## 2011-2012 <br> Maryland Class Size Report: <br> Student, Course, Grade, and Teacher <br> NEDUCATION <br> Report to the Maryland General Assembly <br> And Governor Martin O'Malley



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# 2011-12 <br> Maryland Class Size Report: <br> Student, Course, Grade, and Teacher <br> - EDUCATION <br> Report to the Maryland General Assembly And Governor Martin O'Malley 

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# 2011-2012 <br> Maryland Class Size Report: Student, Course, Grade, and Teacher 

## Introduction

Maryland Annotated Code, Chapter 638, §7-119 resulted from the 2009 Maryland General Assembly. It called for the Maryland State Department of Education (MSDE) to develop a uniform data collection method for tracking the number of students regularly participating in a teacher's class. The data collection system was to be in place by the beginning of the 2012-2013 school year and would reflect the status of Maryland classrooms as of September 30 of each year. This document is the initial report on Class Size and complies with the State law accordingly. MSDE is able to publish this first class size report because of the extensive cooperation of educators statewide.

## Background

The report resulted from extensive research and data compilation on the part of both MSDE and Maryland’s local school systems. Class size has always been a challenging statistic for researchers because of technical issues as well as instructional practices that range widely from school system to school system and from school to school. Because Maryland is bringing on line its statewide longitudinal data system, it now has more accurate information on students and classes and is able to produce this report for the first time.

In initiating work on this project, MSDE found that the work would go beyond producing codes for the identification of classes or groupings for consideration in the production of the report. MSDE worked to comply with the spirit and intent of §7-119 and enable a data collection system for which class sizes could be determined for virtually every grouping arrangement in which students were placed for instruction throughout the school day. For example, in some data reporting systems, class sizes were based solely on the homeroom class. In practice, students are grouped in numerous configurations throughout the school day.

Designing a coding or classification system that encompasses these various configurations proved to be a complex but necessary undertaking. While this initial report provides insight into the state of the Maryland classroom, subsequent data collections will evolve into more meaningful and useful data sets for educators and policymakers. This report begins with a look at the range of practices at play in Maryland classrooms and the data considerations that were resolved to enable the report to be completed. A brief analysis of the data is included to help illustrate the patterns and the limitations that emerged from the data as well as a glimpse of what could be the next steps for this report.

## Past Practices

In the memory of most adults lies the recollection of childhood classrooms of about 25 or 30 students presided over by one teacher. In reality, classes have always ranged somewhat in size within any one school day. At any given moment in any public school in Maryland, one may find a single student or a small group of students receiving intensive instruction from a teacher. Students are frequently grouped according to student learning needs to foster the kind of attention that the student might need in order to be successful. At the same time, students are sometimes grouped into much larger classes as needed, ranging from one-on-one instruction to large group activities such as academic lectures, athletics, or music instruction.

Historically, high schools have led the way in producing class size data that is more consistent and comparable. Because of the standardization of the high school diploma nationally, course credit counts have led directly to a standard school day with class periods of relatively uniform length. This standardization was necessary to assure the accounting of hours of instruction and support the awarding of course credits. Thus, at the high school level, student schedules more easily adapt to coding and classification as needed for computer tracking and analysis. Maryland currently requires high school students to successfully complete 21 credits of instruction in order to be awarded a diploma, according to COMAR 13A.03.02.04. Consequently, Maryland high schools also are required to be open annually for 180 days of instruction for a minimum of 1,170 hours total (COMAR 13A.03.02.12). This requirement permits Maryland high schools to meet the standards for accreditation groups nationally.

The high school schedule seems to adapt most readily to the computation of class size. As schools strove to meet more divergent needs of students, even the standardized high school schedule became more complex with flexible and often short-term placements of sometimes smaller and sometimes larger class grouping sizes. In recent years, for example, some high schools regroup students on a short-term basis to meet the challenges of the High School Assessment requirements for graduation. Because they are often of short duration, such regroupings are not necessarily reported in any local electronic reporting system.

At the elementary school level, students have matriculated from grade to grade with report cards, but with far less pressure for standardization of class periods and schedules, at least in the early days of the twentieth century. Electronic data collection systems for secondary school schedules have been in use for decades, but the movement from paper records at the elementary level to electronic collections was later in coming, with many elementary schools still using some form of school-based manual records.

Maryland State law specifies 1,080 hours of operation within a minimum 180-day school year for schools (§7-103). This requirement guides student scheduling and configuration of the school day for elementary and middle schools since Maryland COMAR 13A.03.02.04 applies to high school schedules only. However, flexibility is permitted for the elementary and middle schools to make adjustments within the bounds of the school
day for the kinds of instruction any student receives. Consequently, we have seen the continued use of both small groups and large groups in the schools.

Research into instructional practices have led schools increasingly to modify the delivery mode for instruction for students pre-K through 12 to make use of technologies and better meet student needs. However, this range of practices complicates the collection of class size data.

## Data Considerations

Developing the Class Size report provided insights into the differences among school systems and schools and revealed a number of differences in both their data systems and the organization of their schools. While MSDE has confidence in the data collected for the 2011-12 report, they continue to work with local school systems on their reporting to ensure that subsequent reports will be increasingly more consistent over time. However, the statistical limitations associated with this type of data will remain, even as data collections improve.

The following technical issues affect the comparisons one might make among local school system results:

1. Differences in local data systems. Across Maryland's twenty-four school systems, there are minimally ten different kinds of local data systems for collecting student data. MSDE devised an overall framework for uniformly collecting class data from all school systems, given these differences in local data systems. School systems use a variety of classification systems for identifying student groupings as classes or courses. Consequently, MSDE established uniform nomenclature for defining the term "class" in its various configurations across the State, particularly at the elementary and often at the middle school levels. At the high school level, the accounting for course credits over many years has led to reasonably uniform and clear designations of course assignments, but even those often do not tell the full instructional story.

Within each school system, the records maintained on student groupings or classes varied in form and method across school types from pre-K through high school. For example, in some school systems, the homeroom class was the only recorded class that the school reported to the school system data department. The legislation called for records of how student classes were configured throughout the day. This required some school systems to collect essentially class period-by-class period student grouping data for the first time.

MSDE is pursuing local data enhancements in future collections that will further standardize class information. It is expected that many short-term
instructional regroupings will continue below the level reported within local electronic data systems.
2. Elementary school organization differences. In the past, some local school systems did not use the terms class period or courses at the elementary level. Rather, the student was assigned a teacher for the year, and content teachers may have moved throughout the day from classroom to classroom. In other schools, students move to the classrooms of their content teachers. In some cases, the school system central office may have been notified of the base teacher assignment for the student, but the details of the class period-by-class period teacher assignments or the student lists for any given period of the day may have been maintained at the school level only.
3. Electronic records for elementary schools. While some school systems may have had detailed electronic records on student schedules throughout the day, a few had no electronic records for some elementary schedules, particularly for grades pre-K through 2. A student in early childhood classrooms may spend the vast majority of the day with a single teacher. Consequently, the detail on use of the instructional time by subject was never collected by the local school system nor reported electronically. This absence required some school systems to generate these records for the first time, and often via manual counts.
4. Records on rotating schedules. It was found that some local school systems did not reflect rotating schedules when they did report class period information. In many schools, some courses or classes do not occur daily. Such schedules may occur, for example, on alternating days or perhaps two days per week. MSDE subsequently added elements to the current report to capture this information, and future reports should better reflect such information.
5. Organization approaches for special schools. Special schools such as alternative and special education schools are often uniquely organized based on individual student needs. The special schools category is one that encompasses numerous staffing structures and encompasses a wide range of special populations. Such populations are usually more staff intensive than those in comprehensive schools, and the staffing distribution will likely be modified as needed throughout the school year, pending student needs. The organizational differences were so complex to capture that the data would have had little consistency or meaning. Consequently, they are not included in this report.

## Class size vs. Student/Teacher Ratio

MSDE has reported for years the student/teacher ratio, which is the result of a simple computation made by comparing the actual number of classroom teachers and the number of students. It does not provide a real-time picture of how many students are present in any one class at any given moment in the school day. The student/teacher ratio was nearly the only statistical measure available for describing classrooms in an era prior to the introduction of the student longitudinal data system. This Class Size Report, however, provides this information for the first time. It requires extensive agreement on a descriptive set of terms that could be used administratively in practice and in the data systems statewide for coding and classifying class configurations.

In December 2012, MSDE published the annual report, Staff Employed at School and Central Office levels, Maryland Public Schools, October 2012, (http://marylandpublicschools.org/NR/rdonlyres/68C794C3-C37B-4116-85CDB00E8FD8089B/34387/stfemp14.pdf). In that data collection, local school systems reported a total of $849,218.5$ students across the twenty-four school systems with 57,718.4 teachers (defined as "staff with duties relating to instructing students, including classroom teachers, home and hospital teachers, and distance learning teachers"). The computed student/teacher ratio was 14.7. In contrast, the Class Size Report finds average class sizes ranging from 20.1 students (elementary) to 22.2 students (high school). This result in this current report was expected in that the student/teacher ratio reporting did not look at individual classrooms.

## Findings

In general, the findings contained in this first Class Size Report are not unlike Maryland's twenty-four school districts themselves-varied in some ways and remarkably consistent in others. While some outliers in the reporting may be of interest, a fair number of school systems have similar class sizes. The class sizes are slightly larger at the elementary level and progressively smaller at the secondary level, though it is not clear that the differences are necessarily significant. The considerations associated with the collection of the data, as with any data collection, will limit the conclusions one can draw about comparisons across schools and school systems.

The differences do not show any clear, consistent relationship with the geographical size nor population sizes of the districts. A portion of the variance across districts likely has more to do with the technical features of local data systems and the data practices within the districts. The following are some of the findings:

1. Overall, the reported average class size in Maryland in 2011-2012 across all classes was 22. The study found 30 percent of classes contained 21-25 students with 68 percent of all classes ranging from 16-30 students. The percent of classes smaller than 16 students and larger than 30 students was far lower, though 8 percent of classes contained 5 or fewer students and 4 percent included more than 36 students each. The largest class average in Maryland was in Baltimore City (33.9 students), and the smallest class size in the State
was in Somerset at 15.2 percent. Two-thirds of the school systems had average class sizes that ranged from 20.0 students (Wicomico County) to 24.3 students (Queen Anne’s County).
2. By category, the average class sizes in Maryland in the 2011-2012 school year were 22.1 (elementary), 21.6 (middle), and 20.4 (high school). At the elementary level, the range of class sizes runs from 16.1 students in Garrett County to 38.5 students in Kent County. It is important to note that both school systems are among the smallest in the State. Among the largest school systems, Baltimore City had an average elementary class size of 32.0 students while Baltimore County had 21.0 students.

Class sizes in combined elementary-middle schools are not analyzed here because of the very small number of such schools statewide in eleven systems. Of 15,433 students in elementary-middle schools statewide, nearly half were in Baltimore City. Also not analyzed for patterns are data for the SEED School. See the appendices for the data on all school systems.

At the middle school level, class sizes ranged from 13.9 students in Somerset County to 34.3 students in Baltimore City. At the high school level, class sizes ranged from 12.2 students in Kent County to 31.9 in Baltimore City. However, at middle and high school levels, most school systems ranged closer to the statewide figures ( 21.6 students at the middle school level and 20.1 students at the high school level).
3. Forty-two percent of Maryland elementary classes contained from 21-25
students. Several school systems reported a much higher number of classes in this range, including Calvert County ( 58 percent), Queen Anne’s County (53 percent), and Wicomico County (55 percent). Eighty-four percent of elementary classes ranged in size from 16-30 students.
4. Only $\mathbf{3}$ percent of elementary classes included $\mathbf{3 6}$ or more students. However, Kent County reported that 21 percent of their elementary classes included 36 or more students. Eleven school systems reported that they had no such large elementary classes. It is believed that some of the large class sizes reported here are an anomaly related to the ways school systems reported their groupings in the report.
5. Only 5 percent of elementary classes statewide included 5 or fewer students for instruction. This figure ranged from no classes (Cecil, Dorchester, Worchester, and Talbot Counties) to 16 percent of classes in Somerset County. Middle schools statewide had slightly more small classes with Anne Arundel reporting 27 percent of classes with 5 or fewer students. At the middle school level, school systems reported that 7 percent of their classes were very small ( 0 to 5 students). There were many more high school classes with 5 or fewer students ( 13 percent statewide), with 4 school systems
reporting more than a quarter of their high school classes had 5 or fewer students (Allegany (25 percent), Calvert (25 percent), Carroll (28 percent), and Kent (36 percent)).
6. The class size distribution changed little overall when the view was narrowed to core classes in grades three to twelve. Twenty-nine percent of grade three to twelve core classes only (reading and mathematics) had 21-29 students. That figure compares to 30 percent of classes for all classes. There was little change in the other class size spans as well. Fully two-thirds ( 67 percent) of reading and mathematics classes contained 16-30 students. (The core courses portion of the report does not include early primary classes due to the inability to classify classes easily as core (reading or mathematics). Garrett County data was not available for this analysis.)

By grade span, the range of class sizes reported this year is as follows for each of elementary, middle schools, and high schools:

Figure 1. 2011-2012 Class Size Range by Grade Span*

*Elementary-Middle Schools were not included in Figure 1 because they constitute a small number of schools in eleven districts. Garrett County data is not included in distributions because it was not available at the time of submission. The distributions for those schools are included in Appendix A, page 13.

While the largest number of classrooms across the state include from 21-25 students, at the middle school and high school levels, larger numbers of students are reported to be in classes ranging from 1-15 students. Elementary schools traditionally have conducted small group instruction with reading
groups and other small group configurations while reporting the overall class size. It is likely that practices such as this contribute to the differences in data.

Middle and high schools make extensive use of course schedules with students moving between classrooms throughout the day. Grades are reported by classes as well. Consequently, many middle schools have utilized various data systems for producing report cards for years and thus more readily report classes in the traditional form. However, most school schedules appear to facilitate smaller working groups for instruction at all levels.
7. Overall, elementary, middle, and high school class size ranges are very similar to those for core courses only (reading and mathematics). Both class sizes peak at the 21-25 student range, and both have similar numbers of very small and very large classes. The total number of elementary, middle, and high schools together is 332,741. There are 47,461 core classes (reading and mathematics only) in grades three through twelve. The difference in the grade spans for the two statistics explains in part the limited number of total core classes reported.

Figure 2. 2011-2012 Class Size Range: All vs. Core Classes*


[^0]
## Conclusion

Maryland has made great strides in the standardization of the collection of class size numbers. The student-teacher ratio figure that has been in use for decades varies somewhat from the figures reported in this study, though the teacher-student ratio reported in the past often included professional staff who were not necessarily working directly with students on a full time basis. The current report eliminates from counts those staff members who clearly were not working directly with students and tries to count as accurately as possible the number of students in each class with a teacher.

The report also attempts to capture the entire range of classes and instructional arrangements that students face throughout the day. In this respect, the report is successful in revealing the range of sizes for class arrangements to be quite large. High schools seem to have more small class arrangements than middle and elementary schools, and the number of classes above and below the average 21-25 students is larger. At the same time, the average class size in high schools is generally smaller.

There is a fair amount of variation in class sizes across school systems. However, it is not clear that the variation is always an accurate reporting of classroom practice. Though MSDE began work on standardizing the data definitions and methods in the 2010-2011 school year, additional data consistency is being pursued in school systems across the state and will be reflected in future reports.

With this data collection, Maryland knows much more about the staffing patterns among schools, systems, and grade spans. While future reports will improve in accuracy, the ongoing differences in local school system records systems and instructional practices will continue to be at least partially responsible for results and should be noted when making comparisons.

## Appendices

## Appendix A Class Size Distribution Report by Grade Span

## MARYLAND STATE DEPARTMENT OF EDUCATION Division of Accountability, Assessments and Data Services

Class Size Distribution Report
SCGT End-of-Year Collection 2011-2012
12/19/2012

Elementary Schools

| LEA ID | LEA Name | Grade Span | Total Number of Classes | Average Class Size | Five or fewer | 6 to 10 | 11 to 15 | 16 to 20 | 21 to 25 | 26 to 30 | 31 to 35 | 36 and greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | E | 148018 | 22.1 | 5\% | 3\% | 5\% | 26\% | 42\% | 16\% | 2\% | 3\% |
| 01 | Allegany | E | 2188 | 20.6 | 4\% | 1\% | 10\% | 47\% | 24\% | 5\% | 2\% | 7\% |
| 02 | Anne Arundel | E | 12685 | 25.6 | 3\% | 0\% | 4\% | 27\% | 40\% | 15\% | 1\% | 10\% |
| 03 | Baltimore | E | 19014 | 21.0 | 4\% | 2\% | 5\% | 26\% | 47\% | 14\% | 1\% | 0\% |
| 04 | Calvert | E | 2989 | 20.5 | 7\% | 3\% | 2\% | 19\% | 58\% | 11\% | 1\% | 0\% |
| 05 | Caroline | E | 505 | 27.5 | 1\% | 0\% | 10\% | 58\% | 26\% | 0\% | 0\% | 4\% |
| 06 | Carroll | E | 3944 | 22.0 | 9\% | 1\% | 3\% | 34\% | 38\% | 3\% | 1\% | 11\% |
| 07 | Cecil | E | 4806 | 20.9 | 0\% | 0\% | 4\% | 41\% | 44\% | 10\% | 0\% | 0\% |
| 08 | Charles | E | 4132 | 21.0 | 8\% | 2\% | 1\% | 19\% | 48\% | 21\% | 0\% | 0\% |
| 09 | Dorchester | E | 957 | 17.9 | 0\% | 1\% | 23\% | 49\% | 26\% | 1\% | 0\% | 0\% |
| 10 | Frederick | E | 8514 | 21.3 | 3\% | 1\% | 3\% | 31\% | 48\% | 12\% | 1\% | 1\% |
| 11 | Garrett | E | 774 | 16.1 | 9\% | 8\% | 12\% | 49\% | 22\% | 0\% | 0\% | 0\% |
| 12 | Harford | E | 2702 | 21.2 | 1\% | 1\% | 8\% | 33\% | 46\% | 10\% | 0\% | 2\% |
| 13 | Howard | E | 8725 | 21.7 | 2\% | 0\% | 3\% | 30\% | 47\% | 18\% | 1\% | 0\% |
| 14 | Kent | E | 223 | 38.5 | 3\% | 2\% | 18\% | 20\% | 17\% | 6\% | 13\% | 21\% |
| 15 | Montgomery | E | 20283 | 20.7 | 5\% | 3\% | 7\% | 28\% | 37\% | 18\% | 1\% | 1\% |
| 16 | Prince George's | E | 29049 | 22.3 | 5\% | 5\% | 4\% | 15\% | 38\% | 27\% | 5\% | 1\% |
| 17 | Queen Anne's | E | 1587 | 27.9 | 2\% | 0\% | 1\% | 30\% | 53\% | 5\% | 0\% | 9\% |
| 18 | St. Mary's | E | 2424 | 27.5 | 1\% | 1\% | 5\% | 33\% | 35\% | 5\% | 2\% | 18\% |
| 19 | Somerset | E | 574 | 16.6 | 16\% | 1\% | 9\% | 39\% | 35\% | 1\% | 0\% | 0\% |
| 20 | Talbot | E | 514 | 20.3 | 0\% | 3\% | 5\% | 35\% | 50\% | 7\% | 0\% | 0\% |
| 21 | Washington | E | 10150 | 18.5 | 12\% | 3\% | 5\% | 30\% | 46\% | 5\% | 0\% | 0\% |
| 22 | Wicomico | E | 3548 | 21.7 | 4\% | 2\% | 2\% | 21\% | 55\% | 13\% | 0\% | 2\% |
| 23 | Worchester | E | 1427 | 17.4 | 0\% | 2\% | 28\% | 53\% | 17\% | 1\% | 0\% | 0\% |
| 30 | Baltimore City | E | 6304 | 32.0 | 5\% | 6\% | 4\% | 18\% | 35\% | 17\% | 4\% | 10\% |

## Elementary-Middle School Schools

| LEA ID | LEA Name | Grade <br> Span | Total <br> Number <br> of Classes | Average <br> Class Size | Five or <br> fewer | $\mathbf{6}$ to 10 | $\mathbf{1 1}$ to 15 | $\mathbf{1 6}$ to 20 | $\mathbf{2 1}$ to $\mathbf{2 5}$ | $\mathbf{2 6}$ to $\mathbf{3 0}$ | $\mathbf{3 1}$ to $\mathbf{3 5}$ | $\mathbf{3 6}$ and <br> greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | EM | 15433 | 32.5 | $5 \%$ | $7 \%$ | $7 \%$ | $16 \%$ | $29 \%$ | $15 \%$ | $4 \%$ | $17 \%$ |
| 02 | Anne Arundel | EM | 276 | 26.2 | $6 \%$ | $0 \%$ | $3 \%$ | $21 \%$ | $41 \%$ | $16 \%$ | $0 \%$ | $12 \%$ |
| 03 | Baltimore | EM | 235 | 21.2 | $1 \%$ | $1 \%$ | $7 \%$ | $16 \%$ | $69 \%$ | $6 \%$ | $0 \%$ | $0 \%$ |
| 09 | Dorchester | EM | 98 | 17.4 | $2 \%$ | $13 \%$ | $21 \%$ | $34 \%$ | $18 \%$ | $11 \%$ | $0 \%$ | $0 \%$ |
| 10 | Frederick | EM | 1 | 16.0 | $0 \%$ | $0 \%$ | $0 \%$ | $* * \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| 11 | Garrett | EM | 19 | 18.9 | $5 \%$ | $26 \%$ | $26 \%$ | $21 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $21 \%$ |
| 16 | Prince George's | EM | 6015 | 29.7 | $2 \%$ | $8 \%$ | $6 \%$ | $14 \%$ | $31 \%$ | $23 \%$ | $4 \%$ | $12 \%$ |
| 18 | St. Mary's | EM | 58 | 20.5 | $5 \%$ | $5 \%$ | $12 \%$ | $45 \%$ | $16 \%$ | $2 \%$ | $9 \%$ | $7 \%$ |
| 22 | Wicomico | EM | 322 | 18.2 | $11 \%$ | $11 \%$ | $17 \%$ | $11 \%$ | $28 \%$ | $18 \%$ | $3 \%$ | $0 \%$ |
| 23 | Worchester | EM | 572 | 12.6 | $5 \%$ | $21 \%$ | $53 \%$ | $19 \%$ | $2 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| 30 | Baltimore City | EM | 7837 | 37.5 | $7 \%$ | $6 \%$ | $5 \%$ | $16 \%$ | $28 \%$ | $11 \%$ | $4 \%$ | $23 \%$ |

Middle Schools

| LEA ID | LEA Name | Grade <br> Span <br> Number <br> of Classes | Clatal <br> Average <br> Clase or <br> fewer | $\mathbf{6}$ to 10 | $\mathbf{1 1}$ to 15 | $\mathbf{1 6}$ to 20 | $\mathbf{2 1}$ to 25 | $\mathbf{2 6}$ to 30 | $\mathbf{3 1}$ to 35 | $\mathbf{3 6}$ and <br> greater |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | M | 68516 | 21.6 | $7 \%$ | $7 \%$ | $10 \%$ | $16 \%$ | $24 \%$ | $22 \%$ | $10 \%$ | $3 \%$ |
| 01 | Allegany | M | 1148 | 15.1 | $5 \%$ | $24 \%$ | $30 \%$ | $16 \%$ | $13 \%$ | $9 \%$ | $1 \%$ | $1 \%$ |
| 02 | Anne Arundel | M | 7037 | 17.5 | $27 \%$ | $9 \%$ | $8 \%$ | $8 \%$ | $11 \%$ | $18 \%$ | $16 \%$ | $2 \%$ |
| 03 | Baltimore | M | 8602 | 23.1 | $3 \%$ | $5 \%$ | $8 \%$ | $15 \%$ | $26 \%$ | $29 \%$ | $12 \%$ | $2 \%$ |
| 04 | Calvert | M | 1784 | 20.0 | $13 \%$ | $6 \%$ | $7 \%$ | $16 \%$ | $27 \%$ | $25 \%$ | $6 \%$ | $1 \%$ |
| 05 | Caroline | M | 753 | 19.9 | $9 \%$ | $11 \%$ | $21 \%$ | $25 \%$ | $21 \%$ | $4 \%$ | $2 \%$ | $7 \%$ |
| 06 | Carroll | M | 2502 | 25.7 | $3 \%$ | $5 \%$ | $10 \%$ | $17 \%$ | $25 \%$ | $21 \%$ | $10 \%$ | $8 \%$ |
| 07 | Cecil | M | 1641 | 22.9 | $1 \%$ | $1 \%$ | $3 \%$ | $25 \%$ | $43 \%$ | $24 \%$ | $2 \%$ | $1 \%$ |
| 08 | Charles | M | 2383 | 21.2 | $5 \%$ | $6 \%$ | $11 \%$ | $19 \%$ | $28 \%$ | $21 \%$ | $9 \%$ | $1 \%$ |
| 09 | Dorchester | M | 362 | 21.3 | $2 \%$ | $1 \%$ | $7 \%$ | $31 \%$ | $36 \%$ | $20 \%$ | $2 \%$ | $0 \%$ |
| 10 | Frederick | M | 3212 | 23.1 | $7 \%$ | $5 \%$ | $7 \%$ | $13 \%$ | $22 \%$ | $26 \%$ | $15 \%$ | $5 \%$ |
| 11 | Garrett | M | 524 | 19.0 | $5 \%$ | $8 \%$ | $19 \%$ | $27 \%$ | $25 \%$ | $13 \%$ | $1 \%$ | $2 \%$ |
| 12 | Harford | M | 3658 | 22.9 | $1 \%$ | $2 \%$ | $10 \%$ | $23 \%$ | $35 \%$ | $19 \%$ | $3 \%$ | $6 \%$ |
| 13 | Howard | M | 7244 | 20.4 | $7 \%$ | $5 \%$ | $9 \%$ | $25 \%$ | $31 \%$ | $17 \%$ | $4 \%$ | $1 \%$ |
| 14 | Kent | M | 278 | 23.8 | $16 \%$ | $7 \%$ | $13 \%$ | $23 \%$ | $30 \%$ | $4 \%$ | $0 \%$ | $8 \%$ |
| 15 | Montgomery | M | 9164 | 23.6 | $5 \%$ | $8 \%$ | $7 \%$ | $11 \%$ | $19 \%$ | $28 \%$ | $19 \%$ | $4 \%$ |
| 16 | Prince George's | M | 10558 | 22.8 | $3 \%$ | $9 \%$ | $8 \%$ | $13 \%$ | $24 \%$ | $25 \%$ | $14 \%$ | $4 \%$ |


| LEA ID | LEA Name | Grade <br> Span | Total <br> Number <br> of Classes | Average <br> Class Size | Five or <br> fewer | $\mathbf{6}$ to 10 | $\mathbf{1 1}$ to 15 | $\mathbf{1 6}$ to 20 | $\mathbf{2 1}$ to $\mathbf{2 5}$ | $\mathbf{2 6}$ to $\mathbf{3 0}$ | $\mathbf{3 1}$ to $\mathbf{3 5}$ | $\mathbf{3 6}$ and <br> greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | Queen Anne's | M | 703 | 19.9 | $4 \%$ | $5 \%$ | $16 \%$ | $24 \%$ | $32 \%$ | $18 \%$ | $1 \%$ | $0 \%$ |
| 18 | St. Mary's | M | 1118 | 20.9 | $4 \%$ | $5 \%$ | $10 \%$ | $19 \%$ | $36 \%$ | $22 \%$ | $2 \%$ | $1 \%$ |
| 19 | Somerset | M | 328 | 13.9 | $8 \%$ | $26 \%$ | $27 \%$ | $24 \%$ | $15 \%$ | $1 \%$ | $0 \%$ | $0 \%$ |
| 20 | Talbot | M | 409 | 18.9 | $2 \%$ | $10 \%$ | $19 \%$ | $23 \%$ | $32 \%$ | $15 \%$ | $0 \%$ | $0 \%$ |
| 21 | Washington | M | 2319 | 18.9 | $17 \%$ | $6 \%$ | $7 \%$ | $19 \%$ | $27 \%$ | $18 \%$ | $6 \%$ | $2 \%$ |
| 22 | Wicomico | M | 1591 | 16.4 | $10 \%$ | $14 \%$ | $22 \%$ | $27 \%$ | $18 \%$ | $6 \%$ | $2 \%$ | $1 \%$ |
| 23 | Worchester | M | 244 | 17.9 | $5 \%$ | $3 \%$ | $15 \%$ | $51 \%$ | $19 \%$ | $6 \%$ | $0 \%$ | $0 \%$ |
| 30 | Baltimore City | M | 816 | 34.3 | $8 \%$ | $17 \%$ | $11 \%$ | $12 \%$ | $9 \%$ | $5 \%$ | $3 \%$ | $35 \%$ |
| 32 | The SEED School | M | 138 | 13.4 | $5 \%$ | $13 \%$ | $57 \%$ | $20 \%$ | $4 \%$ | $1 \%$ | $0 \%$ | $0 \%$ |

Middle/High Schools

| LEA ID | LEA Name | Grade <br> Span | Total <br> Number <br> of Classes | Average <br> Class Size | Five or <br> fewer | $\mathbf{6}$ to $\mathbf{1 0}$ | $\mathbf{1 1}$ to $\mathbf{1 5}$ | $\mathbf{1 6}$ to $\mathbf{2 0}$ | $\mathbf{2 1}$ to $\mathbf{2 5}$ | $\mathbf{2 6}$ to $\mathbf{3 0}$ | $\mathbf{3 1}$ to $\mathbf{3 5}$ | $\mathbf{3 6}$ and <br> greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | MH | 3023 | 23.8 | $20 \%$ | $12 \%$ | $14 \%$ | $13 \%$ | $13 \%$ | $7 \%$ | $2 \%$ | $19 \%$ |
| 02 | Anne Arundel | MH | 92 | 21.2 | $45 \%$ | $2 \%$ | $2 \%$ | $9 \%$ | $12 \%$ | $5 \%$ | $1 \%$ | $24 \%$ |
| 19 | Somerset | MH | 430 | 14.4 | $13 \%$ | $19 \%$ | $23 \%$ | $23 \%$ | $14 \%$ | $6 \%$ | $1 \%$ | $0 \%$ |
| 20 | Talbot | MH | 236 | 12.8 | $25 \%$ | $16 \%$ | $19 \%$ | $19 \%$ | $18 \%$ | $2 \%$ | $0 \%$ | $0 \%$ |
| 21 | Washington | MH | 189 | 13.1 | $13 \%$ | $25 \%$ | $30 \%$ | $13 \%$ | $15 \%$ | $4 \%$ | $0 \%$ | $0 \%$ |
| 22 | Wicomico | MH | 245 | 21.7 | $7 \%$ | $9 \%$ | $10 \%$ | $16 \%$ | $27 \%$ | $18 \%$ | $5 \%$ | $8 \%$ |
| 30 | Baltimore City | MH | 1831 | 28.9 | $21 \%$ | $10 \%$ | $11 \%$ | $10 \%$ | $10 \%$ | $6 \%$ | $3 \%$ | $29 \%$ |

## High Schools

| LEA ID | LEA Name | Grade <br> Span | Total Number of Classes | Average Class Size | Five or fewer | 6 to 10 | 11 to 15 | 16 to 20 | 21 to 25 | 26 to 30 | 31 to 35 | 36 and greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | H | 96844 | 20.4 | 13\% | 8\% | 11\% | 15\% | 18\% | 19\% | 11\% | 4\% |
| 01 | Allegany | H | 1178 | 13.6 | 25\% | 14\% | 15\% | 21\% | 19\% | 7\% | 0\% | 0\% |
| 02 | Anne Arundel | H | 14863 | 19.7 | 14\% | 9\% | 11\% | 12\% | 17\% | 23\% | 13\% | 1\% |
| 03 | Baltimore | H | 9696 | 20.9 | 6\% | 7\% | 11\% | 17\% | 24\% | 23\% | 10\% | 1\% |
| 04 | Calvert | H | 2390 | 16.4 | 25\% | 9\% | 8\% | 14\% | 20\% | 21\% | 3\% | 1\% |
| 05 | Caroline | H | 659 | 17.9 | 11\% | 15\% | 16\% | 18\% | 21\% | 12\% | 5\% | 3\% |
| 06 | Carroll | H | 4578 | 16.6 | 28\% | 6\% | 8\% | 11\% | 17\% | 20\% | 8\% | 0\% |
| 07 | Cecil | H | 2158 | 17.6 | 11\% | 9\% | 16\% | 23\% | 25\% | 13\% | 2\% | 1\% |
| 08 | Charles | H | 3535 | 18.4 | 11\% | 7\% | 11\% | 22\% | 31\% | 16\% | 1\% | 0\% |
| 09 | Dorchester | H | 606 | 15.6 | 19\% | 12\% | 20\% | 20\% | 17\% | 8\% | 2\% | 2\% |
| 10 | Frederick | H | 4740 | 20.5 | 17\% | 4\% | 7\% | 13\% | 19\% | 22\% | 14\% | 4\% |
| 11 | Garrett | H | 569 | 16.5 | 9\% | 15\% | 21\% | 26\% | 18\% | 9\% | 1\% | 2\% |
| 12 | Harford | H | 3093 | 28.7 | 6\% | 5\% | 9\% | 15\% | 15\% | 10\% | 7\% | 34\% |
| 13 | Howard | H | 6302 | 18.4 | 18\% | 7\% | 8\% | 16\% | 22\% | 19\% | 9\% | 1\% |
| 14 | Kent | H | 433 | 12.2 | 36\% | 10\% | 15\% | 13\% | 12\% | 12\% | 1\% | 0\% |
| 15 | Montgomery | H | 14458 | 20.6 | 13\% | 9\% | 8\% | 11\% | 16\% | 24\% | 16\% | 2\% |
| 16 | Prince George's | H | 15070 | 22.7 | 8\% | 8\% | 11\% | 11\% | 15\% | 19\% | 19\% | 8\% |
| 17 | Queen Anne's | H | 896 | 21.3 | 6\% | 5\% | 10\% | 16\% | 26\% | 31\% | 4\% | 1\% |
| 18 | St. Mary's | H | 3153 | 15.7 | 8\% | 15\% | 22\% | 29\% | 20\% | 5\% | 1\% | 0\% |
| 20 | Talbot | H | 501 | 15.9 | 18\% | 12\% | 17\% | 16\% | 17\% | 18\% | 1\% | 0\% |
| 21 | Washington | H | 2430 | 18.7 | 13\% | 7\% | 13\% | 20\% | 24\% | 17\% | 4\% | 2\% |
| 22 | Wicomico | H | 1237 | 19.7 | 5\% | 7\% | 15\% | 23\% | 29\% | 18\% | 3\% | 1\% |
| 23 | Worchester | H | 873 | 15.2 | 12\% | 16\% | 21\% | 22\% | 21\% | 6\% | 0\% | 0\% |
| 30 | Baltimore City | H | 3426 | 31.9 | 17\% | 12\% | 11\% | 10\% | 8\% | 7\% | 5\% | 31\% |

## Appendix B Class Size Distribution (All Classes)

## MARYLAND STATE DEPARTMENT OF EDUCATION

 Division of Accountability, Assessments and Data ServicesClass Size Distribution Report SCGT End-of-Year Collection 2011-2012

12/19/2012

| LEA ID | LEA Name | Total Number of Classes | Average Class Size | Five or fewer | 6 to 10 | 11 to 15 | 16 to 20 | 21 to 25 | 26 to 30 | 31 to 35 | 36 and greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | 331834 | 22.0 | 8\% | 6\% | 8\% | 20\% | 30\% | 18\% | 6\% | 4\% |
| 01 | Allegany | 4514 | 17.4 | 10\% | 10\% | 16\% | 32\% | 20\% | 7\% | 1\% | 4\% |
| 02 | Anne Arundel | 34953 | 21.4 | 13\% | 6\% | 8\% | 17\% | 24\% | 19\% | 9\% | 5\% |
| 03 | Baltimore | 37547 | 21.5 | 5\% | 4\% | 7\% | 21\% | 37\% | 20\% | 6\% | 1\% |
| 04 | Calvert | 7163 | 19.0 | 15\% | 5\% | 5\% | 16\% | 37\% | 18\% | 3\% | 0\% |
| 05 | Caroline | 1917 | 21.2 | 8\% | 10\% | 16\% | 31\% | 22\% | 6\% | 3\% | 5\% |
| 06 | Carroll | 11024 | 20.6 | 16\% | 4\% | 7\% | 21\% | 26\% | 14\% | 6\% | 6\% |
| 07 | Cecil | 8605 | 20.4 | 3\% | 3\% | 7\% | 34\% | 39\% | 13\% | 1\% | 0\% |
| 08 | Charles | 10050 | 20.1 | 8\% | 5\% | 7\% | 20\% | 37\% | 19\% | 3\% | 0\% |
| 09 | Dorchester | 2023 | 17.8 | 6\% | 5\% | 19\% | 36\% | 25\% | 7\% | 1\% | 1\% |
| 10 | Frederick | 16467 | 21.4 | 8\% | 3\% | 5\% | 22\% | 35\% | 18\% | 7\% | 3\% |
| 11 | Garrett | 1886 | 17.1 | 8\% | 10\% | 17\% | 35\% | 21\% | 6\% | 1\% | 1\% |
| 12 | Harford | 9453 | 24.3 | 2\% | 3\% | 9\% | 23\% | 32\% | 13\% | 3\% | 14\% |
| 13 | Howard | 22271 | 20.3 | 8\% | 4\% | 7\% | 24\% | 35\% | 18\% | 4\% | 1\% |
| 14 | Kent | 934 | 21.9 | 22\% | 7\% | 15\% | 18\% | 19\% | 8\% | 4\% | 7\% |
| 15 | Montgomery | 43905 | 21.3 | 8\% | 6\% | 7\% | 19\% | 26\% | 22\% | 10\% | 2\% |
| 16 | Prince George's | 60692 | 23.2 | 5\% | 6\% | 7\% | 14\% | 29\% | 24\% | 10\% | 4\% |
| 17 | Queen Anne's | 3186 | 24.3 | 4\% | 3\% | 7\% | 25\% | 41\% | 15\% | 1\% | 5\% |
| 18 | St. Mary's | 6753 | 20.8 | 5\% | 8\% | 14\% | 29\% | 28\% | 8\% | 1\% | 7\% |
| 19 | Somerset | 1332 | 15.2 | 13\% | 13\% | 18\% | 30\% | 23\% | 2\% | 0\% | 0\% |
| 20 | Talbot | 1660 | 17.6 | 10\% | 9\% | 14\% | 24\% | 31\% | 12\% | 0\% | 0\% |
| 21 | Washington | 15088 | 18.5 | 13\% | 4\% | 6\% | 27\% | 39\% | 9\% | 2\% | 1\% |
| 22 | Wicomico | 6943 | 20.0 | 6\% | 6\% | 10\% | 22\% | 40\% | 13\% | 1\% | 2\% |
| 23 | Worchester | 3116 | 15.9 | 5\% | 9\% | 30\% | 38\% | 15\% | 3\% | 0\% | 0\% |
| 30 | Baltimore City | 20214 | 33.9 | 9\% | 8\% | 6\% | 15\% | 24\% | 12\% | 4\% | 21\% |
| 32 | The SEED School | 138 | 13.4 | 5\% | 13\% | 57\% | 20\% | 4\% | 1\% | 0\% | 0\% |

## Appendix C Class Size Distribution Math and Reading Only

## MARYLAND STATE DEPARTMENT OF EDUCATION

 Division of Accountability, Assessments and Data ServicesClass Size Distribution Report ${ }^{\text {h }}$<br>SCGT End-of-Year Collection 2011-2012<br>12/19/2012

| LEA ID | LEA Name | Total <br> Number <br> of Classes | Average <br> Class Size | Five or fewer | 6 to 10 | 11 to 15 | 16 to 20 | 21 to 25 | 26 to 30 | 31 to 35 | 36 and greater |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | State | 47403 | 21.1 | 8\% | 7\% | 9\% | 18\% | 29\% | 20\% | 6\% | 3\% |
| 01 | Allegany | 246 | 19.7 | 4\% | 5\% | 15\% | 24\% | 28\% | 20\% | 2\% | 0\% |
| 02 | Anne Arundel | 3255 | 16.3 | 24\% | 15\% | 11\% | 9\% | 12\% | 15\% | 13\% | 1\% |
| 03 | Baltimore | 6832 | 20.1 | 6\% | 6\% | 11\% | 23\% | 31\% | 18\% | 4\% | 1\% |
| 04 | Calvert | 1406 | 17.9 | 18\% | 7\% | 7\% | 14\% | 34\% | 17\% | 3\% | 0\% |
| 05 | Caroline | 244 | 19.5 | 2\% | 0\% | 11\% | 47\% | 37\% | 3\% | 0\% | 0\% |
| 06 | Carroll | 1230 | 22.6 | 15\% | 4\% | 7\% | 15\% | 23\% | 15\% | 7\% | 14\% |
| 07 | Cecil | 409 | 21.5 | 2\% | 3\% | 8\% | 24\% | 38\% | 22\% | 2\% | 1\% |
| 08 | Charles | 1354 | 19.3 | 7\% | 9\% | 12\% | 22\% | 29\% | 16\% | 5\% | 0\% |
| 09 | Dorchester | 251 | 17.9 | 5\% | 6\% | 16\% | 40\% | 24\% | 9\% | 1\% | 0\% |
| 10 | Frederick | 1929 | 21.7 | 6\% | 4\% | 6\% | 20\% | 34\% | 22\% | 7\% | 1\% |
| 12 | Harford | 2046 | 21.9 | 2\% | 3\% | 10\% | 26\% | 34\% | 19\% | 3\% | 4\% |
| 13 | Howard | 3305 | 19.4 | 7\% | 4\% | 11\% | 25\% | 37\% | 14\% | 1\% | 0\% |
| 14 | Kent | 99 | 16.8 | 17\% | 6\% | 12\% | 19\% | 32\% | 13\% | 0\% | 0\% |
| 15 | Montgomery | 9963 | 21.4 | 5\% | 7\% | 7\% | 16\% | 32\% | 28\% | 5\% | 0\% |
| 16 | Prince George's | 7681 | 23.5 | 3\% | 7\% | 7\% | 12\% | 27\% | 28\% | 12\% | 4\% |
| 17 | Queen Anne's | 511 | 22.3 | 1\% | 0\% | 5\% | 20\% | 57\% | 17\% | 1\% | 0\% |
| 18 | St. Mary's | 615 | 18.5 | 4\% | 10\% | 17\% | 25\% | 29\% | 14\% | 1\% | 0\% |
| 19 | Somerset | 210 | 15.9 | 16\% | 1\% | 15\% | 41\% | 25\% | 0\% | 0\% | 0\% |
| 20 | Talbot | 228 | 19.3 | 3\% | 4\% | 8\% | 37\% | 43\% | 5\% | 0\% | 0\% |
| 21 | Washington | 1440 | 16.5 | 20\% | 10\% | 9\% | 20\% | 26\% | 12\% | 3\% | 0\% |
| 22 | Wicomico | 869 | 18.2 | 11\% | 9\% | 12\% | 19\% | 32\% | 14\% | 3\% | 0\% |
| 23 | Worchester | 385 | 16.2 | 0\% | 6\% | 36\% | 44\% | 13\% | 0\% | 0\% | 0\% |
| 30 | Baltimore City | 2858 | 29.8 | 14\% | 11\% | 7\% | 10\% | 14\% | 10\% | 4\% | 30\% |
| 32 | The SEED School | 37 | 13.2 | 3\% | 11\% | 65\% | 22\% | 0\% | 0\% | 0\% | 0\% |

* Garrett County data was not finalized at the time of submission.


[^0]:    *All classes include Elementary, Middle, and High School; Core Classes include grades 3 through 12 only and exclude Garrett County data, not available at submission date.

