Developing and Assessing Competencies for Teachers and Caregivers Serving Infants and Toddlers

January 4, 2017

Meeting Summary

Attendee List

Invited Participants

Martha Buell, University of Delaware
Rachel Chazan Cohen, University of Massachusetts-Boston
Colleen Galambos, University of Missouri
Catherine Grus, American Psychological Association
Rena Hallam, University of Delaware
Cheryl Hendrickson, American Institutes for Research
Eric Holmboe, Accreditation Council for Graduate Medical Education
Diane Horm, University of Oklahoma-Tulsa
Jaqueline Jones, Foundation for Child Development
Sarah LeMoine, ZERO TO THREE
Ray Morath, ICF
Ann Person, Mathematica Policy Research
Juan Sanchez, Florida International University
Louisa Tarullo, Mathematica Policy Research
Claire Vallotton, Michigan State University
Martha Zaslow, Society for Research in Child Development, Child Trends

U.S. Department of Health and Human Services Partners

Administration for Children and Families

Meryl Barofsky, Office of Planning, Research and Evaluation
Paula Bendl Smith, Office of Early Childhood Development
Alysia Blandon, Office of Planning, Research and Evaluation
Amanda Clincy, Office of Planning, Research and Evaluation
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Elizabeth Shuey, Office of Planning, Research and Evaluation
Mary Bruce Webb, Office of Planning, Research and Evaluation
Tia Zeno, Office of Planning, Research and Evaluation

Office of the Secretary

Lindsey Hutchison, Office of the Assistant Secretary for Planning and Evaluation

Logistical Support

Kaila Hough, ICF
Carolyn Swaney, ICF

Meeting Background and Goals

A number of federal initiatives are currently aimed at improving the quality of infant/toddler care and education, including professional development efforts to improve workforce capacity. Engaging infant/toddler care providers in effective professional development can be particularly challenging, for at least three reasons: 1.the vast majority of care for infants and toddlers is home-based, 2. the infant/toddler workforce overall has low levels of education, and 3. the infant/toddler teachers and caregivers who do engage in training and professional development opportunities tend to be those who already have the highest levels of education. Competency modeling has been used to improve workforce capacity in a variety of other fields and it may offer promise as a means to professionalize the infant/toddler teacher and caregiver workforce. Given the state of the field, there has been a great deal of interest in developing, implementing, and assessing competencies to improve professional development pathways for the infant/toddler workforce. On January 4, 2017 a small expert meeting was held to explore this topic that brought together participants from industrial-organizational psychology, infant/toddler care and education, and from other professions that have developed competency models. The goal of the meeting was to identify next steps for research and evaluation related to competencies for infant/toddler teachers and caregivers, ultimately informing the Administration for Children and Families (ACF) in its efforts to improve quality in infant/toddler care and education.

SESSION 1: INFANT/TODDLER WORKFORCE: STATE OF THE FIELD

Presenters:

- Diane Horm, University of Oklahoma at Tulsa
- Claire Vallotton, Michigan State University
- Jaqueline Jones, Foundation for Child Development
- Sarah LeMoine, Zero to Three

Diane Horm, University of Oklahoma at Tulsa

- Infants and toddlers are being care for in a variety of settings including:
  - Regulated/paid home-based care
  - Unregulated/unpaid home-based care
  - Center-based care
- Most center-based programs (67%) care for children birth to age 5, very few provide services only to infants and toddlers.
- A large number of infants and toddlers are in unlisted settings which poses a challenge to the field for monitoring and research.
- Relative to pay and education, the Infant/Toddler Workforce is characterized by:
  - Very low wages (lower than caregivers of 3-5 year old children; average hourly wage of $9.30 in center-based settings)
  - Low levels of education (lower than caregivers of 3-5 year old children; 16% in hone-based and 19% in center-based have a B.A. degree or higher)
- Infant/Toddler Workforce Professional Development (PD)
  - Most caregivers did not have a Child Development Associate credential.
  - Most caregivers participated in little professional development.
  - PD was most frequently reported to be one-shot workshops, typically focused on health and safety, promoting children's social-emotional development, and curriculum.
  - Caregivers with the highest levels of education and in the highest quality settings were the most likely to participate in more effective forms of professional development (e.g., coaching, mentoring).
  - Caregivers in home-based programs were less likely to receive supports such as funding or release time to participate in professional development than caregivers in center-based programs; However, only about 1/3 of center-based IT caregivers received such supports.
- Higher Education of the Infant/Toddler Workforce
  - Early childhood education programs in higher education settings, especially at the bachelor's-degree level, often do not include courses specific to infants and toddlers.
  - When infant/toddler courses do exist they are often electives and typically do not include a practicum.
  - More coverage of infant/toddler content is available at 2-year vs 4-year institutions.
  - Little coverage of infant-toddler content in most early childhood graduate programs.

Claire Vallotton, Michigan State University

- The Collaborative for Understanding the Pedagogy of Infant/Toddler Development (CUPID) is a Scholarship of Teaching and Learning (SOTL) effort to improve teaching and enhance practice for those serving infants, toddlers, and their families.
- There is little consistency in how infant/toddler educators have been trained/educated. Existing professional development frameworks (e.g., NAEYC, CDA, etc.) for infant/toddler caregivers that have been implemented:
    - Articulate "Standards" rather than "Competencies".
    - Are not specific to infants and toddlers.
- Competency Frameworks can:
    - Determine professional goals and tools for self-reflection.
    - Help instructors (i.e., professional development providers) develop content and assess learner outcomes.
    - Set standards and assess content and pedagogy provided to the future workforce by institutions of higher education and others.
    - Assist the professional development of the individual educator, and for professionalization of the field of infant/toddler educators.
- CUPID defines competencies as the knowledge, dispositions, and skills needed by the workforce to promote optimal child outcomes.
- The CUPID competency domains (currently in revision)are:
    - Reflective practice
    - Building & supporting relationships
    - Supporting development & learning
    - Guidance of infant/toddler behavior
    - Partnering with and supporting families
    - Individualizing: assessment, inclusion, & family diversity
    - Mentoring/coaching
    - Professionalism
- CUPID uses their competencies for:
    - Learner outcomes
    - Learner assessments
    - Course content
    - Program content

Jaqueline Jones, Foundation for Child Development

- In 2015, the Institute of Medicine and the National Research Council of the National Academies released the report, "Transforming the Workforce for Children Birth through Age 8: A Unifying Foundation". This report was not specific to infants and toddlers but rather focused on the entirety of the early childhood workforce (ages 0-8).
- Why was the study needed?
    - There are no nationally agreed upon set of standards that define what early care and education practitioners should know and be able to do.
    - Real growing concern that we need information to support decisions and make sense of mixed data and research findings.
- Key Messages
    - Children are already learning at birth.

    - Development and learning in the early years is rapid and cumulative-and is the foundation for lifelong progress.
    - Adults who provide for the care and education of children birth through age bear a great responsibility for their health, development, and learning.
    - High quality practice requires more than individual mastery of competencies.
    - But the systems for children are fragmented and the policies are out of sync with the science.
- Recommendations
    - Strengthen competency-based qualification requirements
    - Develop and implement comprehensive pathways and multiyear timelines for transitioning to a minimum bachelor's degree qualification requirement, with specialized knowledge and competencies for all lead educators.
        - Not all bachelor's degrees are created equal. But trying to envision a world where a bachelor's degree is connected to the appropriate competencies.
        - Strong focus on compensation to justify additional training. Another study is now looking at compensation and financing.
- Since the Report
    - NAEYC – Power to Profession Initiative
        - Gathering folks from a range of organizations to create a set of competencies
        - Create a real profession that will govern itself
        - Credentialing done by professional organizations
        - Will require organizations and states to come together.
    - National Academies – State Teams

Sarah LeMoine, ZERO TO THREE

- ZERO TO THREE has developed "Critical Competencies for Infant-Toddler Educators" that describe what infant/toddler educators in group settings can do to make the most of teacher-child interactions.
- The competencies:
    - Focus on pedagogy and interactions
    - Detail essential and observable skill sets that educators use to optimize socio-emotional, cognitive, and language/literacy development.
    - Emphasize considerations for high needs populations and multi-language learners.
    - Summaries of foundational knowledge, attitudes, and competencies from ZERO TO THREE's Cross-Sector Core Competencies for the Prenatal to Age Five Field
    - Crosswalks with related ECE criteria, tools, and example child outcomes
- 3 sources were used to inform and enhance the development of the competencies
    1. Current evidence base
    2. Workforce and systems status
    3. Expertise
- Competencies also were developed in the context of the QCCITT, CLASS, and ITERS assessments, Head Start Outcomes Framework, and the "Transforming the Workforce for Children Birth through Age 8: A Unifying Foundation" report).
- Competencies Model (see handout for additional information)

    - Organized by developmental domain
    - Sub competencies by area
    - Each includes information on the infant/toddler educators' role in supporting developing in the area, pedagogy-focused skill statements, considerations for high need populations and multi-language learners, and examples in practice.
- How do these fit in with the State policies?
    - High-level overview of relationship between criteria for all states (47 including D.C.) with CKCs
    - More detailed alignment, to the level of student outcomes, done with pilot states.
- Development and Piloting
    - Reflection Tool
    - Professional Development Modules (in person and e-based)
    - Training of trainers and trainer certification

Discussion

- Much of the workforce is comprised of the working poor and as such faces challenges and risks associated with poverty (e.g., mental health).
- Should infant/toddler workforce competency frameworks be implemented in higher education or as a professional development approach with the existing workforce? What are the advantages and disadvantages of each approach?

SESSION 2: INSIGHTS FROM INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

Presenters:

- Cheryl Hendrickson, American Institutes for Research
- Ray Morath, ICF
- Juan Sanchez, Florida International University

Cheryl Hendrickson, American Institutes for Research

- Distinctions in the definitions between knowledge, skill, ability, and other personal characteristics
- How are competencies used?
    - Hiring
    - Training
    - Professional development
    - Evaluation
    - Promotion
- Common Elements in Competency Frameworks
    - Name
    - Definitions
    - Key behaviors
    - Sometimes sorted by proficiency levels or proficiency standards by career level
    - And/or categories of competencies (aka clusters)
- How are competencies developed?
    - Involve and get input from multiple subject matter experts
    - Use multiple data collection methods

        - Environmental scans
        - Job observations
        - Interviews
        - Focus groups
        - Surveys
- Best Practices
    - Determine the structure of the model upfront because it will shape the data collection
    - Involve many stakeholders
    - Use rigorous research to develop competencies
    - Consider future oriented job requirements
    - Include fundamental (cross-job) and technical (job specific) competencies
    - Maintain the currency of competencies over time – how often they need to be updated will depend on the maturity of the field and the pace at which the landscape is changing.

Ray Morath, ICF

- Competency Modeling Process
    - Examples of several visual/templates for organizing the model
        - Can be a spiraling or iterative process of development of multiple rounds of data collection to update/refine the model
    - Bottom-up vs Top-down Competency Modeling
        - Bottom-up: More detailed at the job level or more behavioral and about clusters of activity, development would include collecting data about the job as it currently exists and is performed.
        - Top-down: Organization-level competency modeling, organizations' objectives, vision, strategies, more broad. Might inform:
            - Education
            - Professional development
            - Career paths
            - Succession planning
            - Job evaluations
    - Application at the Individual Level
        - Define what is important about individual performance
        - Should be measureable
        - Differentiates performance
        - Guides professional development
    - Application at the Organizational Level
        - Provides a common framework and shared understanding of those dimensions that are the most critical for individual
        - Organizational Level Factors Supporting
            - Leader facilitation – provide feedback and coaching, articulate the value of the competencies
            - Systems and processes – standardized
            - Shared understanding – people are aware of the competencies and how they work and related to career advancement

            - Cultural orientation - embedded in the culture and leaders and staff have the tools they need
- Organizational Maturity Model – determining the degree of competency model integration and adoption
    - Forming – minimal or cursory attempts to implement the model
    - Emerging
    - Achieving
    - Advancing
    - Optimizing – integration of systems and process that align with the model, continuous monitoring and updating, data driven improvement
- Examples of HR Functions
    - Performance Assessment/Appraisal
    - Increase staff awareness
    - Guides individual PD
    - Aggregate data across an organization

Juan Sanchez, Florida International University

- Traditional Occupational Analysis vs. Competency Modeling
    - Traditional Occupational Analysis
        - We define occupations and then try to match them to people.
        - Often the match is not well done and is more based on personality than on knowledge or skills.
        - Think about a "job" as an external object. If two people describe the same job differently that is seen as error. However, occupations are not separate from the people who perform them. Occupations are up to the interpretation of the individuals who perform the jobs. Disagreements are not error but rather a source of additional information that can enrich our understanding of the occupation. We learn from analyzing the variability.
        - Traditional occupational analysis is about minimum requirements. It is largely descriptive.
    - Competency Modeling
        - About maximizing performance. Takes into account behavioral themes that characterize best performance beyond the basic mastery. More prescriptive in terms of the themes that inform excellent performance.
        - Competency modeling is a definitional nightmare: it is defined here as behavioral themes or loosely coupled patterns of behavior (might not cluster as one factor, but people understand the theme).
- The best competencies are:
    - Water cooler friendly: People need to use and understand the competencies so that they can apply the model themselves.
    - Capitalize on industry jargon so that they can catch on quickly
    - Situated-behaviorally specific
    - Unique-capture competitive advantage
- Competencies vs. Enablers
    - Enablers are environmental aspects that enable proficiency.
    - Competencies are characteristics of the person.

Discussion

- Culture has become about doing well on the assessment rather than doing well as educators. How do we shift away from this culture of teaching to the test?
    - Use competencies to create a culture of learning and positive reinforcement through formative assessment.
    - You need to have conversations about through which kinds of behavior align with competencies.
    - Compare what is being measured by a given assessment and what other behaviors from the competency model are not being tested. Define that gap and how it is measured.
    - Part of the issue is how punitive the repercussions are that are tied to the tool. The information should guide learning.
- Given the state of the field, there is no consensus about the overall vision for how competencies would be developed much less implemented. So, where do we start?
    - We are only in the very first formative stage and even in this stage there needs to be split by sectors. And that's why some of what we have developed so far only supports one mission and not everyone agrees with that one mission.
    - Sometimes organizations compete over who certifies and maintains them. These risks need to be managed when there isn't consensus in the field.
- Science is constantly evolving and changing the way we think about the field. Competencies can and should be refined and evolve. They should be designed with the future in mind.

SESSION 3: LESSONS FROM OTHER FIELDS

Presenters:

- Colleen Galambos, University of Missouri
- Ann Person, Mathematica Policy Research
- Catherine Grus, American Psychological Association
- Eric Holmboe, Accreditation Council for Graduate Medical Education

Colleen Galambos, University of Missouri

- FIELD: Gerontology/productive aging
- Four sequential activities in competency modeling:
    - Competency Isolation: Define and education content
    - Explication: Define skills and develop how to measure them
    - Oriented instruction: Interactive, case based assignments. Cannot simply test students to teach them. More hands-on learning is required.
    - Competency attainment assessment: Objective assessment in which skills are demonstrated; observations. How are people taking a competency and integrating it into their own practice behavior?
- Educational Model for Competencies
    - Use of established competencies
    - Assessment of baseline competency
    - Educational/curriculum content delivery

    - Skills practice (class exercises and client connection)
    - Assessment of competency outcomes
- Competency Mastery
    - Knowledge and skills assessment of students
    - Assess learning styles – try to vary activities in a class to reach all students and learning styles
    - Outcomes must be the focus
    - Self-directed learning activities
    - Time flexibility
    - Teacher is a facilitator
- Tips/Lessons Learned
    - Accessible to different learning styles
    - Allocate time to practice the competency – not going to get the skill without practice and without someone constructively coaching
    - Students must have time to fail and redo demonstrations
    - Provide hands on guidance
    - Final evaluation of mastery
- Facilitate Building of Self-Confidence
    - Achievement – image – esteem – confidence
- Think about: once you develop your final product how can it be disseminated so that it can be used in classrooms, online, task-force development workshops etc. and accessible to many skill levels.

Ann Person, Mathematica Policy Research

- FIELD: Community Colleges and Workforce Preparation
- Competency Based Education (CBE) Common Characteristics
    - Programs include measureable, job relevant, competencies – this is controversial in higher education, because pits overall education against specific vocational education
    - In higher education, part of the attraction of CBE is that it lends itself well to an online format, people see these as a way to accelerate progress through a program and potentially to lower costs
    - Student has the opportunity to demonstrate what they already know and the education meets them where they already are instead of re-teaching knowledge and skills they already have.
    - Therefore, there is high quality materials and timely or "intrusive" supports where the instructor or coach reaches out to the student when they need it, not vice versa
    - Example: TAACCCT Grant Program
        - For adult workers who are unemployed and need to get back to work
        - Come in with many competencies already
        - Evaluated 3 different community colleges in 3 different states with 3 different labor markets
        - Findings/Lessons Learned:
            - Curriculum: Needs to be collaborative and more standardized than is typical in higher education; primarily online, instructional designers play an important role in linking competencies to lesson

and assessment so everything is aligned. Strategic chunking of content may improve student progress.

- Learner Supports: Student fit is critical for success (looking for students who are mature, academically prepared, and ready to work), tools supported coaches' work, always checking in with students, "pacing chart" to track progress. Connections to labor market were very explicit
- Industry and workforce engagement: stack and lattice credentials to make a career pathway with ability to branch out into different track if needed (engagement with workforce helped to map these out)
- Programs were found to work insofar as relatively large proportion of students completed programs and did so relatively quickly
- Implications: college settings were not always friendly to these models but hurdles were surmountable; standardization of curriculum and agreement on standards are critical.

Catherine Grus, American Psychological Association

- FIELD: Health Service Psychology
- What got us going on this pathway? When trying to get buy-in from the field, there were many reasons that came up time and time again:
    - Public accountability: society expects us to be competent psychologies and graduate competent psychologists
- The Benchmarks Model
    - Needed something for programs to measure progress
    - 15 competencies - broke these down to a level that was behaviorally based and written in a way that communities could understand
    - The model was also developmentally focused and defined for different levels
    - These types of products have all been developed alongside experts
- The Model:
    - Foundational competencies: underlying knowledge, skills and attitudes that are needed (e.g., ethics)
    - Functional competencies: what psychologists do (e.g., assessment)
    - Graphic is a cube (see slides)
- Tensions Encountered
    - Came from the professional organization, but was not a mandate
    - Too complex
    - Where is the research support? How do we know these are the right competencies to teach our students?
    - Too much work
    - Why is the professional association getting involved in academic freedom?
    - Is this a fad? Is it worth making the changes if it will change again?
- Dissemination
    - Layers of review
    - Published in a journal (key for legitimacy)
    - Outreach to key stakeholder groups

    - Web presence
    - Associated resources – implementation guidebook and rating form (not ideal: but based on the benchmarks to get feedback)
- Revisions to the Model
    - Simplified and regrouped and added an area – based on the feedback and so that the model looked toward the future and the professionalism of the field going forward.
- Toolkit
    - Another resource developed so that people used the model and good assessment practices. The toolkit helped programs identify the priority competencies and the assessment tools specifically linked with those.
    - Encourage performance based assessment instead of just rating forms – described the options in the toolkit including implementation strategies, possible challenges

Eric Holmboe, Accreditation Council for Graduate Medical Education

- FIELD: Medical Education
- Context
    - In the 60s and 70s there were signals that all was not well in the field. The variability in quality of care was not entirely justifiable.
    - Worries began to arise: are we really preparing people effectively for practice?
    - We want people coming out of a training able to practice at defined level of proficiency and able to work within a local place with local conditions able to meet those specific needs.
    - That led to the outcomes movement and competencies that by the late 90s had taken hold in many countries
    - The initial list of competencies included a list of roughly 40 which was viewed as too many to be practical. So it was narrowed down to six main areas.
    - Recognized that the old model didn't work – based mostly in knowledge to the exclusion of other key competencies.
    - Transformation was needed in medical education to address the competencies necessary and essential to meet 21st century healthcare needs.
- The Competencies
    - List of 6 (see slides)
    - And the IHI Triple Aim – health of population, experience of care, per capital cost
    - We compare very poorly internationally on many of the triple aim measures. In the Commonwealth survey we ranked 11th of 11 other comparable countries
    - Define the core competencies of the individual but are using them to drive improvements in the system.
- Implementation and Milestones
    - First 6 years were very difficult (2001 – 2007) – until the educational community developed vocabulary and milestones (progression in words, agnostic to time), every specialty has own milestones, which was important for buy in
    - Iterative improvement is key
    - Each specialty took the 6 competencies and translated it to their special language. Specialties range from having 10-41 subcompetencies.

- Data Collection/Assessments
    - Every resident in the US has data collected every 6 months
    - Examine all the trajectories
    - Assessment of individuals: programs can intervene when people are beginning to fall off the curve
    - Assessment of the systems: assessments within programs to help drop improvement
- Accreditation and certification are done by organizations
- Example: Neurosurgery – we know from the data that each resident neurosurgeon graduates with a somewhat unique package or procedural skills. People are coming out with different skill sets very specific to their training. Part of the reason for the current observation is not all neurosurgery programs can provide the same experiences across all domains of neurosurgery.

Discussion

- Important to move assessment away from pass/fail. We should use competencies as a feedback tool for improvement rather than as a punitive assessment tool.
- Can use competencies to understand where the field stands. Might be able to see that additional training is needed if students, on average, are not meeting basic levels of proficiency within specific competencies.
- One of the advantages is also catching people before they are kicked out of a program or fall too far behind.
- How do you determine how big or little a competency is? Or how many levels it has? The implications are so big.
- How do you assess where someone is? And then individualize to get them where you want them to go? Which is why there is such a focus on coaching?
- Competency models require a tremendous amount of high quality feedback and coaching. Is this feasible for this field?
- Seems logical to choose a smaller number (less than 10) of competencies written in user friendly language.
- Assessment and coaching need to be hands-on.
- Train the trainer/grow your own approaches appear to work well. Send out well trained cohort to help train a new cohort and spread the gospel.
- In early childhood education there's a real challenge trying to reach home-based providers. But even with center-based, who should they go watch?
    - Should we have certified demonstration sites (e.g., lab schools). One challenge to this is data security.
    - We need to take advantage of technological improvements. Web-based modules. Phone apps, etc.
- We currently have QRIS and some accreditations. There are existing systems in place but they are very fragmented. We need to unify.

BREAKOUT DISCUSSION: KEY THEMES

Meeting participants broke into three groups and were provided with a set of questions to guide discussion. All participants were given the same set of discussion questions but were free to discuss a subset of the questions or to discuss their own questions as they saw fit. The guiding questions are listed below. Highlights from the conversations follow. The groups did not reconvene for a larger group discussion.

Breakout Group Discussion Questions

Development

1. What were the key take-home messages on *developing competencies* from today's sessions?
    a. For Researchers
    b. For Policymakers
    c. For Practitioners (e.g., child care program directors)
2. Drawing on today's presentations and your own expertise, please consider the following:
    a. What considerations should be made when developing competencies?
    b. Is proficiency in every competency necessary for effective work performance?
    c. Are all competencies vital for day one on the job or can some competencies be taught over time?
    d. What methods have been discussed to develop competencies? How do they vary from one another? What are some strengths/weaknesses of each method?
    e. What is an appropriate timeline for creating competencies?
    f. Who should determine the critical/core competencies of caregivers/teachers serving infants and toddlers?
    g. What are some of the challenges that need to be considered when developing competencies for the infant/toddler workforce?
3. What are the next steps to *develop competencies* for the infant/toddler workforce?
    a. For Researchers
    b. For Policymakers
    c. For Practitioners (e.g., child care program directors)

Implementation

1. What were the key take home messages on *implementing competency-based training and/or education* from today's sessions?
    a. For Researchers
    b. For Policymakers
    c. For Practitioners (e.g., child care program directors)
2. Drawing on today's presentations and your own expertise, please consider the following:
    a. What goals can be achieved by implementing competency-based education and/or training for infant/toddler caregivers and teachers?
    b. How can competencies best be presented to teachers/caregivers, especially those already working in the field?
    c. What steps can be taken to ensure that competencies are accessible not just to researchers and policymakers but also to caregivers themselves?

d. What policies and practices can be implemented in early care and education settings that best incentivize the competencies identified?
e. How can competencies inform and align with professional development and training? What training would be needed to target competencies?
f. What are some of the challenges that need to be considered when implementing competency based education and/or training for the infant/toddler workforce?

3. What are the next steps to *implement competency-based education and/or training* for the infant/toddler workforce?
    a. For Researchers
    b. For Policymakers
    c. For Practitioners (e.g., child care program directors)

Assessment

1. What were the key take home messages on *assessing competencies* from today's sessions?
    a. For Researchers
    b. For Policymakers
    c. For Practitioners (e.g., child care program directors)
2. Drawing on today's presentations and your own expertise, please consider the following:
    a. How can competencies be used to evaluate teacher/caregiver performance?
    b. How can we best assess competencies? What measures/tools are currently available?
    c. How can competencies be used to distinguish high quality teachers/caregivers from low quality teachers/caregivers? What measures would you use?
    d. How would you evaluate practitioners' use of competencies/change in competency level after a competency-based training or course?
    e. What are some of the challenges that need to be considered when assessing the competencies of the infant/toddler workforce?
3. What are the next steps to *assessing the competencies* of infant/toddler caregivers and teachers?
    a. For Researchers
    b. For Policymakers
    c. For Practitioners (e.g., child care program directors)

Developing Competencies

- ***Some competencies may setting-specific and others may apply across settings.***
    - Will the same competencies work in center-based care, family child care, early intervention providers, home visitors, etc.?
    - One solution is to develop an overarching set of competencies for the infant/toddler workforce and specialized frameworks within that.
    - Each competency would be designed to be appropriate across settings but in certain settings specific competencies would be more or less salient or manifest differently (i.e. the overarching competencies would be the same across settings but they could have distinct sub competencies by setting or be measured/assessed differently by setting).

- ***The field is close to a consensus on identifying the critical competencies for the infant/toddler workforce.***
    - There are a variety of competency frameworks already in existence. Zero to Three, CUPID, etc. These frameworks have strong similarities suggesting that the field has a relatively strong understanding of what it means to be a competent infant/toddler teacher or caregiver.
    - There is no need to reinvent the wheel. It is critical to understand what progress the field has already made and where the gaps are that need to be addressed.
- ***A central goal of developing competencies is to create a shared language among researchers, policymakers, and practitioners for talking about the field. To this end, competencies should:***
    - incorporate terminology/jargon commonly used by the workforce.
    - be built with flexibility in mind to account for local and program specific needs.
    - be forward looking.
    - be refined as needed (competency modeling is an iterative process).
    - be limited in number (preferably, less than 10 competencies).
    - be developmental (e.g., have proficiency levels: baseline, fully competent, aspirational).

Implementing Competencies

- ***Competencies may be implemented in programs, states, institutes of higher education, or through credentialing/accreditation. Considerations vary by implementation approach.***
    - **Programs**
        - Competencies can provide aspirational goals for staff looking to improve their practice.
        - Competencies can be aligned with existing professional development practices or inform new practices. Professional development funding that is currently spent on one-time trainings might be better utilized in competency-based coaching.
        - Programs can shift from using hours of professional development or completion of a course to achievement of a competency as an indicator of professional development.
        - Competencies can be used to assess staff performance and performance improvement.
        - Important to frame competencies as aspirational, or as a feedback tool and not as punitive. This is a difficult task if they are used for performance assessment.
    - **States**
        - A competency-based professional development system could be linked to a state's Quality Rating and Improvement System (QRIS).
        - States could provide financial incentives at the programmatic level for hiring staff that demonstrate competency.
    - **Institutes of Higher Education (IHEs)**
        - Develop competency-based courses and degrees (e.g., CUPID, EarlyEdU Alliance).

        - Competency-based education recognizes that students enter the classroom with varying levels of proficiency and allows students to move at their own pace to demonstrate competency.
        - Online competency-based degrees are appealing to those already in the workforce (specifically, those in rural and/or home-based settings).
    - **Credentials/Accreditation**
        - The Child Development Associate (CDA) credential is grounded in competencies. One potential goal might be to develop infant/toddler competencies and encourage CDA to adopt them or to encourage the development of an infant/toddler specific credential.
        - NAEYC accreditation currently relies on a set of standards. One goal might be to develop infant/toddler competencies and encourage NAEYC to use them in place of their current standards.
- ***Competencies may be a barrier for entry into the workforce***.
    - Is there a baseline level of competency required to work with infants and toddlers?
    - Ideally the field would have competency targets for entry into the workforce but this may be unrealistic. It may be better to focus on using competencies to foster a culture of improvement rather than saying if you don't have a baseline level of competence you are not qualified for work.
- ***The field should not wait to develop competencies. Implementation will follow.***
    - If you wait until all the pieces are in place it may never happen.
    - Need to have a goal in mind but a pragmatic approach to reaching that goal.
    - In health service psychology, they developed the competencies and adoption was voluntary. Ultimately, it became linked to accreditation.
- ***It may be particularly difficult to implement competencies in the infant/toddler workforce.***
    - Many infants/toddlers are cared for in unlicensed/unpaid and/or home-based care settings. We have been largely unsuccessful in reaching those settings.
    - There are key differences between the infant/toddler workforce and the other workforces that have embraced competencies. The infant/toddler workforce is lower educated, lower paid, has many stakeholders and professional organizations, and does not require a license to practice.
    - Within early childhood, the infant/toddler workforce has reached less consensus about how to define their job.
    - Difficult to look to other developed nations for ideas regarding implementation because the policy context is quite different. Other nations have extensive paid family leave so there are far fewer infants/toddlers who need non-parental care.

Assessing Competencies

- ***Competency assessment can serve as a feedback tool to help people do their jobs better or as a tool for performance appraisal (i.e., high stakes). Assessment of Learning vs. Assessment for Learning.***
    - Even if an assessment is developed to be used formatively it will end up being used for high stakes decision making.

    - Difficult to have performance appraisal for an administrative purpose that is also good for a professional development purpose.
    - Would we want to develop a set of competencies without the intention for the competencies to be assessed (i.e., use competencies as aspirational goals)?
- ***The field already has a number of assessment tools (e.g., QCCIIT, CLASS, etc.) that assess some of the key infant/toddler workforce competencies but additional measurement work is needed to develop assessments:***
    - of knowledge. Existing measures that examine an individual's knowledge of child development are outdated.
    - that programs can administer themselves.
    - of dispositions.
    - focused on practice (e.g., vignettes, simulations, hypothetical scenarios).
    - that take advantage of new technologies (e.g., using natural language processing of dictation into phones; coaching apps; role playing via Skype; videotaped practice).
- ***There are a number of criteria that should be considered when evaluating the appropriateness of measures for assessing competencies.***
    - Need to look at reliability, validity, feasibility, alignment with competency, and cost-effectiveness. But cost effectiveness is not just dollars but also time.
- ***We should not constrain competencies based on the measures we already have.***
    - We should define the critical competencies and if we don't have appropriate assessment, start engaging in measure development.
- ***Competencies include not just knowledge, behaviors, and skills but also dispositions. Dispositions may be more difficult to objectively measure.***
- ***Competencies may need to be assessed more than once.***
    - Frequency of assessment will vary by the purpose of assessment.
    - Some competencies decay. If competencies are tied to a financial incentive, accreditation, or license would you need to repeatedly demonstrate competence? If so, how often?
- ***Assessing competencies may also require the measurement of other relevant constructs (e.g., hours of professional development).***

Stakeholder Engagement

- ***Various stakeholders need to come together, synthesize common themes, and develop an agreed upon set of competencies.***
    - The field will never reach 100% consensus but the field should still gather key stakeholders and provide opportunities for feedback to maximize buy-in.
    - Key stakeholder groups can serve as an advisory board, providing feedback. Everyone does not have to sit at the table for every decision.
- ***Relevant stakeholders include:***
    - researchers
    - policymakers
    - institutions of higher education
    - program directors
    - funders
    - professional organizations

    - parents
    - professional development providers
    - QRIS
    - state administrators
- ***The key stakeholders will vary based on implementation approach.***
- ***In order for a competency model to be successful, there needs to be "buy in" from key stakeholders.***
    - Develop psychological ownership of the model from key stakeholders.
    - Reach out to those who know how to make science accessible (e.g., Center for the Developing Child at Harvard University).
    - Message the benefits of competencies at all levels: parents, children, staff, programs, states, etc.
    - Raise awareness about utility of competencies and how they have been used in other fields.

Compensation/Financing

- ***Competencies may be linked to financial incentives (e.g., compensation bonuses based on a demonstration of competency).***
    - Without compensation the workforce won't have the incentive to change but if competencies are linked to financial incentives then competency assessment becomes high stakes.
    - Potential sources of compensation: businesses, foundations, federal and state governments.
    - Try to promote self-improvement by tying competencies to incentives rather than a lack of competencies to disincentives/penalty.
- ***Competencies may have financial implications for the field.***
    - Will this drive up salaries?
    - Will this drive up professional development/continuing education costs?
    - Who should cover any additional costs?
- Would tying competencies to funding prevent people from entering the workforce?

Public Image

- ***A central motivation for adopting competencies is to professionalize the workforce but right now people think infant/toddler care is babysitting.***
    - Nurses and social workers have been able to legitimize their profession, why doesn't it work for early care and education?
    - Need to reorganize the message so that we are talking about the contributions of this profession to social care and society at large.
    - We have a large body of evidence but we need to translate that into political will.
    - Everyone cares about children; this is an advantage we need to capitalize on.

Possible Next Steps

- ***Engage in discussions with the rest of early childhood.***
    - Critical to talk to and be informed by what is going on in age 3-8.
- ***Develop videos of "bad practice" for training.***
- ***Additional research is needed in a number of areas.***

- Additional research is needed to better understand how knowledge, skills, and dispositions are linked with behaviors/practices.
- Additional research is needed to identify the types/content of professional development that leads to change in both teacher practice and child outcomes.
- Additional research is needed to identify what factors are associated with enrollment or performance in higher education or training course? How do we better support the workforce?
- Evaluation of the effectiveness of a competency-based education program focused on the infant/toddler workforce.
- Evaluation of a professional development intervention that is grounded in competencies.
- Map existing measures to competencies to determine whether there are measurement gaps.
- Develop new and adapt existing measures to align with competencies.
- Utilize more rigorous methods in research. Most research uses correlational methods.
- Utilize more qualitative methods to explore out of the box ideas (military childcare sites, onsite childcare at a progressive company such as Patagonia).