Potential Improvements to Ohio's Step Up to Quality Program:

Quality-based Costs to Providers, Families and Funding Agencies

Fiscal Model Report Prepared by

Richard N. Brandon, PhD & T.J. Stutman, MPA[1]

Human Services Policy Center,

Evans School of Public Affairs, University of Washington

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[1] Jennifer Lehman provided research assistance for this project.

Findings of the Analysis

Ohio has recently enacted an important first step toward improving access to high quality early care and education. It has implemented a set of graduated quality standards for child care centers known as Step Up to Quality. It has accompanied these standards with Quality Achievement Awards that pay centers an annual bonus based on their level of quality, size of their program and the percentage of low income children they serve. This analysis has yielded several findings with direct public policy relevance. First, that while the costs to providers of moving from meeting licensing standards to meeting the first step of SUTQ standards are minimal, the costs of moving above the first quality level are significant. Second, that the state's Quality Achievement Awards (QAA's) only offset a small share (10-20%) of the costs to providers of meeting standards. Our analysis of affordability to families indicates that if staff compensation is maintained at current levels, middle-income parents would likely need assistance in order to afford the cost of higher quality levels. If compensation were increased toward the desired higher level, closer to that earned by public school teachers with comparable qualifications, only the wealthiest families could afford the higher levels of quality.

If providers cannot charge fees that cover the costs of meeting standards, and QAA's are not sufficient to cover those costs, then providers cannot afford to meet standards. To make an overall higher level of quality ECE a reality in Ohio, it would therefore be necessary to either increase the assistance to parents in a manner linked to quality, or to increase the amount of the QAA's. A secondary finding of our analysis is that the factor relating the amount of QAA to the share of low income children served creates an unintended dis-incentive to serve a higher proportion of low income children.

There are several ways to improve this situation. One would be to increase the amount of partial financial assistance to families to allow low, moderate and middle income families to afford higher quality early learning. The payment amounts could be tiered to reflect levels of quality, thus increasing the incentive to facilities to improve. Alternatively, the amounts of the QAA's could be increased to more accurately reflect the actual cost of meeting standards. If this approach were taken, the awards should be re-structured to provide incentives to serve higher percentages of low income children.

Executive Summary

This study builds on previous analyses that the Human Services Policy Center (HSPC) has conducted for several public and private agencies in the state of Ohio. The purpose of this analysis was to consider the current costs to providers, family and public agencies of Ohio's Step Up to Quality (SUTQ) program and the financial implications of potential improvements to SUTQ. We were also asked to consider the effectiveness of the current Quality Achievement Awards (QAA) in offsetting the costs to providers of meeting standards. Finally, we were asked to update our previous estimates of the costs of assisting families to afford higher quality early care and education (ECE) to reflect the suggested updated SUTQ standards. A working group was empanelled by the Early Childhood Cabinet to assist in this project, representing knowledgeable individuals with a variety of backgrounds. In addition to reviewing the SUTQ standards, the working group asked us to estimate two sets of costs: one assuming current staff compensation levels, one assuming a higher compensation level.

HSPC employed a policy simulation model which we have developed and applied in six different states over the last eight years. This model takes into account a wide range of personnel and non-personnel costs to determine the hourly cost to providers of attaining quality levels. Our provider cost estimates are validated by comparing them to current market prices and state administrative data.

To determine the cost of assisting families to afford various levels of quality ECE, we conducted a micro-simulation building on a survey of Ohio households that we conducted in 2001 (HSPC, 2003). By examining data from the survey of representative Ohio families, our model accounts for family income and other household characteristics, employment status, hours of ECE actually used, and likely changes due to making higher quality ECE more financially accessible (Brandon et.al. 2004). Since we had already conducted that detailed analysis for Ohio, and the focus of the current analysis was on differences in provider quality and cost specifications, we did not re-run the entire simulation. Rather, we adjusted our earlier estimates of the cost of assisting families to reflect the different provider cost estimates generated by focusing on SUTQ standards.

For both the provider cost analysis and the cost of assisting families, the policies driving costs were specified by members of the working group designated by the Early Childhood Cabinet.

Policy Specifications for Step Up to Quality

The Ohio Working Group focused on keeping the current SUTQ standards in place, with only minor changes to improve consistency, and to focus on getting all providers into the system at a basic (Step 1) level of quality or above. Modest levels of attainment of Steps 2 and 3 were set for the immediate future.

The HSPC Policy Simulation Model (PSM) incorporates a compensation lattice that takes a specified salary for BA level teachers as a starting point, then adjusts that level upwards for individuals with greater responsibility and qualifications (e.g., directors) and downward for less responsibility or qualifications (teachers with an AA or assistant teachers). All salaries are adjusted for experience.

The Ohio working group considered two levels of BA level teacher compensation. The "current" level would maintain current average salary levels in Ohio, but with a benefit package equivalent to that paid to public school teachers. The "higher" compensation level would set salaries for BA level ECE teachers equivalent to the average of BA-level social workers and elementary school teachers; staff with AA's or high school diplomas would be paid less, directors with graduate degrees more. At current compensation, BA level teachers are paid a starting salary averaging $14.36 an hour; those with AA or high school diplomas are paid less. The higher compensation level was set at a starting salary of $21.00 an hour for a BA level teacher. This is derived from averaging the salaries of BA level social workers and kindergarten teachers. The sense of the working group is that the current compensation level would be workable in the short term, but that to achieve significant increases in quality, higher compensation would be required to recruit and retain more highly qualified staff with college degrees.

The financial assistance specifications used for the 2002 HSPC financial analysis (Brandon et.al 2003) were maintained. These include:

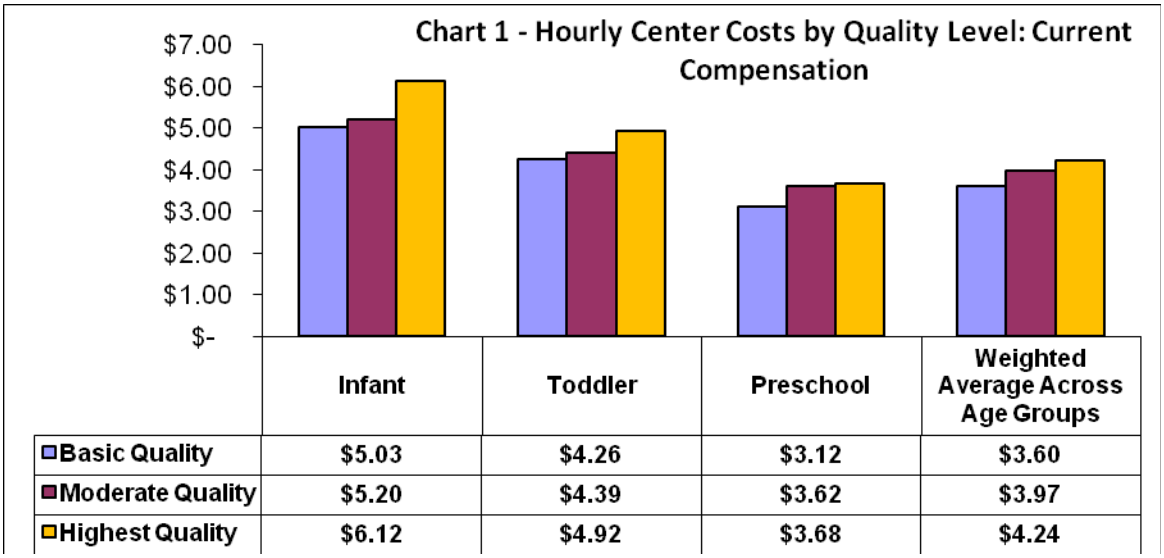
- Partial, income-related assistance to families up to about $84,000 annual income; an option to hold eligibility to about $42,000 would reduce costs by about 20%.
- Elimination of the parental work/training requirement for an early learning approach; keeping this requirement would reduce costs about 30%.
- No limit on the hours of assisted care per week, in recognition of the long hours of work and transportation for many low to moderate income families.

Findings

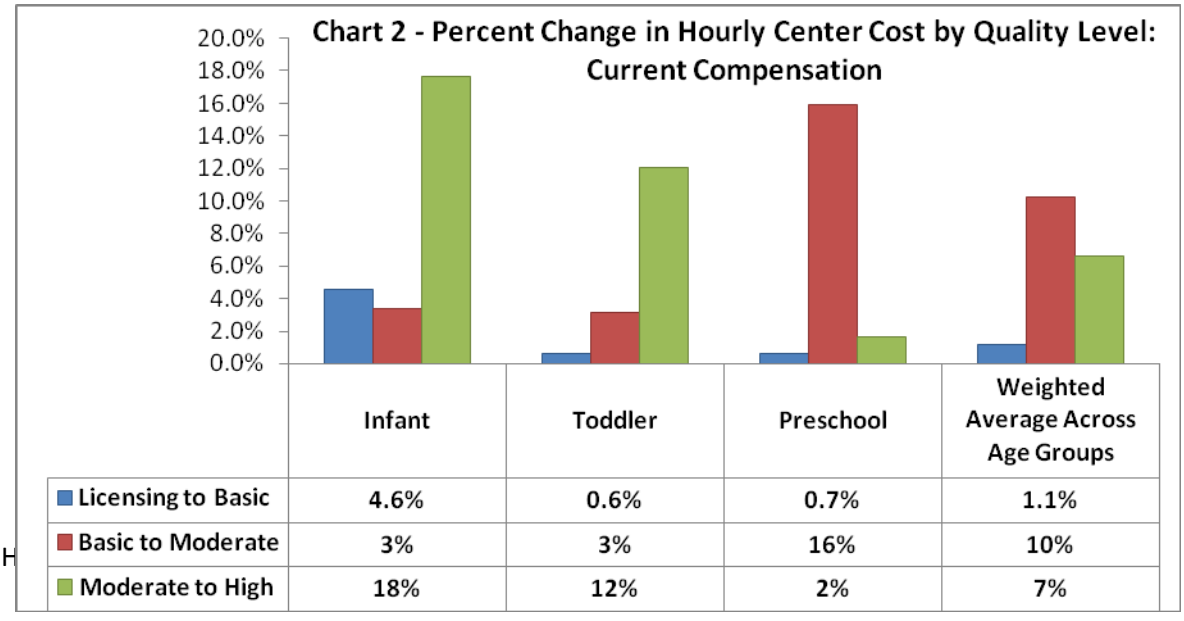
Costs to Providers

The costs to center-based providers of increasing quality, assuming a continuation of current staff compensation levels, are:

1. From licensing standards to basic quality (Step 1), the costs are mostly about $0.03-.04 per child-hour for toddlers and preschoolers. This would represent an increase of less than 1 percent, as demonstrated in Chart 2. For preschoolers, the greatest increase in cost is moving from basic to moderate level of quality; for infants and toddlers, the greatest increase is from moderate to high.



	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Basic Quality	$5.03	$4.26	$3.12	$3.60
Moderate Quality	$5.20	$4.39	$3.62	$3.97
Highest Quality	$6.12	$4.92	$3.68	$4.24



	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Licensing to Basic	4.6%	0.6%	0.7%	1.1%
Basic to Moderate	3%	3%	16%	10%
Moderate to High	18%	12%	2%	7%

- For infants the cost of moving from licensing to basic (Step 1) quality could be as much as $.22 per child-hour, since centers are allowed to have an effective ratio as high as 6:1 under licensing standards, but cannot exceed a 5:1 ratio at Step 1. This would represent about a 4.6% increase.

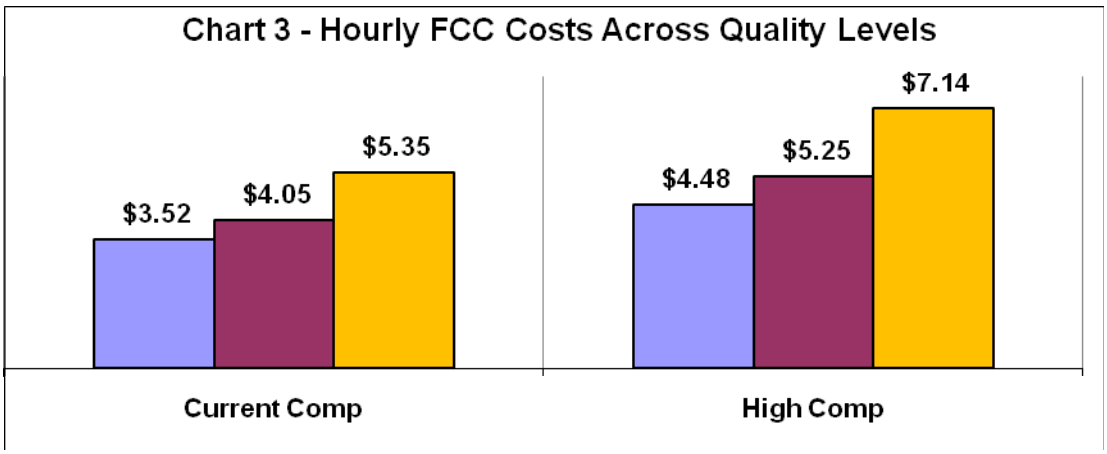
- From Step 1 to 2, costs could be an average of about $0.37 per child-hour, or 10% of current hourly costs. This varies considerably by the age of child (see Chart 1).

- From Step 2 to 3, the increase in costs would average an additional $0.26 per hour, or 7%.

- The cumulative cost increase to move from licensing to the highest level of quality would be about $0.67 per hour, or 18%.

2. At higher compensation levels, the costs to centers of meeting quality standards would be considerably higher.
   - The costs of moving from Basic (step 1) to Moderate (Step 2) quality would average $0.54 per child-hour, averaged across age-groups, for an increase of 11%.
   - To move from Moderate to Highest (Step 3) quality would average $0.38 or another 7%.
   - The cumulative cost increase between licensing standards and the highest quality would be about $0.98 per child hour, or 19%.

3. The costs to FCC providers of improving their quality would be:
   - At current compensation, about $0.54 (+15%) per child-hour from Step 1 to Step2, about $1.29 (+32%) from Step 2 to 3.
   - At higher compensation, about $0.78 (+17%) per child-hour from Step 1 to Step2, about $1.88 (+36%) from Step 2 to 3.



4. Quality Achievement Awards (QAA) for Centers
   - Only about 10% of centers currently participate in the QAA program.
   - The current amount of Quality Achievement Awards (QAA) to move up each step of quality are equivalent to about $0.03-0.10 per child-hour, far less than the average costs of actually meeting those standards.
   - The QAA schedule does not appear to have incentives for serving a higher percent of low income (subsidized) children; the QAA amount per subsidized child is much higher for centers serving low percentages of subsidized children than for those serving a high percentage.

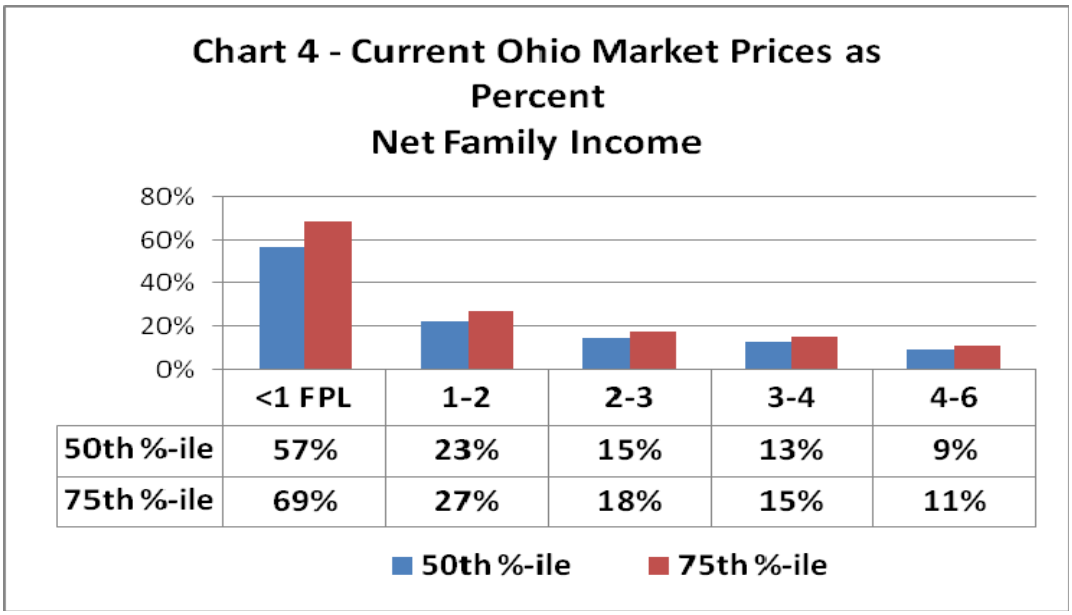
Affordability for Families[2]

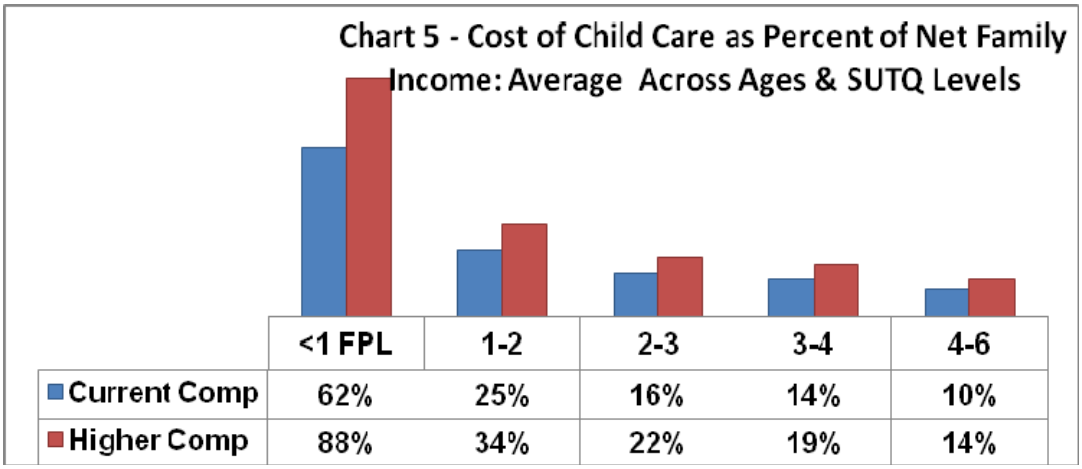
1. If providers charged families prices equal to the cost of meeting basic (Step 1) quality standards, these fees would be as affordable as the current median prices for middle income families (about 15% of income, net of taxes).

2. The cost of achieving the higher steps of quality would be slightly less affordable for middle and upper-middle income families; it might be necessary to provide low levels of assistance either to providers or families to offset some of this cost increase.

[2] *Note: income groups are shown as multiples of the Federal Poverty Level (FPL), which is currently about $21,000 for a family of four.*

3. Low and moderate income families would continue to need assistance to afford even basic quality levels.





Cost to Public Agencies:

We have estimated costs as increases to current levels of Ohio state expenditures for comparable programs for basic early care and education.

1. The annual net increase in costs to public agencies (assuming no increase in federal contributions) of implementing the full set of policies specified would be:
   At current compensation, $148 million;
   At higher compensation, $362 million.

Table 1 -	Total Projected Cost of OH Policies	State B-5 Costs for Basic ECE	Increased State or Local Costs [No federal increase]	Increase State or Local Costs as Percent current K-12
	Costs in $ Millions (2007)			
Current B-5 ECE Spending (State, Federal)	$ 553	$224	--	-----
Current Compensation				
Access to Quality - eligibility at 4 FPL	$701	$372	+ $148	+ 0.8%
Access to Quality – eligibility at 3 FPL	$636	$306	+$82	+0.4%
Access to Quality – eligibility at 2 FPL	$558	$228	+$5	+0.02
Higher Compensation				
Access to Quality – eligibility at 4 FPL	$915	$586	+$362	+1.9 %
Access to Quality - eligibility at 3 FPL	$829	$500	+$276	+1.4%
Access to Quality – eligibility at 2 FPL	$728	$398	+$175	+0.9%

2. These cost increases are equivalent to about 0.8% of current elementary and secondary education spending at the current compensation level, or about 1.9% of K-12 at the higher compensation level.

3. The cost component for having the remaining 90% of non-participating centers reach basic quality levels would be $32 million at current compensation, $45 at higher compensation. This component is part of the total cost of increasing quality of ECE and financial accessibility for families.

4. About 70% of costs would be for staff compensation, about 18% for non-personnel costs (rent, insurance, supplies, and curriculum materials) about 1% for professional development of staff and about 3% for quality promotion and improved regulation. The remainder is estimated as 'reserve funds' to assist centers with fluctuations in enrollment.

5. Our analysis indicates that at current compensation, families above 3 FPL would be able to afford higher quality ECE with some stretching; at higher compensation, the cost would not be affordable for middle and upper-middle income families. However, those families could potentially be assisted by improved tax credits linked to quality of ECE.

6. The current eligibility limit is close to 2 FPL, so we were asked to estimate the costs of the package with a limit of 2 FPL. Under current compensation, there would be little cost to providers and no change in assistance to families, so there would be little increase in costs (about $5 million) and middle income families would continue to be priced out of higher quality ECE. At higher compensation, the cost of assistance to low and moderate income families would be greater, with a cost increase of $175 million. However, the affordability problem would become highly prohibitive for middle income families, with a full time slot requiring 22% of after tax income per child.

7. We estimated the costs of providing assistance to middle income families (2-3FPL). If eligibility for parent and provider assistance were limited to families with income not exceeding three times the federal poverty level (3 FPL), the costs increments would be reduced to:
   At current compensation, $82 million (equivalent to 0.4% of K-12 spending);
   At higher compensation, $276 million (equivalent to 1.4% K-12 spending).

Members of the Ohio Working Group

Susan Ackerman, Ohio Office of Budget & Management

Kevin Aldridge, Ohio Department of Mental Retardation & Developmental Disabilities

Diane Bennett, Action for Children

Noah Browning, Ohio Office of Budget & Management

Jerry Collamore, The Collamore Group

Ken Eberly, Council on Rural Services Programs

Marcia Egbert, The George Gund Foundation

Terrie Hare, Ohio Department of Job & Family Services

Russ Harris, Ohio Education Association

Sandra Holt, Ohio Department of Job & Family Services

Karen Lampe, Creative World of Child Care

Alicia Leatherman, Early Childhood Cabinet

Anne Mitchell, Early Childhood Policy Research

Tracey Najera, Ohio Office of Budget & Management

Billie Osborne-Fears, Starting Point for Child Care & Early Education

Barbara Phillips, Ohio Department of Education

Kay Rietz, Ohio Department of Mental Health

Jacqui Romer Sensky, The JRS Group

Jane Sites, Cincinnati Children's Hospital Medical Center

Becky Spencer, YMCA of Greater Toledo

Shannon Starkey, The Children's Home of Cincinnati

Chris Stoneburner, Ohio Child Care Resource & Referral Association

Jane Wiechel, Ohio Department of Education

Debbie Wright, Ohio Department of Health

Background

Children's success in school and later in life is significantly affected by the quality of early care and education experiences in the first five years. All experiences young children have affect their development and learning; the issue to be faced by policy makers is how to assure that those experiences have the kind of quality that leads to positive effects. A series of major studies (Karoly et.al., 1998; Barnett, 1995; NICHD Early Child Care Research Network, 2003) which tracked children over time demonstrated that higher quality ECE settings and interventions lead to better cognitive skills , better social interaction, higher graduation and employment rates and lower rates of involvement with violence and delinquency.

The same set of studies indicated that these interventions can also be highly cost-effective. High quality early learning programs for low income children yielded substantial savings to government from reduction in special education services needed, reduction in Medicaid, welfare costs and criminal justice costs, and increased tax revenues from increased employment. These documented long-term benefits for low income children can greatly exceeded the programmatic costs, with benefit:cost ratios ranging from 2.4 to 8.7 to 1 (Karoly et.al., 2005; Barnett, 1995).

Others have estimated the long term returns on investment for high quality early education to be as high as 16 percent (Heckman& Masterov, 2004; Karoly et.al. 1998, 2005; Barnett, 1995; Fuller, 2007; Peisner-Feinberg et.al., 1998). These returns do not only benefit children, but also yield positive returns for the economy. Beyond lower public costs due to reduced need for government intervention or supports later in life, high quality early education produces higher rates of high school and college graduation. These in turn engender higher productivity in the labor force. Dickens et.al. (2006) built an economic analysis of pre-K on the long standing findings that national economic growth has been shown to increase as overall educational attainment increases. They estimate that the increased educational attainment of the overall population to be gained from universal preschool could add 1 percent of GDP to the US economy by 2050. One percent of Ohio state's current GDP would be $ 4.6 billion (U.S. Department of Commerce, 2008).

A series of studies in several states have shown that the majority of child care settings do not provide the high quality environment and stimulation that promote learning and development (Helburn et.al., 1995; Marshall et.al. 2002, 2004a, 2004b). Using nationally representative data from the Early Childhood Longitudinal Study, Mulligan & Flanagan (2006) found that only 24 percent of children in centers, and 7 percent of children in home-based arrangements, were in high quality settings. Attending low quality settings has large implications for the intended benefits, as it is the quality of the early learning experience, not just attendance, which produces positive long term outcomes.

Unfortunately, attendance in low or mediocre quality ECE is not distributed equally. Mulligan & Flanagan (2006) also found that low income children are more likely to be in low quality

settings. Disparities in educational achievement emerge early on as low income children lag middle income and middle class children lag behind the most affluent (Barnett, Brown & Shore, 2004). Income-segregated education has long been known to harm low income children at the elementary and secondary level (Ferguson, 1998). New evidence is starting to suggest that it may be harmful in the early years as well (Henry et.al. 2002, 2003). The implications of this set of research findings are that an effective early learning strategy should reach children from a wide range of income groups and be structured in a way that promotes economic integration. Current public policies that serve young children in income-segregated settings, such as Head Start, or that make only low income families eligible for assistance, may be inadvertently limiting benefits to children through promoting segregation. It has been demonstrated that without assistance, middle income families cannot afford high quality ECE to make up their gaps from more affluent children (Brandon et. al. 2004).

A major challenge, in Ohio as well as nationally, is the insufficient supply of well-qualified ECE staff. It is challenging to set substantially higher staffing standards, since the ECE system is not well enough funded to provide high enough compensation to recruit and retain college educated staff (Brandon & Martinez-Beck, 2005; Brandon with Scarpa, 2005). A caution to policy makers is that while there is expert consensus that staff qualifications – reflecting appropriate knowledge, skills and attitudes -- are an essential component of quality, there is great controversy about the exact qualifications required. The relative value of college degrees at the AA or BA level, skills training in early education or on-site coaching and mentoring are hotly debated (Phillips et.al., 2000; NICHD ECERN 1996, 2000; Early et.al., 2007; Brandon with Scarpa; Tout et.al.2006; Pianta et.al. 2005; Raikes et.al., 2003; Fuller, 2007). Similarly it has been shown that compensation levels affect staff recruitment and retention (Whitebook et.al, 2001; Boyd & Wandschneider, 2004, 2005). The limited data available, however, do not give clear guidance on the amount of compensation required to recruit and retain qualified staff. There is a wide range of salaries paid to education and human services professionals with AA or BA degrees, often with a 2:1 salary range (Park-Jadotte et.al, 2002; Brandon with Scarpa, 2005).

Project Purpose

The Human Services Policy Center was tasked with conducting a financial analysis of Ohio's Quality Rating Information System, known as "Step Up to Quality" (hereafter referred to as SUTQ).

We addressed three major questions:

1. What is the cost to providers of meeting each of the current Step up to Quality (SUTQ) standards?
2. How affordable would the costs of meeting SUTQ standards be to families of different income levels; could providers reasonably pass costs along to middle income families who may not be eligible for financial assistance?
3. What would be the cost of partially assisting parents and providers to meet and afford the costs of higher quality standards? How well do the current Quality Achievement Awards (QAA) help providers offset the costs of quality?

To answer these questions, HSPC conducted several lines of analysis. First, we conducted an analysis of hourly per-child costs of the current SUTQ standards. We augmented this with an analysis of the hourly per-child costs of increasing the current levels of staff compensation and professional development. For hourly costs at each level of quality for both current and higher compensation levels, we estimated the costs of full time, full year ECE as a percent of after-tax take-home pay for different family income groups. We also estimated the per child-hour value of QAA's and compared them to the cost of achieving quality standards. Finally, we estimated the costs to public or private agencies of assisting working parents to afford the costs of higher quality through an income-related assistance package and for providers to achieve financial stability while having financial incentives to improve quality.

The main purpose of this analysis was to identify the costs of encouraging all centers to move beyond the current licensing requirements and into the SUTQ system, which requires increased quality standards at each step. These costs are represented in two ways – through the hourly per-child costs at each quality-level and the step-increases between each quality level, and through the net costs to the state of encouraging all providers to participate in the SUTQ system.

Methods

HSPC has developed a Policy Simulation Model (PSM) for estimating the costs of providing financial access to high quality Early Care and Education (ECE) services. The PSM has been successfully applied in six diverse states (Ohio, Tennessee, South Carolina, Illinois, Mississippi and Washington). The PSM approach allows users to specify a wide range of policies affecting both the services to be delivered and the mechanisms by which families of different income levels are to be assisted in affording those services.

The full-scale policy simulation approach builds on HSPC-conducted surveys of current ECE utilization, encompassing all sectors (center-based care, licensed family child care, and paid family, friend or neighbor care). This is more realistic than assuming that all working parents will use full time center-based care. It also takes account of the fact that one-third of non-employed parents use paid ECE, and access for these children is important for educational or developmental reasons. A streamlined version of this approach allows states to choose from the financing packages specified by previous states where the full-scale approach has been used. As the full-scale approach was used in Ohio in 2002, the Working Group chose to retain the existing financing package. The key policies included:

- provider payments cover 25% of total costs; related to increased cost to middle income parents;
- assistance not limited to children whose parents are engaged in paid employment, education or training, since ECE is intended to serve an educational function;
- limit ECE assistance to 45 hour/week, reflecting a work week plus time for transportation;
- provide assistance sufficient to yield family expenses not exceeding 6% of net family income per child, or below 10% for a family with two young children;
- compare maximum eligibility for assistance at 2 and 4 FPL; consider tax incentives to assist families over 2 FPL to afford cost of quality.

The financing specifications, state population estimates, and expectations of ECE utilization are applied to the hourly costs per-child in order to gross cost estimates for the specified early learning system. Current early learning expenditures are then incorporated in order to project the total net increase necessary to fund the specified early learning system.

Policy Specifications

For the purposes of this update of cost estimates, we employed a streamlined Policy Simulation model that focuses on the policies that have substantial cost effects: child: staff ratios, teacher compensation, staff educational attainment, and investment in professional development. The full model also incorporates information regarding administrative and other non-personnel costs, but the statewide averages from the original Ohio modeling process were used in the streamlined version.

To assist the Ohio Working Group in the simulation, HSPC produced a Decision Guide, which laid forth the major cost-related policies to be considered, summarized major relevant research findings, and displayed the specifications in current Ohio programs and those determined by the 2002 working group and by the School Readiness Solutions Group (SRSG). The Decision Guide allowed for the working group to make informed decisions regarding each of the major cost-areas included in the streamlined modeling process.

As the Ohio Working Group progressed through the Decision Guide, they had the option at several points of drawing upon the current quality standards as specified in SUTQ, versus specifying new standards or drawing upon the specifications from the SRSG. As SUTQ has existing standards in place for center child: staff ratios at each quality level, the working group chose to apply these policies for the simulation, with only a minor change to the preschooler ratio at the Highest Quality level to achieve better consistency with requirements for other Ohio programs such as ELI. Draft SUTQ ratios for Family Child Care were also used for the simulation, although these had not been implemented by ODJFS at the time of the simulation.

Table 2 - Child:Staff Ratios, by Age Group

SUTQ Quality Level		**Basic**	**Moderate**	**Highest**	
	Age of Child	**Ratio**	**Ratio**	**Ratio**	
Center-based					
Infants and Toddlers	0-12 months	5	5	4	
	12-18 months	6	6	5	
	18-36 months	7	7	6	
Pre-Schoolers	36-48 months	12	10	10	
	48-60 months	14	10	10	
FCC	**All Ages**	**6**	**5**	**4**	

**Age groups are defined as Infants (0-18 months), Toddlers (18-36), and Pre-School (36-60)*

The HSPC simulation approach incorporates labor market analysis to estimate salaries implied by various staffing standards. It is assumed that to attract qualified staff, ECE will have to offer salaries comparable with those offered by other education or human services occupations for staff with similar educational attainment levels. Thus while SUTQ does not specify staff wages, it specifies educational levels of staff which have implications for the wages that providers must pay to meet standards. We base our analysis of comparable occupational wages on recent average wages for Ohio as reported by the US Bureau of Labor Statistics. The Policy Simulation model proceeds from a starting hourly teacher salary, which is then adjusted by staff educational attainment and average experience in order to reach the average teacher salary. The working group chose to use the current average Ohio ECE teacher salary for one option, as well as a higher salary deemed more suitable for attracting and retaining a more skilled workforce. For the current-salary option, HSPC staff used the estimated average starting salary for teachers with a BA of $14.36/hr derived from the 2005 OCCRRA Workforce Study[3]. The higher compensation level for BA level teachers was set at $21.00/hr, reflecting the average of the starting hourly wages of a kindergarten teacher and a social worker in Ohio[4]. Benefits were set at 41% of salary. It should be noted that these are statewide averages; in implementation, they should be varied across regions of the state to reflect differences in wages among the relevant occupations for which ECE will be competing in local labor markets.

The Policy simulation model adjusts wage levels by educational attainment, recognizing that higher-qualified staff will require commensurately higher wages in order to remain in the occupation, as well as to recruit similarly qualified staff. The educational attainment rates for Center Directors, Teachers, and Assistant Teachers was assembled from HSPC's analysis of the 2005 OCCRRA Workforce Study[5]. This study sampled centers both licensed by ODJFS as well as those administered by the Ohio Department of Education (ODE). Those centers administered by ODE displayed higher rates of educational attainment and higher starting wages than ODJFS-licensed centers, but constituted a much smaller share of the total number of centers sampled for the study. HSPC's analysis of OCCRRA's figures, adjusting for the representation of both ODJFS and ODE Centers and the educational requirements at each SUTQ level, found that approximately 35% of Directors and 27% of Teachers have a BA degree at each quality level, with the overall level of educational attainment moving upwards at each level. At the moderate level of quality, all Directors and 50% of Teachers are expected to have at least an AA degree, and 63% of Teachers are expected to have at least an AA degree at the highest level of quality.

[3] The starting teacher salary was calculated based on average wages for both ODJFS and ODE Centers, and was then scaled by expected staff experience in order to reach the starting salary.

[4] Working group members were provided with wage listings for comparable occupations, as published by the Bureau of Labor Statistic's Occupational Employment Statistics (2007).

[5] In order to calculate educational attainment rates at each SUTQ level, HSPC took the current educational-attainment rates for ODJFS and ODE Centers, weighted each by their representation within the sample, and then applied the SUTQ education standards to each. For example, Step 3 of SUTQ specifies that all lead teachers must have an AA degree in ECE or related field. In calculating the educational attainment rates for Step 3, HSPC used the educational attainment rates for Step 2, but now assumed that no lead teacher had less than an AA degree.

Educational attainment for Assistant Teachers is much more concentrated among High School Diplomas and some college attainment. At the highest level of quality, 50% of Assistant Teachers are expected to have some college education and a CDA credential[6].

While the OCCRRA study provided information on current educational attainment in child care centers, it did not cover Family Child Care homes. For this reason, the working group was asked to specify rates of educational attainment that corresponded with what they expected to observe at each quality level. The working group specified that 10% of FCC providers would have an AA degree and 10% would have a BA degree at the basic level of quality, with 20% of providers having an AA at the moderate level of quality, and with all providers expected to have at least an AA degree at the highest level of quality.

Table 3 - Center Educational Attainment, by staff position.

Directors						
	HS Diploma	**Some College**	**CDA**	**AA**	**BA**	**Grad Degree**
Licensing Standards	2%	12%	2%	26%	35%	23%
Basic	-	-	15%	26%	35%	25%
Moderate	-	-	-	41%	35%	25%
Highest	-	-	-	41%	35%	25%
Teachers (including Lead Teachers)						
	HS Diploma	**Some College**	**CDA**	**AA**	**BA**	**Grad Degree**
Licensing Standards	28%	12%	6%	17%	27%	10%
Basic	28%	12%	6%	17%	27%	10%
Moderate	7%	4%	2%	50%	27%	9%
Highest	-	-	-	63%	27%	9%

[6] The Policy Simulation Model uses the Child Development Accreditation (CDA) as a mutually exclusive category representing a mid-point between Some-College education and an AA degree.

Assistant Teachers					
	HS Diploma	**Some College**	**CDA**	**AA**	**BA**
Licensing Standards	54%	22%	7%	17%	-
Basic	54%	22%	7%	17%	-
Moderate	54%	22%	7%	17%	-
Highest	25%	8%	50%	17%	-

Table 4 - Family Child Care Provider Educational Attainment

	Less than AA	**AA**	**BA**
Basic	80%	10%	10%
Moderate	68%	20%	12%
Highest	-	85%	15%

The Decision Guide's required specifications for professional development consist of the percent of staff expected to participate in these activities each year, the amount of tuition and material costs paid on behalf of participating staff, and the number of annual credits to be earned by staff. The simulation model also includes estimates of the institutional support that training providers may need in order to offer appropriate training opportunities for ECE staff.

The working group drew upon SUTQ's current standards for ongoing staff training, while also including additional professional development investments. The Ohio working group specified that all staff should be expected to participate in some form of ongoing professional development, and that this participation could include both community-based training (such as in-service training and workshops) and courses leading to degrees. All staff would be expected to participate in some level of community-based training on an annual basis. Step Up to Quality requires that staff meet requirements for the number of annual hours devoted to specialized training. These requirements are in addition to the licensing requirement of 45 annual hours of in-service training. In addition to the hours included under SUTQ, the working group chose to also include approximately 16 hours per-staff member for renewal training and CPR/First Aid certification on an annual basis.

Table 5: Professional Development Specifications

	Release Time (hours per staff, including travel time)	**Tuition Cost** (per staff)	**Supplemental Costs** (20% of tuition)
Basic Quality	24.16	$161.58	$32.32
Moderate Quality	31.16	$196.40	$39.28
Highest Quality	38.16	$231.23	$46.25

Tuition Costs derived from Ohio R&R data (from 4C for Children). Staff Release Time entails a substitute-teacher being hired for an equivalent amount of hours

Financial support for community-based professional development was specified to follow Ohio's TEACH model, where staff members are responsible for 10% of tuition costs, centers are responsible for 10%, and state scholarships cover up to 80%. The same specifications for participation and financing were indicated for center staff and Family Child Care providers.

Tuition costs for degree-bearing classes were not incorporated into the hourly-costs, as these were judged to be more of a one time transitional cost for providers rather than ongoing expenses like the SUTQ ratio requirements. It is anticipated that a more highly qualified, better compensated ECE staff would have far less turnover than at present. Thus, once staff were given tuition assistance to take the courses necessary to attain higher degrees, they would be expected to stay in the field and not require such support every year. With improved compensation, newly recruited staff could be expected to meet the higher educational requirements. Participation in degree-bearing professional development was calculated based on the gaps in educational-attainment between the different quality levels; thus if half of all assistant teachers are expected to have an AA degree at the highest quality level, the professional development investment for that level would need to be based on the proportion of staff without an AA degree at the moderate quality-level. If there are no differences in educational-attainment across quality-levels, then the participation in degree-bearing professional development would be zero[7].

The financing specifications reflected the package developed by the 2002 Ohio working group. These specifications included a provider payment equal to 25% of total costs on behalf of all eligible children. This was intended to improve providers' financial stability and offset the estimated costs of higher quality for middle income families. In addition, income related tuition subsidies would be paid to parents to partially offset the remaining 75th percent of costs. Eligibility for tuition assistance would not be linked to parental employment, education or training, since high quality ECE serves an educational function like kindergarten. However, there would be a limit of 45 hours reimbursed ECE per week, reflecting a full time work/school week, plus transportation time. The 2002 financing specifications also included raising the income-cap

[7] Average tuition costs per-credit for an AA degree were taken from the Ohio State University tuition guidelines.

for assistance to 400% FPL. The working group did express concern about whether this would be necessary given the more refined affordability analysis conducted for this project, and requested that alternative figures represent the cost if the cap on income eligibility were to remain at the current 200% FPL.

Finally, the simulation model applies the expected distribution among quality-levels of Centers and FCC's, so that the appropriate hourly costs can be applied at each quality level in order to calculate the total state costs. The working group specified figures reflecting expected attainment in 2-4 years. The expectation is that in 2-4 years all providers can be expected to participate in SUTQ, reaching at least the first level of quality. The working group specified that 50% of Centers will be at the Basic Quality level, 30% will be at the Moderate Quality level, and 20% will be at the Highest Quality level. These attainment specifications reflected the challenge of moving all providers into the SUTQ system, but also recognizing that approximately 10% of providers are already participating and can be expected to continue their move up the quality ladder, while additional medium and high-quality centers will begin participating in the coming years. These expectations were tempered for FCCs, since SUTQ standards for Type B FCC homes were still in draft form at the time of the simulation and there is not a current experience to build on. For FCC's, 83% were expected to be at the Basic Quality level, 13% were expected to be at the Moderate Quality level, and 3% were expected to reach the Highest Quality level in this short time frame.

Findings

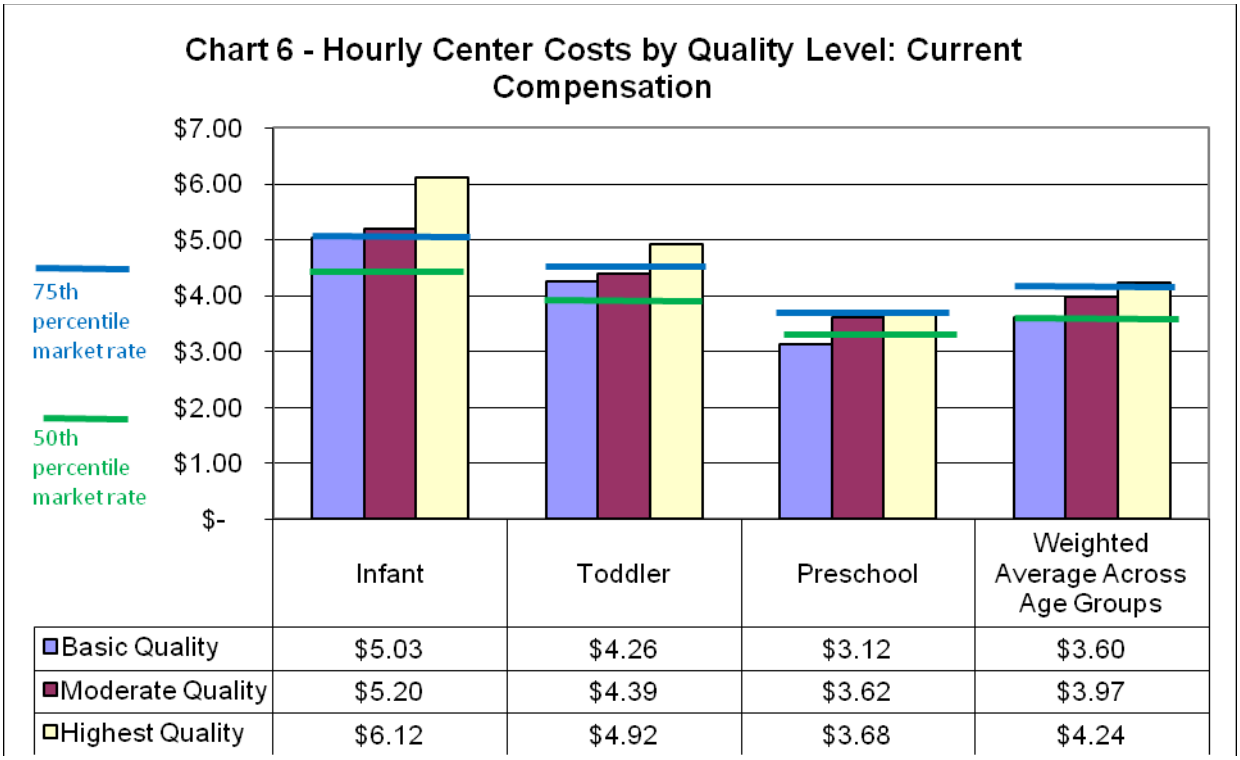
Centers

Total Hourly Costs – Current Compensation

Our estimates of hourly costs per-child reflect a few basic principles in the relation between age groups and the respective costs to providers. First, infants are the costliest age group to serve at each level of quality, due to the lower child:staff ratios. Costs decline for both toddlers and preschoolers due to the gradual increase of ratios. Fewer infants, however, are in non-parental care than toddlers and preschoolers, and are therefore disproportionately weighted when calculating average costs. Estimated hourly costs at the basic level of quality range from $5.03 for infants to $3.12 for preschoolers, but the weighted average across age groups is only $3.60, due to preschoolers taking up a much larger share of total use of ECE.

Second, the market price charged for child care usually does not reflect the actual costs to providers for children in each age group. Centers often "cross-subsidize" infants and preschoolers, charging parents more than the true cost for preschoolers in order to lower the price charged for infant care (Witte, 2002). This is evident in the figures below; the 50th percentile market prices represent the median price charged to parents for each age group. The Basic Quality row is a fair representation of the current true cost of care, as most providers are currently either not participating in SUTQ or only at the Basic Quality level (Step 1 of SUTQ). The estimated hourly cost for infants of $5.03 is much higher than the median price for infants of $4.40. Similarly, the hourly cost for preschoolers of $3.12 is somewhat lower than the median price for preschoolers of $3.34. In both cases, market prices appear to reflect the cross-subsidy while the HSPC estimates reflect the age-specific cost. Prices can be only slightly higher than cost for preschoolers but substantially below cost for infants, since there are many more preschool age children in center-based ECE. The weighted average of $3.60, as it weights age groups according to their use of care, is nearly identical to the median price charged to parents across all age groups.

Finally, while the hourly costs at the Basic Quality level are approximately the same as the 50th percentile market prices, the costs at the Moderate Quality level (weighted average of $3.97) lie between the 50th percentile and 75th percentile market prices, while the costs at the High Quality level (weighted average of $4.24) are above the 75th percentile market price of $4.13. This indicates that fewer than 25% of parents currently pay a price equivalent to the cost of High Quality care. However, the cost of high quality is within the range that providers are able to charge upper-middle income parents for relatively high priced ECE.

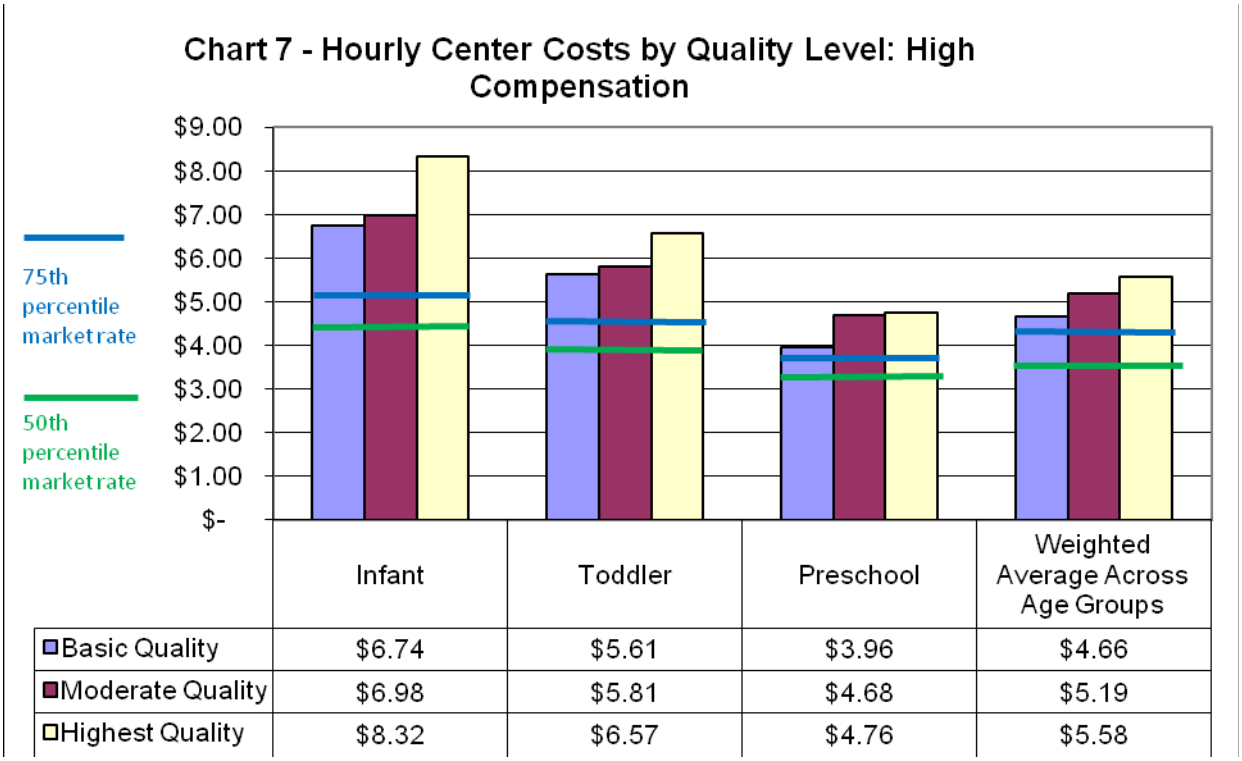


	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Basic Quality	$5.03	$4.26	$3.12	$3.60
Moderate Quality	$5.20	$4.39	$3.62	$3.97
Highest Quality	$6.12	$4.92	$3.68	$4.24

Total Hourly Costs – Increased Compensation

The hourly costs with higher compensation differ only in the hourly wage paid to staff – all other policy parameters remain the same. The cross-subsidy pattern between infants and preschoolers still applies to these figures.

The Basic Quality level at higher compensation is now increased to $4.66, higher than the 75th percentile market rate price of $4.13. The Moderate Quality level is increased to $5.19, and the Highest Quality level is increased to $5.58. These costs are above what most parents currently pay for child care, but reflect the cost of paying a wage that the working group felt would entice prospective staff into the profession.



	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Basic Quality	$6.74	$5.61	$3.96	$4.66
Moderate Quality	$6.98	$5.81	$4.68	$5.19
Highest Quality	$8.32	$6.57	$4.76	$5.58

Changes across levels (Absolute and Percentage)

As evidenced by the preceding tables, hourly costs vary across age groups and across quality levels. There is a negative relationship between costs and age; costs decrease as age increases from infant to toddler and preschooler. This change is due primarily to the increasing child:staff ratios under SUTQ. As ratios increase, centers can allocate fewer staff, decreasing personnel costs.

There is a positive relationship between costs and quality levels; costs increase as quality levels increase. This is primarily due to two features of higher quality standards –lower child:staff ratios and increased staff educational attainment levels. Lower ratios are manifest as increased staffing levels if centers are to serve the same number of children, and higher educational attainment levels require increased staff compensation to recruit and retain qualified teachers in a competitive labor market.

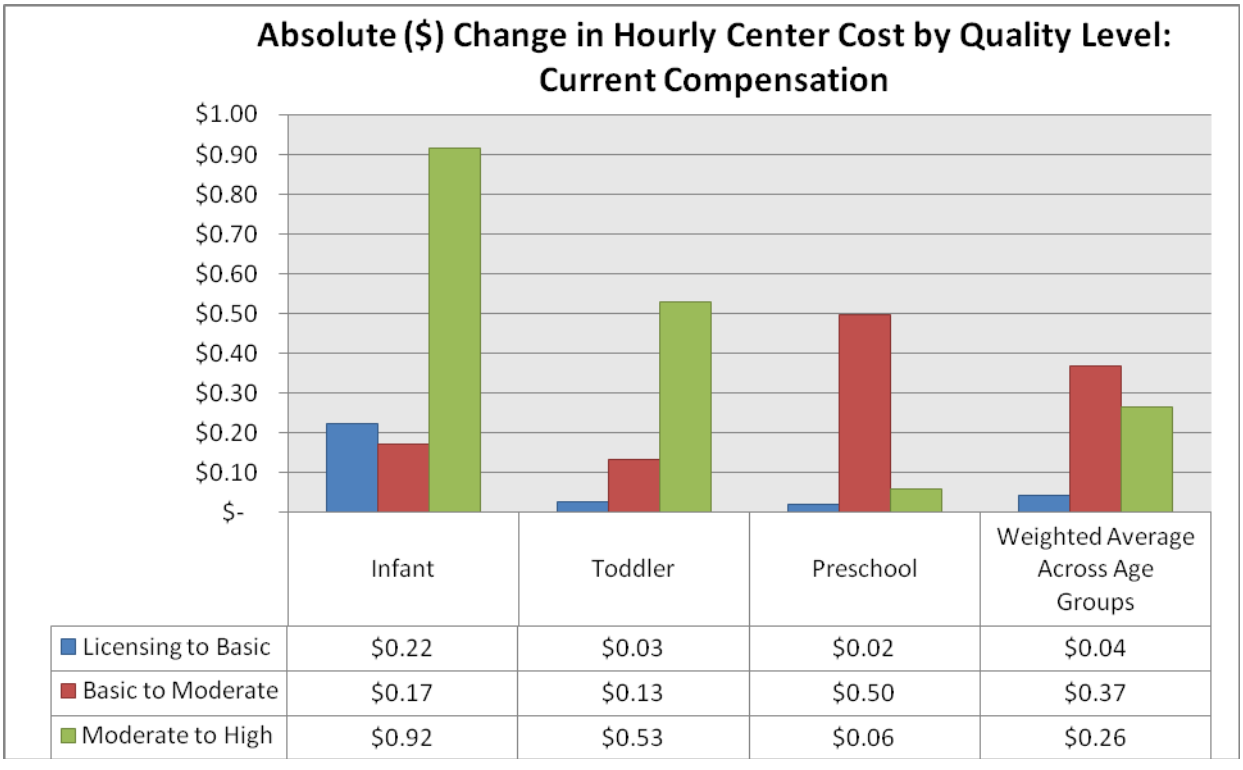
The absolute cost differences across quality levels are of particular interest, as they represent the hourly per-child costs for providers to move up the SUTQ ladder. At both compensation levels, the biggest costs for centers are in moving from the Basic Quality to the Moderate Quality level, consisting of a 10-11% cost increase. The move from Moderate Quality to High Quality is about a 7% cost increase. These figures are for the weighted average across all age groups, which incorporates the relative share of children in care.

The change in cost from the ODJFS Licensing level to the Basic Quality level is relatively large for infants (approximately 4.7%), but the change for toddlers and preschoolers is minimal. The only change in moving from licensing to Basic Quality is a small change in professional development participation and a change in the child:staff ratio for infants. As the ratio change shows up in the infant hourly-cost but not in the toddler or preschooler cost, it does not greatly affect the weighted average, which is a 1.1% increase in costs.

The change in cost from the Basic Quality level to the Moderate Quality level is much higher, with the largest cost increase for preschoolers. Differences in educational attainment, professional development, and ratios are the drivers of these cost differences, with the weighted preschooler costs pulling the weighted average up to 37 to 54 cents, or a 10-11% cost increase.

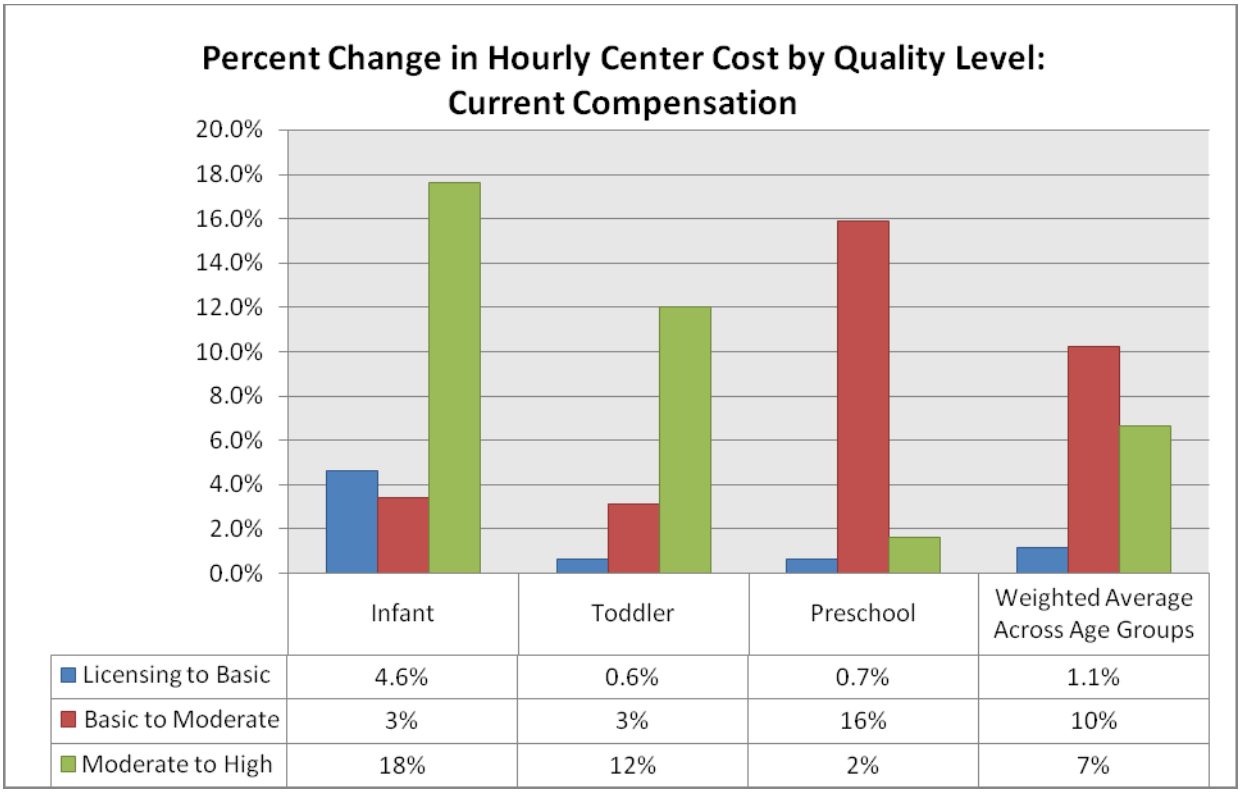
The change in cost from Moderate Quality to High Quality is highest for infants and toddlers. The disproportionate increase among these two age groups is due to the change in ratios, although increases in educational attainment and professional development participation also drive up the cost. Again, the cost-increase for infants does not have as big as an effect on the weighted average, but the increase for toddlers does pull up the average increase to 26 to 38 cents, or a 7% cost increase.

Chart 8



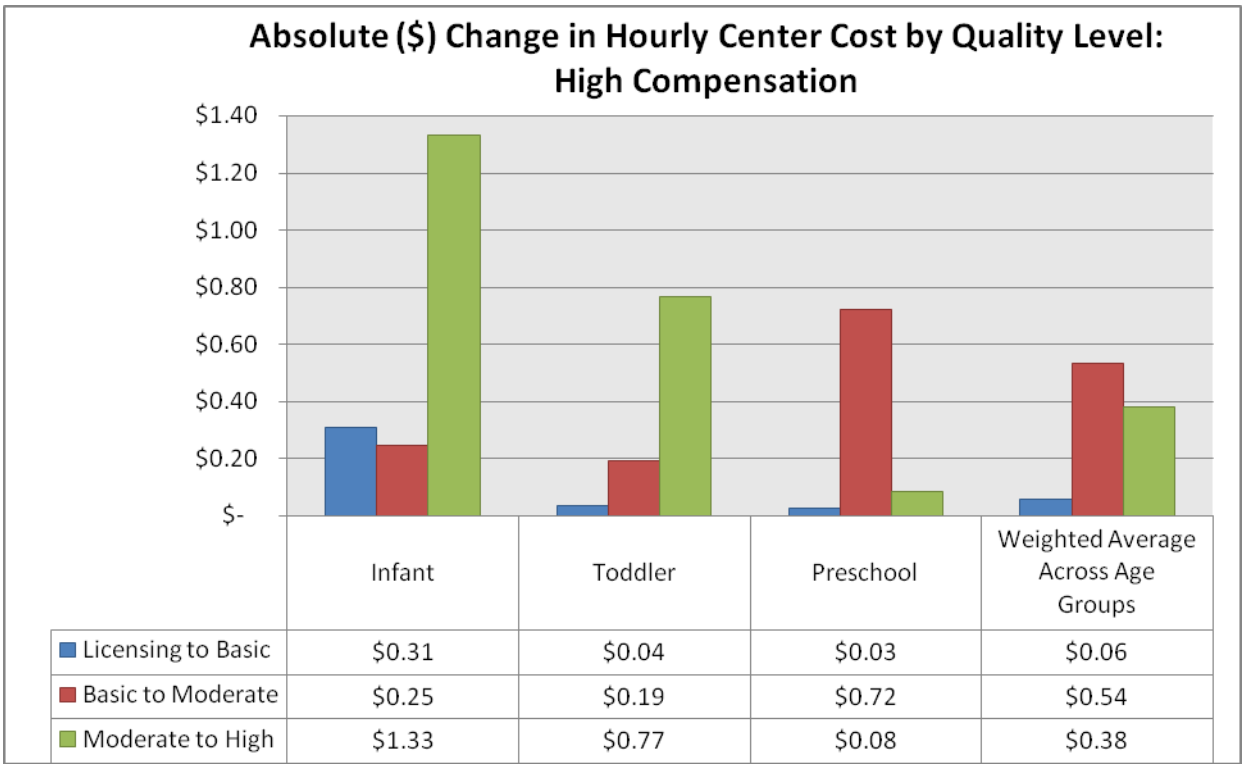
	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Licensing to Basic	$0.22	$0.03	$0.02	$0.04
Basic to Moderate	$0.17	$0.13	$0.50	$0.37
Moderate to High	$0.92	$0.53	$0.06	$0.26

Chart 9



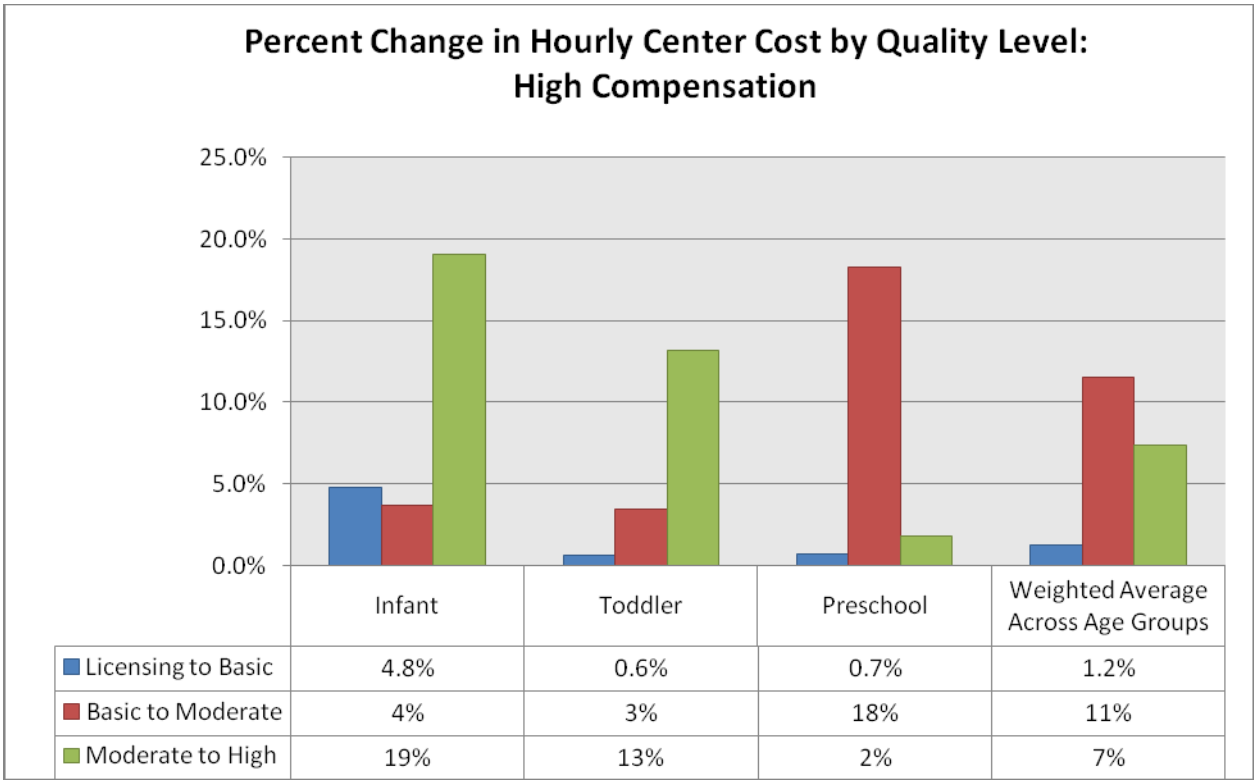
	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Licensing to Basic	4.6%	0.6%	0.7%	1.1%
Basic to Moderate	3%	3%	16%	10%
Moderate to High	18%	12%	2%	7%

Chart 10



	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Licensing to Basic	$0.31	$0.04	$0.03	$0.06
Basic to Moderate	$0.25	$0.19	$0.72	$0.54
Moderate to High	$1.33	$0.77	$0.08	$0.38

Chart 11

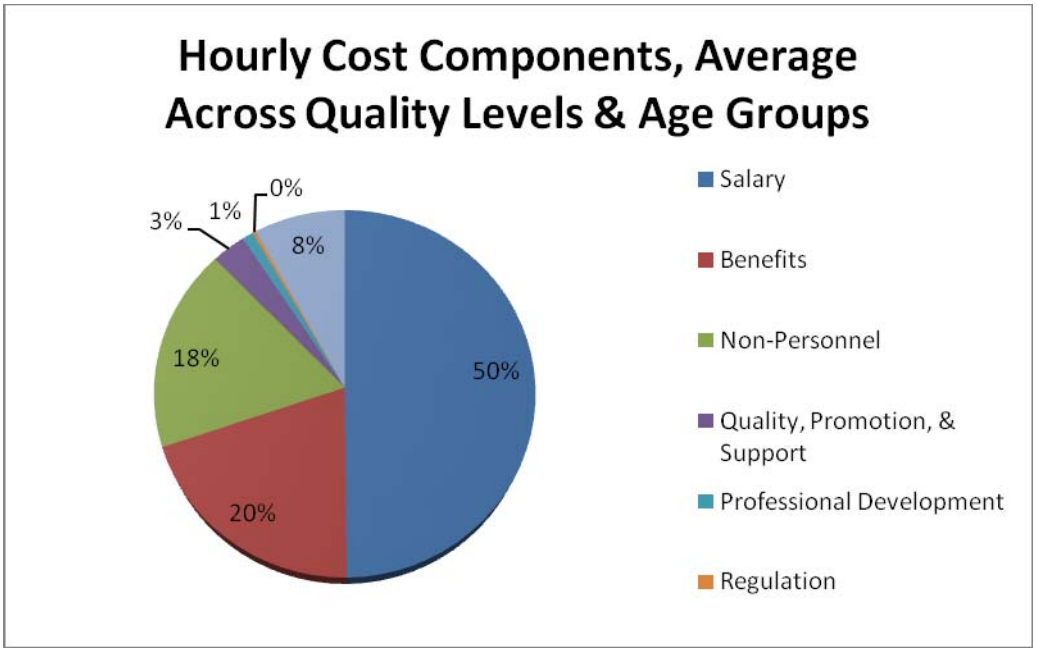


	Infant	Toddler	Preschool	Weighted Average Across Age Groups
Licensing to Basic	4.8%	0.6%	0.7%	1.2%
Basic to Moderate	4%	3%	18%	11%
Moderate to High	19%	13%	2%	7%

Cost Components

The composition of costs is similar across all quality-levels and age groups. Staffing costs are the main component of the hourly costs, as they are expected to be in a labor-intensive industry like education. Salary and benefits together comprise about 70% of the hourly costs. Non-personnel costs (including administrative costs) are about 18%, capital reserves (which centers often maintain to handle fluctuations in enrollment) are about 8%. Quality Promotion & Support (which includes governance and accountability program costs) make up about 3% of hourly costs, Professional Development comprises only 1% of costs, and regulation costs are only a third of a percent.

Chart 12



Family Child Care Findings

A basic principle underlying the Ohio policy specifications is that staff should be paid based on their level of responsibility and qualifications, regardless of the setting in which they are responsible for young children. The HSPC modeling approach therefore generates estimates of the per child-hour costs of FCC necessary to generate a level of revenues sufficient to pay the provider an amount equivalent to the wages and benefits specified by center-based staff of equivalent qualifications and responsibility. Since the average qualifications of FCC providers are anticipated to be lower than that of center-based teachers, the average compensation and cost is lower. We add to the compensation cost an estimate of about 30 percent for non-personnel costs, based on the study of FCC costs conducted by Helburn, Morris & Modigliani (2002). As will be discussed below, FCC cost estimates are quite sensitive to the number of hours that a provider is estimated to offer ECE in order to generate the specified compensation level.

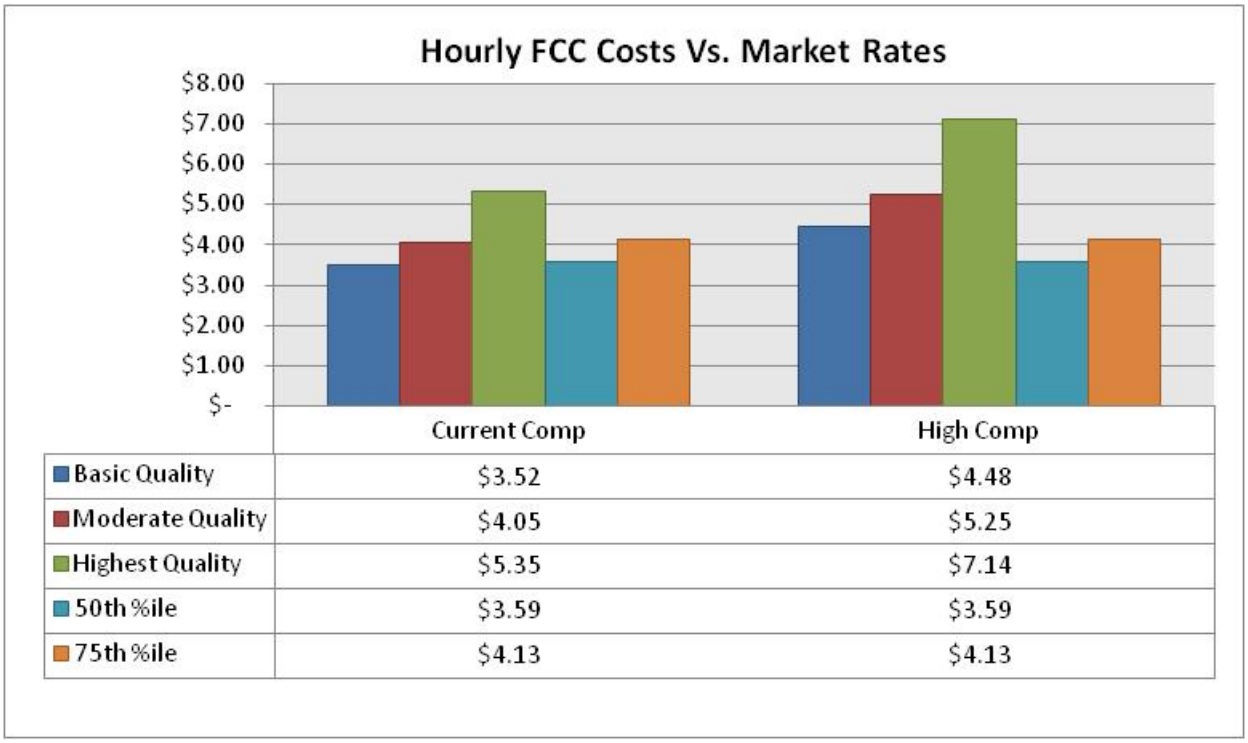
The hourly costs for Family Child Care homes under current compensation reflect many specifications made by the working group with limited background data, due to the lack of finalized SUTQ regulations for FCC's and due to the lack of data on current staff salary and educational attainment. For this reason, many of the policies specified for centers were applied to FCC's (such as professional development), while others were specified anew by the working group (such as staff educational attainment).

Hourly costs estimated for FCC's by HSPC using the Policy Simulation Model follow many of the same patterns as seen in the costs for centers. Under current compensation, the hourly costs for FCC's at the Basic and Moderate Quality levels fall between the 50th and 75th percentile of

current market prices (the cost for Basic Quality is actually a few cents below the 50th percentile). The hourly cost at the Highest Quality level exceeds the 75th percentile by about $1.20, indicating that this quality level, even under current compensation, is far more costly than most parents are currently paying for care.

All of the quality levels under the Higher Compensation specifications exceed the 75th percentile market price. This indicates the potential of a major shift in the market acceptability of Family Child Care if these specifications were implemented and FCC prices greatly increased.

Chart 13



	Current Comp	High Comp
Basic Quality	$3.52	$4.48
Moderate Quality	$4.05	$5.25
Highest Quality	$5.35	$7.14
50th %ile	$3.59	$3.59
75th %ile	$4.13	$4.13

The absolute changes across quality-levels in FCC also tell an interesting story. These changes are not estimated by age group, as the Policy Simulation Model does not distinguish between age groups for FCC homes, reflecting common provider practice of mixing children of different ages. The cost differences across quality levels are more dramatic than seen for Centers, largely due to the changes in educational-attainment across quality levels. The change from Basic to Moderate Quality is 54 to 78 cents, or a 15-17% increase in costs. The change from Moderate to High Quality is $1.29 to $1.88, or a 32-36% increase in costs.[8] Both changes are driven partially by lower ratios at higher quality levels, but also due to the relatively large steps in educational attainment, especially for the Highest Quality level, where all providers are expected to possess an AA degree.

[8] The change from licensing to Basic Quality is not available for FCC's, as current licensing costs for FCC's were not available.

Chart 14 -

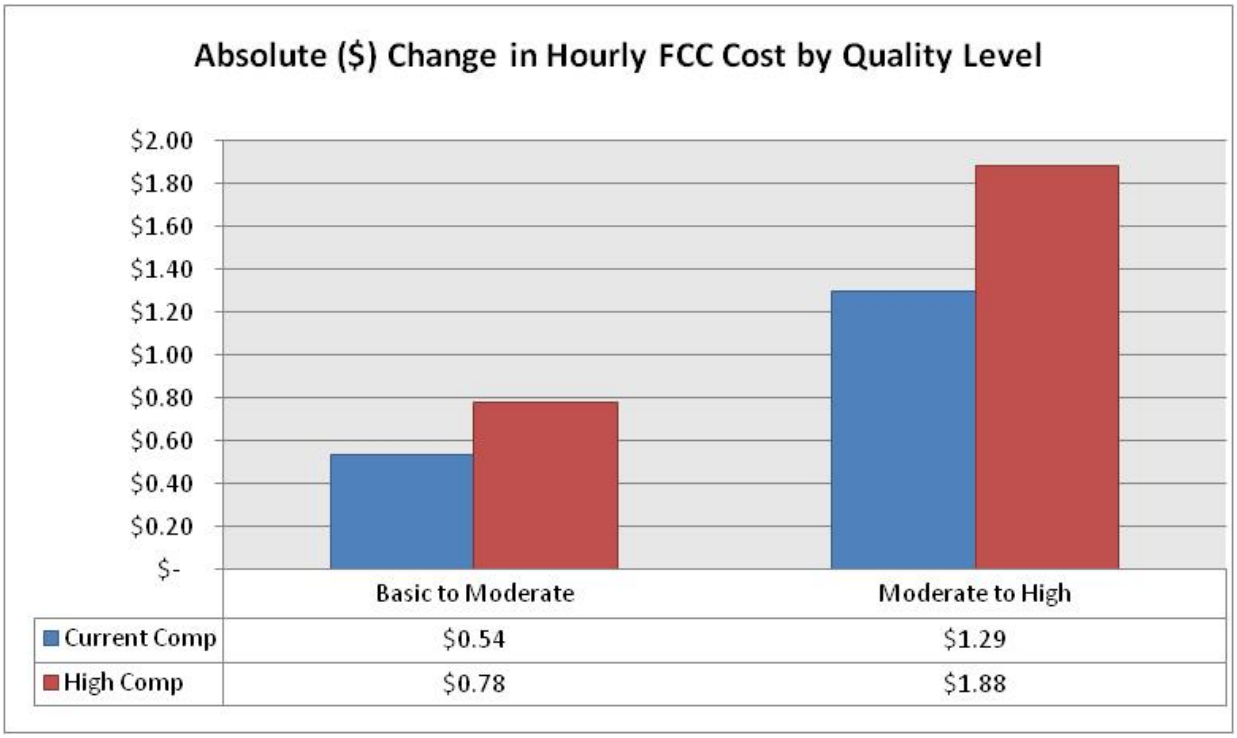
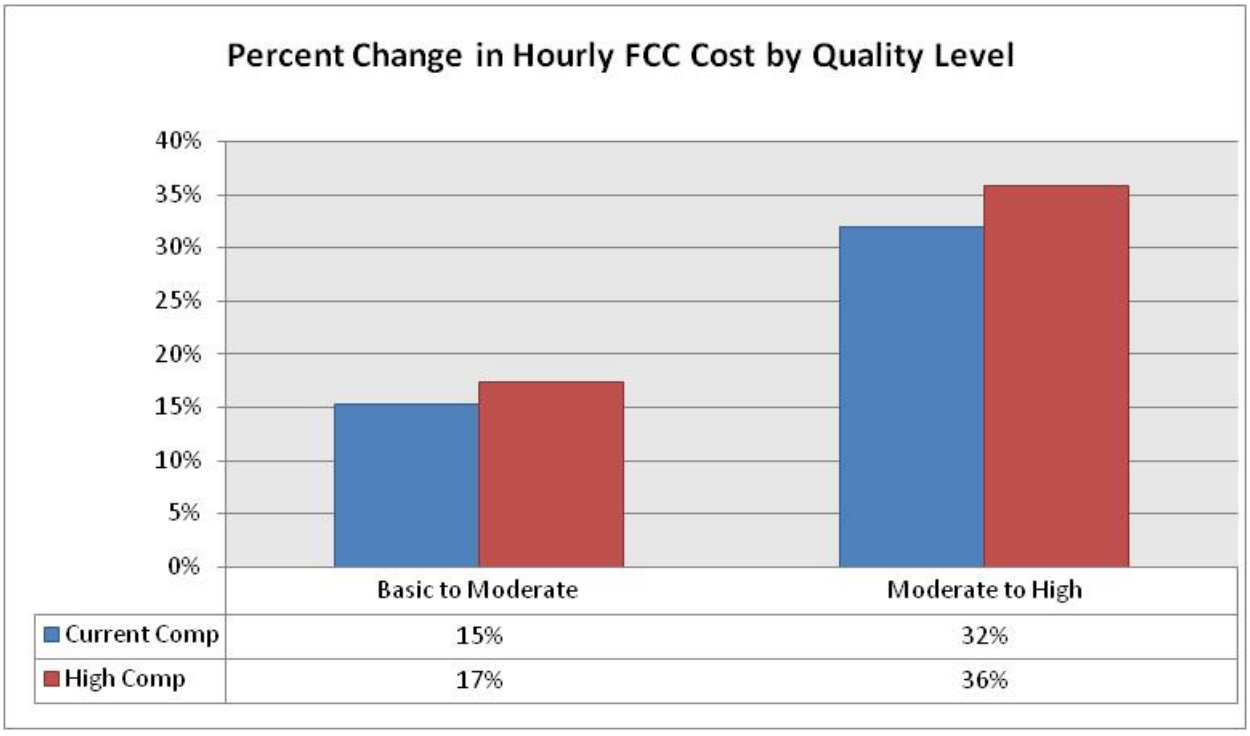


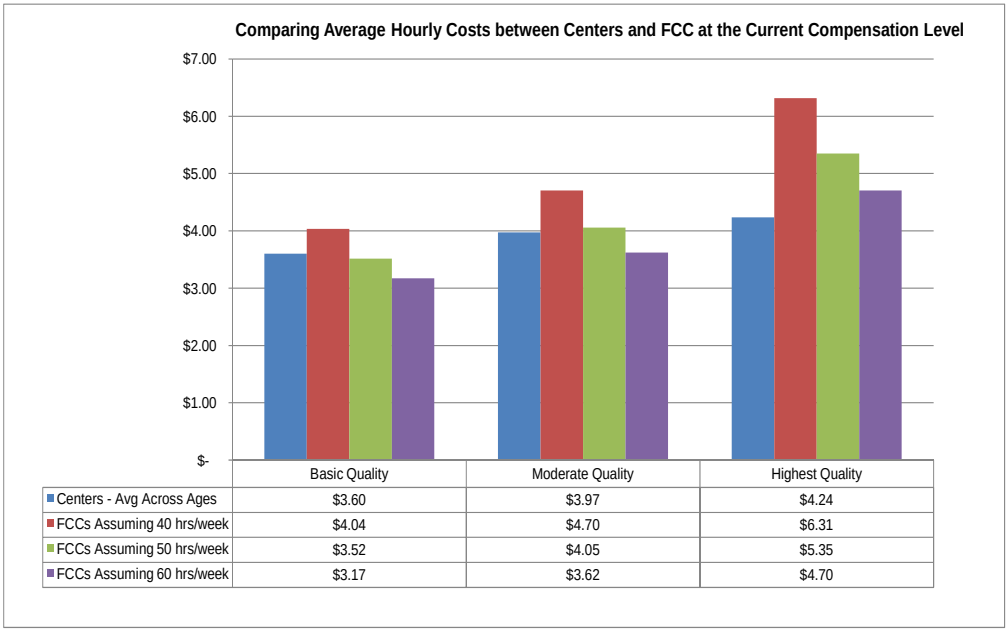
Chart 15 -



Comparing Center & FCC Costs

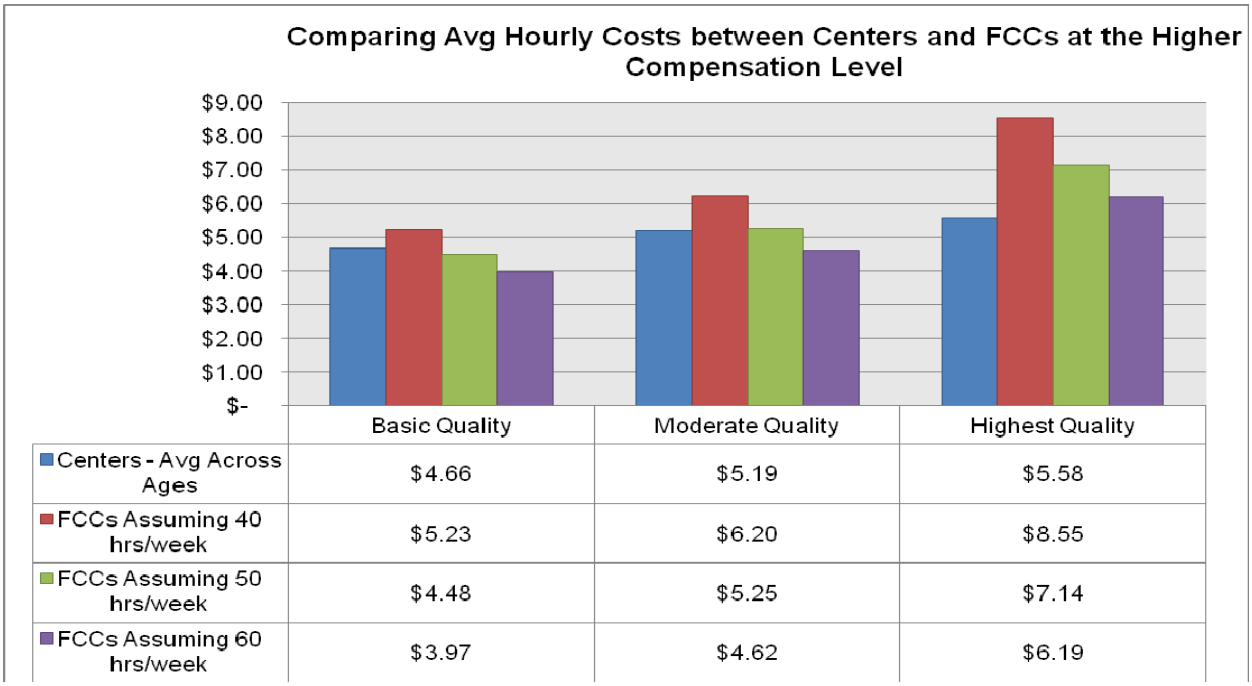
As noted above, Family Child Care costs are derived from a formula that includes a relationship to center-based costs, and are quite sensitive to the assumed hours per week worked to earn compensation equivalent to a Center teacher of similar qualifications. The estimated hourly costs for Family Child Care homes are based on different assumptions regarding the number of hours an FCC provider works each week than used when estimating the hourly costs for Centers. FCC often operate for more hours a week in order to accommodate parents' schedules. While a center may be open 45 or more hours a week, there are usually different staff covering opening and closing hours, and each is paid on the basis of a 40 hour week. However, since FCC providers must be personally present at all hours they are operating, and since they operate out of their own home, it is more reasonable to assume that their annual compensation is derived from working more than 40 hours a week. For that reason, we estimated costs based on a 50-hour work week for FCC's rather than a traditional 40-hour work week, as is assumed for Center staff. If a 40-hour work week were assumed for FCC's, estimated hourly costs would exceed the costs for Centers, negating the price advantage that FCC's usually hold. It would not be reasonable to assume an FCC fee structure that inverted its market position relative to centers. When a 50-hour week is assumed, FCC costs at the Basic Quality level are below Center costs, but exceed Center costs at the Moderate and Highest Quality levels.

Chart 16



	Basic Quality	Moderate Quality	Highest Quality
Centers - Avg Across Ages	$3.60	$3.97	$4.24
FCCs Assuming 40 hrs/week	$4.04	$4.70	$6.31
FCCs Assuming 50 hrs/week	$3.52	$4.05	$5.35
FCCs Assuming 60 hrs/week	$3.17	$3.62	$4.70

Chart 17



	Basic Quality	Moderate Quality	Highest Quality
Centers - Avg Across Ages	$4.66	$5.19	$5.58
FCCs Assuming 40 hrs/week	$5.23	$6.20	$8.55
FCCs Assuming 50 hrs/week	$4.48	$5.25	$7.14
FCCs Assuming 60 hrs/week	$3.97	$4.62	$6.19

The increases in cost by quality level are clearly much larger for FCC's than for Centers. This is mostly due to the differences in educational attainment. While the Center specifications for educational attainment do not dramatically differ across quality-levels (being drawn from current workforce data), the FCC specifications for educational attainment as drawn up by the working group would generate greater differences in educational attainment among providers at different quality levels, especially at the Highest Quality level, where all providers are expected to possess an AA degree. However, the education attainment levels of FCC providers would still be lower than that of center staff.

Quality Achievement Awards

The Quality Achievement Awards (QAA) are intended to provide a financial incentive for centers to move up the Step Up to Quality ladder. These lump-sum awards vary by quality-level, by center capacity, and by the percentage of subsidized children served.

Table 7 - Payment Matrix for Quality Achievement Awards (Original supplied by ODJFS)[9]

Subsidy %	Size	1 Star	2 Star	3 Star
Level 1 0 - 9%	Small (0-59)	3,000	5,000	8,000
	Medium (60-99)	5,000	7,000	10,000
	Large (100-159)	7,000	9,000	12,000
	Very Large (160 plus)	9,000	11,000	14,000
Level 2 10 – 40%	Small (0-59)	4,000	8,000	12,000
	Medium (60-99)	6,000	12,000	18,000
	Large (100-159)	8,000	16,000	24,000
	Very Large (160 plus)	10,000	20,000	30,000
Level 3 41 – 70%	Small (0-59)	5,000	10,000	15,000
	Medium (60-99)	7,000	14,000	21,000
	Large (100-159)	9,000	18,000	27,000
	Very Large (160 plus)	11,000	22,000	33,000
Level 4 71% and above	Small (0-59)	6,000	12,000	18,000
	Medium (60-99)	8,000	16,000	24,000
	Large (100-159)	10,000	20,000	30,000
	Very Large (160 plus)	12,000	24,000	36,000

HSPC analyzed the QAA amounts to create a matrix of the QAA awards expressed as per-child, per-hour amounts, in order to be comparable to the per-child, per-hour costs of meeting quality standards generated from our Policy Simulation Model. The matrix was calculated by dividing the payment matrix by the median enrollment at each capacity-category, and then dividing by the expected annual amount of hours used in care.

The results reveal that per-child, per-hour equivalents of QAA payments range from:

[9] Subsidy percentage based on dividing the subsidized enrollment by the total enrollment at the last licensing inspection prior to the subsidy determination month. Size based on license capacity at the last licensing inspection prior to the subsidy determination month.

- 2 cents to 9 cents for centers serving less than 10% of subsidized children,
- 2 cents to 13 cents for centers serving 10-40% subsidized kids,
- 2 cents to 17 cents for centers serving 41-70% subsidized kids, and
- 2 cents to 20 cents for those centers serving more than 70% subsidized kids.

Table 8 – Per-Child, Per-Hour Equivalents of Current QAA Payments

Subsidy %	Size	Step 1	Step 2	Step 3
*based on dividing the subsid	*based on license capacity at the last licensing inspection prior to the subsidy determin			
Level 1	Small (0-59)	$ 0.03	$ 0.06	$ 0.09
0 - 9%	Medium (60-99)	$ 0.02	$ 0.03	$ 0.04
	Large (100-159)	$ 0.02	$ 0.02	$ 0.03
	Very Large (160 plus)	$ 0.02	$ 0.02	$ 0.02
Level 2	Small (0-59)	$ 0.04	$ 0.09	$ 0.13
10 – 40%	Medium (60-99)	$ 0.03	$ 0.05	$ 0.08
	Large (100-159)	$ 0.02	$ 0.04	$ 0.06
	Very Large (160 plus)	$ 0.02	$ 0.03	$ 0.05
Level 3	Small (0-59)	$ 0.06	$ 0.11	$ 0.17
41 – 70%	Medium (60-99)	$ 0.03	$ 0.06	$ 0.09
	Large (100-159)	$ 0.02	$ 0.05	$ 0.07
	Very Large (160 plus)	$ 0.02	$ 0.04	$ 0.06
Level 4	Small (0-59)	$ 0.07	$ 0.13	$ 0.20
71% and above	Medium (60-99)	$ 0.03	$ 0.07	$ 0.10
	Large (100-159)	$ 0.03	$ 0.05	$ 0.08
	Very Large (160 plus)	$ 0.02	$ 0.04	$ 0.06

When these figures are compared to the per-child, per-hour costs of increasing quality, it becomes apparent that the QAA amounts do not compensate providers for a substantial share of the costs of moving to a higher quality level. For example, the average hourly per-child cost for a provider to move from offering Basic Quality care to Moderate Quality care is 37 cents. The QAA hourly per-child subsidy for centers at the Moderate Quality level (Step 2) ranges from 2 to 13 cents, depending upon center capacity and percent of subsidized children served. The QAA amount is well below the actual cost of increasing the quality to that level.

Further, when looking at the per-subsidized child amounts, it appears that the awards provide less money per-child for centers serving large proportions of subsidized children. The tables below present the hourly per-child QAA rates in two ways: by enrollment, and by subsidized child. When we look at the QAA payments per all enrolled children, it is clear that these rates increase slightly with the percentage of subsidized children served. However, when we examine the QAA payment divided only among the approximate number of subsidized children served, it is clear that centers that serve larger proportions of subsidized children receive significantly less assistance per subsidized child. A center that serves less than 10% subsidized children would

receive between 41 cents and $1.23 per subsidized child. A center that serves more than 70% subsidized children would receive between 5 cents and 16 cents per subsidized child. This creates an unintended incentive for centers with higher quality to serve fewer subsidized children, in order to maximize the QAA payment that they would receive.

Chart 18 -

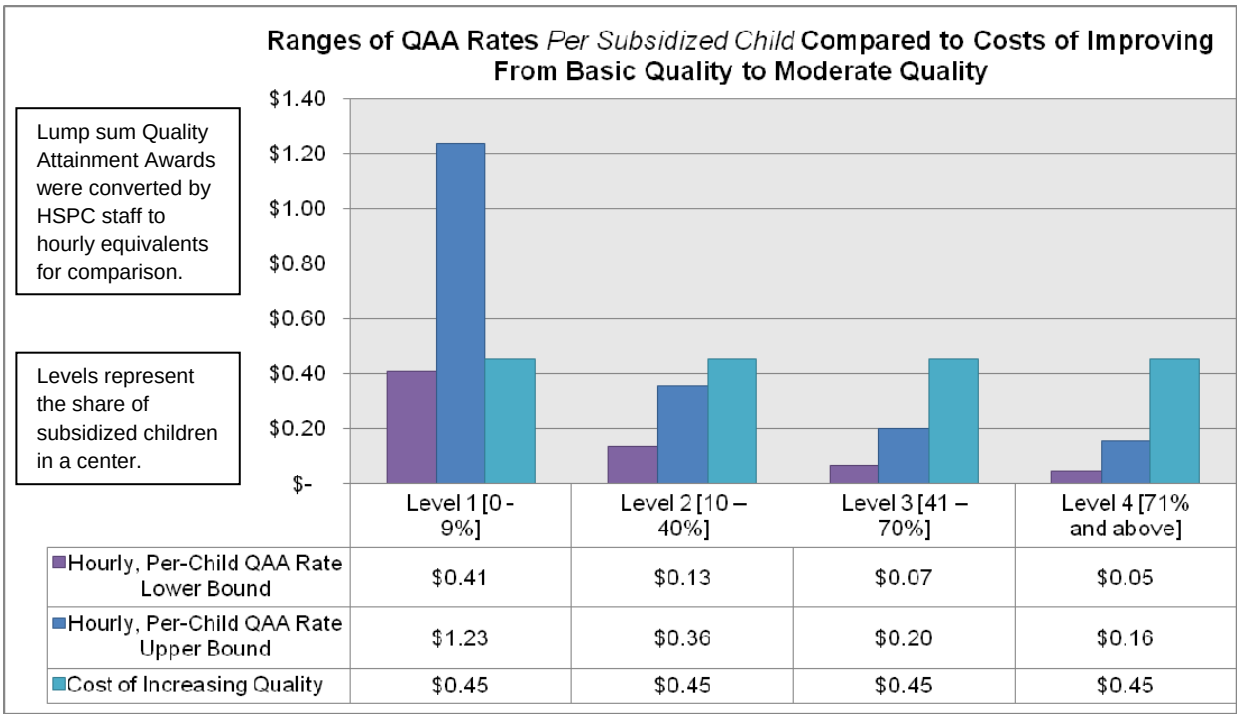
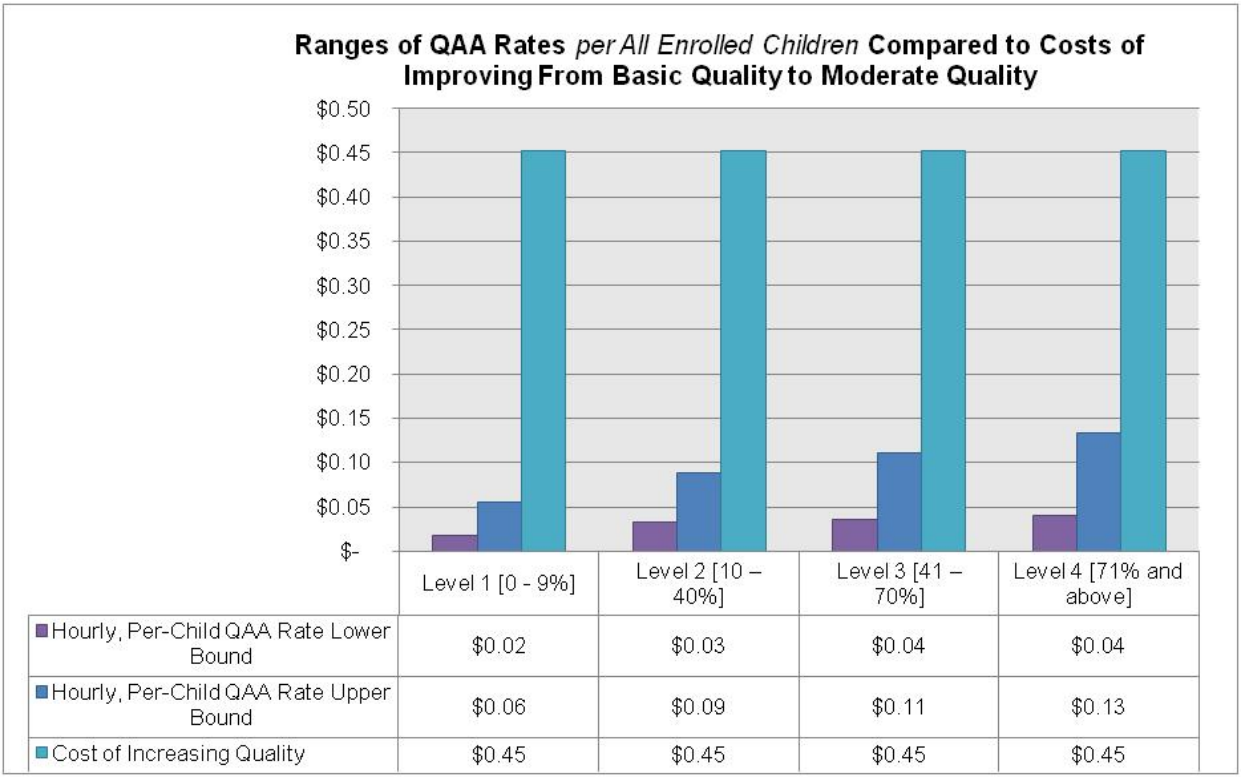
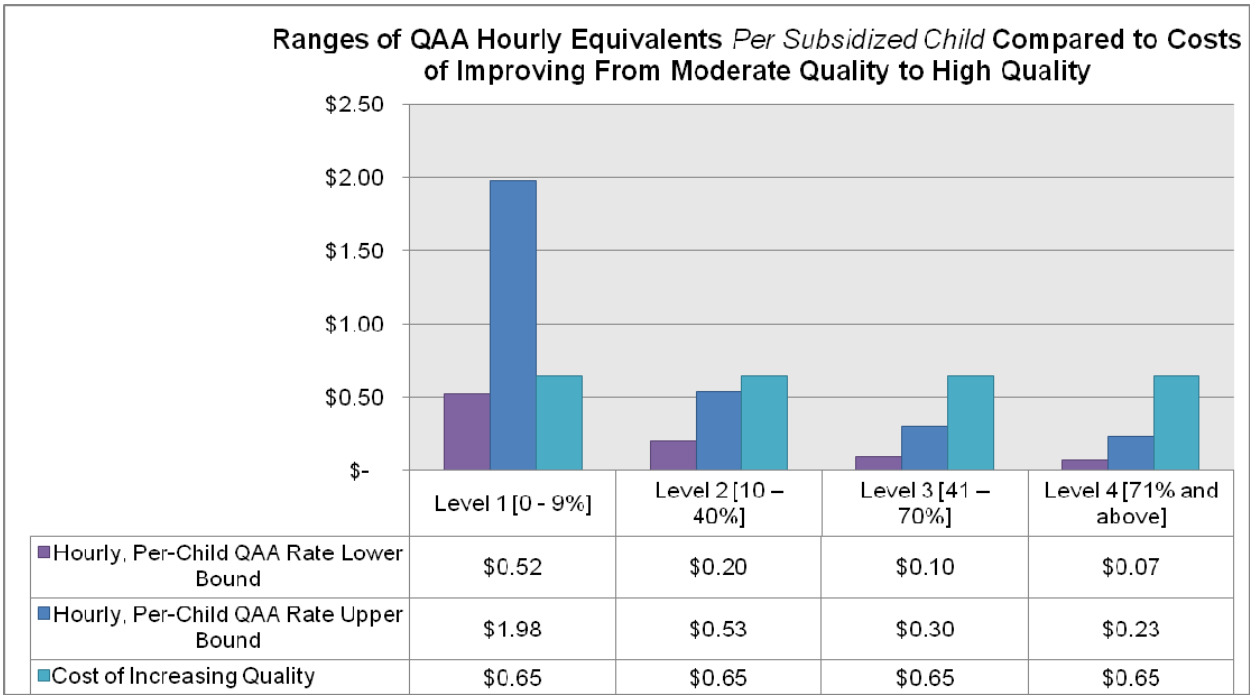


Chart 19 -



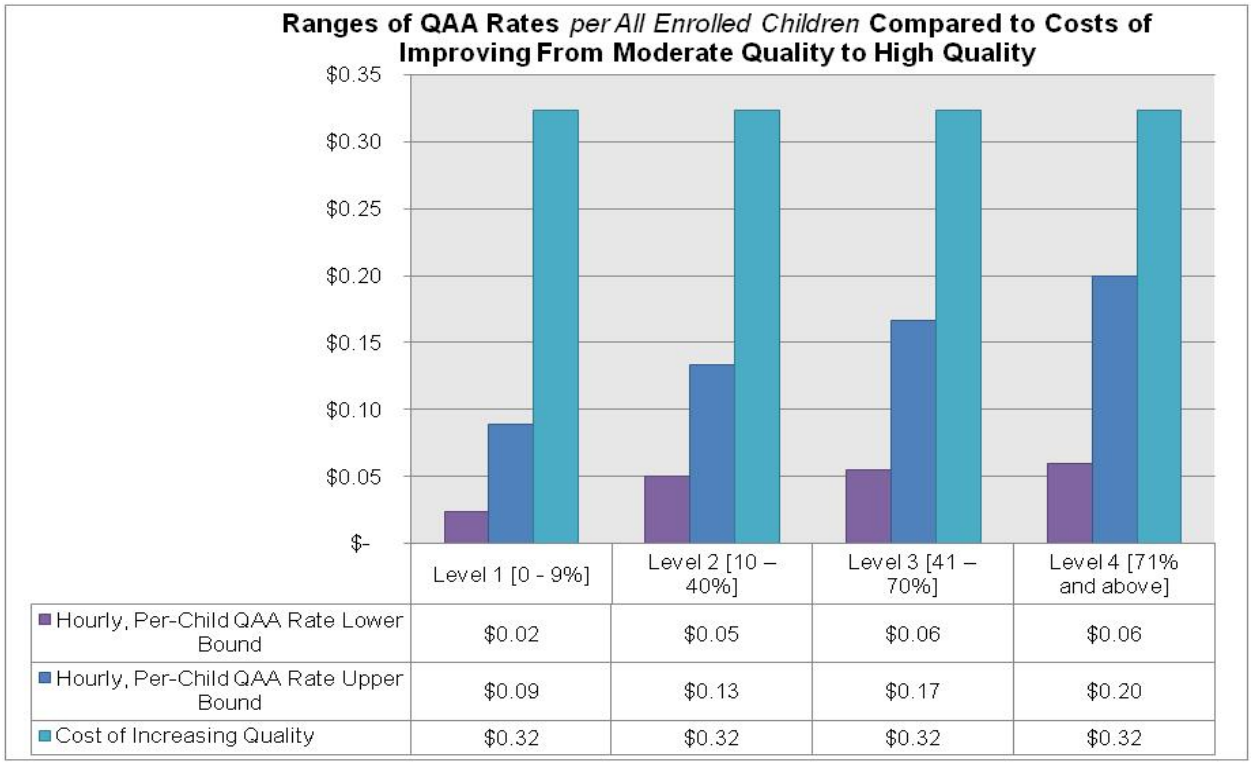
	Level 1 [0 - 9%]	Level 2 [10 – 40%]	Level 3 [41 – 70%]	Level 4 [71% and above]
Hourly, Per-Child QAA Rate Lower Bound	$0.02	$0.03	$0.04	$0.04
Hourly, Per-Child QAA Rate Upper Bound	$0.06	$0.09	$0.11	$0.13
Cost of Increasing Quality	$0.45	$0.45	$0.45	$0.45

Chart 20 -



	Level 1 [0 - 9%]	Level 2 [10 – 40%]	Level 3 [41 – 70%]	Level 4 [71% and above]
Hourly, Per-Child QAA Rate Lower Bound	$0.52	$0.20	$0.10	$0.07
Hourly, Per-Child QAA Rate Upper Bound	$1.98	$0.53	$0.30	$0.23
Cost of Increasing Quality	$0.65	$0.65	$0.65	$0.65

Chart 21 -



	Level 1 [0 - 9%]	Level 2 [10 – 40%]	Level 3 [41 – 70%]	Level 4 [71% and above]
Hourly, Per-Child QAA Rate Lower Bound	$0.02	$0.05	$0.06	$0.06
Hourly, Per-Child QAA Rate Upper Bound	$0.09	$0.13	$0.17	$0.20
Cost of Increasing Quality	$0.32	$0.32	$0.32	$0.32

Affordability Analysis

Along with determining the costs of increased quality in child care, it is also necessary to consider whether families at different income levels will be able to afford these costs. If families cannot afford the costs of higher quality child care, then either they will have to be provided with financial assistance or providers will not be able to recover the costs in the form of fees. If providers cannot recover their costs, then they cannot make the desired improvements in staff qualifications and ratios to meet higher quality standards. And if providers cannot recover the costs of meeting standards from private fees or public reimbursement, then efforts to draw more providers into the SUTQ system are likely to stall.

There is no single criterion that exactly determines whether a given cost of ECE is affordable for families. However, there are two useful analyses that can elucidate whether a given cost level is within the ballpark of affordability.

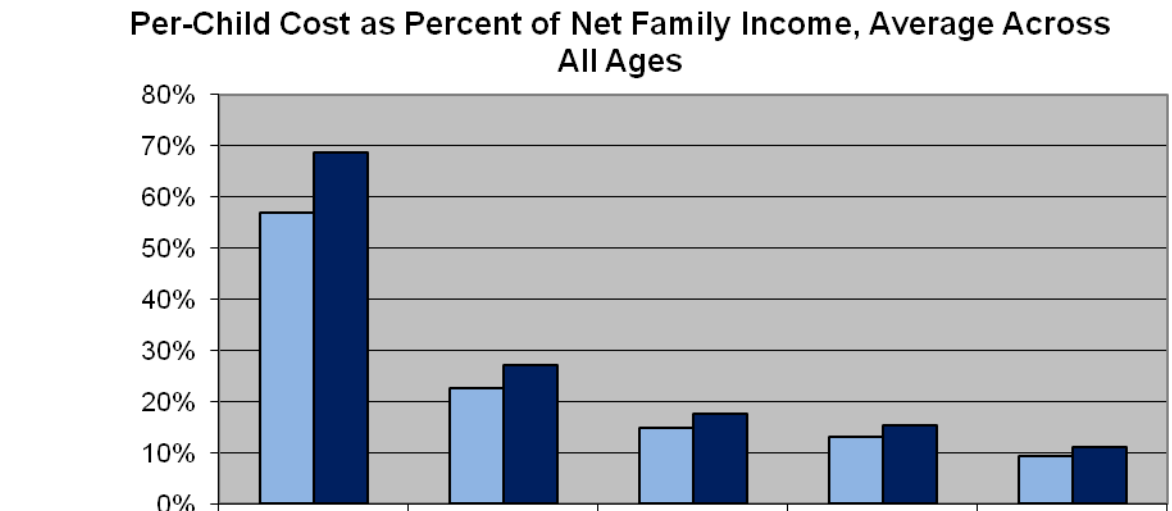
The first analysis is to compare the cost of full time, full year ECE for a child to the average after-tax income of families at different income levels. The federal Child Care Bureau has established a guideline of 10 percent of income, but there does not appear to be a solid economic analysis behind this guideline; rather, it seems to reflect the average family expenditure for child care a number of years ago, and include expenditures for school-age children, which are lower than for young children. Many Ohio families at both higher and lower income levels currently spend a higher percent of income for child care, often up to 15 percent.

The other useful approach is to compare the costs of higher quality care to the median price of care, which is what the average family is currently paying and therefore demonstrably affordable for them. A comparison with the 75th percentile price indicates what upper-middle income families are currently paying and is thus affordable at their income bracket.

One challenge with the concept of affordability is that it involves choice as well as necessity. Families may be able to afford a higher price, but choose not to spend that money for currently available ECE. However, if quality is improved, they may be willing to spend more on ECE rather than other family activities or investments. Thus, 50th and 75th percentile prices give a sense of the upper range of market feasibility, but do not necessarily set a hard boundary.

The chart below shows the percent of net family income for those under 600% FPL that is necessary to afford full time, full year early learning for one child. The important comparisons to make are the 50th percentile market price to the incomes of those 200-300% FPL and the 75th percentile market price to the income of upper-middle income families (300-400% FPL), since they are the ones more likely to be paying those prices.

Chart 22



	<1 FPL	1-2	2-3	3-4	4-6
50th Percentile (Ohio MRS)	57%	23%	15%	13%	9%
75th Percentile (Ohio MRS)	69%	27%	18%	15%	11%

We see that:

- On average, both middle income families (2-3) and upper-middle income families (3-4) are currently paying about 15 percent of net income per child for the 50th and 75th percentile market prices, respectively.

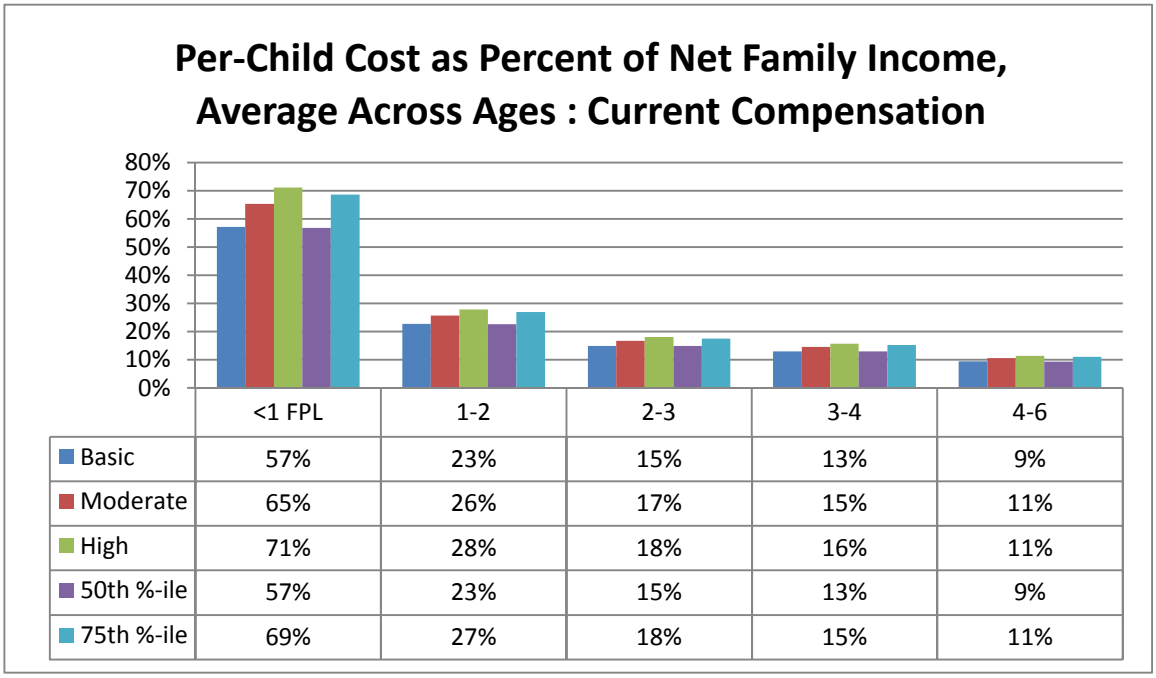
- With eligibility for assistance capped at 200% FPL, the 50th and 75th percentile market rates still consume more income than the Child Care Bureau's affordability threshold of 10% of net family income. This indicates that those not eligible for assistance may still struggle with affordability, especially for higher quality care.

We next examine what percent of income would be required to pay for the estimated costs of meeting the specified quality standards if no assistance beyond the current federal tax credit were offered.

The set of tables below shows our estimate of the costs of providing high quality early learning as a percent of net income for families in different income categories. For this estimate, we

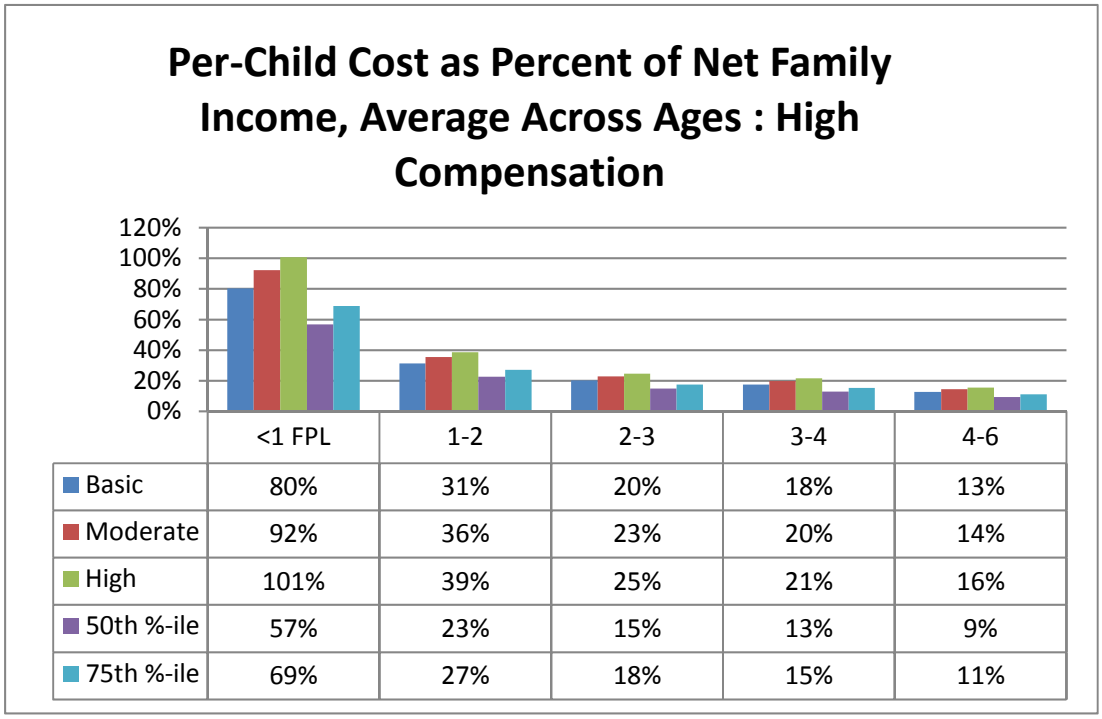
assume that a child is in full time, full year ECE. We adjust family income to reflect the positive and negative effects of federal tax policy. We reduce income by the average level of social security and income taxes for each income group; for low and moderate income families, we add back the value of the earned income tax credit. We then estimate the total amount of federal child care tax credit for which families in each group would be eligible, and reduce their ECE cost by that amount.

Chart 23



	<1 FPL	1-2	2-3	3-4	4-6
Basic	57%	23%	15%	13%	9%
Moderate	65%	26%	17%	15%	11%
High	71%	28%	18%	16%	11%
50th %-ile	57%	23%	15%	13%	9%
75th %-ile	69%	27%	18%	15%	11%

Chart 24



	<1 FPL	1-2	2-3	3-4	4-6
Basic	80%	31%	20%	18%	13%
Moderate	92%	36%	23%	20%	14%
High	101%	39%	25%	21%	16%
50th %-ile	57%	23%	15%	13%	9%
75th %-ile	69%	27%	18%	15%	11%

The charts above provide an overall affordability estimate, with costs averaged across age of child (averages are weighted to reflect utilization patterns by age). We see that:

- At either current or higher levels of compensation, low (<1FPL) and moderate (1-2 FPL) income families would not be able to afford the high quality ECE without substantial assistance. Even at the current compensation level, high-quality care consumes over a quarter of net family income for those at 100-200% FPL.

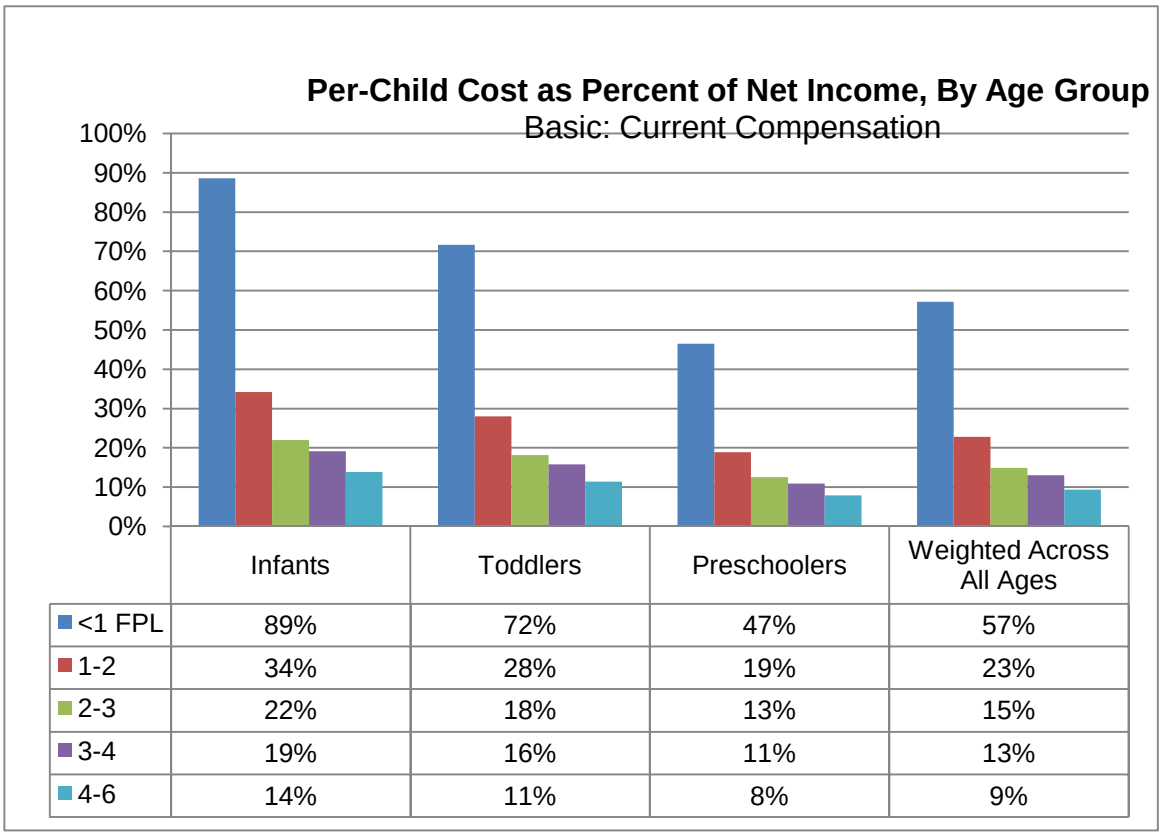
- At the current compensation level, middle income (2-3 FPL) families would have to pay about 15 percent of their net income per child for basic-quality care. This is approximately what they are currently paying, based on the 50th percentile market price.

- At the higher compensation level, the cost per child for middle-income (2-3 FPL) families would be about one fifth of net income for basic-quality care. Thus, some financial assistance to middle income families would probably be required for higher quality care at the current compensation level and definitely be required at the higher compensation level.

The overall picture is that without assistance to middle income families, providers would not be able to recoup the costs of meeting the higher standards by charging fees to middle income parents. The higher standards would thus not be sustainable in the market. However it would not be cost-effective to subsidize the entire cost for middle or upper income families, since the costs are close to affordable. Rather, just subsidizing sufficiently to increase affordability could minimize public expenditure and provide sufficient assistance for families not served at current eligibility limits.

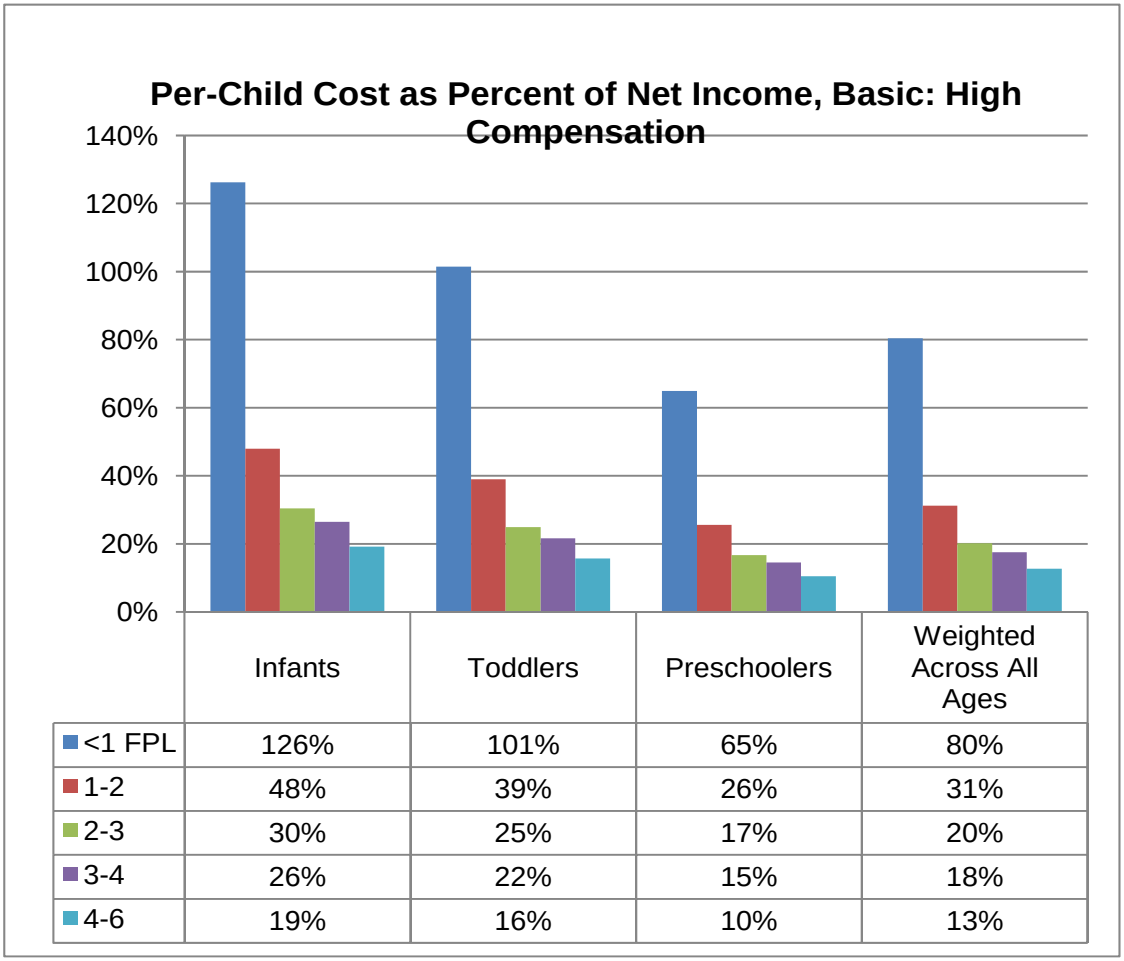
The affordability issues become more challenging when we break them down by age of child and level of quality. Early learning opportunities that are affordable 'on average,' may be less affordable for families with the youngest children (highest cost) or desiring the highest level of quality.

Chart 25



	Infants	Toddlers	Preschoolers	Weighted Across All Ages
<1 FPL	89%	72%	47%	57%
1-2	34%	28%	19%	23%
2-3	22%	18%	13%	15%
3-4	19%	16%	11%	13%
4-6	14%	11%	8%	9%

Chart 26



	Infants	Toddlers	Preschoolers	Weighted Across All Ages
<1 FPL	126%	101%	65%	80%
1-2	48%	39%	26%	31%
2-3	30%	25%	17%	20%
3-4	26%	22%	15%	18%
4-6	19%	16%	10%	13%

The charts above show the affordability picture by age of child for the basic quality level. We see that for middle income families, at the current compensation level, the 15% average share of net income would be 22% for infants, 18% for toddlers, but only 13% for preschoolers. This pattern is evident at all income levels – the true cost for the youngest children is well above the average, while the true cost of preschoolers is just below the average. This problem could be mitigated if providers were able to continue the current common practice of cross-subsidizing – charging the large number of older children slightly above cost in order to charge the smaller number of very young children below the true cost.

The affordability analysis also sheds light on the issue of what the maximum income eligibility level for financial assistance should be. The data presented in these charts suggests that low (<1 FPL) and moderate (1-2 FPL) income groups need substantial assistance, middle income families (2-3 FPL) need a small amount of assistance, and upper-middle and upper income families may not require any assistance.

Aggregate Costs of Assisting Parents and Providers

The aggregate costs build upon the hourly costs for both Centers and Family Child Care homes, apply current population estimates, and then apply the financing model. The financing model estimates the total cost of offering access to high quality ECE for all children in Ohio, calculating the cost of assistance to each child based upon the type of ECE they are in, the amount of hours in ECE, and their family income and employment situation. We also apply estimates of the likely participation in care given the changes in cost. Utilization patterns are based on a household survey of a representative sample of Ohio parents conducted by HSPC (HSPC 2003).

The financing model also applies the expected distribution of quality attainment for Centers and FCC's, so that the appropriate hourly costs can be applied at each quality level. The working group specified figures reflecting expected future attainment once all providers are participating in SUTQ, specifying that 50% of Centers will be at the Basic Quality level, 30% will be at the Moderate Quality level, and 20% will be at the Highest Quality level. For FCC's, 83% were expected to be at the Basic Quality level, 13% were expected to be at the Moderate Quality level, and 3% were expected to be at the Highest Quality level.

The most recent figures for current B-5 spending were used in order to calculate expenditures that are spent on services comparable to those covered in the Policy Simulation Model. For example, special programs providing young children intensive services beyond the scope of basic early care and education were not included. The total B-5 spending in 2007 was approximately $980 million, but only $553 million of those expenditures are comparable with the simulated expenditures[10]. Of this $553 million, approximately $224 million are state dollars, with the remainder being federal funding.

The gross cost for the current-compensation option is approximately $701 million, of which the state (and local) entities would be expected to shoulder $372 million (assuming that federal funding is unchanged), for a net state increase of approximately $148 million. For comparison's sake, this would be equivalent to an increase of less than 1% of total K-12 spending in Ohio.

The gross cost for the higher-compensation option is approximately $915 million, of which the state would be responsible for $586 million, for a net state funding increase of $362 million. This would be equivalent to a little less than 2% of total K-12 spending.

[10] Expenditures considered as non-comparable include most ECE expenditures by the Department of Education, Special-Education and Mental Health funding, and funds for the Department of Health's 'Help Me Grow' program.

Table 9 - Estimated Costs of Assisting Parents and Providers to Meet Quality Standards

	Total Projected Cost of OH Policies	State B-5 Costs for Basic ECE	Increased State or Local Costs [No federal increase]	Increase State or Local Costs as Percent current K-12
	Costs in $ Millions (2007)			
Current B-5 ECE Spending (State, Federal)	$ 553	$224	--	-----
Current Compensation				
Access to Quality - eligibility at 4 FPL	$701	$372	+ $148	+ 0.8%
Access to Quality – eligibility at 3 FPL	$636	$306	+$82	+0.4%
Access to Quality – eligibility at 2 FPL	$558	$228	+$5	+0.02
Higher Compensation				
Access to Quality – eligibility at 4 FPL	$915	$586	+$362	+1.9 %
Access to Quality - eligibility at 3 FPL	$829	$500	+$276	+1.4%
Access to Quality – eligibility at 2 FPL	$728	$398	+$175	+0.9%

As noted earlier, our analysis indicates that at current compensation, families with income greater than 3 FPL would be able to afford higher quality ECE with some stretching; at higher compensation, the cost would not be affordable for middle and upper-middle income families. However, those families could potentially be assisted by improved tax credits linked to quality of ECE.

The current eligibility limit is close to 2 FPL, so we were asked to estimate the costs of the package with eligibility limits set at 2 and 3 FPL. The working group indicated that it would continue to develop tax credits as an approach to assisting middle income families. Under current compensation, there would be little cost to providers in moving into the SUTQ system. This is demonstrated by the minimal cost estimated for moving from licensing requirements to Level 1 of SUTQ. It is also confirmed by the fact that the cost estimate for meeting Level 1 requirements is virtually the same as the 50th percentile market price. Since there would be virtually no change in cost to providers or assistance to families, there would be little increase in

budgetary costs (about $5 million) and middle income families would continue to be priced out of higher quality ECE. At higher compensation, the cost of assistance to low and moderate income families would be greater, with a cost increase of $175 million. However, the affordability problem would become highly prohibitive for middle income families, with a full time slot requiring at least 20% of after tax income per child.

We therefore estimated the costs of providing assistance to middle income families (2-3FPL). If eligibility for parent and provider assistance were limited to families with income not exceeding three times the federal poverty level (3 FPL), the costs increments would be reduced to:

At current compensation, $82 million (equivalent to 0.4% of total K-12 spending);

At higher compensation, $276 million (equivalent to 1.4% of total K-12 spending).

We were also asked to isolate the costs of increasing quality-attainment among Centers. This demonstrates only the cost of moving from the current distribution of SUTQ participation (in which 89% of Centers are only at licensing standards, and 11% are at either Step 1, Step 2, or Step 3) to a system in which all licensed Centers are participating in SUTQ and are at least at the basic level of quality. The costs associated with this increase in quality-attainment do not reflect any other factors in the net cost increase, such as increases in eligibility for financial assistance.

At the current-compensation level, the net cost increase of moving from the current quality-attainment distribution to the projected 2011 distribution (in which all Centers are participating in SUTQ) is approximately $31.6 million, or a 6.6% increase. The net cost increase at the higher-compensation level is approximately $45.4 million, or a 7.3% increase.[11]

Table 10 - Cost of Increased Quality-Attainment, Center Care

	Higher Compensation	Current Compensation
2007 (Current)	$ 626	$ 479
2011 (Projected)	$ 671	$ 511
Increase	+$ 45 (7.3% increase)	+ $ 32 (6.6% increase)

Figures in $ millions

[11] These figures only represent Centers, and do not include Family Child Care homes. The cost of moving all FCC's into SUTQ could not be calculated because hourly licensing costs for FCC's are not available.

Conclusion

Ohio has recently enacted an important first step toward improving access to high quality early learning. It has implemented a set of graduated quality standards for child care centers known as Step Up to Quality. It has accompanied these standards with Quality Achievement Awards that pay centers an annual bonus based on their level of quality, size of their program and the percentage of low income children they serve.

This analysis has yielded several findings with direct public policy relevance. First, that while the costs to providers of moving from meeting licensing standards to meeting the first step of SUTQ standards is minimal, the cost of moving above the first quality level are significant. Second, that the state's Quality Achievement Awards (QAA's) only offset a small share of the costs to providers of meeting standards. Our analysis of affordability to families indicates that if staff compensation is maintained at current levels, middle-income parents would likely need assistance in order to afford the cost of higher quality levels. If compensation were increased toward the desired higher level, closer to that earned by public school teachers with comparable qualifications, only the wealthiest families could afford the higher levels of quality.

If providers cannot charge fees that cover the costs of meeting standards, and QAA's are not sufficient to cover those costs, then providers cannot afford to meet standards. To make an overall higher level of quality ECE a reality in Ohio, it would therefore be necessary to either increase the assistance to parents in a manner linked to quality, or to increase the amount of the QAA's. A secondary finding of our analysis is that the factor relating the amount of QAA to the share of low income children served creates an unintended dis-incentive to serve a higher proportion of low income children.

There are several ways to improve this situation. One would be to increase the amount of partial financial assistance to families to allow low, moderate and middle income families to afford higher quality early learning. The payment amounts could be tiered to reflect levels of quality, thus increasing the incentive to facilities to improve. Alternatively, the amounts of the QAA's could be increased to more accurately reflect the actual cost of meeting standards. If this approach were taken, the awards should be re-structured to provide incentives to serve higher percentages of low income children.

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