

#### **Educational Connections**



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### Disclosures

# I have the following relevant financial relationship with a commercial interest to disclose:

#### Grant Support: Tris Pharmaceuticals Past Grant Support: Shire; NIH; FDA; Lundbeck



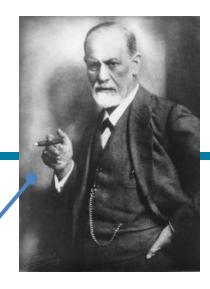


#### Home

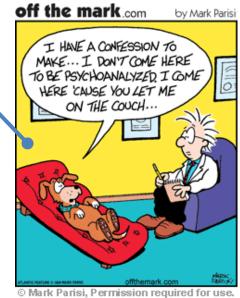




#### Therapist



#### **Psychiatry**



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### Why Is School Important?

- Approximately 1,000 hrs/year in school
  Max 50 hrs/year with clinicians
- Mixed objective & subjective feedback
  - Generally positive subjective feedback from clinicians
- Social environment





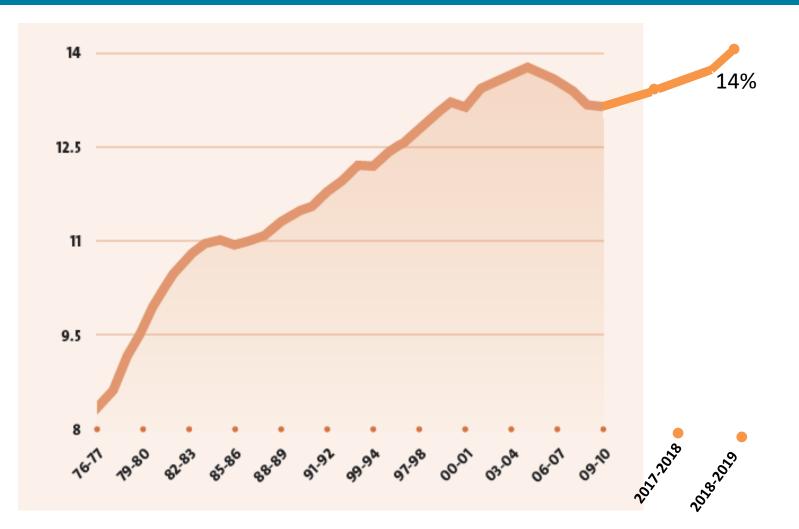
### Some Numbers

- In 2014–15, the number of children and youth ages 3–21 receiving special education services was 6.6 million, or **13 percent** of all publicschool students.
- Many not diagnosed before second grade





# Proportion of the National Student Population with Disabilities: 1976-77 to 2018-2019

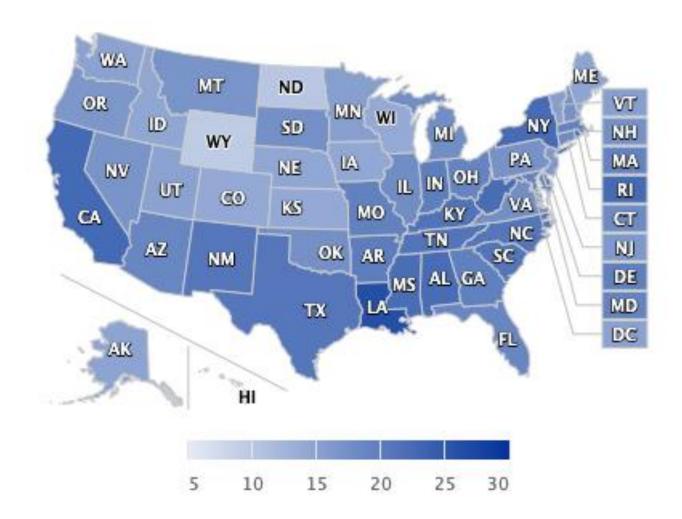


Janie Scull and Amber M. Winkler, "Shifting Trends in Special Education"

(Washington, D.C.: Thomas B. Fordham Institute, 2011) and "Children and Youth with Disabilities," National Center for Education Statistics 2019

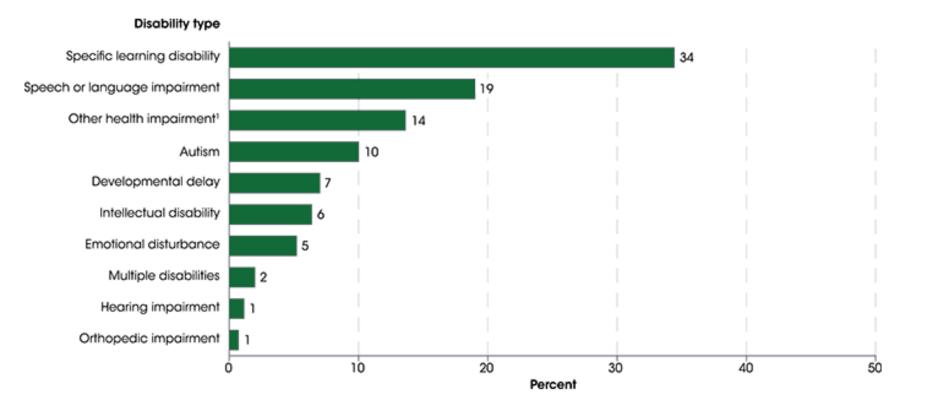
#### **Educational Attainment Estimate: 2017**

percentage of persons aged 21-64 years with a disability whose educational attainment was less than a high school graduation



Disability Statistics, Online Resource for U.S. Disability Statistics (Cornell University)

Percentage distribution of students ages 3–21 served under the Individuals with Disabilities Education Act (IDEA), by disability type: School year 2017–18



### **Recognizing Learning Disability**

- Late talking
- Difficulty learning and recognizing rhyme
- Pronunciation problems
- Difficulty finding the right word in speech
- Difficulty learning color names





### LD Red Flags - Preschoolers

- Late talking
- Difficulty learning and recognizing rhyme
- Pronunciation problems
- Difficulty finding the right word in speech
- Difficulty learning color names





### Red Flags – Elementary Years

- Difficulty pronouncing words, reverses or substitute parts of words
- Doesn't hear fine differences in words; e.g. "pin" for "pen": confuses order of letters
- Spells a words several different ways; doesn't recognize the correct version
- Doesn't recognize words previously learned
- Problems stating thoughts in an organized way
- Difficulty carrying out a sequence of directions
- Poor reading comprehension





### Red Flags – Later School Years

- Difficulty remembering what was just read
- Difficulty concentrating when reading or writing
- Unable to tell important information from unimportant details
- Spells poorly; misspelling is not phonetic
- Problems taking notes accurately
- Difficulty organizing and completing written projects





#### What about ADHD?



#### **ADHD: Elementary School Years**

#### **Observations**:

- Difficulty sitting still
- Easily overwhelmed by settings
- Easily Bored
- Talks Out in Class

#### Interventions:

- Preferential Seating
- Silent Signal for Disruptive
- Physical Breaks (send to Office with note)





### ADHD: Middle School Years

#### **Observations:**

- Teachers Complain about Inattention
- Grades Fall
- Described as Overly Social

#### Interventions:

- Coach at School (daily check-in)
- Teachers Adapt Output Expectations
- Accommodations for Time Management





### **ADHD: High School Years**

#### **Observations:**

May Cut Classes or School Peer Group May Change due to Behavior Missing Assignments/Procrastination Poor Test Grades Substance Use

#### Interventions:

Adapt Classes to Meet Abilities Provide Coaching on Daily Basis Have Notes Provided Technology Use for Assignments/Test Reminders





### **Types of Learning Disabilities**

Dyslexia Dysgraphia Dyscalculia NLD



#### **Executive Functioning Disorder** At least 33% of ADHD have EFD



#### **Executive Functions**

- <u>Response Inhibition</u>: The capacity to think before you act – this ability to resist the urge to say or do something allows us the time to evaluate a situation and how our behavior might impact it.
- Working Memory: The ability to hold information in memory while performing complex tasks. . It incorporates the ability to draw on past learning or experience to apply to the situation at hand or to project into the future.



#### **Executive Skills: Definitions**

- Emotional Control: The ability to manage emotions in order to achieve goals, complete tasks, or control and direct behavior.
- Sustained Attention: The capacity to maintain attention to a situation or task in spite of distractibility, fatigue, or boredom.
- Task Initiation: The ability to begin projects without undue procrastination, in an efficient or timely fashion.



#### **Executive Skills: Definitions**

- Planning/Prioritization: The ability to create a roadmap to reach a goal or to complete a task. It also involves being able to make decisions about what's important to focus on and what's not important.
- Organization: The ability to create and maintain systems to keep track of information or materials.
- Time Management: The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines. It also involves a sense that time is important.



#### **Executive Skills: Definitions**

- <u>Flexibility</u>: The ability to revise plans in the face of obstacles, setbacks, new information or mistakes. It relates to an adaptability to changing conditions.
- <u>Goal-directed persistence</u>: The capacity to have a goal, follow through to the completion of the goal, and not be put off by or distracted by competing interests.
- <u>Metacognition</u>: The ability to stand back and take a birds-eye view of oneself in a situation. It is an ability to observe how you problem solve. It also includes self-monitoring and self-evaluative skills (e.g., asking yourself, "How am I doing? or How did I do?").



#### What Do Executive Skill Weaknesses Look Like in Students?

- Acts without thinking
- Interrupts others
- Overreacts to small problems
- Upset by changes in plans
- Talks or plays too loudly
- Resists change of routine
- Acts wild or out of control
- Easily overstimulated and has trouble calming down
- Gets stuck on one topic or activity

- Gets overly upset about "little things"
- Out of control more than peers
- Low tolerance for frustration
- Overwhelmed by large assignments
- Can't come up with more than one way to solve a problem
- Doesn't notice impact of behavior on others

## What Do Executive Skill Weaknesses Look Like in Students?

- Slow to initiate tasks
- Runs out of steam before finishing work
- Doesn't bother to write down assignment
- Loses books, papers, notebooks
- Forgets directions
- Lack of time sense/urgency
- Forgets to bring materials home
- Keeps putting off homework
- Chooses "fun stuff" over homework

- Forgets homework/forgets to pass it in
- Leaves long-term assignments until last minute
- Can't break down long-term assignments
- Sloppy work
- Messy notebooks Can't find things in backpack
- Passive study methods (or doesn't study)

### How to Get the Interventions

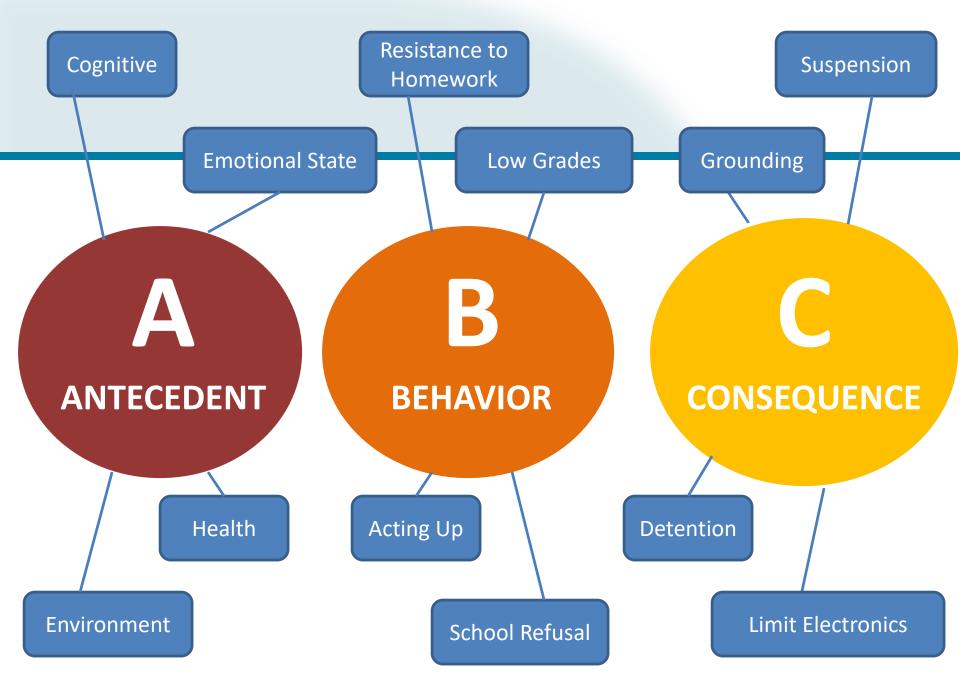
Response to Intervention (RTI)

• Section 504 (ADA)

• Special Education (IEP)







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### Evaluate! Evaluate! Evaluate!

- Need to document disability to get services
- Need to look at cause in order to choose appropriate interventions
  - Psychotherapy, behavioral interventions and medication won't help learning disabilities
  - Resource room won't help OCD

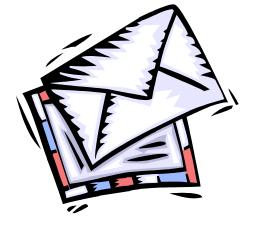




### **Testing through School**

- Parent submits <u>written</u> request
- •Letter addressed to building administrator or Committee on Special Education chairperson:

"I am writing to refer my child \_\_\_\_\_ for an individual evaluation to determine whether he / she has a disability and would be eligible for special education services. I am concerned because \_\_\_\_."





### What do we mean by RTI?

- RTI has two goals: prevent academic problems and determine students with LD.
- 2 or more tiers of increasingly intense interventions.
- Use a problem solving model or standardized treatment protocol for intervention tiers.
- Implementation of a differentiated curriculum with different instructional methods.
- Varied duration, frequency, and time of interventions
- Explicit decision rules for judging learners' progress.



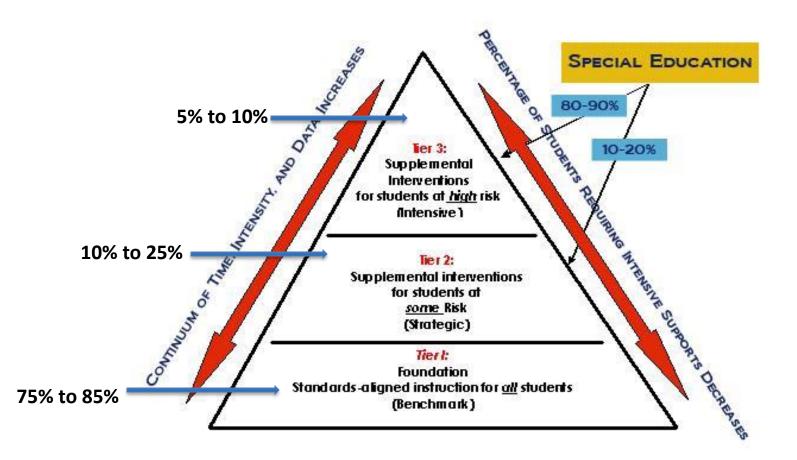


### TIER 2 vs. TIER 3

**Tier 2,** occurs outside of the time dedicated to core instruction, in groups of 5–8 students, and focuses primarily on providing increased opportunities to practice and learn skills taught in the core

**Tier 3** is more explicit, focuses on remediation of skills, is provided for a longer duration of time (both in overall length of intervention and regularly scheduled minutes of instructional time), and occurs in smaller groups (i.e., groups of 1–3 students;

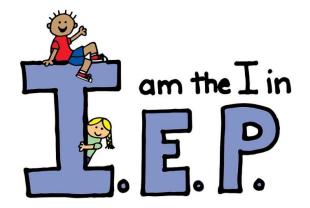
### **Percentage of Students**





#### The Individuals with Disabilities Education Act

- Students between the ages 3 21 with disabilities that adversely affect their education
- 13 specific categories of eligibility
- IEP developed





### **13 Categories from IDEA**

#### autism

deaf-blindness deafness developmental delay emotional disturbance hearing impairment intellectual disability multiple disabilities orthopedic impairment



#### other health impairment (ADHD)

specific learning disability speech or language impairment traumatic brain injury visual impairment (including blindness)

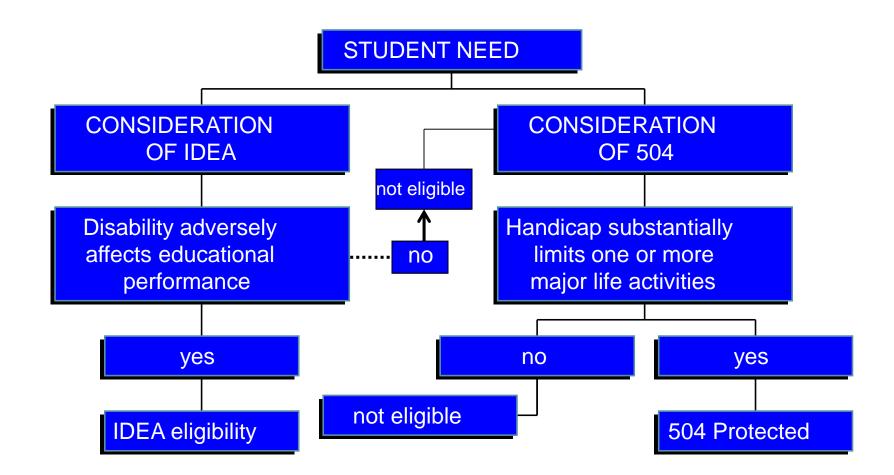
#### Section 504 of the Rehabilitation Act

- A federal Anti-Discrimination Law.
- Protects ALL people with a disability that impairs one or more major life activity (learning is one).
- Prohibits discrimination in ANY program that receives federal dollars.
- Provides <u>accommodations</u> to remove discriminatory barriers.
- In education, a "504 Plan" removes barriers to learning and opportunities

### IDEA/504 Charts

	IDEA	SECTION 504
PURPOSE	To insure that all children with disabilities have available to them a free education	To prohibit discrimination on the basis of disability in any program receiving federal funds
WHO IS PROTECTED	13 categories of specific disabilities	Much broader, all school-age students with a physical or mental impairment that substantially limits a major life activity
DUTY TO PROVIDE A FREE APPROPRIATE EDUCATION	Requires the district to provide IEPs. "Appropriate education" means a program designed to provide "educational benefits."	"Appropriate" means education comparable to the education provided to non- handicapped students

### IDEA/504 CHART



### Definitions

- Accommodations (Instructional):
  - adjustments to make sure students have equal access to curriculum and a way to be successful.
  - supports or services provided to help a student across the general curriculum.





#### **Definitions Cont...**

- Accommodations (Assessment):
  - A 'tool' that provides access –the assessment is not changed
  - (Some of us may 'access' a building by using the stairs, some of us may 'access' that same building by using a ramp –how we enter or 'gain access' to the building does not change the building)



### **Examples of Accommodations**

- Presentation—repeat directions, read aloud, use of larger print
- Response –mark in book, use of recording aids, point
- Setting—study carrel, special lighting, separate room
- Timing/Scheduling–extended time, frequent breaks



# Examples of Accommodations

- Most Common
  - Small Group administration
  - Read-aloud
  - Extended time
- Most Effective
  - Computer Administration
  - Read-aloud
  - Extended time



(NCEO -National Center for Educational Outcomes - www.education.umn.edu/nceo/)



#### Help in the Classroom: Disorganization

- Consider allowing the student to have a second set of books at home
- Make sure the child has correctly recorded homework assignments
- Specifically request their homework and/or find a system that works
- Suggest simple ways to organize papers
- Work with the child to organize locker



#### Examples cont...

 For a child who's easily distracted by background noise, an accommodation that might be offered is seating the student away from the window and heater, or close to the teacher for prompting.





#### Examples cont...

- additional time for work completion,
- readers or recorded materials,
- Calculators
- spell checkers,
- other electronic devices,
- special seating arrangements,
- enlarged text,
- scribes/note takers
- shortened assignments.





#### **Definitions Cont...**

- Modifications (Instructional):
  - curriculum and/or instruction is changed quite a bit.
  - changes made to the content and performance expectations for students.



#### Accommodations vs. Modifications

- An Accommodation levels the playing field
  - Example: larger print, extended time
- A Modification changes the playing field
  - Example decrease number of possible answers, out-oflevel testing



# Modification "Truths"

- When modifications are made, kids with disabilities are not expected to master the same academic content as others in the classroom.
- A child who can't learn the twenty-word spelling list every week may learn only ten words. This results in different standards for mastery — half the number of words as kids without a disability learn weekly.



# Modification "Truths"

- A fifth-grade child with a severe math disability who isn't ready to learn fractions and decimals may still be working on addition and subtraction.
- This means that his instructional level has changed significantly — second-, not fifth-grade instruction from that of other students in his classroom.



## **Modification Examples**

- Examples of modification include, but are not limited to:
  - to lessen depth or breadth in the information/material covered (e.g. fewer objectives,
  - shortened units or lessons, fewer pages or problems, etc.),
  - materials written at a lower readability level (high-interest, low-ability books).
  - Out-of-grade level materials (third-grade math standards for a seventh grader)



#### **Modification Examples**

- Reducing assignments and assessments so a student only needs to complete the easiest problems
- Make assignments easier (crossing out half response choices)
- Provide hints or clues



### **Getting Services after High School**

- Typically no IEP in college
  - MA is required to pay for needed services until child turns 22, or until graduates from high school
- Can still get a 504
  - Must establish presence of diagnosis and impact student's ability to learn
  - Many schools have a Student Disabilities
    Service office to facilitate the process

#### Assessment of Disability

- Past academic/work history
- Objective medical data, test scores, clinical observations and assessment
- Individuals actions and statements regarding condition
- Legitimacy of the findings and conclusions of the individual's experts
- Any evidence of achievement without accommodation



# Accommodations (cont.)

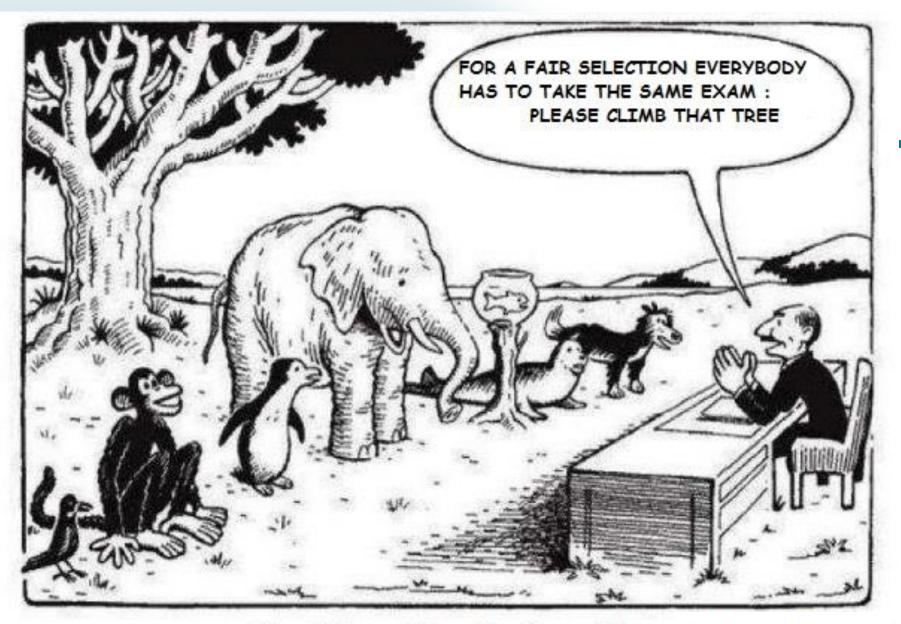
- Housing
  - Single room
  - Roommate of choice
  - Alternate formats of print materials
  - Auxiliary aids and adaptive equipment
    - FM listening device
    - Tape recorders
    - Text reading software



#### **ADHD** Documentation

- Establish childhood onset of symptoms (report cards, support services, medication...)
- Use DSM criteria to describe current and childhood symptoms
- Demonstrate the substantial impairment in daily life activities
- Connect Accommodation recommendations to functional limitations





#### **Our Education System !!!**

If a child can't learn the way we teach, maybe we should teach the way they learn.