

*Summary of Themes
From the Workshop on Defining and Measuring Professional Development
and Training of the Early Childhood Workforce*

*Sponsored by the Child Care Bureau and Office of the Assistant Secretary for Planning
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- **Good Start Grow Smart provides a context in which greater precision about early childhood professional development is needed.**

Good Start Grow Smart is requiring more of states. This initiative is calling on states to develop Early Learning Guidelines specifying what young children should know and be able to do. It is also calling upon states to provide a plan for professional development of the early childhood workforce.

Alignment of these is a key issue: There is an expectation that the goals for early childhood professional development will align with the state guidelines for what children should know and be able to do. Alignment is also an issue in that early childhood professional development should be coordinated with expectations of educators in elementary school.

As we work to clarify what children in the early years should know and be able to do, we need to specify with greater clarity how professional development prepares early childhood educators/caregivers to foster this development in children.

- **We will not be able to distinguish what aspects of early childhood professional development and training do and do not make a difference unless we can clearly specify and differentiate the component features and measure them consistently and reliably.**

More precise and specific definitions and clarity of measurement are prerequisites to research that can identify the components of professional development and training that foster positive development in children.

At present researchers are utilizing an approach that results in broad and undifferentiated conclusions. The research basically says that *more* formal education and training are associated with higher quality early care and education environments.

The research, as it stands, can do little to specify which particular aspects of professional development and training are most important to the quality of the

environment or children's development. Nor can it specify which particular features of professional development or training are most strongly related to particular outcomes for children, such as the ability to self-regulate or the development of early literacy.

We urgently need to go beyond global "more is better" approaches and begin to differentiate the key components that serve as "active ingredients" in producing better environments and child outcomes. This requires:

- Differentiation of professional development and training into components;
- Clear and consistent definitions of these components;
- Measurement approaches that map onto and are consistent with these definitions.

- **A review of the research literature commissioned by the SEED consortium of federal agencies with a focus on early childhood development found serious inconsistencies in the way in which researchers define and measure early childhood professional development and training.**

This review, completed by Maxwell, Field and Clifford, cautions that researchers do not consistently distinguish between formal education, certification, and training.

For example, some researchers use the term training to mean community-based workshops that do not yield higher education credit, while others use the term to encompass both higher education courses and such workshops. Yet such a distinction is very important, for example, to state policymakers seeking to determine whether state investments should go towards higher education or training through the child care resource and referral system.

The review recommends using the term *education* to refer specifically to professional development provided through the formal education system, and to use the term *training* to refer to workshops that occur outside of the formal education system.

This review also finds problems with measurement *within* the categories of education, training and certification. The discussions at the workshop extended the range of problems identified in measuring education, training and certification beyond those noted in the paper by Maxwell and colleagues. For example, based both on the paper and workshop discussions:

Regarding education

It may make a big difference to the environment or to children's outcomes whether a caregiver or teacher has one year of college or has nearly completed college. Some research makes these distinctions possible by

measuring years of education, but many studies do not, recording only “some college” as the respondent’s level of education.

Researchers may measure the focus of a degree only for the most advanced degree. This measurement approach would miss the early childhood major at the college level of someone who then went on to get a higher degree in business, for example.

Many studies report whether an early childhood professional had any coursework related to early childhood development; they do not report on the extent or content of such coursework.

We know very little about the comparability of a major in early childhood development in different colleges and universities. Are the requirements similar? Are we capturing anything meaningful when we ask about a major in early childhood or should we be going directly to the number and focus of courses?

The recency of degree attainment may be important and yet is rarely documented.

Regarding training

The research often fails to distinguish between training that is intensive, requiring a carefully sequenced series of workshops, or a single workshop. That is, the measurement approach is usually to distinguish no training vs. any training.

While data collection approaches often attempt to document the content of training, when research studies are published, they very rarely look at content. In part this is because there is no agreed upon set of categories for summarizing content, and there are many possible ways of describing the content of training. There is an urgent need for an agreed-upon typology of training content so that researchers can look at whether the content of training is systematically related to features of the environment or specific aspects of children’s development.

Few researchers take into account other important aspects of training, such as recency, whether the training had an applied or practice component or involved only the presentation of information, and whether training was provided on-line or in-person. We don’t know if it matters whether training occurred pre-service or in-service. The context of training may matter and yet is rarely studied. For example, it may matter whether training was pursued in order to fulfill a state requirement or went beyond state requirements.

We don't know very much at all about the qualifications of those providing training or the quality of the training.

Regarding certification

Very little research has documented the implications of having attained a CDA, the form of certification that cuts across state boundaries and is most widely recognized. The research that has been completed does not identify whether the CDA coursework was completed within or outside of the formal education system.

Researchers sometimes document whether or not a form of state or local certification was obtained without providing background on what that form of certification required. Particularly in multi-state studies it is difficult to understand from the information given how certification in one state corresponds to certification in another.

- **Problems with definitions and measurement hinder efforts at the federal as well as state levels to get accurate assessments of the size and current characteristics of the early childhood workforce, and therefore to project the kinds of professional development initiatives that are needed.**

A paper presented at the meeting by Brandon and his colleagues noted that different data collection approaches have each had limitations in estimating the size and characteristics of the early childhood workforce. We are lacking a complete picture of the workforce overall and by state. This rests on problems with definitions and measurements used as well as on limitations of specific data collection approaches.

A fundamental problem is that there is no agreement as to who should be seen as included in the early childhood workforce. Does this include all staff members in early childhood care and education, or only those who are directly involved in the care and education of children. For example, should those who prepare food in Head Start or child care centers be included? Those who provide transportation? Should only lead teachers, assistant teachers and directors be included, or should specialists in special education, literacy or English as a Second Language also be included? Basic decisions as to the "borders" of the early childhood workforce are needed.

Federal and state general population surveys may miss whole sectors of early care and education providers/teachers because of the way in which questions are asked. For example, asking about preschool teachers (as in some national surveys) misses family friend and neighbor care providers or licensed home-based providers who may not self-identify as teachers. Family child care providers (both regulated and exempt) are considered self-employed, and as a result may be excluded from some federal

surveys. The specific ways in which questions are asked can matter a great deal to the estimate of the workforce. Another problem with general population survey approaches is failure to update the data frequently enough.

Administrative data as a source of information will limit the universe of early childhood workers identified and measured. For example, data collected via the licensing system or the subsidy system will miss providers who are not licensed or do not receive subsidies. Further, such data often lack information on the characteristics of the children cared for, so it is impossible to link the characteristics of children and families with those of early childhood educators/caregivers. In a complementary manner, demand-based surveys provide information on those using early care and education but lack the perspective of the provider or the ability to link child/family characteristics with provider characteristics.

There are some data sources that are specific to types of early care and education. For example, program data for Head Start are collected on a regular basis and data on those receiving child care subsidies are also regularly collected. However these separate data systems do not permit an assessment of overlap. A child in Head Start may also be using child care, and it is not possible with the separate program data to identify which children are appearing in both data collection systems. This raises problems of double counting.

A review of state data collection efforts found only 16 states in which data were of sufficient quality to provide an estimate of the early childhood workforce. However even these generally did not provide data on family friend and neighbor caregivers. A number of problems hindered data collection in states. State data collection needs to be improved through:

- Strategies to improve responses rates;
- Eliminating terminology that unintentionally excludes some types of educators/caregivers;
- Collecting waves of data in intervals so that seriously outdated estimates are not used;
- Using measures in surveys that permit sufficient precision in describing extent of education and training;
- Working to increase the comparability of measures using in surveys across different states.

- **Clarifying definitions and measurement of the early childhood workforce is not just a research issue. There were numerous descriptions at the workshop of ways in which definition and measurement problems were occurring in and hindering practice and policy work.**

As one example, the National Association of Child Care Resource and Referral Agencies would like to be able to inform its membership about the content and extent of training that are important to improving quality. But there is no common vocabulary for how to describe these features of training. NACCRRRA is interested in developing a common set of definitions and measures for training that it can build into the software used to collect data at CCR & R agencies across the country (NACCRAware) so that training is described uniformly and so that progress can be made in identifying the types of training that are most beneficial.

In Oregon a group is working to revise the way in which professional development of licensed child care providers is recorded in the state's child care registry. The group is grappling with the lack of a way to record and give appropriate credit for different types of training.

There is also a lack of agreement in how different state registries record professional development information. This makes it extremely difficult to translate professional background from one state to another if an early childhood worker moves.

In Head Start, clear and appropriate definitions and measure of professional development are central to program review. Levels of education that are tracked are dictated by the congressional mandate that a certain proportion of teachers in Head Start must have associate degrees or higher. However there is less agreement regarding how training should be documented. Yet it is a central issue for Head Start to determine what training experiences contribute to program quality.

As another example, a number of states are working on child care quality rating systems. It is unclear how these systems should attempt to capture differences in levels of education or in extent or type of training. There is no agreement on the differentiations that should be made, and as a result, different states are making different differentiations in their quality rating systems.

- **There is a need to encompass the multiple sectors of early care and education in the discussion rather than to focus only on a particular sector (such as formal center-based child care, regulated home-based child care, family-friend-neighbor care, pre-kindergarten or Head Start). The greatest progress will be made if definitions and measurement strategies are developed that can be used across these sectors. Attention is needed to include family, friend, and neighbor care.**

At present the measures used, particularly in population-based national surveys, may be applicable only to formal settings such as child care

centers and Head Start programs. They may be completely inappropriate for home-based care including family, friend, and neighbor care. We need definitions and measures in large national surveys, evaluation studies, registries and other forms of data collection that are appropriate across all sectors.

- **Those involved in large scale data collection for major federal agencies are open to working across the different data collection efforts to move towards common measurement approaches.**

It was clear, at the workshop, that multiple federal agencies are concerned with describing the early childhood workforce.

At the workshop, representatives from the National Center for Education Statistics and the Office of Special Education (from the U.S. Department of Education) as well as from the Child Care Bureau and the Head Start Bureau of the U.S. Department of Health and Human Services described their data collection goals and efforts. They acknowledged that the problems with definition and measurement pertained to their agencies' data collection efforts. Similarly, representatives from NICHD and ASPE of U.S. DHHS as well as IES of the U.S. Department of Education spoke of the research their agencies are sponsoring pertaining to school readiness and early childhood curricula that would benefit from clarification of definitions and measurement approaches.

Participants at the workshop indicated an openness to working together towards *coordinated* definitions and measures.

We need to determine the next steps that would be helpful in coordinating the approaches to measuring early childhood professional development in these large scale data collection efforts. One suggestion was for the Child Care Bureau to take the lead in developing a “glossary” of terms that could be used consistently across surveys. Recommendations could be made for a core set of items that should always be included in surveys and guidance could be given regarding how best to measure specific constructs.

- **There are important precedents for developing greater consensus on definitions and measures. We can learn from these precedents.**

The National Center for Education Statistics has developed a basic set of data elements to be collected in common by all states regarding K-12 education. This “common core” for data collection took a long time to develop, and some components are still in process. For example, NCES is still pushing to have data on dropouts collected in the same way across states; much but not all is collected in the standardized manner.

Learning from this precedent would be extremely informative. In particular, it would be helpful to learn about the process that was engaged in to develop the common core measures. It would also be helpful to document the reactions to the common core measures, and especially the ways in which states have benefited from having comparable data.

There is also a potential to learn from other professions. For example, have community health workers developed a common approach to measuring their training? Human resource workers?

- **There are important opportunities in both applied work and research to make progress in defining and measuring professional development of the early childhood workforce.**
 - The Department of Education would be interested in strengthening its survey data collection by identification of the key aspects of professional development that should be addressed in survey items. An immediate opportunity is the development of survey items to be included in the 48 month data collection of the Early Childhood Longitudinal Survey-Birth Cohort.
 - It would be extremely useful if states carrying out surveys to measure the size and characteristics of the early childhood workforce could meet and work towards common definitions and measures. Such a meeting could also be used to provide technical assistance to states on such issues as strategies to improve response rates.
 - Market rate surveys represent another important opportunity. States are required to collect data on market rates. Data collected to document market rates could be extended to collect data on workforce characteristics. A meeting could be convened of states interested in extending their market rate surveys.
 - The National Association of Child Care Resource and Referral Agencies would like to work towards developing measures to be included in the software (NACCRAware) used by CC R & Rs across the country to describe the content of training. NACCRRRA would also like to work towards a metric for describing the extent of training in a more consistent manner. A useful next step here would involve providing feedback on the proposed data elements.
 - The head of a state child care registry indicated that an affiliate group of state registries might be interested in working towards common definitions and measures to describe the qualifications of regulated child

care providers in their states. Here too providing feedback on the proposed definitions and measures would be a meaningful next step.

- As noted above, representatives of federal agencies involved in large scale data collection efforts indicated an openness at the workshop to work together towards greater coordination of the content of their surveys. A meaningful next step here would be to compile all of the relevant surveys and identify the similarities and differences in the way in which they document the characteristics of early childhood educators/caregivers. A proposal could be developed for moving towards greater agreement in measurement across the surveys. A meeting could be convened to discuss such a proposal.
- **Specific steps could be taken in research to strengthen our understanding of which aspects of professional development and training are most important to quality of early childhood settings and to child outcomes. This, in turn, would help inform which features of professional development and training should be focused upon in data collection.**

Much of the current research permits relating professional development and training to the observed quality of the environment. But few studies go further and link professional development and training to child outcomes. There is a clear need for studies that examine linkages of professional development and training with child outcomes.

Such work should move beyond the “more is better” framework and begin to specify in greater detail the linkages between particular aspects of professional development (such as coursework in a particular area) and particular aspects of children’s development. We need to understand, for example, whether training in young children’s early literacy development results specifically in gains in early reading skills or has broader implications.

The ECLS-B will eventually provide an excellent data source for such analyses. However it will take time before enough waves of data are available for analyses looking at how specific aspects of education and training relate to child outcomes concurrently and over time.

There are datasets in which the level of detail in the data collection regarding professional development and training far exceeded what has been reported on to date. That is, data collection went beyond data analysis and reporting. The possibility should be explored of carrying out analyses with existing datasets, making better use of the data collected on professional development and training.

We need studies that manipulate specific features of education, training and certification so that we can identify more precisely the aspects of professional development that are important to the quality of the early childhood environment and to child outcomes. Among the many examples that could be given here, is it critical for training to have a practice component? Does it matter if the coursework for a CDA occurs within or outside of formal education? Does it matter how many courses were required for a major in early childhood development? Is there a threshold effect such that there is not much improvement beyond a certain number or type of courses?

We need cognitive testing to assure that those responding to our surveys understand the professional development items in the way they are intended.

We need studies that consider not only the education, training and certification of individual care providers/educators but also of the role played by the qualifications of all of the staff members in an early childhood setting. Does the director's education and training matter? What about the overall proportion of teachers in the setting who have received a particular form of training? We need to move beyond considering teachers and caregivers as if they functioned in isolation.

We need studies that collect data on *changes* in education, training and certification and link these increases to changes in the early care and education environment. We have longitudinal studies of children, but very few longitudinal studies of early childhood educators/caregivers.

We need studies focusing explicitly on selection issues: Who seeks out particular types of education, training and certification? Is this helping to explain the apparent associations of professional development and the quality of the early childhood environment?

The suggestion was made repeatedly to explore the possibility of a meta-analysis looking at effect sizes in the associations of education and training with the quality of early childhood environments and/or child outcomes.

- **Participants at the workshop also provided some suggestions for *how* progress should be made and about immediate next steps. There were some specific cautions about how the work should proceed.**

They noted that it would be important to include representatives of states in the effort to improve definitions and measurement to assure that the work is relevant to state needs and perspectives.

The suggestion was made to use the CDA typology for competencies as a framework for describing the content of training.

There are different purposes for collecting data on early childhood professional development; different underlying questions. The purpose in part drives the content of data collection. It will be important to think of a small common core of questions that work well for data collection with differing purposes.

A potential pitfall is developing too detailed a set of measures. While addressing the definition and measurement issues will inevitably require more detail and more questions, it is important not to develop a set that is overwhelming and impractical.

It would be extremely helpful to begin the work on defining and measuring with one of the major national surveys as a kind of “home base.” State data collection efforts or specific evaluation studies could then build on this major survey. Data from these more local efforts could then also be related to the national survey.

It was urged that a consortium or steering committee working on definitions and measurement be formed. Such a steering committee should include representative the Department of Defense, the Department of Labor (including a representative of the Apprentice Program), and the food service programs of the Department of Agriculture. It will be critical to include the perspective of Special Education.

A recurrent theme throughout the meeting was that problems with measurement are most severe with respect to training. It was seen as a high priority to move forward in developing ways to measure the content, extent and context of training.