

## Understanding the Bell Curve and Your Child's Test Scores

### Factsheet for Virginia's Parents

#### What is the Bell Curve?

The **bell curve** is a simple way to look at how **student performance** on things like reading, math, or even social skills/behavior, **is spread out across a large group**. It can tell you **where your child's performance lies** in comparison to that of other children their age and help you better understand their test scores.

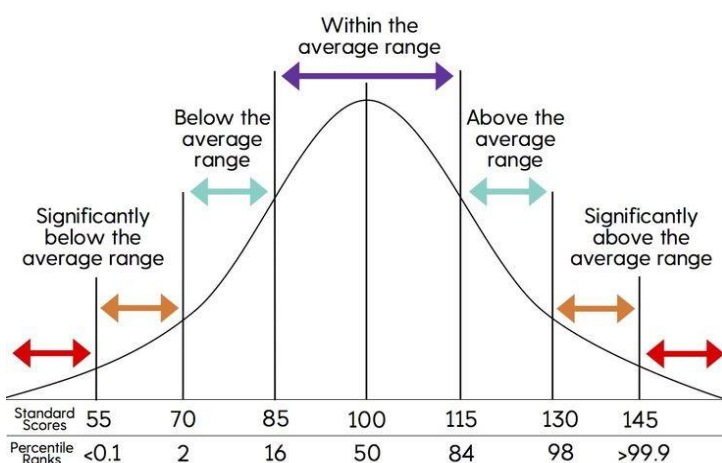
Think about a graph shaped like a hill or a bell. **Most people fall near the middle**, where the highest point is. This group, the largest one, represents the average abilities of students who score around the same as most of their peers of the same age and grade level. As you move away from the middle, scores drop lower on the left side (**below average**) and get higher on the right side (**above average**). See graphic below.

You will often hear evaluators talk about **standard deviation** when talking about your child's performance, e.g., "She is two standard deviations below the norm." Standard deviation measures how much a child's score differs from the typical score for their age group. A small difference means they are close to the average score, while a bigger difference means they may need more support. It's like a measure of how much "extra help" a child may need to keep up or build on their strengths.

#### Understanding Your Child's Scores

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Percentile Ranks and Standard Scores



There are many different types of evaluations and scores can be presented in different manners. Here are a few examples of scoring types that you may see on your child's tests and evaluations.

**Scaled Scores:** These scores show how close a child is to the "average" range, with most scores between 7 and 13. A score of 10 is the average, and scores in this range include most children.

**Percentile Ranks:** This tells you where your child stands compared to others of the same age or grade. If your child is in the 30th percentile, that means they performed better than 30 out of 100 children their age, but 70 children scored higher. If they're in the 85th percentile, they scored better than 85 out of 100

**Age or Grade Equivalent:** This score matches the typical score for kids of a certain age or grade. However, it's not as accurate as standard scores, which consider both average scores and how much scores vary.

**A T-score** shows how a child's performance compares to others, with 50 being average. Most students score between 40 and 60. Scores above 50 are above average, and scores below 50 are below average.

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## How Can Understanding the Bell Curve Help Me?

For parents of children with disabilities, understanding the bell curve is important for a few reasons.

1. **Setting Expectations and Goals:** The bell curve can help you see where your child is in relation to their peers. It shows that not everyone learns or develops at the same rate, and that's okay! Special education services are there to help children develop their strengths and address their challenges, regardless of where they fall on the curve.
2. **Getting Appropriate Support:** Scores can help you better assess your child's challenges and help you identify your needs. You can use the information to advocate for additional help for your child to help them progress academically, behaviorally, and socially.
3. **Tracking Progress:** The bell curve is used to measure growth over time. Even small steps forward mean progress. This is another tool that helps you measure your child's progress from a specific starting point. You can even make your own charts to compare scores from year to year.

The bell curve is a tool to guide support. **It does not define potential or ability to make progress.** It highlights strengths and potential challenges. It is also important to remember that often **test scores for students with disabilities may not represent their true abilities.** Some students do not do well on standardized tests, with or without accommodations, and may need other ways to demonstrate their knowledge and performance. Discuss this with your Individualized Education Program (IEP) team.

### ADDITIONAL INFORMATION/RESOURCES:

[What is: Bell Curve Understanding the Normal Distribution](#)

[Wrightslaw test.scores.whitepaper.pdf](#)

[What is Your Bell Curve IQ? Wrightslaw.com](#)

[PacificCoastSpeech\\_InfoDocuments\\_BellCurve\\_3\\_22.pdf](#)

PEATC's mission focuses on building positive futures for Virginia's children by working collaboratively with families, schools and communities to improve opportunities for excellence in education and success in school and community life.

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