

# EARLY LEARNING COST MODELING ANALYSIS

## Implications for Florida Policy



## BACKGROUND

Throughout the state there have been many discussions regarding the need for improving the quality of Florida's early learning programs to ensure more children start school ready for success. This is particularly important in Florida's School Readiness Program, which provides early learning opportunities to low-income children, many of whom are at high risk of school failure. In new research by Stanford University it was found that by 18 months of age, toddlers from disadvantaged families are already several months behind more advantaged children in language proficiency.<sup>1</sup> Quality early learning programs reduce that language gap and support kindergarten readiness and later school success. Extensive economic analysis shows that quality early learning programs dramatically change long term life outcomes, increasing school achievement and high school graduation, while also reducing grade retention, the need for remediation, and involvement in the criminal justice system.<sup>2</sup>

The early childhood market is one in which natural market forces fail. While consumers typically pay what they can afford and the market responds with a range of options, the cost of high quality early learning programs exceeds most families' ability to pay. The cost of child care often exceeds the cost of housing and food in family budgets; in most states the cost of early learning programs are equivalent to or exceed tuition at public universities and colleges.<sup>3</sup>

But unlike many industries, the quality of early learning programs has a profound effect on many other systems. For children who attend high quality programs many of the early academic and social gaps can be lessened or closed. For children who attend low-quality programs these gaps often grow and children can enter kindergarten more than a year behind their peers. Early gaps are often compounded over time, making it difficult and costly to catch up.<sup>4</sup>

While the importance of improving the quality of early learning programs is clear, the best strategies to do this vary by state because of variations in licensing, quality improvement investments, and other elements of the early childhood infrastructure. The Early Learning Consortium completed a detailed cost modeling analysis to inform the most cost effective strategies to improve the quality of early learning programs in Florida.



1. <http://news.stanford.edu/news/2013/september/toddler-language-gap-091213.html>

2. <http://heckmanequation.org/content/resource/invest-early-childhood-development-reduce-deficits-strengthen-economy>

3. Child Care Aware of America: Parents and the High Cost of Child Care: 2014 Report

4. <http://www.epi.org/publication/early-education-gaps-by-social-class-and-race-start-u-s-children-out-on-unequal-footing-a-summary-of-the-major-findings-in-inequalities-at-the-starting-gate/>

## KEY FACTS ABOUT FLORIDA'S SCHOOL READINESS PROGRAM

The School Readiness program offers financial assistance to over 200,000 low-income families for early learning programs for children birth through age 12. This support helps families become financially self-sufficient and their young children to be more successful in school in the future.

Higher reimbursement rates (up to 20%) are offered for early learning programs that are accredited by one of fourteen accrediting bodies approved through the Goal Seal Quality Care Program.

Florida has the 6th lowest payment rates in the nation for infants and toddlers and 7th lowest for preschoolers; Gold Seal rates lift these payment rates only to 7th, 8th, and 9th lowest rates for infants, toddlers and preschoolers, respectively.

The average annual School Readiness payment is \$5,000 while private rates are close to \$10,000.

Florida ranks 40th on strength of licensing program requirements.

The average program breaks even when meeting minimal standards for licensed care. The current payment rates and structure create disincentives for programs to improve quality.

## METHODOLOGY

The Early Learning Consortium is a group of key influential early learning leaders that have organized to work together and improve Florida's early learning system benefiting the hundreds of thousands of children served annually. Comprised of early learning provider associations, funders and subject-matter experts, the Early Learning Consortium provides recommendations to state leaders and policymakers that advance the system and improve outcomes for children.

The Early Learning Consortium staff and consultants worked with national early childhood finance experts to complete detailed cost estimation analyses of different policy decisions. The goal of this work was to 1) identify the fiscal impact of different strategies to improve early learning program quality; 2) determine ways in which current policies impact the ability of early learning programs to improve program quality; and 3) use this information to carefully calibrate policy recommendations with a clear understanding of the fiscal impact of these decisions so as not to pass costs on to business owners.

An interactive cost estimation tool was utilized to assess the impact of changing different requirements on the bottom line of early childhood businesses. Different scenarios were tested that changed requirements in a variety of program elements, to include adult:child ratios; levels of teacher education and training; and facility requirements. Additional elements that informed the cost estimation modeling included employee wages and benefits; the ages and number of children enrolled; and different revenue sources, including parent fees, School Readiness payments, Gold Seal differentials for programs that receive a higher reimbursement rate for meeting Gold Seal accreditation requirements, and the Child and Adult Care Food Program (CACFP) which ensures healthy meals for low-income children.

This information helped the Early Learning Consortium understand the gap between the cost of providing quality services and the revenue sources available to support early learning programs, evaluate the impact of a variety of different potential changes, and then develop precise policy recommendations to most efficiently facilitate improving and sustaining high quality early learning programs.

## COST MODELING ASSUMPTIONS

Different scenarios were tested to determine the most effective way to improve program quality and invest new resources in the most effective ways. Two models were finalized: a licensed program and a Gold Seal program. Assumptions in each model include:

### Licensed Program:

- Six classrooms
- 116 children enrolled
- Licensing ratios
- Current School Readiness reimbursement rates

### Gold Seal Program:

- Six classrooms
- APPLE ratios
- 94 children enrolled due to lower teacher to child ratios
- Higher salaries to attract and retain better qualified teachers
- Current School Readiness reimbursement rates plus 20% Gold Seal differential
- Teachers have time and funding for ongoing teacher professional development and curriculum-based assessment to individualize care and instruction for children

### Both models assume:

- 75% of children participate in School Readiness
- Center participates in VPK
- Center participates in the Child and Adult Care Food Program
- 5% of revenue is uncollected
- Enrollment is at 85% capacity

## RESULTS

The cost modeling and analysis verified that current funding is only enough to cover minimal child care licensing standards. Given payment rates, most programs cannot afford to improve ratios and meet higher quality standards such as implementing curriculum-based assessments and investing in teacher professional development.

Businesses have operating deficits when they implement high quality programs with lower ratios and more qualified teachers and provide VPK and School Readiness services. This deficit occurs, in part, because the reimbursement rates are so low that programs can only afford to provide the most basic early learning program. As a result, providers that are Gold Seal or offer other quality programming typically can only serve a few School Readiness children.

Strengthening adult:child ratios is an example of how changing requirements impacts the bottom line of early childhood programs. Overwhelming research shows low child:staff ratios are one of the best indicators for determining the quality of a child care program.<sup>5</sup> Well-trained teachers with lower ratios provide better teacher to child interactions, the top predictor of children's readiness for success in school.<sup>6</sup> Well-trained teachers also complete ongoing, curriculum based assessments and use the observations to individualize the care and instruction each child receives.<sup>7</sup>

There is a dramatic difference between licensing and APPLE/NAEYC accreditation ratios.

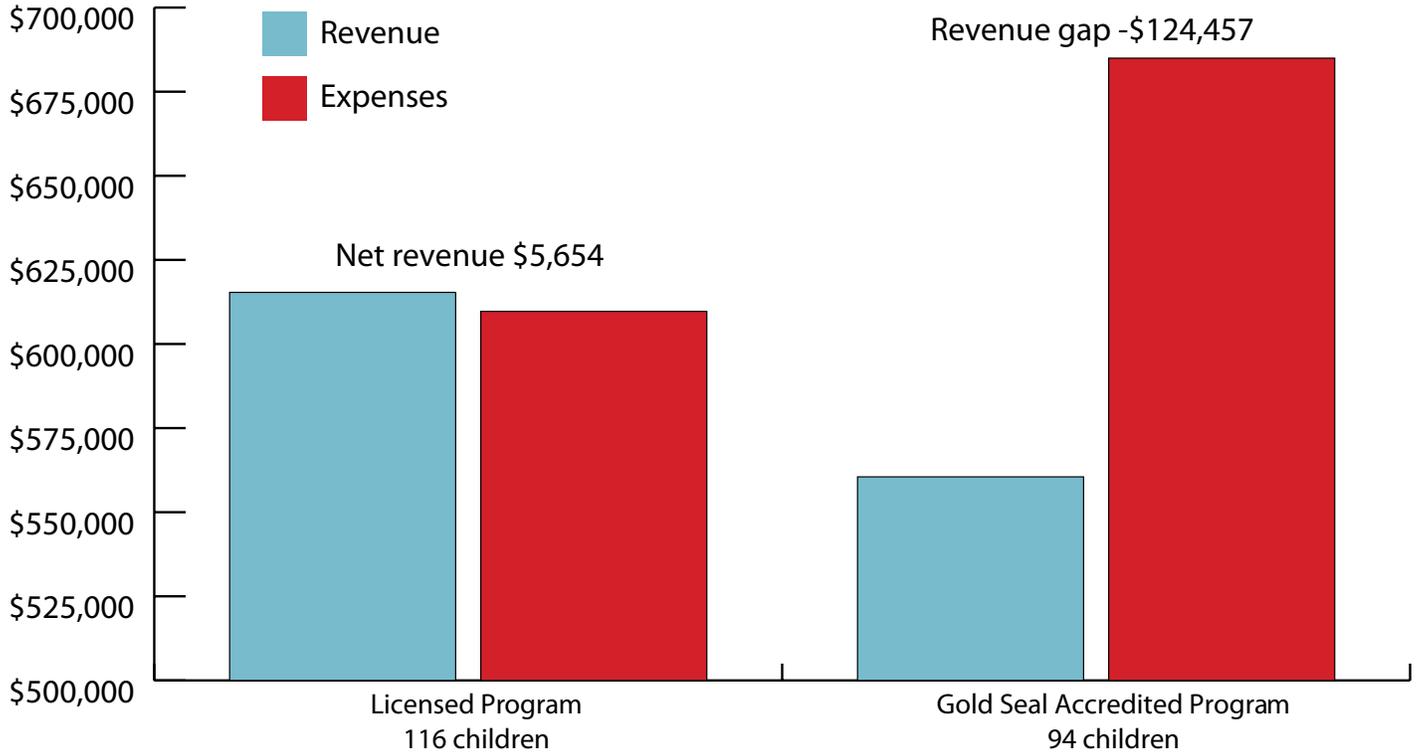
	Licensing Ratios	APPLE Ratios	NAEYC Ratios
0-1 year olds	1:4	1:4	1:4
1-2 year olds	1:6	1:5	1:4
2-3 year olds	1:11	1:7	1:6
3-4 year olds	1:15	1:9	1:9
4-5 year olds	1:20	1:11	1:10
Over 5	1:25	1:11	1:12

5. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.1992.tb01639.x/abstract>

6. [http://www.learningcommunityds.org/files/1013/7029/9372/Study\\_EarlyChildhoodResearchQuarterly\\_BurchinalThresholdsofQualityforCLASS\\_101609.pdf](http://www.learningcommunityds.org/files/1013/7029/9372/Study_EarlyChildhoodResearchQuarterly_BurchinalThresholdsofQualityforCLASS_101609.pdf)

7. <http://nieer.org/pdf/nieer-els-slides.pdf>

While changing ratios is only one example of a quality improvement required for Gold Seal Accreditation that has an impact on program quality and children's outcomes, the following table shows the overall fiscal impact of changing from licensed to Gold Seal requirements.



This financial situation is obviously not sustainable. If programs want to improve quality and also serve a significant number of children who receive School Readiness funds, they often find themselves having to make challenging trade offs. Too often this means that high quality programs serve fewer children who receive School Readiness funds.



## RECOMMENDATIONS

The cost modeling analysis made the systemic challenges in Florida's current system clear. Florida can strategically improve program quality by investing in increased reimbursement rates based on an organized definition of quality. By deliberately incentivizing quality improvements early childhood businesses will be able to improve and sustain higher quality programs while also serving the state's most vulnerable children.

This organized definition of quality would be tied to recognized industry standards and demonstrated performance on key benchmarks:

**High quality teacher-child interactions:** Teacher-child interactions are the strongest predictor of children's outcomes, improving language and cognitive skills, as well as improving readiness through strengthening executive functioning skills that make children successful in school: the ability to pay attention, take turns, delay gratification, and get along with others.<sup>8</sup> Programs qualifying for an increased payment would need to meet specific threshold scores on an evidence-based program assessment tool.

**Curriculum-based assessment:** Teachers who implement regular observations can individualize the care and instruction for each child to meet their developmental and learning needs. Through an organized system of observations teachers can measure growth over time.<sup>9</sup> Teachers would need at least five hours of training and complete at least three observations annually on all children who receive school readiness funds.

**Ongoing professional development:** Teachers with targeted professional development are better prepared to deliver developmentally appropriate practices.<sup>10</sup> Teachers and directors in sites receiving an increased payment would need to complete at least 20 hours of training annually and each lead teacher would have a CDA credential within 24 months.

**Accreditation:** Accreditation measures key aspects of program quality including the learning environment and teacher to child ratios. All programs receiving the highest level of reimbursement would need to be Gold Seal accredited.



8. Burcinal, M., Vandergrift, N., Pianta, R. & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly* 25, 166–176; Center on the Developing Child, Harvard University. In Brief: Executive Function. Available: <http://developingchild.harvard.edu/resources/inbrief-executive-function/>

9. McConnell, Scott, and Charles R. Greenwood. "General Outcome Measures in Early Childhood and Individual Growth and Development Indicators." In *Handbook of Response to Intervention in Early Childhood*, edited by V. Buisse and E. Peisner-Feinberg. Baltimore, MD: Paul H. Brookes Publishing Co., Inc., 2013.

10. Fukkink, R. G., & Lont, A. (2007). Does training matter? A meta-analysis and review of caregiver training studies. *Early Childhood Research Quarterly*, 22, 294–311.

## CONCLUSION

Increasing payment rates and expanding access to quality early learning programs will help more children at high risk of school failure get off to a strong start. Providing performance-based incentives, which provide higher payment rates to early learning programs that demonstrate higher levels of quality, is a proven strategy to help expand the supply of programs that serve low-income children, including those who receive School Readiness funds.



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