approaches, often adopting new instructional materials; created common approaches to effective instructional practice; organized teachers into collaborative work groups that met multiple times during the week for team meetings; engaged teachers in ongoing data-based decision making; provided multiple interventions, including tutoring and other push-in and pullout strategies, extended day academic help, and summer school programming; and created collaborative school cultures in which faculties took responsibility for the student achievement outcomes of the school. Most schools also sought to recruit and retain high quality teacher talent, often hiring only individuals who had worked in the school in some capacity before being hired into a permanent teacher role.

The schools had class sizes that were in the range of the EB model, somewhat above the EB model at the elementary level and close to the EB model in secondary schools. All schools' had a mix of core and elective teachers, so were able to offer a full liberal-arts curriculum program that was being revised to reflect Maryland's College and Career-Ready Standards.

The schools extra help strategies for providing additional instructional and student support for struggling students seemed to be in the range of resources provided by the EB model, including the EB model's extended day and summer school provisions.

Based on these findings, the research team did not find anything in the case schools that suggested a major change was needed in any of the EB formulas or ratios.