The Cost of Quality Early Learning in Rhode Island: Interim Report

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Rhode Island set out to explore the cost of operating quality early learning programs in 2012. The overarching goal of this effort is to develop a set of recommended financial incentives and supports to promote quality improvement and sustain high quality through BrightStars, the state's Quality Rating and Improvement System. These incentives and supports are intended to fill the gap between available revenue sources and the cost of producing higher quality. The 'gap' is identified by comparing typical expense budgets for operation at different levels of quality with the available revenues. These budgets quantify the 'gap' and also illuminate the realities of operating early learning programs. The Quality Improvement Core Team:

- Created an interactive model to estimate costs of operating quality early learning programs in Rhode Island
- Used the model to recommend size/scale of financial incentives, and
- Identified current and potential financing strategies for quality early learning in other states that may be appropriate for Rhode Island.

The Cost of Quality Model

The interactive model is a set of Excel spreadsheets that incorporate Rhode Island-specific data on expenses and revenues for center- and home-based programs. The cost of operating any early learning program is driven largely by labor costs: the number of staff (determined by staff:child ratios) and staff compensation (salary and benefits). The baseline in the model is a budget that meets the requirements in licensing rules followed by budgets meeting the expectations of BrightStars at successive levels. These expectations are primarily in three areas:

1. better qualified staff as quality increases (higher compensation is assumed to be needed to attract and retain these staff),
2. more staff time for program and child assessment, family activities and conferences, curriculum planning, staff meetings, and
3. in some cases, one-time costs for equipment.

For a full description of the quality elements and how they are included in the budgets, see the Appendix.

The revenue sources available to support the cost of operating an early learning program in a center or home are:

1. private tuition paid by families
2. public state and federal funds for child care subsidy (Child Care Assistance Program [CCAP]reimbursement for eligible children)

3. public federal funds for food /food service (USDA Child and Adult Care Food Program [CACFP] reimbursement for all children), and
4. public state funds for Prekindergarten classrooms in higher quality centers.

The budget for Head Start programs of course includes Head Start federal revenue as well as the above sources, except for parent-paid tuition.

The model also accounts for other factors that affect the cost of operating early learning programs. These 'efficiency factors' apply to revenue collection and to enrollment and can be varied in the model. The proportion of revenue that is uncollectible, commonly called 'bad debt', can be varied in the model. The industry standard is to keep bad debt to less than 3% of revenue; programs with clear tuition payment policies and effective collection practices may do better. Programs staff for their desired capacity of children and efficient programs are able to enroll close to that capacity. Achieving 100% enrollment efficiency is unattainable even for a program with high-demand supported by extensive waiting lists; such a program might achieve 95% enrollment efficiency. The industry standard is to keep enrollment at or above 85% of desired capacity. For a full description of all budget items, see the Appendix.[1]

How the model works for centers

The major cost factor, for both centers and homes, is the higher qualifications of staff necessary to reach higher levels of BrightStars (3-5), which presumably requires centers to offer higher compensation to attract and retain such staff. The professional development that leads to RIELDS Certificates is offered at little or no cost. Some higher education coursework is supported by T.E.A.C.H. scholarships and tuition-free early childhood coursework is available through the Community College of Rhode Island. Providing access to higher education is properly a system cost rather than a program-level budget item. Compensation increases to match the higher staff qualifications required are properly an expense item in a program-level budget.

Staff qualifications for a state-funded prekindergarten classroom or a RIDE-approved preschool classroom are higher than BrightStars Level 5, which requires 50% of preschool teachers to have a Bachelor's degree with coursework in early childhood education. Teachers in RIDE-approved classrooms need to have a PreKindergarten-Grade 2 teaching certificate in addition to the Bachelor's with early childhood coursework. Further, the ratio and group size for four-year-olds in state-funded PreK and in RIDE-approved classrooms is lower (1:9 ratio for a class of 18

[1] This Excel-based model is being transformed into an online tool, customizable for any state, with support from the federal Office of Child Care through a contract with Augenblick, Palaich and Associates and Anne Mitchell. Rhode Island is one of three state partners in this effort; the others are Georgia and Oregon. These three states will have first access to their already customized model online. The web-based tool, to be called the *Provider Cost of Quality Calculator*, will be available in late 2013.

children). In all other cases, the group size for each age group is set to be twice the number of children specified as the staff:child ratio in regulations.

Holding more parent-teacher conferences, family events and family engagement activities requires a modest amount of extra staff time. Curriculum and assessment implementation requires staff time upfront for training, e.g., on the RI Early Learning and Development Standards (RIELDS), and requires modest amounts of staff time ongoing to conduct child observations for assessment and curriculum planning. These requirements, from a cost perspective, translate into the need for slightly more teaching staff as quality increases.

Any center needs additional staff time to cover for staff breaks during the day as well as the difference between the length of the typical workday and the longer hours a center is open (8 versus 10 or more hours). This "coverage factor" is set at 20% staff time for the regulated center and the Level 2 center to cover breaks and longer hours. For centers at higher levels, additional staff time (2% more for each level 3-5) is included to cover the time needed for child assessment, curriculum planning and family engagement.

How the model works for homes

For family child care homes, the primary ongoing cost factors are:

1. child assessment at Levels 4-5, and
2. increased number of parent conferences and family activities at Levels 3-5

Increased numbers of ECE-related college credits are needed for Levels 3-5, but these are not considered an ongoing cost to the provider. The acquisition of college credits is supported for home providers in the same way as described above for center staff and is not a family child care budget item. As for centers, the cost of a child assessment system is included in home expense budgets at Levels 4 and 5.

National data indicate the average family child care home provider works 68 hours per week, 55 hours with children and the rest on recordkeeping, purchasing, planning, and other activities of the business. To cover the additional time needed for increased family communications, conferences and assessment and curriculum planning, 2 hours per week are added to time worked at Level 4 and at Level 5.

An additional cost factor for homes is that Family Child Care Environment Rating Scale (FCCERS) scores are more dependent (than are other of the ERS scales) on the presence of specific amounts of materials and pieces of equipment in relation to the number of children. To address

this, the home budgets include an expense item based on the replacement cost of these additional materials, which has the effect of reducing the provider's income slightly.

Additional financial data on revenues and expenses are currently being gathered from a sample of family child care providers, both English-speaking and Spanish-speaking across Rhode Island. These data will add to the accuracy of the family child care budgets in the model and may change some results slightly. The basic patterns of difference related to type of provider and quality cost-drivers are unlikely to change.

Highlights from the Rhode Island Cost of Quality Model

- Primary cost-drivers of program operations are staff compensation and staff: child ratios.
- The cost of quality is primarily related to the level of skills and qualifications of staff, and the increased staff compensation and benefits needed to attract and retain them as quality increases.
- Size[2] matters: small centers (<60 children) are not financially sustainable at any quality level while large centers (>150 children) are sustainable at all quality levels except Star 5
- Age mix matters: a center serving only children birth to three years old is not financially sustainable at any size or quality level.
- Current revenue sources (CCAP and/or parent tuition at 50%ile market rates and CACFP) are sufficient to cover costs for programs that meet regulations, Star 1 and Star 2.
- Tuition source (CCAP or parent tuition) is less important than size:
    - a medium-size program is financially sustainable at Star 1 and 2, but not at Star 3-5, whether its tuition source is all CCAP or all parent tuition at the 50%ile market rate.
    - A large program is financial sustainable at Star 1-4, but not at Star 5, whether its tuition source is all CCAP or all parent tuition at the 50%ile market rate.
- Public funding (in addition to CCAP) matters:
- Head Start revenues are sufficient to support quality for a part-day, school-year program for preschoolers, and
- State Pre-K funds combined with CCAP (or parent tuition) are sufficient to support quality for a full-day, full-year program for preschoolers.

Financial Incentives: Goals and Options

The range of financial incentives in use across states and related information about these are discussed in *Approaches to Financial Incentives in QRIS*. See Appendix. Financial incentives are

[2] Definition of 'size' is: Small = 58 children in 4 classrooms: 1 infant, 1 toddler and 2 preschool classes -- 1 threes, 1 fours); Medium = 78 children in 5 classrooms: 1 infant, 1 toddler and 3 preschool classes -- 1 threes, 2 fours); Large = 146 children in 9 classrooms: 1 infant, 2 toddler and 6 preschool classes -- 3 threes, 3 fours)

generally intended to help support the costs of improving program quality and/or of maintaining program quality. A package of incentives and supports is generally used and the combined effect is expected to help close the cost-quality gap. The incentive options discussed here are drawn from those that are used effectively in other states.

The Goals

For Rhode Island, the goals or desired results of providing financial incentives are:

- Increase the number of early learning programs that participate in the BrightStars Quality Rating and Improvement System.
- Make lasting improvements to the quality of early learning programs, especially those serving children with high needs.
- Help programs, especially those serving high needs children, to meet quality standards within the BrightStars Quality Rating and Improvement System and RIDE Comprehensive Early Childhood Education Program/Classroom Approval.
- Increase the proportion of low-income children in higher quality programs by supporting programs to improve their quality.
- Increase the number and proportion of early learning programs that achieve and maintain Star 4 or Star 5 in the BrightStars Quality Rating and Improvement System by off-setting the cost of operating higher quality programs.
- Help programs serving low-income infants and toddlers to achieve and maintain higher quality standards (Star 3 – Star 5).
- Maintain family contributions (private fees/tuition) as a revenue source and keep those contributions affordable for families with low and moderate incomes.

The Options

Rhode Island's policy priorities follow from the goals outlined above. Combining the policy priorities with data from the cost-of-quality model, the Quality Improvement Core Team proposed two main options for financial incentives and supports to provide concrete support to programs. These are:

- Program Quality Improvement Fund to support the cost of improving quality
- Program Quality Awards to support the ongoing cost of maintain quality

Program Quality Improvement Fund

The Program Quality Improvement Fund is intended to help all programs make progress on the pathway to higher quality. The Fund will offer grants to all early learning centers (child care, Head Start, and public schools) and family child care homes. Licensed early learning programs in centers and homes must have a BrightStars quality rating (Star 1-Star 5) and an approved Quality Improvement Plan (QIP) in order to receive a grant. Public schools serving young children must have a state-approved Quality Improvement Plan supporting RIDE

Comprehensive Early Childhood Education Approval. The grants uses must be directly related to achieving the goals of the QIP. Recognizing that improvement may take time, progress needs to be demonstrated as soon as feasible; a program may apply for up to 2 grants over 2 years before demonstrating movement to a higher Star level. The proposed levels of grants are:

Family Child Care Home: Grants up to $5,000
Center/School: Grants up to $30,000

Program Quality Awards

Quality Awards are designed to address the ongoing cost of operating a quality program, based on the gaps by quality level identified in the cost model work. Recognizing both the adequacy of current revenue and the effects of enrollment size on financial sustainability, the proposed payments were thoughtfully calibrated.

Essentially, all except very small centers are financially sustainable with current revenue sources at Star 1 and 2 (there is no quality gap at these levels). Programs at higher quality levels, Star 3-5, have cost-quality gaps related both to quality level and to size. Large programs are financial sustainable at Star 3 and 4, but not at Star 5.

Data from the cost model show that small centers are always financially unsustainable. To support quality in these small centers, it may be a more effective use of public funds to explore and introduce structural approaches to financial sustainability. There are several well-documented methods such as shared service alliances, consolidation of financial management functions, and other means that can bring greater efficiency through economies of scale to these small programs, while maintaining their 'smallness' which is often attractive to families.

Given that low-income children are a high policy priority, the proposed Quality Awards first consider enrollment of low-income children. Quality Awards take into account the magnitude of the cost of quality per child for children of all ages. Further, a policy priority is to help programs serving low-income infants and toddlers to reach and maintain higher quality standards (Star 3 – Star 5); the Quality Awards also consider the cost of quality for infants and toddlers. The Quality Awards are calculated using the combination of these factors: quality level, enrollment of low-income children, enrollment of low-income infants and toddlers, quality gap for all children under age 5, quality gap for infants and toddlers.

Quality Awards have two parts. The first is a payment based on the quality level (3-5) of the program and its total enrollment of children under age 5. The second is a payment based on the quality level of the program (3-5) and the enrollment of infants and toddlers receiving CCAP

funding. After careful consideration of the facts and extensive deliberation, the proposed Quality Awards are as follows:

- Eligible programs are licensed early learning centers (child care, Head Start) and family child care homes serving children participating in the Child Care Assistance Program (CCAP) who are under age 6; those children must make up at least 10% of overall enrollment of children under age 6
- Quality Awards amounts are calculated based on the program's BrightStars rating, the overall enrollment of children under age 6, and the number of CCAP infants and toddlers.

A. **Base Award -** Programs receive a per child award for all children under age 6.

Quality Rating	3 Star	4 Star	5 Star
Annual Per Child Amount	$50	$150	$500

B. **CCAP Infant-Toddler Incentive –** Programs receive a per child award for all CCAP children under age 3.

Quality Rating	3 Star	4 Star	5 Star
Annual Per Child Amount	**$100**	$300	$500

The Quality Improvement Core Team expects that experience with implementing the Quality Awards will provide more data that will inform any adjustments to the proposed parameters. E.g., the threshold of 10% CCAP enrollment is intended to both concentrate support in programs that serve low-income children and reach as widely as possible the universe of programs serving these children. Experience will tell whether this is the correct threshold.

Quality Awards for homes were set based on the cost model. Modeling quality gaps in family child care is distinct from doing so in centers for several reasons. Homes are small for-profit businesses; the provider's income is the net revenue after expenses; the business is paying for part of the home expenses. A provider's net income after taxes is very difficult to calculate given different types of households with different tax statuses. The provider's net income is one part of the equation to calculate whether there is a gap.

Family child care homes can enroll 6 children. Group family child care homes are allowed in regulation to enroll 2 more for a maximum of 8 children, but will need an assistant if they do. The cost of the assistant reduces net revenue such that a group family child care provider will

always earn less than a family child care provider. One way to gauge the adequacy of either type of provider's net income is to compare their net annual income to minimum wage for annual hours worked.

Family child care providers of any quality level earn more than minimum wage, ranging from $4,000 more annually for Level 1 to $1,000 more for Level 5. On the other hand, group family child care providers who employ an assistant always earn less than minimum wage for the hours worked. The range is $2,000 less annually for Level 1 to $6,000 less for Level 5.

Another approach to gauge the adequacy of compensation for home providers is to compare their net annual income to the annual salary of a child care teacher. All providers, with or without assistants, at all levels of quality earn more than the average Rhode Island child care worker ($22,560).

Supply and Demand for Quality

If the goal is to drive more children, especially high-need children into higher quality care, the proposed financial incentives work on the supply side to help create and sustain such programs. To ensure programs are aware of and will use them, it is necessary to communicate clearly, consistently and often as the incentives are introduced and implemented. On the demand side, consumers can help drive programs to improve. Consumers need to know about BrightStars at the point they are making decisions to enroll their children. There are two main ways to influence consumer demand: communication and financial incentives.

Communicate

One way to communicate is to market the benefits of quality early learning generally and specifically and describe how the BrightStars ratings help consumers. Another is to market the ratings of program aggressively, everywhere families are, all the time. Consumer strategies to reach high-need children include the following:

- Promote BrightStars via community organizations in low-income neighborhoods.
- As families apply for (re-certify for) CCAP, always offer general info on BrightStars (e.g., brochure, kiosk with internet access connected to BrightStars website) and provide specific information on the Star ratings of programs nearby their home/work, listing the program with the highest ratings first.

Incentivize

The current quality incentives work primarily on the supply side. It is also possible to design incentives to maximize higher quality choices by consumers.

- Consider officially lowering (or eliminating)[3] the CCAP co-pay for families who choose Star 4-5 (or perhaps Star 3-5) programs.
- Another demand side option is to reach out widely to all families at income tax time (February-April) and connect the BrightStars message to outreach on claiming the federal and RI child care tax credits (the state credit is 25% of the federal amount). This will increase claims and get money to families who pay as well as set up the connection between taxes and early learning/care to later establish a RI Tax Credit that rewards quality as several other states have e.g., Maine, Arkansas.

Sustainability

- Rhode Island will work to sustain Quality Awards and on-going financial support to programs that serve CCAP children and achieve high quality standards within BrightStars.
- Rhode Island will continue to expand funding for State Pre-K which provides stable financial support for programs serving 4-year-olds to achieve high program quality standards. The cost model work revealed the significance of state funding for Prek to the financial sustainability of these higher quality programs.
- Rhode Island will explore the possibility of enhancing the state child care tax credit as a strategy to support program quality and influence consumer demand.

[3] Federal CCDF regulations permit co-pays to be eliminated only for families with incomes below the poverty level. Reducing co-pays to near-zero is allowable.

Appendix

Quality Elements in the Budgets: Expenses

The revenue and expense budgets were developed to illustrate the realities of operating a center-based program or a family child care home in Rhode Island at different levels of quality. Budgets were made for five different levels of quality for each setting. The basic quality level is a program that meets the state child care regulations, i.e., a legally operating program. Levels of quality above that are exemplified by Star level 2 through 5 in BrightStars.[4] This is also the structure for the family child care budgets.[5] For centers, two additional budgets represent a BrightStars Level 5 center with state-funded PreK classrooms and a RIDE-approved preschool (RIDE Comprehensive Early Childhood Education [CECE]) program.

In general, expenses are influenced by two major factors:

1) class sizes (in schools/centers) and staff/child ratios (in both centers and homes), and
2) levels of credentials of teaching and administrative staff and compensation to match those credentials.

Rhode Island Regulations on Class Size and Ratio in Centers

Staff/child ratios and group sizes for centers are below; these are used in budgets for the five quality levels.

Age	Staff/Child Ratio	Maximum Group Size[6]
Infant (6 weeks to 18 months)	1 to 4	8
Toddlers (18 months to 3 years)	1 to 6	12
3 years	1 to 9	18
4 years	1 to 10	20
5 years	1 to 12	24
5-13 years	1 to 13	26

RIDE preschool approval sets group size at 18 for children 3, 4 and 5 years old with a staff:child ratio of 1:9. State-funded Prekindergarten also sets class size at 18 with 1:9 ratio. These ratios and group sizes are used in the two relevant budgets (Level 5 with PreK and RIDE CECE).

[4] Please note that the cost model was initially constructed to reflect the current child care regulations, RIDE preschool approval and BrightStars standards; all of these are under revision to increase alignment among them and to meet other goals. The information presented here reflects the proposed revisions.

[5] Family child care budgets are a work in progress. Financial data is currently being gathered from a sample of family child care providers.

[6] Rhode Island's current child care center regulations do not limit group size; proposed revisions do include groups size limits. The model budgets were constructed assuming that each group size limit is twice the stated ratio.

Rhode Island child care center regulations recognize 2 sizes of center (fewer than 40 children, 40 or more children). The regulations specify an administrator (at least 15 hours per week in small center), non-teaching if the center has 40 or more children, and an education coordinator (minimum of 15 hours per week in a small center and 30 hours per week in a large center but half of that time can be direct teaching). Practically, either the administrator or one of the teachers meets the education coordinator requirements. There are two other types of teaching staff in the proposed regulations: teacher and teacher assistant. Each classroom is required to have one of each. Professional development is required for all positions and consists of an individual training plan and 20 hours annual training/professional development aligned with the Workforce Competencies for their respective positions.

Note that according to 2011 licensing data, only about ¼ of centers are licensed for 40 or fewer children. The 2011 Market Rate Study found that 84% of centers are licensed for 50 or more and indicates that most centers and homes operate 11 hours per day and 52 weeks per year. By far the typical center has more than 40 children and thus a non-teaching administrator.

Rhode Island Regulations for Family Child Care Homes

Staff/child ratios for licensed homes are shown below. Family child care homes (FCCH) may enroll up to 6 children; group family child care homes (G-FCCH) may enroll up to 8 children with an assistant.

Ages and Numbers of Children	***FCCH***	***G-FCCH***
	Ratio	***Ratio***
if 2 children under age 18 months, up to 2 aged 1.5-5 years, plus 2 school-age	1 to 6	
if all children over age 18 months, up to 6 children	1 to 6	
If 4 children under age 18 months , up to 4 other children		2 to 8
if all children over age 18 months, up to 8 children		2 to 8

Staffing Requirements for Centers and Homes

The table below summarizes the staffing requirements for centers and homes. Understanding these is the first step to determining cost drivers.

Position Title	*Minimum Qualifications In Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*	*RIDE Comprehensive Early Childhood Education Program (CECE) aka 'RIDE Preschool Approval'*
CENTER Administrator	Responsible for overall operation QUALIFICATIONS: The administrator shall have experience in administration or professional preparation in a field appropriate for those who work with young children. AND 20 hours annual PD		Associates or higher	Bachelors or higher AND RIELDS certificate	Bachelors or higher AND 12 college credits ECE related AND RIELDS certificate	
Education Coordinator	Responsible for developing and implementing the education program, curriculum, organization of groups of children, staff performance QUALIFICATIONS: current RIDE Teacher		RIELDS certificate	RIELDS certificate	RIELDS certificate	Ed Coordinator must have teacher license EC or EC Special Ed, 3 credit course supervision/leadership, and RIELDS certificate *EC Coord is FT if > 90 children (5 classrooms)

Position Title	*Minimum Qualifications In Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*	*RIDE Comprehensive Early Childhood Education Program (CECE) aka 'RIDE Preschool Approval'*
	Certification PreK-Grade 2 (Early Childhood Certification) OR Bachelor degree or higher in related field with 24 credits in ECE OR RIDE Teacher Certification EC Special Ed which includes EC Certification					
Teacher (1 per classroom)	High school diploma with vocational concentration in child care including 2 yrs supervised experience in regulated program OR HS or GED with 3 yrs supervised experience in regulated program and regular PD AND 20 hours annual PD		75% of teachers have CDA and 6 credits in ECE/related OR 12 college credits in ECE/ related	75% of teachers have 12 college credits in ECE/ related 25% of teachers have Associates/60 college credits or higher AND 50% of preschool lead teachers have	75% of teachers have Associates/60 college credits or higher, with 24 college credits ECE/ related AND 75% of preschool lead teachers have RIELDS certificate	

Position Title	*Minimum Qualifications In Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*	*RIDE Comprehensive Early Childhood Education Program (CECE) aka 'RIDE Preschool Approval'*
				RIELDS certificate		
Teacher Assistant (1 per classroom)	18 yrs old, High school diploma or GED and regular PD AND 20 hours annual PD aligned with Workforce Competencies relevant to this position.					High school degree plus CDA and 6 college credits in ECE or 12 college credits in ECE AND RIELDS certificate
<u>Preschool</u> Teacher (relevant for BrightStars Levels 5 and RIDE CECE)					50% have Bachelors or higher AND 24 college credits in ECE/ related	100% of teachers have a RI Early Childhood Education or Early Childhood Special Education teaching certificate (can be completed within one year of hire) AND RIELDS certificate
FAMILY CHILD CARE provider	21 yrs old, high school/GED for providers licensed since 2007, CPR & First Aid, approved FCC training and DCYF orientation (12 hours training per year)	high school/GED	CDA plus 6 credits in ECE/related, OR 12 college credits in ECE/related	12 college credits in ECE/related AND RIELDS certificate	Associates or higher in ECE AND RIELDS certificate OR 60 college credits of which	N/A

Position Title	*Minimum Qualifications In Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*	*RIDE Comprehensive Early Childhood Education Program (CECE) aka 'RIDE Preschool Approval'*
					24 credits are in ECE/related AND RIELDS certificate	
FCC Assistant	18 yrs old, CPR & First Aid (8 hours training per year)					

Staff-related Cost Factors for Centers and Homes

The major cost factor, for both centers and homes, is the higher qualifications of staff at higher levels of BrightStars, especially levels 4 and 5, which require proportions of staff to have degrees, and to some extent Level 3 which requires college credits. These increased educational requirements presumably require centers to offer higher compensation to attract and retain degreed staff and warrant higher compensation for family providers as well. Fortunately there is support for the acquisition of increased qualifications. The professional development that leads to RIELDS Certificates is offered at little or no cost. Some higher education coursework is supported by T.E.A.C.H. scholarships and tuition-free early childhood coursework is offered at CCRI. The T.E.A.C.H. support will be especially important to family child care providers who will certainly need substitutes to attend daytime classes (or will be limited to evening and/or weekend classes) to acquire the higher levels of education required by BrightStars, especially at Level 5. Providing access to higher education is properly a system cost rather than a program level budget item.

Staff qualifications for a RIDE-approved preschool are higher than Bright Stars Level 5 since 100% of teachers need to have a teaching certificate (with BA or MA); the group size is lower (18 and 1:9) for classrooms of three-year olds, four year olds or five-year-olds (not yet in kindergarten); and the education coordinator is required to be full-time for enrollment above 90 children (5 classrooms). Lowering group size adds to cost, as the staff costs for each classroom are spread among fewer children. Note: RIDE approval is offered for individual classrooms, so programs could be operating at various levels in BrightStars and have one or more

RIDE approved classrooms, where higher quality standards are met. In practice it is likely that centers with a RIDE approved classroom are also at higher quality levels in BrightStars.

Other BrightStars Standards and Criteria that are Cost Factors for Centers

The BrightStars standards and criteria affect expenses for staff qualifications/compensation, as illustrated above, and less significantly in two other ways that increase staff time. These other factors are:

1. increased number of parent conferences and family activities and
2. child observation and assessment.

Bright Stars Level 1 is essentially a DCYF-licensed center. Bright Stars standards and criteria are cumulative and gradually increase at each successive Level. At Levels 3-5, ERS assessments are required; at Levels 4-5, a CLASS assessment is required for preschool classrooms. These are not an ongoing cost to the program. While at all levels, teachers must have an individual professional development plan (IPDP), little or no cost is associated with meeting this criterion. Similarly, choosing curriculum and assessment tools aligned with RIELDS is not an ongoing cost. The items below are those that have ongoing costs associated with them.

Cost Factors-CENTERS	*Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*	*RIDE Comprehensive Early Childhood Education Program (CECE) aka 'RIDE Preschool Approval'*
Curriculum & RI Early Learning and Development Standards (RIELDS)			Written curriculum is aligned with RIELDS	Written curriculum is aligned with RIELDS	Written curriculum and framework are approved by RIDE as aligned with RIELDS	Curriculum framework integrates 8 RELS domains of learning 2 hours per week per classroom paid planning time
					Staff participate in IEP/IFSP	

Cost Factors-CENTERS	*Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*	*RIDE Comprehensive Early Childhood Education Program (CECE) aka 'RIDE Preschool Approval'*
					meetings, relevant training re CWD	
Child assessment				Use multi-source child assessment	Use multi-source child assessments Valid and reliable assessment tools used to inform curriculum planning	Assessment aligned with RIELDS Specific assessment tool is required (Teaching Strategies Gold)
Family engagement	Parent handbook, resource directory and daily communication with parents of infants/toddlers	2 family communications	2 family communications AND 2 conferences per year	2 family communications AND 2 conferences per year AND annual family survey	3 family communications AND 2 conferences per year AND advisory board includes families and meets quarterly AND annual family survey	Multiple family communications and advisory board includes families

Doing more parent-teacher conferences requires a modest amount of extra staff time. Curriculum and assessment implementation requires staff time upfront for training (e.g., RIELDS at the level relevant to the position), and requires modest amounts of staff time ongoing to conduct the observations and plan curriculum. These requirements, from a cost perspective, translate into the need for slightly more teaching staff as quality increases and higher compensation is needed to match the higher required staff qualifications.

The cost of a child assessment system is an ongoing cost. The per child costs for Teaching Strategies GOLD (note: other assessment systems such as High/Scope COR or Work Sampling are similar in cost) are included in budgets for Levels 4 and above. Advisory Boards and family events involve costs for food and for child care during the events. These costs are represented directly in the budgets for Levels 3 and above, increasing slightly with the levels.

ECERS and ITERS scores do reflect the presence of materials and equipment sufficient for the number of children in a given classroom; however these are generally in sufficient supply initially. Center expense budgets do include line items for the purchase of replacement equipment and classroom materials such as blocks and books.

The cost factors for family child care homes are similar to those for centers, as illustrated in the table below.

Cost Factors- FAMILY CHILD CARE	*Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*
Curriculum & RI Early Learning and Development Standards (RIELDS)	Adequate variety of materials for indoor and outdoor play; play materials must be culturally inclusive and appropriate to the age, number, growth and developmental needs of the children in		Written curriculum aligned with RIELDS	Written curriculum aligned with RIELDS	Written curriculum and framework are approved by RIDE as aligned with RIELDS

Cost Factors- FAMILY CHILD CARE	*Regulation*	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*
	care.				
Early Learning and Development					Participate in IEP/IFSP meetings, relevant training re CWD
Learning Context			FCCERS-R score of 3.0 or greater	FCCERS-R score of 4.0 or greater	FCCERS-R score of 5.0 or greater
Child assessment				Multi-source child assessment	Multi-source child assessment, valid and reliable assessment tools used to inform curriculum planning
Family Engagement	Written daily communication with parents of infants/toddlers	2 family communications	2 family communications AND 2 conferences per year	2 family communications AND 2 conferences per year AND annual family survey	3 family communications AND 2 conferences per year AND annual family survey

Other BrightStars Standards and Criteria that are Cost Factors for Family Child Care Homes

For homes, the primary ongoing cost factors are:

3. increased number of parent conferences and family activities at Levels 3-5 and
4. child assessment at Levels 4-5.

The cost of a child assessment system is included in expense budgets at Levels 4 and 5. National data indicate the average home provider works 68 hours per week, 55 hours with children and the rest on recordkeeping, purchasing, planning, and other activities of the business. To cover the additional time needed for increased family communications, conferences and curriculum planning, 2 hours per week are added at Level 4 and at Level 5.

An additional cost factor for homes is that FCCERS scores are more dependent (than other of the ERS scales) on the presence of specific amounts of materials and equipment in relation to the number of children. To address this, the home budgets include an expense item based on the replacement cost of these additional materials, which has the effect of reducing the provider's income slightly.

Compensation in family child care is distinct from compensation in centers. Homes are small for-profit businesses; the provider's income is the net after expenses. The business is paying for part of the home expenses. Net income after income taxes is very difficult to calculate given different types of households with different tax statuses. One way to gauge adequacy of provider's compensation is to compare their net annual income to minimum wage for annual hours worked.

Specific Budget Information

Staffing Patterns in Centers

Every classroom has at least one teacher and one assistant. For ease of calculation, all of the expense budgets have full-time staff (no part-timers). Each center has one administrator. If there are fewer than 40 children, the administrator is assumed to be the education coordinator. The administrative assistant is half-time (increasing to full-time if more than 40 children). If the center has more than 40 children, the education coordinator is ¼ time and in a classroom the rest of the time; if there are more than 120 children, the education coordinator does not teach (threshold is 90 children for RIDE approved preschool). If infants are served, a health consultant is in the budget at the price per child offered by the RI DOH Child Care Health Consultation Model.

Staff Compensation in Centers

Compensation is the combination of wages and benefits. Benefits include the mandatory (e.g., Social Security, Unemployment Insurance, Disability and Workers' Compensation) and the discretionary. Typical discretionary benefits include paid time off (e.g., paid holidays, sick leave, bereavement leave, personal leave, vacation leave). Additional benefits that may be offered are health and/or dental insurance, retirement plans, discounts on child care or tuition reimbursement. There are some data from the Market Rate Survey on benefits, but with cautions about low-response rates on the questions. Perhaps 1/3 offer some benefits for some full-time staff; very few pay any benefits for part-time staff. Data from centers engaged with the Facilities Fund provides some data on the cost of benefits, but not what benefits are offered and to whom. Head Start data indicate types of benefits offered (health/dental/life insurance and retirement), and total cost but not to whom the benefits are offered. The cost of these benefits per staff is calculated and included in the Head Start budget. To augment, these sources a survey on benefits was distributed to BrightStars participants, both centers and homes. Survey results are discussed in more detail below; the combination of information from all sources informed the benefits in the budgets..

Mandatory benefits are the same in all budgets/all levels and follow RI law. All budgets have 10 paid holidays and 10 days of leave (any type). Reflecting the survey findings, leave is increased by quality level: 5 more days at Level 3, reaching 20 days at Levels 4 and 5. The only other benefit that is added as the program quality level increases is annual employer contribution to health insurance, beginning at $500 per employee in the Level 4 budget. At Level 5 it is increased to $1200 per employee per year and a percentage for additional benefits (unspecified but likely including larger employer contribution to health insurance and access to a retirement plan) to bring the total benefit rate up to the rate based on the Facilities Fund data.

In the RIDE-approved preschool budget the benefit rates match those provided by RIDE from actual budgets, 25% in addition to the mandatory benefits. In the Head Start budget, the average across Head Start budgets for benefits is used, which is also 25% in addition to the mandatory benefits.

To estimate the wages for the various types of staff, we use the most recently available data (2011) from the US Bureau of Labor Statistics (BLS) for Rhode Island. The model uses the mean annual wage for 3 occupations; the definitions of these occupations are:

- *Child Care Workers* (Standard Occupational Code [SOC] 39-9011) Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Excludes "Preschool Teachers, Except Special Education" (SOC 25-2011) and "Teacher Assistants" (SOC 25-9041).
- *Preschool Teachers, Except Special Education* (SOC 25-2011 Instruct preschool-aged children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. Substitute teachers are included in "Teachers and Instructors, All Other" (SOC 25-3099). May be required to hold State certification. Excludes "Childcare Workers" (SOC 39-9011) and "Special Education Teachers" (SOC 25-2050).

- *Education Administrators, Preschool and Child Care Center/Program* (SOC 11-9031) Plan, direct, or coordinate the academic and nonacademic activities of preschool and childcare centers or programs. Excludes "Preschool Teachers" (SOC 25-2011).

Wages in the budgets are set at a percentage of the mean annual BLS occupational category relevant to each position. The resulting annual salary by level and position are shown in the table below. Levels 1 and 2 are identical for all positions. The wages increase for teachers and administrators beginning at level 3 to reflect the increased qualifications required.

	Regulated	*Bright Stars Level 2*	*Bright Stars Level 3*	*Bright Stars Level 4*	*Bright Stars Level 5*
Administrator	$53,108	$53,108	$56,232	$59,356	$62,480
Education Coordinator	$53,108	$53,108	$53,108	$53,108	$53,108
Teacher	$20,304	$20,304	$21,432	$22,560	$24,816
Teachers with degrees				25% with AA: $23,688	75% with AA: $25,944
Teacher Assistant	$18,048	$18,048	$18,048	$18,048	$18,048
Teacher in Preschool Classroom (the 50% with credentials)					50% with BA: $31,133
Teacher in state-funded PreK classroom (RIDE data)					$44,056
Assistant in state-funded PreK classroom (RIDE data)					$29,505
Head Start Teacher (9 month work year)					$26,051

Head Start teaching staff is fairly well-qualified according to the most recent PIR data. Most (59%) of Head Start Teachers have a BA or higher in ECE or related field; 15% of HS assistant teachers have an AA or BA in ECE or related field and 43% of assistant teachers have the CDA. Most Head Start staff work part-day, school year so their salary level which may appear low is not when compared to child care teachers who work full-day, full-year. Further, Head Start programs and public schools provide a much more comprehensive benefits package (health, dental and life insurance, tuition reimbursement and retirement contributions) than do child care centers. There is some evidence that child care centers offer more paid time off (e.g., vacation leave) in lieu of providing more costly benefits; nearly all centers report 10 or more days of paid leave in addition to paid holidays.

Revenue Sources

All of the center and home budgets (except Head Start) assume basic revenue comes from either Starting RIght Child Care Assistance Program (at the ceiling rates with family co-pay included) or parent tuition charged at rates from the most recent market rate study to accurately reflect that private pay rates are generally higher than CCAP rates.

The center budgets assume that parent tuition stays at the 50%ile rate for Levels 1-3 and rises to the 60%ile rate for Level 4 and to the 70%ile rate for Level 5. Tuition increases with the quality levels only to the degree that current tuition rates do. A guiding principle is that policy designs for financial awards/incentives for quality should not drive up parent contributions beyond what is currently charged.

The budget for Level 5 plus PreK includes state-funded PreK classrooms paid at the current PreK rate for 180 days and assumes that a percentage of these children will stay longer hours at the part-time CCAP rate during the school year and full-time in the summer; the percentage is a variable in the model.

For homes, there is very little accuracy gained by using tuition rates above the 50%ile as they do not vary significantly. Further, the enrollment in homes is 55% subsidized children (compared to 20% of enrollment for centers).

All of the home and center budgets, including Head Start, assume the center is participating in the Child and Adult Care Food Program (CACFP). Enrolled children are distributed among the three categories of meal reimbursement: free (below 130% FPL), reduced (between 130% and 185%) and paid (income 185% and above). The budgets assume children in the 'free or reduced' category are subsidy eligible; that is, CCAP eligibility is the same as eligibility for free or reduced price meals. Since the average center has about 20% CCAP eligible children, these are set at 10% free, 10% reduced and 80% paid. The children in the 'paid' meal category are the private tuition paying families. For Head Start, the distribution of CACFP matches the PIR data; 98% are eligible for free lunch.

Nonpersonnel costs

All of these budgets include a line-item called "non-personnel" which is an inclusive category composed of line items for equipment, food, supplies, basic in-service training, occupancy, maintenance, audit, insurance, phone and other miscellaneous expenses. The amounts per year are based on the average expenditure for these items across many sizes and types of programs

in several states, collected over many years, and have been vetted by administrators from several states and communities. The amounts have been vetted with RI experts from the Facilities Fund and adjusted to match RI data. The Head Start budget uses Head Start budget data provided by the federal Regional Office. Family child care budgets use the basic non-personnel amounts altered where needed by data provided by RI providers.[7]

The non-personnel items are in three categories:

1. those that vary by the number of children (e.g., classroom materials, food);
2. those that are related to the number of classrooms (e.g., occupancy costs including rent, utilities and maintenance); and
3. those that are program-wide (e.g., audit, permits/fees). The annual license fee is $500 for centers and $250 for FCC (their license is two-year); RIDE preschool approval is free.

These non-personnel items are calculated in each scenario using the number of classrooms and/or number of children.

All of these budgets assume that children with disabilities could be integrated into any classroom or home and that the costs of their additional special education are paid by early intervention/preschool special education funding sources that follow the child and may or may not pass through the center. Thus these additional costs do not appear in these budgets.

In each budget, the maximum potential revenue from all sources is calculated and then reduced by a percentage to model the fact that 100% enrollment (and 100% revenue receipt) is not achievable. In practice, this factor depends on a center's ability to quickly fill vacancies and to collect full payment from all payers. The *enrollment efficiency factor* is set initially at 85% in all budgets and can be varied by the user. To account for the variations in programs' absence, holiday and vacation polices, these budgets assume payment is collected for 51, rather than 52, weeks in a year.

In each of the budgets, the user can vary the size of the center and the age mix of children by adjusting the number of classrooms (and thus the number of children of each age enrolled). Similarly, the mix of ages in a home can be varied by the user by changing the number of children of each age.

About 1/3 of RI centers enroll infants. Data on centers that enroll infants indicates they are larger than the average center (over 100 children) and are very likely to enroll children of all ages including school-agers. This makes sense given the fact that tuition prices (and CCAP rates

[7] To better reflect family child care revenue and expense, a survey is currently underway to collect actual data from family child care providers. The results of this effort may alter the family child care budgets in the model.

since they are set based on prices) do not reflect the actual cost of serving each age group. Rather, as documented by Witte (2002), centers tend to charge parents somewhat less than cost for infants and somewhat more than actual cost for preschool-age children and school-aged children, to keep infant care from being totally unaffordable. Since there are many more preschool- and school-aged children than infants in center-based ECE, the price for older children can be only slightly above cost and still significantly reduce infant prices. Further, families whose child(ren) are in the same center over many years will, over time, pay on average what the care actually cost. This pattern also holds true for homes.

Conclusion

Quality variation mainly depends on staff, what they know and practice, how much time is necessary to meet quality standards, and how well they are compensated. To meet and maintain quality at each level of Bright Stars, the primary major expense is labor.

Benefit Survey of BrightStars Participants

The cost of operating an early learning program has many elements; one of the largest is compensation – wages and benefits. Wage information by occupation is collected routinely and made available by the federal Bureau of Labor Statistics for each state. There is no comparable source of data on employee benefits.

To understand what benefits are offered by programs in Rhode Island, the 2011 Statewide Survey of Child Care Rates asked a series of workforce questions. Unfortunately, the questions on benefits had a much lower response rate than the overall survey. The results indicated that about half of centers offer their full-time employees access to health insurance, paid vacation and sick leave, reduced rates on care for their own children, and financial support for professional development. For family child care, these typical benefits were reported to be unavailable, unaffordable or paid for through a family member's job or a government program.

To expand on those findings, especially the costs of benefits paid for by family child care businesses and by centers, two electronic surveys were distributed to programs participating in BrightStars in late 2012. The intent was to learn about benefits offered by higher quality programs and hopefully be able to compare with the results of the survey of all programs in Rhode Island. One survey was designed for centers and distributed to directors. The other was for family child care home providers and was presented in English and Spanish. The topics were the same for both surveys (see attachments). The response rate to these surveys was reasonable for centers but low for family child care, so the results must be interpreted cautiously.

Centers

Of the 46 in BrightStars at the time, 20 centers responded to the survey (44%). The centers range in size from 30 to 260 children. The overwhelming majority of responding centers (85%) were Star 3-5; about 75% of all centers in BrightStars at the time were Star 3-5, making this a sample that is representative of BrightStars as a whole.[8]

Nearly all centers offer paid holidays, paid vacation and paid sick/personal leave to full-time employees. The typical center offers:

- 11 paid holidays

[8] This survey sample is intentionally not representative of centers as a whole.Tthe 2011 Market Rate Survey did intend to be representative of all centers but was unable to achieve a high enough response rate.

- 10 days of paid vacation
- 10 days of paid sick/personal leave:

Most centers offer access to health insurance, dental insurance and a retirement plan for full-time employees. Most do not offer these benefits to part-time staff.

- The center usually contributes part of the cost of an individual health insurance plan (range 20% to 80%).
- Dental insurance is usually paid by the employee.
- Retirement plans are split, about half with no employer contribution and about half of employers either matching employee contributions (up to a limit, highest was 9% of employee salary) or contributing a set amount per employee to the retirement plan, usually 3% of employee salary.
- Life insurance was mentioned by a few as a low-cost benefit to offer.

Paid professional development/training is commonly offered by centers.

- Nearly all pay for the annual training required by licensing.
- Most centers also pay for professional development in addition and budget about $75 per staff person annually.

Family Child Care

Of the 111 in BrightStars at the time, 19 family child care home providers responded to the survey (17%). Nearly all are small homes (one large). Most are Star One or Two; 3 each were at Star Three and Star Four and none at Star Five. The responding homes represent about half of all homes at Star 3 and 4.[9]

Paid Time Off

- Paid holidays: About half take the major holidays off and some providers have parents pay for those days as part of their fee.
- Paid vacation: Just ¼ have paid vacation (parents pay for that time); most common is 2 weeks. Parents pay ½ tuition for weeks the provider is on vacation or weeks when their child is on vacation.
- Paid sick leave: Only one provider reported paid sick days (2 per year).

Other Benefits

- Paid health insurance: Very few providers have health or dental insurance; those that do get it through their spouse's employer or by purchasing a high-deductible plan (e.g., $5,000 deductible).

[9] Again, this sample is representative of homes in BrightStars, not of all homes on Rhode Island.

- Retirement Plan: Very few providers have any retirement plan, except through their spouse. One provider contributed to an IRA for herself.
- Paid training: About half of providers pay for training for themselves, spending on average about $200 per year. About 40% of these providers employ assistants; the assistant works on average 25 hours per week (range 8-40 hours). The provider pays for the training the assistant is required to have.

Financial Incentives in Quality Rating and Improvement Systems (QRIS): Approaches and Effects[10]

Anne Mitchell
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Financial incentives are monetary awards within a state QRIS which are generally intended to help support the costs of improving program quality and/or of maintaining program quality. Awards can be structured to encourage programs to participate in a QRIS, to serve low-income children, or to improve quality. Awards can help parents access higher quality programs, and/or to promote educators to seek higher qualifications and help support educator compensation commensurate with qualifications. There are several common types of incentives: quality improvement grants, quality achievement awards, wage and retention awards, scholarships and tiered subsidy bonuses.

Quality improvement grants

Nearly all QRIS offer improvement grants. Improvement grants are generally related to a program's quality improvement plan (QIP), are commonly time-limited (one or two years), can be conditioned on advancement in the QRIS and can be intentionally focused on all levels or lower or upper levels of a QRIS, depending on the state's goals. Indiana's improvement grants are available to programs at the next-to-the-top level and designed to help support the costs for programs seeking accreditation, which is required for the top level of its QRIS.

The amount of an improvement grant varies among states from $250- $5,000 (Tout et al 2010, Mitchell 2008). In most states, the improvement grant is by application, varies with program need and often has an upper limit. In both Pennsylvania and Ohio, the grants vary by a combination of setting, enrollment size and quality level and their use must be accounted for in relation to a QIP.

Two states use the income tax system (Maine and Oklahoma) to deliver financial support for quality improvement. Essentially a program that owes state income taxes, i.e., proprietary centers and family child care homes, can receive a tax credit for a portion of the expenses of improving quality (Stoney & Mitchell, 2007). Such tax credits can be structured to also benefit

[10] Note: There are two main sources for compiled information on QRIS financial incentives: *Compendium of QRS and Evaluations* has 2009 data (pp. 177-186); *Comparison of Financial Incentives* has 2008 data with somewhat more detail and links to state QRIS websites.

proprietary programs that do not owe tax and programs that are tax-exempt, if the credits are refundable (credits in Maine and Oklahoma are not refundable).

Quality Achievement Awards

About half of existing QRIS offer ***quality achievement awards***. Of those, about half are one-time payments to recognize a program for achieving a particular level in the QRIS. The others are annual ongoing payments related to achieving and maintaining a particular quality level. These ongoing awards are designed to help support the cost of operating a program at a particular quality level. They are not tied to specific children, but can be structured to reward programs that serve high-need children or those in high-need communities. The amount of these awards varies widely among states from $250 to over $60,000; most are less than $2,500. The largest awards are in Ohio and Pennsylvania.

Louisiana offers QRIS quality achievement awards via the state income tax system, structured as refundable tax credits. Early learning and development programs that participate in the Louisiana QRIS, called Quality Start, receive a refundable tax credit based on the number of stars they earn (above the first level) and on the number of children they serve through the Child Care Assistance Program or children in foster care (these categories were used because there is a reliable state data source). The awards are available to both for-profit and non-profit programs. The annual amount *per eligible child* ranges from $750/child for a 2-star program, up to $1,500/child for a 5-star program. Thus, a 5-star ECE program that serves 30 subsidized children would receive an annual award of $45,000.

Wage and retention awards

The fact that early educators' compensation lags behind that of equally qualified workers in other occupational sectors is well known. Several states have supported wage initiatives for some time; some of these are paid directly to individuals; others are paid to the ECE program, which is accountable for using the funds to increase compensation. There are pros and cons to each method related to the tax treatment of the funds. When awards go to the program, they are added to the individual's wages and taxes are withheld as usual. When awards are paid to individuals directly, the recipient may need to pay quarterly estimated taxes (depending on the size of the award).

More recently these wage and retention incentives are being connected to the state QRIS, usually by conditioning access to the reward to those working in a program participating in the QRIS. Several QRIS include financial incentives that help support compensation and retention. Wage and retention awards are generally intended to reward individuals for the credentials and

qualifications they have achieved and help programs retain qualified staff. The value of these incentives in QRIS ranges from $200-$1,000 in Maryland to $600-$4,000 in Pennsylvania.

Louisiana offers QRIS wage and retention awards via the state income tax system, structured as refundable tax credits that are received when the practitioner files his or her tax return. Child care teachers and directors are eligible for a refundable tax credit if they work for at least six months in a program participating in Quality Start at any level (1-5). This credit intentionally does not vary by Star level and includes Level 1 so as to support retention and continuity, rather than drive higher qualified staff to higher rated programs. The annual amount is based on education levels and ranges from $1,500 to $3,000.

Scholarships

Most state QRIS offer scholarships that help support the cost of increasing an individual's credentials and qualifications. Generally, these scholarships pre-dated QRIS and were available to any educator. More recently states have been focusing scholarships on individuals working in a program participating in the QRIS. Some further target support to the acquisition of recognized credentials and college degrees (as compared to training). Scholarships help individuals pay the costs of higher education. As such, these are important quality incentives and help support the cost of improving program quality; they do not contribute financially to supporting the direct cost of maintaining program quality.

More than 20 states, some with and some without a QRIS, offer scholarships using the Teacher Education and Compensation Helps (T.E.A.C.H. Early Childhood®) model. T.E.A.C.H. is an approach that spreads the cost of higher education among the scholarship recipient, the recipient's employer and the T.E.A.C.H. program, providing early educators with funding needed to earn credentials and degrees at community colleges and universities, as well as paid release time and a bonus or a raise. [11]

Tiered subsidy reimbursement/Tiered bonus

Tiered subsidy reimbursement is a payment to a program based on enrolled children whose families have secured a child care subsidy. The payment is either a flat dollar amount or a % increase paid in addition to the basic child care subsidy rate. The tiers are generally related to the levels of quality in the QRIS, increasing as the levels increase. To ensure that the tiered amount does not drive up the price the program charges to private paying families, it must be structured as a bonus in addition to the basic subsidy rate, not as part of the rate itself.

[11] For information, go to http://www.childcareservices.org/_downloads/TEACH_OnePage4_12.pdf

Further, the value of a tiered bonus depends on the value of the basic subsidy rates. If the subsidy rate ceilings are high compared to average tuition fees in the market, those subsidy rates may be sufficient to cover the cost of the lower levels of quality. In that case, the tiered bonus may only need to be offered at the higher levels of the QRIS. This also serves to support higher quality programs serving low-income children. Alternatively, if a state has set subsidy rate ceilings low, then tiered bonuses have to be quite large to be effective and offered at all levels of the QRIS.

Evidence of Effectiveness of Incentives

There is very little research on the effectiveness of incentives and no contemporary research on the effectiveness of incentives since the advent of QRIS. One study examined the effects of tiered reimbursement in jurisdictions with increased rates conditioned on national accreditation. The study found that a 15% increase was the threshold for any effects on achievement of accreditation (Gormley & Lucas, 2000). Two states – Arkansas and Washington – in their Early Learning Challenge grant applications, proposed to study the impact of provider incentives and rewards (Stoney, 2012). These may yield evidence.

While not always offered as a financial incentive in QRIS, the T.E.A.C.H. Early Childhood® scholarship program has been evaluated fairly extensively; its webpage[12] provides the following evidence for the impact of this model:

Each year, on average more than 20,000 teachers, directors and family child care providers receive T.E.A.C.H. Early Childhood® scholarships.

- Nearly 75% of participants receive scholarships to earn two- or four-year degrees
- Scholarship recipients complete over 100,000 college credit hours
- Participants demonstrate mastery of coursework, with a grade point average of 3.2
- Annual earnings increase by 3% to 15% for T.E.A.C.H. program associate degree scholarship recipients
- Turnover rates for T.E.A.C.H. associate degree scholarship recipients average less than 10% annually.

One intended effect of incentives is increasing program participation in a QRIS. There is some evidence for the effectiveness of incentives overall. Looking at QRIS participation rates (in states with voluntary systems) shows that generosity of financial incentives appears to correlate with participation, i.e., the higher the awards, the higher the participation. For example, Maryland offers several types of incentives: tiered reimbursement (10% -40%), one-time accreditation grants to programs ($200-$1,000) and one-time achievement awards to

[12] http://www.childcareservices.org/ps/teach_pu4.html

individuals ($200-$1,000). Participation is about 2%. New Hampshire's QRIS offers simply a one-time quality recognition award ($250 or $500); participation is about 7%.

In contrast, Ohio offers annual quality achievement awards ($600-$36,000) and tiered reimbursement bonuses of 5% to programs at the top two levels of its QRIS. Participation in Step Up to Quality is about 24%. Pennsylvania offers time-limited improvement grants ($300-$6,000), annual quality achievement awards ($800- $63,000), annual staff retention awards ($600-$4,000 per staff) and tiered reimbursement for levels 2-4 (daily add-on of $.50 to $2 per child). Participation in Keystone Stars in Pennsylvania is over 60%, which is the highest among voluntary QRIS.

Combined Effects of Incentives

Ultimately, the purpose of financial incentives in a QRIS is to help to fill the gap between the cost of operating a quality program with equitable staff compensation and the sources of revenue available to support the program, which is principally tuition paid by non-subsidized families. Thus it is the combined effect of all the financial incentives that matters. Pennsylvania is the leading example of multiple effective incentives, offering quality improvement grants, generous annual achievement award and educator qualification awards, as well as scholarships and tiered subsidy.

Louisiana is another good example of the combined effects of financial incentives in support of a QRIS and one that uses an uncommon approach for delivering them: the state income tax system. The School Readiness Tax Credits[13] are a package of four refundable tax credits: one for families, one for programs, one for educators and one for businesses. In addition to the program and educator credits described above, the Louisiana School Readiness Tax Credits include two other incentives:

- Families are eligible for a higher state child and dependent care tax credit (DCTC) based on the star-rating of the program in which they enroll their child(ren). The family tax credit increases the amount of Louisiana's existing DCTC for children under six. The credit is aligned with the Star rating of the program. The increase ranges from 50% for a 2 star program, up to 200% for a 5 star program. Annual maximum amounts range from $575 to $3,150. [14]

[13] http://www.qrslouisiana.org/tax-credits

[14] While Louisiana's School Readiness Credit is the most generous, three other states provide quality add-ons to their child care tax credit for families: Arkansas, Maine and Vermont.

- Businesses that invest in child care programs receive a higher tax credit based on the Star rating of the program in which they invest. Louisiana has four such tax credits for businesses, all based on the Star rating of the program they support. These credits include investments to: 1) construct, renovate, or expand a child care center, purchase equipment for a center; maintain or operate a center; or 2) pay an eligible program for child care for their employees; or 3) pay an eligible program to reserve spaces for employees. Credits range from 5% of eligible expenses for a 2 star facility to 20% for a 5 star, with maximum eligible expenses of $50,000/year. Further, businesses may also claim a dollar-for-dollar (i.e., 100%) tax credit for donations made to Child Care Resource and Referral agencies. The annual maximum for this credit is $5,000. The intention was to create a modest new revenue source for CCR&Rs to support their QRIS work. [15]

The experience across state QRIS seems to indicate that effective financial incentives address the major cost drivers of quality: compensation, quality improvement, quality maintenance. The set of incentives together can begin to fill the gap between the cost of producing quality and the current revenues sources available to programs. Financial incentives are most useful when they are aligned with the overall goals of state's QRIS, e.g., to increase the proportion of low-income (subsidy-receiving) children in higher quality settings. States that require programs to participate in QRIS to be eligible to receive subsidy, or that limit receipt of subsidy to programs at higher QRIS levels, are crafting financial incentives in line with this goal. New Mexico, Oklahoma and North Carolina are examples.

Structuring financial incentives into a QRIS is a powerful strategy but is usually not sufficient without other investment. Financial stability of an ECE program depends on the "iron triangle": 1) tuition fees adequate to cover expenses, 3) full and timely fee collection and 3) full enrollment. [16] When a program increases its quality, it also increases its cost. State policy can support quality for programs participating in the QRIS (or those at higher levels) through a robust array of financial incentives. State subsidy policy can also help. One way is to base subsidy payments on enrollment (rather than attendance) to ensure that the full tuition will be collected for each subsidized child enrolled. Another is to establish eligibility for a full-year to support continuity for the child and financial stability for the program. Because only a small

[15] Colorado also has a Child Care Contributions Tax Credit (CCCC). Any taxpayer who makes a monetary contribution to promote child care in Colorado is eligible for a 50 percent tax credit when filing a Colorado income tax return. The credit generated $22 million in contributions in 2009. The evaluation of the credit found "for every dollar that the state invests in the child care industry via the CCCC, $4.65 is added to the Colorado economy through private contributions, federal matching dollars, and the multiplier effects of the spending." (Development Research Partners, 2011, page ii)

[16] For a more detailed discussion of this issue see *The Iron Triangle: A Simple Formula for Financial Policy in ECE* http://www.earlychildhoodfinance.org/downloads/2010/IronTriangle_10.2010.pdf

proportion of children are eligible for and receive subsidy, financial incentives must be structured more broadly.

Finally, sharing the cost of quality is an emerging approach that builds on QRIS financial incentives. For example, if all highly rated programs are eligible to offer state-funded pre-K, that revenue source is added to the mix that supports quality. Head Start-child care partnerships can share costs as well as extend comprehensive services. Promoting Shared Service Alliances[17] among groups of programs can increase the efficiency of each program and can save costs by spreading them among programs, using the savings for quality improvement. Taking a comprehensive approach to financing is essential to improving and sustaining quality programs for children.

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[17] For more information, go to http://opportunities-exchange.org/

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Findings on Cost of Quality

The charts on the following pages were presented at Program Quality Improvement Subcommittee meeting on May 15, 2013.

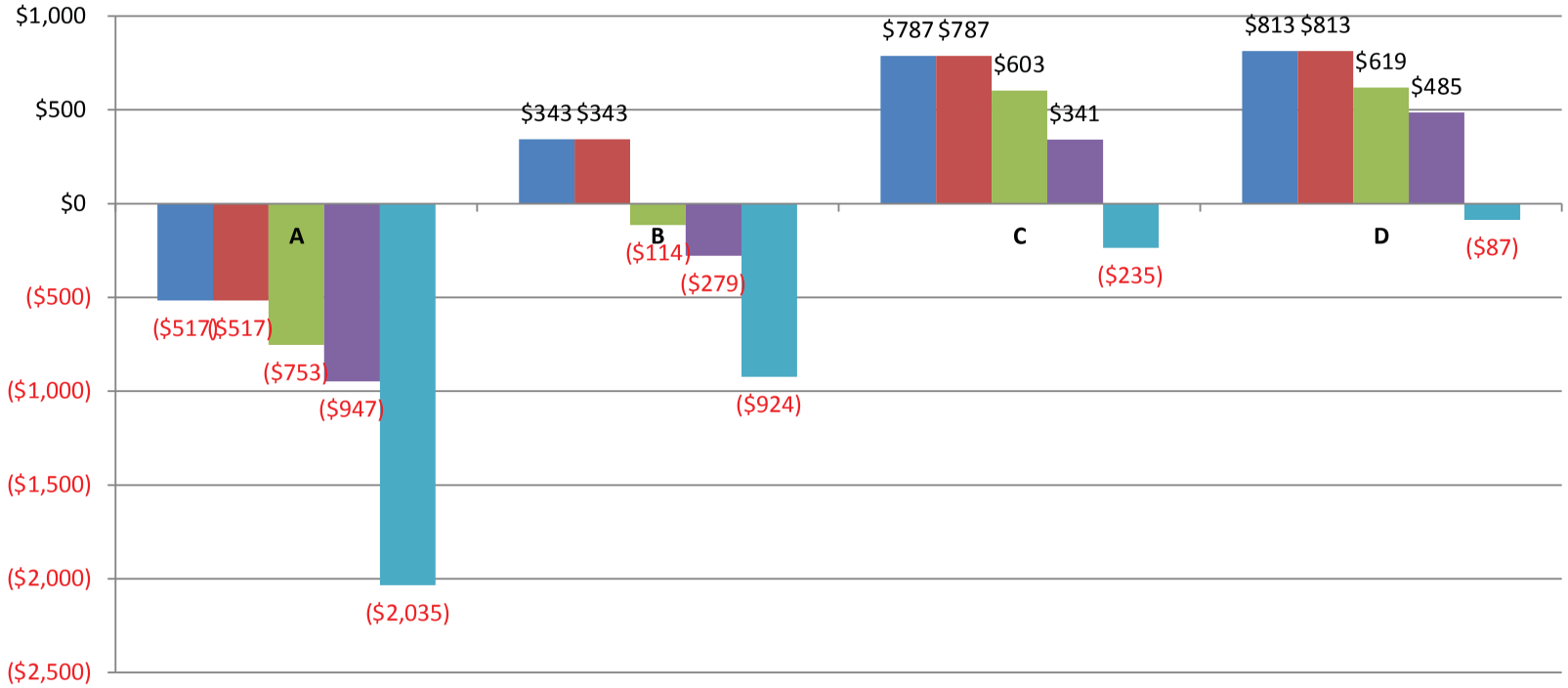
These bar charts are the output of the cost of quality model. For centers, the model output is net annual revenue. This shows in a familiar way whether centers are financially sustainable: the annual profit/loss statement showing net annual revenue in the positive range. Barely breaking even is not a healthy financial situation. Modest positive net annual revenue (profit) allows a center to contribute to a reserve fund, which is a good business practice.

The model output for family child care homes is not as familiar a format. The provider does not have a statement of annual profit/loss. The provider's net annual income is the remainder of revenue after subtracting all operating expenses. The model output for homes is net annual revenue (the provider's annual income). One way to gauge the adequacy of a family child care provider's net income is to compare their net annual income to minimum wage for annual hours worked. Another is to compare their net annual income to annual wages for a similar occupation such as child care teacher, understanding that teachers and directors do not work 60-plus hours a week as family child care providers do.

Figures 1 and 2 represent centers; Figures 3 and 4 represent family child care homes. The conditions of efficiency (85% enrollment) are the same for all. The revenue mix between CCAP and private tuition is the average case for programs in Rhode Island.

In each set, the first figure is the net revenue with all current revenue sources; the second figure in the set shows the effect of the Quality Award and CCAP Infant-Toddler Bonus for Star 3 through Star 5.

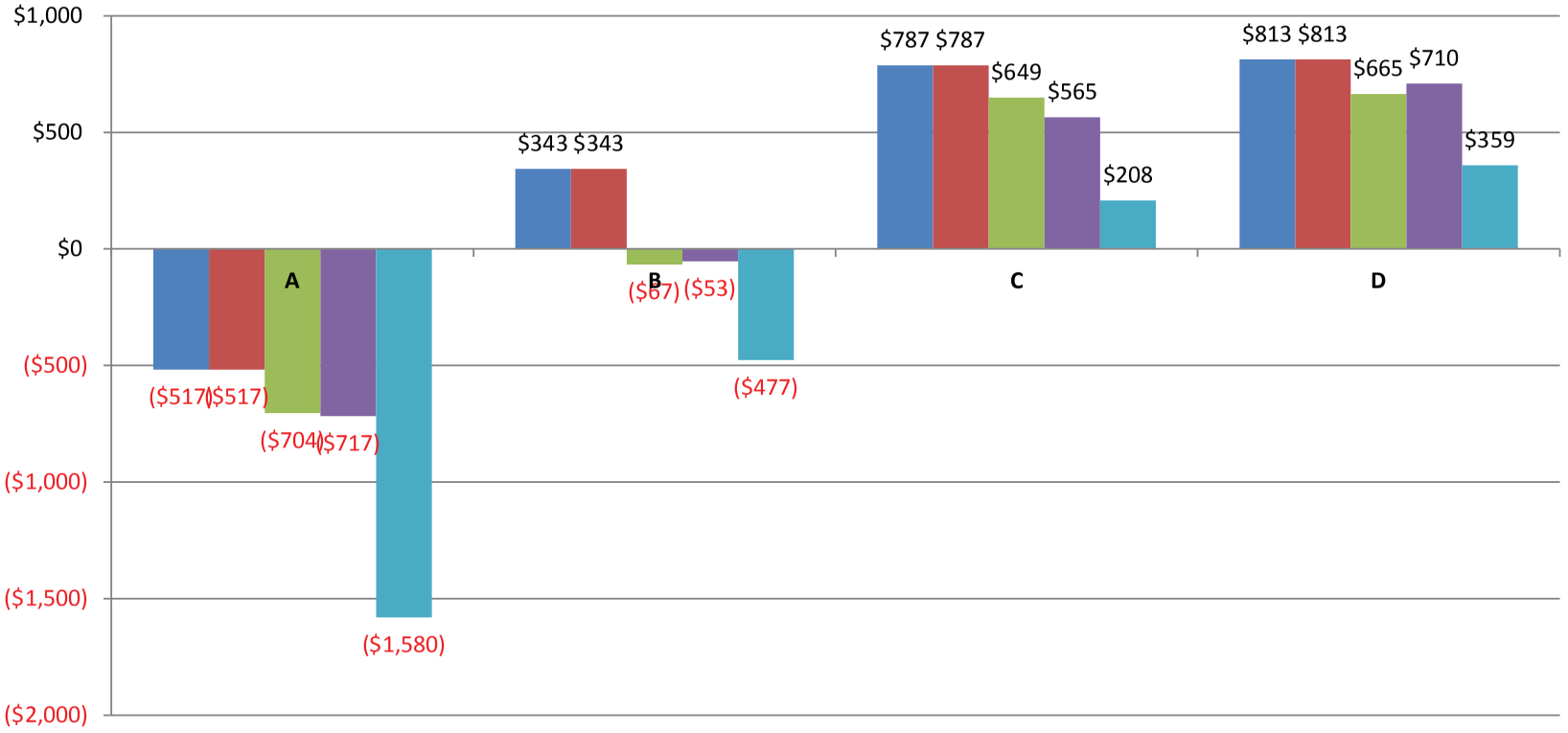
Figure 1. Annual Net Revenue per Child (across ages) by Star Level at 85% Full Enrollment



All 20% CCAP/80% private tuition
Age and Size Conditions vary:

A = 58 children; 1 class each of ones, twos, threes and fours
B = 78 children; 1 class each of ones, twos, threes and 2 classes of fours
C = 146 children; 1 class of ones, 2 of twos, 3 classes each of threes and fours

Figure 2. Annual Net Revenue per Child (across ages) by Star Level at 85% Full Enrollment with Quality Award and CCAP I-T Bonus for Star 3 through Star 5



All 20% CCAP/80% private tuition with Quality Award and CCAP I-T Bonus; Age and Size Conditions vary:

A = 58 children; 1 class each of ones, twos, threes and fours
B = 78 children; 1 class each of ones, twos, threes and 2 classes of fours
C = 146 children; 1 class of ones, 2 of twos, 3 classes each of threes and fours
D = 100 children; no infants, 2 classes each of twos, threes and fours

Figure 3. Net Annual Revenue for Family Child Care Providers at 85% Full Enrollment Compared to Minimum Wage and Child Care Worker Wage

Figure 4. Net Annual Revenue for Family Child Care Providers at 85% Full Enrollment Compared to Minimum Wage and Child Care Worker Wage with Quality Award and CCAP Infant-Toddler Bonus for Star 3 through Star 5