“Risks”

...processes that predispose individuals to specific negative, or unwanted, outcomes.
### 2015 HHS Poverty Guidelines

The 2015 Poverty Guidelines for the 48 Contiguous States

<table>
<thead>
<tr>
<th>Persons in Family</th>
<th>Poverty Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$11,770</td>
</tr>
<tr>
<td>2</td>
<td>15,930</td>
</tr>
<tr>
<td>3</td>
<td>20,090</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td><strong>24,250</strong></td>
</tr>
<tr>
<td>5</td>
<td>28,410</td>
</tr>
<tr>
<td>6</td>
<td>32,570</td>
</tr>
<tr>
<td>7</td>
<td>36,730</td>
</tr>
<tr>
<td>8</td>
<td>40,890</td>
</tr>
</tbody>
</table>

For families with more than 8 persons, add $3,740 for each additional person.

United States Department of Health and Human Services (HHS) figures for poverty in 2011
## Income Distribution

<table>
<thead>
<tr>
<th>Household Earnings</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $18,981</td>
<td>20%</td>
</tr>
<tr>
<td>$18,982 to $37,595</td>
<td>20%</td>
</tr>
<tr>
<td>$37,956 to $66,354</td>
<td>20%</td>
</tr>
<tr>
<td>$66,355 to $111,645</td>
<td>20%</td>
</tr>
<tr>
<td>$111,646 to $160,972</td>
<td>10%</td>
</tr>
<tr>
<td>$160,973 to $226,918</td>
<td>5%</td>
</tr>
<tr>
<td>$226,919 to $603,402</td>
<td>4%</td>
</tr>
<tr>
<td>$603,403 and up</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: U.S. Dept. of Commerce, Bureau of Census
Poverty may result in...

- Hunger
- Homelessness
- Excessive mobility
- Frequent illness
- Violence
- Abuse and neglect
- A sense of pervasive hopelessness
The impact on children in these families includes...

- Decrements in positive adjustment (includes cognitive ability, social competence, school success and attachment to parents)
- Increases in internalizing (symptoms of depression and anxiety)
- Increases in externalizing (aggressive and antisocial behaviors)

(Conger et al. 2000)
Development of Aggression in Childhood

Coercive Parenting
   ↓
Early Aggression
   ↓
Peer Rejection
   ↕
Social Isolation  Attribution of Hostile Intent
   ↕
Affiliation with Antisocial Peer Group
   ↓
Inadequate Social Skills Development
   ↓
Continued High Levels of Aggressive Behavior

Patterson, Et Al, (1992, Portland, Ore)
Emotional needs met through aggression

- Power
- Belonging
- Freedom
- Fun
Aggressive behavior can take many forms

- Physical Aggression
- Verbal Aggression
- Relational Aggression
  Includes such behaviors as gossiping, spreading cruel rumors, and encouraging others to reject or exclude someone.
FIGURE 3
Relationship between SAT Critical Reading Scores and Family Income, 2012

Source: College Board (2012).

FIGURE 4
Percentage of Students Completing College, by Income Quartile and Birth Cohort

### TABLE 1

**Overview of Childhood Poverty and Disadvantage in the United States**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All children in poverty</td>
<td>22%</td>
</tr>
<tr>
<td>Black children in poverty</td>
<td>28%</td>
</tr>
<tr>
<td>Hispanic children in poverty</td>
<td>25%</td>
</tr>
<tr>
<td>Children in extreme poverty</td>
<td>4%</td>
</tr>
<tr>
<td>Households with children who are food insecure</td>
<td>21%</td>
</tr>
<tr>
<td>Children with unstable parent employment</td>
<td>32%</td>
</tr>
</tbody>
</table>

Sources: Data for overall, Black, and White children in poverty are from DeNavas-Walt, Proctor, and Smith (2012); extreme poverty data calculated by authors from data in Shaefer and Edin (2012); food insecure data, Coleman-Jensen, Nord, Andrews, and Carlson (2012); and unstable unemployment data, KIDS COUNT Data Center (2013).
## Table 2

### Adult Outcomes by Poverty Status between the Prenatal Year and Age 5

<table>
<thead>
<tr>
<th></th>
<th>Income below the official U.S. poverty line</th>
<th>Income between one and two times the poverty line</th>
<th>Income more than twice the poverty line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed years of schooling</td>
<td>11.8</td>
<td>12.7</td>
<td>14.0</td>
</tr>
<tr>
<td>Earnings ($1,000s)</td>
<td>$17.9</td>
<td>$26.8</td>
<td>$39.7</td>
</tr>
<tr>
<td>Annual work hours</td>
<td>1,512</td>
<td>1,839</td>
<td>1,963</td>
</tr>
<tr>
<td>Food stamps</td>
<td>$896</td>
<td>$337</td>
<td>$70</td>
</tr>
<tr>
<td>Poor health</td>
<td>13%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Arrested (men only)</td>
<td>26%</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>Nonmarital birth (women only)</td>
<td>50%</td>
<td>28%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Note:** Figures given in the table are either the mean or a percentage.

**Source:** Duncan and Magnuson (2011).
FIGURE 1

2-Year-Olds

Listening Comprehension
- In poverty: 29%
- At or above poverty: 39%

Expressive Vocabulary
- In poverty: 55%
- At or above poverty: 67%

4-Year-Olds

Letter Recognition
- In poverty: 20%
- At or above poverty: 37%

Numbers and Shapes
- In poverty: 45%
- At or above poverty: 72%

Source: NCES (2009a). Data are from the Early Childhood Longitudinal Study, Birth Cohort.
Average NAEP Reading Scores, by Eligibility for Free or Reduced-Price School Lunch, 2011

4th-Graders

- Eligible for free lunch: 206
- Eligible for reduced-price lunch: 218
- Not eligible: 235

8th-Graders

- Eligible for free lunch: 250
- Eligible for reduced-price lunch: 261
- Not eligible: 275

Source: NCES, 2011
### Table 7

**Percentage of Children Experiencing Selected Home Influences, by Poverty Level**

<table>
<thead>
<tr>
<th>Home Influence</th>
<th>Below 100 percent poverty</th>
<th>100–199 percent poverty</th>
<th>200 percent poverty and above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two parents (2011)</td>
<td>11.5</td>
<td>18.3</td>
<td>70.2</td>
</tr>
<tr>
<td>Read to daily (2007)</td>
<td>39.2</td>
<td>49.6</td>
<td>63.9</td>
</tr>
<tr>
<td>Tobacco smoke exposure (2010)</td>
<td>10.2</td>
<td>8.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Lead risk (2007–10)</td>
<td>21</td>
<td>—</td>
<td>9.8 *</td>
</tr>
</tbody>
</table>

**Note:** “Below 100 percent poverty” is the same as “in poverty.” 100–199 percent poverty includes all those described as “in poverty” plus some people who have incomes above poverty but less than twice their poverty threshold. 200 percent poverty and above includes those with incomes twice the poverty level or higher.

*100 percent poverty and above.

What can I do in my classroom, in my school, or in my community to have an impact on this problem?
Demographics are co-variants. They are relative, but **NOT** determinant.
Two things that help one move out of poverty...

• Education

• Relationships
Seven Reasons That Students From Low-Income Households Are More Likely To Struggle With Classroom Engagement

• **Difference One: Health and Nutrition**

  Overall, students living in poverty are less likely to exercise, receive appropriate medical care, or be prescribed appropriate medications or interventions.

Multiple research studies suggest that intelligence is linked to health and that health-related risk factors can affect attention, reasoning, learning, and memory.
• Children living in poverty are exposed to food with lower nutritional value.

• Poor nutrition affects cognition, ability to concentrate, and ability to learn.

• Poor diets also affect behavior as students can appear listless (with low energy) or hyperactive (on a sugar “high”).
What You Can Do

• Movement (the two primary foods for the brain are oxygen and glucose).
• Recess and physical education contribute to greater oxygen intake and better learning (never withhold either for disciplinary reasons).
Difference Two: Vocabulary

• Children from low-income families hear, on average, 13 million words by age 4.
• Children from middle-class families hear about 28 million words by age 4.
• Children from upper-income families hear 46 million words by the same age!
Hart and Risley

• The quality and number of words children hear at home per hour are important.

• By 30 months, the children living in poorer families had, on average, vocabularies of only 357 words.
Hart and Risley

The children of professionals had vocabularies of 766 words.
Some researchers, believe "the number of words an infant hears each day is the single most important predictor of later intelligence, school success, and social competence."
Hart and Risley

Children of families living in poverty heard many more discouragements per hour than encouragements per hour.
### Meaningful Differences in Vocabulary

<table>
<thead>
<tr>
<th>Monthly Samples of 42 families</th>
<th>Words per hour</th>
<th>Encouragements per hour</th>
<th>Discouragements per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Families</td>
<td>2,153</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>Working Class Families</td>
<td>1,251</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Families on Welfare</td>
<td>616</td>
<td>5</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Words per hour</th>
<th>Words per week</th>
<th>Words per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Families</td>
<td>2,153</td>
<td>215,000</td>
</tr>
<tr>
<td>Working Class Families</td>
<td>1,251</td>
<td>125,000</td>
</tr>
<tr>
<td>Families on Welfare</td>
<td>616</td>
<td>62,000</td>
</tr>
</tbody>
</table>
Children *hear* and children *see*, then children *do*. 
What Can You Do?

• Be relentless about introducing and using new words at all grade levels.
• Incorporate vocabulary into daily rituals (word of the day, bell ringer, etc.)
• Reinforce the words for days and weeks afterward.
Difference 3: Effort

- Research suggests that parents of poor families work as hard as their wealthier counterparts, thus there is no “inherited laziness” passed down to their children.
- Students lack of motivation is correlated to their lack of hope and optimism, and to learned helplessness (a symptom of a stress disorder or depression).
- **POVERTY IS AN ECONOMIC CONDITION NOT A CHARACTER TRAIT!**
What Can You Do?

• School engagement is the best predictor of whether a student will stay in school. Strong relationships create strong school engagement.

• Affirm effort every day. When teachers give more positives than negatives (a 3:1 ratio is best), learning and growth are optimized.

• When affirmed, challenged, and encouraged, students work harder.
• Children learn as much for a teacher as they do from a teacher.

Linda Darling Hammond
Difference 4: Hope and Growth Mindset

• Being poor is often associated with lowered expectations about future outcomes.
• Students living in poverty view the future as containing more negative events than positive ones.
• If students think they aren’t smart enough and can’t succeed or if they think that failure and low performance are likely they just won’t try.
• Carol Dweck (Stanford) divides people into two types:
  1. Fixed mindset
  2. Growth mindset
Fixed Mindset

• Those who have a fixed mindset believe that intelligence and other skills are essentially static and inborn.
Pessimist Vs. Optimist

- Pessimists tend to react to negative events by explaining them as permanent, personal, and pervasive.
- Optimism is a learnable skill (Seligman) not an inborn trait. Pessimistic adults and children can train themselves to be more hopeful.
Thinking Errors

Any cognitions that...

- Rationalize
- Justify or minimize behavior
“Children who think they are going *somewhere*, behave differently than children who think they are going *nowhere*.”

- Pedro Noguero, 2008
If-Then Thinking = Mental Contrasting

• Three Strategies are utilized when setting goals. (Duckworth and Oettingen).

• Two don’t work very well.
• Optimists favor indulging, which means imagining the future they would like to achieve. Indulging feels really good when you are doing it but it does not correlate at all with actually achieving your goal.
• Pessimists use a strategy called dwelling, which involves thinking about all the things that will get in the way of their accomplishing a goal.
• Mental Contrasting combines the two methods: concentrating on a positive outcome and simultaneously concentrating on the obstacles in their way.
• Doing both at the same time creates a strong association between the future and reality that signals the need to overcome the obstacles in order to attain the desired future.
Implementation Intentions

• Specific plans in the form of if/then statements that link the obstacles with ways to overcome them.
Positive fantasizing

• “Dream it and you can achieve it”. 
What Can You Do?

- Teacher and student beliefs about having a fixed amount of “smarts” that can’t increase will influence engagement and learning.
- Provide better quality feedback (prompt, actionable, and task specific).
- Focus on affirming and reinforcing effort and guide students in making smarter strategy choices and cultivating a positive attitude.
Your History is not Your Destiny

• Past performance is not always an indication of your future results.
Edlund, Clingman and Fowler

• The effects of primary reward on I.Q.
Character Traits That Demonstrate Resilience

- The ability to develop a sense of autonomy.
- Belief systems .....related specifically to seeing self in the future.
- Ability to form and use supportive relationships.
- Ability to gain control of life in the present.
Developing a Sense of Efficacy

• Sense of Empowerment that says “when I work harder I get results”

• Variables that impact Efficacy
  - Significance
  - Competence
  - Power
Children from lower socioeconomic backgrounds typically score lower on tests of intelligence and academic achievement.

Low-SES children commonly show cognitive problems, including short attention spans, high levels of distractibility, difficulty monitoring the quality of their work, and difficulty generating new solutions to problems.

Many children who struggle cognitively either exhibit problem behavior or shut down.
What Can You Do?

- Studies show that high-performing teachers can overcome the problems of underperforming students.
- Focus on core academic skills such as how to organize, study, take notes, prioritize, and remember key ideas.
- Teach problem solving, processing, and working memory skills.
- Be persistent.
If one or both of the parents are absent, the developing brain often becomes stressed and insecure.

The quantity (ratio) of discouragements vs. encouragements helps or creates relational adversity.

The length of time a child is exposed to relational adversity increases the probability of dropping out of school.
What Can You Do?

• Teach them more appropriate social and emotional responses.
• Be a strong, positive, caring adult.
• Be firm, fair, consistent.
Children living in poverty experience greater chronic stress, which is known as distress and it is toxic.

Distress affects brain development, academic success, and social competence.

It also impairs behaviors, reduces attention, boosts impulsivity, and impairs working memory.
Impact of Trauma

• What is Trauma?
  – Trauma is an overwhelming event that causes intense feelings of fear, helplessness or horror. There are many different kinds of trauma, and not everyone responds the same way to a traumatic event.

• What is Chronic Stress?
  – Chronic stress is an overwhelming external element that impacts a person's sense of daily safety.
Adverse Childhood Experiences study (Fellitti)

- ACE Score = one point for each trauma:
- Physical and Sexual Abuse
- Physical and Emotional Neglect
- Various Measures of Household Dysfunction including divorced or separated parents, family members who were incarcerated, mentally ill, or addicted.
• ACE Score of 0 = 3% chance of learning or behavioral problems.

• Ace score of 4 or higher = 51% chance of learning or behavioral problems.
Key Finding

- Overloading the HPA (Hypothalamic-Pituitary-Adrenal) axis, especially in Infancy and childhood, produces all kinds of serious and long lasting negative effects – physical, psychological, and neurological.
The Firehouse Effect

- HPA Axis can’t distinguish between different types of threats, so it activates every defense, all at once, in response to any threat!
Aggression Replacement Training
Physiological Stress Response

Stressful Situation

- **Hypothalamus** - triggers pituitary gland.
- **Nervous system** - prepares major organs for quick action, assault and/or shut down.
- **Amygdala** - triggers the autonomic nervous system to prepare the motor systems for adjustments.
- **Heart muscle** – contracts, causing heart rate and blood pressure to rise quickly, sending fuel to the body.
- **Blood vessels** – constrict, promoting sweating and diverting blood flow to large muscle groups.
- **Spleen** – contracts, leading to fast production of white blood cells to prevent excessive bleeding...
Physiological Stress Response, cont.

• **Recall and rationale thinking** - compromised as the carotid artery reduces blood flow to send more blood to the muscles.
• **Pupils** - dilate to sharpen our visual acuity.
• **Bronchioles** - in the lungs dilate to increase oxygen intake.
• **Glycogen** - broken down in the liver to increase instant energy.
• **Hippocampus** - stores the event and the response to it to as a permanent memory to be used in the future.

**Threat response processes do not reverse themselves on-command, which makes it difficult to calm down after an event.**

**Frequently the only way to get back to a state of homeostatic balance is to separate from danger.**
• Stress physiologists biological explanation for this is that the part of the brain most affected by early stress is the prefrontal cortex which is critical in self-regulatory activities of all kinds, both emotional and cognitive.
Executive Functions

• A collection of higher-order mental abilities (the air traffic controllers overseeing the functions of the brain).

• Executive functions are highly predictive of success and they are much more malleable than other cognitive skills.
What Can You Do?

• Stronger relationships alleviate stress.
• Movement and exercise.
• Give students more control over their own daily lives at school (a sense of control is the fundamental element that helps diminish the effects of chronic and acute stress).
• Teach “IF-Then” strategies for solving problems using new skills.
• Teach Character education.
Long’s Conflict Cycle

Irrational Beliefs

Behavior

Feelings

Situation

Feelings

Intensify!

Behavior

Escalates!

Stress

Increases!

Reactions

Worsen!

Self-Defeating Beliefs

FULFILLED!
Aggression Replacement Training

**Triggers**
- External
- Internal

**Cues**
(Physical Signals)

**Anger Reducers**
- Count Backwards
- Deep Breathing
- Pleasant Imagery

**Reminders**
- Positive Self-Talk
- Self Instructional Talk

**Self-Evaluation**
- Self-Coaching
- Self-Rewarding

**Thinking Ahead**
- Short-term Consequences
- Long-term Consequences

Anger Control Chain
Character Strengths that predict life satisfaction and high achievement (Peterson)

- Grit
- Self-Control
- Zest
- Social Intelligence
- Gratitude
- Optimism
- Curiosity
Perfect Parent vs. Test Scores

Strong Correlation

- Child has highly educated parents.
- Child’s parents have high socioeconomic status.
- Child has many books at home.
- Child’s parents are actively involved in school.

“FREAKONOMICS” Levitt & Dubner, 2005
Perfect Parent vs. Test Scores

No Correlation

• If the family is intact.
• If child’s family moves to a better neighborhood.
• If the mother did not work between the child’s birth and kindergarten.
• If the child frequently watches television.

“FREAKONOMICS” Levitt & Dubner, 2005
Perfect Parents?

1960

REPORT CARD
F

THese GRADES ARE TERRIBLE!!

NOW

REPORT CARD
F

THese GRADES ARE TERRIBLE!!
I’ve come to the frightening conclusion that I am the decisive element at work. It’s my personal approach that creates the climate; it’s my daily mood that makes the weather. I possess a tremendous power to make a child’s life miserable or joyous. I can be a tool of torture, or an instrument of inspiration. I can humiliate or humor, hurt or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated, or a child humanized or de-humanized.

Haim Ginott