



## ARE YOUR CLASSROOMS THE RIGHT SIZE?

How do you know if the classrooms in your building are sized appropriately? Is there some national standard? Does class size vary per grade level? What can your school do if you don't think your classrooms are the right size?

The answer to these questions are complicated - there is no "one size fits all" so to speak. There are many factors that inform a district's decision on what is the right number of students to have in a classroom. frk works with some districts that have school board policies which determine ideal class sizes for each grade level. Other districts have legacy buildings with set classroom sizes and large student populations which preclude the options of establishing ideal classroom sizes. Still other districts have the opportunity to construct new facilities and have a conversation about what size their new classroom spaces will be and how many students they intend to have in each classroom.

Whether you feel like you have control over classroom size or not, how can you gain a better understanding of the theories behind the ideal number of students in a classroom? What are your options to consider how you might determine what works best for your district and how might you find creative ways to achieve that idea?

There are many resources available that can help districts understand their ideal class size, space needs and help them plan for the future. Starting with resources at the national level, here are a few excellent sources for information:

- The U.S. Department of Education (ed.gov): Here you can find up-to-date data on educational delivery from around the country.
- National Center for Educational Statistics (nces.ed.gov): The NCES is a treasure trove of analytics on educational facts and trends.

- Association for Learning Environments (A4LE.org): The A4LE is an international non-profit association that provides resources, educational events, and resources aimed at making a stronger connection between educational theory and educational space design.
- Collaborative for High Performance Schools (chps.net): CHPS offers resources and ideas for creating "Better Buildings" for "Better Students".
- American Institute of Architects Committee on Architecture for Education (aia.org): A resource for educational design made up of architects committed to high quality school design. On the AIA Committee on Architecture for Education's website you will find a library of resource material, a blog, and information on events.



At the state level you will want to tap into the Iowa Department of Education ([educateiowa.gov](http://educateiowa.gov)) where you will find extensive information about education in Iowa including helpful statistics about school districts in the state as well as the various resources the department has to offer.

As a starting point to determining what is the ideal number of students per classroom in your district, according to the National Center for Educational Statistics here is the average class size in Iowa:

TABLE 1: AVERAGE CLASS SIZE IN IOWA

Elementary Schools	20.2 students per class
Secondary Schools	18.9 students per class

This information, of course, includes growing districts, districts with declining enrollment, rural, urban and suburban districts, and districts with mostly legacy facilities and districts with newer buildings. The average class size indicated in Table 1 is an average across the state. "The State of Education" (2018) from the Iowa Department of Education corroborates this statistic: that the average classroom size in Iowa is 19.5 students, which lands in the middle of the information available from the National Center for Educational Statistics. Of course, this number will vary year to year.



## WHAT'S YOUR IDEAL?

When planning a new school the first question frk asks a district is how many students to plan for in each new classroom. Often times the number is 25 students per class. So for a 5 section elementary school that serves 750 students, 30 classrooms would be required.

$$\frac{750 \text{ students}}{25 \text{ students per classroom}} = 30 \text{ Classrooms}$$



Why 25 students per classroom? Historical information from the Department of Education indicates that the perceived ideal typical classroom in public schools averages between 22 and 26 students. This number applies to all grade levels, core general education classes, and excludes special needs or elective/related arts classes. 25 students per class is toward the higher end of this historic recommended average. Some schools prefer to use 24 students per classroom when determining the number of classrooms needed for a new building. One Des Moines metro school has a board adopted policy of striving to maintain an ideal class size per grade level:

TABLE 2: EXAMPLE OF CLASSROOM CAPACITY

Kindergarten	18/19 per class
Grades 1-3	18/19 per class
Grades 4-5	20/22 per class
Grades 6-12	4/26 per class

Although the designed-for average number of students per classroom is not necessarily the number of students a district will have in each class. A 5 section elementary school designed for 750 students might not reach full capacity until several years after it opens. At the opposite end of the spectrum, a school building meant to house 750 students might exceed that number before additional classroom space, in the form of additions or a new building, come on line.

## *The Ideal does not always align with reality*

Educators will indicate that a lower teacher/student ratio is ideal. However, not all districts are able to achieve a low teacher to student ratio. Educators lobby for 15 to 18 students per teacher. The AIA Committee on Architecture for Schools indicates what is best is 18 students per class for Kindergarten/1st Grade, 20 students for 2nd/3rd Grade, 22 students for 4th/5th Grade, and 25 students for 6th through 12th Grade. But based on financial resources, national statistics and commonly accepted standards, most districts are using 25 or 26 students per classroom at the upper grade levels and 22 to 24 students per classroom at the lower grade levels.

## *Your District will likely land at a maximum of 25 or 26 students per class*

Other factors to consider when evaluating ideal class size and determining ways to maximize the learning experience:

- Are there other spaces that enhance learning in the building - collaboration rooms, maker spaces, flexible environments, CTE (Career and Technology Education) centers?
- Are students able to travel to area community colleges for education programming not available on campus?
- Is there flexibility in class scheduling that might alleviate classroom crowding?
- Are there school-to-work opportunities that would offer students the option of off-campus learning?
- Is there flexibility in class scheduling that might alleviate classroom crowding - such as "Block Scheduling"?



- Is it possible to create "Teacher Professional Spaces" that serve as home bases for teachers to collaborate and prepare coursework, thus making individual classrooms more available for use throughout the day?
- Are there opportunities for students to learn remotely, such as from home through online learning resources?

## **NO ONE SIZE FITS ALL**

The resources provided in this article should help your district consider options when determining the ideal classroom size for your curriculum delivery. If you have further questions, we invite you to contact us at frk architects + engineers. We work with districts of all sizes to help with planning and designing facilities that are **right-sized** for capacity and programming needs.