Data, Data, Data – Resources for Making Data Count

Integrated Child and Family Analysis Will Drive Integrated Action

CCR analytics

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Introductions

- Who Are We?
- Who Are You?
  - Do you work primarily on Child Development, Family Engagement, or Both?
  - To assess Child Development, do teachers in your program use the DRDP, TS Gold, Work Sampling, something else?
  - To assess Family Engagement, do family service specialists in your program use CCR Surveys, Parent Gauge, Child Plus or something else?

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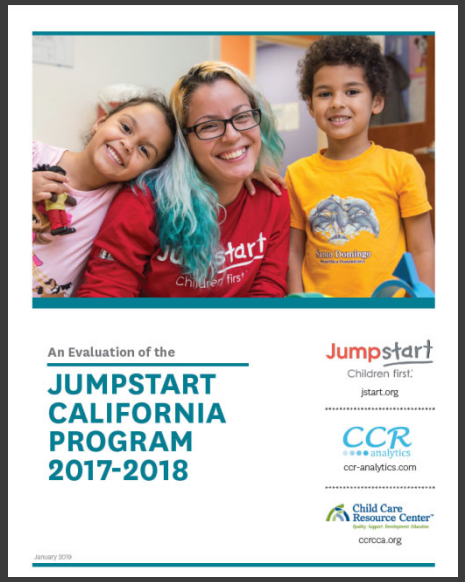
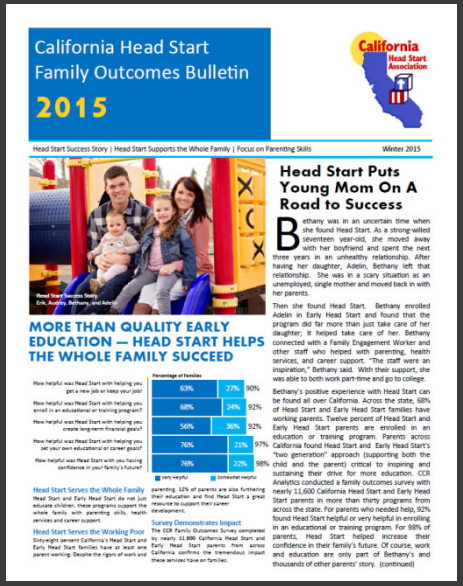
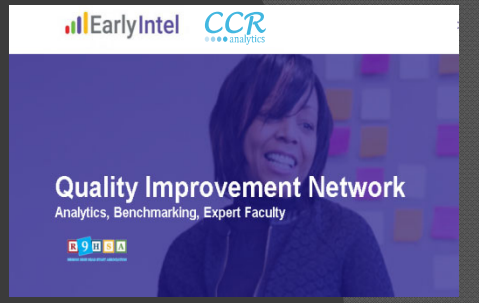
The Data Geeks of the Child Care Sector







Data Use Examples

- Data Culture – What are we changing too?
- Program Impact – Does Head Start increase child development?
- Identifying Vulnerable Children and Families
- Family Needs – What do parents really want?
- Benchmarks and Interactive Reporting – CLASS, Attendance, & More.
- The Impact of Family Engagement on Child Development

A Quick Word on Data Quality and Data Culture

- The ultimate goal of data analysis in to make better decisions, more of the time
- Understand what your particular business problems are and benchmarks when you can.
- Focus on where you already make decisions, and work to improve data gaps and improve the quality of that data to better inform those decisions.

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But Practically…

- Practically, this means working with your direct reports and helping ID their business problem. ID reports and metrics that they can regularly pull and allow your them to present this data.
- As much as possible, data should flow up through your organization. Ultimately this will create a culture of curiosity around data.
- Lastly, focus more on developing your data culture, than investing in analytical tools. In the long run your team will embrace those tools, if you've nurtured a data culture.

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The First Business Problem

Does Head Start improve Child Development?

Math Developmental Domain

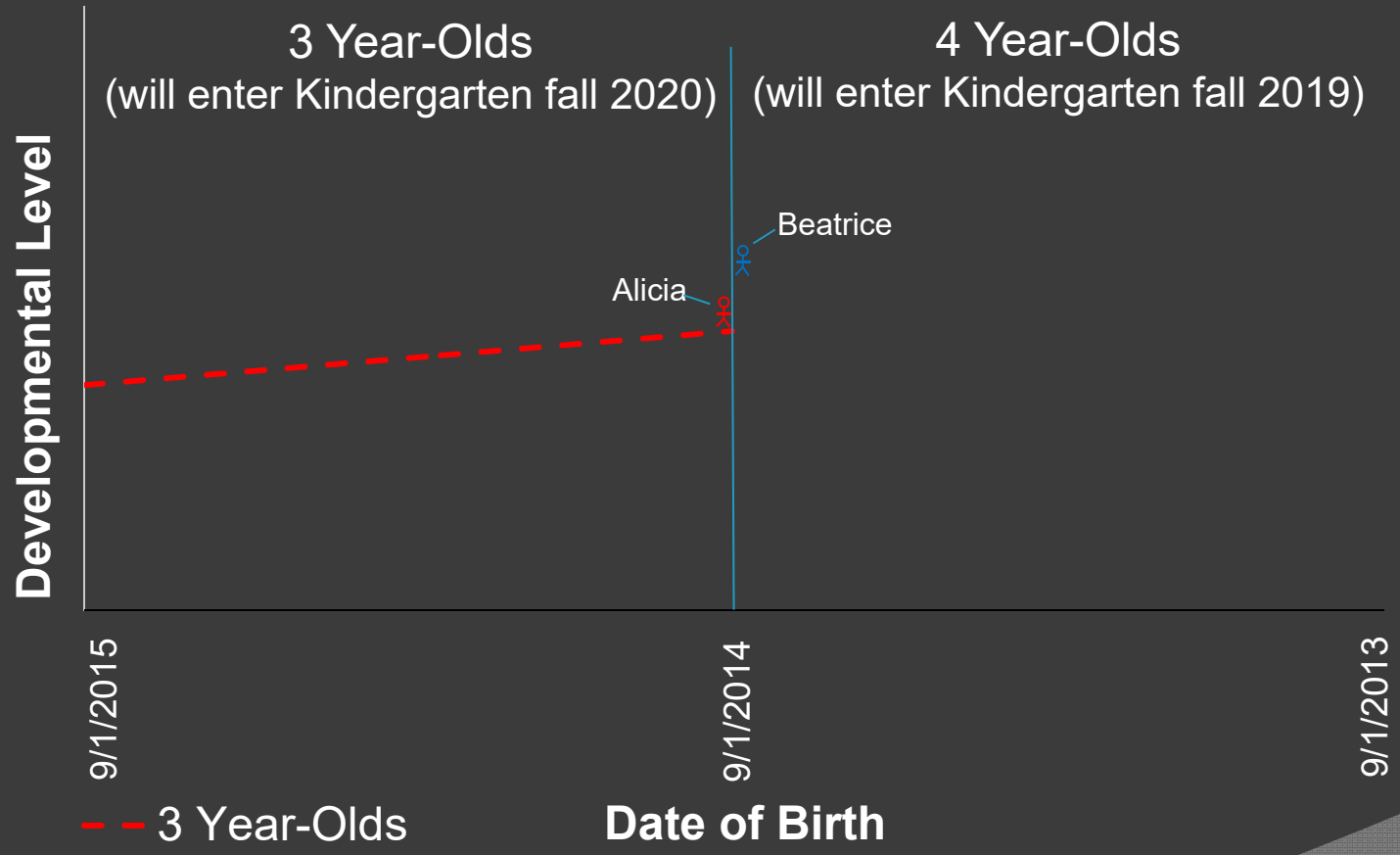
Expected Developmental Level by Date of Birth From Fall 2018

♀ Alicia – Born 9/2/2014 (old 3YO)

♀ Beatrice – Born 8/30/2014 (young 4)

Math Developmental Domain

Expected Developmental Level by Date of Birth From Fall 2018



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Math Developmental Domain

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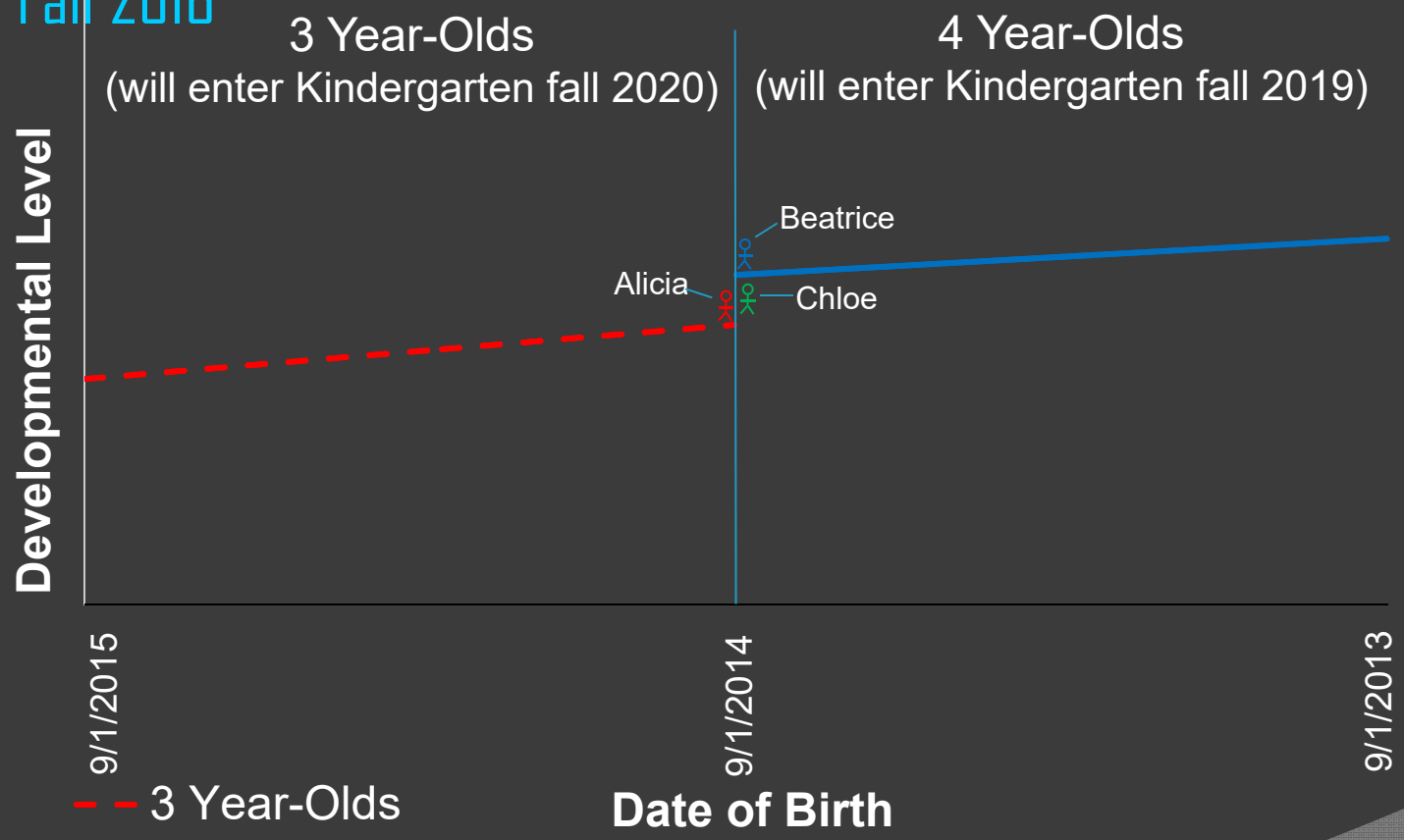

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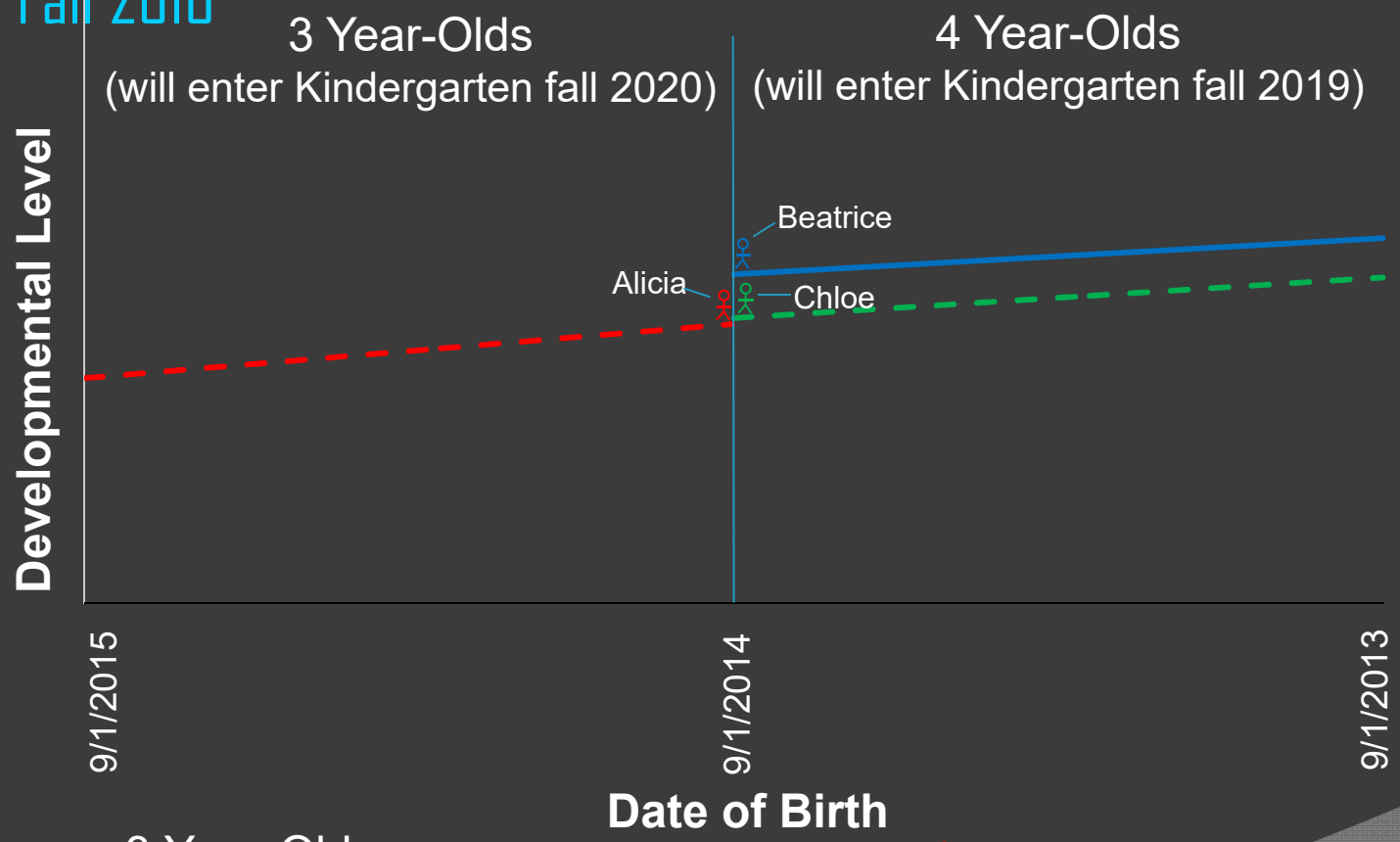


How RDD works?

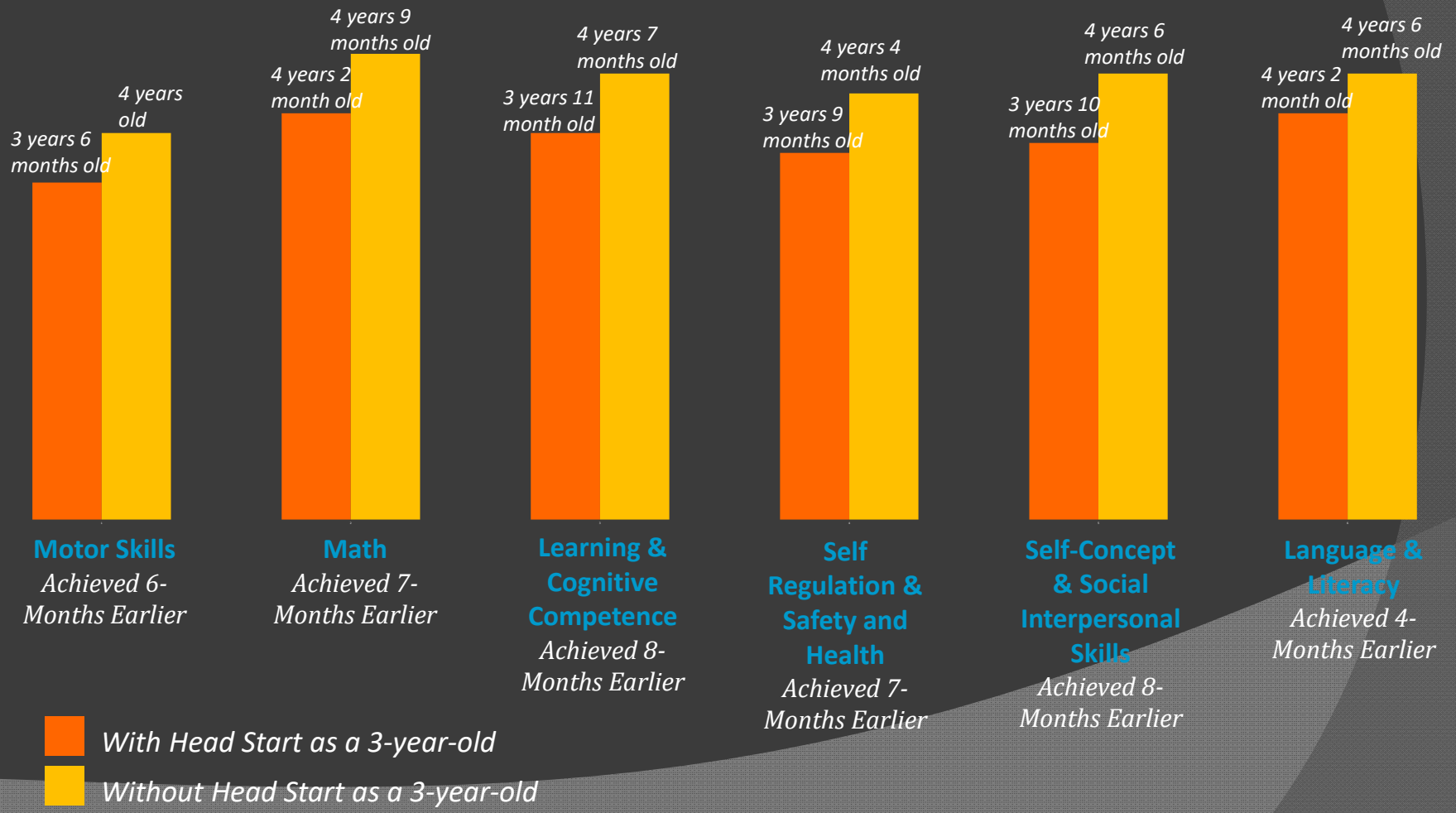
- The RDD works by comparing three-year-olds (the control group) enrolled in Head Start to four-year-olds who are returning to Head Start (the experimental group) for their second year, while controlling for age.
- In the simplest form, we are comparing a child born on Sep 3rd (who is starting his first year of two in Head Start—a 3 year old) to a child born on Sep 1st (who is starting his second and final year in Head Start—4 year old) Four-year-olds who are new to Head Start are not included in the analysis.
- This methodology eliminates the issue of selection bias because both the control group and the experimental group made the decision to attend Head Start as three -year-olds. Regression is used to control for the difference in age and other demographics between the two groups.
- The RDD methodology has the significant advantage of being able to estimate these program impacts, without denying children the opportunity to attend Head Start.

From Individual Program to State-wide Child Assessment Project

- Collaboration between Head Start California and CCR Analytics
- 42 Participating Head Start Programs from Across California
- Data collected on more than 48,000 children.
- Bulletin used to educate Federal and State policy makers on the impact of Head Start.

Head Start Impact

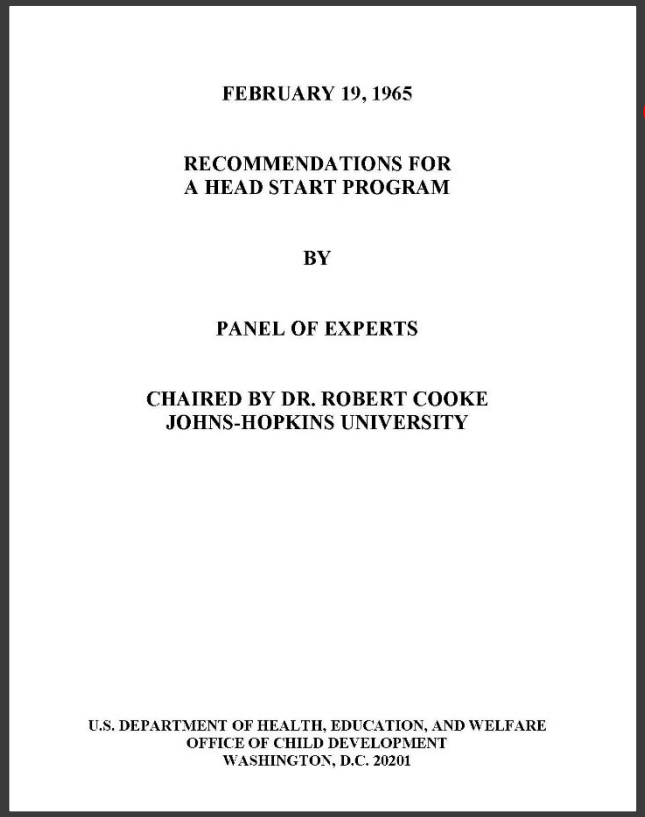
Expected Age at Which a Typical Head Start Eligible Child Reaches the "Developing" Developmental level on the DRDP



The Second Business Problem

Do Family Engagement Efforts Contribute to Child Development?

Head Start's Commitment To Family Engagement Goes All The Way Back To Its Inception



FEBRUARY 19, 1965

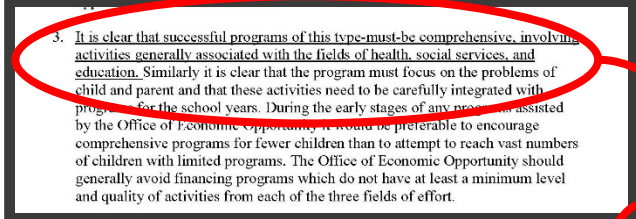
RECOMMENDATIONS FOR
A HEAD START PROGRAM

BY

PANEL OF EXPERTS

CHAIRED BY DR. ROBERT COOKE
JOHNS-HOPKINS UNIVERSITY

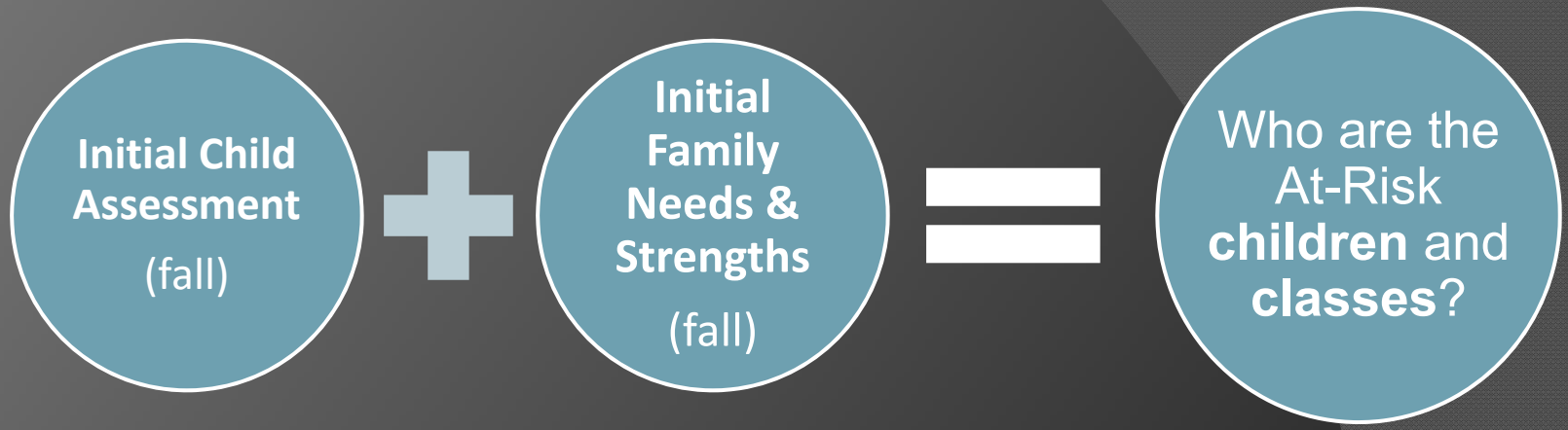
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF CHILD DEVELOPMENT
WASHINGTON, D.C. 20201



3. It is clear that successful programs of this type must be comprehensive, involving activities generally associated with the fields of health, social services, and education. Similarly it is clear that the program must focus on the problems of child and parent and that these activities need to be carefully integrated with programs for the school years. During the early stages of any program assisted by the Office of Economic Opportunity it would be preferable to encourage comprehensive programs for fewer children than to attempt to reach vast numbers of children with limited programs. The Office of Economic Opportunity should generally avoid financing programs which do not have at least a minimum level and quality of activities from each of the three fields of effort.

"It is clear that successful programs of this type-must-be comprehensive, involving activities generally associated with the fields of health, social services, and education. Similarly it is clear that the program must focus on the problems of child and parent and that these activities need to be carefully integrated with programs for the school years."

https://eclkc.ohs.acf.hhs.gov/hslc/hs/about/docs/cooke-report.pdf



Beginning of the year activity

Identifying Vulnerable Children and Families

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Potential Data Sources

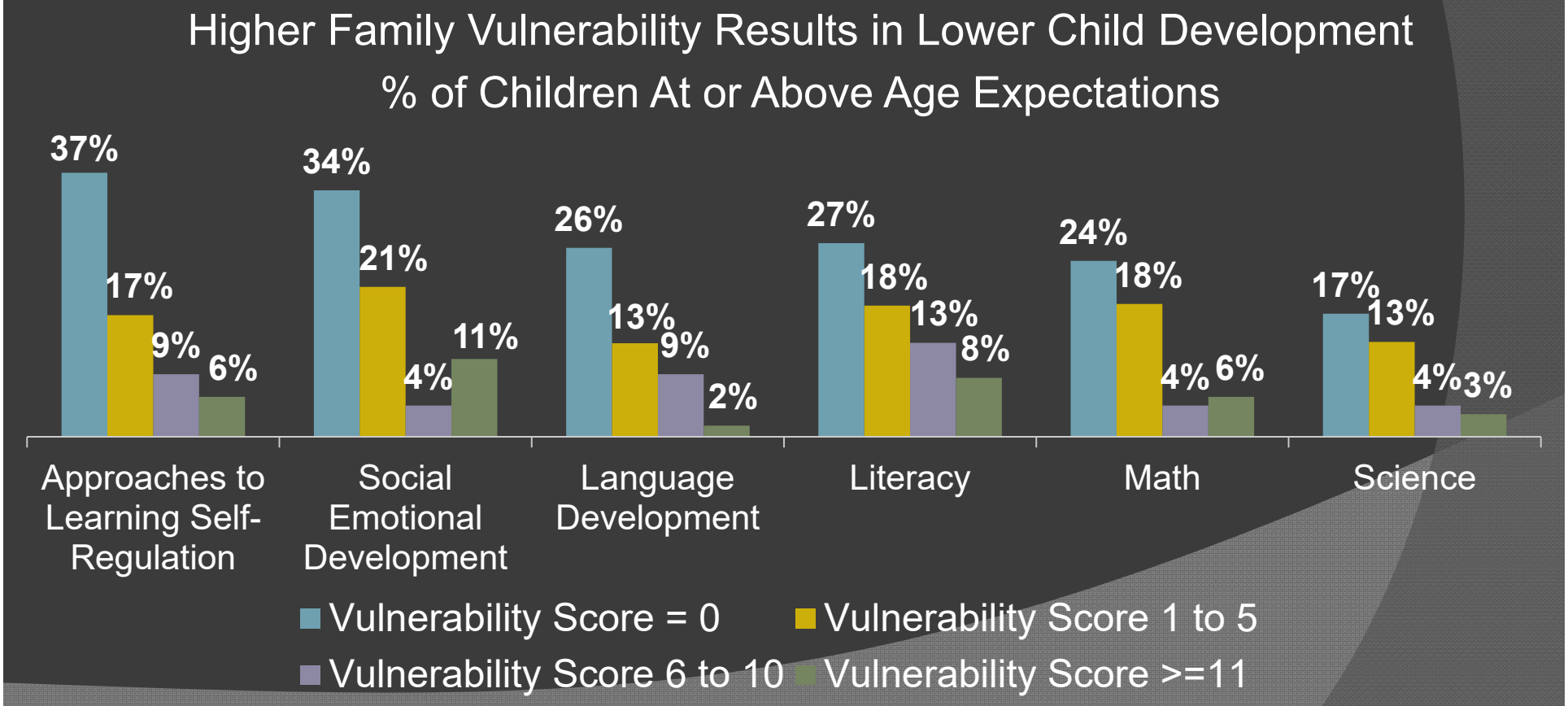
Family Data

- CCR Strengths, Needs, and Interests Parent Survey
- Child Plus Family Assessment
- Parent Gauge

Child Assessment Data

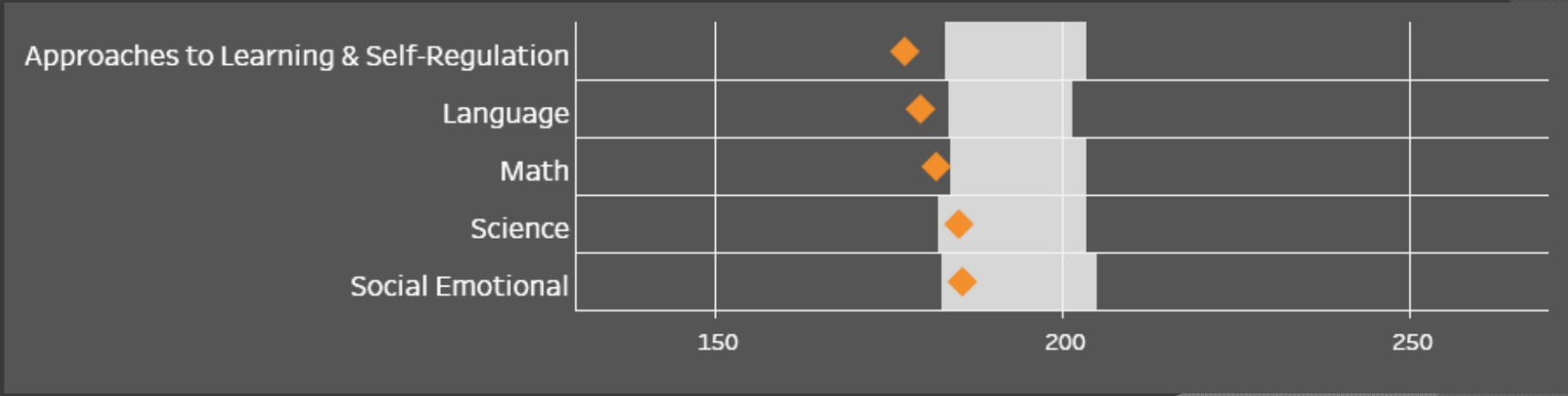
- TS Gold
- Desired Results Developmental Profile (DRDP)
- Work Sampling

Family Vulnerability Connects to Child Development



Child Assessment Report

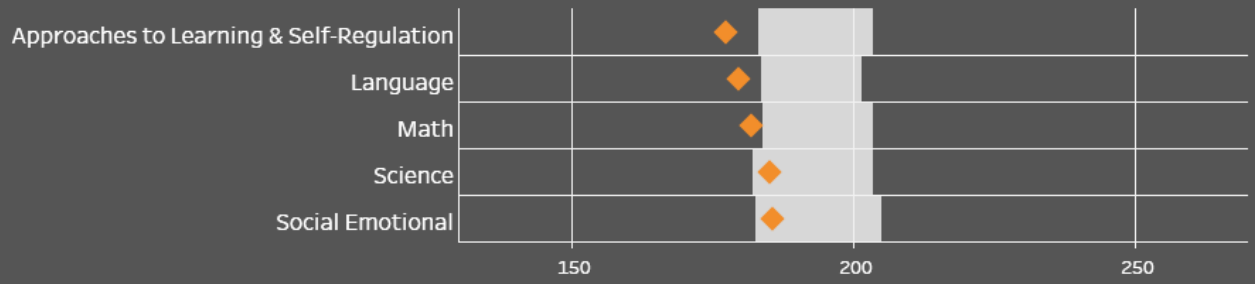
- Do child assessment reports inform family engagement efforts?



Child & Family Assessment Report

- How would the action plan change?

Child Assessment Fall 2018 Initial Assessment



Family Self Sufficiency

A. Food	We meet our basic food needs with some help.
B. Parenting	I have difficulty dealing with my children's behavior.
C. Male Involvement	My children do not have a helpful male role model in their life.
D. Housing	We live in housing that is stable and mostly okay.
E. Social Support	We can count on 3 or more people to help us in a crisis.
F. On-Going Health Issues	No one in my home has an on-going health issue that impacts our daily life.
G. Community Safety	We feel safe in our neighborhood some of the time.
H. Employment	During the last 12 months I have worked as many hours as I want.

Family Literacy Indicators

In the last week, how many times did the parent:

read to your child(ren)?	1-2 times
ask your child questions about a book?	1-2 times
play with your child using writing materials?	0 times
sing with your child?	3-4 times
tell your child a story?	1-2 times
read to yourself for fun?	1-2 times

Number of children's books in the home?

None

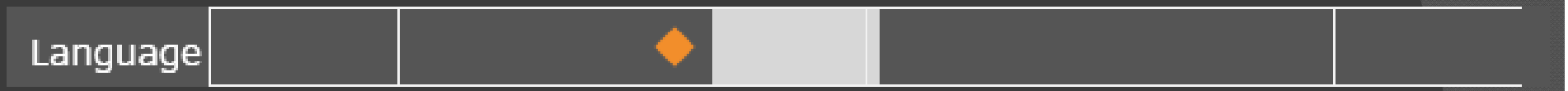
What is your current Educational level?

High School Grad or GED

What is your Educational goal?

No further education

Child & Family Assessment Report



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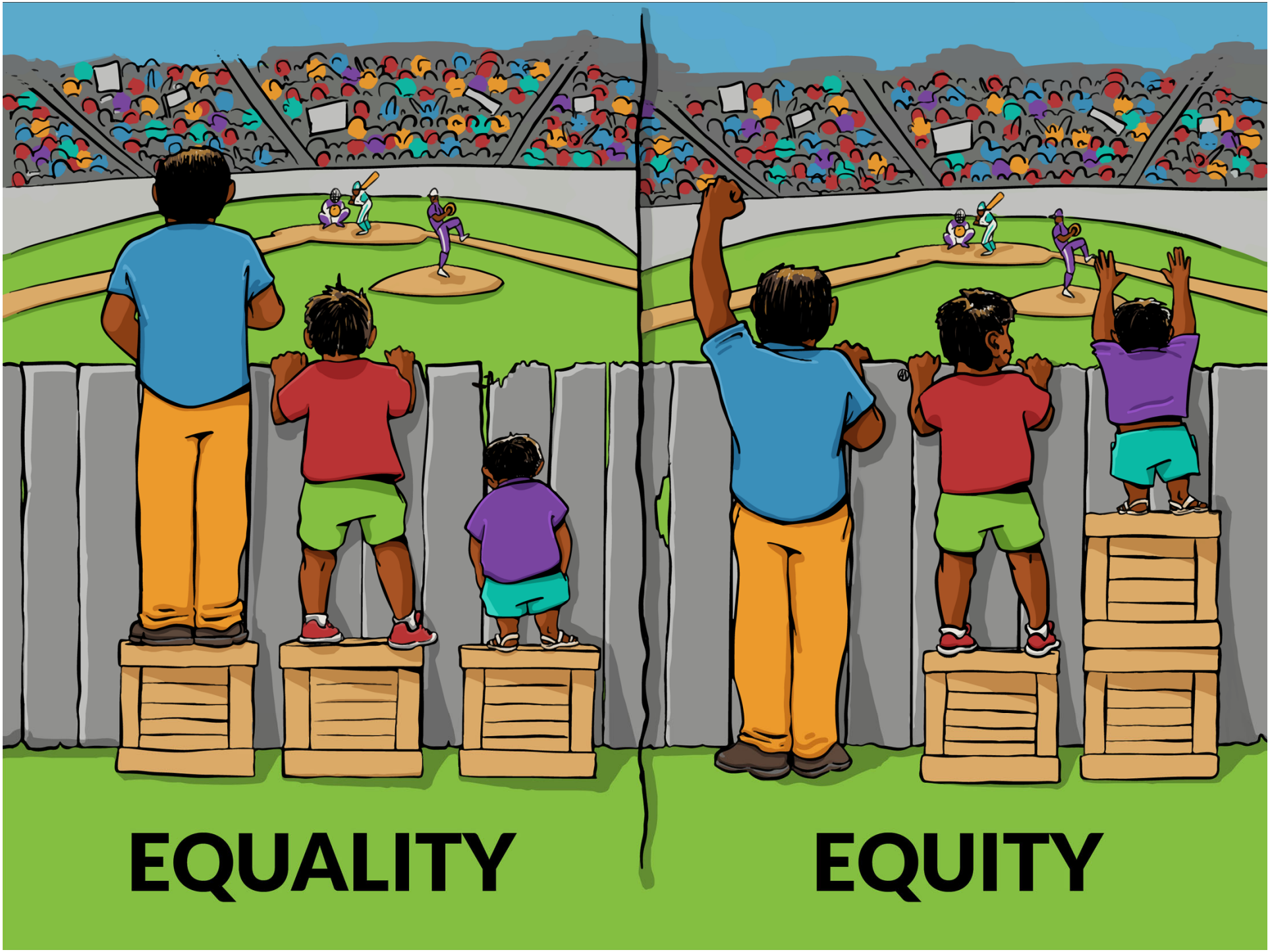
read to yourself for fun?	1-2 times

Make a List – Sorting from Least to Most Vulnerable

Child Name	Child Language & Literacy Score (Age Adjusted)	Family Vulnerability Score
Rodriguez, Jose	6.5	0
Bueller, Veronica	6.3	2
Brown, Ray	6.0	0
Morris, Samantha	5.5	5
Long, David	5.9	9
Castille, Joi	5.2	10
Smith, Bobby	5.0	13


EQUALITY
EQUITY

How would you implement this at your agency?

- Next Steps:
  - Identify **children** with both high initial vulnerability and low initial child development
  - Identify **classes** with both high initial vulnerability and low initial child development
  - Identify additional resources that you can deploy or allocate to support these classrooms and families.
    - Additional coaching, resources, supervisor support
- What does the follow through look like?

Find the Connections

Family Engagement and Vulnerability

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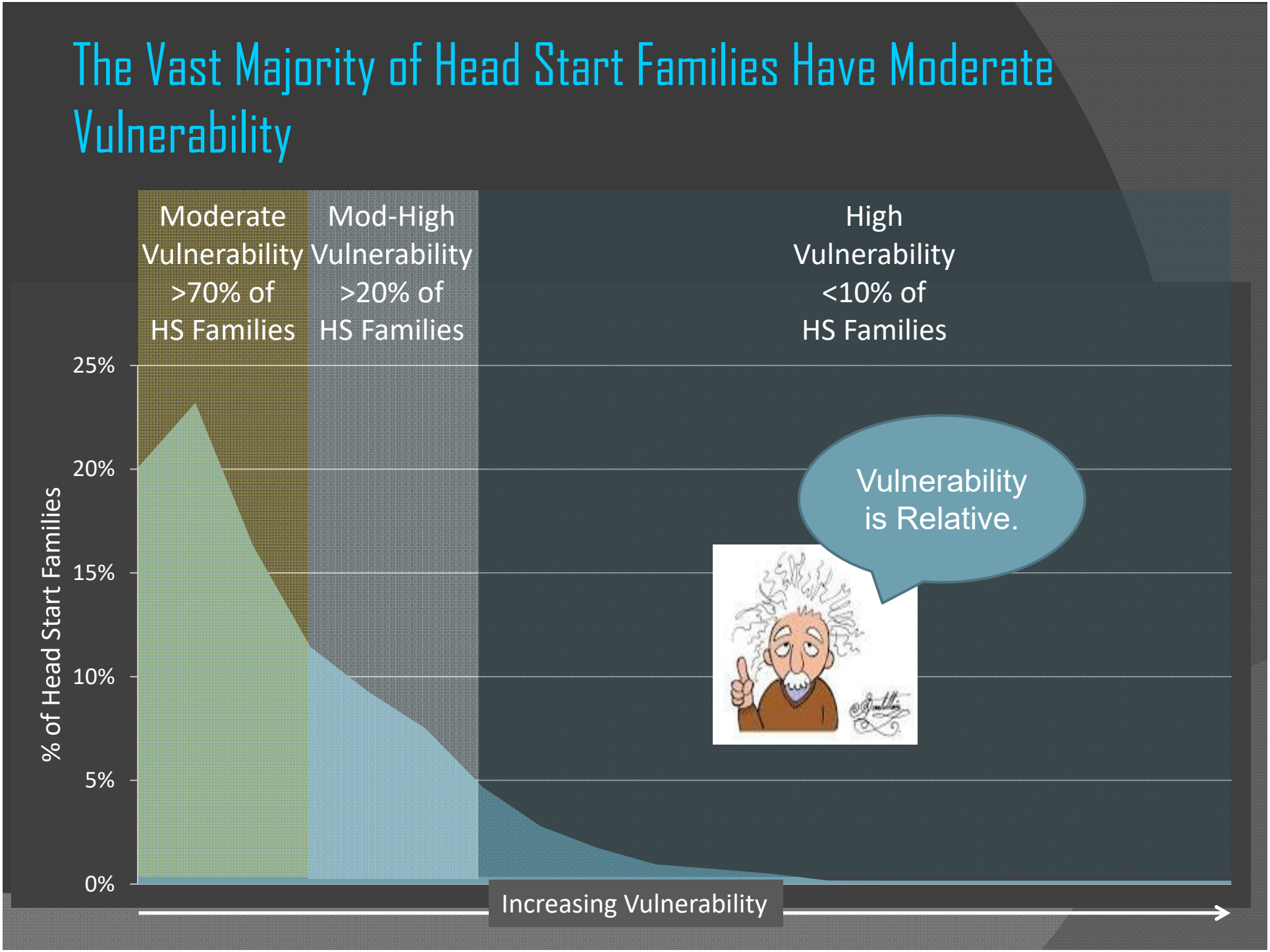
WHO SAYS SOCIAL WORK IS STRESSFUL?
I'M 36 AND I FEEL GREAT!

The Vast Majority of Head Start Families Have Moderate Vulnerability



What Do Parents Want From Head Start?

Parenting Supports:
Positive Parent-Child Relationships
Families as Lifelong Educators
Family Engagement in Transitions

Top 10 Areas Where Parents Want Information or Help

- Activities I can do to help my child learn & grow
- How to get my child ready for Kindergarten
- Choosing and enrolling in Kindergarten
- How to help my child cope with change
- Parenting skills
- Healthy eating for my family
- Advocating for my child
- Helping in my community
- How to make a home safe for children
- English as a second language

What Do Parents Value Most From Head Start?

Parenting Supports:
Positive Parent-Child Relationships
Families as Lifelong Educators
Family Engagement in Transitions

Top 10 Supports that Parents Find Very Helpful

- Your confidence that your child will succeed in elementary school.
- With activities to help your child learn at home.
- You understand the ways your child learns.
- You encourage creative play at home.
- You value your child's strengths.
- You learn the skills your child needs in Kindergarten.
- You find ways to support your child's good behavior.
- Get you to read to your child.
- You value your home language in your child's learning.
- You learn about the educational supports your child has the right to.

Three Tiered Approach

Tier 1

- Focus of Parent-Staff interactions is on Parenting Supports.
- Priority is given to staff training and family engagement resources that focus on Parenting Supports.

Tier 2

- Family Engagement staff serve as a conduit to other community resources (referrals).
- Referrals are only 20% of what Family Engagement staff do – not the focus.

Tier 3

- Intensive case management is made available to 5% to 15% of families who are highly vulnerable.
- May take the form of specialized staff OR specialized processes. But definitely requires lower caseloads.

Find the Connections

The Power of Data Visualizations
LINKing Child, Family, Attendance, and CLASS

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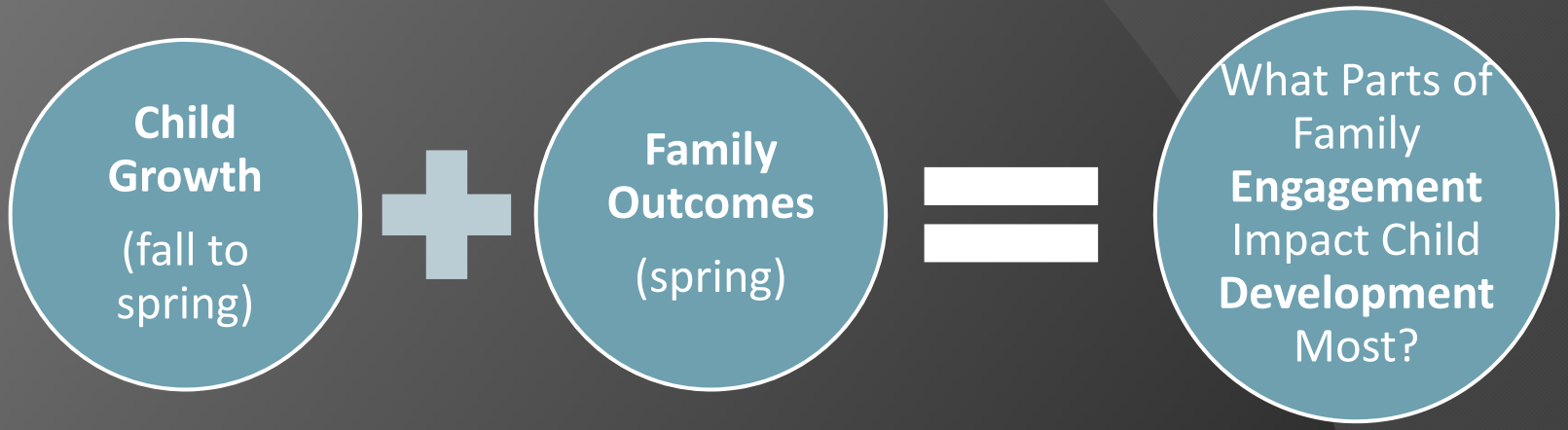
Benchmarks

- Sources:
  - Prior year
  - Age Expectations
  - Public Information (e.g. CLASS, PIR)
  - Cohort
- Value:
  - Shows relative results
  - More effectively identifies areas of strength and potential improvement
  - Provides a second perspective
  - Control for Affirmation Bias



Find the Connections

Impact of Family Engagement on Child Development

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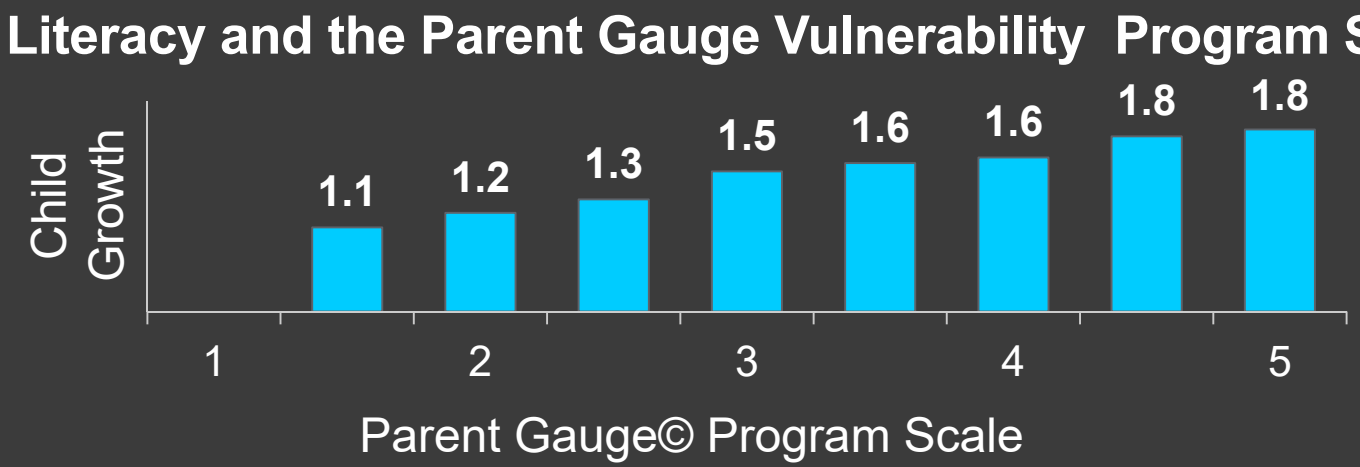
TS Gold© and Parent Gauge Example



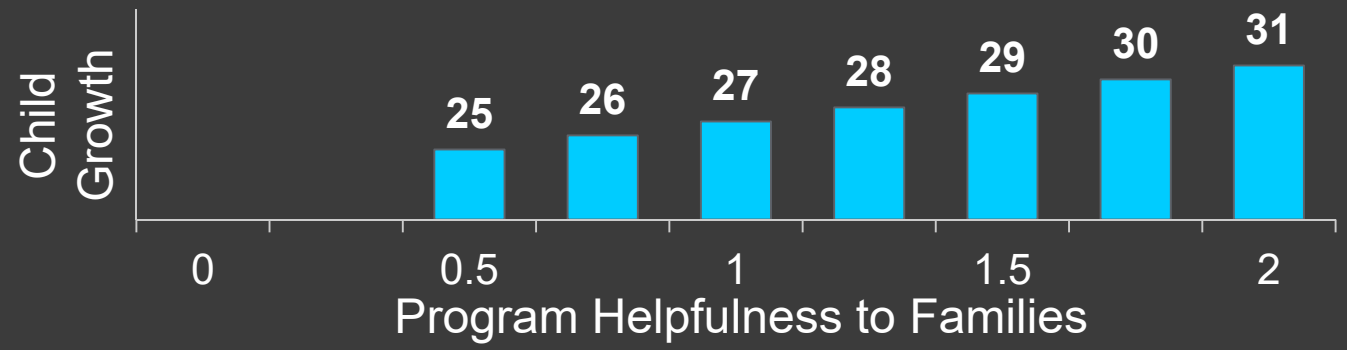
This page reports the predicted TS Gold© developmental domain score growth in Literacy based on how families scored on the Parent Gauge© Program Scale.

Confidence Level^: >95%

Note: This represents data from a single real Head Start program.

DRDP© and CCR Family Outcomes Example

Approaches to Learning: Self-Regulations and CCR Family Outcomes Survey



This page reports the predicted DRDP© developmental domain score growth in Approaches to Learning: Self-Regulation based on how helpful families found the program on the CCR Family Outcomes Survey.

Confidence Level^: >95%

Note: This represents data from a single real Head Start program.

Identifying Best Practices

- Identify classes with both high child growth and high program helpfulness – these are the classes where everything went right.
- Also, identify classes with both low child growth and low program helpfulness – these are the classes where things could improve. Find out what didn't work.
- Identify families with both high child growth and high program helpfulness AND families with both low child growth and low program helpfulness.
- Use focus groups of these families to understand what aspects of the program made them successful or where the program fell short.
- What does the follow through look like?

+ Approach with curiosity NOT judgment.

Contact CCR Analytics

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Since 2006, CCR Analytics has consistently raised the bar on the quality of analysis conducted on the operational data of early education agencies. From child assessment, parent outcomes and school readiness reports, we strive to integrate the latest statistical and research methods into our work with early education agencies.