

Miami-Dade County
Screening and Assessment Project

Report of Current Findings &
Longitudinal Growth
2009-2010

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Presented by:

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ACKNOWLEDGEMENTS

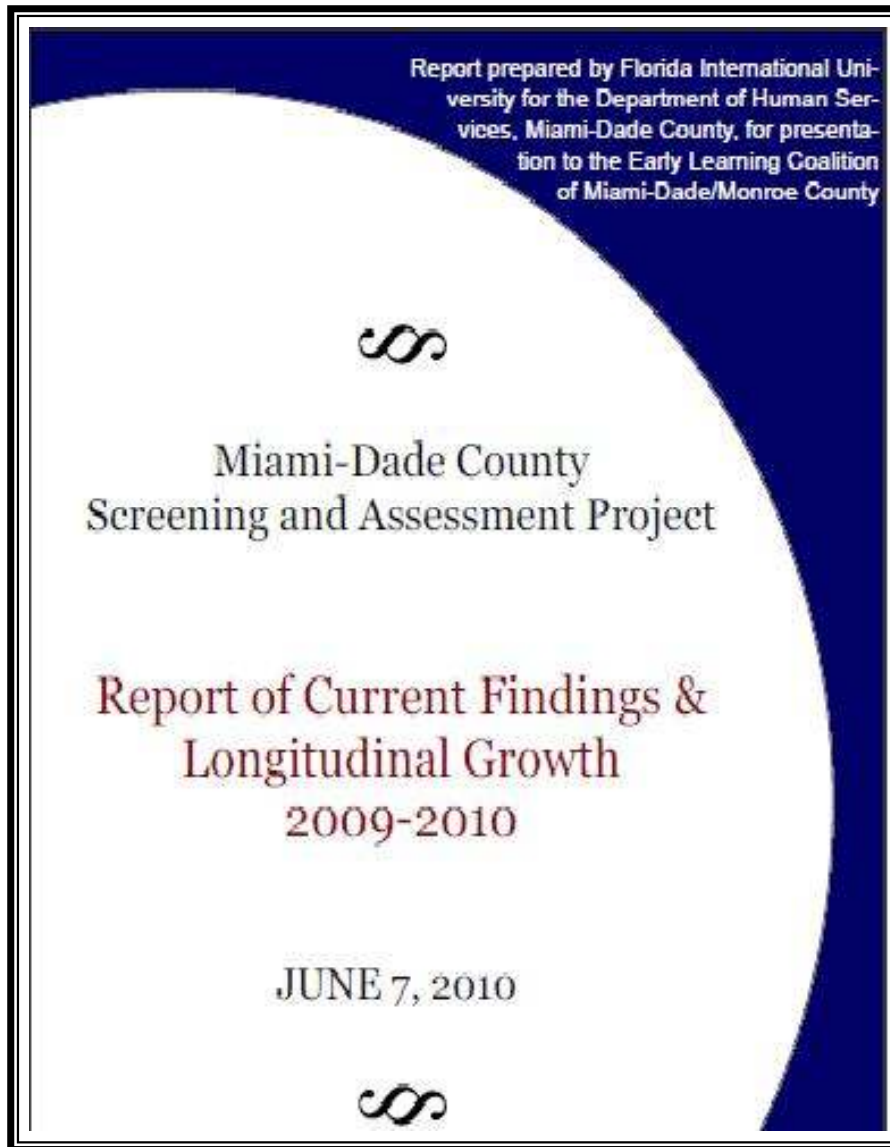
We want to recognize all the individuals who worked tirelessly over the past three years to make this project a success.



DISCLAIMER & CREDITS

- This presentation is a snapshot of the 2009-2010 report, which has been submitted by Florida International University (FIU) to Miami-Dade County Department of Human Services and the Early Learning Coalition of Miami-Dade/Monroe. Copies of the full report are available through all of these institutions.
- All material presented in this report is the product of data analyses conducted at FIU under the direction of Louis Manfra. All inquiries and commentary should be addressed to him.
- Main authors of the report are Louis Manfra, Suzanne C. Hartman, Maria M. Marin, Yalda Amir Kiael, and Grethel Arroyo
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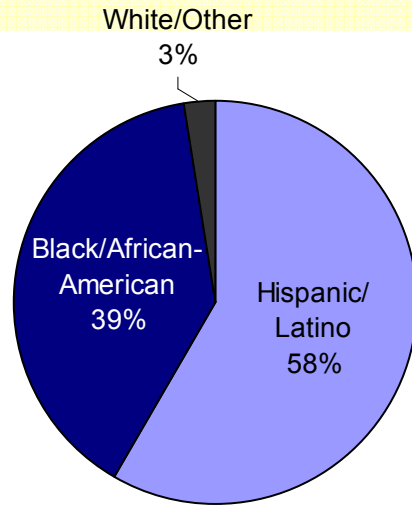
2009-2010 Report Booklet



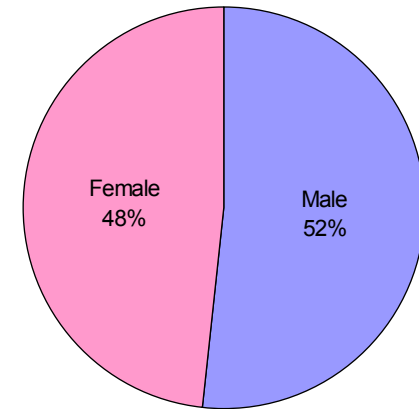
Current edition is 63 pages and contains a wide variety of graphs and tables that provide information about the progress during the current year (2009-2010) and comparisons with the previous two years (2007-2010).

This presentation is to supplement the report booklet and provide some more information to address questions and concerns that have been raised by the ELC, the County, FIU, providers, and the public.

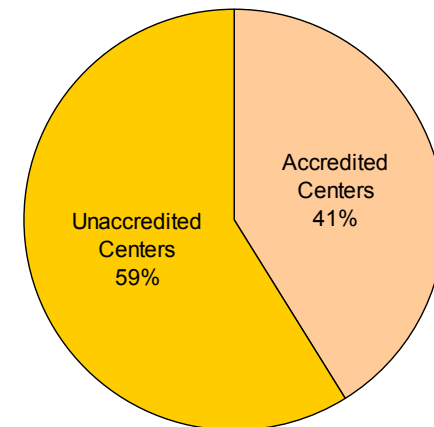
Description of Population



Age Range 3 to 60 mos.
Average Age: 3.00 years



	Centers Serving Eligibility Group
Total Enrolled	53.77
Total Subsidized	35.09
% Subsidized (Subsidized / Enrolled)	67%
Total Staff	11.51
% Staff to Enrolled (Staff / Enrolled)	27%



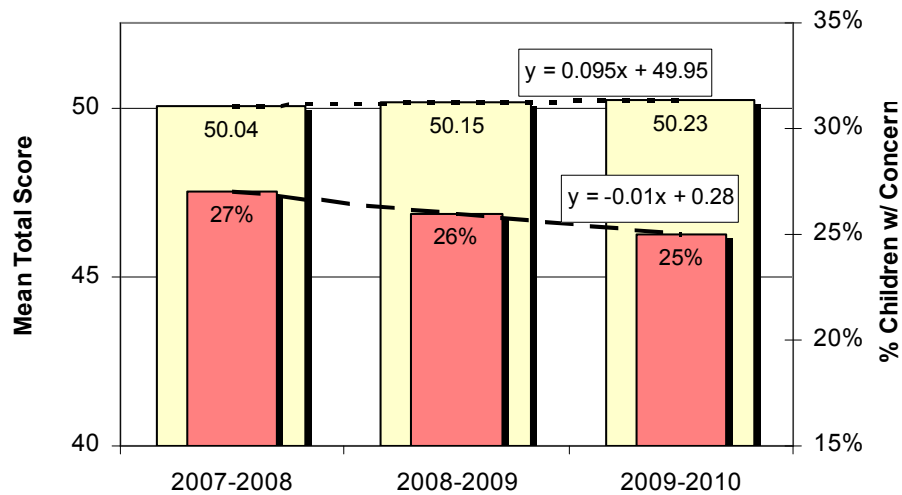
Questions Explored

- What is the progress over the last few years?
 - Why doesn't the aggregated mean for ASQ increase as much as the % concerns decrease?
- What areas have the most need for improvement and what target strategies for continued progress would you recommend?
 - Where should interventions and trainings be focused?
 - Should we focus our efforts on children with higher risk (i.e., more concerns)?
- Do center factors such as accreditation have a positive impact on children's school readiness skills?
 - Is Quality Counts a program that might be helping the progress of children?
- What would you suggest are the long-term goals of this program?
 - What should we be doing to better answer these questions?

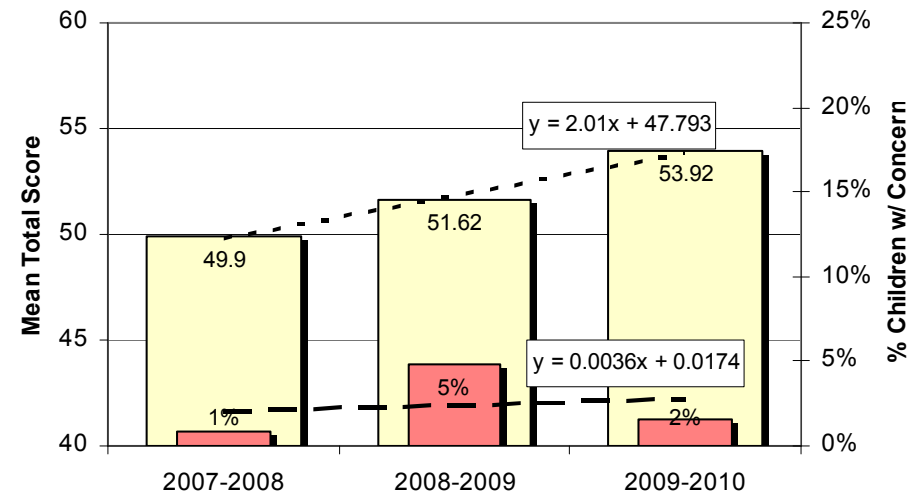
Progress

Overall Year-to-Year Progress

ASQ Overview -- Mean Score and % Concerns

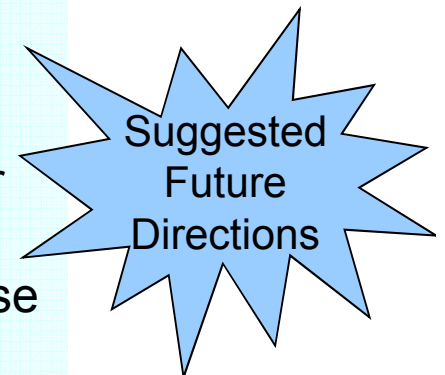


LAP-D Overview -- Mean Score and % Concerns

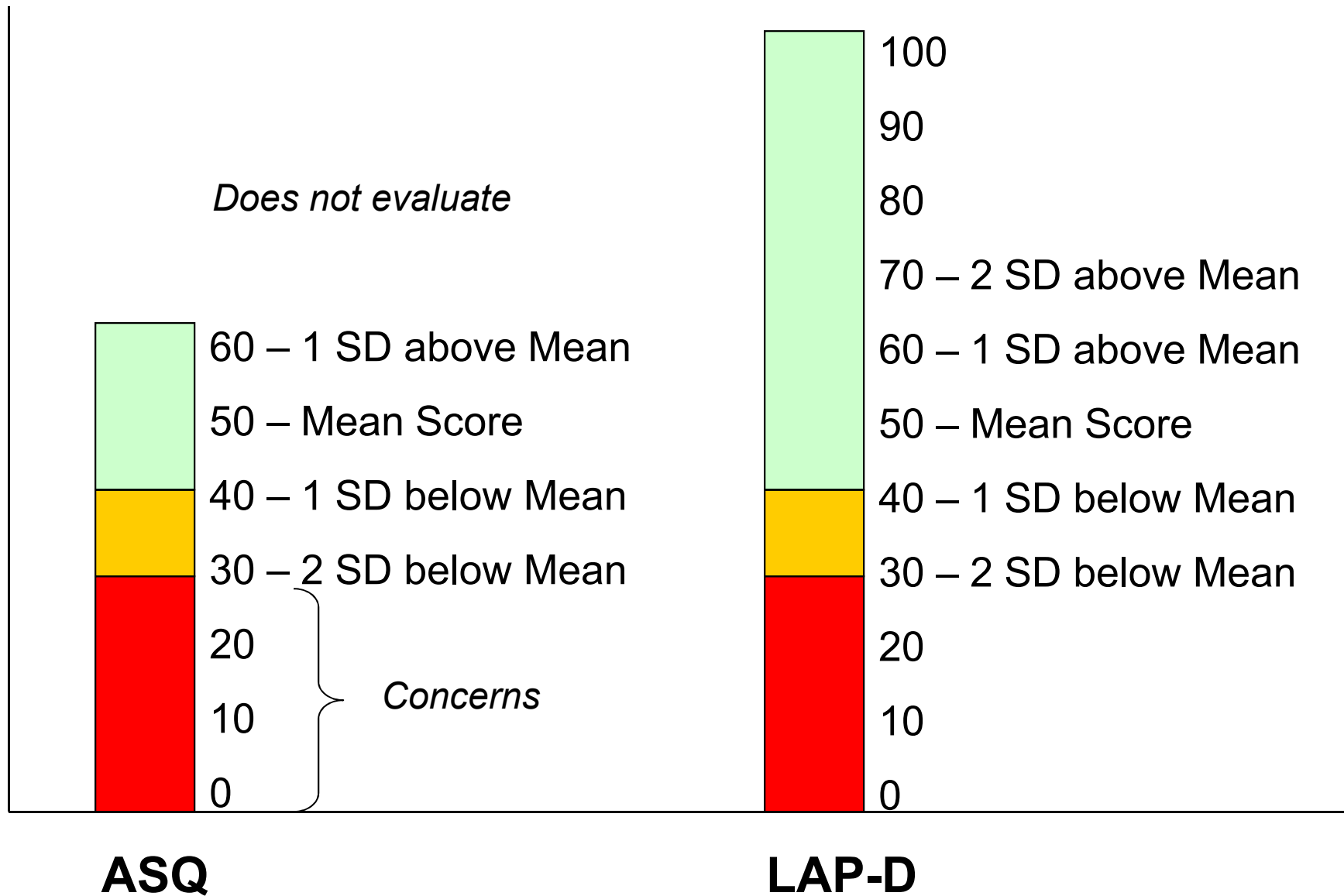


There seems to be improvement over the past three years. The % of children with concerns on the ASQ has decreased and the total T-score on the LAP-D has increased.

It is possible that this progress is related to teacher training and involvement in the assessment program (i.e., filling out ASQs). Other factors should not be ruled out without exploration. Without comparison groups and/or random assignment, it is possible that these effects are related to changing system (different assessments, sampling, etc.) as oppose to increased school readiness skills.

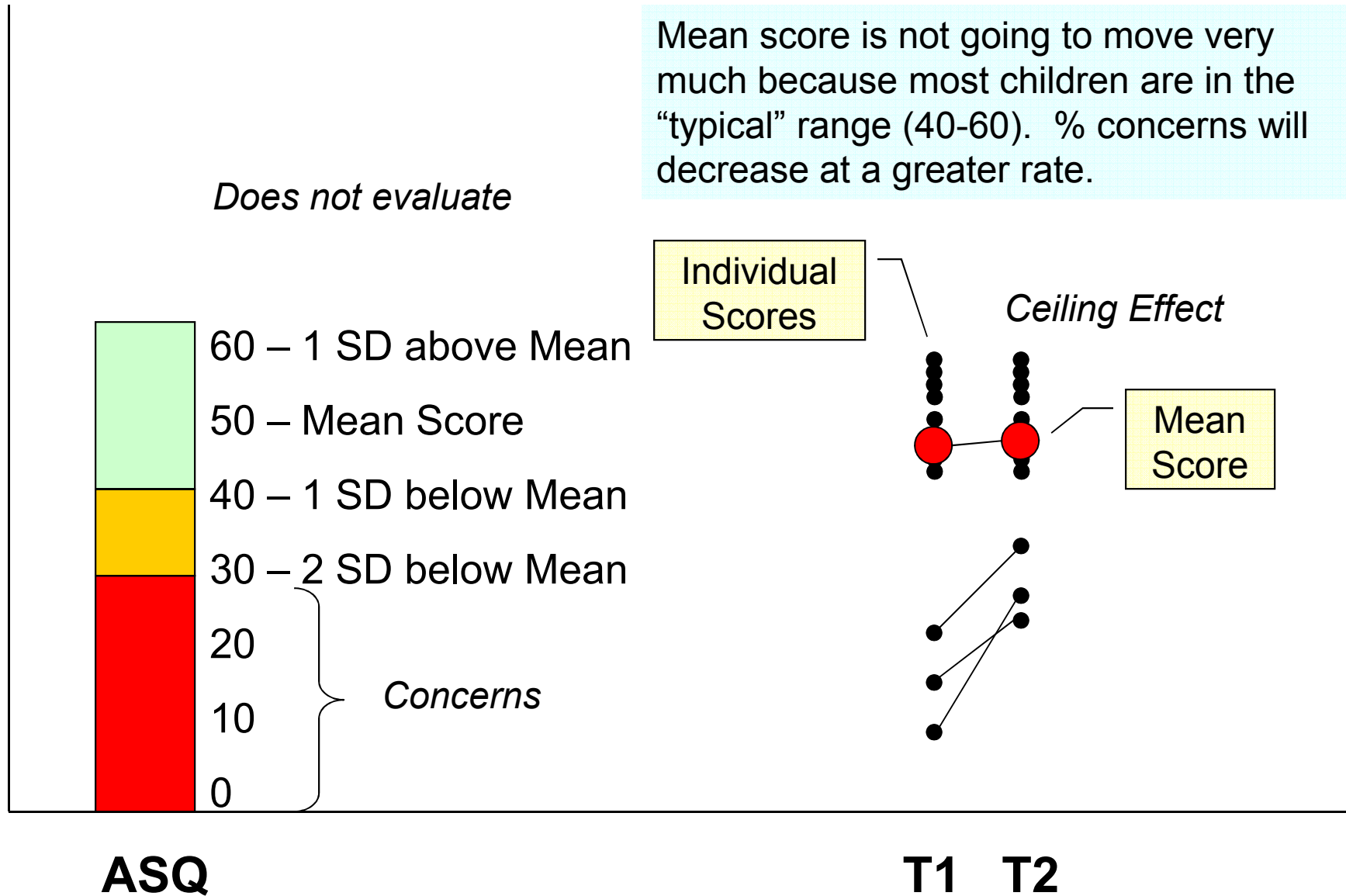


ASQ Score vs. LAP-D Score



Understanding ASQ Scoring

Mean score is not going to move very much because most children are in the “typical” range (40-60). % concerns will decrease at a greater rate.



Developmental Domains

2009-2010 LAP

E-LAP DATA

Age Group	Fine Motor	Cognitive Skills	Language Naming
5-12mos	0.0%	0.0%	0.0%
13-18mos	0.0%	0.0%	0.0%
19-24mos	5.5%	3.6%	5.5%
25-30mos	14.8%	19.7%	45.9%
31-36mos	15.1%	17.0%	18.9%
Total	9.6%	11.1%	19.7%

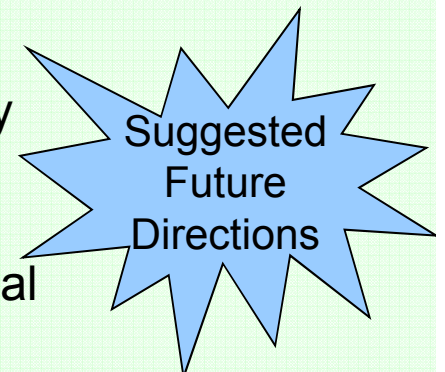
LAP-D DATA

Age Group	Fine Motor	Cognitive Skills	Language Naming
36-41mos	52.72	50.11	47.71
42-47mos	51.33	51.30	47.56
48-53mos	54.98	53.50	51.78
54-59mos	52.81	53.39	53.65
60+mos	51.25	53.75	53.50
Total	52.86	52.03	50.13

For the E-LAP, language clearly has the highest concerns (*CA-DA>3mos). All LAP-D domains except for Language has T-scores above the national standard score of 50.

Jumps in language concerns are to be expected given the large variation in language development during this time period, particularly for children who are learning more than one language.

* Need to collect data from children not in the program to establish real benchmarks for E-LAP and all assessments.



ASQ Concerns by Subscale

	Communication	Gross Motor	Fine Motor	Problem Solving	Personal Social
% Children with Concern	11.7%	2.6%	8.6%	7.7%	3.4%

Communication has the highest % of children with concerns.

Based on LAP scores and scores on the ASQ, language seems to be the area of most “concern.” This might be related to the high percent of multilingual children who appear to have less language because their lexicon is split between languages (i.e., not concentrated in one language).



It is important for providers and evaluators to understand these developmental factors and to be able to recognize true language delay vs. typical perceived delay associated with multilingual development.

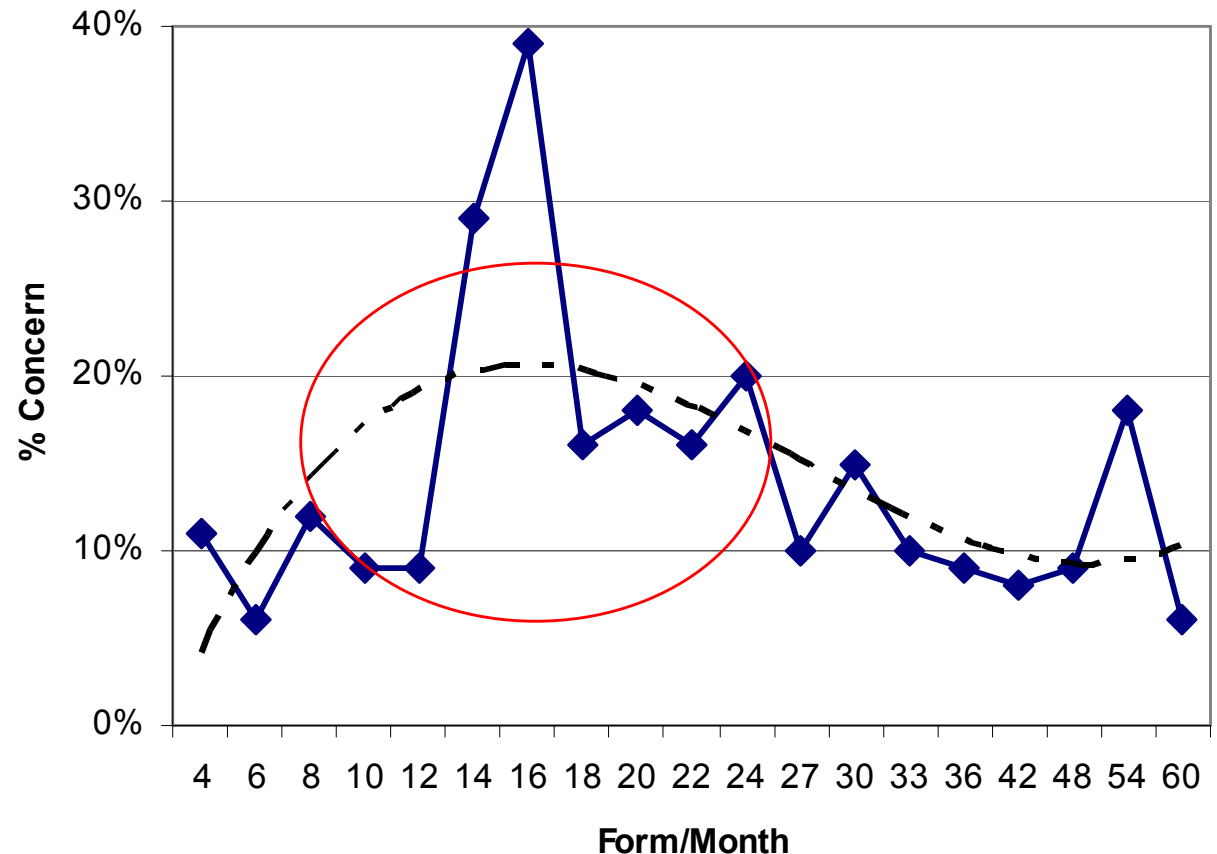
Example: ASQ Communication

What does it mean?

The figure shows a curvilinear relationship between age (form-month) and % concerns on ASQ. Children have more concerns in communication between 8 and 24 months than at other ages.

Concerns are over 10% between 6 and 42 months.

% Concern in Communication by Form/Month



Are the concerns going away?

ASQ Subscale	Concern on 1 st ASQ	<u>No</u> Concern on 2 nd ASQ	Concern on 2 nd ASQ
Communication	100%	53%	47%
Fine Motor	100%	58%	42%
Gross Motor	100%	57%	43%
Problem-Solving	100%	55%	45%
Personal-Social	100%	68%	32%

Are the *concerns* going away? Yes.

Communication (language) followed by problem-solving (cognitive) have the highest percent of children that retain the *concern* from the 1st ASQ to the 2nd ASQ.

Why are the *concerns* going away? We can speculate interventions are working, but all of the following relate to decreased concerns: ratings change by form month, rater changed, language of form changed, child is older, child is assessed later in year, number of forms completed by assessor is fewer, etc. Need research design.

Two Group Design

	1	2	3	4	5
C/G1	A		A	X	A
C/G2	A	X	A	(X)	A

C/G = center (non-experimental) or group (random assignment of children to group, quasi-experimental)

A = assessment

X = intervention (4 or 8 weeks, for example)

Use of independent raters (who have established inter-rater reliability) to collect assessment data (at least a sample) can eliminate teacher-related factors.

Focus on Children with More Concerns

# of Concerns on 2nd ASQ	# of Concerns on 1st ASQ		
	1-2 Concerns	3 Concerns	4-5 Concerns
0	66%	48%	32%
1	20%	9%	4%
2	9%	11%	10%
3	3%	19%	14%
4	1%	5%	23%
5	1%	8%	17%

Children with 1 to 3 concerns on their 1st ASQ are far more likely to have 0 concerns on their 2nd ASQ compared to children with 4 or 5 concerns. As previously mentioned, there are a high number of false positives with the ASQ and a very high percent of concerns. If one is looking to focus more efforts on fewer children, it seems that children with more than 2 or 3 concerns would be great candidates for additional support.



Validity: ASQ and LAP-D

- Many speculations have risen related to the validity of the ASQ for uncovering true concerns
- One way to explore this is by examining *construct validity* with the LAP-D
- Expected Validity $\geq .80$ (or 80%)
 - Pearson correlation between scores
 - Point-biserial correlation between ASQ concern (Y/N) and LAP-D T-score (and for subscales)
 - % of cross-tabulated ASQ concerns with LAP-D “concerns,” “near concerns,” and “non-concerns”

ASQ by LAP-D

ASQ-	Score <i>r</i>	Concerns <i>r_{pbs}</i>	Concern x LAP-D Desc False + / False -
ASQ Overall by LAP-D Total Score	.15	-.10	93% / 2%
ASQ Communication by LAP-D Lang Tot	.28**	-.13	63% / 19%
ASQ Problem-Solving by LAP-D Cognitive Tot	.12	-.13	80% / 8%
ASQ Fine Motor by LAP-D Fine Motor Tot	.00	-.00	100% / 1%
ASQ Gross Motor by LAP-D Gross Motor Tot	.16	.07	100% / 1%

Very low correlations => little covariation between ASQ and LAP-D

Very high false positive rates => ASQ says “concern” but LAP-D does not

Very low false negative rates => ASQ says “no concern,” LAP-D agrees

ASQ False Positives

- Why might the ASQ produce so many false positives?
 - Higher number of concerns than should be expected
- In normal curve, about 95% of the values lie within 2 SDs
 - that is both *above* (~2.5%) and *below* (~2.5%) the mean
- LAP-D scores are fairly consistent with this
- ASQ scores are not
 - Nearly 25% of children got a concern on at least one subscale (12% concern on communication domain)
 - ASQ (the way it is being used here) highly *over*-estimates children with concerns

This is not cause for alarm. This merely means that we should be looking at and using the ASQ data differently than the instruction manual indicates—after all we are using it in different ways than were used by standardization groups.



Center Factors

Center Accreditation & ASQ Results

ASQ Subscale	Accredited	Unaccredited	F-value
Communication	50.79	49.77	9.46**
Gross Motor	55.42	55.01	3.33
Fine Motor	50.21	48.95	16.73***
Problem-Solving	50.67	49.43	16.03***
Personal-Social	51.67	51.11	3.91*

* $p < .05$. ** $p < .01$. *** $p < .001$.

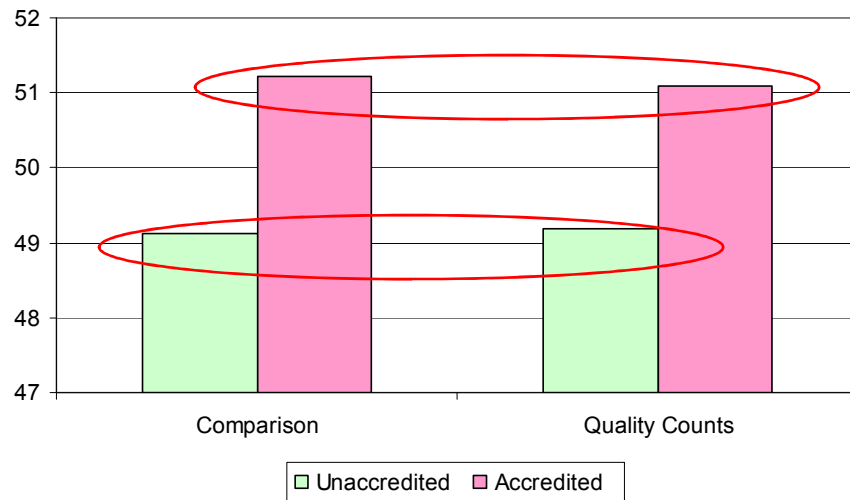
Children who attend accredited centers tend to score higher on all ASQ subscales, except gross motor, compared to those who attend unaccredited centers. This suggests there might be a difference between accredited and unaccredited centers.

Children in accredited centers might be scoring higher as a result of the standards associated with being an accredited center. This is not to say that some unaccredited centers might meet or exceed similar standards despite not being accredited. Either way, it seems that the standards required for accreditation have some positive impact on young children's development.



Accreditation & Quality Counts-South

ASQ Communication Domain



Clear main effect for accreditation.
Enrollment in Quality Counts does not impact ASQ Communication scores.

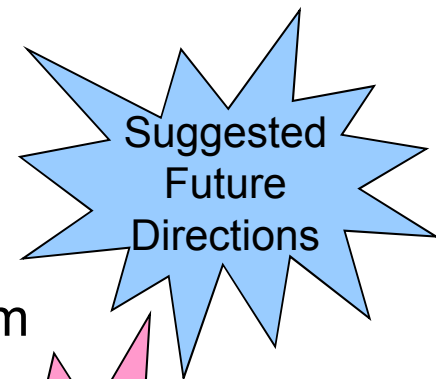
ASQ Fine Motor Domain



Clear interaction effect between accreditation and enrollment in Quality Counts. Enrollment in Quality Counts impacts ASQ Fine Motor scores regardless of accreditation. Non-QC accredited centers have children with similar scores as QC centers.

Center Quality

- What does center quality mean for enhancing school readiness skills?
 - Children who attend accredited centers tend to score higher and have fewer concerns than children who attend unaccredited centers
 - Even children at Quality Counts unaccredited centers are beginning to do better in some areas
 - Quality Counts should *measure* what it is about becoming accredited that enhances children's progress
 - It might be a little thing like changing the classroom set-up and if so, this can be the focus of one or more training sessions



Top 3 Training Suggestions

- Communication/Language
 - Should focus ***at least as much*** on helping **the teachers** understand language development of monolingual and multilingual children as it does on providing strategies to improve language development
- Focus on children with *more than 2* concerns and children with greater risk, such as children in foster care
- Accreditation/Center Quality
 - Understanding the factors that relate to improved performance and then train on those topics
 - For example, we found trends ($r \approx -.22$) for larger centers (in terms of number of children) having children with lower cognitive scores. **Arranging classrooms with false walls** and other tricks to make them **look and feel smaller** to the children may have positive benefits (should be explored empirically). Observations suggest that classroom arrangement may reduce behavior problems as well.

Long-Term Goals/Future Directions

- Use Research Design/Methods
 - Use research designs to gain a good idea of (a) the development that *should* be expected from year to year and during a 4 to 8 week period (length of interventions) and (b) what should be expected from the assessments (how do other similar children in Miami fair on these assessments?)
 - Uncover specific center factors that improve school readiness skills
- Be More Flexible with Assessments, particularly the ASQ – Use local benchmarks
- Assess **social-emotional skills** as well as academic-based skills and intervene in these areas as well

Thank You!

Questions?