

# Indiana Family and Social Services Administration

# Paths to Quality Annual Report

October 1<sup>st</sup>

IC 12-17.2-3.8-4

#### 2017 Annual Report Office of Early Childhood and Out of School Learning Early Education Evaluation Program

#### **History:**

The Indiana General Assembly established the Early Education Evaluation Program effective July 1, 2013 (IC 12-17.2-3.8). The purpose of this program is to gather data concerning the school readiness of low-income children who have received early education services through providers who have both demonstrated quality and require parental involvement in a child's education.

#### **Annual Report**

IC 12-17.2-3.8 requires the Division of Family Resources to create an annual report on the results of the program. A copy of the report shall be provided to the Governor, the Department of Education, and, in an electronic format under IC 5-14-6, to the Legislative Council.

#### **Purpose**

The purpose of the Early Education Evaluation Program is to collect data on the school readiness of low-income children who are receiving instruction in a Level 3 or 4 Paths to QUALITY<sup>TM</sup> (PTQ) education program. PTQ is Indiana's tiered child care quality rating and improvement system that evaluates programs based on fours factors: health and safety, learning environments, planned curriculum, and national accreditation. To qualify for the Early Education Evaluation Program, early education environments are required to be PTQ Level 3 or Level 4 and must be able to demonstrate that parents are engaged in their child's education.

Further elaborating on the four, tiered and progressive rating levels; Level 1 ensures that basic health and safety standards are met by the program. Level 2 requires an environment that promotes learning. Level 3 includes a planned curriculum that aligns with the Indiana Department of Education's Early Learning Guidelines. Level 4, the highest rating level, includes national accreditation by an approved accrediting body. Each level builds on the previous level and requires increased education and training for caregivers and teachers, resulting in significant quality improvements.

PTQ is administered by the Indiana Family and Social Services Administration (FSSA) and is funded through the Child Care Development Block Grant (CCDBG). Participation in PTQ is voluntary and open to all types of early care and education programs, including licensed and registered child care programs, Head Start programs, and Pre-K classrooms operated within a school. Currently over 2,732 early care and education programs have enrolled. As of July 201, 1,199 of these programs are rated as either Level 3 or Level 4.

For the purpose of this evaluation, low-income children will be defined as children receiving child care subsidies through the Child Care Development Fund (CCDF) voucher program. Families of the children receiving these vouchers must earn less than 127% of the Federal Poverty Level and must be working and/or going to school. Currently, over 39,362 Hoosier children are receiving CCDF vouchers. Seventy-six percent of these children utilize their vouchers in a PTQ program.

#### History of the PTQ System Evaluation:

The Office of Early Childhood and Out-of-School Learning, part of FSSA, has partnered with Purdue University to conduct ongoing evaluations of the PTQ system to ensure that the system's goals are being achieved. In 2011, Purdue University completed a validation study of PTQ, documenting the implementation and effectiveness of the program during its first three years of operation. Those results have been summarized and disseminated in three technical reports, four research briefs, two peer-reviewed journal articles, and a series of stakeholder meetings throughout Indiana.

In 2012 Purdue was awarded a contract to continue evaluation of the now fully-implemented PTQ system. The Phase 2 evaluation is being conducted within the contract period October 1, 2012-September 30, 2018. This brief

report summarizes the evaluation methods used and preliminary results of the provider and child outcomes studies.

#### PTQ Goals and Phase 2 Evaluation Research Questions

The Phase 2 evaluation will examine the effectiveness of the now fully-operational PTQ system in meeting three primary goals:

- 1. Helping Indiana early care and education providers improve the quality of early education and care they offer to children and families;
- 2. Providing higher quality early care and education that supports and improves children's development, learning, and readiness for school; and
- 3. Helping parents become aware of PTQ and the information this system provides, such that they trust and use PTQ quality information when making their child care decisions.

The effectiveness of PTQ in meeting these goals is being examined in three evaluation studies:

- 1. A longitudinal child care provider study, to identify the factors most strongly linked with quality improvement;
- 2. A longitudinal child outcome study with children from low income families, to investigate early learning as related to PTQ-rated quality; and
- 3. A statewide randomized parent survey, to gauge parents' awareness and use of PTQ in their child care decisions.

#### **Evaluation Methods:**

Five geographic regions of the state were selected to participate in this Phase 2 evaluation. These regions are home to a large number of children receiving CCDF vouchers for child care assistance. They include a balance of both rural and urban regions. The selected areas are resource and referral service delivery area (SDAs) 1, 3, 4, 7, and 9, which include: Lake, Porter and La Porte counties; Fort Wayne and surrounding counties; Tippecanoe and surrounding counties; Indianapolis and surrounding counties; and Evansville and surrounding counties. In all, 45 of Indiana's 93 counties are represented in the evaluation sample.

# 1. PTQ Longitudinal Provider Advancement Study

The Provider Advancement Study was designed to show to how PTQ providers advance to higher quality levels and how coaching and other assistance helps providers improve the quality of early education and care they are offering children and families.

In 2013-2014, 179 child care providers (57 licensed center directors; 46 registered child care ministry directors; 76 licensed family child care home providers) with approximately equal numbers at PTQ Levels 1, 2, and 3 were randomly selected from the five SDA regions and agreed to participate in the Longitudinal Provider Advancement Study. (*Level 4 providers were not included, because they had already achieved the highest possible PTQ rating.*) A total of 30 PTQ coaches who were initially working directly with the 179 providers were also recruited for parallel interviews.

At the end of the two-year longitudinal study, Purdue University were able to interview and analyze data for 150 (84%) of the original 179 providers. Complete data for 29 providers (16%) were not available at the end of the study: 16 providers (9%) closed their operation or opted out of the study, and 13 (7%) could not be contacted after repeated attempts. This report summarizes results for the 150 providers who completed interviews at the end of the two-year study. During the course of the study, providers' coaches sometimes changed, so the total number of coaches interviewed over two years was 60.

#### **Provider Study Progress:**

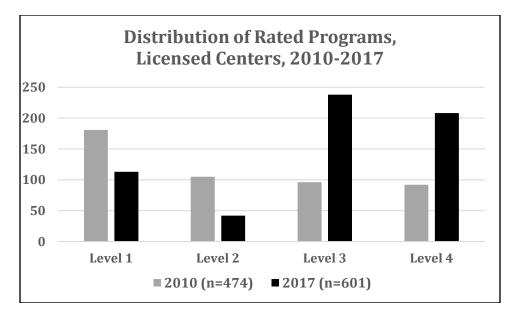
Providers were interviewed every 6 months (potential total of 5 times) about their progress advancing to higher

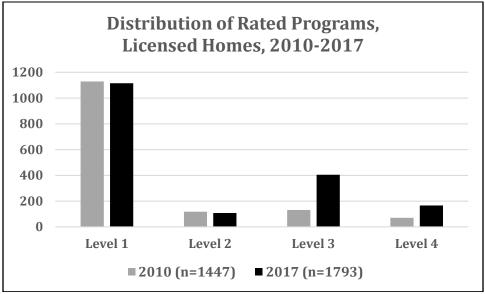
PTQ levels, perceptions and attitudes about PTQ, barriers to advancement, motivation to make changes, and the amount and quality of mentoring and coaching they received. In separate interviews scheduled every 12 months, the coaches were asked similar questions about their experiences working with those providers. This report summarizes data gathered in all of these interviews, including providers' responses at Time 1 at the beginning of the study through Time 5, two years later.

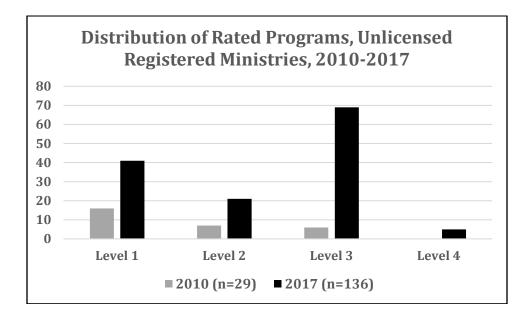
- Time 1: Interview at the beginning of the study
- Time 2: Interview after six months
- Time 3: Interview after 12 months
- Time 4: Interview after 18 months
- Time 5: interview after 24 months

Question: How many PTQ child care providers advanced to a higher level? How many stayed the same or declined?

Statewide, between 2010 and 2017, the total number of providers participating in PTQ increased from 1,950 to 2,530, and the PTQ-rated quality levels of participating providers increased. (See graph.)







Within the sample of 150 PTQ providers who completed this two year study, 32% advanced one or more PTQ-rated levels, 53% remained at the same level after 24 months, and 15% moved to a lower rated level. Level 2 providers were the most likely to advance within the two years (44%) and Level 3 providers were the least likely to advance (12% advanced) with Level 1 providers in between (39% advanced). Licensed centers were the most likely to advance (40%), followed by registered ministries (34%) and licensed homes (25%).

# **Provider Started at PTQ Level 1**

	Went	Stayed	Went
	Down	the Same	Up
Centers	3	5	9
Homes	2	17	5
Ministries	1	5	7
Total	6 (11%)	27 (50%)	21 (39%)
N 70			

N = 50

# **Provider Started at PTQ Level 2**

	Went	Stayed	Went
	Down	the Same	Up
Centers	2	5	9
Homes	7	12	9
Ministries	1	4	6
Total	10 (18%)	21 (38%)	24 (44%)
N - 50			

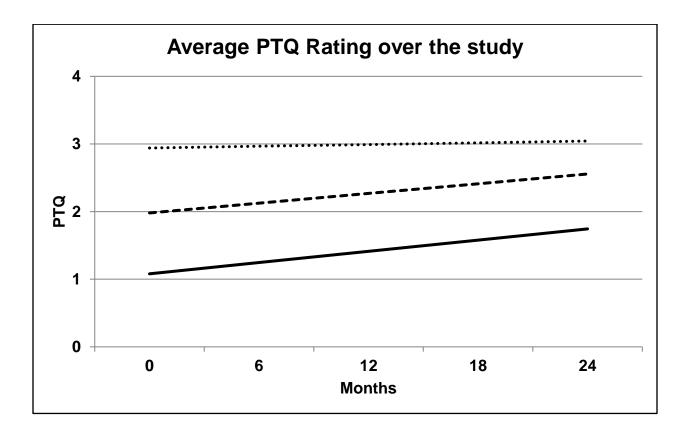
N = 50

# Provider Started at PTQ Level 3

	Went	Stayed	Went
	Down	the Same	Up
Centers	2	10	4
Homes	4	9	4
Ministries	0	15	1
Total	6 (12%)	34 (70%)	9 (18%)
N - 10			

N = 49

Level 1 and Level 2 providers showed the highest average rates of quality level advancement over two years, and Level 3 providers showed the lowest rate of advancement. The *average PTQ level increase per year* for providers beginning at Level 1 was .33, the average increase for providers beginning at Level 2 was .29, and the average increase for providers beginning at Level 3 was only .05.



Viewing quality advancement another way, there were increases in rated quality within the sample, but also decreases. The following table shows the number of providers in the sample that were rated at each PTQ level at Time 1 and again at Time 5, 24 months later. This shows that 14 providers (8%) had moved up to Level 4 within 24 months, and the number of providers rated Level 3 also increased by 20 (11%). There was also some movement down to Level 0 (i.e., closed, left PTQ, or unrated) by 9 (5%) of the providers.

PTQ		
Level	Time 1	Time 5
Level 0		9
Level 1	59	30
Level 2	62	19
Level 3	58	78
Level 4		14

Question: What is the providers' attitude, interest and confidence in advancement in PTQ?

- At Time 1, 75% of the providers were interested in advancing to higher quality levels, 12% were not interested, and 13% were not sure. Registered ministries were most interested in advancement (80%), and licensed home providers were least interested (70%). Level 2 providers were most interested (84%), and Level 3 providers were least interested (59%). At Time 4, 18 months later, there was a modest decrease in the rate of interest in advancement: 72% of the providers said they were interested in advancing levels, 19% were not interested, and 9% were not sure.
- Providers' level of motivation to advance to higher quality levels decreased somewhat. At Time 1, most providers rated their motivation as in the "motivated" range (average was 3.15 on a 4 pt. scale). 72% said they were "motivated" or "very motivated." Coaches at that time rated the providers as somewhere between "somewhat motivated" and "motivated." (2.71 on a 4 pt. scale.) The highest self-reported motivation levels by providers at Time 1 were from registered ministries, and both Level 1 and Level 2 providers. Coaches also rated registered ministries and Level 2 providers as having the highest levels of motivation.
- At Time 4, 18 months later, there was a general decrease in providers' motivation to advance to the next PTQ level. 64% of providers rated their motivation to advance as "motivated" or "very motivated," and the proportion of providers who said they were "not at all motivated" to advance increased from 10% at Time 1 to 20% at Time 4.
- At Time 1 most providers (80%) of all types and PTQ levels reported they were "confident" or "very confident" they would advance to the next PTQ level. Level 3 providers were somewhat less confident than Level 1 providers. The same providers 18 months later reported slightly lower levels of confidence (74%).
- At the same time, a majority of the providers reported participating in PTQ is at least somewhat stressful. At Time 1, 54% reported participating was "somewhat stressful", and 18% reported participating was "stressful" or "very stressful." At Time 4, the level of stress reported by some was slightly less. 45% reported participating was "somewhat stressful," yet 22% still reported participating was "stressful" or "very stressful."

# **Provider-Coach Relationship Quality**

- Providers' views on the quality of their relationships with their coaches were *mostly positive and stable* over the 18 months. More than 70% of the providers rated their relationships with coaches as "very good" or "excellent" at both time points. Only 10% of providers at Time 1 and 5% of providers at Time 4 rated their relationships with coaches as "fair" or "poor."
- Providers' ratings of how helpful their contacts with their PTQ coaches were generally *increased* from Time 1 (65% "helpful" or "very helpful") to Time 4 (83% "helpful" or "very helpful").
- The majority of providers reported that their coach's contacts with themselves (the director/owner) and the staff were helpful or very helpful. Time 1 and Time 4 ratings of helpfulness to the director/owner were about the same (84% reported "helpful" or "very helpful" at both times.) Their ratings of helpfulness of the coach with the staff or assistants *increased considerably* from Time 1 (20% helpful, 45% very helpful) to Time 4, 18 months later (27% helpful, 56% very helpful.)
- 25% of the providers in the study reported they had experienced a coach change in the past 6 months. A majority of the providers reported they had experienced one or more coach changes in the past 18 months: 35% reported one coach change; 44% reported two coach changes; and 22% reported 3 or more coach changes.

# **Motivation to Change**

- The assumption was that providers who have a higher general motivation to make positive changes in their programs will be more likely to advance in PTQ. A motivation to change scale was utilized with several items, rated from 1 = not at all motivated or willing to make change to 5 = highly motivated to make changes in their practices.
- Providers rated their motivation to change as generally high, with an overall mean at Time 1 of 4.24 out of 5, ranging from 4.02 for family child care providers to 4.54 for registered ministry providers. At Time 3, providers continued to rate their motivation to change high, with an overall average score of 4.27, with licensed centers rating themselves highest at 4.44. On the other hand, the providers' coaches perceived somewhat lower levels of motivation to change in the providers at both times, with an overall mean of 3.54, ranging from 3.10 for Level 1 providers to 3.93 for registered ministries. At Time 3 the coaches rated their providers at an average 3.03, with family child care homes at a 2.62 and Level 1 providers at a 2.33.

# Question: What Were the Factors that Predicted Whether a Provider Advanced in PTQ Level Quality?

Many factors were significantly associated with whether a provider advanced to a higher PTQ quality level during the 24 months of this study. The provider's starting PTQ level, education level, years of experience, and professional engagement were all associated with movement to a higher level. Providers' positive attitude about advancement, intention to advance, readiness to change, and attitudes about their coach's helpfulness were also important. From the coaches' perspectives, their assessment of the provider's motivation to advance, engagement in the training process, and likelihood of advancing were associated with actual advancement over the next 24 months.

Below is an overview of the Time 1 (beginning of the study) factors that significantly predicted PTQ advancement within 24 months. (\* indicates the strongest independent predictors in a multivariate analysis. There is a high degree of correlation among some of these factors, but we consider the factors indicated with \* the ones that by themselves are predictors of advancement, above and beyond other factors.)

#### **Provider Characteristics**

• Provider's beginning PTQ Level\*

- Provider had advanced degree (MS+)\*
- Years of child care experience\*
- Provider number of professional organization memberships\*
- Type of child care (Licensed Centers most likely)
- Provider's education level
- Number of training hours/year

# **Provider Attitudes**

- Provider's intention to advance\*
- Provider's level of motivation to advance\*
- Provider's rating of how helpful the coach was to the director/owner\*
- Provider's level of confidence that they would advance
- Provider's belief that the current PTQ rating reflects their true quality
- Provider's belief that the current PTQ rating does not reflect their true quality
- Provider's readiness to change

# **Coach Perceptions**

- The provider was motivated to advance\*
- It is likely that the provider will advance\*
- The provider is engaged in the process
- Effective training method: Consult with director
- Effective training method: Consult with staff
- Effective training method: Observations
- Effective training method: Prepare for rating visit

# **Conclusions and Recommendations: Longitudinal Provider Study**

- Most PTQ providers are interested in and planning to advance to high PTQ-rated quality levels. However, the
  overall rate of advancement may be slowing as the system matures and more providers attain Levels 3 or 4.
  During this 24 month study, Level 1 and 2 providers were more likely to advance than Level 3 providers.
  Level 3 providers were the least likely to advance, perhaps reflecting satisfaction with achieving that level
  and/or significant perceived costs or obstacles to meeting Level 4 standards, while not seeing sufficient
  benefits to justify the cost.
- 2. Most providers in the study expressed high levels of motivation and confidence they will advance in PTQ. Overall more than 70% said they were motivated and confident about advancement. On the other hand, the number of providers who said they were not at all interested in advancing increased during the study, from 10% at the beginning of the study to 20%, 18 months later.
- 3. There were many factors associated with whether a provider advanced PTQ levels or did advance not over 24 months including motivation, confidence, satisfaction with the benefits of PTQ, the relationship and perceived helpfulness of the coach, and the provider's current PTQ level. The strongest independent predictors of advancement were:
  - The provider's type of child care, current PTQ level, education level, and years of child care experience.
  - The provider's intention, motivation, confidence to advance.
  - The provider's rating of how helpful the coach was.
  - The coach's assessment of the provider's motivation to advance and likelihood to advance.
- 4. It is important to continue efforts to make participation and advancement in PTQ *rewarding* for providers. Providers' motivation to advance and perceptions of the rewards of participation in PTQ were strong predictors that providers would actually move up one or more PTQ quality levels. Continuing efforts to publically recognize the importance of rated quality and the accomplishments of providers who work to advance quality are critically important.
- 5. Providers who advance and those who do not advance in the PTQ system may be productively seen as distinct subgroups with diverse characteristics, attitudes, and training/technical assistance needs. The study identified

four subgroups with high, medium, or low rates of PTQ advancement. These groups differed by type of child care, provider education level, degree of professional engagement, attitudes about PTQ participation, and assessments of the helpfulness of PTQ coaches. It is recommend that PTQ develop coaching and other support strategies specifically tailored to the needs and attitudes of these subgroups of providers.

#### 2. PTQ Longitudinal Child Outcomes Study

The purpose of the longitudinal child outcomes study is to determine if children from low income families are benefitting from PTQ quality ratings in terms of their development, learning, and readiness for school.

The main evaluation question was: Do children who receive more high-rated quality child care over two years show improved development and school readiness, compared with similar children who receive lower- or unrated care?

Both toddlers (12 mo.) and preschool children (36 mo.) were observed in their child care environments three times over the course of two years. The current child care classrooms or family child care homes were assessed three times for the quality of teacher-child interactions and organization using the CLASS measures. Children's cognitive, language, and social-emotional development were assessed using valid, reliable, evidence-based measures. In addition to the classroom observations and child measures, data were collected in surveys from teachers, child care directors, and parents.

# **Child Sample**

Children were randomly selected from the state's database that lists all participants in the Child Care Development Fund (CCDF) voucher assistance program. The sample was stratified so that there were approximately equal numbers of toddlers at PTQ Levels 1 and 4 and approximately equal numbers of preschoolers at PTQ Levels 0, 1, 3, and 4. (*"Level 0" providers were CCDF voucher recipient providers that were not participating in PTQ.*) Purdue University selected children in each OMW Pre-K county, and attempted also to select approximately equal numbers of children in licensed child care centers (LCC), licensed family child care homes (FCC), and registered ministries (RM). Recruitment of the target numbers of participants in some geographic areas and types of care proved challenging, so enrollment in the study took place over an extended time, between January, 2014 and July, 2015. By July, 2015, 230 children and their child care providers had enrolled in the study, including 153 preschoolers (3 yrs.) and 77 toddlers (1 yr.) Data collection was completed, at the first time point, for 221 children.

#### **Child Study Progress**

As of the beginning of June, 2017, of 221 children officially enrolled at the beginning of the study, 191 (86%) had completed Time 2 assessments after one year, and 152 (69%) had completed Time 3 (final) assessments after two years. There has been some sample attrition: 43 children (19%) dropped out of the study (moved out of state, the parent opted out, unable to contact family, or the child was removed from home by CPS.) At the time this report is being written, there are 7 children remaining to complete Time 3 assessments. Results for the full sample will be available in early fall, 2017.

This report contains preliminary results for this two-year longitudinal study. Only those children for whom there was complete two year data (Time 1, Time 2, and Time 3) are included in the current analysis. The complete longitudinal results presented here reflect the data for 152 children (99 preschoolers and 53 toddlers.) The results show children's developmental and learning changes across this two year study period. For toddlers, initial child care placement in PTQ at Time 1 were in Level 1 = 41% and in Level 4 = 59%. For preschoolers, initial placement in PTQ at Time 1 were in Level 0 = 14%, in Level 1 = 27%, in Level 3 = 28%, and in Level 4 = 30%. During the course of this two year study, some children changed child care providers or their provider changed their PTQ rating. Regardless of changes, we continued to assess the children and the observed quality of their current child care setting at each time period.

Question: What is the Observed Quality of PTQ-rated Child Care?

The CLASS is an observational assessment of educational quality in the classroom or family child care home. It is based on a 2 to 3 hour observation of a typical morning by trained, reliable observers. Quality is scored on a 7-point scale, from 1 or 2 = low quality, to 3,4, or 5 = mid-level quality, to 6 or 7 = high quality.

For toddlers, CLASS scores are produced for 2 domains of classroom quality:

- **Emotional and Behavior Support** assesses the emotional climate of the classroom, including warmth, respect, enjoyment, and negativity. It also assesses teacher sensitivity, regard for the children's perspectives in interactions, and positive methods of behavior guidance.
- **Engaged Support for Learning** assesses how the teacher facilitates learning and development opportunities, the quality of the teacher's feedback to toddlers, and the quality and amount of language the teacher uses with the children.

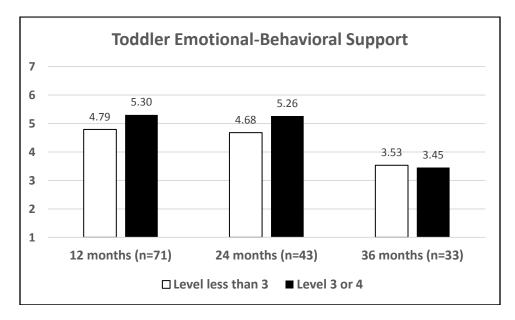
For preschoolers, CLASS scores are produced for 3 domains of classroom quality:

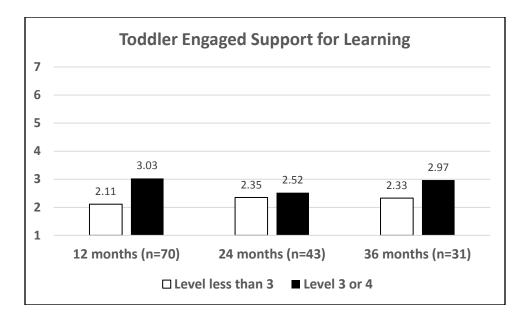
- **Emotional Support** assesses the degree to which teachers establish and promote a positive climate in their classroom through their everyday interactions.
- **Classroom Organization** assesses classroom routines and procedures related to the organization and management of children's behavior, time, and attention in the classroom.
- **Instructional Support** assesses the ways in which teachers implement the curriculum to effectively promote cognitive and language development.

Observed and assessed CLASS quality was completed in the center, ministry, or home each time they were visited to complete a scheduled child assessment. This report summarizes results of these class assessments at Time 1, Time 2, and Time 3 in the child care settings attended by the study children. To examine the CLASS quality of child care attended by these children, how CLASS quality was associated with PTQ ratings, and how CLASS quality may have influenced children's development over the two years of the study, it was also computed average CLASS quality scores for each child based on the Time 1 and Time 2 assessments. The following graphs show the average levels of CLASS quality that were observed at Time 1, Time 2, and Time 3.

# **CLASS Quality in Toddler Classrooms**

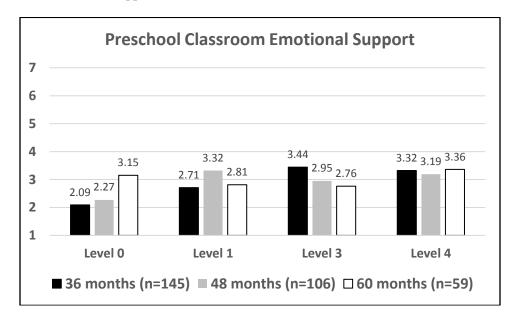
Toddler classroom quality was compared at the three assessment periods (12, 24, and 36 months of age) by grouping classrooms with lower PTQ ratings (less than Level 3) vs. classrooms with higher PTQ ratings (Level 3 or 4.) For quality of Emotional and Behavioral Support, the higher-rated classrooms had significantly higher average CLASS scores at the first two assessments (12 and 24 mo. of age) but not at the third assessment (36 mo.) For Engaged Support for Learning, the higher-rated classrooms showed a pattern of higher average CLASS scores across all 3 assessments, but these differences were statistically significant only for the first (12 mo.) assessment.

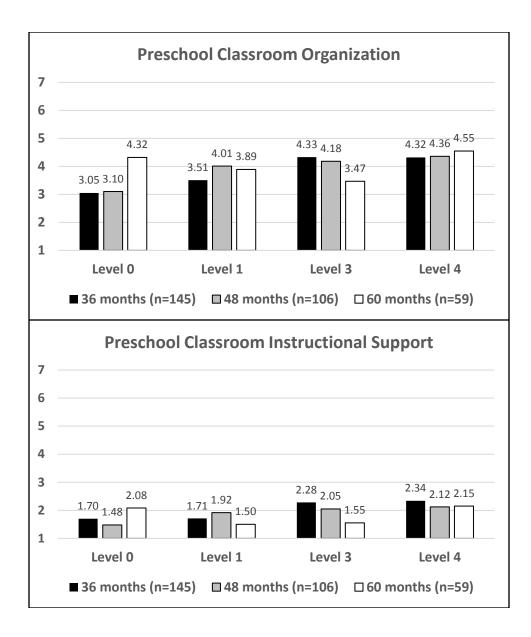




#### **CLASS Quality in Preschool Classrooms**

Classroom observations by trained observers showed that many PTQ- and non-PTQ classrooms were relatively low in CLASS quality, compared with Head Start and other high quality classrooms in existing research. There were significant PTQ Level differences in Emotional Support, Classroom Organization, and Instructional Support at some assessment points, but not others. At Time 1 (child age approximately 36 months) there were no statistically-significant differences in any CLASS scores across Level 0, 1, 3, and 4. At Time 2 (approx. age 48 mo.) Level 3 and 4 classrooms had significantly higher Emotional Support and Classroom Organization scores than Level 0, and there were no significant differences among the rated levels for Instructional Support. At Time 3 (approx. age 60 mo.) Level 4 classrooms were significantly higher in Emotional Support, Classroom Organization, and Instructional Support than Level 3 classrooms.





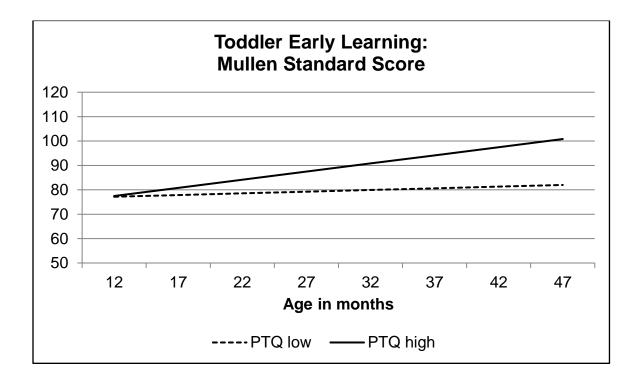
#### Children's Development as a Function of PTQ-Rated Child Care

In the analysis of children's development information included all children for whom complete data was obtained over two years: 53 toddlers, with one-on-one assessments conducted at approximately 12, 24, and 36 months (Times 1, 2, and 3) in Level 1 vs. Level 4 rated settings, and 99 preschoolers, with one-on-one assessments conducted at approximately 36, 48, and 60 months (Times 1, 2, and 3) comparing growth in children placed in Level 3 and Level 4 quality care to growth in children in care settings rated lower than Level 3.

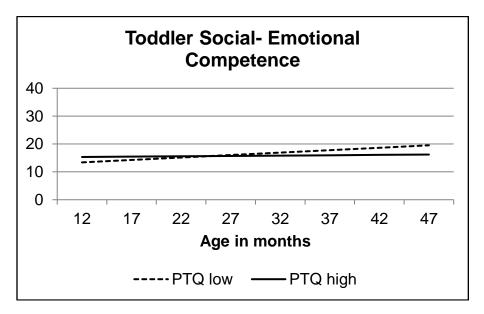
#### **Toddlers' Development**

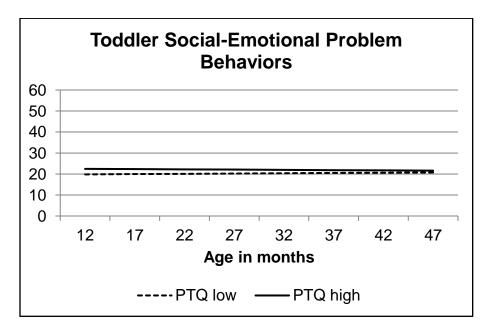
The Mullen Scales of Early Learning assessments produce an "early learning composite" score, a combination of toddlers' perceptual/cognitive/fine motor/language skills. Shown below are the average standardized scores for toddlers placed in lower- vs. higher-rated quality settings at Times 1, 2, and 3, when the children were approximately 12, 24, and 36 months of age. (*Note: the national norm or average score for all children on the Early Learning Composite scale is 100.*) While there were no differences in these two groups at 12 months, the toddlers in higher-rated care increased in their early learning index scores significantly, relative to toddlers in lower-rated care, over the two year study. While those in lower-rated care maintained a stable below-average level

of early learning, those in higher-rated care increased to an early learning level near the national norm (100) for 2-to 3-year-olds.



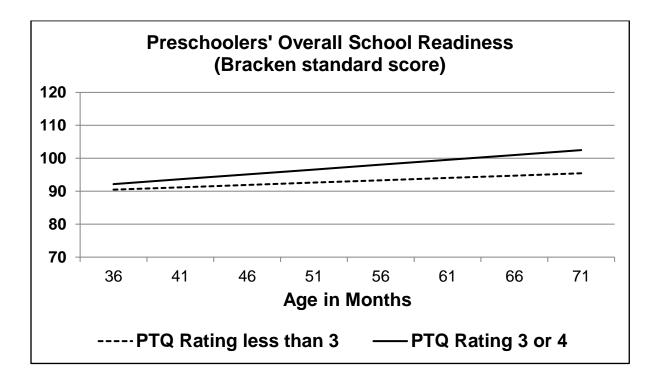
Caregivers (usually providers, but sometimes parents) rated toddlers' social-emotional competence and socialemotional problem behaviors using the Brief Infant Toddler Social Emotional Assessment (BITSEA) scale. This is a checklist in which the caregiver checks each behavior on 3-point scale (0=not true/rarely, 1=somewhat true/sometimes, 2=very true/always.) The graphs below show the average raw scores for toddlers placed in higher- (Level 4) and lower-rated (Level 1) rated settings across the two years of the study. Toddlers in lowerrated care at 12 months were rated significantly lower in social competence at 12 months of age than toddlers in higher-rated care. But by age 36-42 months, toddlers in lower-rated care were rated slightly higher than toddlers in higher-rated care. These differences were small, and all of the average scores were within normal ranges. Toddlers' problem behaviors were generally reported to be low. There were no significant differences in problem behaviors comparing children in lower-rated and higher-rated child care settings.



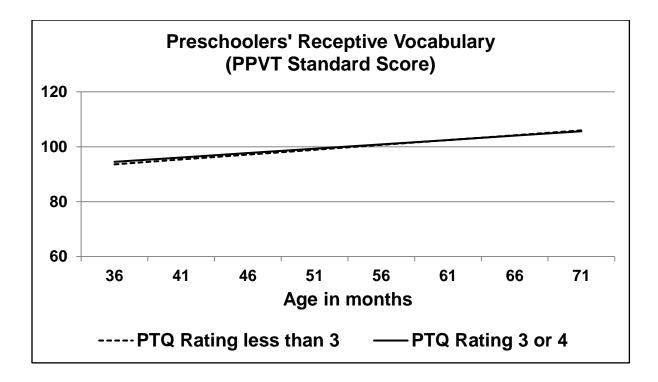


#### **Preschoolers' Development**

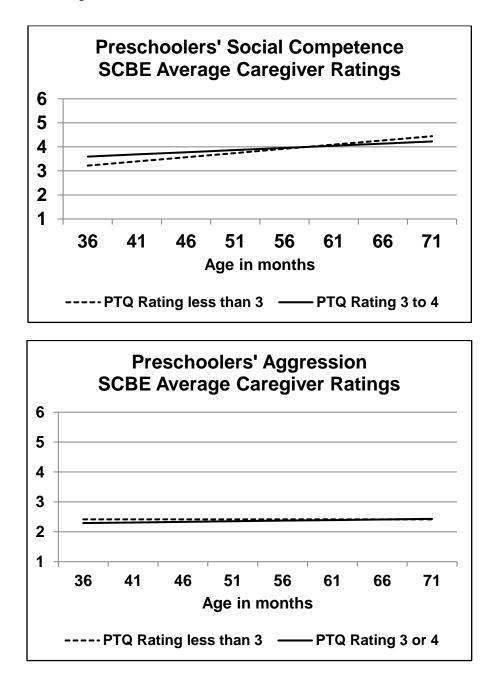
The Bracken is a broad assessment of preschoolers' academic school readiness, including children's understanding of colors, numbers, letters/words, size/comparisons, and shapes. This assessment was administered one-on-one with a Purdue trained research assistant. Shown in the graph below are the mean standardized scores for preschoolers at increasing ages across the entire two year study, comparing children in higher- vs. lower-rated quality care. While all children in the sample gained relative to national norms, those in higher-rated care gained school readiness skills at a faster rate and by about 5 years of age had attained skills at or above the national norm (100).



The Peabody Picture Vocabulary Test (PPVT-4) is an assessment of the child's word recognition or language comprehension. These instruments assessment were administered one-on-one with a trained Purdue assessor. All preschool children in the study increased in their receptive vocabulary, gaining relative to national norms, reaching national norms or above by age 5 years. There were no differences in the rates of learning for children comparing higher- and lower-rated child care settings.



Preschool caregivers rated children's behavior using the Social Competence and Behavior Evaluation, Preschool Edition (SCBE) at approximately 36, 48, and 60 months of age. The adult rates each behavior as she/he has observed it over time, occurring never (1), sometimes (2 or 3), often (4 or 5), or always (6). Graphs below show the average ratings for two categories of social adjustment: social competence and aggression, comparing children placed in lower- vs. higher-rated quality care. Social competence increased for all preschoolers, marginally more for those in lower-rated care. Aggression was generally rated low by caregivers, was stable, and was not rated differently for children in higher- or lower-rated care.



#### Conclusions, Recommendations, and Future Plans, Based on the Child Study Results

The results of this study are specific to children from low-income families who were using the CCDF voucher program.

- While Level 3 and Level 4 child care providers appeared to provide marginally higher levels of classroom quality than lower PTQ-rated providers, the quality difference may not be enough to result in strong or long term gains in school readiness or early school success. Previous research has shown that in order for early childhood programs to produce lasting benefits, they must reach a "threshold" level of quality. While some Indiana PTQ providers did attain recommended quality thresholds, many with PTQ ratings at Level 3 or Level 4 did not.
- 2. Results of this longitudinal child outcome study demonstrated that moderate but significant advantages were conferred to both toddlers' and preschoolers' early learning and school readiness prior to kindergarten, by spending more time in Level 3 or Level 4 PTQ-rated quality care, compared with Level 1 PTQ-rated or unrated care.
- 3. For receptive language, an important early skill related to school success, preschool children in Level 3 and Level 4 care started and ended this 2 year study with levels of understanding not significantly different than children in Level 0, 1, or 2 care. All children at all rated levels made gains in receptive vocabulary over 2 years, but those in Level 3 or Level 4 care did not gain more, or faster. More emphasis in the PTQ Level 3 and Level 4 standards and child care curriculum on caregivers' support for language development, for both English speakers and English language learners, is indicated.
- 4. Children in all settings increased in social competence as reported by caregivers and/or parents, with few differences across groups with different PTQ-rated care.
- 5. The future final report will include the full sample of toddlers and preschoolers, assessment data from all three time points, with a more complete statistical analysis that will enable confident conclusions about children's growth and learning over a 2 year period, as a function of PTQ-rated care. The final report will also account for parents' educational level and both the *quantity (dosage) and quality* of child care each child received during the 2 year study.