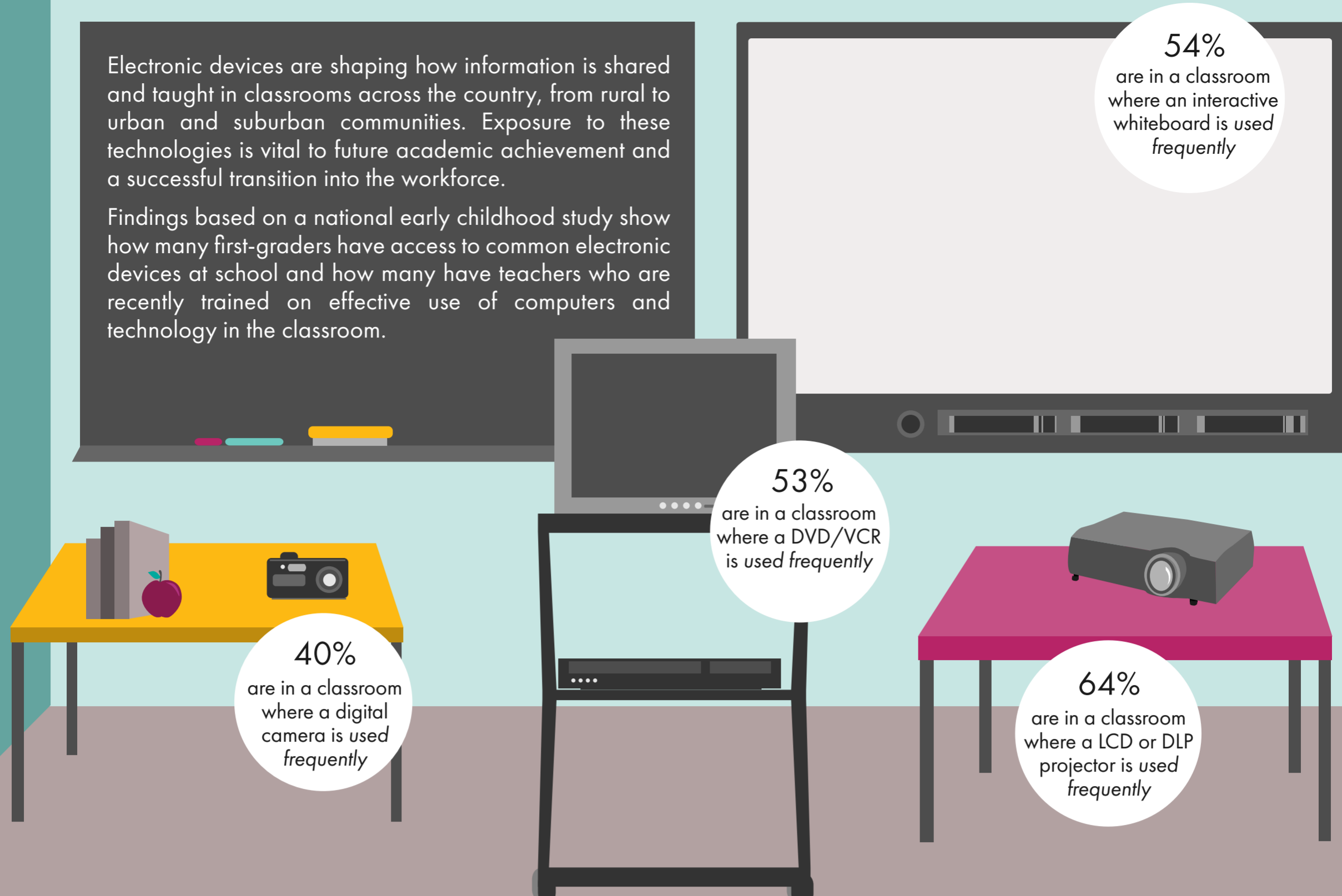


First Graders' Exposure to Technology in the Classroom

Electronic devices are shaping how information is shared and taught in classrooms across the country, from rural to urban and suburban communities. Exposure to these technologies is vital to future academic achievement and a successful transition into the workforce.

Findings based on a national early childhood study show how many first-graders have access to common electronic devices at school and how many have teachers who are recently trained on effective use of computers and technology in the classroom.



One-to-One Computing in the Classroom

One-to-one computing classrooms are those in which one device is available for every student. This balance of resources to students is advantageous for creating a more engaging and personalized learning environment.

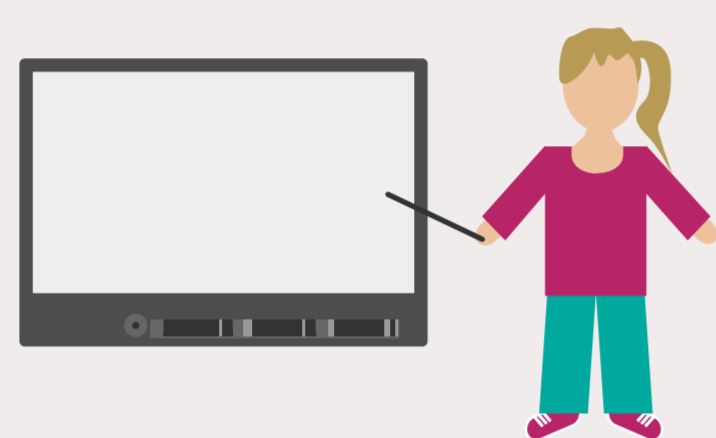


Very few first graders are in classrooms with at least one computer per student.



However, 28% are in a classroom that can become a one-to-one setting if the teacher borrows additional school computers.

Whiteboards in the Classroom: Where in the US are They?



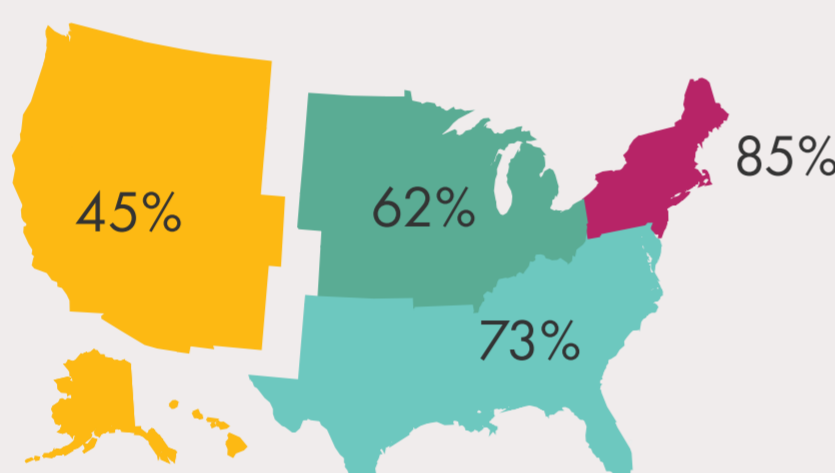
Interactive whiteboards represent a newer technology that offers teachers flexibility in how instruction is delivered.

66% of first graders in the United States are in a classroom with an interactive whiteboard. However, availability and frequency of use can vary by where a child lives.

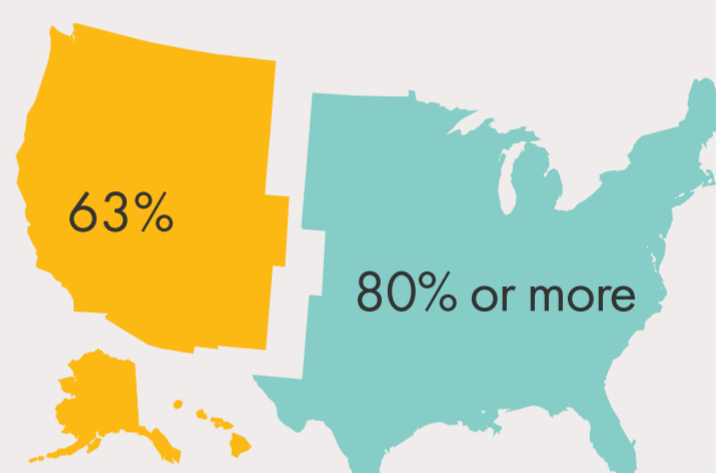
US Regions

First graders in the West have less exposure to interactive whiteboards than students in other regions.

Whiteboard Availability by Region *



Whiteboard Frequently Used When Available



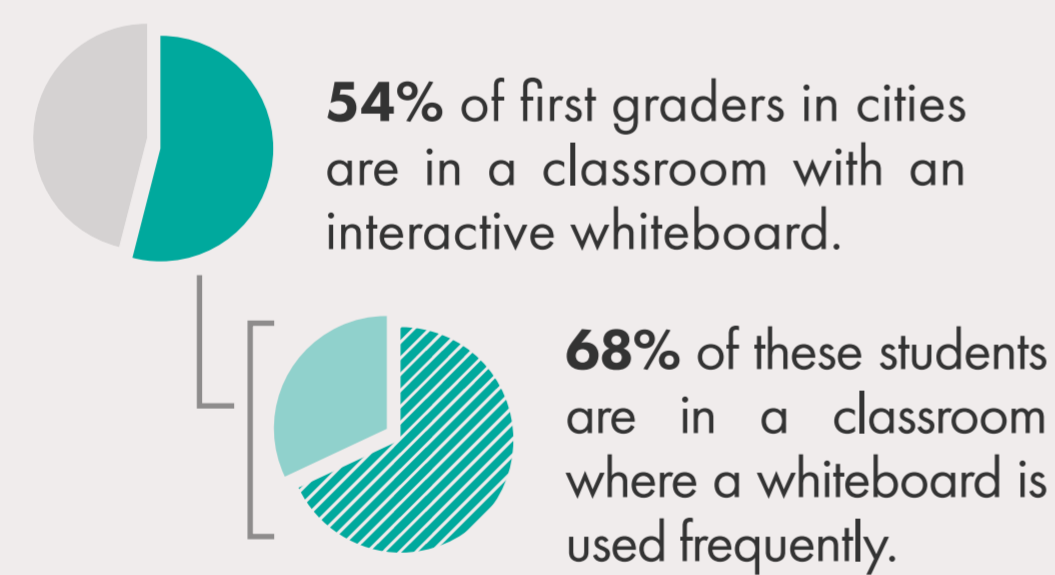
*The percent of first graders in classrooms with whiteboards available in the South is not significantly different from the percent of students in the Northeast or in the Midwest regions.

Urbanicity

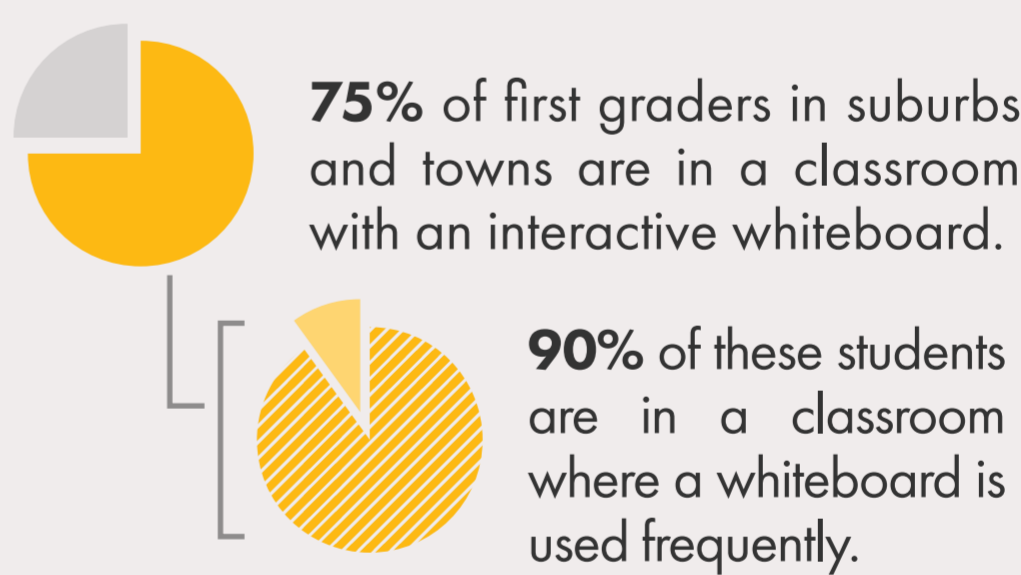
Students attending schools in cities have less exposure to interactive whiteboards in the classroom than students attending schools in suburbs and towns. However, there were no significant differences between students in cities and rural areas.



Cities

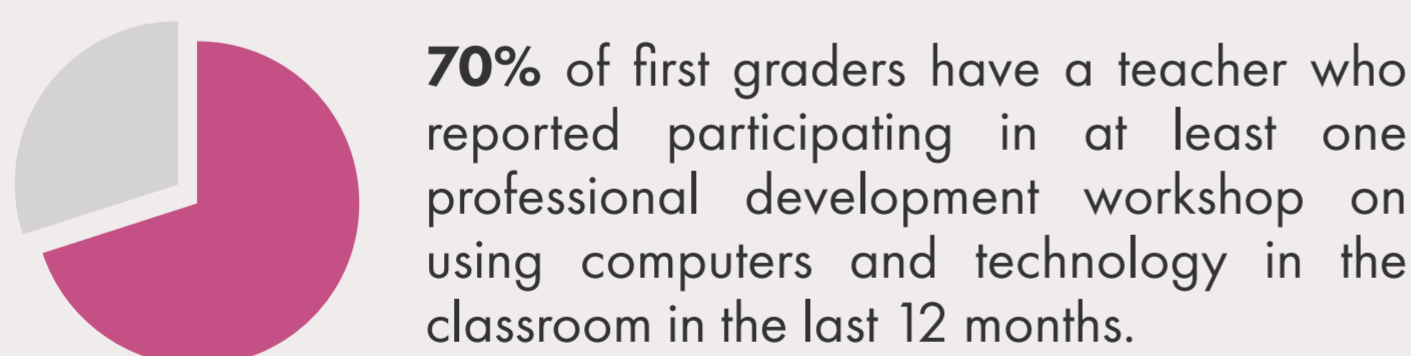


Suburbs and Towns



Professional Development: How Prepared are Teachers to Use Technology Effectively?

In order to effectively use technology in the classroom, teachers must have the necessary knowledge base and skills to utilize the tools in meaningful ways.



One-to-One Computing



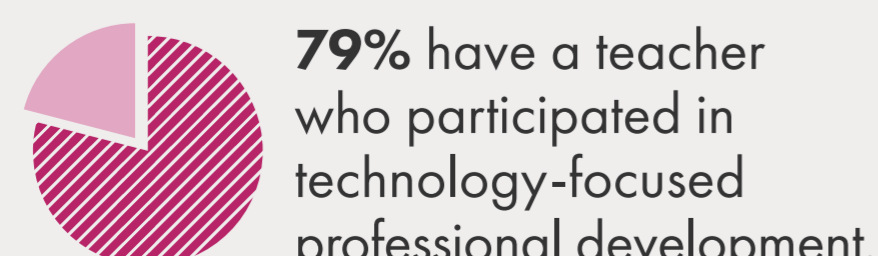
Although very few first graders are in a one-to-one classroom environment, 91% of those first graders have teachers who participated in technology-focused professional development.



Of first graders in classrooms that can become a one-to-one environment when additional computers are borrowed, 71% have a teacher that participated in technology-focused professional development.

Whiteboard Use

Of students who are in classrooms where the teacher uses a whiteboard frequently...



Notes: These findings are drawn from the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011) first grade wave. The ECLS-K:2011 is a nationally representative sample of kindergartners from the 2010-11 school years. Estimates only include students who were in first grade in the 2011-2012 school year. This information draws upon restricted-use data. Classroom technology information is based on teacher reports of availability of resources and frequency of use.