The Use of Assessment Data in Massachusetts

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Department of
Early Education and Care

Background

- EEC has developed an annual baseline of child wellbeing using School Readiness Indicators developed by the School Readiness Indicators Project between 2004 and 2006.

- The selected indicators ranged from percentage of mothers with high school degrees to percent of children in poverty, to number of licensed and accredited programs.

- The "school readiness indicators" were based on interpretations of demographic data across the state and more recently at the town level. They describe demographics, environment and educational risk factors as well as early educational and care resources.

- However, indicators of child development were more difficult to capture from data available at that time.

Statewide Measures of School Readiness vs. Child Assessments and Screenings

- Different purposes
  - Statewide system: information about the success of all children in Massachusetts
  - Program-level assessments: information for parents and caregivers about individual children

- Different level of information about child
  - Statewide system: measure a small number of indicators of school readiness
  - Program-level assessments: comprehensive look at child progress across all developmental domains

Massachusetts Definitions of Screening and Assessment

- Screening-
- Developmental Assessment
- Diagnostic Assessment
- Statewide measures of School Readiness

Statewide Measures of School Readiness vs. Child Assessments and Screenings

- Many providers are already using a developmental assessment or screening tool to inform practice and individualize instruction.

- UPK Providers are currently using a variety of assessment measures
  - UPK grantees are required to use one of four assessment systems
    - Creative Curriculum Developmental Continuum
    - Ages & Stages
    - High Scope Child Observation Record (COR)
    - Work Sampling System

- While EEC is planning to implement a Statewide measurement of school readiness-It is <u>not</u> intended to replace these *program-level developmental* assessment practices.

Massachusetts chose to begin the use of developmental assessments in the Universal PreK Grant Program (2007)

- Developmental assessments are a formative measure of children's progress over time. These assessments can be used to improve the quality of programs, child outcomes and parent involvement by identifying:

  - **Children needing clinical assessment;**
  - **Developmental areas to watch for child;**
  - **Developmental areas of concern at the program level;**

  - **"Individualized curriculum planning"**

Selection of UPK Assessment Instruments

- UPK assessment tools were chosen based on a number of factors. Each of the tools,

  - Was already being used in the field (determined by a survey of programs)

  - Aligned with the *Guidelines for Preschool Learning Experiences**

  - Covered all domains of child development

  - Had online components (excluding Ages & Stages)

UPK Data Reporting - Context

- FY09 UPK Classroom Quality grantees were required to submit "spring" (conducted between January 1, 2009 and June 30, 2009) assessment data to EEC

- **_Purpose_**: For EEC to monitor that UPK programs (designated UPK classrooms and family child care homes) were using one of the four EEC-approved child assessment systems and regularly assessing and entering child data in their systems*

Data Submitted, Continued

Table 2: Number of UPK Programs, Classrooms and Children for Whom FY09 Spring Data was Submitted by Assessment Tool

		Number of Programs	Number of Classrooms/Homes	Number of UPK Children
Assessment Tool	**Creative Curriculum**	102	198	3,557
	High Scope COR	19	37	533
	Work Sampling	38	77	993
	Ages & Stages*	44	44	44
	Total	203	356	5,127

*Providers using Ages & Stages were required to submit an assessment for one preschool-aged child in the home, while center-based, public and private school programs were required to submit assessment reports that included data for all children in UPK classrooms.

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Creative Curriculum – Sample Data

- The following chart is data from the Physical Development: Gross Motor domain as part of the "Snapshot" report from FY09 spring data for UPK programs using Creative Curriculum online.

Physical Development: Gross Motor

Objectives	Forerunners			Fore-runner	Step I	Step II	Step III	Not Observed	Missing Data
	F1	F2	F3						
14. Demonstrates basic locomotor skills (running, jumping, hopping, galloping)	5 0%	10 0%	41 1%	0 0%	446 15%	1115 37%	1389 46%	12 0%	10 0%
15. Shows balance while moving	8 0%	22 1%	44 1%	0 0%	455 15%	1125 37%	1339 44%	21 1%	14 0%
16. Climbs up and down	6 0%	9 0%	32 1%	0 0%	318 11%	896 30%	1714 57%	36 1%	17 1%
17. Pedals and steers a tricycle (or other wheeled vehicle)	8 0%	34 1%	72 2%	0 0%	433 14%	728 24%	1042 34%	675 22%	36 1%
18. Demonstrates throwing, kicking, and catching skills	8 0%	21 1%	73 2%	0 0%	645 21%	1225 40%	970 32%	71 2%	15 0%

Work Sampling– Sample Data

- The chart below shows data from the Physical Development and Health domain as part of the "Outcomes" report from FY09 spring data for UPK programs using Work Sampling online.

Performance Summary

	Period 3	
Number of Children by Rating		
No Data	1	0.4%
Not Yet	0	0.0%
In Process	29	11.8%
Proficient	215	87.8%
Statistical Measures		
Number of Children with Assessment Data	244	
Total Number of Children	245	
Mean Rating	2.86	
Standard Deviation	0.29	
Completion Rates For Children with Assessment Data		
Response Count (7 Performance Indicators)	1697/1708	
Response Rate	99.4%	

One Tool vs. Multiple Tools for Program Level Assessments

- **One tool:**
  - *Pros*: Allows for consistent data reporting, which is more easily monitored and analyzed by EEC

  - *Cons*: Requires many programs to switch tools (which will result in retraining and startup costs) or use a tool that may not best need their needs

- **Multiple tools:**
  - *Pros*: Allows programs the flexibility to choose the best tool for their program type and unique needs

  - *Cons*: Results in data coming from four different sources which can not be easily aligned with each other

Online System Challenges

- Reports from the online systems vary amongst the publishers
  - Creative Curriculum and Work Sampling allow you to run aggregated reports that include only UPK programs
  - High Scope COR allows only statewide reports, which include non-UPK programs
  - Work Sampling does not allow reports to be run on all preschool children - you must choose between preschool 3, preschool 4, Head Start 3 and Head Start 4
  - Data from each assessment tool may not be comparable among the tools

Merging Electronic and Hard Copy Data

- A high percentage of the programs using Work Sampling online and Creative Curriculum online reported assessment outcomes for FY 2009.

- Compiling the data for manual reporters will be time consuming across all tools, as hard data comes in multiple forms and includes program-level and individual child reports.

What UPK Program Level Assessment Data Tells Us?

- UPK Assessment tools tell programs where children did and did not make progress across developmental domains

- Tools may provide information on areas to focus instruction for the program and where professional development may need to be targeted

- Tools may indicate which areas children need individual focus or further evaluation

Drawing Conclusions

- Original purpose of assessment tool use in UPK programs:
  - Tools were developed to assist programs in improving and individualizing program practice by identifying domains in which children are not progressing as well as they are in others
  - Assessment tools also help identify children who may have special needs or a need for diagnostic screening

Drawing Conclusions

- A statement could be made about a "snapshot" of where UPK children were in spring

  - Given that programs were only required to submit data in 2009 for spring, there is a divide between the number of programs for which we have one checkpoint of data and those for which we have two
  - There is significantly more spring data than data from both fall and spring

- Broad statements could be made about progress children made in UPK programs

  - It would be difficult to say this progress is due to their experience in the program
  - The data collected will not allow us to compare UPK children to children in other programs

Proficiency Across Domains

- Data provided by the Program Level assessment tools do not tell us what is considered "good" proficiency, as this is not the purpose of the tools.

- Publishers of the tools do not share data from other programs, states, etc., so there is not a solid benchmark to compare data to

Measuring School Readiness Statewide

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Statewide Measure of Children's Readiness for School

- Massachusetts is in the early stages of developing a statewide system to measure developmental progress of its young children

- EEC is engaging parents, providers, program administrators, teachers, higher education institutions, and policy makers to build a responsive approach

- This initiative is separate from (and will not replace) UPK developmental information that programs gather about children to use for curriculum planning, communication with parents, and to individualize instruction.

Key Decisions Moving Forward: WHAT to measure?

- *Narrow vs. broad measurement*
  - Tension between desire to measure "whole child" and what is feasible to collect

- *Which skills/outcomes to measure*
  - Focus on outcomes that research tells us are related to success in school such as:
    - Academic skills in reading, writing, and/or math
    - Social skills
    - Cognitive and behavioral self-regulation

Key Decisions Moving Forward:
HOW to measure?

- **Providers as assessors**
  - *Advantages:* cost, may help with getting parent permission, providers learn about their children's skills
  - *Disadvantages:* concerns about bias if providers assess their own children, need to train large number of providers, difficult for providers to find time to conduct quiet standardized assessment

- **Outside assessors**
  - *Advantages:* can be trained to reliability, no public concerns about partiality, possibility of building on early childhood education infrastructure in state to develop group of assessors
  - *Disadvantages:* cost of conducting assessments, cost of training

- **Parents as assessors**
  - *Advantages:* builds parent buy-in, not expensive
  - *Disadvantages:* public perception of bias, some concepts might be hard to explain to parents, may be difficult to get parents to return this information

Consider linkages with Other Assessment Efforts

- Massachusetts Kindergartens use a variety of tools to measure children's school readiness when children enter.

- Many also have program level assessments:
  - Plan/adapt curriculum **97%**
  - Communicate with parents 96%
  - Plan classroom activities 91%
  - Identify children for referral to special education **91%**
  - Share with first grade teachers or others **90%**
  - Inform and complete children's progress reports **90%**
  - Share with teachers who are working with child **89%**
  - Determine areas for more training **73%**
  - Other (i.e. Title I, to support differentiated instruction)

Establishing a Longitudinal Child Outcome Data System

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Using Public School Student Identifiers - SASIDs

- During the past two years EEC and the Department of Elementary and Secondary Education (ESE) have been reorganized under a new Secretary of Education.

- EEC and ESE have completed an Interagency agreement to assign SASIDs to pre-K children that would allow EEC and ESE to track child outcomes.

- EEC will begin providing pilot data to ESE to assign SASIDs this year.

Linking Pre-K data with Public Schools

- Improving transitions of children from pre-K programs to public schools:
  - Helping public schools by providing information about children's assessed strengths;
  - Communicating diagnosed challenges or risk factors where requested by parents;
  - Coordinating services to IDEA funded children and measuring child participation in IEPs.

Develop a Longitudinal Data System for Research and Program Evaluation

- The agencies will cooperate to share child outcome data including grade retention, MCAS scores in the 3rd and 4th grades, and other standardized tests.

  - This child outcome data will be used in conjunction with child, program and teacher data already in the EEC system to monitor quality of pre-K programs/services and to identify best practices.

  - The outcome data will give Massachusetts a method to determine the success of preschool children in public schools.

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