

# Exploring the Costs and Revenues of Head Start and Child Care Partnerships in Ohio

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## 1. PURPOSE AND BACKGROUND

The primary purpose of this study is to consider the costs of providing high quality early care and education (ECE) services for low-income Ohio children age 3 to 5 years old. The costs we report are based on the actual services Head Start children received in the six Head Start centers selected to participate in this study. We calculate a range of full-day, full-year per-child annual costs based on centers' actual staffing patterns and factors affecting structural quality.<sup>1</sup> We also address the operational procedures and administrative relationships within the relevant community Head Start agencies and partnerships.

In addition, we:

- Describe in detail the characteristics of the high quality ECE services in the six centers for low-income children between the ages of 3 and 5 years old.
- Make preliminary comparisons between the costs of urban versus rural Head Start centers and between the costs of directly-operated versus partnership Head Start centers.
- Report on revenue streams for each center.
- Consider the ways in which non-Head Start children benefit from attending Head Start centers.
- Discuss the challenges agency and center directors reported in providing services to Head Start children under the program formerly known as Head Start Plus.
- Discuss ways in which data on center operations can improve the accuracy of cost modeling efforts.

Recognizing families' needs for high quality, full-day, full-year ECE for preschool-age children, Ohio has relied on partnerships between community Head Start agencies and child care providers. Policy makers are trying to balance budget constraints with a desire to promote children's early learning and development. They therefore need to know the costs of high quality ECE, based on the budgetary realities of programs in Ohio.

In 2002, the Human Services Policy Center (HSPC) at the University of Washington estimated the hourly costs of high quality ECE for all children age birth through 5, based on policy specifications provided by a broad-based team of ECE stakeholders as part of the *Universal Financing for Early Care and Education for Ohio's Children* project. In 2003, Action for Children in Ohio commissioned HSPC to provide cost estimates for high quality, full-year, full-day ECE for low-income children age 3 to 5 in Franklin County. These per-child annual costs estimates were based on the *Universal Financing* project team recommendations, modified slightly for Head Start realities, and combined with information from the federal Head Start Bureau on the cost of Head Start services in Ohio. This information was summarized in a report to Action for Children entitled

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<sup>1</sup> Standard practice in the field distinguishes among (a) structural quality, which refers to characteristics of caregiving arrangements that correlate with the quality of caregiving behavior, (b) process quality, which refers to observations of caregiver behaviors that correlate with children's developmental outcomes, and (c) observations of children's developmental outcomes. The scope and resources of this study restricted our investigation to structural quality.

“Funding High Quality Early Care and Education for Low-Income Children Age 3-5 in Ohio.” Since these estimates were based on statewide costs, the Ohio Department of Education (ODE) considered them relevant for policy and planning purposes. In particular, the estimates helped determine the level of services that could be provided at different levels of state allotments and proposed parental co-payments.

The report relied on specifications of structural quality features that were expected to be achievable in five to eight years, rather than on current costs and experiences of Head Start children in different types of centers. Since these per-child cost estimates of high-quality ECE were lower than what many programs indicated they were spending, we needed to directly compare these policy-based cost estimates to actual practice in Ohio. To do this, we had to determine where the model’s quality standards exceeded the actual quality of current Head Start programs. Some of the specific questions generated by this initial analysis were:

- How do the federal Head Start’s reports of average state expenditures per child on social and health services compare to what the six centers spend on those functions?
- Do the actual programs incur unknown or hidden costs that were not included in HSPC’s ECE policy cost model?
- What level of administrative costs incurred by contracting agencies should be added to the “center administrative costs” considered by the universal financing team and included in our policy cost model? Because no information had yet been collected or analyzed on the administrative costs of community Head Start agencies and partnerships in Ohio, the policy cost model, in consultation with ODE staff, relied on “reasonable assumptions” about administrative costs (which can contribute significantly to total costs). We needed to determine to what extent these assumptions reflected actual practice. Existing federal data on state administrative costs were not detailed enough to estimate per-child costs.

Given the importance of having information on actual program costs for policy and planning purposes, the Ohio Department of Education and the Head Start Collaboration Partnership commissioned this study to collect and analyze detailed cost information from two community Head Start agencies in Ohio, one urban and one rural. The agencies were selected to allow us to consider both the direct provision of Head Start services by the contracting agency and the provision of Head Start services through partnership arrangements with child care centers. This report therefore compares actual costs with the estimated costs and assumptions of the ECE policy cost model. A discussion of what we learned from this exercise is included in this report. An additional benefit of this exercise is that it enables us to adapt our policy cost model to more accurately reflect the current reality of providing full-year, full-day Head Start service in Ohio. As part of this project, the team in Ohio also came up with a new set of recommendations regarding what was needed for high quality care. In the future, these recommendations may be used as inputs to a modified cost model to generate new cost estimates. These cost estimates could then be used to compare to current costs in order to determine how much additional funding will be needed to reach the desired levels of quality and services for Head Start children in the future.

## 2. SAMPLE AND METHODS

In this section we describe how the community Head Start agencies (Federal Head Start grantees) and childcare centers<sup>2</sup> that participated in this study were selected. We also describe the survey instrument and the process used to gather the necessary information.

### *2.1 Center Selection*

The Head Start State Collaboration Office and HSPC jointly decided that both rural and urban Head Start centers and agencies should participate in the study so that we could consider whether they reflected different cost levels or elements. In addition, we wanted to understand centers that were directly operated as well as those that operated on a partnership basis. During an Ohio Head Start Association Conference, the Collaboration Office invited all community Head Start agencies to participate in this study, emphasizing the need for rural and urban representation. One rural and one urban agency volunteered, and each received a modest stipend from the Ohio Department of Education (ODE) to offset the administrative costs of participation. State officials confirmed that both community agencies delivered high quality services. Each agency selected three centers from its respective communities—one directly operated center and two partnership for-profit centers. All centers were considered by the community agencies to provide high quality service. Of the six centers selected to participate in the study, all but one served both Head Start and non-Head Start children. Unfortunately, between the periods when the centers were selected and the administration of the HSPC financial information survey, one center closed.<sup>3</sup> The closed center was a directly operated urban center -- the only center that served Head Start children exclusively. Despite its closure, the information obtained from this center offers important insights that should not be omitted from the analyses. We report the results from this center separately from the others. We note that the sampled centers were self-selected and cannot be taken as representative of all Ohio centers.

### *2.2 Survey Instrument*

To adequately examine the nature of varying cost structures of Head Start and Early Care and Education partnerships in Ohio, HSPC administered a detailed survey to the director of each participating center. Individualized sections of the survey were tailored to match each center's organizational structure (we interviewed each center about organization before developing the questionnaire). The survey asked about expenditures and revenues

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<sup>2</sup> Community Head Start agencies are Federal Head Start grantees with which the Federal Head Start Bureau and State Head Start offices contract to provide Head Start services to qualified children in large geographic areas. The community Head Start agencies either place children in their directly operated centers and/or subcontract with independent centers to provide daily childcare services to those children. The main function of a community Head Start agency is administration and provision of certain cross-agency services, including professional development and support, family and community partnerships, education and health services, and services to children with disabilities.

<sup>3</sup> This Head Start center closed between the time the study began and the collection of data. The project team decided not to drop the study from the project and to collect program and financial data for the last operating year.

for the prior fiscal year, with detailed categories covering the organization of services, staffing and compensation, volunteers, fee structure, and types and intensity of services to Head Start children. To determine how costs might be affected by fluctuations in staffing ratios in a variety of circumstances, we gathered data on staffing and enrollment patterns for each period of the day. To make sure that all costs were included, we verified each center's overall report of revenues and expenditures. The data were coded and entered into a database and standardized across centers to facilitate analyses of costs and revenues. Center and agency staff reviewed our preliminary cost estimates to ensure that all expenses had been included. We supplemented the survey with available center information booklets, budgets, expenditure reports, and pay scale information.

### *2.3 Site Visits and Community Agency Follow-up*

After a question-by-question review of survey responses from all centers, we highlighted items for which we needed clarification or additional information. HSPC followed up with an in-depth informational and qualitative site visit to each of the targeted centers and community agencies. We conducted intensive on-site interviews to supplement the financial survey data and to collect qualitative data about operations and practices in the provision of Head Start services. We also observed the facilities and operations of Head Start programs. Finally, we used email and phone to gather agency-wide financial information about Head Start services from community agencies.

## **3. CHARACTERISTICS OF CARE ANALYSIS**

In this section, we describe in detail the calculation of the key characteristics of care in the six centers. Some characteristics, such as child:adult ratios, staff educational attainment, staff professional development, and the range of services the center provides are guided primarily by federal Head Start standards with some additional state and local requirements. Others, such as average hourly wages and benefits, are determined at the discretion of each center. Together, these characteristics are essential determinants of the cost of care.

The survey instrument and follow-up site visits provided HSPC with a comprehensive view of center operation for all children. For the purposes of this study, however, we focused on information applicable for preschool age (3 to 5 years old) Head Start children. The characteristics of care of providing full-time, full-year Head Start service to children 3 to 5 years old are presented in Table 1.

### *3.1.1 Child:Adult Ratios*

To reflect the realities of center operations and constraints, child:adult ratios were calculated based on the amount of time and number of children and staff in each center for specific periods of the day. These periods were Drop Off, Morning, Lunchtime, Naptime, Afternoon, and Pick Up. Each center was asked to report the hours in each

**Table 1. Characteristics of Care for Full-Time, Full-Year Head Start**

	Rural Community Agency			Urban Community Agency		
	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6
<b>Average Teaching Staff Child:Adult Ratios</b>	7.9 to 1	11.7 to 1	9.4 to 1	7.5 to 1	7.6 to 1	7.6 to 1
<b>Percent Teachers &amp; Directors with BA/BS+</b>	0%	0%	20%	0%	17%	20%
<b>Percent Teachers &amp; Directors with AA</b>	38%	33%	40%	0%	0%	20%
<b>Average Hourly Wage Across all Teaching Staff</b>	\$7.80	\$8.11	\$10.78	\$7.87	\$8.70	\$11.06
<b>Benefits for All Staff as a Percent of Salary</b>	29%	28%	39%	21%	26%	39%
<b>Professional Development per Staff</b>	\$59	\$346	\$37	\$318	\$325	\$55

**Table 2. Classroom Ratios for 3-5 Year Old Children by Periods of a Day**

	Rural Community Agency			Urban Community Agency		
	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6
<i>All Periods</i>	7.9	11.7	9.4	7.5	7.6	7.6
<b>Drop Off Period</b>	6.0	12.5	10.0	5.6	5.0	3.5
<b>Morning Period</b>	8.8	10.0	8.7	7.3	7.5	8.5
<b>Lunch Period</b>	9.6	12.0	7.0	7.3	7.5	8.5
<b>Nap Period</b>	10.2	15.0	10.5	7.3	7.5	8.5
<b>Afternoon Period</b>	8.0	12.0	12.0	7.3	10.0	8.5
<b>Pickup Period</b>	5.0	8.0	8.0	9.7	8.5	8.5

Note: Amount of time for each period is not standard

period<sup>4</sup>. To produce an average child:adult ratio over the course of the day, we weighted child:adult ratios by the length of time in different periods of the *full* day, not just the Head Start portion of the day.<sup>5</sup> In cases where preschool children were mixed into classrooms with other children during periods of the day, the child:adult ratio for the mixed-age classrooms was used in the calculations for that particular period.

Of the five open centers, all but one had an average child:adult ratio that was, over the course of the day, below the Head Start standard of 10 children to 1 adult. The ratios range from approximately 7.5 children for every adult preschool teaching staff member to

<sup>4</sup> Any hours of service beyond this timeframe were dropped for the sake of comparability in these analyses. This was the case for only one center, which reported providing evening care. Our cost estimates pertain to day-time costs only.

<sup>5</sup> Centers are required to maintain Head Start ratios only for the Head Start portion of the day, which is 3.5 hours or one-half day.

11.7<sup>6</sup> children for every adult, with an average of 8.8 for all five centers. The closed center reported child to adult ratios of 7.6, which is at the lower end of the range. Lower than standard ratios were in some cases due to structural constraints or under-enrollment; in others, they were due to center convictions that high quality requires a greater complement of teachers. Five of the six centers reported lower ratios than the levels recommended by the Ohio Universal Financing team (9.7 to 1), indicating that the child:adult ratios in those centers were mostly meeting this high quality standard. (See Table 2 for child:adult ratios for each center over six time periods – Drop-off, Morning, Lunchtime, Naptime, Afternoon, and Pick-up.)

### *3.1.2 Educational Attainment*

The survey assessed the level of educational attainment for staff who work directly with preschool children in a teaching capacity. We calculated the percent of preschool teachers with an Associate of Arts (AA) degree and a Bachelor's Degree (BA) or higher. Directors who indicated that they spent a portion of their day working with preschool children were included in these calculations.

Staff educational levels varied across centers. While half of the centers reported no preschool teaching staff with Bachelor's degrees, four out of the six centers reported 20 percent to 40 percent of staff with Associate's degrees. Only one center reported no preschool teaching staff with post-secondary education. The closed center reported relatively mid-range staff education levels, with 20 percent of staff with Bachelor's degrees (the highest percentage, shared with one other center), but only 20 percent of staff with Associate's degrees (below three other centers). Overall, staff education levels were much lower than those recommended by the Ohio Universal Financing team or than federal regulations, which require 50 percent of staff to hold at least an associate degree - a criterion that has been met as a nation-wide average (Brandon and Martinez-Beck, 2005<sup>7</sup>). Thus, to reach the Ohio Universal Financing team goals for quality, as measured by the educational qualifications of staff, more staff with college degrees are needed than are presently providing Head Start services in Ohio.

### *3.1.3 Average Hourly Wage*

We calculated the average hourly wage for all preschool teaching staff as the sum of annual salaries, determined by reported hours worked and hourly wage, divided by the sum of total hours worked. This average thus reflects the average wage across all preschool staff weighted by the hours worked by staff earning different wages.

Teacher salaries varied among and within centers, based on position, experience, and education. Reported hourly wages were between \$7.80 and \$10.78 per hour across all

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<sup>6</sup> The average ratio in this center is above the Head Start regulation because Head Start regulation only applies to the morning period, which is considered the Head Start period.

<sup>7</sup> Brandon, R.N. & Martinez-Beck, I. (2005), Estimating the Size and Characteristics of the US Early Care and Education Workforce. In M. Zaslow & I. Martinez-Beck, eds., *Critical Issues in Early Childhood Professional Development*, Brooks Publishing Company.

staff. The closed center reported the highest average hourly wage -- \$11.06 per hour. Reported hourly wages were substantially lower than the \$12.81 recommended by the Ohio Universal Financing team, consistent with the fact that a small share, rather than majority of staff, hold BA level degrees. This suggests that as educational requirements are raised, staff salaries will also have to increase.

#### *3.1.4 Benefits*

We estimated the average cost of benefits as a percent of salaries by comparing actual costs of salaries and benefits, taking into account the differences between full- and part-time staff. The benefits accounted for in these calculations include mandatory benefits (FICA, unemployment insurance, workers' compensation) as well as voluntary benefits (retirement, health and life insurance, staff discounts for child care, paid meals, various forms of paid leave). We based our benefit percentage calculations on information about all center staff, not just those caring for preschool age children ("preschool staff").

All centers provided the teaching staff with mandatory benefits as well as some form of voluntary benefits. These benefits range from 21 percent to 39 percent of wages. The closed center reported a high benefit rate of 39 percent. The average was about 31 percent, close to the current benefit level for Ohio elementary and secondary school teachers, which was recommended as a guideline by the Ohio Universal Financing team.

#### *3.1.5 Professional Development Spending Per Staff Member*

We calculated the cost for staff members' professional development as the total annual expenditure on staff training and education divided by the total number of teachers, teaching assistants, and directors participating in such training. For this calculation, we were unable to separate professional development for preschool staff from total professional development expenditures. The final number was therefore not specific to preschool staff. This cost only included expenditures incurred directly by centers, not additional expenditures that were incurred by community Head Start agencies assisting center staff (which are shown in the lower panel of Table 3).

Professional development expenditures for teaching staff also varied substantially across centers, from \$37 to \$346 per year for each eligible staff member. Three of the centers reported annual per-staff expenditures below \$100, while the other three reported expenditures greater than \$300, reflecting significant differences in center professional development investments. The closed center was one of the three centers spending less than \$100 per staff member for professional development. These costs were incurred by the centers themselves, and did not include professional development costs covered by community Head Start agencies. Since the total amount of professional development cost per staff is unknown to us, we cannot make comparisons between the actual cost and the expenditure level recommended by the Ohio Universal Financing team<sup>8</sup>.

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<sup>8</sup> We are unable to compute the agencies' professional development expenditures in a per staff unit for three reasons. First, the rural community agency did not separate professional development costs from educational program development and support costs. Second, the community agencies most likely paid for

#### 4. COST ANALYSIS

The annual cost per child calculated for each center included the following components: teaching staff costs, non-teaching staff costs, professional development costs, non-personnel costs, volunteer contributions, and various Head Start supply, services, and administrative costs. Most of the reported costs are specific to each center, based on information collected by the HSPC survey, interviews, and supporting documents. Costs of services provided by community Head Start agencies were reported separately and did not differ very much across centers within the same agency.

To calculate the annual cost of caring for a full time Head Start child in the center, we assumed that a child needed care for 45 hours a week, 52 weeks a year. This assumption may differ from the actual hours an individual Head Start child spends in a center<sup>9</sup>. However, to make estimates comparable across centers, and most importantly, to reflect the reality that full-time working parents generally need 45 hours of childcare (including an hour of daily travel time), we decided that a standard 45-hour week for children was the best baseline to use in our cost calculations. Thus we produced an annual cost per full-time child, which could also be referred to as a full-time slot of 45 hours per week. In other words, the estimated costs represent the costs of 45 hours per week in Head Start and ECE. Some children may be in care more or less time per week.

For some measures of cost, calculations were based on full-time equivalency measures for each center. This method takes into account the nature of blended centers, consisting of both full-time and part-time children and both Head Start and non-Head Start children. Based on information provided by each center, we assumed that, on average, a full-time slot was available for 45 hours per week and a part-time slot for 25 hours per week. Full-time equivalency was calculated as the actual number of full-time children reported plus the number of part-time children, represented as a proportion (25/45) of full-time attendance. We used each center's full-time equivalency number in our calculations for the components of non-teaching staff costs, professional development costs, non-personnel costs, and volunteer contributions per child.

The survey instrument and follow-up site visits provided HSPC with a comprehensive view of center costs for all children. For the purposes of this study, however, we focused on information applicable for preschool age (3 to 5 years old) Head Start children. Nevertheless, some cost calculations included information about all children in a center, including some outside of the 3 to 5 year age range. This happened when we could not separate the costs associated with preschool children from costs associated with other children. For instance, facility costs are spread equally over all children in a center. The

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professional development for all staff in the agency, not just for staff in child care centers. Third, the community agencies reported per child expenditures rather than per staff expenditures.

<sup>9</sup> We received some conflicting information on this issue. All the centers reported that, on average, full-time Head Start children spend 45 hours in the center per week. However, one Head Start agency (covering three of the six centers) reported, based on reimbursement data, that only 30 percent of the Head Start children spent more than 40 hours a week in a childcare center.

following calculations, unless otherwise noted, were based on information about preschool children and staff working with preschool children.

**Table 3. Annual Per-Child Costs for Full-Time, Full-Year Head Start**

	Rural Community Agency			Urban Community Agency		
	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6*
Teaching Staff Salaries and Benefits	\$2,928	\$2,054	\$3,906	\$2,983	\$3,185	\$4,513
Non-Teaching Staff Salaries and Benefits	\$893	\$763	\$802	\$862	\$945	\$3,195
Professional Development Per Child	\$8	\$52	\$8	\$36	\$72	\$8
Non-Personnel Costs	\$1,117	\$2,575	\$2,957	\$1,357	\$1,741	\$3,892
Volunteer Contributions	\$0	\$0	\$147	\$44	\$0	\$330
<b>Subtotal: Cost to Centers</b>	<b>\$4,947</b>	<b>\$5,444</b>	<b>\$7,819</b>	<b>\$5,282</b>	<b>\$5,943</b>	<b>\$11,938</b>
HS Supply	\$0	\$0	\$0	\$198	\$241	\$0
HS Professional Development, Educational Program Development and Support	\$656	\$656	\$656	\$232	\$232	\$232
HS Family & Community Partnership	\$32	\$32	\$32	\$222	\$222	\$222
HS Health and Disabilities	\$111	\$111	\$111	\$301	\$301	\$301
HS Admin	\$835	\$835	\$835	\$1,305	\$1,305	\$1,305
<b>Subtotal: Cost to Community Head Start Agencies</b>	<b>\$1,634</b>	<b>\$1,634</b>	<b>\$1,634</b>	<b>\$2,258</b>	<b>\$2,301</b>	<b>\$2,060</b>
<b>Grand Total (Center + Community HS Agency)</b>	<b>\$6,581</b>	<b>\$7,078</b>	<b>\$9,453</b>	<b>\$7,540</b>	<b>\$8,244</b>	<b>\$13,998</b>

Note: Transportation costs are not included.

\*This center calculates the per-child, full-year cost to be \$12,090. Based on data collected in the survey, we calculate this cost to be \$13,998, a difference of 16%.

The analyses of the cost components for Head Start and Early Care and Education enabled us to make exploratory comparisons across centers. We made several comparisons in these analyses, including those between rural and urban centers and between directly-operated versus partnership centers. Although these comparisons were exploratory only, they revealed interesting patterns about the processes, costs, and revenues of centers in Ohio. Since the inception of this study, Center 6 closed due to low enrollment and a scheduled consolidation of Head Start sites that created a more efficient

structure for providing HS services<sup>10</sup>. Thus, we present results for this center separately in each section.

#### *4.1 Per Child Annual Cost*

For the five open centers, the total annual cost for full-day, full-year Head Start service ranged from \$6,581 to \$9,453 per child. For the closed center, the same services cost \$13,998 per child. A detailed breakdown of the cost components is provided in Table 3.

##### *4.1.1 Teaching Staff Cost*

Teaching staff cost was calculated as the product of three elements: the average hourly wage and benefits for teaching staff, the total hours a full-time Head Start child was in care each year (2,340 hours), and the total staff hours divided by total children hours over the course of a day.

Per-child teaching staff costs ranged from \$2,054 to \$3,906 for the five open centers. At \$4,513, the closed center reported the highest teaching staff cost.

##### *4.1.2 Non-teaching Staff Cost*

Non-teaching staff costs included salaries and benefits for staff not working directly with children (including cooks, administrative assistants, and time spent by directors in a supervisory non-teaching capacity), and the cost of subcontractors (such as legal and accounting services). The cost per child was then calculated by dividing these non-teaching costs by the full-time equivalency enrollment for each center.

Non-teaching staff personnel costs ranged from \$763 to \$945 per child per year for the five open centers. Again, the closed center reported the highest non-teaching staff costs, which we estimated at \$3,195<sup>11</sup> per child.

##### *4.1.3 Professional Development*

In the previous section, we discussed professional development costs per staff member. We also calculated professional development costs per child, per year by taking the total amount spent by centers on staff training and education divided by the full-time equivalency enrollment in each center for the year reported.

Professional development costs incurred directly by centers ranged from \$8 to \$72 per child. The closed center reported professional development cost per child at the low end of this spectrum.

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<sup>10</sup> The community Head Start agency relocated the children and services to another location.

<sup>11</sup> This was the only center with a full-time family service worker, a factor contributing to its substantially higher-than-average non-teaching staff costs.

#### *4.1.4 Non-Personnel Cost*

This cost component includes mortgage and rent, utilities, building maintenance, food, insurance, overhead, supplies, miscellaneous activities, and other operating costs as reported by the centers. The sum of these costs is divided by the full-time equivalency enrollment to produce a per-child figure. Transportation costs are not included since none of the centers reported providing transportation to the full-time Head Start children.

Non-personnel costs at the five open centers ranged from \$1,117 to \$2,957 per child per year. The closed center reported \$3,892 – more than any other center.

#### *4.1.5 Volunteer Contributions*

Several centers reported having regular volunteers, which we defined as volunteers who worked in the center for at least four hours per month. Although centers do not pay for these services, volunteer time contributes to a center's operation. If volunteers were not available, centers would accrue costs for performing those functions. Therefore, the value of volunteer activities needs to be included in the overall cost. Centers were asked to indicate the number of hours volunteers worked and the hourly wage they would have had to pay for the work of each regular volunteer. The total volunteer contributions were then divided by the full-time equivalency enrollment to get a per-child figure. The estimated value of volunteer activities appears as both a cost and a revenue, yielding no net change in cash costs per child.

Volunteer contributions ranged from no volunteer participation to an estimated annual cost per child in the hundreds of dollars. The closed center reported volunteer contributions at least twice as high as those of any other center. Volunteer contributions were very small overall, with half the centers reporting zero volunteer contributions; the highest contribution (\$330 per child at the closed center) was equivalent to 2.4% of total per-child expenditures (\$13,998).

#### *4.1.6 Community Head Start Agency Cost*

The community Head Start agency expenditures reflects a range of services provided by the community Head Start agencies, including supplies, education, family and community partnerships, health services, services for children with disabilities, professional and program development, administration, and other costs specific to Head Start. To come up with a per-child cost, the community Head Start agencies divided their total administrative and service costs by the total number of children served in that agency.

Additional Head Start services varied across community Head Start agencies. The rural agency reported a standard cost per child, including all services and supplies, of \$1,634. The urban agency reported higher general costs, ranging from \$2,060 to \$2,258 per Head Start child<sup>12</sup>. The breakdown of cost by function indicated that the rural community

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<sup>12</sup> Without detailed analysis of how these agencies operate, it is difficult to determine why the urban agency's costs were higher. The discrepancy could be due to differential service costs for urban and rural

Head Start agency spent much more than the urban agency on professional development, educational program development and support (both as an amount per child, and as a percentage of total community Head Start agency costs). Conversely, the rural Head Start agency spent less than the urban agency on “health and disability”, “family and community partnerships” and “administration” functions (again, both as an amount per child and as a percentage of total community Head Start agency costs).

It is important to note that our estimates of the community Head Start agency cost is an average amount based on all children served in that agency. The agency may spend more or less money on children in one center than another based on the needs of Head Start children and particular contractual agreements.

#### *4.2 Urban Rural Comparisons*

In general, urban centers (Centers 4-6) reported lower child:adult ratios than rural centers (Centers 1-3). This could be due in part to stricter childcare regulations in the urban area<sup>13</sup>. For staffing qualifications, the analyses suggested that rural centers employed a higher percentage of staff with Associate’s degrees than their urban counterparts. Rural and urban centers reported roughly the same percentages of teaching staff with at least a Bachelor’s degree. Many teaching staff had specific ECE training or other types of teaching credentials. Although average hourly wages did not differ consistently between rural and urban centers, rural centers provided slightly higher benefit compensation. Similarly, urban and rural centers contributed roughly equivalent amounts to staff professional development.

The rural community Head Start agency did not break out costs for each center, estimating an average cost of \$1,634 for Head Start services, supplies, and administration for each of the three centers. The urban agency specified the costs of agency-derived Head Start supplies for each center. Head Start administrative costs were much higher at the urban agency than at the rural one.

#### *4.3 Directly-Operated/Partnership Comparisons*

In the above section, we reported costs separately for Center 6, but include it in the comparisons in this section.

The two directly-operated centers (Centers 3 and 6) reported child:adult ratios not very different from ratios reported by partnership centers. The two directly-operated centers (Centers 3 and 6) reported staff with higher educational attainment. Therefore, directly-operated centers appear to offer a slightly higher structural quality of care than partnership centers. However, directly-operated centers spent less on professional development per staff than their partnership counterparts.

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Head Start children, higher overhead for the urban agency, or variation in the agencies’ abilities to raise funds.

<sup>13</sup> Childcare regulations in the urban area required a 10:1 child:adult ratio for 3- and 4-year old children; regulations in the rural area required a 12:1 child:adult ratio for 3-year-olds and 14:1 for 4-year-olds.

Directly-operated centers offered higher average hourly wages, and higher benefit rates for teaching staff than partnership centers. This higher wage was due both to higher educational qualifications and to higher compensation for staff with same qualifications. In addition, directly operated centers seemed to receive more volunteer help than partnership centers.

Examination of the staff roster revealed that directly-operated centers employed only full-time staff, whereas all partnership centers employed both full-time and part-time staff. The generally lower benefit levels of part-time staff could help explain why teaching staff costs were lower in partnership centers.

## **5. REVENUE ANALYSIS**

In this section we present estimates of the revenues of each participating center and Head Start agency and compare them with their costs. The comparisons of costs and revenues between the Head Start centers and agencies are intertwined because the money flows from the community Head Start agencies to child care centers.

### **5.1 Center Revenues**

There are two possible ways to calculate revenues per child. The first approach is to employ the full-time equivalency method used in the cost analysis. This method sums all the revenues for each center for all 3 to 5 year-old Head Start children divided by full-time equivalent enrollment to get a per-child figure. We used this approach for calculating per-child revenues for Center 6, since all revenues were specific to children age 3 to 5. Unfortunately, for Centers 1, 2, 4 and 5, several revenue sources, such as payment from the Ohio Department of Jobs and Family Services (ODJFS) and parent contributions, were not specific to age of child or Head Start status of children. Therefore, for Centers 1, 2, 4 and 5, we relied on the maximum reimbursement rates for Head Start children to estimate maximum potential per child revenues. Center 3 reported maximum reimbursement rate as well as actual reimbursement. Actual reimbursement may differ from maximum potential reimbursement rate for two reasons. First, unlike federal Head Start, which reimburses centers with a flat rate, both the state Head Start and ODJFS reimburse centers based on attendance. Second, centers may not collect full rates due to sibling discounts, employee discounts, etc. In addition, actual revenues for USDA food subsidies, donations, and volunteer work were divided by the total number of full-time equivalent children in the center to get a per-child average, which was applied to Head Start children.

Table 4 presents the per-child revenue sources for all six centers. Maximum allowable revenues (based on maximum allowable reimbursement rates) are presented in parenthesis.

**Table 4. Annual Per Child Revenues Received by Centers for Full Time, Full-Year Head Start**

Revenue Categories	General Revenue Sources	Specific Revenue Source	Rural Community Agency				Urban Community Agency		
			Center 1	Center 2	Center 3		Center 4	Center 5	Center 6
					Federal HS	State HS			
Primary revenue sources	Federal HS + childcare payments	Federal HS (Contractual amount per enrolled child negotiated with community HS agencies)			\$6,408				\$9,823
		ODJFS + Parental co-payment			\$4,362 (\$5,616)				\$1,568
	State HS+ parental co-payment	State HS (Contractual amount per enrolled child negotiated with community HS agencies)	(\$7,000)	(\$7,550)		\$7,540 (\$8,472)			
		Parental co-payment*	\$1,308	\$1,308		\$1,308			
	ODJFS + Parental co-payment (for HS Enhancement Centers)	ODJFS + parental co-payment					(\$6,084)	(\$6,516)	
Food subsidies	USDA		\$312	\$349	\$525	\$296	\$903	\$265	
Misc. revenues	Donations					\$2	\$13		
	Volunteer				\$147	\$44		\$330	
<b>Total Center Revenues by Primary Revenue Sources**</b>	<b>Federal HS combined with other sources</b>				<b>\$11,442</b> <b>(\$12,696)</b>			<b>\$11,986</b>	
	<b>State HS combined with other sources</b>		<b>(\$8,620)</b>	<b>(\$9,207)</b>		<b>\$9,520</b> <b>(\$10,452)</b>			
	<b>ODJFS combined with other sources</b>					<b>(\$6,426)</b>	<b>(\$7,432)</b>		

Note: Numbers in parenthesis reflect maximum reimbursement rate, instead of actual reimbursement rate from federal and state government.

\*This amount reflects the average for all the centers in the rural community agency.

\*\*Calculation of those revenue numbers: Total revenue = Primary Revenue Sources + Food Subsidies + Miscellaneous Revenues

Center 1: \$8,620 = \$7,000+\$1,308+\$312

Center 2: \$9,207 = \$7,550+\$1,308+\$349

Center 3: Actual: Federal: \$12,696 = \$6,408+\$5,616+\$525+\$147      State: \$10,452 = \$8,472+\$1,308+\$525+\$147

Maximum: Federal: \$11,442 = \$6,408+\$4,362+\$525+\$147      State: \$9,520 = \$7,540+\$1,308+\$525+\$147

Center 4: \$6,426 = \$6,084+\$296+\$244

Center 5: \$7,432 = \$6,516+\$903+\$13

Center 6: \$11,986 = \$9,823+\$609+\$959+\$265+\$330

### 5.1.1 Combinations of Primary Revenue Sources

Primary revenue sources for early care and education services for Head Start children include federal Head Start, state Head Start<sup>14</sup>, ODJFS child care subsidy payments, and parental co-payments. Centers combined these revenue sources in varied ways. In this section, we discuss the different combinations of revenue.

*Federal Head Start Combined with Other Sources.* Centers 3 and 6 received federal Head Start funding through the community Head Start agencies. The amount depends on either the negotiation between the center and the community agency or a set allocation the community agency budgets for a particular center. Families of children who received federal Head Start funding could also apply for ODJFS child care subsidies. ODJFS determines the maximum reimbursement rate and the parental co-payment, which is based on parental income. ODJFS reimburses centers the maximum allowable amount minus the parental co-payment. Thus, federal Head Start funding may be combined with other sources, including ODJFS child care subsidy payments and parental co-payments, plus USDA food subsidies.

*State Head Start Combined with Other Sources.* Centers 1, 2 and 3 received state Head Start funding through the community Head Start agency. Again, each center individually negotiated the amount with their community agency. Families of children who received state Head Start funding were not allowed to apply for ODJFS funding. However, centers could still charge a parental co-payment. The amount of co-payment varied by parental income. Table 4 shows the average co-payment across all the centers in that community agency.

*Head Start Enhancement and ODJFS.* Centers 4 and 5 did not receive funding from community Head Start agencies on a per child basis for the early care and education services provided Head Start children. Instead, they participated in an “enhancement program”. The enhancement program provides funds for capital improvements, supplies, and materials to the center and comprehensive services to the Head Start children served in child care centers. The funds for these enhancement programs came from both federal and state Head Start. Thus, for Centers 4 and 5, Table 4 reports only the revenue to centers from ODJFS child care subsidies and parental co-payment amounts. The ODJFS reimbursement listed in Table 4 is the maximum allowable amount, which includes parental co-payment.

Center 3 had children enrolled in both federal and state Head start, and received funding from either federal or state Head Start (but not both for the same child), depending upon each child’s enrollment status.

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<sup>14</sup> In this report, we use the term State Head Start to refer to the State Head Start Plus program, which provides full-day, full-year services for Head Start children.

### 5.1.2 Other Revenue Sources

*USDA Food Subsidy.* USDA provides food supplies and reimburses centers with eligible low-income children (not just Head Start children) for the cost of providing food. The USDA reimbursement amounts received by centers on a per-child basis are shown in Table 4. These are calculated by taking total reimbursements received from USDA divided by the number of full-time equivalent children in the center. Because we could not differentiate funds by age or Head Start status, these per-child amounts are not specific to Head Start children. These amounts vary substantially, ranging from \$296 to \$903 per child per year, and depend on the socioeconomic composition of children in the center. If more children in a center are low-income and receive USDA subsidies, the per-child amount within a center will be substantially higher than in centers in which only a few low-income children receive USDA food subsidies. Also, the number of meals each eligible child receives in a center can lead to different reimbursement levels. So if a greater number of children are in a center for three meals a day, the USDA reimbursement level will be higher. These factors contributed to average per-child reimbursements that were less than the maximum potential of \$1,063<sup>15</sup> a year.

*Miscellaneous Revenues.* Cash donations and volunteer work are not guaranteed sources of revenue for centers. However, since some centers had these revenues, we chose to include them, especially since we included volunteer work as part of our cost estimates. The cash donations and volunteer work were not specific to Head Start children age 3 to 5 years; they applied to all children in the center. Therefore, for those components, we employed the full-time equivalency method discussed in the cost analysis section. This method divides total revenues by the total number of full-time equivalency children. Overall, these two sources comprise only a small percentage of the overall revenue—less than 3 percent for the center with the most contributions.

### 5.1.3 Total Revenues

The overall per-child revenue amounts showed significant variation among centers, from a low of \$6,426 to a high of \$12,696, assuming centers received the maximum in ODJFS subsidy payments and parental co-payments. Based on *actual* revenue figures, Center 6 showed revenue of \$11,986. Overall, per-child revenue was highest when the primary funding source was federal Head Start. The two centers whose primary funding sources for child care came from ODJFS had the smallest per-child revenue, but these revenues do not include the enhancement services, such as capital improvements, provided by the Head Start agency.

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<sup>15</sup> Head start children qualify for the free meal categories in the USDA program. In Ohio, a child can get reimbursed for \$1.23 for breakfast, \$2.24 for lunch and \$.61 for snacks. In addition to receiving the meal reimbursement, institutions are also reimbursed \$.1725 for each lunch and supper meal, in lieu of receiving commodity foods. Source: “Ohio Department of Education Child and Adult Care Food Program”. For the maximum potential annual amount calculation, we assume that a full time Head Start child receives breakfast, lunch and snack everyday for 50 weeks a year and 5 days a week.

**Table 5. Annual per Child Revenues of Community Head Start Agencies from Federal and State Head Start Offices**

	<b>Rural Community Agency</b>	<b>Urban Community Agency</b>
Federal Head Start	\$7,273	\$6,024~7,382*
State Head Start	(\$9,940)	(\$9,940)

Note: Numbers in parenthesis reflect maximum reimbursement rate, instead of actual reimbursement rate from federal and state government.

\*\$6,024 is for a child funded as part-time Head Start child, while \$7,382 is for a child funded as full-time Head Start child.

Center 3 reported maximum potential revenue as well as actual revenue. The comparison of the two reveals that, for Center 3, maximum potential revenue exceeds actual revenue by about 10 percent for both the federal Head Start and state Head Start children. This difference is likely due to a less than 100 percent attendance rate among Head Start children and the presence of a sibling discount.

## 5.2 Community Head Start Agency Revenue

Head Start agencies receive revenue from federal and state Head Start programs. Table 5 presents the amounts allocated per child by the Federal and State Head Start programs to the community agencies.

The per-child amount of federal Head Start revenue was negotiated with each community agency. The urban agency received a federal Head Start allocation of \$6,024 per child per year for part-time Head Start children, and \$7,382 per child per year for full-time Head Start children. The rural agency received \$7,273 per child per year for part-time Head Start children. The federal funding is supplemented by ODJFS child care subsidy program. The level of ODJFS funding is lower for a child who was funded as a full-time Head Start child than a child who was funded as a part-time Head Start child. The combined funding from ODJFS and parental copay is much lower for Center 6 than Center 3 in Table 4 because all children in Center 6 were funded as full-time Head Start children. Federal Head Start funding is based on enrollment, not attendance. Therefore, regardless of attendance, federal Head Start reimburses the full amount per enrolled child.

Both agencies receive an allocation of \$9,940 per child per year from the State Head Start program for full-day, full-year Head Start. Unlike federal Head Start, state Head Start funding is contingent on attendance. To qualify for full-time status, a child must attend a center for at least 85 percent of 30 hours per week. If a child does not satisfy the full-time requirement, the state provides Head Start funding on an hourly basis. Therefore, the \$9,940 reflects the maximum reimbursement for a state Head Start Child.

The community agencies divide this revenue between the negotiated payments to the child care centers and funds retained for providing administrative functions, support services to the children and centers, and financing the enhancement programs for some

**Table 6. Annual per Child Revenues for Centers from the Community Head Start Agencies for Full-Time, Full-Year Head Start**

	Rural Community Agency			Urban Community Agency		
	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6
Federal Head Start			\$6,408	0*	0*	\$9,823
State Head Start	(\$7,000)	(\$7,550)				

Note: Numbers in parenthesis reflect maximum reimbursement rate, instead of actual reimbursement rate from federal and state government.

\* Centers 4 and 5 did not receive any annual allocation per child. However, they received supplies and facility upgrades from the urban Head Start Agencies.

**Table 7. Annual Per-Child Revenue Retained by Community Agencies for Head Start Administration and Services**

	Rural Community Agency			Urban Community Agency		
	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6
Federal HS			\$865			-\$2,441***
State HS	(\$2,940)*	(\$2,390)	\$1,468 (\$1,307)			
Combo of Federal and State HS				\$7,081**	\$7,081**	

Note: Numbers in parenthesis reflect maximum reimbursement rate, instead of actual reimbursement rate from federal and state government.

\*The rural community Head Start agency received \$9,940 per State Head Start funded child (listed in Table 5), and it gave Center 1 \$7,000 (listed in Table 6) for providing childcare. Therefore, the rural community Head Start agency retained \$9,940-\$7,000=\$2,940 for providing Head Start administration and services.

\*\*Centers 4 and 5 are funded based on a combination of Federal HS funding (73%) and State HS funding (27%).  $\$7,081 = 27\% * 9,940 + 73\% * 6,024$ . The urban Community Agency does not pay centers on per child basis. The \$7,081 is used for other functions, such as facility upgrade costs at the agency's discretion.

\*\*\*The urban community Head Start agency received \$7,382 per Federal Head Start funded full-time child (listed in Table 5), and it gave Center 6 \$9,823 (listed in Table 6) for providing childcare. Therefore, the urban community Head Start agency retained  $\$7,382 - \$9,823 = -\$2,441$  for providing Head Start administration and services.

centers (described below). Table 6 summarizes the amount of federal and state Head Start revenue distributed to each center by the Head Start agencies, as detailed in Table 4.

Table 7 indicates the amount of these federal and state Head Start funds retained by the community agencies to provide administrative support and a range of services for Head Start children. These numbers represent the difference between what the community agencies receive from the federal and state Head Start offices and what they distribute to the individual centers. Centers 1 to 5 all have positive revenues, whereas Center 6 shows an agency deficit, indicating that the community agency had to use other funds to make up for center spending in excess of revenues available for the enrolled children.

**Table 8. Annual per Child Costs to Centers, Community HS Agencies and Both for Full-Time, Full-Year Head Start**

	Rural Community Agency			Urban Community Agency		
	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6
<b>Costs to Centers</b>	\$4,947	\$5,444	\$7,819	\$5,282	\$5,943	\$11,938
<b>Costs to Community Head Start Agencies</b>	\$1,634	\$1,634	\$1,634	\$2,258	\$2,301	\$2,060
<b>Total Costs to Centers and Community Head Start Agencies</b>	<b>\$6,581</b>	<b>\$7,078</b>	<b>\$9,453</b>	<b>\$7,540</b>	<b>\$8,244</b>	<b>\$13,998</b>

**Table 9. Annual per Child Revenues of Centers, Community HS Agencies and Both for Full-Time, Full-Year Head Start**

		Rural Community Agency				Urban Community Agency		
		Center 1	Center 2	Center 3		Center 4	Center 5	Center 6
				Federal HS	State HS			
<b>Total Center Revenues</b>	Federal HS combined with other sources			\$11,442 (\$12,696)				\$11,986
	State HS combined with other sources	(\$8,620)	(\$9,207)		\$9,520 (\$10,452)			
	ODJFS combined with other sources (for HS Enhancement Centers)					(\$6,426)	(\$7,432)	
<b>Revenues retained by Community Head Start agency</b>	Federal HS			\$865				-\$2,441
	State HS	(\$2,940)	(\$2,390)		\$1,307 (\$1,468)			
	Combo of Federal and State HS (for Enhancement Centers)					\$7,081*	\$7,081*	
<b>Total Revenues to Centers and Community Head Start Agencies</b>	<b>Federal HS combined with other sources</b>			<b>\$12,307 (\$13,651)</b>				<b>\$9,545</b>
	<b>State HS combined with other sources</b>	<b>(\$11,560)</b>	<b>(\$11,597)</b>		<b>\$10,827 (\$11,920)</b>			
	<b>Combo of Federal and State HS combined with ODJFS and other sources (for HS Enhancement Centers)</b>					<b>N/A*</b>	<b>N/A*</b>	

Note: Numbers in parenthesis reflect maximum reimbursement rate, instead of actual reimbursement rate from federal and state government.

\*Those total revenue figures are not comparable to the other total revenue figures because they include capital costs

The urban agency combined state (27 percent) and federal (73 percent) funding to provide services to Centers 4 and 5. The amount of revenue retained by the community Head Start agency is greatest for Centers 4 and 5, because there is no per-child disbursement of Head Start funds for the centers to provide early care and education. Rather, these centers receive periodic enhancement grants that can only be used to pay for Head Start supplies and capital projects (facility upgrades). The capital costs are expended in large amounts and for extended time periods. Facility upgrades can be very costly. For instance, Center 5 reported receiving playground equipment valued at \$25,000 from the urban community agency in the last fiscal year. The retained revenue may be held in a reserve or capital improvement fund for these purposes. Thus, agency revenues for these two centers should not be directly compared to agency revenues for the other two centers.

## **6. COMPARING TOTAL PER-CHILD COSTS TO REVENUES**

In this section we compare our estimates of potentially available revenues to actual costs per child. It is important to note that these are not strictly comparable measures, so they must be interpreted accordingly. These estimates answer the question, “To what extent are the revenues potentially available for children in state and federal Head Start sufficient to cover the actual costs of providing services that meet Head Start standards?” Table 8 presents the estimated total per-child costs to centers and agencies; Table 9 summarizes revenues per child.

The comparisons indicate that potentially available revenues are at least sufficient to cover costs of Head Start Services for directly operated and partnership Centers 1, 2, and 3. We do not know what the agencies spent on behalf of Centers 4 and 5 for facility upgrades and other large periodic expenses (as opposed to ongoing operating costs), therefore it is not clear how revenues compare to costs for these other two partnership centers. Revenues were less than costs for directly-operated Center 6.

For Centers 1-3, revenues based on maximum (actual) reimbursement rates exceeded estimated annual costs by about \$1,400 to \$5,000 per child. Several components contributed to this operating margin. First, for profit-making centers, the profit margin accounts for part of the difference. Second, agencies and centers may not actually receive the maximum allowable amount due to lower-than-required attendance or various discounts centers offer to parents. The revenue based on maximum reimbursement rates is ten percent higher than the revenue from actual reimbursements in Center 3. Third, most center directors told us they were running unified programs, with non-Head Start children attending the same classes as Head Start children during some times of the day. Head Start funds, which are more generous than other sources, are likely cross-subsidizing higher quality ECE for children who are not eligible for Head Start (other age or income groups). Center 3 provided us with actual figures to illustrate this point. The revenue generated for 3 to 5 year-old non-Head Start children in Center 3 is only \$5,034 per child. However, they are cared for in the same classroom as the Head Start children and benefit from the lower child:adult ratios regulated by Head Start. When including all

children in the classrooms with children age three to five years old, the average revenue across all age three to five is \$9,889 per child. This number is lower than the revenue paid on behalf of federal Head Start and state Head Start and only about \$400 more than the actual costs per child. Thus, the difference between revenue and cost is smaller than it appears when taking into account the possibility of this cross-subsidy.

## **7. INTERVIEWS WITH CENTER DIRECTORS AND AGENCY PERSONNEL**

During the site visit interviews, the center directors provided us with additional information to supplement the detailed expenditure and program operation details obtained in the survey.

First, we asked center directors to describe the ways in which non-Head Start children might also benefit from the center's provision of Head Start services. We wanted this information to document the ways in which the benefits of Head Start extend beyond the enrolled population of Head Start children without incurring additional costs.

In some of the centers, non-Head Start children benefited from lower child:adult ratios if they were in a group with Head Start children or if the center director decided to implement Head Start ratios with all 3 to 5 year-old children. In addition, non-Head Start children benefited from the use and availability of the Head Start curriculum and the materials and equipment received from the community Head Start agency. Head Start and non-Head Start children did not have differential access to educational materials and equipment. Also, since the staff teaching Head Start children received additional professional development opportunities, non-Head Start children benefited from their interactions with staff who had received additional training. Specifically, center directors reported that the professional development activities had increased teachers' knowledge of nutrition and children's social and emotional development. In addition, skills learned by Head Start teachers during professional development activities (such as the use of appropriate discipline practices) could be shared with the parents of all children. Finally, non-Head Start children benefited indirectly from the Head Start mental health and family support consultants who worked in the centers with Head Start children. Not only did these Head Start consultants provide informal advice to teachers about other children in the center, but teachers also learned effective consultation strategies from observing the consultants in the center. These strategies were then used with children who were not in Head Start.

We also asked center directors about the additional costs or challenges of serving children with special physical or emotional needs. One center reported additional costs for two severely physically disabled children. The other centers reported that children with special needs were served appropriately, without incurring additional costs, within current Head Start services.

Directors of the partnership centers reported that the hourly salaries of teachers were usually negotiated individually rather than determined by a set salary schedule. In one

center, by mutual agreement, salaries were lower than they might otherwise have been so teachers could qualify for child care subsidies for their own children – a more cost-effective arrangement for these teachers. This illustrates the financial bind of early childhood teachers whose average wages are so low that they can qualify for public benefits or, if just over the line, may not make enough to cover child care expenses. This situation is not specific to Ohio: the low compensation of child care workers is a national policy concern.

Finally, as part of a discussion about the State funded “Head Start Plus” program, center directors reported some of the challenges of providing services in the context of Head Start Plus. They reported that some of the Head Start Plus restrictions on using child care subsidies for other care settings did not accommodate families’ needs and preferences. They also reported an excessive paperwork burden. Finally, delayed payments and the focus on number of hours rather than number of children served made it more difficult for the centers to provide services. Decreased enrollment in Head Start Plus was one factor that led the Ohio Department of Education to redesign the program in the 2006-2007 budget. New policy discussions are underway about the design and funding of Head Start programs in Ohio.

## **8. CONCLUSIONS**

### *8.1 Caveats*

Readers should keep two issues in mind when interpreting this report. First, the six centers in this study are not necessarily representative of all child care centers in Ohio. The study’s design called for in-depth analysis of a small number of centers rather than general analysis of a larger sample of centers. Although we can learn a great deal about the costs of high-quality child care from this kind of intensive investigation, we cannot conclude that the results of this small study can be generalized to all Ohio child care centers. Any comparisons made within this study are subject to the same limitations.

Second, the timing of the survey may have resulted in overestimates of per-child costs. We mailed our questionnaire in early September, the start of the enrollment period for centers. During our site visits, we had the impression that enrollments in all five of the centers that were still open were higher than they had been when the questionnaires were filled out. Enrollment increases in the intervening months could lower the overall costs of caring for full-time Head Start children. These savings, if real, are most likely to occur in costs other than those for direct teaching staff.

### *8.2 Modifications to the ECE Policy Cost Model*

This intensive collection and analysis of data from six Ohio centers has yielded valuable knowledge about center operations, and this new knowledge can be used to inform our approach to modeling and calculating costs. In the context of this study, we make

specific recommendations about how our ECE policy cost model should be modified to reflect Head Start operations and cost.

Calculating the cost of Early Care and Education on a per-child, per-hour basis depends on key inputs into the model; these include teacher compensation and staff mix, child:adult ratios, and professional development allotments. The child:adult ratios that typically go into the model reflect an average across all centers (recognizing some centers will operate at lower ratios and other centers will operate at higher ratios) during full capacity. But in this study we learned that during certain times of the day – usually the opening and closing periods of the center -- child:adult ratios are lower, as one staff member may be watching over only one or two children. A policy cost model should account for these more expensive times, adjusting the desired child:adult ratio at full capacity to reflect an average over the course of the day.

Second, a policy cost model, which calculates the per-child, per-hour cost of ECE and aggregates that amount to a per-child, per-year cost, depends on assumptions about the number of hours per week and weeks per year of child care use. Building these costs up from a per-child, per-hour amount enables us to calculate different annual costs for part-time and full-time children based on different assumptions about the number of hours per year children are in care. For our earlier cost modeling of full-time, full-year Head Start in Ohio, officials specified a guideline of 40 hours a week for full-time care for 52 weeks per year. All of the centers included in the present study reported that full-time children were in care 45 hours per week, suggesting that our policy cost model may not have covered all the hours children were in care. Additional information, however, indicated that only a portion of Head Start children were actually in care more than 40 hours per week, and that attendance issues were still a problem for some Head Start children (meeting the full-time attendance requirement of 85 percent of 30 hours per week in order to be reimbursed for full-time care) who receive State funded Head Start services. Our 2001 Ohio household survey suggested that children from low-income families who were in full-time center care spent about 42 hours per week in center care. Any cost modeling effort must be explicit about its assumptions about the number of hours in care, and about the justification for those assumptions. It is important that the Ohio Department of Education develop a consistent set of guidelines for interpreting the costs per full-time slot. These guidelines can then be used to guide program administration and reimbursements.

The precision of the ECE cost model could also be improved with more accurate calculations of non-personnel costs. In general, recent detailed data about non-personnel costs are not available; specifically, such data are not available for Ohio. Our work with the six Head Start centers in Ohio revealed a broad range of non-personnel costs, but each center had incurred slightly higher non-personnel costs than those assumed by our model, suggesting that we may want to increase this cost component in our ECE policy cost model.

Finally, an ECE cost model for Head Start should accurately reflect the full range of services Head Start children receive. For example, the annual per-child costs for

nutrition should be added to the suite of Head Start services. We did not include nutrition costs in our original ECE policy cost model for Head Start. The Head Start nutrition costs are separate from the cost of food in the non-personnel costs, which can be offset, in part, from revenues. However, nutrition expenditures should be considered in relation to the amount of revenues provided from non-ECE sources such as the USDA Child and Adult Care Feeding Program and WIC.

### 8.3 Implications and Conclusions

The data and interviews collected for this study yield a far more complex picture than a simple notion of Head Start-eligible children who receive a half day of high quality ECE at a neighborhood center. Rather, each community Head Start agency must arrange a complex network of services, responding to such realities that the majority of Head Start children require a full day of service while their parents are working. Revenues come from several different major sources, with varying maximum reimbursement levels, time and attendance requirements, and structural quality standards.

Since much of Head Start services are provided under sub-contract to centers serving the general population, it is necessary – to avoid economic segregation – that a unified set of ECE services be provided for both Head Start-eligible and other children. The total cost of providing full-day, full-year Head Start service is therefore composed of costs that community agencies incur on behalf of children by directly operating centers, by providing services and support on behalf of children in partnership centers, and by covering costs incurred under sub-contract by partnership centers.

We found a wide range of total annual costs per slot across these six selected providers, all of which offered high quality early care and education. Among the centers that remained open, the costs ranged from about \$6,600 per slot to about \$9,500 – a difference of over 40 percent. The closed center (Center 6) was operating at a cost of about \$14,000 per child.

The two community agencies also varied considerably in the costs of services they provided through directly operated centers, the costs of services they expected centers to provide, and the costs of services they provided externally in support of center children and staff.

As expected, the largest cost component was the staffing of the centers -- both teaching and non-teaching staff -- which accounted for between 40 and 60 percent of total costs, or between about \$2,900 and \$4,800 per slot. This is a smaller share than is normally found for child care centers, probably due to the fact that Head Start provides a much wider range of support services to children, families, and staff.

Social and health services – including services to children with disabilities – contributed a small portion to costs – \$143 to \$523 per slot in the open centers

Non-personnel costs, such as learning materials, supplies, food, insurance, mortgage/rent and maintenance, accounted for between \$1,117 and \$2,957 for the open centers, and reached \$3,892 at Center 6. Non-personnel costs accounted for a substantial share of the total, ranging from 17 to 31 percent of total costs. Further analysis should be conducted to determine whether the centers with lower non-personnel costs are providing services more effectively, or whether they are achieving low cost at the expense of valuable services or quality.

Centers and community agencies attempt to maintain and improve quality of care by providing a wide range of professional development and support activities, including training, workshops, and development of learning programs and materials. The level of investment varied widely among the open centers, from \$268 per slot, or 4 percent of total costs, to \$708 per slot, or 10 percent of costs. Virtually all professional development and support expenditures were covered by the community agencies, rather than the centers. The level of such spending at the rural agency was approximately twice that at the urban agency.

Community Head Start agency administrative costs also varied considerably. For one agency, they totaled \$835 per slot – about 11 percent of total service costs on average for Centers 1 to 3. At the other agency, administration cost \$1,305 per slot – about 13 percent of total service costs on average for Centers 4 to 6. Consistent with practice in other settings, an allocation of about 15 percent of direct costs to primary agencies to cover their contracting and administrative costs seems reasonable.

In addition to variation across individual centers and community agencies, some consistent cost patterns were related to urban vs. rural location and to whether centers were directly operated by the community agency or were separate centers serving Head Start children under a partnership contract.

Total costs were not consistently higher or lower in urban or rural agencies. Rather, the directly-operated centers had higher cost structures than those operating under partnership contracts. The key features leading to the higher cost structure for directly-operated centers included higher wages and benefits. The higher wages were related to a greater level of educational attainment among the staff at directly operated centers, a feature that has been associated with quality. Higher costs can also be partially explained by the fact that directly-operated centers hired only full-time staff, while the partnership centers employed a mix of full- and part-time staff. In some centers, full-time staff received a higher level of benefits, and often higher wages, than part-time staff. The urban centers operated at somewhat lower child:adult ratios than the rural ones; this may be a function of tighter local regulations within the urban area, or different views about the relationship of specific ratios to quality of care.

We have found that, consistent with cost complexity, Head Start agencies and partnership centers combine multiple major sources of funding to offer a unified package of services to children at a range of age and income levels.

There are situations, however, where only certain children may receive some services, or where offsetting revenues may only be available for some of the children. The most important example found in this study is the availability of USDA subsidies for meals. A significant share of revenues is available on an open-ended entitlement basis from the USDA Child and Adult Care Food Program, but only for some children. These revenues can exceed \$1,000 a year, or 12-15 percent of total costs. In fact, we estimated USDA revenues to be \$903 per slot at one center, though the others ranged from \$296 to \$525 per slot. The difference may be due to the fact that not all children are eligible for subsidies or that not all children are present during all possible meal times. USDA funds can be a substantial revenue source for eligible children, and should be claimed in full. For Head Start children in full-time care, the amount of USDA funds will be close to the maximum allowable (just over \$1,000 per year).

When offsetting revenues are available for only some children, there are two different perspectives from which policy makers can view and use these numbers:

- When trying to understand the costs and revenues of a center serving a range of Head Start and non-Head Start (mixed-income) children and using a unified reimbursement system, it is appropriate to look at the average revenue per child *for all children*. In this case, the lower estimate of offsetting revenues should be applied to develop a unified reimbursement system.
- When trying to develop a state Head Start allocation *only for Head Start children*, it is appropriate to consider the maximum potential revenue *per full-time, Head Start child*. In this case, the higher estimate of offsetting revenue should be applied.

Our estimates indicate that the potentially available revenues from the combination of federal or state Head Start, ODJFS vouchers, parent co-payments, and USDA food programs are at least sufficient to cover the current cost of high quality care for children age 3 to 5 in all 5 open centers. For the centers where we could make such a determination, available estimated revenues exceeded estimated costs by between \$1,400 and \$5,000 per slot. These are not necessarily some form of “excess revenues.” Rather, they appear to represent a combination of profit margin at the for-profit centers, lower actual reimbursement due to less-than-required attendance and various discounts centers offer to parents, and cross-subsidies for non-Head Start children in Head Start classrooms—necessary expenses for running a unified operation without segregating children by income or program participation.

Since the total costs per slot of these programs fall between the lower ODJFS subsidy levels and the higher Head Start levels, it would seem reasonable for state policy makers to consider a unified rate for both programs within this range. Such a unified rate could respond to the complexity that centers and agencies are facing on the ground as they attempt to serve children in a community. They currently face several different rate structures, with differing implications for funding level and cash flow. Federal Head Start fund is most generous in terms of both funding per child and cash flow. Its funding

level is enough for providing high quality childcare service, and it provides agencies and centers an assured cash flow because funding is based on enrollment. The state Head Start funding level is not as high as federal Head Start, but it is sufficient to cover the cost of quality ECE. Federal/state child care subsidies administered by ODJFS are least generous in terms of funding levels, which do not cover the cost of quality ECE. Both state Head Start and federal/state childcare subsidies programs create the same cash flow problem. Not only are funds paid only after actual services are rendered, but monthly eligibility checking makes the number of slots to be funded uncertain.

Centers and agencies serving a community with a mixture of children who qualify for different programs, and who must meet the needs of parents and children for full-time care, have to piece together all these sources. A unified rate that reflects what high quality centers are actually spending across these different circumstances could be more cost-effective for all parties. The new rate structure should also be designed to make the cash flow for agencies and centers as stable and predictable as possible.

We note that critical elements of structural quality – staff educational qualifications and compensation – are well below the recommendations of the Ohio Universal Financing team, but vary considerably across centers. It would therefore be useful to establish payment levels in several brackets or tiers, with centers having to meet certain structural quality standards to qualify for each level of maximum reimbursement. The state agencies could then negotiate specific rates that are consistent with program characteristics and context within those ranges. To provide incentive to change, the reimbursement ranges should be based on estimated costs needed to achieve each level of structural quality. Quality improvement could be promoted by including not just a differential level for higher quality, but also a bonus for improving quality over a base period. In addition to providing an incentive to change, this would recognize that hiring better qualified staff at higher levels of compensation on the expectation of later higher reimbursement entails costs and risks for centers.