Senate testimony 19 ses

Testimony to Senate Health, Education, Labor and Pensions Committee:

Understanding Dyslexia:

The Intersection of Scientific Research & Education

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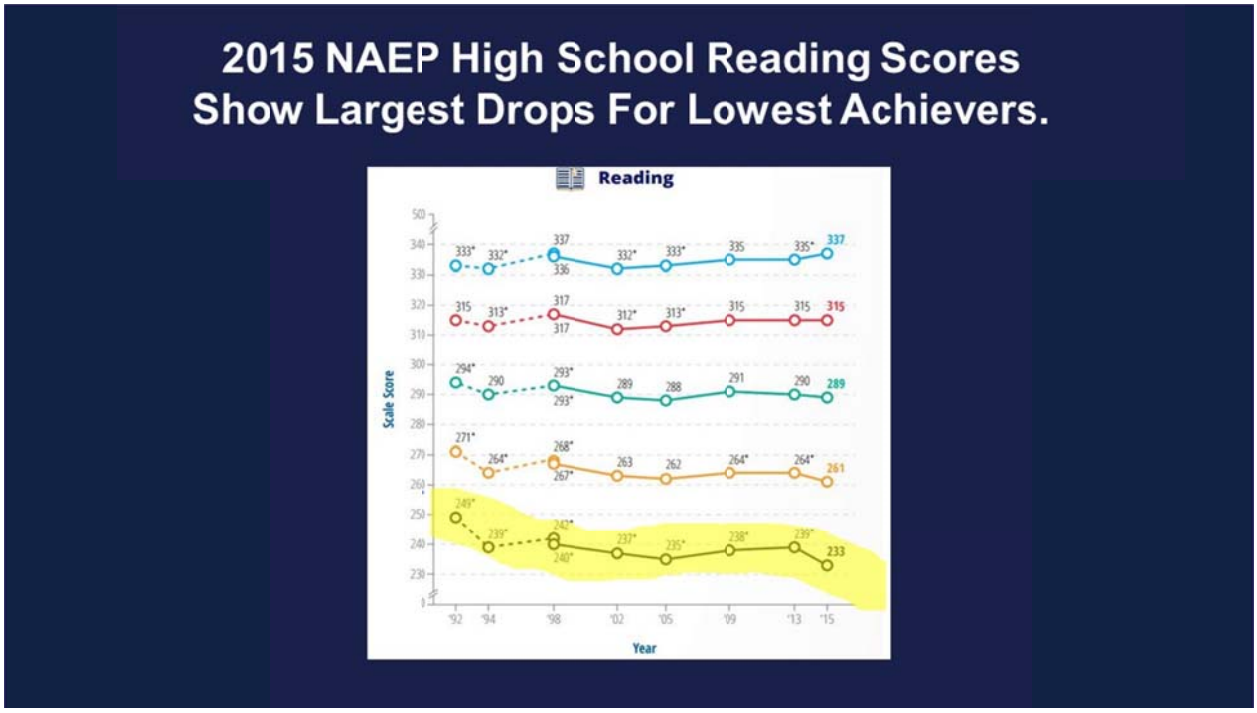
Dyslexia: explanation and potential solution to the educational crisis.

Good morning Senator Cassidy, Senator Mikulski, and other committee members. Thank you for the opportunity to speak with you about the science of dyslexia and share with you the tremendous scientific progress that has been made in dyslexia and its important implications for education.

The Problem:

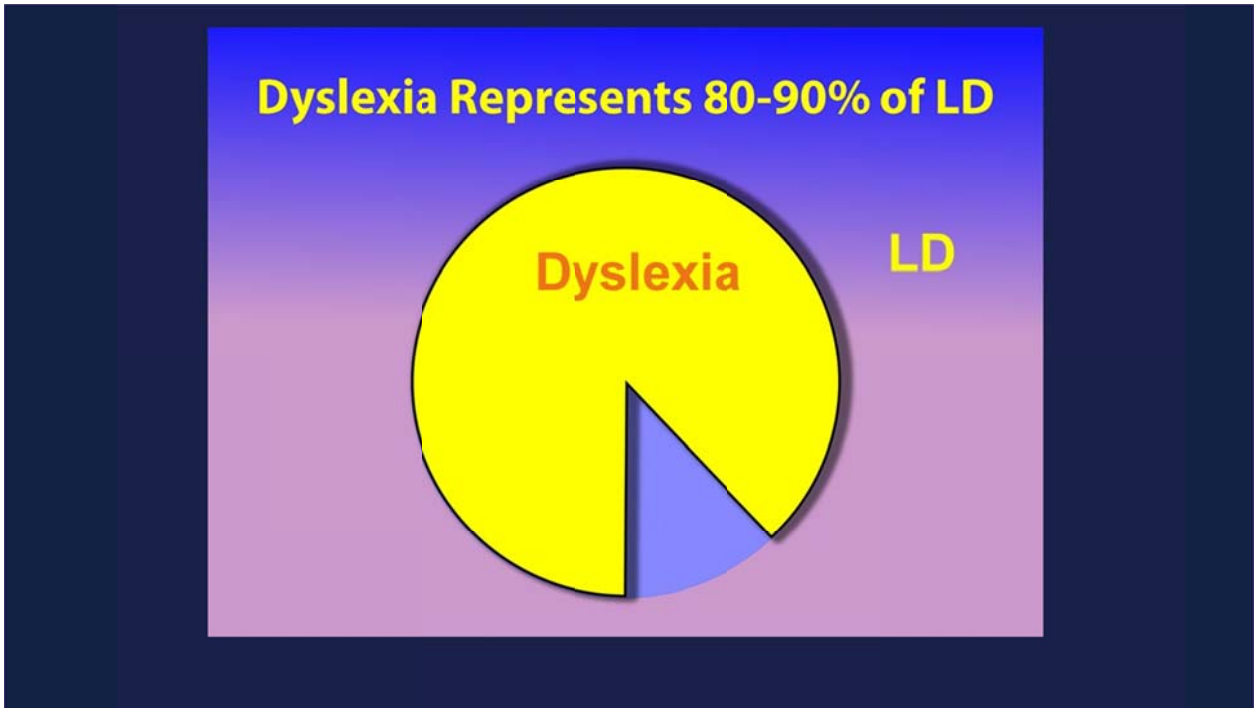
Our nation is in the midst of a national nightmare where substantial numbers of children are not learning to read, especially boys and girls from disadvantaged families.



(Slide 1) Just released 2015 data from NAEP, the nation's report card, sends a loud warning signal.

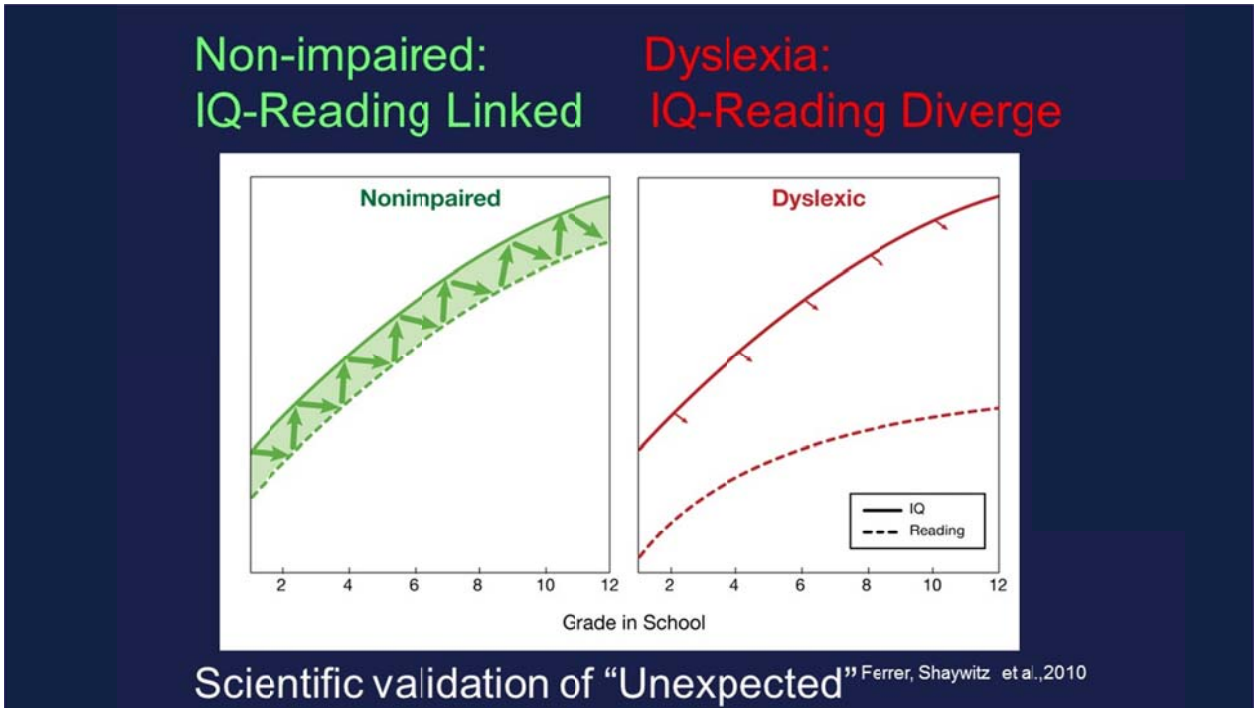
Here on the lower right - the lowest achievers show large declines in reading and, most alarming, the greatest drop in reading occurs between 2013 and 2015. Reactions from experts: "We're stalled…." "We're not making any progress." "We need something substantially different… ."

Increasing scientific evidence strongly points to **dyslexia as the explanation and potential solution to our education crisis.**



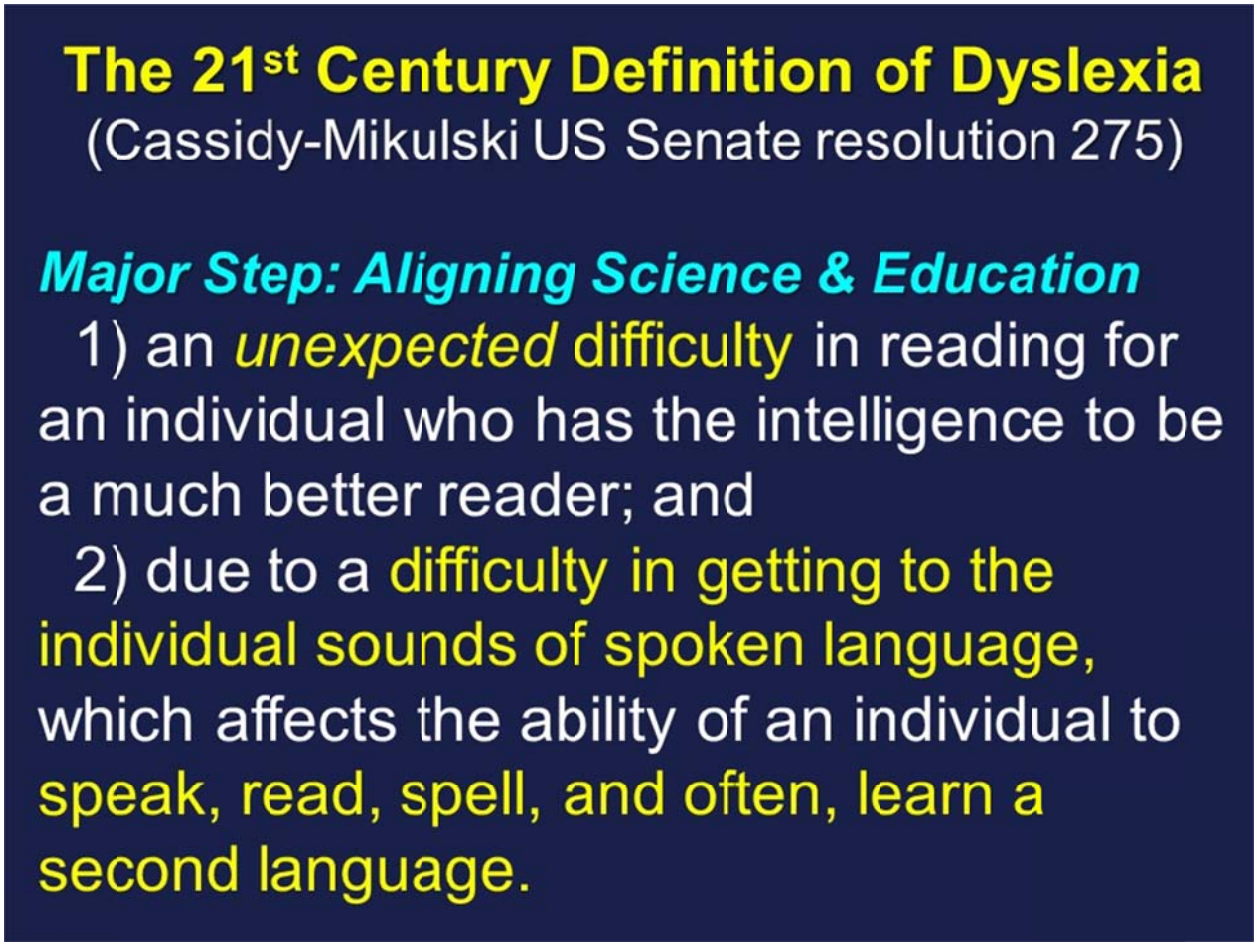
Dyslexia represents 80% to 90% of all learning disabilities **(Slide 2)** and differs markedly from all others in that dyslexia is very specific and scientifically validated.

Prevalence: Dyslexia is very common, affecting 1 out of 5.

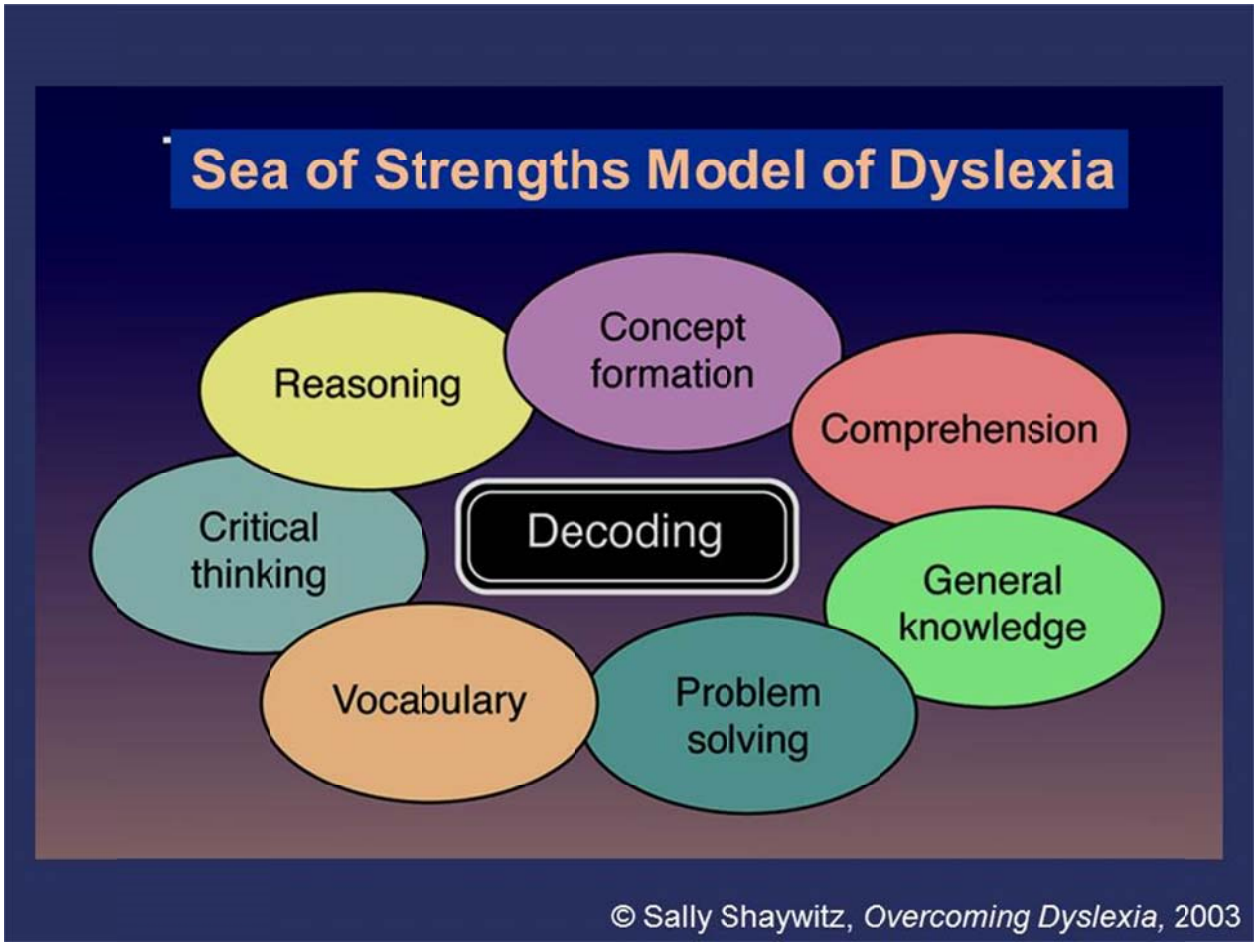


Unexpected nature: (SLIDE 3) Initial descriptions of dyslexia as an 'unexpected' difficulty in reading are today empirically validated.

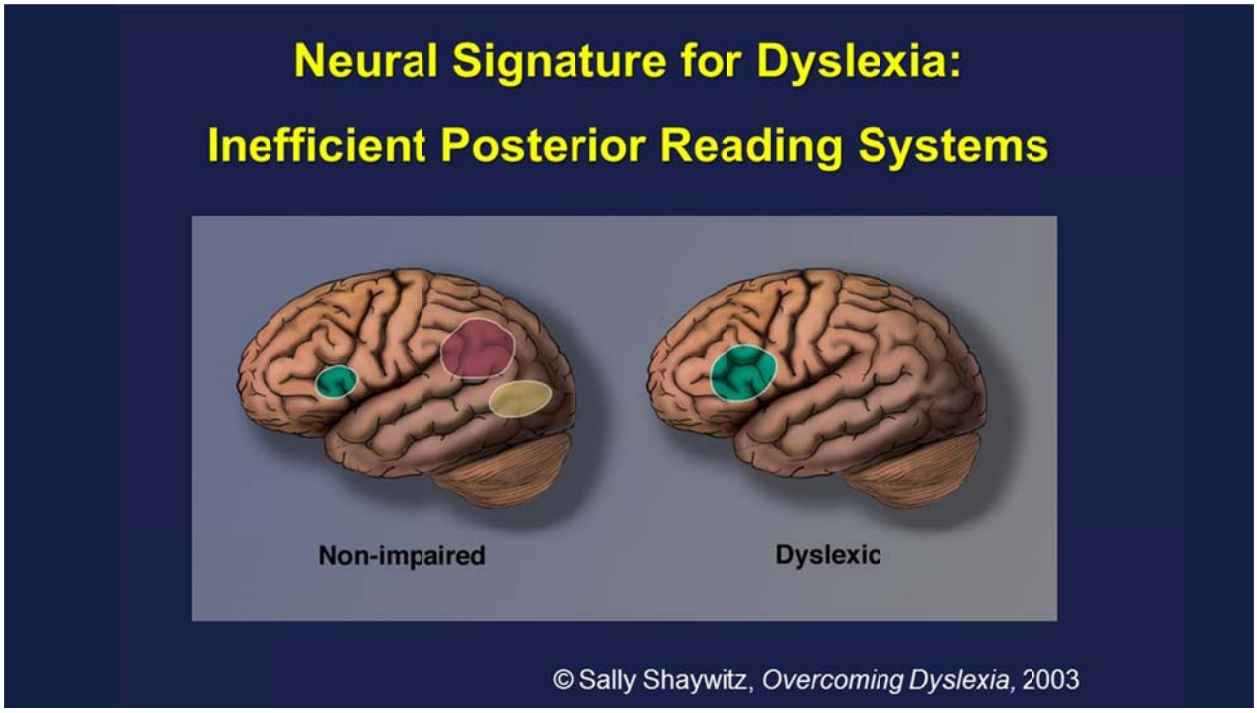
Cognitive Basis: Dyslexia is a difficulty within the language system, more specifically, the phonological component of language – it is not seeing words backwards.



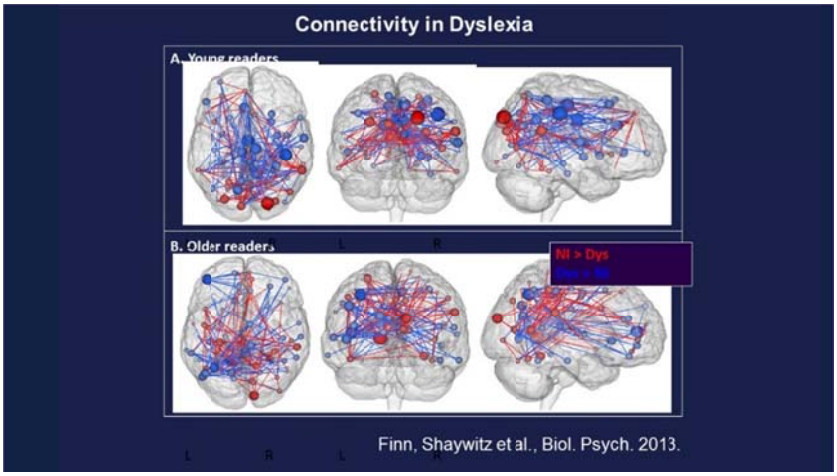
A major step forward is Cassidy-Mikulski Resolution 275 **(Slide 4)** providing a 21st century definition of dyslexia incorporating scientific advances in dyslexia, especially, its unexpected nature, and represents a landmark in aligning science and education.

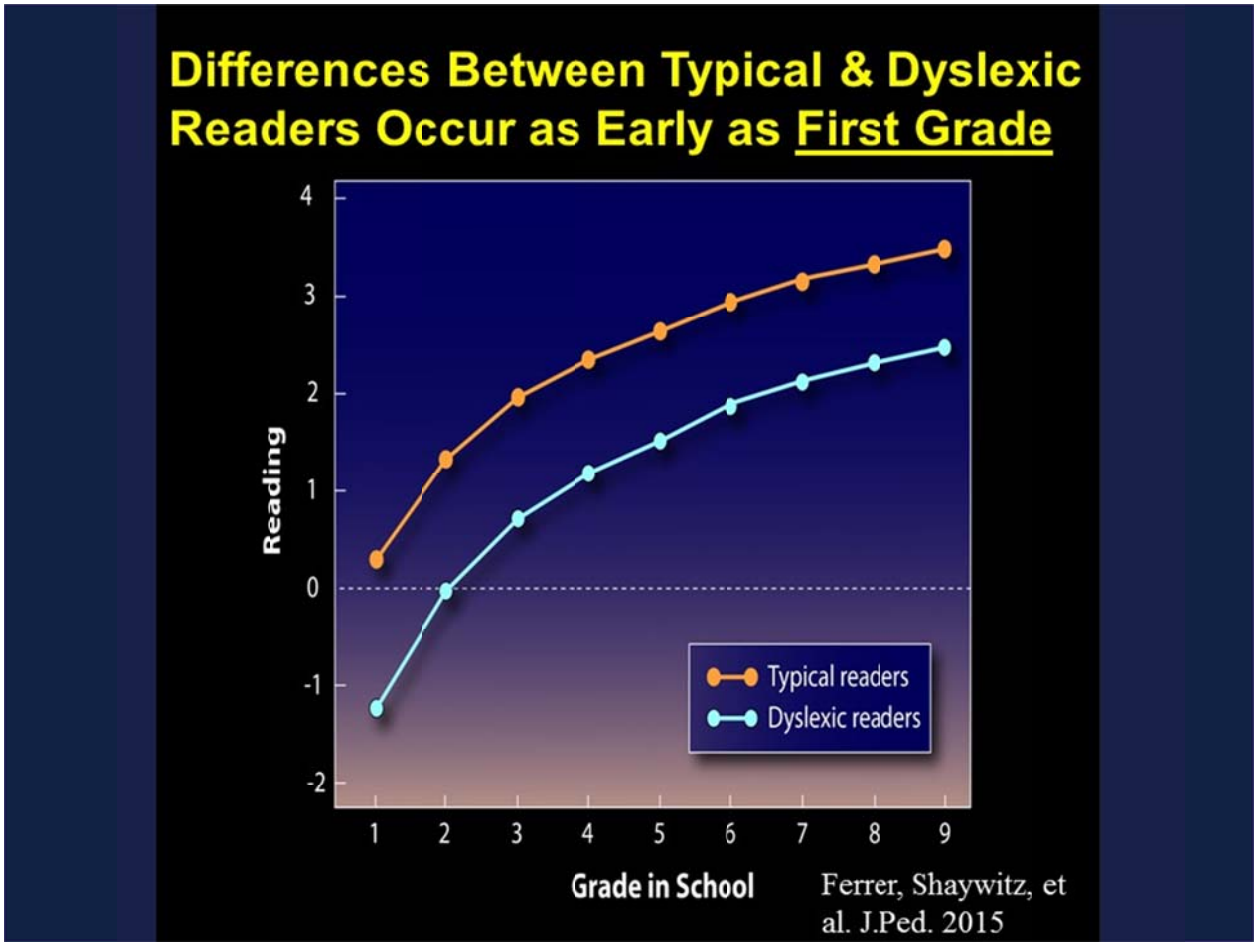


(Slide 5) Dyslexia is a paradox, the same slow reader is often a very fast and able thinker.



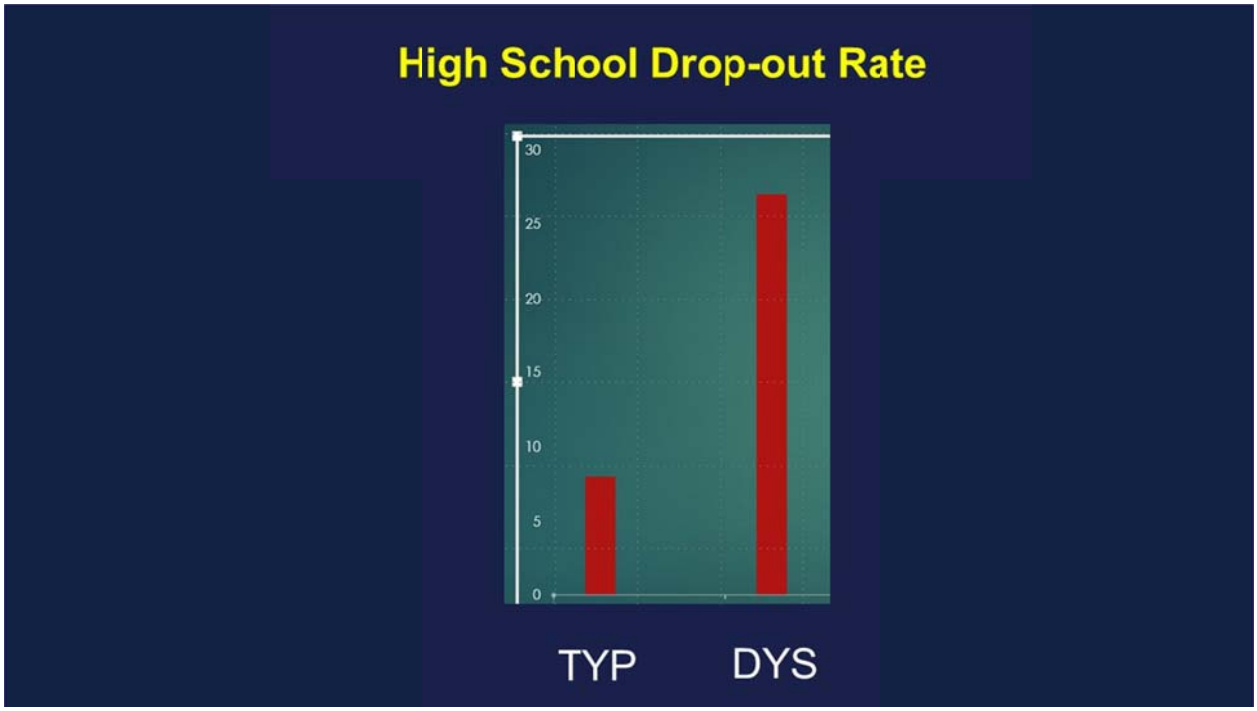
Neurobiology: Converging evidence has identified a neural signature for dyslexia – (**Slide 6)** that is, an inefficient functioning of those posterior, left hemisphere reading systems and **(Slide 7)** disruptions in connectivity.





Early identification of dyslexia critical: (**Slide 8)** The gap between typical and dyslexic readers is large, present by first grade and persists.

High Cost of Dyslexia: Dyslexia has often dire consequences **(Slide 9)**. Dyslexic students drop out of high school at a significantly greater rate than their typically reading peers.



As a consequence they are doomed to higher unemployment, lower earnings, and significantly higher rates of anxiety and depression. Studies indicate that almost 50% of prison inmates may be dyslexic.

In aligning education with science certain principles emerge:

1. Given its high prevalence + scientific validity + harsh impact → dyslexia must be given prominence in reauthorization of IDEA.

2. Schools must screen and identify dyslexic students early.

3. The dyslexic student should know his diagnosis (dyslexia) and that he is smart.

Moving forward - Implementation – requires a model incorporating 21st century scientific knowledge about dyslexia; for example

- School climate – everyone at school on board, use the word dyslexia.
- Small classes
- Evidence-based methods
- Knowledgeable, flexible, caring teachers
- Consistency in instruction across all classes
- A community to join – know they are not alone

Specific solutions: where can this model be found?

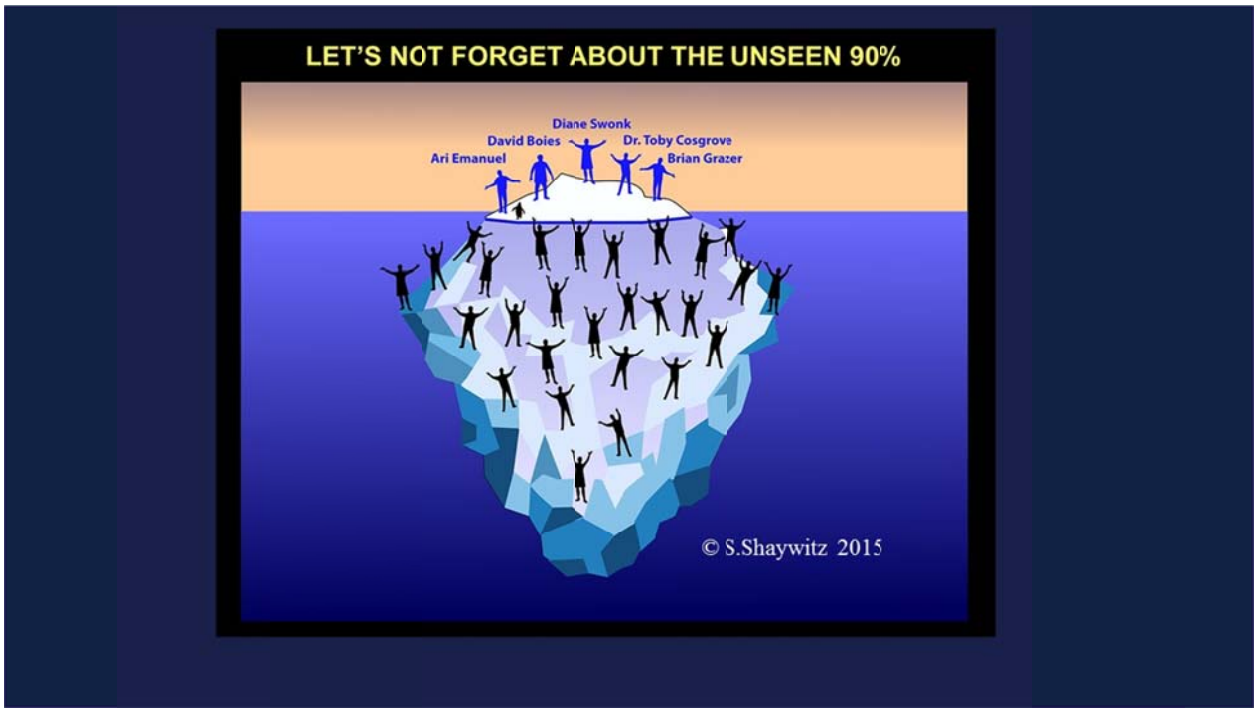
- Independent schools for dyslexic students, **(Slide 10)** example, the Windward School in New York. **(Slide 11)**

Clearly, a tuition out of reach of middle class and disadvantaged children.

- Public Charter Schools serving dyslexic students. **(Slide 12)** An example is the Louisiana Key Academy in Baton Rouge. **(Slide 13)**

A school like LKA brings equality and hope to all dyslexic children so that disadvantaged children are no longer left behind.

(Slide 14)


LET'S NOT FORGET ABOUT THE UNSEEN 90%
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