

#### **Project Summary:**

## Measuring and Reporting Social-Emotional Development in Early Childhood

Prepared by Child Trends, May 26, 2015

#### **Overview**

The "Measuring and Reporting Social-Emotional Development in Early Childhood" project was initiated by the Federal Interagency Forum on Child and Family Statistics ("the Forum") in response to a long-standing need identified in the first *America's Children: Key National Indicators of Well-Being* report in 1997. That report recognized that, "although the report offers two indicators of young children's exposure to reading and early childhood education, there is no regular source of information that can be used to monitor specific social, intellectual, and emotional skills of preschoolers over time."

Positive social and emotional development among young children, an essential domain of school readiness, has received increasing research and policy attention in recent years. Federal efforts include the creation of program standards for supporting social and emotional development, implemented by ACF's Office of Head Start and Children's Bureau and ED's Office of Special Education Programs, as well as by initiatives such as the Race to the Top Early Learning Challenge Program.

In 2012, the Forum's Research and Innovation Committee (RIC) began the Measuring and Reporting Social-Emotional Development in Early Childhood project. Child Trends was awarded a contract to conduct a review of existing measures of social and emotional development and evaluate their quality and utility for *America's Children* and future data collection, with a focus on federal constraints in data collection such as respondent burden, time, cost, and policy implications. In addition, Child Trends prepared a paper with recommendations, organized a culminating activity, consulted with federal agency partners and academic experts, explored the potential for a special feature in *America's Children*, and will look to the Forum for determinations on how best to disseminate this work more broadly.

## **Summary of Base Year Activities**

#### Reviewing the landscape

The base year (2012-13) began with a review of current early childhood development measurement efforts, and soliciting input from federal and non-federal stakeholders with a focus on social and emotional development. While other areas of development – such as cognitive, physical, or language and communication – are equally important, we followed guidance from a National Research Council (NRC) meeting on early childhood assessment, which acknowledged that social and emotional development in early childhood was not as well-conceptualized or as well-instrumented as other domains. Furthermore, we know that social and emotional development underlies other facets of development.

<sup>&</sup>lt;sup>1</sup> <a href="http://www.childstats.gov/pdf/ac1997/ac\_97.pdf">http://www.childstats.gov/pdf/ac1997/ac\_97.pdf</a>, p. 51. See also similar language in <a href="http://www.childstats.gov/pdf/ac2013/ac\_13.pdf">http://www.childstats.gov/pdf/ac2013/ac\_13.pdf</a>, p. 56. Produced for the Federal Interagency Forum on Child and Family Statistics by Child Trends under CDC contract# 200-2012-F-51426.

DISCLAIMER: This product reflects the work of the contractor and does not necessarily reflect the views or endorsement of the Forum.

Working in close consultation with federal task monitors, senior project advisors, and academics from 15 different universities (see Appendix 1), Child Trends reviewed existing major theoretical and conceptual frameworks of social and emotional development. The major subdomains identified were social competence, emotional competence, behavior problems, and self-regulation. In addition, executive function was acknowledged as a key area of development underlying social and emotional skills.

#### Development of the inventory of measures and inventory findings report

The primary deliverable from this project is the *Inventory of Measures of Social and Emotional Development in Early Childhood*, a chart cataloguing an initial set of 61 existing measures of early childhood social and emotional development. This chart summarizes characteristics of each measure, including: source information and year of development; whether the measure has been previously included in, or considered for, large surveys or studies (federal or non-federal); targeted age range; number of items; subscales (and number of items included in each); type of response categories; sample items (when available); languages in which the measure is available and sample used for validation in each language; duration of time needed for administration; copyright information; cost for use; short form availability (if any); mode of administration (parent and/or teacher report; clinician/trained observer; direct assessment); and information about reliability and validity, including the validation/norming sample.

A set of criteria across ten key characteristics was developed to support analysis of data on the measures. These included: strength of reliability statistics; strength of validity statistics; size and diversity of the norming/validation sample; availability of the measure in languages other than English; whether a trained administrator is required; availability of a parent and/or teacher form; whether the measure covers two or more of the four identified subdomains of social and emotional development and executive function; length of time to administer; whether the measure has a cost for use; and whether the measure covers a wide early childhood age range. Each measure was reviewed in light of these criteria, yielding the draft 2013 paper, *Characteristics of Existing Measures of Social and Emotional Development in Early Childhood: Applications for Federal Reporting and Data Collection.* This paper summarizes the potential of each measure for use in recurrent or one-time federal survey data collection.

#### Ongoing consultation with partners

Throughout the measures research process, Child Trends' team was in regular communication with both federal and non-federal partners regarding these efforts. To encourage dialogue between federal data collection and reporting efforts and academic researchers, Child Trends conducted conversations first with federal partners from Forum agencies to prepare for the culminating activity (see next section), then with academic experts to give them guidance on their role at the event. Key academic experts provided regular input to project activities and were commissioned to write memos<sup>2</sup> on the state of measurement in each subdomain and executive function. These memos provide a broad overview of conceptual and measurement issues for each specific area of social and emotional development and executive function, and discuss measures with particular potential for use in federal data collection efforts.

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<sup>&</sup>lt;sup>2</sup> Memos on Measurement of Social-Emotional Development in Early Childhood: (1) Measuring Social-Emotional Development in Early Childhood: Social Competence, by Stephanie Jones & Monica Yudron, Harvard University; (2) Promising Measures of Social and Emotional Development in Early Childhood (sub-focus: Emotional competence) by Susanne A. Denham & Grace Z. Howarth, George Mason University; (3) Comments on the Measurement of Social and Emotional Development in Early Childhood (sub-focus: Behavior problems) by Susan B. Campbell, University of Pittsburgh; (4) Recommendation for Measurement of Self-Regulation in Early Childhood by C. Cybele Raver, New York University; and (5) Measurement of Executive Function in Early Childhood by Michael Willoughby, Frank Porter Graham Child Development Institute. The memos are available for download from http://www.childstats.gov/pdf/Memos.pdf.

#### May 2013 culminating activity

Child Trends organized and facilitated a culminating activity held at the NIH Natcher Conference Center – "Measuring and Reporting Social-Emotional Development in Early Childhood" – on May 8, 2013. The event brought together over 70 researchers and statistical agency staff to discuss critical issues related to data collection and reporting, and the importance of monitoring the well-being of children beginning in early childhood. The event (see Appendix 2) opened with a review of the policy relevance for measuring social and emotional development beginning in early childhood. Specifically, the event featured: panels on how measures of social and emotional development may inform health, early learning, and family support policy; a discussion of where there is consensus – and divergence – on how the subdomains of social and emotional development are defined; a summary of criteria used for review and findings in the inventory findings report; challenges related to measuring early childhood social and emotional development across diverse populations (e.g., differences by age, gender, race/ethnicity, social context, etc.); and academic experts' review of promising measures by sub-domain (and their suitability for use as an indicator or special feature in *America's Children*, or for first use in federal surveys) as well as field gaps in measurement. The event concluded with a panel of federal staff who reviewed proposed measurement options, current federal measurement successes, and future opportunities.

Following the event, Child Trends prepared a brief document (*Follow Up Steps to "Measuring and Reporting Social-Emotional Development in Early Childhood*") summarizing four guiding principles agreed upon by participants, as well as short- and long-term priorities to help fulfill the goal of measuring early childhood social and emotional development in federal data collections (see Appendix 3). These ranged from the challenge of developing short, reliable measures of young children's development for use by resource-limited federal agencies, to the need (identified by state representatives) for the federal government to set the bar with respect to benchmarks for measures of early childhood social and emotional development. A more detailed summary (*Key Points from Forum Culminating Activity, by Session*) is also available on the <u>Research and Innovation Committee page</u> of the Forum's website. These two culminating activity summary documents were disseminated to event attendees following the option year kickoff meeting, and these documents, as well as input from partners and stakeholders on specific measures, were used to guide planning for the option year.

## **Summary of Option Year Activities**

During the option year, Child Trends facilitated numerous consultations with academic and federal partners (see Appendix A for academic partners and below for federal staff) and updated the inventory and paper to reflect feedback from the culminating activity, feedback from federal partners regarding measures already in use by statistical agencies, and additions suggested by academic partners.

#### Pivotal consultation with academic partners

In a December 2013 conference call, academics advised us on a number of critical points which were originally broached during the culminating activity. Their recommendations were:

- Kindergarten and pre-K is an ideal age group to focus on for measuring and reporting on early childhood
  development, due to school readiness policies and assessments being developed at the state and program level
  nationwide.
- Regarding psychometric properties of the measures, the consensus was to recommend measures that have evidence of validity, as long as there is no evidence of poor predictive validity.

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- Emotional competence, with the least number of measures that met the criteria for high-quality measures, is one subdomain to prioritize for measures development, data collection, and reporting.
- If federal agencies had to choose, it would be more valuable for them to collect high-quality data on a single area of development than to use measures that cover multiple areas of development poorly.

## Ongoing and expanded consultation with federal partners

From December through May of the option year, Child Trends engaged in a series of consultation calls with federal partners representing ACF/OPRE, Census, HRSA, MCHB, NCES, NIH/NICHD, and CDC/NCHS. Beginning in December 2013 with an interagency call, the following ideas were exchanged:

- Many "short" extant measures that might be candidates for federal surveys are not short enough.
- Further information is needed on the appropriate use of screeners, and their limitations in the context of indicator development.
- Federal agencies have an interest in fielding measures that may be used by states focused on developing school readiness assessments, and thus would like an "at a glance" guide to measures appropriate for use during the preschool years.
- Several agencies have current or forthcoming data collections that provide opportunities to consider new measures from the Inventory.
- The process of bringing the various groups together across agencies and sectors to facilitate conversations about realizing early childhood development measurement goals through collaboration was viewed as extremely worthwhile.

Federal agency staff followed up with their data collection staff to find out more about upcoming data collection opportunities, and to recommend and provide more detail on measures from our inventory. Early in 2014, Child Trends convened five consultation calls with key staff from Forum agencies, including ACF/OPRE (Maria Woolverton, Chris Fortunato, and Nina Hetzner), Census (Lynda Laughlin), MCHB/HRSA (Reem Ghandour and Jessica Jones), the HP2020 subgroup (Katie Beckman [ACF] and Barb Hamilton [HRSA/MCHB]), NCES (Gail Mulligan, Jill McCarroll, Grace Kena, and Sarah Carroll), and NCHS (Stephen Blumberg, Patricia Pastor, and Catherine Simile). Throughout the year, we facilitated communication on a variety of measurement topics, including: opportunities for cross-agency collaboration; measurement concerns such as the distinction between screeners and assessments, and the lack of strong psychometrics for many frequently-used measures; and suggesting scales and items for the school-readiness and child-care sections of the forthcoming, redesigned NSCH and NHES School Readiness Survey.

## RIC Meeting Presentation

The series of calls with federal stakeholders generated enthusiasm for taking advantage of current data collections to set the stage for long-term early childhood indicator development. Child Trends presented these findings at the March 2014 RIC meeting, where we discussed specific recommendations for potential regular indicators, special features, or upcoming data collections.

#### Forum Meeting Presentation

At the May 2014 meeting of the Forum, Child Trends provided a project update and presented, with federal partners, a proposed collaboration to produce a special feature for America's Children. Further research into this possibility was endorsed by the Forum (see below).

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## Summary of products and findings

For this project, we prepared and delivered four major products during the second 12-month performance period:

- The final *Inventory of Measures of Social and Emotional Development in Early Childhood*, which includes details on 72 measures (see Attachment A);
- The final inventory findings report, Characteristics of Existing Measures of Social and Emotional
   Development in Early Childhood: Applications for Federal Reporting and Data Collection, again organized
   around three potential federal reporting options. The paper discusses the length of promising and strong
   measures (focusing on those that are short and thus most useful to federal agencies) and splits out
   recommendations for children ages 0-3 and 4-5, thus easily identifying measures appropriate for use in
   assessing school readiness (see Attachment B);
- This project summary; and
- Five memos commissioned from academic experts for each of the four subdomains and executive function.

The major finding from the inventory findings report is that – of the 72 measures reviewed (up from the initial 61) – there are no measures of social and emotional development currently collected on a recurrent basis in federal data collections that could be immediately used as a regular indicator of social and emotional development across any of the four subdomains or executive function. However, for measures that could be used as the basis for a special feature in America's Children, the Preschool Learning Behaviors Scale (PLBS) has strengths in a majority of the 10 criteria, including strong reliability and validity, and a diverse norming sample, and has subscales which address both self-regulation and executive function. In addition, five other measures have a number of strengths and could also be considered for future special features. Notably among these, the Social Skills Rating Scales (SSRS) and the Social Skills Improvement System-Rating Scales (SSIS-RS) cover three subdomains of social and emotional development (social competence, emotional competence, and behavior problems) and Rothbart's Children's Behavior Questionnaire (CBQ) and CBQ-VSF (Very Short Form) cover all 5 identified areas of development. In addition, four measures from the Inventory have the potential to serve as possible first-time measures to collect in future federal surveys. These measures each cover at least 3 of the 5 identified areas of development (the four subdomains or executive function). See Appendix 4, which presents Tables 2A and 2B, summaries of strongest and promising measures for use with children ages 0-3 and 4-5, respectively, by recommended use, subdomains, and executive function, excerpted from the full inventory findings report. <sup>3</sup> The paper also makes recommendations for how existing measures can be strengthened in future data collections, and identifies gaps in the field by area of development.

#### **Additional unanticipated outcomes**

## Proposal of America's Children special feature

The outcome of the March 2014 RIC meeting was continued discussion among NCES, ACF, and NCHS staff regarding the potential for a cross-agency special feature for the 2015 edition of America's Children. Initial conversations determined that NCES and ACF had the most compatible data and they agreed to collaborate on a proposal. The overall goals of the proposed special feature were to: 1) relay the breadth (across subdomains) and

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<sup>&</sup>lt;sup>3</sup> The final inventory findings report, available as a separate attachment, provides a detailed discussion of the specific, recommended measures.

policy relevance of social and emotional development in early childhood, and its importance as a foundation skill for school readiness, and 2) provide a "big picture" summary of how two major national studies – ECLS-K and FACES – measure aspects of emotional competence, behavior problems, and self-regulation. Child Trends worked with these two agencies until August 2014, when it was determined that the data were not suitable for reporting as originally proposed and the proposal was withdrawn. Specifically, given that Head Start children represent only a small subgroup of the national population, a discussion on the social emotional well-being of Head Start children was deemed premature without first providing context for the appropriateness and reliability/validity of the measures with this specific population of children. ACF suggested that a special issue that speaks to measurement issues and psychometric properties of the measures used to assess social and emotional development would be preferred. Both NCES and ACF plan to explore additional reporting opportunities in future years.

#### Proposed Special issue of the Journal of Applied Developmental Psychology

Interest generated by earlier memos authored by academic experts, addressing the breadth and complexity across sub-domains of social emotional development resulted in an unexpected opportunity for journal publication. However, the focus of the Journal's interest for the Special Issue extended beyond the focus of the Forum project.

As a final phase of this project, Child Trends submitted all deliverables as public domain files for posting on the Forum web site. Once posted, Child Trends and all other data users will be able to use these public files independent of the Forum's subject review and approval.

#### Conclusion

This project has moved the measurement of social and emotional development in young children forward by:

- Providing a consensus framework for the field to consider, which heretofore had competing conceptualizations of subdomains of development.
- Systematically applying the subdomain classifications in reviewing existing measures.
- Developing consensus on the ten criteria for reviewing the quality of the measures, creating an inventory, and offering recommendations for use in the field and federal survey systems.
- Organizing and facilitating a full day event that brought together key experts and federal stakeholders to discuss criteria for measurement and existing measures, and research and policy priorities.
- Facilitating exchange between federal partners and academic experts to prioritize the needs for new data collections and the measures to be considered for development.
- Coordinating the discussion for federal collaboration on a potential indicator for AC; facilitating discussions about recommended measures and opportunities for new data collections.

With the tools and processes put in place by this project, many aspects of measuring and reporting on social and emotional development can be addressed in a rigorous fashion that enjoy the benefit of the collective wisdom of the field. Moving forward, the Forum can consider addressing measurement gaps, for example:

For the purpose of federal monitoring of early childhood social and emotional development over time, a
regular indicator for America's Children can be developed by fielding a short measure in a repeated crosssectional survey.

Existing measures used in smaller scale studies that measure social and emotional development across
domains can be considered for federal longitudinal studies to round out the measures that are currently
available, but which are focused on one or two subdomains.

In addition, in response to state and federal policymakers placing a growing emphasis on school readiness, the project focused on measures appropriate for use with 4- to 5-year-old children. This information is of great value to state and local agencies and programs as benchmarks for school readiness and program outcomes.

The dialogue across agencies and between federal staff and academic experts that this work has facilitated holds the potential to bear more fruit -- beyond our assessments of potential measures of social and emotional development to the development of reliable and regular measures across all areas of early childhood development to help capture these critical aspects of growth during the earliest years..

## **APPENDICES**

- A. Academic expert attendees of the August 2012 webinar, "Seeking Input on Key Constructs in Early Childhood Well-Being to Inform Federal Reporting"
- B. Agenda for May 2013 Culminating Activity "Measuring and Reporting Social-Emotional Development in Early Childhood"
- C. Summary of Findings and Attendee List from May 2013 Culminating Activity
- D. Summary of Strong and Promising Measures

## **ATTACHMENTS**

- 1. Inventory of Measures of Social and Emotional Development in Early Childhood
- 2. Characteristics of Existing Measures of Social and Emotional Development in Early Childhood: Applications for Federal Reporting and Data Collection

## **Appendices**

## Appendix A: Academic expert attendees of the August 2012 webinar

Webinar: Seeking Input on Key Constructs in Early Childhood Well-Being to Inform Federal Reporting

Hosted by the Child Trends Project Team August 27, 2012

#### Webinar attendees

- Dina Castro, University of North Carolina at Chapel Hill
- Sally Atkins-Burnett, Mathematica Policy Research
- Kimberly Boller, Mathematica Policy Research
- Flavio Cunha, University of Pennsylvania
- Elena Bodrova, McREL
- Celene Domitrovich, Collaboration for Social and Emotional Learning (CASEL)
- Marsha Gerdes, The Children's Hospital of Philadelphia
- Walter Gilliam, Yale University
- Neal Halfon, UCLA
- Michelle Maier, MDRC
- Samuel Meisels, Erikson Institute

Provided input via email post-webinar (did not attend)

- Clancy Blair, NYU
- Cybele Raver, NYU
- Catherine Snow, Harvard University
- Nancy Eisenberg, Arizona State University
- Mike Willoughby, UNC Chapel Hill

# Appendix B: Agenda for Culminating Activity



# Measuring and Reporting Social-Emotional Development in Early Childhood

Wednesday, May 8, 2013 8:00 a.m. - 4:30 p.m.

Natcher Conference Center, NIH Main Campus, Bethesda MD

Note: The Medical Center red line Metro stop exits directly onto the NIH campus.

Whether driving or using public transportation, remember your photo ID and please allow time for NIH campus security.

#### FINAL AGENDA

Time	Agenda Item	Confirmed Presenter(s)/Panelists	Description
8-8:30	Registration		Check in and packet pick up in the Natcher Center Atrium
8:30-8:45	Welcome & Introductions  Overview	<ul> <li>Traci Cook (Forum Coordinator)</li> <li>Regina Bures (Forum Project Lead; NIH/NICHD)</li> <li>Jen Park (Forum; OMB</li> </ul>	Overview of Forum-sponsored early childhood (EC) indicators project.
	Overview	representative)	
8:45-9:30	Policy Needs for Measures of Early Social-Emotional Development (SED)	Panelists: • Lauren Supplee (ACF; Head Start CARES) • Catherine Scott-Little (UNC)	Discussion of the extent to which various measures of SED in EC may inform policy in the areas of health, early learning, and family support, and for later development.
		Moderator: Laura Lippman (Child Trends)	
9:30-10:15	Starting Points: Overview of Subdomain	Speaker: Marty Zaslow (SRCD; Child Trends)	Brief review of selected theoretical frameworks, terminology, and the current landscape of measures of EC SED;
	Consensus and Criteria for Assessing Measures of Early Social-Emotional Development	Discussant: Jim Griffin (NICHD)	discussion of important criteria to consider in selecting or developing measures of SED.
10:15-10:30	Break		

Time	Agenda Item	Confirmed Presenter(s)/Panelists	Description
10:30-11:45	Views from the Field  – Issues & Considerations	Panelists:	Discussion of issues that need to be taken into account when measuring EC SED across diverse populations (e.g. 0-5 age range, gender, racial-ethnic-cultural diversity, social context, inter-rater reliability).
11:45-12:45	Lunch	Amy Madigan (ACF/DCFD)	Food is available at the Natcher Center cafeteria.
12:45-2:45	Promising Measures of Early Social- Emotional Development	Panelists:  • Tamara Halle (Child Trends)*  • Susanne Denham (GMU)  • Celene Domitrovich (CASEL)  • Sally Atkins-Burnett (Mathematica)  • Karen Bierman (Penn State)	Review of promising measures, by subdomain and their suitability for use as regular indicator or one-time indicator/special feature in America's Children, or for first use in federal surveys); this session will also address gaps in measurement in the field.
		* Also serving as Moderator.	
2:45-3:00	Break		
3:00-4:15	Options for Data Reporting & Collection	Panelists:  Gail Mulligan (NCES data collections)  Stephen Blumberg (NCHS data collections)  Yanique Edmond (SAMHSA; Project Launch)  Maria Woolverton (Head Start; FACES)  Lynda Laughlin (Census, SIPP)  Moderator:	Review of measurement options discussed earlier, current measurement successes, and future opportunities.
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4:15-4:30	Conclusion	Bob Kominski (Census)  • Regina Bures (Forum Project Lead;	Closing remarks and suggested next steps.

#### **Substantive Materials**

Characteristics of Existing Measures of Social and Emotional Development in Early Childhood: Applications for Federal Reporting and Data Collection (a.k.a. the "Inventory findings report"), by Child Trends

Memos on Measurement of Social-Emotional Development in Early Childhood, which includes:

- 1. Measuring Social-Emotional Development in Early Childhood: Social Competence, by Stephanie Jones & Monica Yudron, Harvard University
- 2. Promising Measures of Social and Emotional Development in Early Childhood (sub-focus: Emotional competence) by Susanne A. Denham & Grace Z. Howarth, George Mason University
- 3. Comments on the Measurement of Social and Emotional Development in Early Childhood (sub-focus: Behavior problems) by Susan B. Campbell, University of Pittsburgh
- 4. Recommendation for Measurement of Self-Regulation in Early Childhood by C. Cybele Raver, New York University
- 5. Measurement of Executive Function in Early Childhood by Michael Willoughby, Frank Porter Graham Child Development Institute

**Also available electronically:** *Inventory of Measures of Social-Emotional Development in Early Childhood*, compiled by Child Trends. This document presents descriptive information, in tabular format, about prominent measures of social-emotional development.

## Appendix C: Culminating Activity Summary & Attendees List



# Summation of Findings from Culminating Activity on "Measuring and Reporting Social-Emotional Development in Early Childhood"

May 8, 2013, Natcher Conference Center, NIH Main Campus, Bethesda MD

The Forum on Child and Family Statistics sponsored a full day event in order to consider the state of the field on measures of social-emotional development as well as opportunities for including such measures in the *America's Children* report and future federal data collections. Outcomes included recommendations on measures that are appropriate for both the federal statistical system as well as for more general purposes in the field.

## **Guiding Principles**

- 1. What gets measured matters, thus it is important to have precise, rigorous measures that lead to accurate conclusions.
- 2. It is important to know what you want to know when selecting a measure.
- 3. National measures are important but only if they provide high quality data.
- 4. Collaboration and coordination is essential between agencies, which may potentially ease financial burden.

# Short-term priorities for measuring socio-emotional (SE) development in federal data collections

- 1. Clarity is needed on the sub-domain(s) being assessed.
  - a. Clear conceptualization of how we are operationalizing social-emotional development is necessary before measuring and reporting.
  - b. Measures which are selected must accurately assess the selected area of development. It is critical to review items included in the measure when classifying a scale into a sub-domain, rather than just the scale or subscale names which can be misleading.
- 2. Guidance to federal data collectors on prioritizing among the five identified sub-domains if necessary.
  - a. Space and time limitations may require that surveys choose among the sub-domains. In that case, is it best to choose one narrow domain with a larger set of questions, or is it best to attempt to measure multiple sub-domains with a small set of questions for each?
  - b. Note: Emotional competence is the sub-domain with the least available measures for both indicators in *America's Children* or surveys.
- 3. Data quality: capitalizing on currently available resources, while ensuring that selected measures are reliable and valid, especially if adapted or shortened.

- a. Agencies often validate a full scale measures and then use a shorter, modified version. Thus, we need to be cognizant that several measures in Child Trends' draft Paper and Inventory are based on psychometrics for the full scale, which does not necessarily match the shorter, modified scale that is currently in use in a particular federal data collection.
- There was a consensus on the importance of sound measures, and on prioritizing predictive and face validity. Specifically for predictive validity, focus on the relationship of social and emotional development to later outcomes, such as academic achievement and long-term (adult) productivity.
- Measures must be appropriate for a diverse population of children that differ by age, developmental stage, disability status, cultural and language diversity, gender, temperament, environmental factors, tribe, and urbanicity.
- 5. Consideration of the age group that is the best suited for measurement of social and emotional development for the purposes of the data collection and reporting objectives of the Forum?
  - Presenters' review of project materials identified numerous measures that cut across the 0 to 5 years of age, allowing for the collection of data at different points in development.
  - Researchers Bierman, Domitrovich, and Atkins-Burnett suggested measuring at 5 years old. It was
    noted that measurement at kindergarten controls for context and demands of the setting. Scott-Little
    provided the state policy perspective relating our work to state kindergarten entry assessment and early
    learning standards initiatives.
- 6. Re-reviewing measures in the paper according to the importance of the criteria applied (for example, validity vs. availability of translations)?

## **Longer Term Considerations**

- Other important domains of development in early childhood: In addition to the constructs of social and emotional development in early childhood investigated by the project, other key aspects of development identified include: language, general ability to communicate, relationships, attachment, and approaches to learning. Key constructs of interest may differ depending on the age of the child and what outcomes are predicted.
- 2. Optimal reporter: Observer-rated direct assessment was strongly encouraged for this age group, as well as assessor reports. Problems were identified related to teacher report (classroom environment effects; different teachers every year), yet teacher ratings are more predictive than parent ratings of later outcomes. However, parent reports have value since parents experience their children across all settings and across time.
- 3. **Measures for various study designs** (longitudinal as well as cross-sectional surveys): Note that there are measures designed to assess children longitudinally, but there may be more interest, for indicators, in measures that are appropriate for each age group in a cross-sectional survey.
- 4. **Effect of moderators**: Moderators such as the child's environment, other regulatory constructs, and contextual factors, as well as the stability of measures will have a relationship to child level measures of social and emotional development.

5.	Sensitivity to i and/or across d		Prioritize meas	sures shown	to be sensiti	ve to change	during an int	ervention
e also	"Key Points fr	om Culminati	ng Activity b	y Session"	for a summ	ary of each p	oresenter's r	emarks.

## **Culminating Activity Attendee List**

Name Organization

Sally Atkins-Burnett Mathematica Policy Research

Aida Balsano National Institute of Food and Agriculture

Haidee Bernstein Westat

Karen Bierman The Pennsylvania State University

Dara Blachman-Demner National Institute of Justice

Stephen Blumberg National Center for Health Statistics

Regina Bures NICHD

Sarah Carroll Department of Education

Nina Chien ASPE

Amanda Clincy The Office of Planning, Research, and Evaluation

Traci Cook CDC/National Center for Health Statistics

Paula Daneri Child Trends Kristen Darling-Churchill Child Trends

Susanne Denham George Mason University

Celene Domitrovich CASEL

Yanique Edmond SAMHSA/CMHS

Christine Fortunato Office of Planning, Research & Evaluation

Samantha Goldhagen Child Trends Ingrid Goldstrom SAMHSA/CMHS

James Griffin NICHD
Tamara Halle Child Trends

Grace Howarth George Mason University

Larke Huang SAMHSA

Lindsey Hutchison Health and Human Services
Susan Jekielek The University of Michigan

Stephanie Jones Harvard University

Jessica Jones HHS

Phillip Jordan ICF International

Grace Kena U.S. Department of Education

Michael Kogan HRSA/Maternal and Child Health Bureau

Robert Kominski U.S. Census Bureau Lynda Laughlin U.S. Census Bureau

Laura Lippman Child Trends

Maria Lopez-Class National Institutes of Health

Susan Lukacs CDC/NCHS Amy Madigan OPRE

Jenessa Malin University of Maryland Tammy Mann The Campagna Center

Suzanne Martin Martin Research

Name Organization

Peggy McCardle NICHD

Jill McCarroll Department of Education

Kathleen McCoy Administration for Children & Families

Gail Mulligan Department of Education

David Murphey Child Trends

Jennifer Park OMB

Patricia Pastor CDC/NCHS
Catherine Scott-Little UNC-Greensboro
Eva Marie Shivers Indigo Cultural Center

Lauren Supplee ACF

Amy Sussman Department of Education

Pamela Trivedi ASPE

Jerry West Mathematica Policy Research

David Willis Health Resources and Services Administration
Maria Woolverton Administration for Children and Families

Stella Yu HRSA

Marty Zaslow SRCD and Child Trends

Tia Zeno NIH

Nicholas Zill Westat (retired)

Kate Zinsser University of Illinois, Chicago

## Appendix D: Summary of Strong and Promising Measures

Table 2a. Summary of Strongest and Promising Measures for use with children ages 0-3, by Recommended Use and by Social and Emotional Subdomains and Executive Function<sup>4</sup>

- **Bolded** measures meet the criteria for a rating of strong for their reliability, validity, and representativeness of the norming sample.
- Measures with an asterisk (\*) are short (<10 minutes).</li>
- Measures with a plus sign (+) are appropriate for use across some portion of both the 0-3 and 4-5 age ranges.

Measures Appropriate for Consideration for Use as Regular Indicator <sup>5</sup>	Measures Appropriate for Use as One-time indicator / Special Feature <sup>6</sup>	Measures to Consider for First Use in Federal Surveys <sup>7</sup>
Social Competence Meets 6 or more criteria: None8 Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:</li> <li>Social Skills and Positive Approaches to Learning*+</li> <li>Social Skills Improvement System-Rating Scales (SSIS-RS)+</li> <li>Social Skills Rating System (SSRS)+</li> <li>Meets 5 criteria:</li> <li>Adaptive Social Behavior Inventory (ASBI)*</li> <li>Nursing Child Assessment Teaching Scale (NCATS)*</li> <li>Toddler Behavior Assessment Questionnaire (TBAQ)</li> <li>Two Bags Task+</li> </ul>	<ul> <li>Meets 6 or more criteria:         <ul> <li>Behavior Assessment System for Children, Second Edition (BASC-2)</li> <li>Colorado Childhood Temperament Inventory (CCTI)*+</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Infant Toddler Social Emotional Assessment (ITSEA)</li> <li>Matson Evaluation of Social Skills with Youngsters (MESSY)+</li> </ul> </li> <li>Meets 5 criteria:         <ul> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S)+</li> <li>Penn Interactive Preschool Play Scales (PIPPS)+</li> <li>Rothbart's Early Childhood Behavior Questionnaire (ECBQ)</li> <li>Rothbart's Infant Behavior Questionnaire-Revised</li> </ul> </li> </ul>
		(IBQ-R)     Social Competence and Behavior Evaluation Scale:     The Short Form (SCBE-30)+

<sup>4</sup> See "Criteria for EC SED Measures Selection and Evaluation." presented earlier in this paper and Appendix B which defines the thresholds for reliability and validity.

<sup>&</sup>lt;sup>5</sup> Already being collected on a recurrent basis as part of a cross-sectional federal surveys or other data collection.

<sup>&</sup>lt;sup>6</sup> Currently being used in longitudinal federal studies that assess the same participants over time.

<sup>&</sup>lt;sup>7</sup> Candidates for consideration for use in new federal survey data collection (i.e., they are not currently being used in a regularly-occurring federal data collection).

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Measures Appropriate for Consideration for Use as Regular Indicator <sup>5</sup>	Measures Appropriate for Use as One-time indicator / Special Feature <sup>6</sup>	Measures to Consider for First Use in Federal Surveys <sup>7</sup>
Meets 6 or more criteria: None Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:         <ul> <li>Rothbart's Children's Behavior Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior Questionnaire-Very Short Form (CBQ-VSF)+</li> </ul> </li> <li>Social Skills Rating System (SSRS)+</li> <li>Meets 5 criteria:         <ul> <li>Adaptive Social Behavior Inventory (ASBI)*+</li> <li>Nursing Child Assessment Teaching Scale (NCATS)*</li> <li>Toddler Behavior Assessment Questionnaire (TBAQ)</li> </ul> </li> </ul>	Meets 6 or more criteria: Colorado Childhood Temperament Inventory (CCTI)*+ Devereux Early Childhood Assessment Clinical Form (DECA-C)+ Infant Toddler Social Emotional Assessment (ITSEA)  Meets 5 criteria: Minnesota Preschool Affect Checklist- Revised/Shortened (MPAC-R/S)+ Rothbart's Early Childhood Behavior Questionnaire (ECBQ) Rothbart's Infant Behavior Questionnaire-Revised (IBQ-R)
Behavior Problem	S	

<sup>8</sup> The Child Behavior Checklist (CBCL) technically meets 6 or more criteria; however, it measures many *negative* dimensions. We therefore do not recommend this measure.

- **Bolded** measures meet the criteria for a rating of strong for their reliability, validity, and representativeness of the norming sample.
- Measures with an asterisk (\*) are short (<10 minutes).</li>
- Measures with a plus sign (+) are appropriate for use across some portion of both the 0-3 and 4-5 age ranges.

Measures Appropriate for Consideration for Use as Regular Indicator <sup>5</sup>	Measures Appropriate for Use as One-time indicator / Special Feature <sup>6</sup>	Measures to Consider for First Use in Federal Surveys <sup>7</sup>
Meets 6 or more criteria: None  Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:         <ul> <li>Rothbart's Children's Behavior Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Social Skills Improvement System-Rating Scales (SSIS-RS)+</li> <li>Social Skills Rating System (SSRS)+</li> </ul> </li> <li>Meets 5 criteria:         <ul> <li>Adaptive Social Behavior Inventory (ASBI)*+</li> <li>Toddler Behavior Assessment Questionnaire (TBAQ)</li> <li>Two Bags Task+</li> </ul> </li> </ul>	<ul> <li>Meets 6 or more criteria:</li> <li>Behavior Assessment System for Children, Second Edition (BASC-2)+</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Infant Toddler Social Emotional Assessment (ITSEA)</li> <li>Matson Evaluation of Social Skills with Youngsters (MESSY)+</li> <li>Meets 5 criteria:</li> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S)+</li> <li>Penn Interactive Preschool Play Scales (PIPPS)+</li> <li>Rothbart's Early Childhood Behavior Questionnaire (ECBQ)</li> <li>Rothbart's Infant Behavior Questionnaire-Revised (IBQ-R)</li> <li>Social Competence and Behavior Evaluation Scale: The Short Form (SCBE-30)+</li> </ul>
Self-Regulation		

- **Bolded** measures meet the criteria for a rating of strong for their reliability, validity, and representativeness of the norming sample.
- Measures with an asterisk (\*) are short (<10 minutes).</li>
- Measures with a plus sign (+) are appropriate for use across some portion of both the 0-3 and 4-5 age ranges.

Measures Appropriate for Consideration for Use as Regular Indicator <sup>5</sup>	Measures Appropriate for Use as One-time indicator / Special Feature <sup>6</sup>	Measures to Consider for First Use in Federal Surveys <sup>7</sup>
Meets 6 or more criteria: None  Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:</li> <li>Preschool Learning Behaviors Scale (PLBS)+</li> <li>Rothbart's Children's Behavior Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Meets 5 criteria:</li> <li>Adaptive Social Behavior Inventory (ASBI)*+</li> <li>Approaches to Learning - shortened version tested by the FACES team*+</li> <li>Toddler Behavior Assessment Questionnaire (TBAQ)</li> <li>Two Bags Task+</li> </ul>	<ul> <li>Meets 6 or more criteria:</li> <li>Behavior Assessment System for Children, Second Edition (BASC-2)+</li> <li>Behavior Rating Inventory of Executive Function – Preschool Version (BRIEF-P)+</li> <li>Colorado Childhood Temperament Inventory (CCTI)*+</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Infant Toddler Social Emotional Assessment (ITSEA)</li> <li>Matson Evaluation of Social Skills with Youngsters (MESSY)+</li> <li>Meets 5 criteria:</li> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S) +</li> <li>Rothbart's Early Childhood Behavior Questionnaire (ECBQ)</li> <li>Rothbart's Infant Behavior Questionnaire-Revised (IBQ-R)</li> </ul>
Executive Functio	n	
Meets 6 or more criteria: None  Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:</li> <li>Preschool Learning Behaviors Scale (PLBS)+</li> <li>Rothbart's Children's Behavior Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Meets 5 criteria:</li> <li>Dimensional Change Card Sort (DCCS)+</li> </ul>	<ul> <li>Meets 6 or more criteria:</li> <li>Behavior Assessment System for Children, Second Edition (BASC-2)+</li> <li>Behavior Rating Inventory of Executive Function – Preschool Version (BRIEF-P)+</li> <li>Colorado Childhood Temperament Inventory (CCTI)*+</li> <li>Meets 5 criteria:</li> <li>Rothbart's Early Childhood Behavior Questionnaire (ECBQ)</li> <li>Rothbart's Infant Behavior Questionnaire – Revised (IBQ-R)</li> </ul>

- **Bolded** measures meet the criteria for a rating of strong for their reliability, validity, and representativeness of the norming sample.
- Measures with an asterisk (\*) are short (<10 minutes).
- Measures with a plus sign (+) are appropriate for use across some portion of both the 0-3 and 4-5 age ranges.

Table 2b. Summary of Strongest and Promising Measures for use with children ages 4-5, by Recommended Use and by Social and Emotional Subdomains and Executive Function

- **Bolded** measures meet the criteria for a rating of strong for their reliability, validity, and representativeness of the norming sample.
- Measures with an asterisk (\*) are short (<10 minutes).
- Measures with a plus sign (+) are appropriate for use across some portion of both the 0-3 and 4-5 age ranges.

Measures Appropriate for Consideration for Use as Regular Indicator9	Measures Appropriate for Use as One-time indicator / Special Feature <sup>10</sup>	Measures to Consider for First Use in Federal Surveys <sup>11</sup>
Meets 6 or more criteria: None 12  Meets 5 criteria: None	Meets 6 or more criteria:  Social Skills and Positive Approaches to Learning*+  Social Skills Improvement System-Rating Scales (SSIS-RS)+  Social Skills Rating System (SSRS) +  Meets 5 criteria:  Adaptive Social Behavior Inventory (ASBI)*+  Early Development Instrument (EDI)  Two Bags Task+	<ul> <li>Meets 6 or more criteria:</li> <li>Behavior Assessment System for Children, Second Edition (BASC-2)+</li> <li>Colorado Childhood Temperament Inventory (CCTI)*+</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Matson Evaluation of Social Skills with Youngsters (MESSY)+</li> <li>Parent Daily Report (PDR)</li> <li>Meets 5 criteria:</li> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S)+</li> <li>Penn Interactive Preschool Play Scales (PIPPS)+</li> <li>Social Competence and Behavior Evaluation Scale: The Short Form (SCBE-30)+</li> </ul>

<sup>&</sup>lt;sup>9</sup> Already being collected on a recurrent basis as part of a cross-sectional federal surveys or other data collection.

<sup>&</sup>lt;sup>10</sup> Currently being used in longitudinal federal studies that assess the same participants over time.

<sup>&</sup>lt;sup>11</sup> Candidates for consideration for use in new federal survey data collection (i.e., they are not currently being used in a regularly-occurring federal data collection).

<sup>&</sup>lt;sup>12</sup> The Child Behavior Checklist (CBCL) technically meets 6 or more criteria (and covers all 5 subdomains); however, it measures many *negative* dimensions. We therefore do not recommend this measure.

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Measures Appropriate for Consideration for Use as Regular Indicator <sup>9</sup>	Measures Appropriate for Use as One-time indicator / Special Feature <sup>10</sup>	Measures to Consider for First Use in Federal Surveys <sup>11</sup>
<b>Emotional Compe</b>	etence	
Meets 6 or more criteria: None  Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:</li> <li>Rothbart's Children's Behavior         Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior         Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Social Skills Rating System (SSRS) +</li> <li>Meets 5 criteria:</li> <li>Adaptive Social Behavior Inventory         (ASBI)*+</li> <li>Early Development Instrument (EDI)</li> </ul>	<ul> <li>Meets 6 or more criteria:         <ul> <li>Brief Scale of Temperament (BST)*</li> <li>Colorado Childhood Temperament Inventory (CCTI)*+</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Parent Daily Report (PDR)*</li> </ul> </li> <li>Meets 5 criteria:         <ul> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S) +</li> </ul> </li> </ul>
Behavior Problem	ns	1
Meets 6 or more criteria: None  Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:</li> <li>Rothbart's Children's Behavior         Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior         Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Social Skills Improvement System-Rating Scales (SSIS-RS)+</li> <li>Social Skills Rating System (SSRS) +</li> <li>Meets 5 criteria:</li> <li>Adaptive Social Behavior Inventory (ASBI)*+</li> <li>Two Bags Task+</li> </ul>	<ul> <li>Meets 6 or more criteria:</li> <li>Behavior Assessment System for Children, Second Edition (BASC-2)+</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Matson Evaluation of Social Skills with Youngsters (MESSY)+</li> <li>Parent Daily Report (PDR)*</li> <li>Meets 5 criteria:</li> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S)+</li> <li>Penn Interactive Preschool Play Scales (PIPPS)+</li> <li>Social Competence and Behavior Evaluation Scale: The Short Form (SCBE-30)+</li> </ul>
Self-Regulation		
Meets 6 or more criteria: None  Meets 5 criteria:	<ul> <li>Meets 6 or more criteria:</li> <li>Approaches to Learning Scale from ECLS-K*</li> <li>Preschool Learning Behaviors Scale</li> </ul>	<ul> <li>Meets 6 or more criteria:</li> <li>Behavior Assessment System for Children, Second Edition (BASC-2)+</li> <li>Behavior Rating Inventory of Executive Function –</li> </ul>

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Measures Appropriate for Consideration for Use as Regular Indicator9	Measures Appropriate for Use as One-time indicator / Special Feature <sup>10</sup>	Measures to Consider for First Use in Federal Surveys <sup>11</sup>
None	<ul> <li>Rothbart's Children's Behavior         Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior         Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Meets 5 criteria:         <ul> <li>Adaptive Social Behavior Inventory (ASBI)*+</li> <li>Approaches to Learning - shortened version tested by the FACES team*+</li> <li>Two Bags Task+</li> </ul> </li> </ul>	<ul> <li>Brief Scale of Temperament (BST)*</li> <li>Childhood Executive Function Inventory (CHEXI)*</li> <li>Colorado Childhood Temperament Inventory (CCTI)*</li> <li>Devereux Early Childhood Assessment Clinical Form (DECA-C)+</li> <li>Matson Evaluation of Social Skills with Youngsters (MESSY)+</li> <li>Meets 5 criteria:</li> <li>Minnesota Preschool Affect Checklist-Revised/Shortened (MPAC-R/S)+</li> </ul>
Executive Functio	n	
Meets 6 or more criteria: None Meets 5 criteria: None	<ul> <li>Meets 6 or more criteria:</li> <li>Preschool Learning Behaviors Scale (PLBS)*+</li> <li>Rothbart's Children's Behavior Questionnaire (CBQ)+</li> <li>Rothbart's Children's Behavior Questionnaire-Very Short Form (CBQ-VSF)+</li> <li>Meets 5 criteria:</li> <li>Dimensional Change Card Sort (DCCS)* +</li> </ul>	Meets 6 or more criteria:  Behavior Assessment System for Children, Second Edition (BASC-2)+  Behavior Rating Inventory of Executive Function – Preschool Version (BRIEF-P)+  Childhood Executive Function Inventory (CHEXI)*+  Colorado Childhood Temperament Inventory (CCTI)*+  Meets 5 criteria: None